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WATER QUALITY TEST DATA  
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NOTE: Sub-Basins 41, 47 and 58 are not included in the regular sampling data because they were checked only during the grab sample period (see Sub-Watershed descriptions of these Sub-Basins).

OPERATION SCARLIFT PROJECT SL 185 BLACKLICK CREEK WATERSHED INDIANA AND CAMBRIA COUNTIES, PENNSYLVANIA  
 TABULATION OF GRAB SAMPLE WATER QUALITY TEST DATA JULY-AUGUST, 1973

Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron		Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
					mg/l	mg/l						
1	7/31/73	7.3	0	66.	0.3	0.3	29					
2	8/1/73	3.1	130	0	4.5	0.5	450	12				
3	7/31/73	7.1	0	92	0.9	0.5	29					
4	7/31/73	7.2	0	20	0.4	0.4	24					
5	7/31/73	7.2	0	79	0.3	0.3	34					
6	7/31/73	7.1	0	90	0.7	0.5	24					
7	8/6/73	7.1	0	38	0.4	0.4	77					
8	7/31/73	7.2	0	54	0.3	0.3	29					
9	8/6/73	4.4	34	0	0.3	0.3	300	4				
10	8/1/73	6.9	0	40	1.0	0.5	86					
11	8/7/73	7.1	0	56	0.5	0.5	38					
12	8/7/73	3.1	160	0	4.1	2.3	600					
13	8/1/73	4.8	30	0	1.0	0.6	340					
14	7/31/73	7.4	0	94	0.3	0.3	38					
15	8/1/73	7.0	0	86	0.7	0.5	48					
16	7/31/73	7.2	0	50	0.5	0.5	600					
17	8/1/73	7.3	0	78	0.1	0.1	82					
18	8/7/73	6.4	0	10	0.2	0.2	170					
19	7/31/73	7.0	0	48	0.3	0.3	29					
21	8/1/73	3.2	100	0	9	3.3	560					
22	8/9/73	2.3	850	0	400	140	1300					
22A	8/1/73	2.9	240	0	18	1.0	720	22				

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 TABULATION OF GRAB SAMPLE WATER QUALITY TEST DATA JULY-AUGUST, 1973

Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron		Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
					mg/l	mg/l						
22A	8/9/73	2.7	250	0	25	0.6	1000					
22B	8/9/73	2.3	870	0	370	100	1400					
23	8/8/73	6.0	0	8	0.4	0.4	190					
24	8/8/73	4.4	32	0	0.2	0.2	250					
24A	8/8/73	2.7	280	0	26.	4.8	720					
26	8/8/73	2.8	220	0	10.	2.4	390					
26B	8/8/73	2.3	670	0	60	2.4	870					
27	8/9/73	7.2	0	8	0.4	0.4	29					
29	8/8/73	4.2	16	0	0.2	0.2	130					
30	8/8/73	4.0	20	0	0.4	0.4	110					
31	8/10/73	3.0	130	0	5.1	0.5	570	6				
32	8/9/73	2.8	160	0	43	30	650					
32A	8/10/73	3.6	28	0	7.4	3.9	190					
33	8/10/73	4.2	78	0	3.6	0.5	360					
36	8/8/73	4.1	18	0	0.6	0.5	120	1.				
37	8/8/73	6.0	4.	0	0.4	0.4	100					
38	8/8/73	5.6	6	0	0.3	0.3	100					
40	8/9/73	4.9	12	0	0.8	0.5	96					
41	8/9/73	2.2	2300	0	610	84	2900	230				
42	8/9/73	2.3	930	0	240	43	1400	58				
42A	8/9/73	7.6	0	90	0.3	0.3	300					
43	8/3/73	6.9	0	28	0.3	0.3	440					

OPERATION SCARLIFT PROJECT SL 185 BLACKLICK CREEK WATERSHED INDIANA AND CAMBRIA COUNTIES, PENNSYLVANIA  
 TABULATION OF GRAB SAMPLE WATER QUALITY TEST DATA JULY-AUGUST, 1973

Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron		Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
					mg/l	mg/l						
4889	8/9/73	2.7	410	0	160	110	610					
44	8/2/73	3.1	160	0	22	2.2	300					
45	8/2/73	3.6	130	0	6.0	1.4	180	20				
46	8/2/73	6.4	0	0	11	2.5	320	1	0.6			
46A	8/2/73	2.0	7700	0	1800	20	7500	440	14			
46B,	8/2/73	6.4	0	0	0.3	0.3	24					
46C	8/2/73	6.9	0	48	1.2	0.6	38					
46D	8/2/73	7.9	0	270	0.6	0.5	830					
47	8/3/73	5.3	2	0	0.1	0.1	43					
47A	8/9/73	6.4	0	6	3.8	1.8	24.					
48	8/1/73	7.2	34	0	0.6	0.5	34					
49	8/1/73	6.8	0	0	0.1	0.1	19					
50	8/1/73	6.8	0	2	0.2	0.2	120					
51	8/3/73	6.9	0	12	0.2	0.2	34					
52	8/1/73	2.5	710	0	180	1.0	990	43				
52A	8/1/73	3.0	260	0	15	1.7	800	19				
53	8/1/73	2.9	330	0	27	8.4	480	27				
54	8/2/73	5.7	10	0	3.9	2.4	150	1				
55	8/2/73	4.6	30	0	3.6	1.5	150					
55	8/2/73	4.0	60	0	11	7.7	190	9				

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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron mg/l	Ferrous Iron mg/l	Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
56	8/2/73	2.8	230	0	47	25	430					
56A	8/3/73	7.0	0	4	1.8	0.3	720					
57	8/1/73	2.9	180	0	12	1.3	250	16				
58	7/31/73	7.0	0	28	1.2	0.5	38					
59	8/3/73	7.2	0	10	0.2	0.2	14					
60	8/2/73	6.8	0	8	0.5	0.5	29					
61	8/3/73	7.0	0	10	0.3	0.3	14					
62	7/31/73	7.0	0	8	0.4	0.4	10					
63	7/31/73	6.7	0	8	0.5	0.5	29					
64	7/31/73	6.9	0	0	0.2	0.2	34					
65	7/31/73	7.2	0	52	0.8	0.8	29					
66	7/30/73	6.7	0	4	0.8	0.5	34					
66A	7/30/73	2.9	210	0	33	0.5	690	19				
67	7/30/73	6.1	4	0	1.0	0.5	19					
68	7/30/73	2.5	860	0	330	74	1400	39				
69	7/31/73	2.7	150	0	47	0.5	160	6	0.2			
69A	7/31/73	2.9	110	0	5.0	0.5	170	5	1.1			
69B	7/31/73	1.1	96,000	0	32,000	20,000	110,000	3300	19			
70	7/31/73	6.0	22	0	0.7	0.5	210					
71	7/30/73	4.1	20	0	0.5	0.5	34					
72	7/27/73	3.8	28	0	0.3	0.3	48					
73	7/27/73	2.6	270	0	7.9	1.9	370	16				

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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron		Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
					mg/l	mg/l						
74	7/27/73	2.7	210	0	2.7	0.5	310					
74A	7/27/73	4.5	32	0	0.3	0.3	58					
75	7/30/73	4.0	24	0	0.5	0.5	38					
76	7/20/73	4.5	56	0	28	1.6	500	10	1.1	210		24
77	7/26/73	6.9	0	34	0.6	0.5	24					
78	7/26/73	3.7	12	0	3.6	3.4	53					
79	8/2/73	6.5	0	0	0.5	0.5	19					
80	7/26/73	6.2	0	2	1.1	0.4	14					
81	7/19/73	3.3	330	0	91	6.0	1800	27.	42.	400		
82	7/19/73	6.1	0	0	1.1	0.5	19					
83	7/19/73	5.0	6	0	0.4	0.4	29					
84	7/19/73	7.0	0	100	0.5	0.5	170					
85	7/20/73	7.1	0	110	0.2	0.2	180					
85A	7/19/73	7.8	0	180	0.5	0.5	240					
86	7/19/73	6.8	0	0	0.2	0.2	10					
87	8-2-73	6.7	0	0	0.4	0.4	19					
88	7/20/73	5.7	8	0	0.5	0.5	24					
89	7/20/73	4.3	6	0	0.7	0.5	430	1				
90	7/20/73	6.0	0	0	0.6	0.5	14					
91	7/20/73	6.5	0	8	0.8	0.4	29					
92	7/20/73	6.5	0	14	0.5	0.5	48					
93	7/20/73	6.4	0	32	1.2	0.5	19					



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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron mg/l	Ferrous Iron mg/l	Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
94	7/19/73	6.6	0	30	0.8	0.4	24					
94A	7/19/73	6.3	0	10	1.0	0.5	14					
95	7/19/73	6.9	0	120	1.1	0.4	110					
96	7/19/73	7.4	0	230	3.2	0.3	290					
97	7/19/73	7.1	0	98	0.5	0.5	210					
98	7/19/73	6.9	0	32	0.8	0.4	48					
99	7/19/73	6.7	0	18	0.7	0.3	19					
100	7/20/73	6.8	0	50	0.5	0.5	48					
101	7/20/73	2.8	9500	0	2300	825	8100	560	14	130	66	
102	7/19/73	8.3	0	60	6.3	0.3	34					
103	7/19/73	6.4	0	10	0.3	0.3	58					110
104	7/19/73	7.0	0	64	0.3	0.3	34		0.1			
106	7/26/73	5.4	12	0	0.4	0.4	38					
106A	7/26/73	3.8	62	0	12	0.4	380	6				
107	7/26/73	4.0	62	0	0.7	0.6	38					
107A	7/27/73	2.7	200	0	5.7	1.6	220					
107B	7/27/73	2.6	220	0	2.9	0.4	240					
108	7/26/73	3.2	56	0	10	1.7	77					
109	7/26/73	3.6	48	0	0.5	0.5	67					
110	7/26/73	3.9	14	0	1.4	1.1	34					

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OPERATION SCARLIFT PROJECT SL 185 BLACKLICK CREEK WATERSHED INDIANA AND CAMBRIA COUNTIES, PENNSYLVANIA  
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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron mg/l	Ferrous Iron mg/l	Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
110A	7/26/73	4.4	42	0	7.5	0.4	360	4				
110B	7/26/73	4.5	36	0	7.4	0.6	330	3				
111A	7/25/73	2.4	340	0	34	2.8	790					
111B	7/25/73	2.6	300	0	12	0.4	460					
111C	7/25/73	2.5	300	0	11	0.3	450					
111D	7/25/73	2.6	280	0	18	0.5	460	18				
111E	7/25/73	2.6	210	0	5.2	0.4	360					
112	7/25/73	3.0	140	0	1.9	0.5	260					
112A	7/26/73	3.0	130	0	3.4	0.1	220					
113	7/25/73	4.0	44	0	16	6.6	220					180
114	7/26/73	2.9	170	0	7.9	0.3	230	12				
114A	7/26/73	2.7	320	0	16	4.7	460					
115	7/24/73	4.2	30	0	13	11	96					
115A	7/24/73	2.5	60	0	110	2.8	680	30				
116	7/25/73	3.8	20	0	0.9	0.2	680					
117	7/24/73	5.4	6	0	1.7	0.4	77					
118	7/24/73	8.1	0	54	1.1	0.4	160					
119	7/18/73	2.8	8100	0	710	200	8100	1300				
120	7/18/73	3.0	1600	0	160	20	1900	230				
121	7/24/73	4.7	18	0	1.1	0.6	190					
122	7/24/73	3.3	72	0	1.9	0.9	120	8				
122A	7/24/73	4.6	16	0	1.5	0.6	160					

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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron		Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
					mg/l	mg/l						
122B	7/24/73	6.7	0	4	1.0	0.3	14	1				
123	7/18/73	6.6	0	14	2.2	0.5	86	1.0				
124	7/18/73	6.8	0	12	0.5	0.5	43					
125	7/18/73	7.2	0	24	0.6	0.5	19					
126	7/18/73	5.1	8	0	0.4	0.4	14					
127	7/18/73	5.0	22	0	4.8	0.5	890	8.5				800
128	7/18/73	6.5	4	0	0.8	0.5	10					
129	7/18/73	6.9	0	8	1.0	1.0	14					
130	7/18/73	6.9	0	8	0.3	0.3	10					
131	7/18/73	7.0	0	2	0.4	0.4	14					
132	7/18/73	7.1	0	10	0.3	0.3	29					
133	7/18/73	7.0	0	4	0.5	0.5	10					
134	7/17/73	4.0	660	0	3.0	2.0	860	120				
135	7/17/73	6.6	0	16	2.7	0.6	14					
4542	7/26/73	2.4	900	0	170	4.0	1200	42				
4746	7/30/73	2.6	950	0	390	34	1600	43				
4748	8/1/73	2.4	840	0	150	20	980	52				
4772	8/7/73	2.5	330	0	13.	0.7	680	26				
4773	8/7/73	3.1	160	0	1.4	0.5	720	11				
4774	8/1/73	2.9	250	0	6.6	1.2	420					
4794	7/26/73	2.8	160	0	2.7	0.3	310					
4797	7/27/73	2.6	310	0	33	3.4	350	17				
4798	7/26/73	3.2	58	0	2.4	0.1	100					

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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron mg/l	Ferrous Iron mg/l	Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness as CaCO <sub>3</sub> mg/l
4800	8/7/73	2.6	430	0	39.	3.0	850					
4922	8/10/73	2.6	350	0	38	0.8	520	23				
4835	8/3/73	2.7	170	0	8	0.5	450					
4851	7/27/73	3.3	78	0	0.9	0.3	100	1				
4853	8/1/73	2.2	2500	0	770	0.5	2500	150				
4854	8/1/73	2.2	1200	0	270	4	1200					
4855	8/1/73	2.6	210	0	9	4	210					
4857	7/31/73	2.6	590	0	260	14	980	50	3.8			
4858	7/31/73	2.5	1800	0	750	220	2400	74	9			
4859	8/3/73	2.7	300	0	22	0.5	460	15				
4863	8/1/73	2.5	4800	0	1500	820	6200	400				
4863A	8/1/73	2.6	540	0	90	0.5	920					
4868	8/3/73	2.3	3100	0	900	50	3400	220				
4869	8/2/73	2.4	1000	0	340	230	1500	59				
4871	8/7/73	2.6	350	0	3.2	0.5	390	36				
4874	8/1/73	2.3	800	0	130	1.0	920					
4875	8/2/73	6.1	0	0	2.2	0.5	120					
4876	8/2/73	6.6	0	0	0.7	0.5	29					
4878	8/10/73	2.1	12000	0	3800	2400	12000	650				
4879	8/10/73	2.2	1600	0	590	130	2000	72				
4886	8/9/73	7.3	0	50	1.0	0.5	200	1				
4890	8/9/73	2.3	1100	0	390	9.0	1700	73				
4897	8/9/73	1.8	32000	0	2500	1900	34000	1600				

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Sample Location	Date	pH	Acidity mg/l	Alkalinity mg/l	Total Iron mg/l	Ferrous Iron mg/l	Sulfates mg/l	Aluminum mg/l	Manganese mg/l	Calcium mg/l	Magnesium mg/l	Hardness mg/l as CaCO <sub>3</sub>
4900	8/7/73	2.5	400	0	74.	6.2	770	15				
4903	8/7/73	2.6	480	0	40.	2.4	770	40				
4905	8/7/73	2.4	720	0	59.	3.0	1600					
4906	8/7/73	2.8	430	0	19	1.4	1200	39				
4910	8/7/73	2.5	470	0	75.	5.5	1100	32				
5017	8/8/73	2.3	600	0	39.	3.2	810					
5018	8/8/73	2.3	670	0	60.	2.9	910	51	3.3			670
5026	8/8/73	2.3	820	0	110	7.0	1100					
5028	8/8/73	2.3	780	0	64	3.9	900	65				
5039	7/18/73	2.9	2200	0	230	10	4200	730				580
5040	7/18/73	2.9	2000	0	58	1	4700	940				
5043	7/24/73	6.6	0	4	0.4	0.4	120	1				
5043A	7/24/73	2.5	1700	0	40	0.9	2200	290				
5043B	7/24/73	6.8	0	18	1.1	0.4	82					
5076	7/18/73	2.4	19000	0	320	10	18000	3100				1530
5079	7/26/73	2.8	170	0	5.8	0.4	390					
5081	7/26/73	6.4	0	22	2.2	1.9	120					
5189	7/18/73	5.7	30	0	1.6	0.5	1700					1740

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4026

DRAINAGE AREA/ACRES

3 SUB-BASIN 1

SAMPLE NUMBER

LONGITUDE 79 16 57

STREAM OR SOURCE NAME - STEWART RUN 13,375° FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	6.9	0.280	8	72	-96	0.7	1	0.0	28	42			
11/16/73	5.9	8.922	10	14	-192	0.4	19	0.0	36	1730			
12/17/73	6.0	20.524	10	24	-1548	0.1	10	0.0	41	4515			
01/22/74	6.1	19.578	2	22	-2110	0.4	42	0.0	31	3269			
02/08/74	6.1	9.632	2	34	-1661	0.3	15	0.0	150	7782			
03/06/74	5.2	14.057	6	30	-1818	2.8	212	0.0	275	20832			
04/03/74	5.6	15.883	6	36	-2568	6.5	556	0.0	30	2557			
05/01/74	5.4	7.362	6	64	-2301	0.5	19	0.0	125	4954			
06/11/74	6.9	3.019	6	88	-1334	0.4	6	0.0	175	2846			
07/19/74	6.9	2.183	0	104	-1223	0.2	2	0.0	275	3235			
08/13/74	6.7	0.299	10	154	-232	1.1	1	0.0	75	120			
09/04/74	6.2	13.784	6	50	-3269	1.2	89	0.0	2200	163450			
MAXIMUM	6.9	20.524	10	154	-96	6.5	556	0.0	2200	163450			
MINIMUM	5.2	0.280	0	14	-3269	0.1	1	0.0	28	42			
AVERAGE		9.626	6	57	-1529	1.2	81	0.0	286	17944			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

122

DRAINAGE AREA/ACRES

4 SUB-BASIN 2

SAMPLE NUMBER

LONGITUDE 79 16 40

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	7.1	0.015	4	38	-2	0.3	0	0.0	34	2			
11/16/73	6.2	0.182	6	16	-9	0.3	0	0.0	46	44			
12/17/73	6.0	0.312	8	36	-47	0.1	0	0.0	42	70			
MAXIMUM	7.1	0.312	8	38	-2	0.3	0	0.0	46	70			
MINIMUM	6.0	0.015	4	16	-47	0.1	0	0.0	34	2			
AVERAGE		0.169	6	30	-19	0.2	0	0.0	40	39			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

813

DRAINAGE AREA/ACRES

3

SAMPLE NUMBER

LATITUDE 40 28 40 LONGITUDE 79 15 54

STREAM OR SOURCE NAME - GREY'S RUN AT INTERSECTION WITH RT. 217

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	7.1	0.077	12	80	-28	0.4	0	0.0	22	9			
11/16/73	6.5	2.476	8	22	-186	0.3	3	0.0	30	398			
12/17/73	6.5	5.695	4	48	-1350	0.7	21	0.0	32	979			
01/22/74	6.2	5.433	4	56	-1522	0.3	8	0.0	27	787			
02/08/74	6.3	2.673	2	42	-576	0.1	1	0.0	25	358			
03/06/74	5.9	3.900	4	50	-966	1.4	29	0.0	200	4204			
04/03/74	5.9	4.407	8	64	-1330	1.1	26	0.0	150	3560			
05/01/74	6.0	2.043	8	82	-814	0.5	5	0.0	200	2202			
MAXIMUM	7.1	5.695	12	82	-28	1.4	29	0.0	200	4204			
MINIMUM	5.9	0.077	2	22	-1522	0.1	0	0.0	22	9			
AVERAGE		3.338	6	55	-847	0.6	12	0.0	85	1562			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

119

DRAINAGE AREA/ACRES

4

SAMPLE NUMBER

LATITUDE 40 27 42 LONGITUDE 79 16 16

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	7.1	0.014	4	78	-5	0.4	0	0.0	44	3			
11/16/73	6.5	0.178	8	28	-19	0.3	0	0.0	35	33			
12/17/73	6.5	0.306	10	56	-75	0.3	0	0.0	55	90			
MAXIMUM	7.1	0.306	10	78	-5	0.4	0	0.0	55	90			
MINIMUM	6.5	0.014	4	28	-75	0.3	0	0.0	35	33			
AVERAGE		0.166	7	54	-33	0.3	0	0.0	44	42			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

73

DRAINAGE AREA/ACRES

5

SUB-BASIN

7

LATITUDE 40 27 29 LONGITUDE 79 15 23

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	7.1	0.010	8	20	0	0.1	0	0.0	61	3			
11/16/73	6.2	0.121	6	4	1	0.0	0	0.0	96	62			
12/17/73	6.0	0.207	4	10	-6	0.1	0	0.0	89	99			
01/22/74	6.1	0.270	2	12	-14	0.1	0	0.0	62	90			
02/08/74	6.3	0.248	2	10	-10	0.1	0	0.0	58	77			
03/06/74	5.9	0.227	4	10	-7	0.3	0	0.0	55	67			
04/03/74	5.8	0.153	6	12	-4	1.0	0	0.0	55	45			
05/01/74		0.067											
MAXIMUM	7.1	0.270	8	20	1	1.0	0	0.0	96	99			
MINIMUM	5.8	0.010	2	4	-14	0.0	0	0.0	55	3			

AVERAGE

0.162

4

11

-6

0.2

0

0.0

68

63

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

354

DRAINAGE AREA/ACRES

6

SUB-BASIN

9

LATITUDE 40 27 48 LONGITUDE 79 14 55

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	5.4	0.029	8	2	0	0.1	0	0.0	237	37			
11/16/73	6.1	0.754	8	18	-40	0.1	0	0.0	160	649			
12/17/73	4.3	0.754	32	2	121	1.0	4	0.0	170	690			
01/22/74	4.2	0.965	34	0	176	1.4	7	0.0	145	753			
02/08/74	4.6	0.893	18	2	77	0.6	2	0.0	125	600			
03/06/74	4.2	0.703	30	0	113	1.4	5	0.0	200	757			
04/03/74	4.4	0.883	38	0	180	1.9	9	0.0	130	618			
05/01/74	4.1	0.222	40	0	47	0.4	0	0.0	225	269			
06/11/74	4.1	0.111	70	0	41	0.5	0	0.0	225	134			
07/19/74	3.9	0.216	62	0	72	0.1	0	0.0	325	378			
08/12/74	3.8	0.049	30	0	7	0.5	0	0.0	150	39			
09/04/74	6.0	1.228	6	10	-26	3.0	19	2.2	200	1323			
MAXIMUM	6.1	1.228	70	18	180	3.0	19	2.2	325	1323			
MINIMUM	3.8	0.029	6	0	-40	0.1	0	0.0	125	37			
AVERAGE		0.567	31	2	64	0.9	4	0.1	191	521			



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4910 SUB-BASIN 6 DRAINAGE AREA/ACRES

LONGITUDE 79 14 55

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	2.9	0.007	460	0	17	48.6	1	3.4	973	36			
11/19/73	3.0	0.019	52	0	5	53.1	5	0.8	851	87			
12/17/73	2.9	0.044	800	0	189	35.5	8	0.0	700	166			
01/22/74	2.8	0.076	300	0	122	33.3	13	3.4	550	225			
02/08/74	2.9	0.054	408	0	118	31.1	9	13.4	425	123			
03/06/74	2.8	0.064	422	0	145	26.9	9	5.6	575	198	32.3	11	
04/03/74	2.8	0.049	400	0	105	38.1	10	2.2	600	158			
05/01/74	2.9	0.026	440	0	61	35.6	4	4.5	925	129			
06/11/74	2.9	0.026	550	0	77	40.5	5	5.6	700	98			
07/19/74	2.6	0.026	30	0	4	36.1	5	16.8	950	133			
08/17/74	2.9	0.012	1100	0	71	48.6	3	3.4	975	63			
09/04/74	2.9	0.023	1100	0	136	30.2	3	11.2	925	114			
MAXIMUM	3.0	0.076	1100	0	189	53.1	13	16.8	975	225	32.3	11	
MINIMUM	2.6	0.007	30	0	4	26.9	1	0.0	425	36	32.3	11	
AVERAGE		0.035	505	0	87	38.1	6	5.8	762	127	32.3	11	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

205 DRAINAGE AREA/ACRES

8 SUB-BASIN 7 DRAINAGE AREA/ACRES 205  
LONGITUDE 79 15 03

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	7.1	0.018	8	54	-4	0.1	0	0.0	29	2			
11/19/73	6.6	0.486	6	4	5	0.1	0	0.0	31	81			
12/18/73	6.0	0.486	4	30	-68	1.0	2	0.0	33	86			
MAXIMUM	7.1	0.486	8	54	5	1.0	2	0.0	33	86			
MINIMUM	6.0	0.018	4	4	-68	0.1	0	0.0	29	2			
AVERAGE		0.330	6	29	-22	0.4	0	0.0	31	56			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5247

DRAINAGE AREA/ACRES

10 SUB-BASIN 8

SAMPLE NUMBER

LATITUDE 40 28 23 LONGITUDE 79 14 17

STREAM OR SOURCE NAME - MUDDY RUN 1.375° FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	7.1	0.346	8	48	-74	0.1	0	0.0	59	110	
11/19/73	6.6	11.027	4	2	118	0.1	5	0.0	55	3263	
12/17/73	6.1	25.365	4	34	-4101	0.3	40	0.0	62	8471	
01/22/74	6.4	24.196	2	30	-3651	0.3	38	0.0	44	5734	
02/08/74	6.1	11.905	0	36	-2310	0.1	6	0.0	37	2369	
03/06/74	6.4	17.373	2	44	-3932	0.6	56	0.0	150	14037	
04/03/74	5.7	19.630	4	44	-4232	1.0	105	0.0	175	18511	
05/01/74	6.2	9.099	4	60	-2746	0.1	4	0.0	175	8580	
06/11/74	6.8	3.732	6	70	-1287	0.1	1	0.0	175	3519	
06/26/74	6.9	5.835	14	76	-1949	0.3	9	0.0	150	4714	
07/18/74	7.0	1.199	6	68	-400	0.0	0	0.0	225	1453	
07/19/74	7.1	2.697	0	70	-1017	0.0	0	0.0	200	2907	
08/01/74	7.1	0.354	0	82	-156	0.3	0	0.0	350	667	
08/13/74	6.2	0.370	10	100	-179	0.7	1	0.0	225	448	
08/21/74	6.6	0.163	4	96	-80	0.0	0	0.0	850	746	
09/04/74	6.5	17.036	4	46	-3856	0.0	0	0.0	175	16064	
09/05/74	6.4	16.123	6	52	-3997	0.6	52	0.0	275	23894	
09/11/74	6.1	2.340	8	48	-504	0.3	3	0.0	225	2836	
MAXIMUM	7.1	25.365	14	100	118	1.0	105	0.0	850	23894	
MINIMUM	5.7	0.163	0	2	-4232	0.0	0	0.0	37	110	
AVERAGE		9.377	4	55	-1908	0.2	18	0.0	200	6573	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

3983

DRAINAGE AREA/ACRES

11 SUB-BASIN 8

SAMPLE NUMBER

LATITUDE 40 29 23 LONGITUDE 79 14 10

STREAM OR SOURCE NAME - MUDDY RUN 8.125° FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/17/73	7.2	0.278	0	68	-101	0.5	0	0.0	29	43	
11/19/73	6.6	8.843	6	28	-1048	0.1	4	0.0	30	1423	
12/17/73	6.4	20.341	6	36	-3209	0.1	10	0.0	38	4149	
01/22/74	6.2	19.404	4	36	-3346	0.3	31	0.0	29	3027	
02/11/74	6.1	9.547	4	42	-1955	0.3	15	0.0	200	10291	
03/06/74	6.3	13.932	4	12	-600	0.3	22	0.0	200	15018	
04/03/74	5.9	15.742	4	42	-3224	0.8	67	0.0	150	12719	
05/01/74	5.6	7.297	6	70	-2517	0.5	19	0.0	150	5895	
06/11/74	7.2	2.993	0	80	-1290	0.2	3	0.0	125	2014	
07/19/74	7.4	2.163	0	98	-1142	0.1	1	0.0	250	2913	
08/13/74	6.1	0.297	10	100	-144	0.8	1	0.0	225	359	
08/21/74	6.8	0.131	4	126	-86	0.0	0	0.0	200	141	
09/04/74	6.6	13.662	10	52	-3092	0.4	29	0.0	150	11038	
MAXIMUM	7.4	20.341	10	126	-86	0.8	67	0.0	250	15018	
MINIMUM	5.6	0.131	0	12	-3346	0.0	0	0.0	29	43	
AVERAGE		8.817	4	60	-1680	0.3	15	0.0	136	5310	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

85

DRAINAGE AREA/ACRES

SUB-BASIN 8

SAMPLE NUMBER 12  
LONGITUDE 79 13 35

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO MUDDY RIN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/17/73	3.4	0.065	130	0	45	3.0	1	0.0	351	122			
11/19/73	3.3	0.228	120	0	147	2.2	2	0.0	306	375			
12/17/73	3.2	0.414	124	0	276	2.9	6	0.0	325	724			
01/22/74	3.3	0.553	110	0	327	3.0	8	0.0	425	1266			
02/08/74	3.1	0.458	64	0	157	2.0	4	0.0	100	246			
03/06/74	3.5	0.333	66	0	118	2.6	4	0.0	275	493			
04/03/74	3.3	0.458	88	0	217	2.7	6	0.0	275	678			
05/01/74	3.3	0.261	102	0	143	2.0	2	0.0	300	422			
09/04/74	4.2	0.333	10	0	17	0.7	1	0.0	200	358			
MAXIMUM	4.2	0.553	130	0	327	3.0	8	0.0	425	1266			
MINIMUM	3.1	0.065	10	0	17	0.7	1	0.0	100	122			
AVERAGE		0.344	90	0	161	2.3	4	0.0	284	521			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

85

DRAINAGE AREA/ACRES

SUB-BASIN 8

SAMPLE NUMBER 4772  
LONGITUDE 79 13 08

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/17/73	2.7	0.010	440	0	23	1160.8	62	1120.0	724	39			
11/19/73	2.9	0.023	48	0	5	20.0	2	0.0	701	86			
12/17/73	2.8	0.060	400	0	129	16.0	5	0.0	1900	614			
01/22/74	2.8	0.104	400	0	224	16.4	9	0.0	450	252			
02/08/74	2.8	0.045	268	0	65	14.7	3	0.0	575	139			
03/06/74	2.7	0.045	302	0	73	7.3	1	0.0	400	97			
04/03/74	2.8	0.045	300	0	72	17.1	4	0.0	425	103			
05/01/74	2.9	0.035	340	0	64	8.8	1	0.0	600	113			
09/04/74	2.7	0.013	1000	0	70	16.0	1	1.1	975	68			
MAXIMUM	2.9	0.104	1000	0	224	1160.8	62	1120.0	1900	614			
MINIMUM	2.7	0.010	48	0	5	7.3	1	0.0	400	39			
AVERAGE		0.042	388	0	80	141.9	10	124.5	750	168			

BLACKLICK CREEK WATERSHED

LATITUDE 40 29 12 LONGITUDE 79 13 07

STREAM OR SOURCE NAME - 2 DRIFT MINES

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/17/73	3.3	0.012	152	0	9	1.8	0	0.0	602	38			
11/19/73	3.3	0.019	160	0	16	1.0	0	0.0	875	89			
12/17/73	3.2	0.127	176	0	120	1.0	0	0.0	725	496			
01/22/74	3.3	0.492	126	0	334	1.2	3	0.0	450	1193			
02/08/74	3.3	0.053	100	0	28	1.0	0	0.0	400	114			
03/06/74	3.1	0.075	148	0	59	0.8	0	0.0	350	141			
04/03/74	3.2	0.134	186	0	134	5.5	3	0.0	700	505			
05/01/74	3.3	0.087	120	0	56	0.6	0	0.0	775	363			
09/04/74	3.3	0.019	130	0	13	1.0	0	0.0	725	74			
MAXIMUM	3.3	0.492	186	0	334	5.5	3	0.0	875	1193			
MINIMUM	3.1	0.012	100	0	9	0.6	0	0.0	350	38			
AVERAGE		0.113	144	0	85	1.5	1	0.0	622	335			

BLACKLICK CREEK WATERSHED

LATITUDE 40 29 37 LONGITUDE 79 13 13

STREAM OR SOURCE NAME - 2 DRIFT MINES

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	3.0	NO DATA	246	0		22.5	0	11.2	324				
11/19/73	3.2	NO DATA	26	0		1.8	0	0.0	401				
12/17/73	2.8	0.003	860	0	13	33.6	0	0.0	800	12			
01/22/74	2.7	0.026	200	0	28	33.3	4	0.0	600	84			
02/08/74	2.8	0.004	400	0	8	24.7	0	0.0	475	10			
03/06/74	2.7	0.003	442	0	7	20.0	0	0.0	475	7			
04/03/74	2.7	0.008	400	0	17	30.4	1	1.1	875	37			
05/01/74	2.8	0.002	460	0	4	23.7	0	0.0	950	10			
09/04/74		0.000	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	3.2	0.026	860	0	28	33.6	4	11.2	950	84			
MINIMUM	2.7	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.006	337	0	11	21.1	1	1.3	544	23			

SAMPLE NUMBER 13 SUB-BASIN 9 DRAINAGE AREA/ACRES 110  
 LATITUDE 40 28 29 LONGITUDE 79 13 25  
 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - STREAM IMMEDIATELY N. OF CAMPBELLS MILL

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	6.2	0.011	16	10	0	0.9	0	0.0	288	17			
11/19/73	4.5	0.296	60	0	95	1.4	2	0.0	225	358			
12/17/73	4.6	0.296				3.2	5	0.0					
01/22/74	3.5	0.379	84	0	171	4.5	9	0.0	280	571			
02/08/74	4.5	0.350	34	0	64	2.2	4	0.0	220	414			
03/06/74	4.4	0.276	58	0	86	2.0	2	0.0	150	223			
04/03/74	4.0	0.347	58	0	108	3.2	5	0.0	150	280			
05/01/74	3.9	0.087	56	0	26	2.1	0	0.0	225	105			
06/11/74	3.8	0.043	140	0	32	3.0	0	0.0	350	81			
07/19/74	4.3	0.084	64	0	28	0.8	0	0.0	350	158			
08/12/74	4.1	0.019	30	0	3	0.9	0	0.0	300	30			
09/04/74	6.0	0.482	4	8	-10	1.0	2	0.0	200	519			
MAXIMUM	6.2	0.482	140	10	171	4.5	9	0.0	350	571			
MINIMUM	3.5	0.011	4	0	-10	0.8	0	0.0	150	17			
AVERAGE		0.222	54	1	55	2.1	2	0.0	248	251			

AA-18

SAMPLE NUMBER 13A SUB-BASIN 9 DRAINAGE AREA/ACRES  
 LATITUDE 40 28 45 LONGITUDE 79 13 15  
 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
06/26/74	2.6	0.011	540	0	32	22.9	1	0.0	425	25			
MAXIMUM	2.6	0.011	540	0	32	22.9	1	0.0	425	25			
MINIMUM	2.6	0.011	540	0	32	22.9	1	0.0	425	25			
AVERAGE		0.011	540	0	32	22.9	1	0.0	425	25			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4774 SUB-BASIN 9 DRAINAGE AREA/ACRES

LATITUDE 40 28 56 LONGITUDE 79 13 15

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	3.0	0.001	26	0	0	20.0	0	3.4	325	1			
11/19/73	3.1	0.003	26	0	0	8.8	0	0.0	275	4			
12/17/73	3.1	0.009	270	0	13	5.4	0	0.0	400	19			
01/22/74	3.2	0.048	140	0	36	3.0	0	0.0	225	58			
02/08/74	3.2	0.030	130	0	21	3.2	0	0.0	275	44			
03/06/74	3.0	0.016	176	0	15	2.1	0	0.0	225	19			
04/03/74	3.1	0.028	140	0	21	7.7	1	0.0	275	41			
05/01/74		0.017											
06/11/74	3.2	0.010	138	0	7	3.6	0	0.0	350	18			
07/19/74	2.9	0.008	170	0	7	2.8	0	2.2	400	17			
08/12/74	3.0	0.003	400	0	6	4.6	0	0.0	425	6			
09/04/74	3.2	0.004	164	0	3	5.1	0	0.0	425	9			
MAXIMUM	3.2	0.048	400	0	36	20.0	1	3.4	425	58			
MINIMUM	2.9	0.001	26	0	0	2.1	0	0.0	225	1			
AVERAGE		0.014	161	0	11	6.0	0	0.5	327	21			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

14 SUB-BASIN 10 DRAINAGE AREA/ACRES 128

LATITUDE 40 28 10 LONGITUDE 79 13 08

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/22/73	7.1	0.012	0	90	-5	0.0	0	0.0	56	3			
11/19/73	6.8	0.333	6	54	-86	0.0	0	0.0	46	82			
12/17/73	6.6	0.333	2	78	-136	0.1	0	0.0	44	78			
01/22/74	6.4	0.426	0	74	-169	0.3	0	0.0	37	84			
02/08/74	6.8	0.394	0	82	-174	0.0	0	0.0	34	72			
03/06/74	6.3	0.310	4	116	-187	0.9	1	0.0	225	375			
04/03/74	6.1	0.390	4	98	-197	1.3	2	0.0	225	472			
05/01/74	7.0	0.098	0	138	-72	0.3	0	0.0	125	65			
MAXIMUM	7.1	0.426	6	138	-5	1.3	2	0.0	225	472			
MINIMUM	6.1	0.012	0	54	-197	0.0	0	0.0	34	3			
AVERAGE		0.287	2	91	-128	0.3	0	0.0	99	154			

LATITUDE 40 27 21 LONGITUDE 79 13 39

STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/22/73	7.5	0.042	0	130	-29	0.1	0	0.0	186	42			
11/16/73	6.6	1.113	10	28	-107	0.4	2	0.0	126	755			
12/18/73	5.9	1.113	18	32	-83	0.7	4	0.0	152	911			
01/22/74	6.1	1.425	8	30	-168	0.7	5	0.0	176	1350			
02/11/74	6.0	1.318	10	16	-42	1.2	8	0.0	202	1433			
03/06/74	6.1	1.038	6	30	-134	2.0	11	0.0	200	1118			
04/03/74	6.1	1.304	8	20	-84	1.9	13	0.0	100	702			
05/01/74	6.7	0.327	14	30	-28	1.4	2	0.0	175	308			
06/11/74	6.1	0.163	12	24	-10	1.1	0	0.0	325	285			
07/19/74	7.0	0.319	8	64	-96	0.4	0	0.0	250	429			
08/12/74	6.1	0.072	10	64	-20	2.2	0	0.0	250	96			
09/04/74	6.1	1.813	0	46	-449	0.3	2	0.0	200	1954			
MAXIMUM	7.5	1.813	18	130	-10	2.2	13	0.0	325	1954			
MINIMUM	5.9	0.042	0	16	-449	0.1	0	0.0	100	42			
AVERAGE		0.837	8	42	-104	1.0	4	0.0	195	782			

LATITUDE 40 26 57 LONGITUDE 79 14 14

STREAM OR SOURCE NAME - STRIP MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/23/73	3.3	0.005	180	0	4	20.0	0	6.7	398	10			
11/16/73	3.3	NO DATA	16	0		7.9	1	0.0	401				
12/18/73	3.8	0.048	320	0	82	5.8	1	0.0	825	213			
01/22/74	3.2	0.084	216	0	97	6.2	2	0.0	450	203			
02/11/74	3.2	0.028	226	0	34	14.7	2	9.0	425	64			
03/06/74	3.3	0.032	146	0	25	3.9	0	0.0	325	56			
04/03/74	3.2	0.042	154	0	34	11.2	2	1.1	525	118			
05/01/74	3.9	0.017	1140	0	104	4.8	0	2.2	575	52			
06/11/74	3.3	0.016	240	0	20	11.8	1	6.7	675	58			
MAXIMUM	3.9	0.084	1140	0	104	20.0	2	9.0	825	213			
MINIMUM	3.2	0.005	16	0	4	3.9	0	0.0	325	10			
AVERAGE		0.034	293	0	50	9.5	1	2.8	511	97			

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4903 SUB-BASIN 11

LATITUDE 40 27 04 LONGITUDE 79 14 14

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/22/73	2.9	0.005	900	0	24	38.7	1	4.5	726	19			
11/16/73	3.0	0.012	44	0	2	31.5	2	0.0	851	55			
12/18/73	2.9	0.019	640	0	65	26.3	2	0.0	1100	112			
01/22/74	2.9	0.030	300	0	48	25.6	4	0.0	675	109			
02/11/74	2.9	0.026	400	0	56	13.4	1	0.0	475	66			
03/06/74	2.8	0.026	356	0	49	17.0	2	0.0	575	80			
04/03/74	2.8	0.034	300	0	54	20.0	3	0.0	600	109			
05/01/74	2.9	0.030	356	0	57	16.7	2	0.0	950	153			
06/11/74	2.9	0.026	500	0	70	18.8	2	5.6	875	122			
MAXIMUM	3.0	0.034	900	0	70	38.7	4	5.6	1100	153			
MINIMUM	2.8	0.005	44	0	2	13.4	1	0.0	475	19			
AVERAGE		0.023	421	0	47	23.1	2	1.1	758	92			

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4905 SUB-BASIN 11

LATITUDE 40 27 31 LONGITUDE 79 14 11

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/16/73	2.9	0.002	94	0	1	57.8	0	0.0	1375	14			
11/16/73		0.000	0	0	0	0.0	0	0.0	0	0			
12/18/73	2.9	0.002	940	0	10	44.3	0	0.0	875	9			
01/22/74	2.8	0.028	500	0	75	34.5	5	0.0	800	120			
02/11/74	2.8	0.011	400	0	23	33.3	1	0.0	675	40			
03/06/74	2.7	0.015	394	0	31	26.9	2	0.0	550	44			
04/03/74	2.7	0.037	200	0	39	32.9	6	0.0	825	164			
05/01/74	2.9	0.011	480	0	28	25.9	1	0.0	1075	63			
06/11/74	2.9	0.017	550	0	50	29.2	2	0.0	1050	96			
MAXIMUM	2.9	0.037	940	0	75	57.8	6	0.0	1375	164			
MINIMUM	2.7	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.013	395	0	28	31.6	2	0.0	802	61			



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4906 SUB-BASIN 11  
LATITUDE 40 27 19 LONGITUDE 79 14 08  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE LB/DAY	ALUMINUM MG/L	MAN- GANESE MG/L
10/22/73	2.9	0.007	900	0	33	26.0	0	1024	38	
11/16/73	3.0	0.018	52	0	5	23.2	2	1775	172	
12/18/73	3.0	0.067	660	0	238	13.2	4	875	315	
01/22/74	3.0	0.223	400	0	480	6.4	7	900	1081	
02/11/74	3.1	0.112	228	0	137	6.8	4	625	377	
03/06/74	2.9	0.096	376	0	194	8.1	4	850	439	
04/03/74	3.1	0.112	340	0	205	9.6	5	900	543	
05/01/74	3.2	0.061	272	0	89	5.9	1	1025	336	
06/11/74	3.1	0.096	320	0	165	6.6	3	850	439	
07/19/74	2.8	0.056	308	0	92	9.2	2	1275	384	
08/12/74	3.1	0.017	324	0	29	9.8	0	1100	100	
09/04/74	3.3	0.067	160	0	57	4.3	1	725	261	
MAXIMUM	3.3	0.223	900	0	480	26.0	7	1775	1081	
MINIMUM	2.8	0.007	52	0	5	4.3	0	625	38	
AVERAGE		0.077	361	0	144	10.7	3	993	374	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 17 SUB-BASIN 12  
LATITUDE 40 27 25 LONGITUDE 79 12 36  
STREAM OR SOURCE NAME - WESTERN TRIBUTARY TO WEIRS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE LB/DAY	ALUMINUM MG/L	MAN- GANESE MG/L
10/22/73	7.5	0.030	0	80	-12	0.1	0	36	5	
11/19/73	7.1	0.784	0	34	-143	0.1	0	46	193	
12/18/73	6.6	0.784	10	52	-177	0.0	0	46	193	
01/22/74	6.3	1.004	4	52	-259	0.1	0	30	161	
02/11/74	6.5	0.929	4	60	-280	0.1	0	150	750	
03/06/74	5.8	0.731	6	54	-189	0.3	1	45	176	
04/03/74	6.7	0.919	6	54	-237	0.9	4	225	1113	
05/01/74	6.4	0.231	8	94	-107	0.4	0	200	249	
06/11/74	7.4	0.115	0	118	-73	0.0	0	35	21	
07/19/74	6.5	0.224	0	136	-164	0.1	0	275	331	
08/12/74	6.7	0.051	8	224	-59	0.7	0	100	27	
09/04/74	6.3	1.278	0	99	-681	0.4	2	175	1205	
MAXIMUM	7.5	1.278	10	224	-12	0.9	4	275	1205	
MINIMUM	5.8	0.030	0	34	-681	0.0	0	30	5	
AVERAGE		0.590	3	88	-198	0.2	0	113	369	

STREAM OR SOURCE NAME - WEIRS RUN AT ROAD INTERSECTION

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	6.5	0.692	2	18	-59	0.1	0	0.0	186	693			
11/19/73	6.5	2.806	6	10	-60	0.1	1	0.0	96	1450			
12/19/73	5.8	2.088	6	16	-112	0.3	3	0.0	131	1474			
01/22/74	6.4	4.950	4	14	-266	0.1	2	0.0	119	3172			
02/11/74	6.0	3.041	4	20	-262	0.1	1	0.0	126	2064			
03/06/74	5.9	3.221	2	10	-138	0.4	6	0.0	85	1475			
04/04/74	6.1	5.967	6	12	-192	1.3	41	0.0	85	2732			
05/02/74	6.1	1.959	4	22	-190	0.4	4	0.0	150	1582			
06/11/74	7.3	0.774	0	34	-141	0.2	0	0.0	200	834			
07/29/74	6.3	0.570	40	30	30	0.5	1	0.0	650	1996			
09/04/74	6.2	3.407	0	26	-477	0.0	0	0.0	175	3212			
MAXIMUM	7.3	5.967	40	34	30	1.3	41	0.0	650	3212			
MINIMUM	5.8	0.570	0	10	-477	0.0	0	0.0	85	693			
AVERAGE		2.679	6	19	-170	0.3	5	0.0	182	1880			

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73	2.8	0.005	340	0	9	55.3	1	22.4	597	16			
11/19/73	3.0	0.001	14	0	0	3.0	0	0.0	225	1			
12/19/73	3.4	0.007	60	0	2	0.7	0	0.0	90	3			
01/22/74	3.6	0.027	58	0	8	1.0	0	0.0	150	21			
02/11/74	3.5	0.019	80	0	8	1.4	0	0.0	225	23			
03/06/74	4.0	0.019	44	0	4	0.8	0	0.0	275	28			
04/04/74	3.4	0.019	78	0	7	7.8	0	1.1	225	23			
05/02/74	3.3	0.007	94	0	3	5.7	0	3.4	350	13			
06/11/74	3.2	0.013	116	0	8	10.6	0	0.0	350	24			
MAXIMUM	4.0	0.027	340	0	9	55.3	1	22.4	597	28			
MINIMUM	2.8	0.001	14	0	0	0.7	0	0.0	90	1			
AVERAGE		0.013	98	0	5	9.5	0	2.9	276	17			

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/18/73	6.9	0.051	2	40	-10	0.6	0	0.0	63	17			
11/19/73	6.2	0.334	12	14	-3	0.1	0	0.0	40	71			
12/19/73	5.6	0.535	2	20	-51	0.3	0	0.0	24	69			
MAXIMUM	6.9	0.535	12	40	-3	0.6	0	0.0	63	71			
MINIMUM	5.6	0.051	2	14	-51	0.1	0	0.0	24	17			
AVERAGE		0.306	5	24	-21	0.3	0	0.0	42	52			

AA-24

STREAM OR SOURCE NAME - UNNAMED STREAM 2,750\* UPSTREAM OF MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/17/73	6.6	0.153	2	22	-16	0.1	0	0.0	348	286			
11/19/73	7.0	4.881	0	32	-841	0.1	2	0.0	211	5549			
12/18/73	6.4	11.228	10	34	-1452	0.9	54	0.0	223	13484			
01/22/74	6.1	10.711	4	20	-923	1.8	103	0.0	210	12114			
02/11/74	6.7	5.269	6	50	-1249	1.8	51	1.1	250	7097			
03/06/74	6.2	7.690	4	32	-1160	2.6	107	0.0	200	8289			
04/03/74	6.7	8.689	4	46	-1967	2.4	112	0.0	150	7020			
05/01/74	6.2	4.027	6	34	-607	0.5	10	0.0	275	5968			
06/11/74	6.8	1.652	6	64	-516	0.1	0	0.0	450	4006			
07/19/74	6.9	1.194	2	66	-411	0.1	0	0.0	475	3056			
08/13/74	6.4	0.163	10	92	-72	1.2	1	0.0	600	527			
09/04/74	5.3	7.541	0	46	-1869	0.4	16	0.0	200	8129			
MAXIMUM	7.0	11.228	10	92	-16	2.6	112	1.1	600	13484			
MINIMUM	6.1	0.153	0	20	-1967	0.1	0	0.0	150	286			
AVERAGE		5.266	4	44	-924	1.0	38	0.0	299	6294			

LATITUDE 40 29 58 LONGITUDE 79 10 45

LATITUDE 40 28 46 LONGITUDE 79 10 52

STREAM OR SOURCE NAME - UPSTREAM END OF BRIDGE CROSSING TWO LICK AT CORAL

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM IN JOSEPHINE

DATE	PH	FLUW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/22/73	3.7	226.655	72	0	87960	5.8	7085	2.2	271	330916			
11/19/73	3.4	291.710	80	0	125785	10.0	15723	0.7	181	284417			
12/19/73	3.2	270.912	82	0	119737	12.5	18251	1.1	180	262784			
01/22/74	3.7	1361.412	38	0	278844	6.4	46955	2.2	75	550010			
02/11/74	3.4	267.274	82	0	118129	19.8	29523	19.0	225	323936			
03/07/74	3.4	367.221	54	0	106883	12.8	25334	5.6	225	445071			
04/04/74	3.7	1282.466	40	0	276499	8.1	55979	1.1	200	1382498			
05/02/74	3.4	206.632	74	0	82417	13.3	14811	6.7	150	166950			
06/19/74	3.3	320.055	48	0	82804	7.8	13455	3.4	125	215397			
06/26/74	3.5	433.478	38	0	88784	5.5	12848	0.0	95	221940			
07/18/74	2.7	75.241	200	0	81109	12.5	5068	7.8	225	91192			
08/01/74	3.1	74.118	140	0	55929	13.6	5432	2.2	400	159798			
08/13/74	3.1	114.546	108	0	66679	7.3	4506	4.5	175	108016			
08/21/74	2.9	53.904	200	0	58108	7.5	2178	1.1	475	137994			
09/05/74	2.9	151.605	200	0	163430	13.3	10867	12.3	300	245145			
09/11/74	2.9	80.856	700	0	305069	12.1	5272	9.0	325	141578			
MAXIMUM	3.7	1361.412	700	0	305069	19.8	55979	19.0	475	1382498			
MINIMUM	2.7	53.904	38	0	55929	5.5	2178	0.0	75	91192			
AVERAGE		348.630	134	0	131135	10.5	17018	4.9	226	316728			

DATE	PH	FLUW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73		0.000	0	0	0	0.0	0	0.0	0	0			
11/19/73	5.8	0.297	8	0	12	0.1	0	0.0	35	55			
12/19/73	5.4	0.475	8	16	-20	0.4	1	0.0	71	181			
01/23/74	5.6	1.249	2	10	-53	0.1	0	0.0	110	739			
02/11/74	5.8	0.524	4	20	-45	0.3	0	0.0	175	494			
03/07/74	5.5	0.796	4	10	-25	0.4	1	0.0	85	364			
04/04/74	5.6	1.013	8	18	-54	5.3	28	0.0	85	463			
05/02/74	5.9	0.257	4	30	-36	0.4	0	0.0	50	69			
06/12/74	6.9	0.185	12	46	-33	3.4	3	0.0	150	149			
MAXIMUM	6.9	1.249	12	46	12	5.3	28	0.0	175	739			
MINIMUM	5.5	0.000	0	0	-54	0.0	0	0.0	0	0			
AVERAGE		0.532	5	16	-28	1.1	4	0.0	84	279			

LATITUDE 40 28 20 LONGITUDE 79 10 56

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM N W OF PALMERTOWN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73	6.3	0.050	8	10	0	0.1	0	0.0	157	42			
11/20/73	5.9	0.331	6	8	-3	0.3	0	0.0	84	149			
12/19/73	5.3	0.529	6	8	-5	0.1	0	0.0	141	401			
01/23/74	4.7	1.392	2	2	0	0.7	5	0.0	70	524			
02/12/74	5.0	0.584	8	6	6	0.6	1	0.0	141	443			
03/07/74	4.5	0.888	4	0	19	0.2	0	0.0	85	406			
04/04/74	5.7	1.129	2	14	-73	5.1	31	0.0	70	425			
05/02/74	5.7	0.287	2	12	-15	0.4	0	0.0	85	131			
06/12/74	6.8	0.206	6	32	-28	0.0	0	0.0	150	166			
MAXIMUM	6.8	1.392	8	32	19	5.1	31	0.0	157	524			
MINIMUM	4.5	0.050	2	0	-73	0.0	0	0.0	70	42			
AVERAGE		0.599	4	10	-11	0.8	4	0.0	109	299			

LATITUDE 40 27 59 LONGITUDE 79 10 54

STREAM OR SOURCE NAME - 2.875\* UPSTREAM FROM MOUTH UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73	4.7	0.033	18	2	2	0.1	0	0.0	234	41			
11/20/73	4.1	0.215	12	0	13	0.3	0	0.0	110	127			
12/19/73	4.1	0.344	34	0	63	0.4	0	0.0	170	315			
01/23/74	3.7	0.905	22	0	107	2.0	9	0.0	100	487			
02/12/74	3.8	0.380	38	0	77	1.4	2	0.0	150	307			
03/07/74	3.2	0.577	22	0	68	0.4	1	0.0	225	699			
04/04/74	4.2	0.734	18	0	71	5.2	20	0.0	110	434			
05/02/74	4.2	0.186	16	0	16	0.4	0	0.0	100	100			
06/12/74	3.9	0.134	30	0	21	0.6	0	0.0	275	198			
MAXIMUM	4.7	0.905	38	2	107	5.2	20	0.0	275	699			
MINIMUM	3.2	0.033	12	0	2	0.1	0	0.0	100	41			
AVERAGE		0.389	23	0	49	1.2	4	0.0	163	301			

SAMPLE NUMBER 24A SUB-BASIN 18 DRAINAGE AREA/ACRES 470  
 LATITUDE 40 27 46 LONGITUDE 79 10 55  
 STREAM OR SOURCE NAME - DRIFT MINE

OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73	2.9	0.031	38	0	6	32.0	5	0.0	698	116			
11/20/73	2.8	0.025	300	0	40	32.4	4	0.0	776	104			
12/19/73	2.9	0.052	380	0	106	27.0	7	0.0	725	203			
01/23/74	2.8	0.105	300	0	169	20.6	11	0.0	425	240			
02/12/74	3.0	0.068	224	0	82	17.0	6	0.0	400	146			
03/07/74	2.9	0.086	214	0	99	10.0	4	0.0	225	104			
04/04/74	2.9	0.052	300	0	84	16.6	4	0.0	350	98			
05/02/74	3.0	0.045	190	0	46	10.0	2	0.0	350	84			
06/12/74	3.1	0.038	228	0	46	10.2	2	0.0	425	87			
MAXIMUM	3.1	0.105	380	0	169	32.4	11	0.0	776	240			
MINIMUM	2.8	0.025	38	0	6	10.0	2	0.0	225	84			
AVERAGE		0.055	241	0	75	19.5	5	0.0	406	131			

AA-27

SAMPLE NUMBER 26 SUB-BASIN 19 DRAINAGE AREA/ACRES 470  
 LATITUDE 40 28 25 LONGITUDE 79 10 36  
 STREAM OR SOURCE NAME - UNNAMED STREAM I,125' UPSTREAM OF GAGING STA. AT JOSEPHINE

OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73	3.1	0.112	158	0	95	7.4	4	0.0	174	104			
11/20/73	3.0	0.611	160	0	526	9.4	30	0.0	293	964			
12/19/73	3.2	0.513	168	0	464	6.9	19	0.0	240	663			
01/23/74	3.2	2.043	76	0	836	4.2	46	0.0	175	1926			
02/12/74	3.2	0.903	100	0	486	6.0	29	0.0	175	851			
03/07/74	3.1	1.240	86	0	574	4.1	27	0.0	175	1169			
04/05/74	3.3	1.620	58	0	506	8.2	71	0.0	150	1308			
05/03/74	3.5	0.788	44	0	186	2.0	8	0.0	150	636			
06/12/74	3.3	0.393	74	0	156	3.6	7	0.0	260	550			
07/26/74	3.3	0.293	62	0	97	1.2	1	0.0	300	473			
08/12/74	3.7	0.236	44	0	55	1.5	1	0.0	275	349			
09/04/74	2.9	2.655	500*	0	7155	8.8	125	0.0	325	4648			
MAXIMUM	3.7	2.655	500	0	7155	9.4	125	0.0	325	4648			
MINIMUM	2.9	0.112	44	0	55	1.2	1	0.0	150	104			
AVERAGE		0.950	127	0	928	5.2	31	0.0	224	1137			

\* TEST RESULT QUESTIONABLE  
 (492) ADJUSTED AVERAGE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 260 SUB-BASIN 19 DRAINAGE AREA/ACRES  
LATITUDE 40 28 23 LONGITUDE 79 10 30

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/19/73	2.4	0.009	740	0	35	50.8	2	0.0	476	23			
11/20/73	2.7	0.009	640	0	31	47.7	2	0.0	824	39			
12/19/73	2.8	0.009	620	0	30	29.3	1	0.0	525	25			
01/23/74	2.7	0.019	300	0	30	21.2	2	0.0	400	40			
02/12/74	2.7	0.019	500	0	51	18.9	1	0.0	325	33			
03/07/74	2.2	0.019	398	0	40	14.4	1	0.0	325	33			
04/05/74	2.7	0.019	300	0	30	23.1	2	0.0	350	35			
05/03/74	2.8	0.012	340	0	21	20.6	1	0.0	325	21			
06/12/74	2.8	0.019	378	0	38	19.3	1	0.0	400	40			
07/26/74	2.6	0.007	632	0	23	30.4	1	0.0	725	27			
08/12/74	2.8	0.005	1000	0	26	35.2	0	0.0	725	19			
09/04/74	2.6	0.043	500	0	115	37.5	8	0.0	775	179			
MAXIMUM	2.8	0.043	1000	0	115	50.8	8	0.0	824	179			
MINIMUM	2.2	0.005	300	0	21	14.4	0	0.0	325	19			
AVERAGE		0.015	529	0	39	29.0	2	0.0	514	43			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 27 SUB-BASIN 19 DRAINAGE AREA/ACRES 134  
LATITUDE 40 27 38 LONGITUDE 79 10 29

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/20/73	5.6	0.220	6	4	2	0.1	0	0.0	35	41			
12/19/73	5.0	0.184	8	4	3	0.0	0	0.0	35	34			
01/23/74	4.2	0.735	10	0	39	11.2	44	2.2	175	693			
02/12/74	3.6	0.325	24	0	42	2.7	4	2.2	55	96			
03/07/74	4.4	0.446	2	0	4	0.6	1	0.0	175	420			
04/05/74	5.2	0.583	4	8	-12	6.0	18	0.0	35	109			
05/03/74	5.8	0.283	4	18	-21	0.5	0	0.0	150	228			
06/12/74	5.5	0.141	4	14	-7	1.2	0	0.0	200	151			
MAXIMUM	5.8	0.735	24	18	42	11.2	44	2.2	200	693			
MINIMUM	3.6	0.141	2	0	-21	0.0	0	0.0	35	34			
AVERAGE		0.364	7	6	6	2.7	8	0.5	107	222			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/19/73	2.5	0.026	740	0	103	40.0	5	0.0	776	108	108	
11/26/73	2.5	0.029	740	0	115	36.6	5	1.1	825	128	128	
12/19/73	2.8	0.026	880	0	123	27.0	3	0.0	550	77	77	
01/23/74	2.7	0.033	400	0	71	16.9	3	0.0	300	53	53	
02/12/74	2.8	0.029	820	0	128	20.6	3	0.0	275	42	42	
03/07/74	2.7	0.029	368	0	57	22.5	3	0.0	350	54	54	
04/04/74	2.8	0.042	300	0	67	19.4	4	0.0	325	73	73	
05/02/74	2.8	0.051	380	0	104	15.0	4	0.0	500	137	137	
06/12/74	2.9	0.042	500	0	113	17.3	3	0.0	525	118	118	
07/26/74	2.3	0.033	400	0	71	18.3	3	17.9	625	111	111	
08/12/74	2.8	0.022	900	0	106	25.1	2	0.0	700	83	83	
09/04/74	2.6	0.056	1400	0	422	33.7	10	0.0	1100	332	332	
MAXIMUM	2.9	0.056	1400	0	422	40.0	10	17.9	1100	332	332	
MINIMUM	2.3	0.022	300	0	57	15.0	2	0.0	275	42	42	
AVERAGE		0.034	652	0	123	24.3	4	1.5	570	110	110	

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/19/73	2.5	0.003	720	0	11	50.8	0	0.0	602	9	9	
11/20/73	2.7	0.104	760	0	426	57.1	32	0.0	725	406	406	
12/19/73	2.9	0.129	520	0	361	33.6	23	0.0	450	312	312	
01/23/74	2.8	0.355	200	0	382	26.4	50	0.0	225	430	430	
02/12/74	2.8	0.163	200	0	175	26.8	23	0.0	275	241	241	
03/07/74	2.7	0.200	296	0	319	31.9	34	0.0	300	323	323	
04/05/74	2.6	0.200	400	0	431	31.2	33	0.0	325	350	350	
05/03/74	2.8	0.051	400	0	109	25.4	6	0.0	650	178	178	
06/12/74	2.8	0.025	500	0	67	22.7	3	0.0	475	64	64	
07/26/74		0.000	0	0	0	0.0	0	0.0	0	0	0	
08/12/74		0.000	0	0	0	0.0	0	0.0	0	0	0	
09/04/74	2.7	0.540	600	0	1746	31.8	92	0.0	525	1527	1527	
MAXIMUM	2.9	0.540	760	0	1746	57.1	92	0.0	725	1527	1527	
MINIMUM	2.5	0.000	0	0	0	0.0	0	0.0	0	0	0	
AVERAGE		0.147	383	0	335	28.1	25	0.0	379	320	320	



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5019 SUB-BASIN 19  
LONGITUDE 79 10 33

STREAM OR SOURCE NAME -- DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
01/23/74	2.8	0.045	200	0	48	8.9	2	0.0	280	67			
02/12/74	2.8	0.084	200	0	90	16.4	7	0.0	200	90			
03/07/74	2.8	0.056	204	0	61	15.6	4	0.0	225	67			
04/05/74	2.7	0.034	200	0	36	14.0	2	0.0	225	41			
05/03/74	2.9	0.034	240	0	43	10.3	1	0.0	425	77			
06/12/74	2.9	0.015	350	0	28	12.2	0	0.0	300	24			
07/26/74	2.4	0.002	400	0	4	13.0	0	9.0	375	4			
08/12/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/04/74	2.8	0.008	500	0	21	18.2	0	1.1	475	20			
MAXIMUM	2.9	0.084	500	0	90	18.2	7	9.0	475	90			
MINIMUM	2.4	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.030	254	0	37	12.0	2	1.1	278	43			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5020 SUB-BASIN 19  
LONGITUDE 79 10 30

STREAM OR SOURCE NAME -- DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
01/23/74	2.9	0.001	300	0	1	4.0	0	0.0	295	1			
05/03/74		0.000	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	2.9	0.001	300	0	1	4.0	0	0.0	295	1			
MINIMUM	2.9	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.000	150	0	0	2.0	0	0.0	147	0			

STREAM OR SOURCE NAME - UNNAMED PERN. STRM. 1,250' UPSTREAM OF GAGING STA. AT JOSEPHIN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/19/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
11/26/73	2.9	0.202	200	0	217	0.6	0	0.0	225	244	244	244	
12/19/73	3.3	0.053	122	0	34	1.0	0	0.0	195	55	55	55	
01/23/74	3.3	0.125	70	0	47	1.2	0	0.0	175	117	117	117	
02/12/74	3.1	0.058	80	0	25	1.0	0	0.0	200	62	62	62	
03/07/74	3.1	0.074	84	0	33	1.0	0	0.0	225	89	118	118	
04/04/74	3.2	0.098	78	0	41	5.9	3	0.0	225	41	15	15	
05/02/74	3.3	0.034	90	0	16	1.1	0	0.0	225	0	0	0	
06/12/74	3.5	0.009	260	0	12	1.8	0	0.0	325	0	0	0	
07/26/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
08/12/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
09/04/74	3.0	0.030	400	0	64	0.7	0	0.0	175	28	28	28	
MAXIMUM	3.5	0.202	400	0	217	5.9	3	0.0	325	244	244	244	
MINIMUM	2.9	0.000	0	0	0	0.0	0	0.0	0	0	0	0	
AVERAGE		0.056	115	0	41	1.1	0	0.0	164	64	64	64	

STREAM OR SOURCE NAME - MOUTH OF LAUREL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/24/73	3.2	1.991	400	0	4292	8.6	92	0.0	424	4549	4549	4549	
11/26/73	3.6	15.040	32	0	2594	2.3	186	0.0	200	16213	16213	16213	
12/20/73	3.1	4.643	72	0	1801	11.5	287	2.2	300	7507	7507	7507	
01/24/74	3.5	36.411	50	0	9812	5.6	1098	2.2	215	42163	42163	42163	
02/12/74	3.3	5.294	64	0	1826	12.2	348	3.4	275	7845	7845	7845	
03/08/74	3.3	15.912	42	0	3602	5.6	480	1.1	175	15005	15005	15005	
04/04/74	3.6	14.382	32	0	2480	9.7	751	1.1	200	15503	15503	15503	
05/02/74	3.5	4.780	50	0	1288	5.4	139	0.0	150	3862	3862	3862	
06/13/74	3.7	3.020	100	0	1627	4.4	71	0.0	350	5695	5695	5695	
06/19/74	3.1	3.020	100	0	1627	5.6	91	1.1	300	4883	4883	4883	
07/22/74	3.2	2.169	100	0	1169	4.1	47	1.1	525	6136	6136	6136	
08/14/74	3.1	1.664	90	0	807	2.2	19	0.0	350	3138	3138	3138	
09/06/74	3.1	3.121	64	0	1076	24.9	418	20.2	500	8411	8411	8411	
MAXIMUM	3.7	36.411	400	0	9812	24.9	1098	20.2	525	42163	42163	42163	
MINIMUM	3.1	1.664	32	0	807	2.2	19	0.0	150	3138	3138	3138	
AVERAGE		8.572	92	0	2615	7.8	310	2.4	304	10839	10839	10839	

STREAM OR SOURCE NAME - 11,000' UPSTREAM FROM MOUTH OF LAUREL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	3.1	1.513	300	0	2466	34.9	284	28.0	425	3464			
11/26/73	3.4	10.051	70	0	3792	5.8	314	5.6	175	9478			
12/20/73	2.9	3.319	200	0	3577	297.0	5313	2.2	350	6259			
01/24/74	3.2	9.203	80	0	3968	14.7	729	7.8	240	11899			
02/12/74	3.3	3.734	90	0	1811	30.3	609	13.4	350	7042			
03/08/74	3.2	11.062	54	0	3219	8.1	482	2.2	175	10431			
04/04/74	3.4	9.944	46	0	2465	14.9	798	2.2	200	10719			
05/02/74	3.3	3.518	90	0	1706	16.9	320	13.4	275	5213			
06/13/74	3.4	2.248	140	0	1696	26.5	321	21.3	450	5451			
07/22/74	3.1	1.641	110	0	972	29.1	257	28.0	550	4863			
08/14/74	3.0	1.237	500	0	3333	47.6	317	35.8	425	2832			
09/06/74	3.4	2.161	70	0	815	19.3	224	19.0	700	8153			
MAXIMUM		11.062	500	0	3968	297.0	5313	35.8	700	11899			
MINIMUM		1.237	46	0	815	5.8	224	2.2	175	2832			
AVERAGE		4.969	145	0	2483	45.4	831	14.9	359	7150			

STREAM OR SOURCE NAME - WESTERN MOST PERENNIAL TRIBUTARY TO LAUREL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	3.9	0.038	300	0	61	2.9	0	0.0	176	36			
11/26/73	3.7	1.518	20	0	163	0.7	5	0.0	200	1636			
12/20/73	4.0	0.360	16	0	31	2.3	4	0.0	120	232			
01/24/74	4.4	0.699	14	0	52	1.7	6	0.0	110	413			
02/12/74	4.2	0.442	16	0	38	2.9	6	0.0	126	300			
03/08/74	4.5	0.887	6	0	28	1.2	5	0.0	200	956			
04/04/74	4.9	1.092	6	4	11	6.2	36	0.0	65	382			
05/02/74	4.5	0.216	10	0	11	2.3	2	0.0	100	116			
06/13/74	4.5	0.155	16	10	5	2.6	2	0.0	175	146			
07/22/74	3.8	0.057	14	0	4	5.4	1	4.5	275	84			
08/14/74	3.5	0.038	24	0	4	3.2	0	0.0	150	30			
09/06/74	3.5	0.267	30	0	43	12.4	17	11.2	300	431			
MAXIMUM		1.518	300	10	163	12.4	36	11.2	300	1636			
MINIMUM		0.038	6	0	4	0.7	0	0.0	65	30			
AVERAGE		0.490	39	1	38	3.6	7	1.3	166	397			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

326 SUB-BASIN 21  
LONGITUDE 79 09 00

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/26/73	3.0	0.005	540	0	14	53.2	1	0.0	575	15			
12/20/73	2.8	0.005	200	0	5	30.6	0	0.0	550	14			
01/24/74	3.0	0.005	200	0	5	28.4	0	1.1	700	18			
02/12/74	3.3	0.003	184	0	2	12.9	0	6.7	300	4			
03/08/74	2.8	0.008	368	0	15	1.4	0	0.0	550	23			
04/04/74		0.000	0	0	0	0.0	0	0.0	0	0			
05/02/74		0.000	0	0	0	0.0	0	0.0	0	0			
06/13/74		0.000	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	3.3	0.008	540	0	15	53.2	1	6.7	700	23			
MINIMUM	2.8	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.003	186	0	5	15.8	0	0.9	334	9			

AA-33

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

32C SUB-BASIN 21  
LONGITUDE 79 07 21

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
01/24/74	2.9	0.490	300	0	792	147.0	388	63.8	575	1518			
02/12/74	3.3	0.429	164	0	379	89.6	207	53.8	575	1329			
03/08/74	3.3	0.371	164	0	327	62.2	124	58.2	675	1349			
04/04/74	3.1	0.490	128	0	338	74.2	195	62.7	600	1584			
05/02/74	3.1	0.490	30	0	79	58.2	153	57.1	200	528			
06/13/74	3.3	0.316	180	0	306	64.8	110	21.3	700	1192			
07/22/74	2.9	0.290	100	0	156	71.8	112	71.7	850	1328			
08/14/74	2.8	0.216	500	0	582	86.2	100	72.8	575	669			
09/06/74	3.6	0.290	182	0	284	90.7	141	86.2	1100	1719			
MAXIMUM	3.6	0.490	500	0	792	147.0	388	86.2	1100	1719			
MINIMUM	2.8	0.216	30	0	79	58.2	100	21.3	200	528			
AVERAGE		0.375	194	0	360	82.7	170	60.8	650	1246			

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO LAUREL RUN DRAINING LUCTUSBORO

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRIC IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/24/73	5.1	0.448	40	6	82	1.6	3	0.0	344	830			
11/26/73	3.4	3.694	40	0	796	1.9	37	0.0	120	2386			
12/20/73	3.0	1.209	90	0	586	7.3	47	0.0	195	1270			
01/24/74	3.3	3.694	72	0	1433	4.7	93	0.0	200	3982			
02/12/74	3.4	1.380	64	0	476	5.6	41	1.1	175	1301			
03/08/74	3.6	3.867	10	0	208	6.4	133	0.0	175	3646			
04/04/74	3.5	3.694	40	0	796	7.0	139	0.0	625	12441			
05/02/74	3.8	1.322	42	0	299	2.6	18	0.0	50	355			
06/13/74	3.5	0.844	120	0	545	5.6	25	0.0	275	1250			
07/22/74	4.3	0.488	48	0	126	4.0	10	3.4	425	1117			
08/14/74	6.1	0.448	12	40	-67	2.4	5	0.0	275	663			
09/06/74	5.4	0.748	22	10	48	1.6	6	0.0	350	1410			
MAXIMUM	6.1	3.867	120	40	1433	7.3	139	3.4	625	12441			
MINIMUM	3.0	0.448	10	0	-67	1.6	3	0.0	50	355			
AVERAGE		1.819	50	4	444	4.2	46	0.3	267	2554			

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRIC IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/26/73	2.7	0.073	2000	0	786	24.0	9	0.0	7000	2754	28.4	11	
11/26/73	2.9	0.766	14	0	57	13.2	54	0.0	2100	8670			
12/20/73	2.7	0.396	1500	0	3201	22.2	47	0.0	725	1547			
01/24/74	2.9	1.101	100	0	593	15.6	92	0.0	300	1780			
02/12/74	3.0	0.437	152	0	358	20.6	48	0.0	225	529	10.5	24	
03/08/74	3.0	0.524	158	0	446	17.5	49	0.0	150	423			
04/04/74	3.0	0.872	200	0	940	14.3	67	0.0	175	822			
05/02/74	3.0	0.357	200	0	384	13.4	25	0.0	300	577			
06/13/74	3.1	0.319	300	0	515	20.6	35	0.0	550	945			
07/22/74	2.5	0.154	300	0	249	21.9	18	17.9	450	373			
08/14/74	2.9	0.089	500	0	239	23.2	11	0.0	350	167			
09/06/74	3.0	0.127	500	0	342	22.5	15	0.0	600	410			
MAXIMUM	3.1	1.101	2000	0	3201	24.0	92	17.9	7000	8670	28.4	24	
MINIMUM	2.5	0.073	14	0	57	13.2	9	0.0	150	167	10.5	11	
AVERAGE		0.434	493	0	676	19.0	39	1.4	1077	1503	19.4	17	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

332

DRAINAGE AREA/ACRES

SUB-BASIN 22

SAMPLE NUMBER 29

LATITUDE 40 28 00 LONGITUDE 79 09 33

STREAM OR SOURCE NAME - WESTERN PERENNIAL TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	4.4	0.057	28	2	7	0.0	0	0.0	159	48	
11/29/73	3.9	2.460	30	0	397	0.3	3	0.0	150	1987	
12/19/73	4.3	0.448	38	2	86	0.0	0	0.0	115	277	
01/23/74	4.3	1.947	12	0	125	0.6	6	0.0	90	944	
02/12/74	4.1	0.635	16	0	54	0.1	0	0.0	149	509	
03/07/74	4.3	0.905	12	0	58	0.2	0	0.0	225	1096	
04/05/74	4.4	1.489	10	0	80	5.8	46	0.0	95	762	
05/03/74	4.4	0.660	14	0	49	0.0	0	0.0	75	266	
06/12/74	4.7	0.218	18	10	9	0.0	0	0.0	200	235	
07/24/74	4.1	0.128	14	0	9	0.0	0	0.0	175	120	
08/12/74	4.2	0.128	18	0	12	0.1	0	0.0	200	137	
09/04/74	4.1	2.283	10	0	123	0.0	0	0.0	175	2152	
MAXIMUM	4.7	2.460	38	10	397	5.8	46	0.0	225	2152	
MINIMUM	3.9	0.057	10	0	7	0.0	0	0.0	75	48	
AVERAGE		0.946	18	1	84	0.5	4	0.0	150	711	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

457

DRAINAGE AREA/ACRES

SUB-BASIN 22

SAMPLE NUMBER 30

LATITUDE 40 28 01 LONGITUDE 79 09 31

STREAM OR SOURCE NAME - EASTERN PERENNIAL TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	4.4	0.049	28	2	6	0.0	0	0.0	171	45	
11/26/73	3.9	2.832	22	0	335	0.0	0	0.0	100	1526	
12/19/73	4.4	0.838	22	2	90	0.4	1	0.0	90	406	
01/23/74	4.2	2.481	20	0	267	0.1	1	0.0	85	1136	
02/12/74	4.1	0.875	18	0	84	0.0	0	0.0	98	462	
03/07/74	3.9	1.549	16	0	133	0.2	1	0.0	175	1460	
04/05/74	4.3	1.840	12	0	119	6.2	61	0.0	70	693	
05/03/74	4.3	1.069	14	0	80	0.0	0	0.0	150	863	
06/12/74	4.6	0.359	18	12	11	0.0	0	0.0	225	435	
07/24/74	4.1	0.169	16	0	14	0.4	0	0.0	225	204	
08/12/74	4.0	0.094	26	0	13	0.1	0	0.0	75	37	
09/04/74	3.9	2.369	28	0	357	0.1	1	0.0	175	2233	
MAXIMUM	4.6	2.832	28	12	357	6.2	61	0.0	225	2233	
MINIMUM	3.9	0.049	12	0	6	0.0	0	0.0	70	37	
AVERAGE		1.210	20	1	126	0.6	5	0.0	136	792	

LATITUDE 40 27 38 LONGITUDE 79 07 33

STREAM OR SOURCE NAME - NORTHERN PERENNIAL TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	4.5	0.029	40	2	5	0.1	0	0.0	114	17			
11/26/73	3.9	1.676	32	0	289	0.3	2	0.0	110	992			
12/20/73	4.1	0.496	10	0	26	0.3	0	0.0	80	213			
01/23/74	4.2	1.469	12	0	95	0.1	0	0.0	95	752			
02/12/74	4.3	0.518	12	0	33	0.1	0	0.0	101	281			
03/08/74	4.1	0.917	4	0	19	0.2	0	0.0	100	494			
04/05/74	4.3	1.089	10	0	58	6.3	36	0.0	105	615			
05/03/74	4.3	0.633	10	0	34	0.1	0	0.0	225	767			
06/12/74	4.6	0.212	18	12	6	0.0	0	0.0	175	199			
07/24/74	4.2	0.100	10	0	5	0.5	0	0.0	200	107			
08/12/74	4.1	0.056	14	0	4	0.7	0	0.0	175	52			
09/04/74	4.2	1.402	10	0	75	0.8	6	0.0	175	1322			
MAXIMUM	4.6	1.676	40	12	289	6.3	36	0.0	225	1322			
MINIMUM	3.9	0.029	4	0	4	0.0	0	0.0	80	17			
AVERAGE		0.716	15	1	54	0.7	4	0.0	137	484			

LATITUDE 40 27 37 LONGITUDE 79 07 33

STREAM OR SOURCE NAME - SOUTHERN PERENNIAL TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	5.6	0.036	20	6	2	0.1	0	0.0	112	21			
11/26/73	6.0	1.238	10	2	53	0.1	0	0.0	65	433			
12/20/73	5.3	0.234	4	4	0	0.3	0	0.0	75	94			
01/23/74	5.6	0.039	2	4	0	0.1	0	0.0	90	18			
02/12/74	5.3	0.013	4	6	-71	0.1	0	0.0	84	5			
03/08/74	5.5	0.952	2	16	7	0.9	4	0.0	75	384			
04/05/74	4.8	0.663	6	4	0	6.5	23	0.0	65	232			
05/03/74	5.4	0.307	6	6	0	0.1	0	0.0	100	165			
06/12/74	5.7	0.130	6	16	-7	0.0	0	0.0	175	122			
07/24/74	5.5	0.063	2	4	0	1.0	0	0.0	275	93			
08/12/74	5.6	0.063	2	14	-4	0.9	0	0.0	25	8			
09/04/74	5.5	1.281	10	4	41	0.0	0	0.0	250	1725			
MAXIMUM	6.0	1.281	20	16	53	6.5	23	0.0	275	1725			
MINIMUM	4.8	0.013	2	2	-71	0.0	0	0.0	25	5			
AVERAGE		0.418	6	7	1	0.8	2	0.0	115	275			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 38 SUB-BASIN 24 DRAINAGE AREA/ACRES 1011  
LATITUDE 40 27 54 LONGITUDE 79 06 47

STREAM OR SOURCE NAME - UNNAMED STREAM 2,625' UPSTREAM FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/24/73	5.6	0.337	8	4	7	0.0	0	0.0	129	234	
11/26/73	5.2	5.792	12	2	312	0.1	3	0.0	60	1870	
12/20/73	5.1	1.661	4	4	0	0.4	3	0.0	55	491	
01/23/74	5.2	5.326	2	6	-114	0.9	25	0.0	60	1720	
02/12/74	5.0	1.808	2	4	-19	0.3	2	0.0	74	719	
03/08/74	5.4	4.443	4	4	0	0.5	11	0.0	45	1075	
04/05/74	4.6	4.549	20	2	441	7.0	171	0.0	55	1346	
05/03/74	5.8	2.613	6	10	-56	0.2	2	0.0	275	3872	
06/12/74	5.7	0.824	8	16	-35	0.3	1	0.0	125	554	
07/24/74	5.6	1.391	2	4	-14	0.6	4	0.0	175	1311	
08/12/74	5.6	0.673	2	14	-43	0.0	0	0.0	275	997	
09/04/74	5.7	12.852	4	6	-138	0.2	13	0.0	175	12119	
MAXIMUM	5.8	12.852	20	16	441	7.0	171	0.0	275	12119	
MINIMUM	4.6	0.337	2	2	-138	0.0	0	0.0	45	234	
AVERAGE		3.522	6	6	28	0.8	20	0.0	125	2192	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 40 SUB-BASIN 25 DRAINAGE AREA/ACRES 246  
LATITUDE 40 28 57 LONGITUDE 79 06 43

STREAM OR SOURCE NAME - 4,250' UPSTREAM ON W. TRIBUTARY TO AULDS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/25/73	4.6	0.038	16	2	2	0.3	0	0.0	1426	292	
11/27/73	4.9	1.172	14	2	75	0.0	0	0.0	80	505	
12/21/73	4.7	3.993	6	2	86	0.1	2	0.0	60	1289	
01/25/74	4.4	0.932	10	4	30	0.3	1	0.0	85	426	
02/13/74	4.2	0.387	6	0	12	0.0	0	0.0	132	275	
03/11/74	4.1	2.771	8	0	119	0.3	4	0.0	175	2613	
04/08/74	4.6	0.554	8	2	17	5.9	17	0.0	70	208	
05/06/74	4.8	0.265	10	0	14	0.1	0	0.0	200	285	
06/12/74	4.9	0.092	18	10	3	0.0	0	0.0	190	94	
MAXIMUM	4.9	3.993	18	10	119	5.9	17	0.0	1426	2613	
MINIMUM	4.1	0.038	6	0	2	0.0	0	0.0	60	94	
AVERAGE		1.133	10	2	40	0.7	2	0.0	268	665	



STREAM OR SOURCE NAME - MOUTH OF W. TRIBUTARY TO AULDS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	LB/DAY	ALUMINUM MG/L	LB/DAY	MAN- GANESE MG/L
10/25/73	2.5	0.051	2000	0	549	510.6	140	0.0	1875	515	128.6	35	
11/21/73	2.8	1.559	1220	0	10251	343.0	2882	0.0	1100	9243			
12/21/73	2.8	5.310	400	0	11448	56.1	1605	0.0	450	12876			
01/25/74	2.6	1.240	600	0	4010	229.0	1530	63.8	675	4511			
02/13/74	2.6	0.515	940	0	2609	257.3	714	63.8	900	2498	5.7	15	1360.0
03/11/74	2.5	3.685	800	0	15889	25.0	496	105.3	825	16383			
04/08/74	2.7	0.737	700	0	2780	154.3	612	48.2	675	2681			
05/06/74	2.7	0.352	720	0	1366	120.0	227	0.0	825	1564			
06/12/74	2.9	0.123	1100	0	729	177.0	117	30.2	900	596			
06/26/74	2.5	0.303	800	0	1306	68.4	111	0.0	550	898			
07/18/74	2.4	0.112	1500	0	905	224.8	135	5.6	1800	1086			
07/26/74	2.5	0.056	2300	0	694	349.0	105	32.5	2050	618			
08/01/74	2.5	0.048	2400	0	620	489.0	126	7.8	2000	517			
08/13/74	2.7	0.039	3300	0	693	165.4	34	0.0	2500	525			
08/15/74	2.6	0.030	3900	0	630	170.5	27	108.6	2625	424			
08/21/74	2.4	0.028	5300	0	799	520.0	78	1.1	3750	565			
09/05/74	2.7	0.854	1400	0	6444	142.0	653	42.6	925	4257			
09/09/74	2.7	0.295	2100	0	3339	339.5	539	63.8	1800	2862			
09/11/74	2.6	0.191	2400	0	2470	109.5	112	66.0	2225	2290			
MAXIMUM	2.9	5.310	5300	0	15889	520.0	2882	108.6	3750	16383	128.6	35	1360.0
MINIMUM	2.4	0.028	400	0	549	25.0	27	0.0	450	424	5.7	15	1360.0
AVERAGE		0.817	1703	0	3554	234.2	539	33.6	1497	3416	67.1	25	1360.0

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4893 SUB-BASIN 25 DRAINAGE AREA/ACRES

SAMPLE NUMBER 4893 SUB-BASIN 25 DRAINAGE AREA/ACRES  
LATITUDE 40 28 34 LONGITUDE 79 06 43

STREAM OR SOURCE NAME

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/25/73		0.000	0	0	0	0.0	0	0.0	0	0	0
11/27/73	2.3	0.001	3520	0	18	7359.6	39	1120.0	21000	113	113
12/21/73	2.3	NO DATA	8200	0		6027.1		1209.6	5875		
01/25/74	2.1	0.011	15040	0	891	14805.0	877	1456.0	5875	348	348
02/13/74	2.5	0.003	15600	0	252	19650.0	317	1568.0	6000	97	97
03/11/74	2.4	0.030	9700	0	1568	4055.0	655	1400.0	5750	929	929
04/08/74	2.2	0.007	10800	0	407	3910.0	147	1792.0	5875	221	221
05/06/74	2.4	0.006	15300	0	494	4300.0	139	1064.0	5950	192	192
06/12/74	2.6	0.001	16900	0	91	4100.0	22	1288.0	20000	107	107
07/26/74		0.000	0	0	0	0.0	0	0.0	0	0	0
08/15/74		0.000	0	0	0	0.0	0	0.0	0	0	0
09/09/74	2.0	0.003	29000	0	468	4815.0	77	3752.0	37500	606	606
MAXIMUM	2.6	0.030	29000	0	1568	19650.0	877	3752.0	37500	929	929
MINIMUM	2.0	0.000	0	0	0	0.0	0	0.0	0	0	0
AVERAGE		0.005	10338	0	381	5751.8	207	1220.8	9485	237	237

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4898 SUB-BASIN 25 DRAINAGE AREA/ACRES

SAMPLE NUMBER 4898 SUB-BASIN 25 DRAINAGE AREA/ACRES  
LATITUDE 40 28 28 LONGITUDE 79 06 34

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/25/73		0.000	0	0	0	0.0	0	0.0	0	0	0
11/27/73	2.2	0.067	11700	0	4225	3572.1	1289	963.2	10500	3791	3791
12/21/73	2.2	NO DATA	5500	0		3375.7		341.6	5650		
01/25/74	2.2	0.076	5960	0	2441	2222.5	910	784.0	5600	2293	2293
02/13/74	2.3	0.022	5800	0	687	2222.5	263	784.0	5250	622	622
03/11/74	2.3	0.335	5400	0	9750	1135.5	2050	504.0	2350	4243	4243
04/08/74	2.2	0.042	6900	0	1562	1530.0	346	784.0	5125	1160	1160
05/06/74	2.4	0.012	4300	0	278	1555.0	100	336.0	5125	331	331
06/12/74	2.5	0.007	7700	0	290	1670.0	63	448.0	7000	264	264
07/26/74		0.000	0	0	0	0.0	0	0.0	0	0	0
08/15/74		0.000	0	0	0	0.0	0	0.0	0	0	0
09/09/74	2.1	0.003	13200	0	213	4185.0	67	1512.0	13600	219	219
MAXIMUM	2.5	0.335	13200	0	9750	4185.0	2050	1512.0	13600	4243	4243
MINIMUM	2.1	0.000	0	0	0	0.0	0	0.0	0	0	0
AVERAGE		0.051	5538	0	1768	1789.0	462	538.0	5016	1175	1175

STREAM OR SOURCE NAME - AULDS RUN 875' FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	LB/DAY	ALUMINUM MG/L	LB/DAY	MAN- GANESE MG/L
10/25/73	2.6	0.524	900	0	2541	264.5	747	99.7	2274	6422	32.6	92	
11/21/73	2.9	5.022	200	0	5413	100.0	2706	0.0	625	16914			
12/21/73	3.0	9.526	100	0	5134	36.0	1848	0.0	175	8983			
01/25/74	2.7	3.648	400	0	7865	99.0	1946	15.7	725	14252			
02/13/74	2.7	1.660	500	0	4473	155.4	1390	35.8	425	3801	2.8	25	5.1
03/11/74	2.7	6.166	400	0	13293	66.1	2196	5.6	325	10796			
04/08/74	2.8	1.935	300	0	3128	90.2	940	19.0	325	3388			
05/06/74	2.8	1.544	640	0	5326	93.9	781	6.7	550	4576			
06/12/74	3.0	0.854	750	0	3452	137.0	630	47.0	750	3451			
06/26/74	2.5	0.991	420	0	2243	55.7	297	0.0	450	2403			
07/18/74	2.4	0.579	1000	0	3120	149.2	465	63.8	1225	3822			
07/26/74	2.6	0.485	1100	0	2875	207.0	541	71.7	1950	5097			
08/01/74	2.6	0.395	1000	0	2129	215.0	457	89.6	1275	2714			
08/13/74	2.7	0.261	1500	0	2110	126.5	177	87.4	1150	1617			
08/15/74	2.7	0.420	1100	0	2490	128.6	291	108.6	1225	2772			
08/21/74	2.5	0.525	1100	0	3112	224.0	633	1.1	1700	4810			
09/05/74	2.8	0.503	700	0	1897	93.2	252	52.6	600	1626			
09/09/74	2.7	0.875	900	0	4244	104.9	494	95.2	1275	6013			
09/11/74	2.6	0.770	900	0	3735	156.3	648	89.6	1200	4980			
MAXIMUM	3.0	9.526	1500	0	13293	264.5	2706	108.6	2274	16914	32.6	92	5.1
MINIMUM	2.4	0.261	100	0	1897	36.0	177	0.0	175	1617	2.8	25	5.1
AVERAGE		1.930	732	0	4136	131.7	918	46.7	959	5707	17.7	58	5.1

LATITUDE 40 28 58 LONGITUDE 79 05 59

STREAM OR SOURCE NAME - AULDS RUN 4690\* UPSTREAM FROM MOUTH

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/25/73	7.2	0.151	0	-48	0.0	0	0.0	226	183	
11/27/73	6.2	2.888	18	373	0.0	0	0.0	35	542	
12/21/73	4.9	3.321	4	-143	0.1	1	0.0	30	534	
01/25/74	5.8	1.680	0	-235	0.3	2	0.0	40	361	
02/13/74	6.0	0.491	6	-74	0.3	0	0.0	61	161	
03/11/74	5.4	0.791	4	-51	0.3	1	0.0	40	170	
04/08/74	5.5	0.623	2	-114	6.7	22	0.0	45	150	
05/06/74	6.2	1.182	10	0	0.1	0	0.0	175	1114	
06/12/74	7.1	0.418	0	-216	1.4	3	0.0	150	337	
07/26/74	7.0	0.118	0	-87	0.0	0	0.0	275	174	
08/15/74	7.4	0.142	0	-3673	0.3	0	0.0	150	114	
09/09/74	6.9	0.618	6	-253	0.2	0	0.0	225	749	
MAXIMUM	7.4	3.321	42	373	6.7	22	0.0	275	1114	
MINIMUM	4.9	0.118	0	-3673	0.0	0	0.0	30	114	
AVERAGE		1.035	6	-377	0.8	2	0.0	121	382	

AA-41

LATITUDE 40 28 41 LONGITUDE 79 06 14

STREAM OR SOURCE NAME - DRIFT MINE (VIRGINIAN NO. 14)

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
10/25/73	2.6	0.373	1440	2895	457.2	919	26.9	900	1809	
11/27/73	2.5	0.575	8500*	26343	368.8	1143	0.0	1725	5345	
12/21/73	2.7	0.895	1000	4824	103.3	498	0.0	1025	8803	
01/25/74	2.6	0.728	1480	5807	399.9	1569	1.1	1650	6474	
02/13/74	2.8	1.169	1420	8947	576.1	3629	151.2	1225	7717	
03/11/74	2.7	1.690	1500	13663	514.6	4687	57.1	1225	11157	
04/08/74	2.7	0.575	1340	4152	312.0	966	121.0	1700	5268	
05/06/74	2.7	0.470	1300	3293	322.0	815	43.7	1275	3229	
06/12/74	2.9	0.437	1500	3533	287.0	676	153.4	1350	3179	
07/26/74	2.5	0.373	1100	2211	336.0	675	17.9	1625	3266	
08/15/74	2.7	0.284	2500	3826	382.5	585	265.4	1575	2410	
09/09/74	2.7	0.256	1600	2207	765.0	1055	672.0	2025	2793	
MAXIMUM	2.9	1.690	8500	26343	765.0	4687	672.0	2025	11157	485
MINIMUM	2.5	0.256	1000	2207	103.3	498	0.0	900	1809	127
AVERAGE		0.652	2056	6808	402.0	1435	125.8	1508	5121	306

\* TEST RESULT QUESTIONABLE  
(5033) ADJUSTED AVERAGE

STREAM OR SOURCE NAME - DRIFT MINE (SUNNY CREEK MINE)

DATE	PH	FLOW CFS	NO DATA	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	7.0	0.067		28	126	-68	0.6	0	0.0	476	207			
11/27/73	6.6	0.112		28	218	-115	1.5	0	0.0	575	205			
12/21/73	7.4	0.223		0	192	-192	1.0	0	0.0	340	1532			
01/25/74	6.2	0.168		8	168	-166	0.9	0	0.0	1275	430			
02/13/74	6.9	0.223		14	198	-168	1.5	1	0.0	475	324			
03/11/74	6.3	0.168		12	152	-193	1.2	1	0.0	270	300			
04/08/74	6.2	0.112		18	232	-123	0.9	0	0.0	350	211			
05/06/74	7.0	0.112		0	204	-119	0.4	0	0.0	400	241			
06/12/74	7.1	0.223		0	198	-68	1.5	1	0.0	1275	1532			
MAXIMUM	7.4	0.067		28	232	-193	0.4	0	0.0	270	205			
MINIMUM	6.2	0.148		12	187	-143	1.0	0	0.0	495	428			
AVERAGE														

STREAM OR SOURCE NAME - 1.375\* UPSTREAM FROM MOUTH OF RAMSEY RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	3.3	0.224	500	0	603	29.4	35	0.0	349	421			
11/27/73	3.5	7.577	40	0	1633	3.6	146	0.0	60	2447			
12/26/73	3.8	21.508	36	0	4173	5.6	649	0.0	45	5204			
01/25/74	3.2	6.793	56	0	2050	9.7	355	2.2	200	7322			
02/13/74	3.5	3.472	50	0	935	8.6	160	0.0	200	3742			
03/11/74	3.4	24.253	60	0	7843	7.6	993	0.0	100	13072			
04/08/74	3.7	6.292	38	0	1288	15.8	535	0.0	200	6782			
05/03/74	3.8	6.292	40	0	1356	5.4	183	0.0	200	6782			
06/13/74	3.5	0.720	160	0	620	13.3	51	0.0	150	581			
06/26/74	3.2	2.265	120	0	1465	8.9	108	0.0	150	1830			
07/18/74	3.0	0.227	154	0	188	18.2	22	2.2	350	428			
07/24/74	3.3	0.405	124	0	270	8.7	18	7.8	225	490			
08/01/74	3.8	0.192	138	0	142	10.2	10	2.2	525	543			
08/13/74	3.0	0.366	700	0	1380	19.4	38	0.0	350	690			
08/15/74	3.3	0.224	230	0	277	20.3	24	7.8	350	422			
08/21/74	3.2	0.162	154	0	134	16.6	14	0.0	575	502			
09/04/74	3.3	21.443	80	0	9246	9.8	1132	2.2	200	23115			
09/05/74	3.3	18.439	74	0	7354	1.3	129	0.0	200	19877			
09/11/74	3.0	5.337	4	0	115	8.4	241	1.1	300	8629			
MAXIMUM	3.8	24.253	700	0	9246	29.4	1132	7.8	575	23115			
MINIMUM	3.0	0.162	4	0	115	1.3	10	0.0	45	421			
AVERAGE		6.641	145	0	2162	11.6	255	1.3	248	5415			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 45 SUB-BASIN 27 DRAINAGE AREA/ACRES 950

LATITUDE 40 27 48 LONGITUDE 79 05 29

STREAM OR SOURCE NAME - 2,375' UPSTREAM FROM MOUTH OF RAMSEY RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	3.3	0.131	500	0	353	8.4	5	6.7	324	228	32.6	23	
11/27/73	4.1	4.436	42	0	1004	1.9	45	0.0	65	1552			
12/26/73	4.2	12.592	30	0	2036	2.0	135	0.0	30	2027			
01/25/74	3.6	3.977	60	0	1286	5.1	109	3.4	175	3750			
02/13/74	3.7	2.033	56	0	613	5.4	59	0.0	100	1095	8.4	92	
03/11/74	3.9	14.200	30	0	2296	2.3	175	0.0	35	2669			
04/08/74	3.8	3.684	44	0	873	9.8	194	0.0	175	3474			
05/03/74	4.2	3.684	32	0	635	2.2	43	0.0	150	2976			
06/13/74	3.7	0.421	260	0	589	12.1	27	5.6	225	510			
07/24/74	3.2	0.237	216	0	275	7.9	10	5.6	275	351			
08/15/74	3.6	0.131	230	0	162	5.8	4	3.4	225	158			
09/04/74	3.9	12.555	48	0	3248	4.2	204	3.4	275	18606			
MAXIMUM	4.2	14.200	500	0	3248	12.1	284	6.7	324	18606	32.6	92	
MINIMUM	3.2	0.131	30	0	162	1.9	4	0.0	30	158	8.4	23	
AVERAGE		4.840	129	0	1114	5.5	91	2.3	171	3116	20.5	57	

STREAM OR SOURCE NAME - PERENNIAL TRIUTARY IMMEDIATELY N. OF HESBON WORKINGS

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	6.4	NO DATA	200	44		10.9		4.5	325		0.0		
11/27/73	5.0	1.807	12	6	58	2.3	22	0.0	85	827			
12/26/73	4.3	4.830	10	0	260	3.0	78	0.0	55	1429			
01/25/74	4.1	2.341	10	0	126	4.0	50	0.0	175	2207			
02/13/74	4.7	0.876	8	2	28	4.2	19	0.0	95	448			
03/11/74	3.8	3.572	24	0	462	4.9	94	0.0	65	1250			
04/08/74	5.6	1.635	6	52	-405	12.5	110	0.0	100	881			
05/03/74	4.5	2.302	12	4	99	4.0	49	0.0	100	1240			
06/13/74	6.4	0.459	6	32	-64	7.2	17	5.6	200	494			
07/24/74	6.0	0.252	10	52	-57	7.7	10	6.7	300	407			
08/15/74	6.0	0.170	30	34	-3	12.9	11	0.0	325	297			
09/04/74	3.5	4.763	34	0	872	7.8	200	1.1	175	4491			
MAXIMUM	6.4	4.830	200	52	872	12.9	200	6.7	325	4491		0.0	
MINIMUM	3.5	0.170	6	0	-405	2.3	10	0.0	55	297		0.0	
AVERAGE		2.091	30	18	125	6.7	60	1.4	166	1270		0.0	

AA-44

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	2.4	0.010	4100	0	220	2066.0	111	0.0	7598	409	287.2	15	
11/27/73	2.5	0.052	3600	0	1009	792.0	221	0.0	3700	1037			
12/26/73	2.8	0.181	1100	0	1073	625.6	610	0.0	1475	1438			
01/25/74	2.3	0.052	4500	0	1261	2500.4	700	13.4	5250	1471			
02/13/74	2.6	0.043	2680	0	621	896.3	207	24.6	1750	405	134.0	31	
03/11/74	2.5	0.275	3100	0	4594	1217.6	1804	68.3	3500	5187			
04/08/74	2.5	0.072	4000	0	1552	890.0	345	25.8	3725	1445			
05/03/74	2.6	0.061	2000	0	657	404.0	132	0.0	1450	476			
06/13/74	2.5	0.028	7600	0	1146	1890.0	285	0.0	5250	792			
07/24/74	2.2	0.015	7000	0	565	1520.0	122	24.6	2000	161			
08/15/74	2.4	0.015	7500	0	606	190.4	15	13.4	5250	424			
09/04/74	2.3	0.165	7000	0	6225	788.0	700	70.6	4450	3957			
MAXIMUM	2.8	0.275	7600	0	6225	2500.4	1804	70.6	7598	5187		287.2	31
MINIMUM	2.2	0.010	1100	0	220	190.4	15	0.0	1450	161		134.0	15
AVERAGE		0.080	4515	0	1627	1148.3	438	20.0	3783	1434		210.6	23

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 460 SUB-BASIN 27 DRAINAGE AREA/ACRES  
LATITUDE 40 27 41 LONGITUDE 79 05 21  
STREAM OR SOURCE NAME - DRIFT MINE (HESHON COMPLEX)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/25/73		0.000	0	0	0	0.0	0	0.0	0	0	0
11/27/73	5.7	0.003	10	10	0	0.0	0	0.0	35	0	0
12/26/73	4.8	0.027	4	4	0	0.3	0	0.0	15	2	0
01/25/74	5.5	0.019	2	12	-1	0.1	0	0.0	17	1	0
02/13/74	6.4	0.005	2	58	-1	0.1	0	0.0	14	0	0
03/11/74	5.5	0.077	6	8	0	0.1	0	0.0	40	16	0
04/08/74	4.8	0.012	4	4	0	6.8	0	0.0	20	1	0
05/03/74	6.2	0.017	4	16	-1	0.0	0	0.0	150	13	0
06/13/74	6.4	0.003	10	26	0	0.2	0	0.0	175	2	0
MAXIMUM	6.4	0.077	10	58	0	6.8	0	0.0	175	16	0
MINIMUM	4.8	0.000	0	0	-1	0.0	0	0.0	0	0	0
AVERAGE		0.018	4	15	0	0.8	0	0.0	51	4	0

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 46C SUB-BASIN 27 DRAINAGE AREA/ACRES  
LATITUDE 40 27 38 LONGITUDE 79 05 11  
STREAM OR SOURCE NAME - DRIFT MINE (HESHON COMPLEX)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/25/73	6.4	0.005	4	50	-1	0.3	0	0.0	1026	27	0
11/27/73	6.2	0.003	10	40	0	0.1	0	0.0	32	0	0
12/26/73	6.5	0.090	4	30	-12	0.4	0	0.0	28	13	0
01/25/74	6.2	0.065	4	56	-18	0.3	0	0.0	33	11	0
02/13/74	7.0	0.044	0	58	-13	0.1	0	0.0	33	7	0
03/11/74	5.9	0.172	4	32	-25	0.3	0	0.0	30	27	0
04/08/74	5.6	0.077	4	56	-21	6.4	2	0.0	25	10	0
05/03/74	6.9	0.044	4	72	-16	0.1	0	0.0	175	41	0
06/13/74	7.2	0.027	0	112	-16	0.1	0	0.0	175	25	0
MAXIMUM	7.2	0.172	10	112	0	6.4	2	0.0	1026	41	0
MINIMUM	5.6	0.003	0	30	-25	0.1	0	0.0	25	0	0
AVERAGE		0.058	3	56	-14	0.9	0	0.0	173	18	0



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 46D SUB-BASIN 27 DRAINAGE AREA/ACRES  
LATITUDE 40 27 45 LONGITUDE 79 05 22

STREAM OR SOURCE NAME - DRIFT MINE (HESHON COMPLEX)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/25/73	6.6	0.026	72	264	-26	6.7	0	0.0	676	94			
11/27/73	6.8	0.019	138	510	-38	5.8	0	4.5	825	84			
12/26/73	6.8	0.030	10	294	-45	3.2	0	0.0	239	38			
01/25/74	7.0	0.015	0	316	-25	1.4	0	0.0	550	44			
02/13/74	7.0	0.042	0	380	-86	1.5	0	0.0	400	90			
03/11/74	6.7	0.019	30	324	-30	1.7	0	0.0	400	40			
04/08/74	6.3	0.335	60	532	-852	14.2	25	1.1	600	1083			
05/03/74	7.4	0.024	0	416	-53	1.0	0	0.0	550	71			
06/13/74	7.6	0.010	0	516	-27	3.9	0	0.0	700	37			
MAXIMUM	7.6	0.335	138	532	-25	14.2	25	4.5	825	1083			
MINIMUM	6.3	0.010	0	264	-852	1.0	0	0.0	239	37			
AVERAGE		0.057	34	394	-131	4.3	3	0.6	548	176			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4876 SUB-BASIN 27 DRAINAGE AREA/ACRES  
LATITUDE 40 27 40 LONGITUDE 79 05 13

STREAM OR SOURCE NAME - DRIFT MINE (HESHON COMPLEX)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/25/73	5.8	NO DATA	4	6		0.0	0	0.0	14	13			
11/27/73	5.4	0.082	4	10	-2	0.1	0	0.0	30	16			
12/26/73	4.6	0.103	4	2	1	0.0	0	0.0	30	16			
01/25/74	5.4	0.096	4	12	-4	0.1	0	0.0	14	7			
02/13/74	5.9	0.084	2	20	-8	0.0	0	0.0	13	5			
03/11/74	5.6	0.335	2	16	-25	0.0	0	0.0	13	23			
04/08/74	5.2	0.084	2	12	-4	0.0	0	0.0	30	13			
05/03/74	6.2	0.037	4	20	-3	0.1	0	0.0	175	34			
06/13/74	7.4	0.001	0	18	0	0.0	0	0.0	150	0			
MAXIMUM	7.4	0.335	4	20	1	0.1	0	0.0	175	34			
MINIMUM	4.6	0.001	0	2	-25	0.0	0	0.0	13	0			
AVERAGE		0.102	2	12	-5	0.0	0	0.0	52	14			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

218

DRAINAGE AREA/ACRES

28

SUB-BASIN

43

SAMPLE NUMBER

LONGITUDE 79 05 32

218

DRAINAGE AREA/ACRES

28

SUB-BASIN

43

SAMPLE NUMBER

UNNAMED PERENNIAL STREAM

218

DRAINAGE AREA/ACRES

28

SUB-BASIN

43

SAMPLE NUMBER

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/25/73	7.1	0.035	0	32	-6	0.0	0	0.0	400	75			
11/28/73	6.0	1.063	14	32	-103	2.6	14	0.0	90	515			
12/21/73	5.4	3.621	4	18	-273	0.4	7	0.0	30	582			
01/25/74	6.0	0.845	2	26	-109	0.1	0	0.0	120	545			
02/13/74	6.2	0.351	4	34	-56	0.1	0	0.0	214	404			
03/11/74	5.7	2.513	2	16	-189	0.4	5	0.0	65	879			
04/08/74	5.8	0.502	4	30	-70	6.5	17	0.0	125	337			
05/06/74	6.7	0.240	8	50	-54	0.6	0	0.0	200	258			
06/12/74	7.1	0.084	0	68	-30	0.0	0	0.0	300	135			
07/26/74	6.9	0.038	8	72	-13	1.4	0	0.0	400	81			
08/15/74	7.2	0.020	0	114	-12	0.9	0	0.0	425	45			
09/09/74	7.0	0.201	8	90	-88	0.5	0	0.0	225	243			
MAXIMUM	7.2	3.621	14	114	-6	6.5	17	0.0	425	879			
MINIMUM	5.4	0.020	0	16	-273	0.0	0	0.0	30	45			
AVERAGE		0.792	4	48	-83	1.1	3	0.0	216	342			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

402

DRAINAGE AREA/ACRES

29

SUB-BASIN

47

SAMPLE NUMBER

LONGITUDE 79 04 42

402

DRAINAGE AREA/ACRES

29

SUB-BASIN

47

SAMPLE NUMBER

UNNAMED PERENNIAL STREAM

402

DRAINAGE AREA/ACRES

29

SUB-BASIN

47

SAMPLE NUMBER

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/26/73	5.6	0.054	10	4	1	0.0	0	0.0	174	50			
11/28/73	5.1	1.466	10	4	47	0.1	0	0.0	30	236			
12/27/73	6.0	2.296	2	2	0	0.0	0	0.0	25	307			
01/28/74	5.2	0.855	2	8	-27	0.1	0	0.0	16	73			
02/14/74	5.2	0.510	4	2	5	0.0	0	0.0	18	49			
03/12/74	5.1	1.534	4	4	0	0.0	0	0.0	35	288			
04/08/74	5.2	1.023	2	6	-22	6.5	35	0.0	30	164			
05/07/74	3.8	0.560	34	0	102	0.2	0	0.0	125	376			
06/14/74	5.7	0.245	6	12	-7	0.1	0	0.0	125	164			
07/29/74	4.8	0.160	12	8	3	0.0	0	0.0	250	215			
08/15/74	4.5	0.048	14	0	3	0.3	0	0.0	200	51			
09/09/74	4.7	0.542	12	6	17	0.3	0	0.0	3	8			
MAXIMUM	6.0	2.296	34	12	102	6.5	35	0.0	250	376			
MINIMUM	3.8	0.048	2	0	-27	0.0	0	0.0	3	8			
AVERAGE		0.774	9	4	10	0.6	3	0.0	85	165			

STREAM OR SOURCE NAME - BRUSH CREEK AT FIRST ROAD INT. UPSTREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/26/73	6.5	7.200	6	20	-543	0.0	0	0.0	124	4809			
11/29/73	5.7	196.000	6	8	-2112	0.3	315	0.0	25	26264			
12/27/73	5.9	316.500	4	2	3411	0.3	509	0.0	35	59502			
01/29/74	5.9	108.800	4	12	-4691	0.1	57	0.0	23	13382			
02/14/74	5.8	67.300	4	2	725	0.6	217	0.0	21	7604			
03/12/74	5.7	198.900	4	8	-4288	0.3	320	0.0	30	32022			
04/00/74	5.4	93.500	2	8	-3023	0.3	150	0.0	20	10004			
05/06/74	5.9	52.600	6	14	-2268	0.1	27	0.0	200	56702			
06/14/74	6.6	36.500	8	32	-4721	0.0	0	0.0	175	34419			
06/26/74	6.0	56.396	6	12	-1823	0.2	60	0.0	100	30397			
07/18/74	5.6	7.760	10	16	-250	0.0	0	0.0	225	9405			
08/01/74	6.8	3.823	4	32	-576	0.3	6	0.0	225	4633			
08/13/74	6.0	4.317	10	30	-465	0.1	2	0.0	225	5232			
08/21/74	6.5	2.822	4	36	-486	0.4	6	0.0	200	3042			
09/05/74	5.7	30.002	8	14	-970	0.3	48	0.0	200	32342			
09/11/74	5.7	13.481	8	14	-435	1.0	72	0.0	225	16338			
MAXIMUM	6.8	316.500	10	36	3411	1.0	509	0.0	225	59502			
MINIMUM	5.4	2.822	2	2	-4721	0.0	0	0.0	20	3042			
AVERAGE		74.743	5	16	-1407	0.2	112	0.0	128	21631			

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/05/73	2.8	0.048	218	0	56	14.7	3	0.0	264	68			
11/29/73	2.8	0.180	340	0	329	12.8	12	0.0	195	189			
12/27/73	2.6	0.291	200	0	313	9.4	14	0.0	250	391			
01/29/74	2.9	0.063	114	0	38	6.4	2	0.0	150	50			
02/14/74	2.8	0.034	160	0	29	7.4	1	0.0	225	41			
03/12/74	3.1	0.156	180	0	151	8.1	6	0.0	150	126			
04/09/74	3.0	0.099	100	0	53	5.8	3	0.0	165	88			
05/06/74	2.8	0.012	260	0	16	6.6	0	0.0	275	17			
06/14/74	3.2	0.012	260	0	32	7.0	0	0.0	275	17			
MAXIMUM	3.2	0.291	500	0	329	14.7	14	0.0	275	391			
MINIMUM	2.6	0.012	100	0	16	5.8	0	0.0	150	17			
AVERAGE		0.099	230	0	113	8.6	5	0.0	216	110			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

1055

DRAINAGE AREA/ACRES

31

52

SAMPLE NUMBER

LATITUDE 40 28 53 LONGITUDE 79 02 40

STREAM OR SOURCE NAME - UNNAMED STREAM DRAINING SOUTHWARD TO DIAS

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/30/73	2.9	NO DATA	300	0		10.0		3.4	100				
11/29/73	3.7	NO DATA	40	0	2007	10.9	432	6.7	75	3466			
12/27/73	3.7	14,325	26	0	3181	5.6	704	0.0	45	44643			
01/29/74	3.2	6,024	98	0	1714	31.1	444	2.2	1375	1428			
02/14/74	3.0	2,651	120	0	5162	25.0	1075	5.6	100	7527			
03/12/74	3.3	7,982	140	0	5824	44.6	1855	3.4	225	9354			
04/09/74	2.9	7,718	200	0	11504	40.8	834	2.2	300	6138			
05/06/74	3.0	3,796	1550	0	2779	175.0	1298	10.7	550	4081			
06/14/74	2.9	1,377	180	0	3816	29.3	452	35.8	100	1544			
06/26/74	2.8	2,865	1000	0	2721	137.4	524	0.0	1050	4006			
07/18/74	2.4	0,708	1000	0	2914	180.0	489	0.0	1375	3742			
07/29/74	2.6	0,505	1300	0	2576	271.0	607	3.4	1775	3979			
08/01/74	2.6	0,416	1000	0	3133	104.6	269	6.7	950	2447			
08/13/74	2.7	0,478	1800	0	2373	127.2	221	0.0	1225	2132			
08/15/74	2.7	0,323	700	0	1527	119.0	403	31.4	1050	3559			
08/21/74	2.8	0,629	70	0	6885	144.0	3142	0.0	200	4364			
09/05/74	3.2	4,049	500	0		20.3	279	10.1	300	4131			
09/11/74	2.8	2,555	1800	0	11504	271.0	3142	12.3	1775	44643			
MAXIMUM	3.7	14,325	26	0	1527	5.6	221	35.8	45	1428			
MINIMUM	2.4	0,323	563	0	3888	83.1	814	0.0	609	6659			
AVERAGE		3,525						7.4					

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4868

31

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SAMPLE NUMBER

LATITUDE 40 29 02 LONGITUDE 79 03 32

STREAM OR SOURCE NAME - DRIFT MINE (VIRGINIAN NO. 15)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/30/73	2.5	0,020	2500	0	269	350.2	37	0.0	2524	272			
11/29/73	2.6	0,046	4000	0	991	936.1	232	0.0	2875	712			
12/27/73	2.3	0,822	3000	0	13291	1165.3	5162	0.0	3025	13401			
01/29/74	2.6	0,200	2500	0	2695	18932.5	20409	35.8	2425	2614			
02/14/74	2.3	0,082	2600	0	1149	760.0	335	2.2	1950	861			
03/12/74	2.6	0,740	2100	0	8376	811.0	3234	48.2	2525	10070	113.0	450	
04/09/74	2.5	0,171	2620	0	2414	6000.0	5530	19.0	3000	2765			
05/06/74	2.5	0,063	2200	0	747	704.0	239	0.0	2625	891			
06/14/74	2.8	0,082	3200	0	1414	740.0	327	129.9	3500	1546			
07/29/74	2.3	0,027	3700	0	538	835.0	121	5.6	2600	378			
08/15/74	2.6	0,020	4400	0	474	656.5	70	53.8	2750	296			
09/05/74	2.4	0,020	4200	0	452	594.0	64	33.6	3900	420			
MAXIMUM	2.8	0,822	4400	0	13291	18932.5	20409	129.9	3900	13401	113.0	450	
MINIMUM	2.3	0,020	2100	0	269	350.2	37	0.0	1950	272	113.0	450	
AVERAGE		0,191	3085	0	2734	2707.0	2980	27.3	2808	2852	113.0	450	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBR 4869 SUB-BASIN 31 DRAINAGE AREA/ACRES.  
LATITUDE 40 29 13 LONGITUDE 79 03 31  
STREAM OR SOURCE NAME - DRIFT MINE (VIRGINIAN NO. 15)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/30/73	2.8	0.314	400	0	676	45.7	77	33.6	524	886	
11/29/73	2.8	0.406	660	0	1444	73.1	159	0.0	450	984	
12/27/73	2.9	0.733	200	0	790	31.1	122	0.0	350	1382	
01/29/74	2.7	0.257	1100	0	1523	190.3	263	75.0	550	761	
02/14/74	2.5	0.157	580	0	490	250.0	211	136.6	425	359	
03/12/74	2.9	0.374	1400	0	2822	99.0	199	66.1	225	453	
04/09/74	2.7	0.257	440	0	609	178.2	246	141.1	500	692	
05/06/74	2.6	0.157	1000	0	846	279.0	236	0.0	825	698	
06/14/74	2.9	0.076	1700	0	696	235.0	96	22.4	1650	675	
07/29/74	2.4	0.044	1900	0	450	450.0	106	5.6	1200	284	
08/15/74	2.6	0.059	2500	0	795	547.0	173	392.0	1650	524	
09/05/74	2.6	0.094	700	0	354	179.0	90	168.0	950	481	
MAXIMUM	2.9	0.733	2500	0	2822	547.0	263	392.0	1650	1382	
MINIMUM	2.4	0.044	200	0	354	31.1	77	0.0	225	284	
AVERAGE		0.244	1048	0	958	213.1	165	86.7	774	682	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 53 SUB-BASIN 32 DRAINAGE AREA/ACRES 1184  
LATITUDE 40 28 45 LONGITUDE 79 02 22  
STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/30/73	2.9	0.222	100	0	119	12.1	14	6.7	149	178	
11/29/73	3.3	5.946	120	0	3845	25.4	814	7.8	150	4804	
12/27/73	3.0	9.314	300	0	15060	22.4	1124	0.0	250	12545	
01/29/74	3.3	3.467	84	0	1569	26.4	493	3.4	100	1868	
02/14/74	3.1	2.072	120	0	1340	21.2	236	6.7	150	1674	
03/12/74	3.2	6.225	120	0	4026	18.9	634	2.2	250	8385	
04/09/74	3.2	4.152	94	0	2103	22.4	501	3.4	225	5032	
05/07/74	3.3	2.273	120	0	1470	14.4	176	2.2	925	11330	
06/17/74	3.0	2.615	144	0	2029	16.1	226	0.0	225	3169	
07/29/74	2.8	0.652	500	0	1757	38.1	133	4.5	1100	3865	
08/22/74	2.6	0.164	600	0	530	47.1	41	5.6	1275	1127	
09/10/74	3.1	2.037	240	0	2635	17.8	195	7.8	650	7135	
MAXIMUM	3.3	9.314	600	0	15060	47.1	1124	7.8	1275	12545	
MINIMUM	2.6	0.164	84	0	119	12.1	14	0.0	100	178	
AVERAGE		3.261	211	0	3040	23.5	382	4.1	454	5093	

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

53A SUB-BASIN 32 DRAINAGE AREA/ACRES

LATITUDE 40 28 46 LONGITUDE 79 02 17

STREAM OR SOURCE NAME - SEEPAGE - DEEPMINE INTERSECTION (CALDWELL #1)

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
06/17/74	2.5	0.030	700	0	113	118.2	19	5.6	925	149			
07/29/74	2.4	0.014	1300	0	98	172.0	12	1.1	1375	103			
08/22/74	2.4	0.014	600	0	45	162.0	12	2.2	1975	149			
09/10/74	2.5	0.021	52	0	5	98.5	11	9.0	2375	268			
MAXIMUM	2.5	0.030	1300	0	113	172.0	19	9.0	2375	268			
MINIMUM	2.4	0.014	52	0	5	98.5	11	1.1	925	103			
AVERAGE		0.019	663	0	65	137.6	13	4.4	1662	167			

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

4863 SUB-BASIN 32 DRAINAGE AREA/ACRES

LATITUDE 40 29 13 LONGITUDE 79 01 32

STREAM OR SOURCE NAME - STRIP MINE SEEPAGE AND ROAD DRAINAGE

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/30/73		0.000	0	0	0	0.0	0	0.0	0	0			
11/29/73	2.4	0.025	800	0	107	415.1	55	0.0	1150	154			
12/27/73	2.4	0.112	500	0	301	74.6	45	0.0	425	256			
01/29/74	2.8	0.015	400	0	32	134.4	10	71.7	575	46			
02/14/74	2.5	0.006	380	0	12	144.4	4	75.0	600	19			
03/12/74	2.9	0.024	500	0	64	91.6	11	52.6	425	54			
04/09/74	3.1	0.013	300	0	21	305.0	21	172.5	1275	89			
05/07/74	2.6	0.003	680	0	10	169.0	2	0.0	700	11			
06/17/74	2.6	0.003	700	0	11	154.3	2	1.1	1450	23			
07/29/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/10/74	2.7	0.002	1900	0	20	322.0	3	231.8	2200	23			
MAXIMUM	3.1	0.112	1900	0	301	415.1	55	231.8	2200	256			
MINIMUM	2.4	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.016	513	0	48	150.8	13	50.3	733	56			

STREAM OR SOURCE NAME - DRIFT MINE AND STRIP MINE DRAINAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
10/30/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
11/29/73	2.5	0.012	500	0	32	33.3	2	1.1	575	37		37	
12/27/73	2.4	0.067	300	0	108	115.7	41	0.0	1100	397		397	
01/29/74	2.7	0.010	700	0	37	108.7	5	1.1	450	24		24	
02/14/74	2.5	0.010	580	0	31	113.6	6	9.0	525	28		28	
03/12/74	2.8	0.056	600	0	181	118.5	35	9.0	425	128		128	
04/09/74	2.8	0.026	400	0	56	74.4	10	2.2	425	59		59	
05/07/74	2.7	0.005	440	0	11	72.2	1	0.0	575	15		15	
06/17/74	2.7	0.008	500	0	21	53.4	2	2.2	575	24		24	
07/29/74	2.6	0.001	450	0	2	44.6	0	2.2	700	3		3	
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0		0	
09/10/74	2.9	0.006	700	0	22	24.4	0	15.7	450	14		14	
MAXIMUM	2.9	0.067	700	0	181	118.5	41	15.7	1100	397		397	
MINIMUM	2.4	0.000	0	0	0	0.0	0	0.0	0	0		0	
AVERAGE		0.016	430	0	42	63.2	8	3.5	483	61		61	

AA-52

STREAM OR SOURCE NAME - UNNAMED STREAM DRAINING N E FROM CLYDE VACINITY

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
10/26/73	3.8	0.190	34	0	34	1.8	1	0.0	149	152	3.9	3	
11/29/73	4.6	5.091	140*	2	3786	0.6	16	0.0	225	6170			
12/28/73	3.9	7.974	8	0	343	0.9	38	0.0	45	1929			
01/29/74	4.4	2.969	10	0	160	0.6	9	0.0	44	703	1.3	20	
02/14/74	4.3	1.774	6	0	57	0.7	6	0.0	43	409	1.0	9	
03/12/74	4.6	5.329	12	4	229	0.4	11	0.0	30	857			
04/09/74	5.5	3.555	4	32	-536	1.6	30	0.0	200	3832			
05/07/74	4.4	1.946	8	0	83	0.9	9	0.0	200	2097			
06/17/74	4.2	2.239	4	0	48	0.7	8	0.0	42	506			
07/29/74	4.3	0.558	14	0	42	1.7	5	0.0	300	902			
08/22/74	4.3	0.141	16	0	12	1.4	1	0.0	250	189			
09/09/74	4.5	1.883	14	0	142	0.8	8	0.0	325	3297			
MAXIMUM	5.5	7.974	140	32	3786	1.8	38	0.0	325	6170	3.9	20	
MINIMUM	3.8	0.141	4	0	-536	0.4	1	0.0	30	152	1.0	3	
AVERAGE		2.804	22	3	36.7	1.0	12	0.0	154	1754	2.0	11	

\*TEST RESULT QUESTIONABLE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4875 SUB-BASIN 33  
LATITUDE 40 28 02 LONGITUDE 79 03 01

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/26/73	3.7	0.004	34	0	0	0.1	0	0.0	199	4			
11/29/73	3.4	0.047	60	0	15	0.9	0	0.0	175	44			
12/28/73	3.5	0.103	12	0	6	1.5	0	0.0	35	19			
01/29/74	4.3	0.043	8	0	1	3.4	0	0.0	1075	249			
02/14/74	4.3	0.026	10	0	1	1.0	0	0.0	70	9			
03/12/74	4.0	0.123	10	0	6	0.2	0	0.0	100	66			
04/09/74	4.5	0.043	6	0	1	6.9	1	0.0	30	6			
05/07/74	4.8	0.026	8	4	0	0.9	0	0.0	62	8			
06/17/74	4.1	0.019	2	0	0	0.7	0	0.0	150	15			
MAXIMUM	4.8	0.123	60	4	15	6.9	1	0.0	1075	249			
MINIMUM	3.4	0.004	2	0	0	0.1	0	0.0	30	4			
AVERAGE		0.048	16	0	3	1.7	0	0.0	210	47			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4877 SUB-BASIN 33  
LATITUDE 40 28 27 LONGITUDE 79 02 34

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/26/73		0.000	0	0	0	0.0	0	0.0	0	0			
11/29/73		0.000	0	0	0	0.0	0	0.0	0	0			
12/28/73	3.0	0.013	400	0	28	7.3	0	0.0	275	19			
MAXIMUM	3.0	0.013	400	0	28	7.3	0	0.0	275	19			
MINIMUM	3.0	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.004	133	0	9	2.4	0	0.0	91	6			



LATITUDE 40 28 28 LONGITUDE 79 01 46

STREAM OR SOURCE NAME - MOUTH OF MARLOIS RUN

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/26/73	2.6	0.569	1240	0	3803	147.0	451	88.5	824	2527	16.0	49	
11/29/73	3.3	18.055	100	0	9732	22.5	2190	0.0	200	19463			
12/28/73	2.9	19.702	200	0	21239	28.0	2973	0.0	59	6265			
01/29/74	3.3	10.328	92	0	5121	36.8	2049	5.6	100	5567	3.7	206	
02/15/74	3.1	6.219	100	0	3352	34.5	1156	6.7	300	10056	8.6	288	
03/12/74	3.1	21.418	180	0	20780	31.1	3590	4.5	275	31747			
04/09/74	5.0	15.256	14	4	1151	17.7	1455	1.1	210	17268			
05/07/74	3.4	6.617	60	0	2140	26.5	945	7.8	275	9800			
06/17/74	3.1	6.586	90	0	3195	33.9	1203	10.1	325	11537			
07/25/74	3.4	3.236											
08/23/74	2.5	0.715	20	0	77	164.0	632	118.7	1700	6552			
09/13/74	3.0	4.384	800	0	18904	50.6	1196	24.6	575	13587			
MAXIMUM	5.0	21.418	1240	0	21239	164.0	8590	118.7	1700	31747	16.0	288	
MINIMUM	2.5	0.569	14	0	77	17.7	451	0.0	59	2527	3.7	49	
AVERAGE		9.424	263	0	8136	53.9	1622	24.3	440	12216	9.4	181	

LATITUDE 40 28 22 LONGITUDE 79 01 43

STREAM OR SOURCE NAME - SEEPAGE FROM STRIPMINE

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
08/23/74	2.7	0.008	1000	0	43	141.0	6	0.0	2750	118			
09/13/74	2.9	0.017	900	0	82	88.5	8	26.9	2450	224			
MAXIMUM	2.9	0.017	1000	0	82	141.0	8	26.9	2750	224			
MINIMUM	2.7	0.008	900	0	43	88.5	6	0.0	2450	118			
AVERAGE		0.012	950	0	62	114.7	7	13.4	2600	171			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

56A SUB-BASIN 34 DRAINAGE AREA/ACRES 1526

SAMPLE NUMBER 56A SUB-BASIN 34 DRAINAGE AREA/ACRES 1526  
LATITUDE 40 28 00 LONGITUDE 79 01 59

STREAM OR SOURCE NAME - 3,250' UPSTREAM FROM MOUTH OF MARLDIS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/26/73	6.6	0.510	4	24	-55	0.1	0	0.0	502	1380			
11/29/73	5.7	16.831	10	10	0	1.4	127	0.0	155	14061			
12/28/73	4.5	17.602	6	2	379	5.6	531	0.0	140	13282			
01/29/74	7.8	9.957	0	42	-2164	0.7	36	0.0	130	6697			
02/15/74	6.2	5.806	6	30	-751	3.0	94	0.0	227	7104			
03/12/74	6.5	19.703	2	26	-2549	2.3	244	0.0	225	23895			
04/09/74	9.0	14.329	0	44	-3398	1.5	116	0.0	175	13516			
05/07/74	5.9	5.989	2	46	-1420	0.4	13	0.0	225	7263			
06/17/74	5.6	6.039	2	50	-1562	0.1	3	0.0	250	8138			
07/25/74	5.9	3.106	8	32	-402	0.9	15	0.0	750	12556			
08/23/74	7.0	0.665	0	55	-222	0.2	1	0.0	450	1613			
09/13/74	6.5	3.513	10	38	-530	0.9	17	0.0	300	5681			
MAXIMUM	9.0	19.703	10	66	379	5.6	531	0.0	750	23895			
MINIMUM	4.5	0.510	0	2	-3398	0.1	0	0.0	130	1380			
AVERAGE		6.638	5	34	-1056	1.4	100	0.0	294	9599			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

55 SUB-BASIN 34 DRAINAGE AREA/ACRES 725

SAMPLE NUMBER 55 SUB-BASIN 34 DRAINAGE AREA/ACRES 725  
LATITUDE 40 27 37 LONGITUDE 79 02 17

STREAM OR SOURCE NAME - INTERSECTION OF MARLDIS RUN AND RT. 56

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/26/73	5.3	0.354	14	4	19	1.2	2	0.0	200	381			
11/29/73	5.7	12.641	16	14	136	1.0	68	0.0	75	5106			
12/28/73	4.2	11.039	10	0	595	4.9	291	0.0	110	6535			
01/29/74	9.0	7.114	0	60	-2300	0.4	15	0.0	145	5556			
02/15/74	6.1	4.580	4	20	-394	2.0	49	0.0	227	5601			
03/12/74	7.0	15.317	0	32	-2641	1.2	98	0.0	150	12376			0.3
04/09/74	9.0	11.403	0	104	-6392	0.4	24	0.0	225	13820			
05/07/74	6.0	4.387	2	42	-945	0.3	7	0.0	350	5909			
06/17/74	7.0	4.196	0	40	-904	1.1	24	0.0	875	7913			
07/25/74	5.7	2.573	0	44	-610	1.6	22	0.0	300	887			
08/23/74	9.9	0.549	0	206	-609	0.3	0	0.0	200	2567			
09/13/74	6.5	2.382	16	38	-282	1.4	17	0.0	875	13820			0.3
MAXIMUM	9.9	15.317	16	206	595	4.9	291	0.0	875	13820			0.3
MINIMUM	4.2	0.354	0	0	-6392	0.3	0	0.0	75	381			0.3
AVERAGE		6.378	5	50	-1194	1.3	51	0.0	259	6566			0.3

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4859 SUB-BASIN 34 DRAINAGE AREA/ACRES  
LATITUDE 40 28 08 LONGITUDE 79 01 58  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/26/73	3.0	0.003	134	0	2	1.8	0	0.0	324	5	
11/29/73	2.8	0.051	100	0	27	1.8	0	0.0	450	123	
12/28/73	2.3	0.270	500	0	727	359.5	523	2.2	775	1127	
01/29/74	2.0	0.082	500	0	220	155.4	68	21.3	600	265	
02/15/74	2.8	0.061	600	0	197	247.0	81	51.5	650	213	
03/12/74	2.7	0.488	560	0	1472	225.0	591	45.9	700	1841	37
04/09/74	2.7	0.105	400	0	226	128.4	72	22.4	950	537	
05/07/74	2.6	0.173	540	0	503	90.3	84	4.5	550	512	
06/17/74	2.7	0.025	400	0	53	77.5	10	3.4	900	121	
07/25/74	2.5	0.004	400	0	8	17.7	0	16.8	725	15	
08/23/74	2.3	0.006	300	0	9	6.2	0	0.0	625	20	
09/13/74	2.7	0.011	500	0	29	8.6	0	0.0	575	34	
MAXIMUM	3.0	0.488	600	0	1472	359.5	591	51.5	950	1841	37
MINIMUM	2.3	0.003	100	0	2	1.8	0	0.0	324	5	37
AVERAGE		0.106	411	0	290	109.9	119	14.0	652	401	37

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 57 SUB-BASIN 35 DRAINAGE AREA/ACRES 736  
LATITUDE 40 28 54 LONGITUDE 79 00 13  
STREAM OR SOURCE NAME - UNNAMED STREAM N W OF DILLTOWN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/30/73	3.5	2.314	22	0	274	1.4	17	0.0	46	571	
11/30/73	3.6	2.561	46	0	634	3.6	49	0.0	175	2415	
12/28/73	3.3	7.311	30	0	1182	3.6	141	0.0	45	1769	
01/29/74	3.4	2.170	44	0	514	7.1	83	0.0	91	1063	
02/15/74	3.1	0.988	100	0	532	12.9	68	0.0	175	931	
03/13/74	3.4	3.778	42	0	855	4.9	99	0.0	150	3052	
04/09/74	3.6	0.084	38	0	17	5.4	2	0.0	150	67	
05/08/74	3.4	0.888	80	0	382	7.5	35	0.0	200	957	
06/18/74	2.8	0.401	200	0	432	14.0	30	2.2	225	486	
07/25/74	2.7	0.135	168	0	122	12.8	9	3.4	300	218	
08/15/74	3.0	0.062	500	0	167	11.7	3	10.1	350	116	
09/10/74	3.6	0.730	32	0	125	3.4	13	0.0	425	1671	
MAXIMUM	3.6	7.311	500	0	1182	14.0	141	10.1	425	3052	
MINIMUM	2.7	0.062	22	0	17	1.4	2	0.0	45	67	
AVERAGE		1.765	106	0	436	7.3	46	1.3	194	1110	

SAMPLE NUMBER 4748 SUB-BASIN 35 DRAINAGE AREA/ACRES

LATITUDE 40 28 35 LONGITUDE 79 00 02

STREAM OR SOURCE NAME - DRIFT MINE (THERMAL NO. 15)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	2.6	0.022	900	0	106	102.0	12	10.1	799	94	
11/30/73	2.6	0.068	680	0	249	71.3	26	0.0	525	192	
12/28/73	2.5	0.130	400	0	280	68.4	47	0.0	475	332	
01/29/74	2.7	0.158	438	0	373	59.1	50	0.0	525	446	
02/15/74	2.8	0.130	520	0	364	99.0	69	0.0	350	245	
03/13/74	2.7	0.144	460	0	357	49.6	38	5.6	400	310	
04/09/74	2.7	0.158	440	0	374	55.8	47	0.0	475	404	
05/08/74	2.6	0.103	500	0	277	63.4	35	0.0	400	222	
06/18/74	2.6	0.091	600	0	294	68.3	33	0.0	700	343	
07/25/74	2.2	0.038	1000	0	204	95.5	19	26.9	975	199	
08/15/74	2.7	0.038	1000	0	204	91.8	18	0.0	850	174	
09/10/74	2.6	0.038	1000	0	204	81.8	16	0.0	1000	204	
MAXIMUM	2.8	0.158	1000	0	374	102.0	69	26.9	1000	446	
MINIMUM	2.2	0.022	400	0	106	49.6	12	0.0	350	94	
AVERAGE		0.093	661	0	274	75.5	34	3.5	622	264	

AA-57

SAMPLE NUMBER 4874 SUB-BASIN 35 DRAINAGE AREA/ACRES

LATITUDE 40 28 30 LONGITUDE 79 00 12

STREAM OR SOURCE NAME - DRIFT MINE (THERMAL NO. 15)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	2.8	0.016	400	0	34	15.2	1	5.6	211	18	
11/30/73	2.6	0.062	480	0	160	70.1	23	0.0	300	100	
12/28/73	2.5	0.192	300	0	310	51.1	52	0.0	300	310	
01/29/74	2.8	0.087	300	0	140	71.7	33	0.0	1100	515	
02/15/74	2.6	0.045	400	0	97	86.1	20	0.0	400	97	
03/13/74	2.7	0.173	320	0	298	39.6	36	0.0	225	209	20
04/09/74	2.8	NO DATA	320	0		49.0		0.0	275		
05/08/74	2.7	0.056	360	0	108	56.9	17	0.0	400	120	
06/18/74	2.6	0.031	300	0	50	69.4	11	2.2	775	129	
07/25/74	2.2	0.007	900	0	33	71.0	2	39.2	800	30	
08/15/74	2.7	0.004	1000	0	21	64.2	1	0.0	675	14	
09/10/74	2.7	0.027	380	0	55	31.4	4	0.0	325	47	
MAXIMUM	2.8	0.192	1000	0	310	86.1	52	39.2	1100	515	20
MINIMUM	2.2	0.004	300	0	21	15.2	1	0.0	211	14	20
AVERAGE		0.063	455	0	119	56.3	18	3.9	482	144	20

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

LATITUDE 40 30 17 LONGITUDE 78 58 27

STREAM OR SOURCE NAME - MARDIS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/31/73	5.5	NO DATA	8	4		0.4		0.0	41				
11/30/73	6.1	8.096	10	6	174	0.3	13	0.0	30	1303			
12/31/73	5.1	6.296	6	6	0	0.3	10	0.0	14	472			
01/30/74	6.6	4.220	4	14	-227	0.0	0	0.0	14	316			
02/15/74	5.9	3.912	2	16	-295	0.0	0	0.0	14	293			
03/13/74	6.5	8.096	6	14	-349	0.0	0	0.0	25	1084			
04/10/74	5.8	4.987	6	14	-215	1.3	34	0.0	45	1206			
05/08/74	5.7	1.722	2	16	-129	0.0	0	0.0	13	120			
06/18/74	5.1	0.747	2	14	-61	0.0	0	0.0	150	765			
07/31/74	6.2	0.182	4	38	-33	0.2	0	0.0	225	220			
08/19/74	6.7	0.150	6	40	-27	0.9	0	0.0	225	181			
09/10/74	6.7	2.107	4	24	-227	0.8	9	0.0	225	2553			
MAXIMUM	6.7	8.096	10	40	174	1.3	34	0.0	225	2553			
MINIMUM	5.1	0.150	2	4	-349	0.0	0	0.0	13	120			
AVERAGE		3.701	5	17	-126	0.3	6	0.0	85	774			

LATITUDE 40 30 16 LONGITUDE 78 58 34

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO MARDIS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/31/73	5.5	NO DATA	8	6		0.3		0.0	46				
11/30/73	5.6	4.177	2	10	-180	0.1	2	0.0	40	898			
12/31/73	5.4	3.248	6	6	0	0.4	6	0.0	14	243			
MAXIMUM	5.6	4.177	8	10	0	0.4	6	0.0	46	898			
MINIMUM	5.4	3.248	2	6	-180	0.1	2	0.0	14	243			
AVERAGE		3.712	5	7	-90	0.2	4	0.0	33	570			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 1846

SAMPLE NUMBER 61 SUB-BASIN 36  
LONGITUDE 78 58 33

STREAM OR SOURCE NAME - MARDIS RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/31/73	5.2	NO DATA	4	2		0.4	0.4	0.0	21				
11/30/73	5.7	NO DATA	2	5		0.0	0.0	0.0	35				
12/31/73	5.4	NO DATA	2	6		0.0	0.0	0.0	13				
MAXIMUM	5.7		4	6		0.4	0.4	0.0	35				
MINIMUM	5.2		2	2		0.0	0.0	0.0	13				
AVERAGE			2	4		0.1	0.1	0.0	23				

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 3008

SAMPLE NUMBER 62 SUB-BASIN 36  
LONGITUDE 78 59 57

STREAM OR SOURCE NAME - MARDIS RUN AT ROAD INTERSECTION IN DILLTOWN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/31/73	5.4	NO DATA	4	6		0.3	0.3	0.0	29				
11/30/73	6.1	17.090	2	20	-1658	0.0	0	0.0	10	905			
12/31/73	5.4	13.290	2	6	-286	0.1	7	0.0	18	1289			
01/30/74	6.2	8.908	4	12	-384	0.0	0	0.0	17	810			
02/15/74	6.0	8.258	2	10	-356	0.1	4	0.0	16	710			
03/13/74	5.2	17.090	2	18	-1473	0.1	9	0.0	45	4135			
04/10/74	5.8	10.527	6	14	-453	1.8	102	0.0	70	3968			
05/08/74	6.0	3.635	2	22	-391	0.0	0	0.0	14	272			
06/18/74	5.1	1.999	4	12	-86	0.0	0	0.0	200	2154			
07/31/74	6.5	0.384	4	34	-62	0.0	0	0.0	275	569			
08/19/74	6.7	0.316	4	36	-54	0.8	1	0.0	150	255			
09/10/74	6.8	4.447	4	26	-527	0.6	14	0.0	275	6590			
MAXIMUM	6.8	17.090	6	36	-54	1.8	102	0.0	275	6590			
MINIMUM	5.1	0.316	2	6	-1658	0.0	0	0.0	10	255			
AVERAGE		7.813	3	18	-521	0.3	12	0.0	93	1969			

DATE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRIOUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/30/73	6.3	3.882	10	24	-292	0.1	2	0.0	35	729			
12/31/73	5.6	4.229	6	24	-410	0.1	2	0.0	45	1023			
01/30/74	7.1	2.352	0	38	-481	0.1	1	0.0	75	950			
02/15/74	6.0	1.555	6	48	-352	0.0	0	0.0	45	376			
03/12/74	6.5	4.778	4	26	-590	0.6	16	0.0	35	935			
04/09/74	5.7	2.774	6	32	-388	1.5	22	0.0	70	1045			
05/07/74	5.8	0.815	2	56	-237	0.1	0	0.0	35	153			
06/17/74	5.3	0.608	2	52	-163	0.1	0	0.0	175	573			
07/25/74	6.5	0.244	8	84	-99	0.3	0	0.0	275	361			
08/23/74	7.0	0.114	4	136	-81	0.6	0	0.0	150	92			
09/10/74	7.2	1.120	0	50	-301	0.4	2	0.0	300	1811			
MAXIMUM	7.2	4.978	10	136	-81	1.5	22	0.0	300	1811			
MINIMUM	5.3	0.114	0	24	-590	0.0	0	0.0	35	92			
AVERAGE		2.061	4	51	-309	0.3	4	0.0	112	732			

DATE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRIOUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
07/31/74	6.0	0.115	4	16	-7	0.0	0	0.0	225	139			
MAXIMUM	6.0	0.115	4	16	-7	0.0	0	0.0	225	139			
MINIMUM	6.0	0.115	4	16	-7	0.0	0	0.0	225	139			
AVERAGE		0.115	4	16	-7	0.0	0	0.0	225	139			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

1464

64 SUB-BASIN 39 DRAINAGE AREA/ACRES

LONGITUDE 78 58 29

CLARKE RUN AT ROAD INTERSECTION

STREAM OR SOURCE NAME - CLARKE RUN AT ROAD INTERSECTION

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	5.1	9.470	4	2	102	0.3	15	0.0	31	1581			
11/30/73	5.7	7.616	2	4	-82	0.0	0	0.0	20	814			
12/31/73	5.3	8.295	2	2	0	0.1	4	0.0	17	754			
01/30/74	5.9	4.614	4	8	-99	0.0	0	0.0	16	396			
02/18/74	5.2	2.041	4	4	0	0.0	0	0.0	17	185			
03/13/74	5.2	6.735	2	6	-145	0.1	3	0.0	30	1084			
04/10/74	5.3	4.889	4	10	-158	1.7	44	0.0	30	787			
05/08/74	5.8	1.421	2	14	-91	0.0	0	0.0	16	122			
06/18/74	5.0	0.835	2	6	-13	0.0	0	0.0	200	900			
07/31/74	6.2	0.446	4	14	-24	0.0	0	0.0	275	660			
08/19/74	6.7	0.218	2	26	-28	0.6	0	0.0	150	176			
09/10/74	5.3	2.197	8	6	23	1.4	16	0.0	125	1478			
MAXIMUM	6.7	9.470	8	26	102	1.7	44	0.0	275	1581			
MINIMUM	5.0	0.218	2	2	-158	0.0	0	0.0	16	122			
AVERAGE		4.064	3	8	-43	0.3	7	0.0	77	745			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

860

67 SUB-BASIN 40 DRAINAGE AREA/ACRES

LONGITUDE 78 57 54

UNNAMED STREAM AT ROAD INTERSECTION S E OF BLACKLICK CHURCH

STREAM OR SOURCE NAME - UNNAMED STREAM AT ROAD INTERSECTION S E OF BLACKLICK CHURCH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	5.0	6.190	4	2	66	0.3	9	0.0	36	1200			
11/30/73	5.9	4.978	2	2	0	0.3	8	0.0	20	532			
12/31/73	5.4	5.422	4	2	58	0.1	2	0.0	8	233			
01/30/74	5.6	3.016	4	10	-97	0.1	1	0.0	18	292			
02/18/74	5.3	1.334	6	2	28	0.0	0	0.0	31	222			
03/13/74	5.1	4.402	4	6	-47	0.0	0	0.0	30	708			
04/10/74	5.3	3.196	2	2	0	1.8	31	0.0	45	773			
05/08/74	5.3	0.929	4	10	-30	0.0	0	0.0	13	65			
06/18/74	5.1	0.546	2	4	-5	0.1	0	0.0	175	514			
07/31/74	6.2	0.292	6	16	-15	0.6	0	0.0	225	353			
08/19/74	6.5	0.143	4	16	-9	0.9	0	0.0	225	173			
09/10/74	6.2	1.436	6	12	-46	0.7	5	0.0	225	1740			
MAXIMUM	6.5	6.190	6	16	66	1.8	31	0.0	225	1740			
MINIMUM	5.0	0.143	2	2	-97	0.0	0	0.0	8	65			
AVERAGE		2.657	4	7	-8	0.4	5	0.0	87	567			



BLACKLICK CREEK WATERSHED

LATITUDE 40 27 26 LONGITUDE 78 57 50

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/31/73	5.3	3.168	8	4	68	0.3	5	0.0	31	529			
11/30/73	6.1	5.455	2	6	-117	0.3	8	0.0	35	1025			
12/31/73	5.6	5.942	6	8	-64	0.1	3	0.0	27	861			
01/30/74	5.9	3.305	4	14	-178	0.3	5	0.0	26	462			
02/18/74	5.6	1.462	4	8	-31	0.2	1	0.0	28	219			
03/12/74	5.5	6.995	2	12	-377	0.4	15	0.0	20	748			
04/09/74	5.7	3.898	6	14	-168	2.3	48	0.0	55	1153			
05/07/74	5.9	1.146	4	24	-123	0.1	0	0.0	24	147			
06/17/74	5.2	0.854	4	12	-36	0.6	2	0.0	175	805			
07/25/74	6.4	0.344	10	20	-18	0.0	0	0.0	250	463			
08/23/74	6.4	0.161	6	40	-29	1.0	0	0.0					
09/10/74	6.0	1.573	4	10	-50	1.4	11	0.0	175	1483			
MAXIMUM	6.4	6.995	10	40	68	2.3	48	0.0	250	1483			
MINIMUM	5.2	0.161	2	4	-377	0.0	0	0.0	20	147			
AVERAGE		2.858	5	14	-93	0.5	8	0.0	76	718			

BLACKLICK CREEK WATERSHED

LATITUDE 40 27 51 LONGITUDE 78 57 23

STREAM OR SOURCE NAME - MOUTH OF RAMSEY RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/30/73	2.5	4.256	400	0	9175	90.0	2064	7.8	324	7430			
12/03/73	2.6	2.537	1120	0	15315	257.8	3525	218.4	1125	15381			
12/31/73	2.5	4.151	200	0	4474	327.0	7316	136.6	850	19015			
01/30/74	2.8	3.258	760	0	13346	242.9	4265	185.9	900	15804			
02/18/74	2.2	1.739	780	0	7311	327.3	3067	218.4	925	8668			
03/12/74	2.7	4.408	400	0	9633	288.1	6938	189.3	950	22876			
04/10/74	2.7	3.843	620	0	12842	226.0	4681	159.0	600	12428			
05/10/74	2.7	2.045	1080	0	11904	255.0	2810	87.4	1450	15981			
06/18/74	2.5	1.666	600	0	5387	169.3	1520	168.0	1550	13917			
06/26/74	2.6	1.889	700	0	7127	124.2	1264	103.0	1050	10689			
07/18/74	2.4	1.666	900	0	8081	217.6	1953	5.6	1700	15265			
08/01/74	2.7	1.453	1000	0	7831	314.0	2459	313.6	1525	11942			
08/02/74	2.7	1.123	900	0	5447	301.0	1821	300.2	1400	8474			
08/13/74	2.7	1.317	1000	0	7098	329.5	2338	301.3	1275	9050			
08/21/74	2.7	1.161	1000	0	6257	297.0	1858	280.0	1750	10950			
09/05/74	2.6	2.979	500	0	8028	151.0	2424	146.7	1075	17260			
09/11/74	3.4	1.814	3800*	0	37154	430.0	4204	257.6	1425	13931			
MAXIMUM	3.4	4.468	3800	0	37154	430.0	7316	313.6	1750	22876			
MINIMUM	2.2	1.123	200	0	4474	90.0	1264	5.6	324	7430			
AVERAGE		2.433	927	0	10377	255.7	3206	181.1	1169	13474			

(8704) ADJUSTED AVERAGE

\* TEST RESULT QUESTIONABLE

LATITUDE 40 27 53 LONGITUDE 78 57 10

STREAM OR SOURCE NAME - RAMSEY RUN ABOVE MINE WORKINGS

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
12/03/73	6.4	NO DATA	12	16		0.0		0.0	30				
12/31/73	5.1	NO DATA	4	10		0.4		0.0	23		3.9		
01/30/74	5.9	NO DATA	2	14		0.0		0.0	24		0.0		
02/08/74	5.7	NO DATA	4	16		0.0		0.0	525				
03/13/74	5.4	NO DATA	4	10		0.0		0.0	35				
04/10/74	5.6	NO DATA	2	12		2.1		0.0	45				
05/10/74	5.5	NO DATA	4	22		1.3		0.0	100				
06/18/74	5.1	NO DATA	2	24		1.2		0.0	175				
08/02/74	6.7	NO DATA	4	46		2.0		0.0	200				
08/21/74	6.6	NO DATA	8	38				0.0	150				
09/05/74	6.1	NO DATA	6	10		0.7		0.0	275				
MAXIMUM	6.7		12	46		2.1		0.0	525		3.9		
MINIMUM	5.1		2	10		0.0		0.0	23		0.0		
AVERAGE			4	19		0.7		0.0	143		1.9		

LATITUDE 40 27 53 LONGITUDE 78 57 14

STREAM OR SOURCE NAME - ARTESIAN SHAFT

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/30/73	2.8	NO DATA	100	0		286.2		78.4	1374				
12/03/73	2.5	NO DATA	900	0		332.8		287.8	1175				
12/31/73	2.8	NO DATA	900	0		396.0		26.9	1325				
01/30/74	2.9	NO DATA	500	0		796.2		293.5	1225				
02/08/74	2.9	NO DATA	980	0		500.0		289.0	1400				
03/13/74	2.7	NO DATA	960	0		447.3		136.0	1725		33.6		
04/10/74	2.8	NO DATA	980	0		314.0		305.8	1350				
05/10/74	2.7	NO DATA	1020	0		326.0		278.9	1300				
06/18/74	2.6	NO DATA	900	0		185.8		168.0	1700				
08/02/74	2.7	NO DATA	1000	0		351.0		246.4	1775				
08/21/74	2.6	NO DATA	1200	0		321.0		100.8	1800				
09/05/74	2.7	NO DATA	1000	0		397.0		392.0	1550				
MAXIMUM	2.9		1200	0		796.2		392.0	1800		33.6		
MINIMUM	2.5		100	0		185.8		26.9	1175		33.6		
AVERAGE			870	0		387.7		216.9	1474		33.6		

STREAM OR SOURCE NAME - RUMMEL RUN BELOW LAKE

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
08/02/74	4.5	1.297	0	83	0.3	2	0.0	225	1571	
08/22/74	3.7	0.858	0	73	0.6	2	0.0	200	924	
MAXIMUM	4.5	1.297	0	83	0.6	2	0.0	225	1571	
MINIMUM	3.7	0.858	0	73	0.3	2	0.0	200	924	
AVERAGE	1.077	14	0	78	0.4	2	0.0	212	1248	

STREAM OR SOURCE NAME - RUMMEL RUN BELOW JOINING OF ALL TRIBUTARIES

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
11/06/73	3.5	12.500 *	24	1617	0.1	6	0.0	66	4437	
12/03/73	3.9	22.200 *	26	3111	0.1	11	0.0	65	7770	
12/31/73	4.0	30.350 *	16	2617	0.3	48	0.0	37	6039	
08/02/74	4.4	1.169	18	113	0.5	3	0.0	225	1416	
08/22/74	3.8	0.773	18	74	0.1	0	0.0	125	520	
MAXIMUM	4.4	30.350	26	3111	0.5	48	0.0	225	7770	
MINIMUM	3.5	0.773	16	74	0.1	0	0.0	37	520	
AVERAGE	13.398	20	0	1506	0.2	14	0.0	103	4036	

\* Flows questionable - Loading values for these dates are exaggerated

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 72 SUB-BASIN 44 DRAINAGE AREA/ACRES 891  
LATITUDE 40 27 36 LONGITUDE 78 55 37  
STREAM OR SOURCE NAME - NORTHERN MOST TRIBUTARY TO RUMMEL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/31/73	3.4	4.544	28	0	685	0.3	7	0.0	46	1122			
12/04/73	4.0	2.484	20	0	267	0.0	0	0.0	30	399			
12/31/73	3.9	4.739	12	0	306	0.4	10	0.0	32	815			
01/30/74	4.2	3.113	20	0	335	0.1	1	0.0	34	569			
02/18/74	3.3	0.208	20	0	22	0.0	0	0.0	725	812			
03/14/74	4.1	3.981	20	0	429	0.0	0	0.0	35	748			
04/15/74	4.0	3.364	20	0	362	1.0	18	0.0	30	541			
05/08/74	3.5	1.779	20	0	191	0.3	2	0.0	36	345			
06/07/74	3.7	1.981	10	0	106	0.2	2	0.0	75	800			
08/02/74	4.2	0.304	18	0	29	0.0	0	0.0	275	450			
08/22/74	3.6	0.151	24	0	19	0.0	0	0.0	175	142			
09/10/74	4.1	1.402	18	0	136	0.6	4	0.0	700	5289			
MAXIMUM	4.2	4.739	28	0	685	1.0	18	0.0	725	5289			
MINIMUM	3.3	0.151	10	0	19	0.0	0	0.0	30	142			
AVERAGE		2.337	19	0	241	0.2	3	0.0	182	1003			

AA-65

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 72A SUB-BASIN 44 DRAINAGE AREA/ACRES 3  
LATITUDE 40 27 34 LONGITUDE 78 55 38  
STREAM OR SOURCE NAME - STRIP MINE DRAINAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
12/04/73	3.0	0.005	278	0	7	31.8	0	0.0	3725	100			
12/31/73	3.0	0.020	226	0	24	24.7	2	0.0	390	42			
01/30/74	3.0	0.008	262	0	11	23.2	1	0.0	325	14			
02/18/74	2.8	0.003	700	0	11	16.1	0	0.0	400	6			
03/14/74	3.1	0.003	300	0	4	22.4	0	0.0	275	4			
04/15/74	3.0	0.008	218	0	9	8.0	0	0.0	225	9			
05/08/74	2.8	0.001	600	0	3	12.6	0	0.0	350	1			
06/07/74	2.8	0.001	300	0	1	5.5	0	0.0	325	1			
08/02/74	2.8	0.002	300	0	3	9.7	0	0.0	475	5			
08/22/74	2.6	0.003	400	0	6	12.6	0	0.0	525	8			
09/10/74	2.9	0.004	9	0	0	9.6	0	0.0	2200	47			
MAXIMUM	3.1	0.020	700	0	24	31.8	2	0.0	3725	100			
MINIMUM	2.6	0.001	9	0	0	5.5	0	0.0	225	1			
AVERAGE		0.005	326	0	7	16.0	0	0.0	837	21			

SAMPLE NUMBER 73 SUB-BASIN 44 DRAINAGE AREA/ACRES 17 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

LATITUDE 40 27 31 LONGITUDE 78 55 39

STREAM OR SOURCE NAME - STRIP MINE DRAINAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NFT ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/31/73	2.5	0.278	400	0	599	9.4	14	0.0	299	447			
12/03/73	2.9	0.180	270	0	261	7.1	6	0.0	725	703			
12/31/73	3.0	0.226	186	0	226	4.2	5	0.0	260	316			
01/30/74	2.9	0.159	182	0	155	5.4	4	0.0	200	171			
02/18/74	2.7	0.075	2400	0	970	8.4	3	0.0	275	111			
03/14/74	3.1	0.180	180	0	174	4.0	3	0.0	225	218			
04/15/74	2.9	0.140	190	0	143	6.0	4	0.0	225	169			
05/08/74	2.8	0.075	200	0	80	8.3	3	0.0	200	80			
05/07/74	2.8	0.089	200	0	95	7.5	3	0.0	250	119			
08/02/74	2.9	0.017	300	0	27	5.8	0	0.0	425	38			
08/22/74	2.6	0.017	400	0	36	5.4	0	0.0	475	43			
09/10/74	3.0	0.051	19	0	5	6.2	1	0.0	425	116			
MAXIMUM	3.1	0.278	2400	0	970	9.4	14	0.0	725	703			
MINIMUM	2.5	0.017	19	0	5	4.0	0	0.0	200	38			
AVERAGE		0.123	410	0	231	6.4	4	0.0	332	211			

SAMPLE NUMBER 74 SUB-BASIN 44 DRAINAGE AREA/ACRES 77 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

LATITUDE 40 27 27 LONGITUDE 78 55 39

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO RUMMEL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NFT ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/31/73	2.7	0.155	300	0	250	3.4	2	2.2	224	187			
12/03/73	3.0	0.185	308	0	307	6.7	6	0.0	475	473			
12/31/73	3.0	0.303	210	0	342	7.4	12	0.0	345	563			
01/30/74	3.0	0.185	238	0	237	7.4	7	0.0	225	224			
02/18/74	2.9	0.102	300	0	164	4.0	2	0.0	1475	810			
03/14/74	3.1	0.285	300	0	460	6.2	9	0.0	300	460			
04/15/74	3.0	0.185	204	0	203	7.0	6	0.0	175	174			
05/08/74	3.0	0.102	260	0	142	4.4	2	0.0	225	123			
06/07/74	2.9	0.127	300	0	205	5.0	3	0.0	275	188			
08/02/74	3.0	0.022	260	0	30	2.2	0	0.0	300	35			
03/22/74	2.8	0.022	300	0	35	2.0	0	0.0	425	50			
09/10/74	3.2	0.057	224	0	68	2.7	0	0.0	375	115			
MAXIMUM	3.2	0.303	308	0	460	7.4	12	2.2	1475	810			
MINIMUM	2.7	0.022	204	0	30	2.0	0	0.0	175	35			
AVERAGE		0.146	267	0	204	4.8	4	0.1	401	283			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

74A SUB-BASIN 44 DRAINAGE AREA/ACRES 17

SAMPLE NUMBER 74A SUB-BASIN 44 DRAINAGE AREA/ACRES 17  
LATITUDE 40 27 18 LONGITUDE 78 55 43

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO RUMMEL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	4.0	0.112	18	0	10	0.1	0	0.0	56	33			
12/03/73	4.1	0.128	36	0	24	0.0	0	0.0	55	37			
12/31/73	4.0	0.309	20	0	33	0.6	0	0.0	58	96			
01/30/74	4.3	0.287	22	0	34	0.1	0	0.0	175	270			
02/18/74	4.0	0.113	24	0	14	0.0	0	0.0	45	27			
03/14/74	4.3	0.348	20	0	37	0.0	0	0.0	35	65			
04/15/74	4.2	0.292	20	0	31	1.0	1	0.0	40	62			
05/08/74	4.4	0.116	26	0	16	0.1	0	0.0	25	30			
06/07/74	4.0	0.098	12	0	6	0.1	0	0.0	57	30			
08/02/74	4.3	0.005	18	0	0	0.7	0	0.0	275	7			
08/22/74	4.0	0.003	20	0	0	0.0	0	0.0	175	2			
09/10/74	4.4	0.102	22	0	12	0.6	0	0.0	300	164			
MAXIMUM	4.4	0.348	36	0	37	1.0	1	0.0	300	270			
MINIMUM	4.0	0.003	12	0	0	0.0	0	0.0	25	2			
AVERAGE		0.159	21	0	18	0.2	0	0.0	108	67			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

75 SUB-BASIN 44 DRAINAGE AREA/ACRES 259

SAMPLE NUMBER 75 SUB-BASIN 44 DRAINAGE AREA/ACRES 259  
LATITUDE 40 27 04 LONGITUDE 78 56 06

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO RUMMEL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/31/73	3.8	0.925	14	0	69	0.4	1	0.0	56	278			
12/03/73	4.1	0.324	20	0	34	0.4	0	0.0	45	78			
12/31/73	2.8	0.661	200*	0	712	1.5	5	0.0	150	534			
01/30/74	4.1	0.492	18	0	47	0.1	0	0.0	52	137			
02/18/74	3.2	0.262	18	0	25	0.0	0	0.0	65	91			
03/14/74	4.0	0.631	18	0	61	0.4	1	0.0	45	152			
04/15/74	4.0	0.573	10	0	30	2.0	6	0.0	40	123			
05/08/74	4.1	0.262	14	0	19	0.1	0	0.0	49	69			
06/07/74	3.9	0.282	12	0	18	0.1	0	0.0	46	69			
08/02/74	3.9	0.043	30	0	6	0.5	0	0.0	225	52			
08/22/74	3.7	0.026	22	0	3	0.4	0	0.0	175	24			
09/10/74	4.4	0.189	14	0	14	0.3	0	0.0	250	254			
MAXIMUM	4.4	0.925	200	0	712	2.0	6	0.0	250	534			
MINIMUM	2.8	0.026	10	0	3	0.0	0	0.0	40	24			
AVERAGE		0.389	32	0	87	0.5	1	0.0	99	155			

\* TEST RESULT QUESTIONABLE  
(33) ADJUSTED AVERAGE

SAMPLE NUMBER 75A SUB-BASIN 44 DRAINAGE AREA/ACRES 159 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 26 55 LONGITUDE 78 56 08 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - PERENNIAL TRIBUTARY TO RUMMEL RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
10/31/73	4.1	0.539	10	0	29	0.1	0	0.0	46	133	
12/03/73	4.5	0.288	16	2	21	0.0	0	0.0	40	61	
12/31/73	4.2	0.502	10	0	27	0.4	1	0.0	47	127	
01/30/74	4.5	0.333	12	0	21	0.6	1	0.0	43	76	
02/18/74	4.2	0.170	8	0	7	0.0	0	0.0	42	38	
03/14/74	4.5	0.431	10	0	23	0.0	0	0.0	40	92	
04/15/74	4.4	0.414	12	0	26	0.0	0	0.0	35	77	
05/08/74	4.5	0.194	10	0	10	0.1	0	0.0	41	42	
06/07/74	4.3	0.194	4	0	4	0.0	0	0.0	47	49	
08/02/74	4.5	0.027	10	0	1	0.0	0	0.0	225	32	
08/22/74	4.2	0.025	10	0	1	0.0	0	0.0	300	40	
09/10/74	4.8	0.147	8	4	3	0.9	0	0.0	225	178	
MAXIMUM	4.8	0.539	16	4	29	0.9	1	0.0	300	178	
MINIMUM	4.1	0.025	4	0	1	0.0	0	0.0	35	32	
AVERAGE		0.272	10	0	14	0.1	0	0.0	94	79	

AA-68

SAMPLE NUMBER 4851 SUB-BASIN 44 DRAINAGE AREA/ACRES OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 27 34 LONGITUDE 78 54 28 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
11/05/73	3.3	0.010	38	0	2	1.8	0	0.0	105	5	
12/04/73	3.2	0.007	100	0	3	0.6	0	0.0	65	2	
12/31/73	3.3	0.013	20	0	1	0.4	0	0.0	65	4	
01/30/74	3.2	0.013	36	0	2	0.4	0	0.0	150	10	
02/18/74		0.000	0	0	0	0.0	0	0.0	0	0	
03/14/74	3.7	0.013	14	0	0	0.1	0	0.0	200	14	
04/15/74	3.8	0.016	14	0	1	4.0	0	0.0	65	5	
05/08/74	3.4	0.007	30	0	1	0.2	0	0.0	175	6	
06/07/74	3.5	0.007	30	0	1	0.5	0	0.0	125	4	
MAXIMUM	3.8	0.016	100	0	3	4.0	0	0.0	200	14	
MINIMUM	3.2	0.000	0	0	0	0.0	0	0.0	0	0	
AVERAGE		0.009	31	0	1	0.8	0	0.0	105	6	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4853 SUB-BASIN 44 DRAINAGE AREA/ACRES  
LATITUDE 40 27 13 LONGITUDE 78 55 17

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	2.6	0.004	380	0	8	391.2	8	10.1	1824	39			
12/04/73	2.4	0.005	3000	0	80	332.8	8	5.6	1300	35			
12/31/73	2.4	0.013	1100	0	77	437.6	30	0.0	1350	94			
01/30/74	2.6	0.013	1100	0	77	563.0	39	0.0	1075	75			
02/18/74	2.7	0.007	1500	0	56	529.6	19	0.0	1625	61			
03/14/74	2.5	0.019	1100	0	112	313.0	32	0.0	1025	104			
04/15/74	2.6	0.019	1060	0	108	313.0	32	0.0	1025	104			
05/08/74	2.5	0.007	1340	0	50	272.0	10	3.4	1050	39			
06/07/74	2.6	0.013	1360	0	95	252.0	17	0.0	1300	91			
08/02/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/10/74		0.000	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	2.7	0.019	3000	0	112	563.0	39	10.1	1824	104			
MINIMUM	2.4	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.008	995	0	55	283.6	16	1.5	964	53			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4854 SUB-BASIN 44 DRAINAGE AREA/ACRES  
LATITUDE 40 27 19 LONGITUDE 78 55 18

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	2.5	0.007	400	0	15	224.8	8	0.0	1049	39			
12/04/73	2.4	0.011	1100	0	65	212.2	12	0.0	1100	65			
12/31/73	2.5	0.020	500	0	53	107.4	11	0.0	775	83			
01/30/74	2.6	0.007	700	0	26	144.4	5	0.0	650	24			
02/18/74	2.7	0.009	900	0	43	296.1	14	0.0	1200	58			
03/14/74	2.5	0.034	1200	0	219	139.1	25	0.0	550	100			
04/15/74	2.6	0.034	880	0	161	190.0	34	3.4	600	109			
05/08/74	2.5	0.008	980	0	42	178.0	7	0.0	775	33			
06/07/74	2.5	0.013	1140	0	79	181.0	12	0.0	1150	80			
08/02/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/10/74	2.4	0.001	1400	0	7	111.4	0	2.2	550	2			
MAXIMUM	2.7	0.034	1400	0	219	296.1	34	3.4	1200	109			
MINIMUM	2.4	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.012	766	0	59	148.7	11	0.4	699	49			



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4855 SUB-BASIN 44

LATITUDE 40 27 08 LONGITUDE 78 55 20

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	2.6	NO DATA	100	0		26.4		0.0	426				
12/04/73	2.5	NO DATA	400	0		25.6		0.0	270				
12/31/73	2.6	NO DATA	400	0		18.4		0.0	145				
MAXIMUM	2.6		400	0		26.4		0.0	426				
MINIMUM	2.5		100	0		18.4		0.0	145				
AVERAGE			300	0		23.4		0.0	280				

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

69 SUB-BASIN 45

LATITUDE 40 29 07 LONGITUDE 78 56 22

STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/06/73	2.8	NO DATA	40	0		20.7		13.4	99				
12/04/73	3.0	7,310	160	0	6304	18.9	744	6.7	200	7880			
01/02/74	2.5	5,685	500	0	15321	43.5	1332	3.4	225	6890			
01/31/74	2.9	3,810	300	0	6160	41.8	858	9.0	50	1024	2.3	47	
02/13/74	2.6	3,532	100	0	1903	42.4	807	7.8	275	5234			
03/13/74	3.2	7,310	100	0	3940	17.9	705	3.4	150	5906			
04/10/74	3.3	4,503	40	0	970	14.6	354	1.1	150	3638			
05/08/74	3.3	1,554	80	0	670	27.8	232	7.8	50	418			
06/18/74	2.8	0,855	200	0	921	40.1	184	20.2	150	690			
06/26/74	3.0	2,103	100	0	1133	12.9	166	0.0	100	1133			
07/18/74	2.5	0,338	300	0	546	71.2	129	1.1	400	728			
07/31/74	2.7	0,164	400	0	353	79.5	70	79.5	400	353			
08/01/74	2.6	0,121	450	0	293	98.0	63	91.8	525	342			
08/13/74	2.7	0,194	500	0	522	58.9	61	54.9	225	235			
08/19/74	2.7	0,135	400	0	291	74.5	54	62.7	175	127			
08/21/74	2.8	0,113	600	0	365	94.7	57	1.1	375	228			
09/05/74	3.1	4,833	30	0	781	8.2	213	0.0	300	7814			
09/10/74	2.9	1,902	1100	0	11276	53.0	543	22.4	300	3075			
09/11/74	3.1	1,580	110	0	936	26.0	221	16.8	275	2341			
MAXIMUM	3.3	7,310	1100*	0	15321	98.0	1332	91.8	525	7080	2.3	47	
MINIMUM	2.5	0,113	30	0	291	8.2	54	0.0	50	127	2.3	47	
AVERAGE		2,557	290	0	2927	44.4	376	21.2	232	2670	2.3	47	

\* TEST RESULT QUESTIONABLE (2363) ADJUSTED AVERAGE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

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DRAINAGE AREA/ACRES

69C SUB-BASIN 45

SAMPLE NUMBER

LATITUDE 40 29 12 LONGITUDE 78 56 23

STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
07/31/74	7.1	0.158	0	48	-40	0.0	0	0.0	300	255			
08/19/74	6.7	0.130	6	56	-35	1.5	1	0.0	275	192			
MAXIMUM	7.1	0.158	6	56	-35	1.5	1	0.0	300	255			
MINIMUM	6.7	0.130	0	48	-40	0.0	0	0.0	275	192			
AVERAGE		0.144	3	52	-37	0.7	0	0.0	287	224			

AA-71

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

207

DRAINAGE AREA/ACRES

69A SUB-BASIN 46

SAMPLE NUMBER

LATITUDE 40 29 06 LONGITUDE 78 56 14

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/06/73	2.6	0.084	200	0	90	26.4	11	1.1	174	78			
12/04/73	2.9	0.168	220	0	199	16.9	15	2.2	175	158			
01/02/74	2.6	0.223	300	0	360	17.9	21	0.0	100	120			
01/31/74	3.2	0.186	100	0	100	8.9	8	0.0	12	11	1.3	1	
02/18/74	2.8	0.168	300	0	271	5.8	5	1.1	200	181			
03/13/74	3.1	0.335	80	0	144	8.4	15	0.0	225	406			
04/10/74	3.1	0.223	90	0	108	12.2	14	1.1	150	180			
05/08/74	3.4	0.124	40	0	26	3.9	2	0.0	89	59			
06/18/74	2.9	0.041	100	0	22	1.3	0	0.0	175	38			
07/31/74	3.0	0.015	150	0	12	5.8	0	5.6	300	24			
08/19/74	2.9	0.003	100	0	1	11.5	0	5.6	200	3			
09/10/74	2.9	0.030	10	0	1	18.7	3	15.7	325	52			
MAXIMUM	3.4	0.335	300	0	360	26.4	21	15.7	325	406	1.3	1	
MINIMUM	2.6	0.003	10	0	1	1.3	0	0.0	12	3	1.3	1	
AVERAGE		0.133	140	0	111	11.4	8	2.7	177	109	1.3	1	

SAMPLE NUMBER 69D SUB-BASIN 46 DRAINAGE AREA/ACRES 147 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 29 06 LONGITUDE 78 55 59 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
07/31/74	6.7	0.017	50	-4	0.0	0.0	275	25	
08/19/74	7.0	0.009	52	-2	0.9	0.0	175	8	
MAXIMUM	7.0	0.017	52	-2	0.9	0.0	275	25	
MINIMUM	6.7	0.009	50	-4	0.0	0.0	175	8	
AVERAGE	6.7	0.013	51	-3	0.4	0.0	225	16	

AA-72

SAMPLE NUMBER 76 SUB-BASIN 48 DRAINAGE AREA/ACRES 43802 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 29 03 LONGITUDE 78 55 23 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - MOUTH OF NORTH BRANCH BLACKLICK CREEK

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
11/06/73	4.1	188.700	40	40683	27.9	16.8	1349	1372037	
12/04/73	4.8	204.100	40	37403	21.8	12.3	315	346357	
01/02/74	2.4	289.300	200	311865	37.7	15.7	225	350631	
01/31/74	3.0	249.900	100	134896	31.1	17.9	550	740703	
02/18/74	3.1	67.100	100	36166	57.6	29.1	250	90383	
03/14/74	5.4	191.400	18	6189	15.1	7.8	185	190825	
04/11/74	6.0	327.700	6	-28260	12.0	2.2	175	309021	
05/09/74	5.9	74.400	8	-18830	16.1	1.1	200	85593	
06/05/74	4.7	207.900	24	24652	16.9	3.4	225	251974	
06/19/74	3.4	63.800	600	206329	45.8	10.1	2500	859705	
06/26/74	3.0	112.000	200	120736	34.4	0.0	325	196112	
07/18/74	4.4	50.900	18	4938	17.6	6.7	775	212609	
07/30/74	4.5	60.000	38	12289	24.7	10.1	850	274860	
08/01/74	6.7	59.060	12	-10186	17.9	2.2	1000	318333	
08/13/74	6.7	49.800	10	-15568	38.7	0.0	825	221410	
08/21/74	3.1	56.210	440	133307	211.0	78.4	1475	446869	
09/05/74	6.3	182.620	4	-27561	13.5	0.0	325	319767	
09/11/74	4.7	79.800	52	19785	26.1	24.6	675	290312	
MAXIMUM	6.7	327.700	600	311865	211.0	78.4	2500	1372037	
MINIMUM	2.4	49.800	4	-28260	12.0	0.0	175	85593	
AVERAGE		139.982	106	54924	36.9	13.2	679	382083	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 1883

SAMPLE NUMBER 78 SUB-BASIN 48  
LONGITUDE 78 54 32

STREAM OR SOURCE NAME - DOWNEY RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
06/05/74	4.6	7.538	4	2	81	0.1	3	0.0	24	972			
MAXIMUM	4.6	7.538	4	2	81	0.1	3	0.0	24	972			
MINIMUM	4.6	7.538	4	2	81	0.1	3	0.0	24	972			
AVERAGE		7.538	4	2	81	0.1	3	0.0	24	972			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 2252

SAMPLE NUMBER 79 SUB-BASIN 48  
LONGITUDE 78 54 14

STREAM OR SOURCE NAME - GARNEY RUN AT MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/06/73	5.4	8.034	4	2	86	0.1	4	0.0	41	1767			
12/04/73	5.1	8.828	10	4	285	0.0	0	0.0	30	1421			
01/02/74	4.0	13.225	4	0	285	0.1	7	0.0	30	2129			
01/31/74	5.4	11.192	2	6	-241	0.0	0	0.0	18	1085			
02/18/74	5.1	1.759	2	2	0	0.0	0	0.0	12	112			
03/14/74	4.9	8.173	10	4	264	0.0	0	0.0	350	15414			
04/11/74	5.2	15.206	8	8	0	1.0	81	0.0	45	3679			
05/09/74	5.5	2.394	2	8	-77	0.0	0	0.0	11	141			
06/05/74	4.9	9.024	2	4	-97	0.1	4	0.0	9	433			
07/30/74	6.4	1.393	2	12	-75	0.0	0	0.0	250	1876			
08/20/74	6.6	1.973	6	22	-170	1.4	14	0.0	150	1594			
09/11/74	5.8	2.414	6	8	-26	0.9	11	0.0	175	2276			
MAXIMUM	6.6	15.206	10	22	285	1.4	81	0.0	350	15414			
MINIMUM	4.0	1.393	2	0	-241	0.0	0	0.0	9	112			
AVERAGE		6.967	4	6	19	0.3	10	0.0	93	2660			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

80A SUB-BASIN 48 DRAINAGE AREA/ACRES

SAMPLE NUMBER 80A SUB-BASIN 48 DRAINAGE AREA/ACRES  
LATITUDE 40 30 26 LONGITUDE 78 54 09

STREAM OR SOURCE NAME - SLOPE MINE (COMMERCIAL COAL MINING CO.-MINE # 16 1)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
05/10/74	2.7	2,419	420	0	5476	135.0	1760	109.8	475	6192	
06/05/74	2.8	7,096	380	0	14534	147.0	5622	0.0	625	23899	
06/19/74	3.0	7,178	400	0	15475	106.7	4128	0.0	875	33851	
06/26/74	2.6	5,942	600	0	19216	76.4	2446	3.4	550	17612	
07/18/74	2.5	5,130	300	0	8295	144.3	3989	128.8	875	24193	
07/30/74	2.6	7,140	500	0	19242	128.0	4926	127.7	900	34636	
08/01/74	2.8	6,371	400	0	13735	133.0	4567	124.3	950	32619	
08/13/74	2.9	7,151	500	0	19271	88.1	3395	5.6	600	23126	
08/21/74	2.9	7,438	600	0	24054	148.0	5933	123.2	800	32072	
09/05/74	2.4	5,604	500	0	15102	140.0	4228	134.4	800	24164	
09/11/74	2.9	5,908	400	0	12737	320.4	10202	112.0	750	23880	
MAXIMUM	3.0	7,438	600	0	24054	320.4	10202	134.4	950	34636	
MINIMUM	2.4	2,419	300	0	5476	76.4	1760	0.0	475	6192	
AVERAGE		6,125	454	0	15194	142.4	4654	79.0	745	25113	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

80 SUB-BASIN 48 DRAINAGE AREA/ACRES 212

SAMPLE NUMBER 80 SUB-BASIN 48 DRAINAGE AREA/ACRES  
LATITUDE 40 30 57 LONGITUDE 78 53 59

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
11/06/73	6.2	0.747	2	2	0	0.1	0	0.0	36	144	0.0
12/04/73	6.2	0.821	14	10	17	0.1	0	0.0	35	154	0.0
01/02/74	4.8	1.230	4	4	0	0.6	3	0.0	45	297	0.0
05/05/74	5.4	0.839	4	14	-45	0.7	3	0.0	14	62	0.0
MAXIMUM	6.2	1.230	14	14	17	0.7	3	0.0	45	297	0.0
MINIMUM	4.8	0.747	2	2	-45	0.1	0	0.0	14	62	0.0
AVERAGE		0.909	6	7	-6	0.3	1	0.0	32	164	0.0

BLACKLICK CREEK WATERSHED

LONGITUDE 78 52 57

STREAM OR SOURCE NAME - STEVENS RUN 4.625\* FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESSE MG/L
11/08/73	7.0	6.861	0	42	-1553	0.0	0	0.0	86	3176			
12/04/73	7.1	9.630	0	80	-4152	0.0	0	0.0	105	5440			
01/02/74	5.6	14.426	4	50	-3576	0.1	7	0.0	65	5049			
01/31/74	6.6	12.209	6	86	-5264	0.0	6	0.0	101	6641			
02/19/74	7.3	3.117	0	126	-2116	0.0	0	0.0	200	3360			
03/14/74	6.4	8.916	8	70	-2979	0.1	4	0.0	45	2157			
04/11/74	7.1	16.587	0	80	-7152	0.0	0	0.0	150	13402			
05/09/74	7.0	2.611	0	140	-1970	0.0	0	0.0	50	702			
06/05/74	5.7	9.844	4	88	-4456	0.2	10	0.0	73	3868			
07/30/74	7.5	1.435	0	182	-1407	0.7	5	0.0	350	2706			
08/20/74	7.5	2.145	6	248	-2797	1.2	13	0.0	150	1733			
09/11/74	6.8	2.511	4	90	-1163	0.1	1	0.0	175	2367			
MAXIMUM	7.5	16.587	8	248	-1163	1.2	13	0.0	350	13402			
MINIMUM	5.6	1.435	0	42	-7152	0.0	0	0.0	45	702			
AVERAGE		7.524	2	106	-3216	0.2	4	0.0	129	4217			

BLACKLICK CREEK WATERSHED

LONGITUDE 78 53 17

STREAM OR SOURCE NAME - NORTH BRANCH BLACKLICK CREEK ABOVE MOUTH OF ELK CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESSE MG/L
11/08/73	7.4	79.100	0	80	-34107	0.6	255	0.0	106	45166	0.0	0	0.0
12/04/73	7.3	86.920	0	128	-59967	3.4	1592	0.0	110	51456	0.0	0	0.0
01/02/74	6.6	130.200	4	86	-57545	0.9	631	0.0	89	62365	0.0	0	0.0
01/31/74	6.8	110.190	4	70	-39198	1.5	890	0.0	96	56968	0.0	0	0.0
02/18/74	7.5	17.320	0	196	-18297	0.6	55	0.0	225	20991	0.0	0	0.0
03/14/74	6.7	80.470	6	106	-43373	0.4	173	0.0	70	30337	0.0	0	0.0
04/11/74	7.2	149.710	0	110	-88763	2.0	1613	0.0	150	120965	0.0	0	0.0
05/09/74	7.2	23.570	0	230	-29219	0.5	63	0.0	100	12704	0.0	0	0.0
06/05/74	6.3	88.850	4	102	-46932	0.4	191	0.0	175	83785	0.0	0	0.0
06/19/74	7.0	15.650	0	262	-22100	0.2	16	0.0	300	25306	0.0	0	0.0
06/26/74	6.5	40.130	2	176	-37636	1.3	280	0.0	250	54055	0.0	0	0.0
07/18/74	7.8	10.830	0	286	-16694	0.0	0	0.0	300	17512	0.0	0	0.0
07/30/74	8.0	12.960	0	348	-24309	1.1	76	0.0	275	19206	0.0	0	0.0
08/01/74	8.4	15.700	0	388	-32833	0.4	33	0.0	325	27490	0.0	0	0.0
08/13/74	8.0	10.480	0	424	-23950	0.8	45	0.0	225	12701	0.0	0	0.0
08/21/74	8.1	12.760	0	418	-28748	0.0	0	0.0	400	27510	0.0	0	0.0
09/05/74	6.9	65.940	0	100	-35541	0.1	34	0.0	300	106624	0.0	0	0.0
09/11/74	7.4	22.670	0	140	-17107	0.2	24	0.0	175	21383	0.0	0	0.0
MAXIMUM	8.4	149.710	6	424	-16694	3.4	1613	0.0	400	120965	0.0	0	0.0
MINIMUM	6.3	10.480	0	70	-88763	0.0	0	0.0	70	12701	0.0	0	0.0
AVERAGE		54.080	1	203	-36462	0.8	332	0.0	204	44251	0.0	0	0.0

LONGITUDE 78 50 43

STREAM OR SOURCE NAME - TEAKETTIE RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	6.3	6.756	4	20	-582	0.1	3	0.0	41	1486			
12/04/73	6.6	9.482	2	40	-1942	0.0	0	0.0	20	1014			
01/02/74	6.1	14.204	2	36	-2603	0.1	7	0.0	32	2443			
01/31/74	6.4	12.021	4	46	-2721	0.1	6	0.0	32	2067			
02/19/74	7.4	3.070	0	150	-2482	0.0	0	0.0	85	1406			
03/14/74	6.5	8.779	10	30	-946	0.0	0	0.0	35	1650			
04/11/74	6.0	16.333	4	34	-2641	9.0	792	0.0	20	1747			
05/09/74	6.5	2.571	2	94	-1274	0.1	1	0.0	45	622			
MAXIMUM	7.4	16.333	10	150	-582	9.0	792	0.0	85	2443			
MINIMUM	6.0	2.571	0	20	-2721	0.0	0	0.0	20	622			
AVERAGE		9.152	3	56	-1899	1.1	101	0.0	38	1554			

LONGITUDE 78 51 13

STREAM OR SOURCE NAME - DUTCH RUN BELOW ABANDONED BARRIES & TUCKER TREATMENT FACILITY

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
01/02/74	4.7	29.867	6	2	643	6.4	1030	1.1	136	21892			
01/31/74	4.9	25.277	16	4	1634	6.4	871	5.6	150	20423			
02/19/74	5.6	6.455	34	16	626	22.7	789	7.8	325	11302			
03/14/74	7.1	18.459	0	80	-7959	0.4	39	0.0	110	10927			
04/11/74	7.1	34.343	0	132	-24434	2.0	370	1.1	75	13874			
05/09/74	7.3	5.406	0	200	-5827	0.4	11	0.0	150	4368			
06/05/74	6.2	20.382	2	48	-5053	0.9	98	0.0	6	652			
07/30/74	7.8	2.973	0	264	-4230	0.2	3	0.0	275	4405			
08/20/74	8.0	4.441	0	392	-9383	0.8	19	0.0	250	5982			
09/11/74	7.1	5.200	0	136	-3811	0.0	0	0.0	200	5605			
MAXIMUM	8.0	34.343	34	392	1634	22.7	1030	7.8	325	21892			
MINIMUM	4.7	2.973	0	2	-24434	0.0	0	0.0	6	652			
AVERAGE		15.280	5	127	-5779	4.0	323	1.5	167	9943			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 97 SUB-BASIN 48 DRAINAGE AREA/ACRES 7524  
LATITUDE 40 35 07 LONGITUDE 78 48 51

STREAM OR SOURCE NAME - NORTH BRANCH BLACKLICK CREEK N. OF BLUE GOOSE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	6.8	21.019	6	24	-2039	0.1	11	0.0	36	4077			
12/04/73	6.4	29.500	10	28	-2862	0.1	15	0.0	60	9528			
01/02/74	5.8	44.189	2	30	-6669	0.3	71	0.0	27	6407			
01/31/74	6.1	37.398	4	36	-6450	0.1	19	0.0	100	20157			
02/19/74	7.3	9.550	0	100	-5147	0.0	0	0.0	200	10294			
03/14/74	7.0	27.311	0	38	-5593	0.1	14	0.0	35	5134			
04/11/74	6.9	50.811	8	32	-6572	2.0	547	0.0	45	12296			
05/09/74	7.1	7.999	0	60	-2586	0.4	17	0.0	100	4311			
MAXIMUM	7.3	50.811	10	100	-2039	2.0	547	0.0	200	20157			
MINIMUM	5.8	7.999	0	24	-6669	0.0	0	0.0	27	4077			
AVERAGE		28.472	3	43	-4740	0.3	87	0.0	75	9026			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 102 SUB-BASIN 48 DRAINAGE AREA/ACRES 8458  
LATITUDE 40 34 18 LONGITUDE 78 46 54

STREAM OR SOURCE NAME - NORTH BRANCH BLACKLICK CREEK BELOW COLVER RESERVOIR

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	6.8	23.626	4	54	-6367	0.1	12	0.0	11	1393			
12/04/73	5.9	33.159	12	16	-714	0.0	0	0.0	30	5338			
01/02/74	5.8	49.671	2	20	-4819	0.1	26	0.0	23	6109			
01/31/74	6.3	42.037	4	32	-6344	0.1	22	0.0	21	4750			
02/19/74	6.6	10.735	4	48	-2545	0.0	0	0.0	43	2479			
03/14/74	6.7	30.699	10	30	-3309	0.1	16	0.0	45	7429			
04/11/74	6.3	57.114	4	50	-14160	1.0	307	0.0	35	10737			
05/09/74	5.8	8.991	4	48	-2132	0.5	24	0.0	100	4846			
09/11/74	6.2	8.648	4	22	-839	0.0	0	0.0	200	9322			
MAXIMUM	6.8	57.114	12	54	-714	1.0	307	0.0	200	10737			
MINIMUM	5.8	8.648	2	16	-14160	0.0	0	0.0	11	1393			
AVERAGE		29.408	5	35	-4501	0.2	45	0.0	56	5823			



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 14541

SAMPLE NUMBER 81 SUB-BASIN 48A  
LATITUDE 40 31 44 LONGITUDE 78 53 16

STREAM OR SOURCE NAME - MOUTH OF ELK CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
11/08/73	3.2	84,900	40	0	18304	34.0	15558	27.8	926	423735	16.0	7321	0.0
12/04/73	3.3	90,000	150	0	72765	32.8	15911	15.7	600	291060	0.0	0	0.0
01/07/74	2.7	118,400	300	0	191452	75.2	47989	49.3	300	191452	0.0	0	0.0
01/31/74	2.9	105,200	40	0	22681	71.6	40598	52.6	525	297610	0.0	0	0.0
02/18/74	2.8	44,400	500	0	119658	215.6	51596	91.8	800	191452	24.6	5886	0.0
03/14/74	4.5	85,800	300	0	138738	31.1	14381	17.9	450	208065	0.0	0	0.0
04/11/74	4.5	131,100	160	0	113060	27.0	19078	10.1	350	247254	0.0	0	0.0
05/09/74	3.7	48,500	100	0	26141	54.6	14273	29.1	600	156849	0.0	0	0.0
06/05/74	3.2	91,200	150	0	73735	50.5	24823	6.7	525	258004	0.0	0	0.0
06/19/74	2.9	43,260	400	0	93268	92.4	21544	16.8	1300	303122	0.0	0	0.0
06/26/74	2.7	59,310	400	0	127872	70.0	22377	0.0	725	231724	0.0	0	0.0
07/18/74	3.4	36,610	4	0	789	31.7	6255	23.5	1025	202233	0.0	0	0.0
07/30/74	3.3	42,900	180	0	41621	35.5	8208	4.5	1250	289017	0.0	0	0.0
08/01/74	3.4	38,340	160	0	33064	62.9	12998	57.1	1700	351309	0.0	0	0.0
08/13/74	8.2	35,940	0	390	-75549	64.8	12552	0.0	1225	237275	0.0	0	0.0
08/21/74	2.8	39,370	1200	0	254645	218.0	46260	0.0	2050	434999	0.0	0	0.0
09/05/74	4.5	85,610	22	0	10152	29.7	13705	5.6	700	323007	0.0	0	0.0
09/11/74	3.2	49,840	240	0	64473	61.9	16629	56.0	1300	349229	0.0	0	0.0
MAXIMUM	8.2	131,100	1200	390	254645	218.0	51596	91.8	2050	434999	24.6	7321	0.0
MINIMUM	2.7	35,940	0	0	-75549	27.0	6255	0.0	300	156849	0.0	0	0.0
AVERAGE		68,370	241	21	73715	69.9	22485	25.8	908	277078	5.8	1886	0.0

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 2025

SAMPLE NUMBER 88 SUB-BASIN 48A  
LATITUDE 40 31 54 LONGITUDE 78 51 34

STREAM OR SOURCE NAME - LITTLE ELK CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
12/04/73	5.4	7,925	2	4	-85	0.0	0	0.0	35	1489	0.0	0	0.0
01/02/74	4.3	11,872	4	0	255	0.0	0	0.0	19	1210	0.0	0	0.0
01/31/74	5.1	10,047	2	4	-108	0.1	5	0.0	16	864	0.0	0	0.0
02/19/74	5.2	2,566	4	2	27	0.0	0	0.0	13	179	0.0	0	0.0
03/14/74	5.7	7,337	8	4	158	0.0	0	0.0	30	1181	0.0	0	0.0
04/11/74	5.5	13,651	6	4	147	1.0	73	0.0	45	3303	0.0	0	0.0
05/09/74	5.5	2,149	4	6	-23	0.2	2	0.0	13	150	0.0	0	0.0
06/05/74	4.7	8,101	2	4	-87	0.3	13	0.0	11	477	0.0	0	0.0
07/30/74	6.1	1,182	6	8	-12	1.5	9	0.0	300	1911	0.0	0	0.0
08/20/74	5.1	1,626	6	6	0	1.3	11	0.0	200	1752	0.0	0	0.0
09/11/74	5.4	2,067	4	4	0	0.0	0	0.0	225	2505	0.0	0	0.0
MAXIMUM	6.1	13,651	8	8	255	1.5	73	0.0	300	3303	0.0	0	0.0
MINIMUM	4.3	1,182	2	0	-108	0.0	0	0.0	11	150	0.0	0	0.0
AVERAGE		6,229	4	4	24	0.4	10	0.0	82	1366	0.0	0	0.0

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 2092

SAMPLE NUMBER 89 SUB-BASIN 48A  
LONGITUDE 78 50 25

STREAM OR SOURCE NAME - HILL CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
06/05/74	5.9	8.380	2	8	-271	0.3	13	0.0	14	628			
MAXIMUM	5.9	8.380	2	8	-271	0.3	13	0.0	14	628			
MINIMUM	5.9	8.380	2	8	-271	0.3	13	0.0	14	628			
AVERAGE		8.380	2	8	-271	0.3	13	0.0	14	628			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES 1249

SAMPLE NUMBER 90 SUB-BASIN 48A  
LONGITUDE 78 49 42

STREAM OR SOURCE NAME - HILL CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
12/04/73	6.1	4.088	2	4	-52	0.0	0	0.0	30	786			
01/02/74	5.1	7.323	2	2	0	0.9	35	0.0	13	512			
01/31/74	5.9	6.197	2	6	-133	0.1	3	0.0	13	433			
02/19/74	5.9	1.583	2	10	-68	0.0	0	0.0	13	110			
03/14/74	5.9	4.525	8	8	0	0.0	0	0.0	45	1095			
04/11/74	5.9	8.420	6	10	-181	6.0	272	0.0	30	1355			
05/09/74	6.0	1.325	2	12	-71	0.3	2	0.0	9	63			
06/05/74	5.8	4.996	4	16	-323	0.5	13	0.0	9	239			
07/30/74	6.5	0.729	4	18	-55	1.6	6	0.0	250	981			
08/20/74	6.3	1.003	6	24	-97	2.6	14	0.0	175	945			
09/11/74	6.0	1.274	6	12	-41	0.2	1	0.0	200	1373			
MAXIMUM	6.5	8.420	8	24	0	6.0	272	0.0	250	1373			
MINIMUM	5.1	0.729	2	2	-323	0.0	0	0.0	9	63			
AVERAGE		3.842	4	11	-93	1.1	31	0.0	71	718			

STREAM OR SOURCE NAME - CROOKED RUN JUST BELOW DUMAN LAKE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/08/73	6.4	1.716	12	10	18	0.1	0	0.0	36	332			
12/04/73	6.2	2.410	2	16	-181	0.1	1	0.0	35	453			
01/02/74	5.0	3.610	4	6	-38	0.4	7	0.0	30	581			
01/31/74	5.9	3.055	4	16	-197	0.3	4	0.0	16	262			
02/19/74	5.9	0.780	4	18	-58	0.0	0	0.0	16	67			
03/14/74	6.0	2.231	10	16	-72	0.6	7	0.0	45	539			
04/11/74	6.3	4.151	6	18	-268	18.0	402	0.0	20	444			
05/09/74	6.1	0.653	2	22	-70	0.5	1	0.0	17	59			
06/05/74	5.9	2.463	4	28	-318	0.4	5	0.0	16	211			
07/30/74	6.9	0.359	6	30	-46	0.3	0	0.0	150	290			
08/20/74	6.4	0.494	6	34	-74	0.9	2	0.0	225	598			
09/11/74	6.3	0.628	6	20	-47	0.6	2	0.0	175	592			
MAXIMUM	6.9	4.151	12	34	18	18.0	402	0.0	225	598			
MINIMUM	5.0	0.359	2	6	-318	0.0	0	0.0	16	59			
AVERAGE		1.879	5	19	-113	1.8	36	0.0	65	369			

STREAM OR SOURCE NAME - CALIFORNIA RUN

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/08/73	6.8	4.680	4	34	-756	0.1	2	0.0	45	1132			
12/04/73	6.6	6.569	12	36	-849	0.0	0	0.0	45	1589			
01/02/74	6.0	9.840	2	28	-1378	0.9	47	0.0	24	1269			
MAXIMUM	6.8	9.840	12	36	-756	0.9	47	0.0	45	1589			
MINIMUM	6.0	4.680	2	28	-1378	0.0	0	0.0	24	1132			
AVERAGE		7.029	6	32	-995	0.3	16	0.0	38	1330			

SAMPLE NUMBER 101 SUB-BASIN 48B DRAINAGE AREA/ACRES 2632  
 LATITUDE 40 33 08 LONGITUDE 78 46 51  
 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - ELK CREEK BELOW PREISSER CROSSING

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/08/73	2.8	8.890	320	0	15333	434.9	20839	392.0	1874	89789	128.6	6162	2.4
12/05/73	2.7	11.420	1300	0	80019	209.7	12907	80.6	150	9227			
01/02/74	2.4	11.450	900	0	55543	434.6	26821	54.9	875	53998			
01/31/74	2.7	10.030	1000	0	54061	399.9	21619	219.5	950	51353	50.0	2703	2.2
02/19/74	2.9	3.350	1080	0	19501	288.1	5202	141.1	675	12187	68.0	1227	2.8
03/14/74	3.0	13.330	14	0	1005	57.6	4138	18.2	225	16155			
04/11/74	3.0	12.920	42	0	2924	79.0	5501	50.4	175	12183			
05/09/74	2.8	5.750	750	0	23244	146.0	4524	19.0	400	12397			
06/05/74	2.8	8.367	600	0	27058	155.0	6990	114.2	475	21419			
06/19/74	2.5	4.350	6400	0	150057	818.0	19179	784.0	8000	187572			
06/26/74	2.4	17.915	3500	0	337966	143.4	13846	0.0	2150	207599			
07/18/74	2.3	1.473	3100	0	24612	341.0	2707	201.6	2275	18061			
07/30/74	2.4	1.384	4500	0	33568	1000.0	7459	441.3	2950	22005			
08/01/74	2.5	0.898	5900	0	28557	1270.0	6147	896.0	3550	17182			
08/13/74	2.8	0.860	5000	0	23177	184.9	857	22.4	5025	23292			
08/21/74	2.5	0.403	8200	0	17811	1260.0	2736	728.0	4400	9557			
09/05/74	2.3	7.623	1300	0	53414	144.0	5916	140.0	1100	45196			
09/11/74	2.7	2.067	2100	0	23396	1212.0	13503	302.4	1875	20889			
MAXIMUM	3.0	17.915	8200	0	337966	1270.0	26821	896.0	8000	207599	128.6	6162	2.8
MINIMUM	2.3	0.403	14	0	1005	57.6	857	0.0	150	9227	50.0	1227	2.2
AVERAGE		6.804	2555	0	53958	476.5	10049	255.8	2062	46114	82.2	3364	2.4

SAMPLE NUMBER 104 SUB-BASIN 48C DRAINAGE AREA/ACRES 2632  
 LATITUDE 40 34 10 LONGITUDE 78 46 28  
 OPERATION SCARLIFT PROJECT SL-185  
 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - NORTH BRANCH BLACKLICK CREEK

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
06/05/74	5.5	10.537	2	40	-2158	0.0	0	0.0	17	958			
07/30/74	7.1	1.537	0	102	-845	0.6	4	0.0	275	2277			
08/20/74		2.296	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	7.1	10.537	2	102	0	0.6	4	0.0	275	2277			
MINIMUM	5.5	1.537	0	0	-2158	0.0	0	0.0	0	0			
AVERAGE		4.790	0	47	-1001	0.2	1	0.0	97	1078			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

920 DRAINAGE AREA/ACRES

106 SUB-BASIN 49  
LATITUDE 40 28 38 LONGITUDE 78 54 38

STREAM OR SOURCE NAME - SHUMAN RUN AT ROAD CROSSING IN VINTONDALE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	5.0	5.250	8	4	113	0.1	2	0.0	36	1018			
12/05/73	4.7	1.161	18	2	100	0.0	0	0.0	35	218			
01/02/74	4.4	3.686	8	2	119	0.4	7	0.0	29	575			
01/31/74	4.9	2.714	8	0	0	0.1	1	0.0	28	407			
02/19/74	4.3	1.208	20	0	130	0.2	1	0.0	150	976			
03/15/74	4.7	2.939	8	4	63	0.0	0	0.0	20	314			
04/15/74	4.7	3.042	4	4	0	20.0	327	0.0	45	736			
05/13/74	4.7	9.099	4	2	98	0.1	4	0.0	24	1173			
06/04/74	4.9	3.839	4	2	-82	0.1	2	0.0	21	433			
07/31/74	6.1	0.420	8	6	4	0.1	0	0.0	12	26			
08/19/74	5.5	0.463	20	12	19	1.2	2	0.0	150	374			
09/10/74	5.5	1.485	4	8	-32	0.7	5	0.0	225	1799			
MAXIMUM	6.1	9.099	20	12	130	20.0	327	0.0	225	1799			
MINIMUM	4.3	0.420	4	0	-82	0.0	0	0.0	12	26			
AVERAGE		2.942	9	5	44	1.9	29	0.0	64	671			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

779 DRAINAGE AREA/ACRES

107 SUB-BASIN 50  
LATITUDE 40 28 48 LONGITUDE 78 54 22

STREAM OR SOURCE NAME - BRACKEN RUN AT ROAD CROSSING

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	3.9	4.598	24	0	594	0.1	2	0.0	41	1011			
12/05/73	3.8	1.017	68	0	372	0.1	0	0.0	350	1918			
01/03/74	3.9	3.228	20	0	347	0.6	10	0.0	43	745			
01/31/74	4.3	2.377	18	0	230	0.3	3	0.0	55	703			
02/19/74	4.4	1.058	20	0	114	0.4	2	0.0	40	227			
03/15/74	4.3	2.574	20	0	277	0.0	0	0.0	35	483			
04/15/74	3.9	2.664	24	0	344	0.0	0	0.0	175	2512			
05/13/74	4.2	7.968	10	0	429	0.0	0	0.0	33	1410			
06/04/74	4.0	3.362	18	0	326	0.3	5	0.0	34	615			
07/31/74	4.2	0.368	20	0	39	0.0	0	0.0	200	396			
09/10/74	4.1	1.301	20	0	140	1.2	8	0.0	275	1928			
MAXIMUM	4.4	7.968	68	0	594	1.2	10	0.0	350	2512			
MINIMUM	3.8	0.368	10	0	39	0.0	0	0.0	33	227			
AVERAGE		2.774	23	0	292	0.2	3	0.0	116	1086			

DATE PH FLOW CFS TOTAL P ACIDITY MG/L TOTAL ALK MG/L NET ACID LB/DAY TOTAL IRON MG/L TOTAL IRON LB/DAY FERROUS IRON MG/L FERROUS IRON LB/DAY SULFATE MG/L SULFATE LB/DAY ALUMINUM MG/L ALUMINUM LB/DAY MAN-GANESE MG/L

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	FERROUS IRON LB/DAY	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	3.6	0.010	14	0	0	3.6	0	2.2	0	116	6			
12/05/73	4.8	0.560	16	2	42	0.4	1	0.0	1	175	528			
01/03/74	4.6	0.900	4	6	-9	0.6	2	0.0	2	23	110			
01/31/74	5.1	0.859	4	4	0	0.1	0	0.0	0	17	78			
02/19/74	5.0	0.340	6	6	0	0.0	0	0.0	0	17	30			
03/15/74	5.0	1.159	4	2	12	0.0	0	0.0	0	15	92			
04/15/74	4.8	1.228	4	2	13	0.0	0	0.0	0	30	197			
05/13/74	4.8	2.564	2	4	-27	0.0	0	0.0	0	27	371			
MAXIMUM	5.1	2.564	16	6	42	3.6	2	2.2	2	175	528			
MINIMUM	3.6	0.010	2	0	-27	0.0	0	0.0	0	15	6			
AVERAGE		0.952	6	3	3	0.5	0	0.2	0	52	177			

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DATE PH FLOW CFS TOTAL P ACIDITY MG/L TOTAL ALK MG/L NET ACID LB/DAY TOTAL IRON MG/L TOTAL IRON LB/DAY FERROUS IRON MG/L FERROUS IRON LB/DAY SULFATE MG/L SULFATE LB/DAY ALUMINUM MG/L ALUMINUM LB/DAY MAN-GANESE MG/L

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	FERROUS IRON LB/DAY	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	5.1	0.004	4	4	0	0.6	0	0.0	0	46	0			
12/05/73	3.6	0.011	80	0	4	1.0	0	0.0	0	50	2			
01/03/74	4.5	0.147	4	8	-3	0.3	0	0.0	0	18	14			
01/31/74	5.2	0.181	4	4	0	0.1	0	0.0	0	14	13			
02/19/74	5.9	0.193	4	10	-6	0.0	0	0.0	0	40	41			
03/15/74	5.3	0.163	6	10	-3	0.0	0	0.0	0	45	39			
04/15/74	5.3	0.408	6	2	8	3.0	6	0.0	6	30	65			
05/13/74	5.0	0.224	2	4	-2	0.0	0	0.0	0	14	16			
MAXIMUM	5.9	0.408	80	10	8	3.0	6	0.0	6	50	65			
MINIMUM	3.6	0.004	2	0	-6	0.0	0	0.0	0	14	0			
AVERAGE		0.166	13	5	0	0.6	0	0.0	0	32	24			

LATITUDE 40 28 58 LONGITUDE 78 53 21

BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
11/08/73	4.0	5.402	32	0	931	0.3	8	0.0	66	1917			
12/05/73	3.7	1.194											
01/04/74	3.9	3.792	44	0	899	0.7	14	0.0	54	1103			
02/01/74	3.3	2.792	1500*	0	22573	0.3	4	0.0	16	240			
02/19/74	4.5	1.243	34	0	227	0.0	0	0.0	55	367			
03/15/74	4.0	3.024	48	0	782	0.3	4	0.0	45	731			
04/15/74	3.8	3.130	38	0	641	0.0	0	0.0	225	3793			
05/13/74	3.9	9.362	28	0	1412	0.0	0	0.0	150	7564			
06/04/74	3.4	3.950	28	0	596	0.1	2	0.0	48	1019			
07/31/74	4.1	0.432	20	0	46	0.0	0	0.0	250	581			
08/19/74	4.2	0.477	20	0	51	1.3	3	0.0	100	257			
09/10/74	4.0	1.528	34	0	280	0.4	3	0.0	275	2264			
MAXIMUM	4.5	9.362	1500	0	22573	1.3	14	0.0	275	7564			
MINIMUM	3.3	0.432	20	0	46	0.0	0	0.0	16	240			
AVERAGE		3.027	166	0	2585	0.3	3	0.0	116	1803			

\* TEST RESULT QUESTIONABLE

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LATITUDE 40 27 42 LONGITUDE 78 52 33

BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINIUM MG/L	ALUMINIUM LB/DAY	MAN- GANESE MG/L
11/08/73	2.9	0.002	800	0	8	43.5	0	0.0	846	9			
12/05/73	2.5	0.006	700	0	22	57.4	1	0.0	505	16			
01/04/74	2.9	0.016	500	0	43	35.8	3	0.0	525	45			
02/01/74	2.9	0.026	800	0	112	23.7	3	0.0	325	45			
02/19/74	2.8	0.003	460	0	7	51.6	0	0.0	425	6			
03/15/74	2.9	0.038	520	0	106	30.0	6	0.0	575	117			
04/15/74	2.8	0.050	350	0	94	40.0	10	1.1	425	114			
05/13/74	2.9	0.431	290	0	673	18.0	41	0.0	275	638			
06/04/74	2.6	0.034	300	0	54	35.9	6	0.0	350	64			
07/31/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/19/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/10/74	2.8	0.016	620	0	53	29.6	2	2.2	550	47			
MAXIMUM	2.9	0.431	800	0	673	57.4	41	2.2	846	638			
MINIMUM	2.5	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.051	445	0	98	30.4	6	0.2	400	92			

SAMPLE NUMBER 110 SUB-BASIN 53 DRAINAGE AREA/ACRES 239 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 29 14 LONGITUDE 78 52 52 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	ALK MG/L	TOTAL P MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	4.1	0.037	16	0	0	3	0.7	0	0.0	51	10			
12/05/73	4.1	0.300	24	0	38	0.3	0	0	0.0	150	242			
01/04/74	4.0	0.498	8	0	21	0.3	0	0	0.0	26	69			
02/01/74	4.3	0.387	28	0	58	0.1	0	0	0.0	300	625			
02/20/74	4.5	0.186	6	0	6	0.0	0	0	0.0	24	23			
03/15/74	4.5	0.578	6	0	18	0.2	0	0	0.0	40	124			
04/11/74	3.6	0.588	26	0	82	2.0	6	0	0.0	100	316			
05/09/74	4.2	0.209	8	0	9	0.1	0	0	0.0	24	26			
06/19/74	3.8	0.031	10	0	1	1.3	0	0	1.1	200	33			
08/16/74		0.000	0	0	0	0.0	0	0	0.0	0	0			
09/11/74	4.0	0.037	14	0	2	1.0	0	0	0.0	175	34			
MAXIMUM	4.5	0.588	28	0	82	2.0	6	0	1.1	300	625			
MINIMUM	3.6	0.000	0	0	0	0.0	0	0	0.0	0	0			
AVERAGE		0.259	13	0	22	0.5	0	0	0.1	99	137			

SAMPLE NUMBER 112 SUB-BASIN 54 DRAINAGE AREA/ACRES 1798 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 29 48 LONGITUDE 78 51 57 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - COALPIT RUN AT INTERSECTION WITH RT. 271

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	ALK MG/L	TOTAL P MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	3.4	1.013	108	0	589	2.3	12	0	0.0	171	932			
12/05/73	3.2	2.725	112	0	1645	2.2	32	0	0.0	800	11750			
01/04/74	3.4	2.526	64	0	871	2.7	36	0	0.0	150	2041	4.8	65	1.0
02/01/74	2.9	2.526	100	0	1361	1.5	20	0	0.0	200	2723	0.8	10	
02/20/74	3.5	1.539	60	0	497	2.3	19	0	2.2	200	1659			
03/18/74	3.6	3.359	54	0	977	2.7	48	0	0.0	175	3167			
04/16/74	3.1	0.380	54	0	110	1.0	2	0	0.0	150	307			
05/13/74	3.5	8.562	40	0	1845	1.5	69	0	0.0	84	3870			
06/04/74	3.0	2.827	50	0	761	2.2	33	0	0.0	175	2665			
07/30/74	3.2	0.413	120	0	267	1.3	2	0	1.1	300	667			
08/20/74	3.2	0.317	122	0	208	2.3	3	0	0.0	175	298			
09/12/74	3.3	0.630	4800	0	16299	2.2	7	0	0.0	275	933			
MAXIMUM	3.6	8.562	4800	0	16299	2.7	69	0	2.2	800	11750	4.8	65	1.0
MINIMUM	2.9	0.317	40	0	110	1.0	2	0	0.0	84	298	0.8	10	1.0
AVERAGE		2.234	473	0	2119	2.0	24	0	0.2	237	2584	2.8	38	1.0

\* TEST RESULT QUESTIONABLE



STREAM OR SOURCE NAME -- COALPIT RUN 4,625' FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	3.2	0.666	152	0	545	5.6	20	0.0	246	882	
12/05/73	3.2	1.793	130	0	1256	2.9	28	0.0	275	2657	
01/04/74	3.3	1.661	92	0	823	3.6	32	0.0	165	1476	
02/01/74	3.3	1.661	68	0	608	2.7	24	0.0	150	1342	
02/20/74	3.3	1.012	110	0	600	3.9	21	0.0	175	954	
03/18/74	3.4	2.209	80	0	952	4.1	48	0.0	175	2083	
04/16/74	3.1	0.250	50	0	67	2.0	2	0.0	225	303	
05/13/74	3.5	5.633	50	0	1518	1.9	57	0.0	50	1515	
06/04/74	3.0	1.860	64	0	641	2.6	26	0.0	175	1753	
07/30/74	3.1	0.271	180	0	262	1.8	2	1.1	300	438	
08/20/74	3.1	0.208	142	0	159	2.7	3	0.0	250	280	
09/12/74	2.8	0.414	500	0	1115	0.4	0	0.0	325	724	
MAXIMUM	3.5	5.633	500	0	1518	5.6	57	1.1	325	2657	
MINIMUM	2.8	0.208	50	0	67	0.4	0	0.0	50	280	
AVERAGE		1.469	134	0	712	2.8	22	0.0	209	1200	

STREAM OR SOURCE NAME -- TRIBUTARY TO COALPIT RUN RUNNING THROUGH SELDERSVILLE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	5.8	0.464	6	6	0	0.3	0	0.0	41	102	
12/05/73	6.0	1.881	20	16	40	0.3	3	0.0	150	1519	
01/04/74	5.5	2.226	4	12	-95	0.3	3	0.0	32	382	
02/01/74	5.8	1.626	2	14	-105	0.1	0	0.0	33	287	
02/20/74	6.3	0.738	6	14	-31	0.0	0	0.0	150	596	
03/18/74	5.7	2.371	8	16	-102	0.8	10	0.0	30	381	
04/16/74	5.1	0.540	4	14	-29	0.0	0	0.0	55	159	
05/13/74	5.2	6.512	4	10	-210	0.0	0	0.0	23	800	
MAXIMUM	6.3	6.512	20	16	40	0.8	10	0.0	150	1519	
MINIMUM	5.1	0.464	2	6	-210	0.0	0	0.0	23	102	
AVERAGE		2.044	6	12	-66	0.2	2	0.0	64	528	

LATITUDE 40 29 57 LONGITUDE 78 50 27

STREAM OR SOURCE NAME - COALPIT RUN 8,065' FROM MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
11/12/73	3.1	0.466	174	0	437	12.9	32	0.0	131	328	
12/05/73	3.2	1.255	120	0	811	6.0	40	0.0	150	1014	
01/04/74	3.2	1.163	124	0	777	8.4	52	0.0	160	1002	
02/01/74	3.2	1.163	10	0	62	6.2	38	0.0	100	626	
02/20/74	3.3	0.708	140	0	534	9.4	35	0.0	200	763	
03/18/74	3.3	1.546	114	0	949	9.2	76	0.0	150	1249	
04/16/74	3.1	0.175	68	0	64	6.0	5	0.0	175	165	
05/13/74	3.3	3.943	80	0	1700	6.3	133	0.0	150	3185	
06/04/74	2.9	1.302	80	0	561	7.4	51	0.0	225	1578	
07/30/74	2.9	0.190	200	0	204	8.1	8	1.1	275	383	
08/20/74	2.9	0.146	1200	0	944	11.6	9	0.0	275	216	
09/12/74	2.7	0.290	900	0	1406	13.5	21	0.0	425	664	
MAXIMUM	3.3	3.943	1200	0	1700	13.5	133	1.1	425	3185	
MINIMUM	2.7	0.146	10	0	62	6.0	5	0.0	100	165	
AVERAGE		1.028	267	0	704	8.7	42	0.0	209	931	

LATITUDE 40 29 55 LONGITUDE 78 49 58

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN-GANESE MG/L
11/12/73	3.0	0.006	194	0	6	8.4	0	0.0	415	13	
12/05/73	3.0	0.016	210	0	18	4.2	0	0.0	150	12	
01/04/74	3.1	0.021	164	0	18	3.4	0	0.0	290	32	
02/01/74	3.1	0.021	164	0	18	3.2	0	0.0	225	25	
02/20/74	3.1	0.006	188	0	6	8.2	0	0.0	275	8	
03/18/74	3.1	0.017	148	0	13	4.5	0	0.0	150	13	
04/16/74	3.0	0.021	138	0	15	5.0	0	0.0	225	25	
05/13/74	3.2	0.014	110	0	8	2.7	0	0.0	225	16	
09/12/74	2.9	0.003	500	0	8	0.5	0	0.0	325	5	
MAXIMUM	3.2	0.021	500	0	18	8.4	0	0.0	415	32	
MINIMUM	2.9	0.003	110	0	6	0.5	0	0.0	150	5	
AVERAGE		0.013	201	0	12	4.4	0	0.0	253	17	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 114B SUB-BASIN 54 DRAINAGE AREA/ACRES  
LATITUDE 40 29 54 LONGITUDE 78 50 01

STREAM OR SOURCE NAME - DRIFT MINE - IMPERIAL CARDIFF COAL CO

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
06/04/74	3.0	0.067	78	0	28	1.3	0	0.0	100	36	
07/30/74		0.000	0	0	0	0.0	0	0.0	0	0	
08/20/74		0.000	0	0	0	0.0	0	0.0	0	0	
09/12/74	2.8	0.002	500	0	5	2.0	0	0.0	350	3	
MAXIMUM	3.0	0.067	500	0	28	2.0	0	0.0	350	36	
MINIMUM	2.8	0.000	0	0	0	0.0	0	0.0	0	0	
AVERAGE		0.017	144	0	8	0.8	0	0.0	112	9	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 114C SUB-BASIN 54 DRAINAGE AREA/ACRES  
LATITUDE 40 29 56 LONGITUDE 78 50 14

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
06/04/74	2.5	0.078	1200	0	504	131.0	55	2.2	950	399	
07/30/74	2.3	0.011	2300	0	136	173.0	10	2.2	2025	120	
08/20/74	2.4	0.008	3300	0	142	168.0	7	0.0	1850	79	
09/12/74	2.8	0.017	3600	0	329	116.3	10	0.0	2750	251	
MAXIMUM	2.8	0.078	3600	0	504	173.0	55	2.2	2750	399	
MINIMUM	2.3	0.008	1200	0	136	116.3	7	0.0	950	79	
AVERAGE		0.028	2600	0	278	147.0	20	1.1	1893	212	

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5079 SUB-BASIN 54

LATITUDE 40 29 58 LONGITUDE 78 49 54

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	3.0	0.112	138	0	83	4.9	2	0.0	356	214	
12/05/73	2.7	0.223	500	0	600	4.2	5	0.0	210	252	
01/04/74	3.1	0.223	132	0	158	4.3	5	0.0	226	271	
02/01/74	3.2	0.335	114	0	205	4.2	7	0.0	225	406	
02/20/74	3.2	0.112	158	0	95	6.0	3	0.0	375	75	
03/18/74	3.1	0.335	122	0	220	4.0	7	0.0	100	677	
04/16/74	3.1	0.279	98	0	147	4.0	6	0.0	150	150	
05/13/74	3.2	0.168	120	0	108	4.0	3	0.0	150	135	
06/04/74	2.9	0.279	100	0	150	3.7	5	0.0	100	150	
07/30/74	2.9	0.067	200	0	72	4.8	1	0.0	850	306	
08/20/74	2.9	0.042	400	0	90	4.8	1	0.0	275	62	
09/12/74	2.7	0.052	1700	0	476	5.0	1	0.0	1100	308	
MAXIMUM	3.2	0.335	1700	0	600	6.0	7	0.0	1100	677	
MINIMUM	2.7	0.042	98	0	72	3.7	1	0.0	100	62	
AVERAGE		0.185	315	0	200	4.4	4	0.0	341	250	

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5081 SUB-BASIN 54

LATITUDE 40 30 14 LONGITUDE 78 51 32

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	6.1	0.084	2	12	-4	0.1	0	0.0	35	15	
12/05/73	6.0	0.112	20	102	-49	0.1	0	0.0	68	40	
01/04/74	6.5	0.134	10	152	-102	0.3	0	0.0	60	43	
02/01/74	7.0	0.130	0	134	-93	0.1	0	0.0	150	105	
02/20/74	7.3	0.096	0	72	-37	0.0	0	0.0	45	23	
03/18/74	7.1	0.134	0	156	-112	0.2	0	0.0	100	72	
04/16/74	6.5	0.120	8	138	-84	0.0	0	0.0	70	45	
05/13/74	6.0	0.134	2	74	-52	0.0	0	0.0	100	72	
MAXIMUM	7.3	0.134	20	156	-4	0.3	0	0.0	150	105	
MINIMUM	6.0	0.084	0	12	-112	0.0	0	0.0	35	15	
AVERAGE		0.118	5	105	-67	0.1	0	0.0	78	52	

SAMPLE NUMBER 115 SUB-BASIN 55 DRAINAGE AREA/ACRES 238 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 39 LONGITUDE 78 51 28 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM AT ROAD INTERSECTION

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	4.7	0.496	10	2	21	0.7	1	0.0	46	122			
12/06/73	3.8	0.802	100	0	432	0.4	1	0.0	20	85			
01/08/74	4.9	0.609	6	2	13	0.1	0	0.0	28	91			
02/01/74	4.6	0.670	2	4	-7	0.0	0	0.0	24	86			
02/20/74	4.9	0.444	6	6	0	0.0	0	0.0	125	298			
03/18/74	4.5	1.460	6	0	47	0.4	3	0.0	21	164			
04/16/74	4.4	1.275	8	0	54	1.0	6	0.0	40	274			
05/13/74	4.5	4.876	6	0	157	0.2	5	0.0	26	682			
06/06/74	4.6	0.551	2	2	0	0.3	0	0.0	23	67			
08/02/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/12/74	4.3	0.073	10	0	3	2.0	0	1.1	225	88			
MAXIMUM	4.9	4.876	100	6	432	2.0	6	1.1	225	682			
MINIMUM	3.8	0.000	0	0	-7	0.0	0	0.0	0	0			
AVERAGE		0.938	13	1	60	0.4	1	0.0	48	163			

AA-90

SAMPLE NUMBER 115A SUB-BASIN 55 DRAINAGE AREA/ACRES 238 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 19 LONGITUDE 78 51 50 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.8	0.084	500	0	226	43.5	19	5.8	451	204			
12/06/73	2.3	0.209	520	0	585	45.6	51	1.1	380	428			
01/08/74	2.8	0.223	332	0	399	42.7	51	0.0	400	480			
02/01/74	2.9	0.335	200	0	361	21.7	39	0.0	325	586			
02/20/74	2.9	0.067	400	0	144	54.9	19	0.0	950	343			
03/18/74	2.8	0.335	400	0	722	25.9	46	0.0	175	315			
04/16/74	2.8	0.335	234	0	422	38.0	68	1.1	225	406			
05/13/74	2.5	0.670	340	0	1227	56.9	205	3.4	275	992			
05/06/74	2.7	0.168	300	0	271	35.4	32	0.0	400	362			
08/02/74	2.7	0.022	540	0	64	76.1	9	1.1	150	17			
08/22/74	2.7	0.011	750	0	44	79.3	4	7.8	700	41			
09/12/74	2.6	0.067	700	0	252	50.5	18	1.1	600	216			
MAXIMUM	2.9	0.670	750	0	1227	79.3	205	7.8	950	992			
MINIMUM	2.3	0.011	200	0	44	21.7	4	0.0	150	17			
AVERAGE		0.210	434	0	393	47.5	47	1.7	419	366			

LATITUDE 40 29 00 LONGITUDE 78 50 38

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM AT ROAD INTERSECTION

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	4.1	0.627	18	0	60	0.1	0	0.0	11	36			
12/06/73	3.2	1.013	80	0	436	0.1	0	0.0	30	163			
01/08/74	4.2	0.770	14	0	58	0.1	0	0.0	27	111			
02/05/74	4.4	0.847	8	0	36	0.1	0	0.0	22	99			
02/20/74	4.2	0.562	12	0	36	0.2	0	0.0	45	136			
03/18/74	4.1	1.846	10	0	99	0.2	1	0.0	19	188			
04/16/74	3.8	1.612	16	0	139	0.0	0	0.0	45	390			
05/13/74	4.1	6.162	12	0	398	0.1	3	0.0	23	757			
06/06/74	3.5	0.697	12	0	45	0.2	0	0.0	225	844			
08/02/74	3.9	0.020	22	0	2	0.0	0	0.0	250	26			
08/22/74	3.7	0.037	24	0	4	0.3	0	0.0	200	39			
09/12/74	3.4	0.092	14	0	6	0.5	0	0.0	200	99			
MAXIMUM	4.4	6.162	80	0	436	0.5	3	0.0	250	844			
MINIMUM	3.2	0.020	8	0	2	0.0	0	0.0	11	26			
AVERAGE		1.190	20	0	110	0.1	0	0.0	91	241			

LATITUDE 40 28 22 LONGITUDE 78 50 33

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	3.8	0.627	76	0	256	1.4	4	0.0	211	712			
12/06/73	2.9	0.591	140	0	445	1.1	3	0.0	165	525			
01/08/74	3.7	0.591	64	0	203	1.2	3	0.0	207	658			
02/05/74	3.5	0.627	52	0	175	1.4	4	0.0	175	591			
02/20/74	3.9	0.313	44	0	74	1.3	2	0.0	175	295			
03/18/74	3.6	1.050	42	0	237	1.0	5	0.0	175	990			
04/16/74	3.5	0.956	38	0	195	1.0	5	0.0	120	617			
05/13/74	3.8	2.393	26	0	335	0.6	7	0.0	116	1495			
06/06/74	3.3	0.426	56	0	128	0.9	2	0.0	300	688			
08/02/74	4.3	0.048	40	0	10	0.3	0	0.0	225	58			
08/20/74	4.3	0.048	20	0	5	0.9	0	0.0	200	51			
09/12/74	4.1	0.088	24	0	11	0.5	0	0.0	225	106			
MAXIMUM	4.3	2.393	140	0	445	1.4	7	0.0	300	1495			
MINIMUM	2.9	0.048	20	0	5	0.3	0	0.0	116	51			
AVERAGE		0.646	51	0	173	0.9	3	0.0	191	566			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

117A SUB-BASIN 57

LATITUDE 40 28 23 LONGITUDE 78 50 58

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
06/06/74	2.8	0.134	180	0	130	3.6	2	0.0	300	216			
08/02/74	3.0	0.039	520	0	109	2.7	0	0.0	650	136			
08/20/74	2.9	0.028	500	0	75	2.9	0	0.0	225	33			
09/12/74	2.8	0.022	600	0	71	1.3	0	0.0	600	71			
MAXIMUM	3.0	0.134	600	0	130	3.6	2	0.0	650	216			
MINIMUM	2.8	0.022	180	0	71	1.3	0	0.0	225	33			
AVERAGE		0.055	450	0	96	2.6	0	0.0	443	114			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

121 SUB-BASIN 59

LATITUDE 40 28 21 LONGITUDE 78 49 53

STREAM OR SOURCE NAME - UNNAMED STREAM DRAINING S. INTO NANTY GLD

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	4.6	2.658	12	2	143	1.2	17	0.0	66	943			
12/06/73	4.2	2.505	22	0	297	0.8	10	0.0	45	606			
01/08/74	4.8	2.505	12	4	108	1.5	20	0.0	83	1119			
02/05/74	4.6	2.658	16	4	171	2.0	28	0.0	62	887			
02/20/74	4.9	1.329	10	6	28	1.1	7	0.0	115	822			
03/19/74	4.5	4.468	10	0	239	0.9	21	0.0	125	2993			
04/16/74	4.3	4.052	400*	0	8736	1.0	21	0.0	175	3821			
05/13/74	5.0	10.139	2	6	-216	0.6	32	0.0	46	2504			
06/07/74	4.6	1.807	12	4	77	0.7	6	0.0	150	1460			
07/31/74	4.4	0.205	10	0	11	0.3	0	0.0	250	276			
08/20/74	4.6	0.132	10	4	4	1.5	1	0.0	150	106			
09/12/74	4.0	0.374	30	0	60	2.4	4	0.0	175	352			
MAXIMUM	5.0	10.139	400	6	8736	2.4	32	0.0	250	3821			
MINIMUM	4.0	0.132	2	0	-216	0.3	0	0.0	45	106			
AVERAGE		2.734	45	2	804	1.1	14	0.0	120	1324			

\* TEST RESULT QUESTIONABLE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

329

DRAINAGE AREA/ACRES

59

122

SAMPLE NUMBER 122 SUB-BASIN 59  
LATITUDE 40 28 48 LONGITUDE 78 49 52

STREAM OR SOURCE NAME - EASTERN TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	4.5	1.042	24	2	123	0.9	5	0.0	50	280			
12/06/73	4.2	0.982	20	0	105	0.4	2	0.0	20	105			
01/08/74	4.5	0.982	22	2	105	1.0	5	0.0	52	274			
02/05/74	4.6	1.042	12	6	33	1.2	6	0.0	37	207			
02/20/74	4.4	0.521	28	0	78	0.9	2	0.0	65	182			
03/19/74	4.8	1.744	8	4	37	0.2	1	0.0	275	2504			
04/16/74	4.4	1.589	6	0	51	0.0	0	0.0	150	1283			
05/13/74	4.7	3.976	4	4	0	0.1	2	0.0	24	512			
06/07/74	4.4	0.708	18	0	68	0.5	1	0.0	125	476			
07/31/74	3.4	0.080	58	0	25	1.2	0	0.0	175	75			
08/20/74	3.2	0.052	88	0	24	2.7	0	0.0	200	56			
09/12/74	3.2	0.146	100	0	78	1.9	1	0.0	175	137			
MAXIMUM	4.8	3.976	100	6	123	2.7	6	0.0	275	2584			
MINIMUM	3.2	0.052	4	0	0	0.0	0	0.0	20	56			
AVERAGE		1.072	32	1	61	0.9	2	0.0	112	514			

AA-93

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

487

DRAINAGE AREA/ACRES

59

122A

SAMPLE NUMBER 122A SUB-BASIN 59  
LATITUDE 40 28 48 LONGITUDE 78 49 54

STREAM OR SOURCE NAME - WESTERN TRIBUTARY TO UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	4.5	1.428	28	2	200	2.0	15	0.0	116	892			
12/06/73	3.9	1.346	32	0	232	1.3	9	0.0	65	471			
01/08/74	4.4	1.346	16	2	101	2.2	15	0.0	89	644			
02/05/74	3.7	1.428	26	0	200	2.7	20	2.2	75	576			
02/20/74	4.7	0.714	12	2	38	1.9	7	0.0	65	249			
03/19/74	4.7	2.389	8	4	51	1.3	16	0.0	55	707			
04/16/74	4.3	2.177	6	0	70	1.0	11	0.0	150	1759			
05/13/74	5.0	5.447	4	4	0	0.8	23	0.0	51	1492			
06/07/74	3.9	0.971	24	0	125	0.8	4	0.0	125	653			
07/31/74	4.4	0.110	16	0	9	0.7	0	0.0	225	133			
08/20/74	4.7	0.071	12	2	3	2.2	0	0.0	200	76			
09/12/74	3.9	0.200	50	0	53	1.0	1	0.0	250	269			
MAXIMUM	5.0	5.447	50	4	232	2.7	23	2.2	250	1759			
MINIMUM	3.7	0.071	4	0	0	0.7	0	0.0	51	76			
AVERAGE		1.468	19	1	90	1.4	10	0.1	122	660			



DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	5.8	0.084	8	8	0	1.4	0	0.0	36	16			
12/06/73	5.2	0.112	14	2	7	1.3	0	0.0	45	27			
01/08/74	5.5	0.112	8	4	2	1.8	1	0.0	51	30			
02/05/74	5.6	0.142	10	16	-4	1.0	0	0.0	33	25			
02/20/74	6.5	0.084	6	26	-9	0.6	0	0.0	60	27			
03/19/74	5.3	0.127	4	6	-1	0.9	0	0.0	35	23			
04/16/74	5.1	0.142	6	2	3	0.0	0	0.0	175	133			
05/13/74	5.3	0.253	4	8	-5	0.5	0	0.0	36	49			
06/07/74	5.6	0.084	8	16	-3	2.4	1	0.0	150	67			
07/31/74	6.7	0.030	2	32	-4	0.5	0	0.0	250	40			
08/20/74	6.9	0.030	6	38	-5	1.7	0	0.0	225	36			
09/12/74	5.7	0.060	14	16	0	1.2	0	0.0	7	2			
MAXIMUM	6.9	0.253	14	38	7	2.4	1	0.0	250	133			
MINIMUM	5.1	0.030	2	2	-9	0.0	0	0.0	7	2			
AVERAGE		0.105	7	14	-1	1.1	0	0.0	91	40			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	1.149	300	0	1857	121.8	754	64.9	1800	11147			
12/06/73	2.6	1.856	2100	0	21008	87.7	877	0.0	1100	11004			
01/08/74	2.7	1.411	1900	0	14450	147.4	1121	39.2	1475	11217			3.9
02/05/74	2.7	1.552	46	0	384	196.5	1643	56.0	1950	16311	186.7	1561	6.7
02/20/74	2.8	1.029	2840	0	15751	177.0	981	85.1	1900	10537			
03/18/74	2.8	3.381	1740	0	31709	72.0	1312	45.9	1225	22321	142.8	2602	
04/16/74	2.7	2.953	1000	0	15916	82.0	1305	32.5	725	11537			
05/13/74	2.9	11.287	480	0	29201	27.2	1654	2.2	225	13679			
06/06/74	2.6	1.276	1700	0	11691	100.3	689	41.4	1675	11519			
08/02/74	2.6	0.038	12800	0	2621	1070.0	219	22.4	9900	2027			
08/22/74	2.4	0.068	16200	0	5937	1040.0	381	0.0	12500	4581			
09/12/74	2.4	0.170	8900	0	8155	92.0	84	0.0	4800	4398			
MAXIMUM	2.9	11.287	16200	0	31709	1070.0	1654	85.1	12500	22321	186.7	2602	6.7
MINIMUM	2.4	0.038	46	0	384	27.2	84	0.0	225	2027	142.8	1561	3.9
AVERAGE		2.180	4167	0	13223	267.8	918	32.4	3272	10857	164.7	2082	5.3

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

119A SUB-BASIN 60 DRAINAGE AREA/ACRES

SAMPLE NUMBER 119A SUB-BASIN 60 DRAINAGE AREA/ACRES  
LATITUDE 40 27 53 LONGITUDE 78 50 11

STREAM OR SOURCE NAME - DRIFT MINE (Penna. Coal & Coke Co. - Webster No. 14)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
04/16/74	2.6	1.820	200	0	1961	84.0	824	2.2	425	4167			
05/13/74	2.8	1.710	480	0	4424	55.6	512	0.0	600	5530			
06/06/74	2.6	1.430	560	0	4316	59.7	460	2.2	800	6166			
08/02/74	2.7	0.757	680	0	2774	77.3	315	12.3	950	3875			
08/22/74	2.6	0.613	1400	0	4625	70.8	233	3.4	950	3138			
09/12/74	2.5	0.613	1400	0	4625	71.7	236	14.6	975	3221			
MAXIMUM	2.8	1.820	1400	0	4625	84.0	824	14.6	975	6166			
MINIMUM	2.5	0.613	200	0	1961	55.6	233	0.0	425	3138			
AVERAGE		1.157	786	0	3788	69.8	430	5.7	783	4349			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

120 SUB-BASIN 60 DRAINAGE AREA/ACRES 818

SAMPLE NUMBER 120 SUB-BASIN 60 DRAINAGE AREA/ACRES 818  
LATITUDE 40 28 05 LONGITUDE 78 50 05

STREAM OR SOURCE NAME - MOUTH OF UNNAMED STREAM DRAINING N. INTO NANTY GLO

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	0.766	340	0	1403	69.0	284	26.6	1301	5371			
12/06/73	2.6	2.783	1880	0	28200	84.6	1269	0.0	900	13500			
01/08/74	2.7	4.679	1180	0	29759	100.0	2521	13.4	950	23956			3.1
02/05/74	2.7	2.352	30	0	380	99.0	1255	0.0	1075	13627	62.6	793	4.2
02/20/74	2.8	2.318	1220	0	15242	126.0	1574	19.0	1300	16242			
03/18/74	2.8	9.252	1080	0	53857	61.5	3066	14.6	800	39894			
04/16/74	2.7	8.531	1000	0	45982	77.0	3540	13.4	575	26437			
05/13/74	2.8	13.390	560	0	40416	36.2	2612	2.2	450	32470			
06/06/74	2.6	1.163	1020	0	6393	67.6	423	6.7	1175	7365			
06/26/74	2.6	0.799	100	0	430	62.6	269	0.0	1100	4737			
07/18/74	2.4	2.239	100	0	1206	88.7	1070	7.8	1475	17800			
08/01/74	2.7	1.946	2080	0	21816	137.0	1436	1.1	2000	20977			
08/02/74	2.6	3.060	1900	0	31337	140.0	2309	15.7	1700	28038			
08/13/74	2.6	2.497	2300	0	30955	88.3	1188	11.2	1575	21197			
08/21/74	2.6	1.447	2500	0	19498	126.0	982	0.0	2200	17158			
08/22/74	2.6	1.223	2000	0	13183	120.0	791	0.0	2225	14666			
09/05/74	2.7	3.598	2700	0	52361	103.0	1997	35.8	2275	44118			
09/11/74	2.9	0.359	2360	0	4566	272.0	526	12.3	3000	5805			
09/12/74	2.6	1.898	3000	0	30690	82.0	838	10.1	3000	30690			
MAXIMUM	2.9	13.390	3000	0	53857	272.0	3540	35.8	3000	44118	91.6	4567	4.2
MINIMUM	2.4	0.359	30	0	380	36.2	269	0.0	450	4737	62.6	793	3.1
AVERAGE		3.384	1439	0	22509	102.1	1471	9.9	1530	20213	77.1	2680	3.6

STREAM OR SOURCE NAME - ARTESIAN DISCHARGE PUI NT

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
12/06/73	2.9	0.008	400	0	17	14.3	0	1.1	225	9			
01/08/74	4.5	0.028	20	2	2	0.4	0	0.0	92	13			
02/05/74	4.8	0.011	22	8	0	0.1	0	0.0	55	3			
02/20/74	4.6	0.017	12	2	0	2.1	0	0.0	325	29			
03/18/74	4.8	0.015	6	4	0	0.2	0	0.0	68	5			
04/16/74		0.000	0	0	0	0.0	0	0.0	0	0			
05/13/74	4.7	0.006	6	4	0	0.0	0	0.0	59	1			
06/06/74	4.4	0.017	12	0	1	0.1	0	0.0	175	16			
08/02/74	4.8	0.017	6	10	0	1.1	0	0.0	250	22			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
MAXIMUM	4.8	0.028	400	10	17	14.3	0	1.1	325	29			
MINIMUM	2.9	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.011	48	3	2	1.8	0	0.1	124	10			

STREAM OR SOURCE NAME - CONTAMINATED SPRING (COVERED)

DATE	PH	FLOW CFS	TOTAL ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.2	0.025	2320	0	312	232.2	31	0.0	8301	1118			
12/06/73	2.4	0.027	12000	0	1746	224.6	32	0.0	10500	1528			
01/08/74	2.2	0.042	17100	0	3871	239.6	54	0.0	5875	1329			
02/05/74	2.8	0.052	9600	0	2690	250.0	70	0.0	5750	1611			
02/20/74	2.2	0.029				250.0	39	0.0					
03/18/74	2.2	0.037	11700	0	2333	104.6	20	0.0	5875	1171			
04/16/74	2.2	0.037	12900	0	2572	208.0	41	0.0	5750	1146			
05/13/74	2.2	0.042	13900	0	3146	188.0	42	0.0	5750	1301			
06/06/74	2.2	0.032	14220	0	2452	196.0	33	0.0	20000	3449			
08/02/74	2.1	0.018	14850	0	1440	178.0	17	0.0	16400	1591			
08/22/74	2.2	0.013	18700	0	1310	183.0	12	0.0	10000	700			
09/12/74	2.2	0.014	19400	0	1463	109.8	8	0.0	9500	716			
MAXIMUM	2.8	0.052	19400	0	3871	250.0	70	0.0	20000	3449			
MINIMUM	2.1	0.013	2320	0	312	104.6	8	0.0	5750	700			
AVERAGE		0.030	13335	0	2121	196.9	33	0.0	9427	1424			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/09/73	6.2	0.264	14	10	5	2.2	3	0.0	56	79			
12/07/73	5.1	0.320	20	6	24	2.7	4	0.0	40	68			
01/09/74	5.2	0.696	12	8	15	3.6	13	0.0	59	221			
02/06/74	5.8	0.411	6	10	-8	12.2	27	4.5	45	99			
02/21/74	6.8	0.264	6	60	-76	2.6	3	2.2	75	106			
03/19/74	5.5	1.610	4	14	-86	1.7	14	0.0	55	476			
04/16/74	5.4	1.385	6	10	-29	1.0	7	0.0	175	1306			
05/13/74	4.5	3.264	18	0	316	1.1	19	0.0	70	1230			
06/06/74	5.9	1.029	10	30	-110	1.8	9	0.0	100	554			
08/02/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/20/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/12/74	5.7	0.037	14	18	0	1.2	0	0.0	175	34			
MAXIMUM	6.8	3.264	20	60	316	12.2	27	4.5	175	1306			
MINIMUM	4.5	0.000	0	0	-110	0.0	0	0.0	0	0			
AVERAGE		0.773	9	13	3	2.5	8	0.5	70	348			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
06/06/74	6.1	12.310	8	20	-796	3.8	252	0.0	1700	112796			
08/02/74	6.4	4.210	8	20	-272	1.5	34	0.0	1850	41977			
08/20/74	6.5	4.210	10	20	-226	1.5	34	0.0	1650	37439			
09/12/74	5.8	4.310	12	10	46	1.1	25	0.0	1900	44138			
MAXIMUM	6.5	12.310	12	20	46	3.8	252	0.0	1900	112796			
MINIMUM	5.8	4.210	8	10	-796	1.1	25	0.0	1650	37439			
AVERAGE		6.260	9	17	-312	1.9	86	0.0	1775	59088			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	9.2	4.370	0	22	-518	2.5	58	0.0	1724	40606			
12/07/73	5.2	4.820	24	10	363	9.4	244	0.0	3500	90929			
01/09/74	6.0	4.190	10	14	-90	1.7	38	0.0	241	5438			
02/06/74	4.1	7.720	244	0	10153	30.1	1252	0.0	1375	57212			
02/21/74	9.2	7.480	0	50	-2015	12.0	483	0.0	1250	50392			
03/19/74	5.8	4.190	6	18	-271	4.0	90	0.0	900	20325			
04/16/74	5.4	6.890	6	14	-297	3.0	111	0.0	120	4450			
05/13/74		4.030											
MAXIMUM	9.2	7.720	244	50	10153	30.1	1252	0.0	3500	90929			
MINIMUM	4.1	4.030	0	0	-2015	1.7	38	0.0	120	4450			
AVERAGE		5.461	41	18	1046	8.9	325	0.0	1301	38479			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	6.8	3.791	4	14	-204	0.1	2	0.0	40	815			
12/07/73	5.7	5.359	2	18	-462	0.1	2	0.0	40	1152			
01/09/74	6.4	11.027	2	20	-1069	0.3	17	0.0	16	948			
02/06/74	6.0	7.508	4	26	-890	0.1	3	0.0	14	563			
02/21/74	6.9	5.735	4	30	-803	0.0	0	0.0	17	521			
03/18/74	5.8	9.871	4	16	-638	0.0	0	0.0	30	1589			
04/11/74	5.6	19.789	4	4	0	4.0	426	0.0	20	2117			
05/09/74	5.2	11.158	2	24	-1323	0.4	23	0.0	30	1796			
MAXIMUM	6.9	19.789	4	30	0	4.0	426	0.0	40	2117			
MINIMUM	5.2	3.791	2	4	-1323	0.0	0	0.0	14	521			
AVERAGE		9.279	3	19	-673	0.6	59	0.0	25	1187			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

1142

DRAINAGE AREA/ACRES

SUB-BASIN 63

SAMPLE NUMBER 126

LATITUDE 40 27 42 LONGITUDE 78 48 45  
STREAM OR SOURCE NAME - UNNAMED STREAM S E OF NANTY GLO

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	4.8	1.759	4	4	0	0.0	0	0.0	36	341			
12/07/73	4.0	2.840	12	0	183	0.3	4	0.0	55	840			
01/09/74	4.8	2.158	4	2	23	0.0	0	0.0	10	114			
02/06/74	4.8	2.375	4	4	0	0.0	0	0.0	12	152			
02/21/74	5.0	1.575	4	4	0	0.0	0	0.0	11	92			
03/18/74	4.5	5.174	8	0	223	0.0	0	0.0	13	362			
04/16/74	4.5	4.518	4	0	97	0.0	0	0.0	30	727			
05/13/74	4.5	17.269	4	0	372	0.1	9	0.0	13	1208			
06/06/74	4.6	1.953	8	6	21	0.0	0	0.0	150	1578			
08/02/74	4.7	0.058	4	6	0	0.0	0	0.0	225	70			
08/22/74	4.1	0.104	8	0	4	0.0	0	0.0	200	112			
09/12/74	4.4	0.260	14	0	19	0.0	0	0.0	175	245			
MAXIMUM	5.0	17.269	14	6	372	0.3	9	0.0	225	1578			
MINIMUM	4.0	0.058	4	0	0	0.0	0	0.0	10	70			
AVERAGE		3.336	6	2	78	0.0	1	0.0	77	487			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

13054

DRAINAGE AREA/ACRES

SUB-BASIN 64

SAMPLE NUMBER 127

LATITUDE 40 27 07 LONGITUDE 78 48 43  
STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/12/73	6.0	21.207	40	12	3200	28.4	3246	13.9	824	94180			
12/07/73	4.1	44.656	22	0	5295	1.4	336	0.0	285	68591			
01/09/74	4.9	46.331	18	2	3995	2.5	624	0.0	375	93634			
02/06/74	4.2	54.484	42	0	12334	16.0	4698	15.7	390	114525			
02/21/74	5.9	29.138	2	10	-1256	2.8	439	0.0	600	94232			
03/18/74	5.2	70.340	10	0	758	2.1	795	0.0	175	66330			
04/11/74	5.7	71.533	6	10	-1542	2.0	771	0.0	260	100217			
05/09/74	5.5	36.185	4	10	-1170	1.4	272	0.0	230	44833			
06/19/74	5.1	29.143	10	12	-314	0.3	46	0.0	700	109956			
06/26/74	5.2	34.658	2	38	-6725	2.1	391	0.0	400	74722			
07/18/74	4.4	10.681	34	0	1957	3.1	178	2.2	850	48929			
08/01/74	4.8	15.062	38	8	2435	5.5	446	2.2	1025	83202			
08/13/74	4.7	14.479	16	10	468	1.8	140	0.0	575	44870			
08/21/74	6.7	12.269	10	36	-1719	1.9	125	0.0	1075	71086			
09/05/74	6.0	47.113	6	10	-1015	1.3	329	0.0	425	107888			
09/11/74	5.6	18.709	8	8	0	1.3	130	0.0	900	90757			
MAXIMUM	6.7	71.533	42	38	12334	28.4	4698	15.7	1075	114525			
MINIMUM	4.1	10.681	2	0	-6725	0.3	46	0.0	175	44833			
AVERAGE		34.749	15	10	1043	4.6	810	2.1	568	81747			

LATITUDE 40 27 34 LONGITUDE 78 47 33

STREAM OR SOURCE NAME - UNNAMED PERENNIAL STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
01/09/74	6.6	1.866	4	40	-362	0.1	0	0.0	13	130	
02/06/74	6.0	1.271	4	46	-287	0.4	2	0.0	14	95	
02/21/74	7.3	0.971	0	40	-209	0.4	2	0.0	150	784	
03/18/74	6.1	1.671	6	32	-234	0.2	1	0.0	75	675	
04/11/74	6.0	3.350	4	16	-216	1.0	18	0.0	30	539	
05/09/74	5.9	1.889	4	50	-468	0.2	2	0.0	100	1018	
06/19/74	5.2	0.567	2	52	-152	0.2	0	0.0	150	458	
MAXIMUM	7.3	3.350	6	52	-152	1.0	18	0.0	150	1018	
MINIMUM	5.2	0.567	0	16	-468	0.1	0	0.0	13	95	
AVERAGE		1.655	3	39	-275	0.3	4	0.0	76	528	

LATITUDE 40 28 35 LONGITUDE 78 46 33

STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK 1,625' WEST OF BEULA

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	4.4	9.928	72	0	3852	0.7	37	0.0	121	6473	
12/07/73	4.0	14.034	68	0	5143	0.5	37	0.0	65	4911	
01/09/74	4.3	28.873	46	0	7158	0.7	108	0.0	86	13368	
02/06/74	4.3	19.660	60	0	6358	0.7	74	0.0	220	23297	
02/21/74	4.4	15.017	60	0	4856	1.3	105	0.0	75	6066	
03/18/74	4.5	25.847	40	0	5572	0.4	55	0.0	150	20884	
04/11/74	4.5	51.817	26	0	7261	8.0	2234	0.0	45	12539	
05/09/74	4.4	29.218	34	0	5354	0.6	94	0.0	125	19663	
06/19/74	3.9	8.776	86	0	4068	0.7	33	0.0	175	8275	
06/26/74	4.2	28.610	16	0	2467	1.1	169	0.0	200	30841	
07/18/74	3.8	9.763	162	0	8524	0.2	10	0.0	350	18413	
08/01/74	4.1	3.801	256	0	5244	0.3	6	0.0	375	7681	
08/13/74	4.1	5.825	154	0	4835	1.3	40	0.0	150	4706	
08/21/74	3.9	3.478	264	0	4949	0.8	14	0.0	575	10778	
09/05/74	4.4	23.918	20	0	2578	1.8	232	0.0	275	35446	
09/11/74	4.3	5.245	110	0	3110	0.5	14	0.0	275	7774	
MAXIMUM	4.5	51.817	264	0	8524	8.0	2234	0.0	575	35446	
MINIMUM	3.8	3.478	16	0	2467	0.2	6	0.0	45	4706	
AVERAGE		17.738	92	0	5083	1.2	204	0.0	203	14445	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4820

DRAINAGE AREA/ACRES

SUB-BASIN 64A

SAMPLE NUMBER

LATITUDE 40 28 55 LONGITUDE 78 46 23

STREAM OR SOURCE NAME - WILLIAMS RUN NEAR MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/09/73	6.4	5.222	4	8	-112	0.1	2	0.0	29	814			
12/07/73	5.6	7.382	8	10	-79	0.1	3	0.0	40	1587			
01/09/74	6.2	15.188	4	14	-818	0.1	8	0.0	16	1306			
02/06/74	6.0	10.342	4	12	-445	0.1	5	0.0	12	661			
02/21/74	7.2	7.899	0	100	-4257	0.0	0	0.0	80	3404			
03/18/74	6.1	13.596	6	12	-439	0.0	0	0.0	50	3657			
04/11/74	5.8	27.257	6	14	-1175	2.0	293	0.0	20	2916			
05/09/74	5.5	15.369	4	12	-662	0.1	8	0.0	17	1398			
MAXIMUM	7.2	27.257	8	100	-79	2.0	293	0.0	80	3657			
MINIMUM	5.5	5.222	0	8	-4257	0.0	0	0.0	12	661			
AVERAGE		12.781	4	22	-999	0.3	40	0.0	33	1968			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5073

DRAINAGE AREA/ACRES

SUB-BASIN 64B

SAMPLE NUMBER

LATITUDE 40 29 12 LONGITUDE 78 45 51

STREAM OR SOURCE NAME - S. BR. BLACKLICK CR. ADJACENT BETHLEHEM MINES CORP. REVLOC #32 MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/09/73	4.2	5.440	134	0	3929	0.7	20	0.0	191	5597	24.2	709	
12/07/73	3.9	7.690	128	0	5305	0.7	28	0.0	140	5798			
01/09/74	4.2	15.821	132	0	11256	0.9	76	0.0	215	18320			1.8
02/06/74	4.2	10.773	120	0	6967	1.2	69	0.0	35	2025	24.2	1405	
02/21/74	4.3	8.229	138	0	6120	1.3	57	0.0	150	6649	16.7	740	2.1
03/18/74	4.3	14.163	98	0	7481	0.6	45	0.0	150	11443			
04/11/74	4.4	28.393	50	0	7651	4.0	612	0.0	70	10704			
05/09/74	4.2	16.010	126	0	10873	1.4	120	0.0	125	10774			
06/19/74	3.7	4.309	318	0	8242	11.9	308	2.2	425	11012			
06/26/74	4.1	15.677	50	0	4224	1.8	152	0.0	150	12667			
07/18/74	3.5	5.350	612	0	17647	5.5	158	5.6	975	28114			
08/01/74	3.8	2.083	720	0	8083	1.7	19	1.1	1100	12350			
08/13/74	3.9	3.192	290	0	4989	2.3	39	0.0	425	7309			
08/21/74	3.6	1.906	732	0	7520	0.3	3	1.1	1400	14382			
09/05/74	4.2	13.106	68	0	4803	1.8	127	0.0	275	19423			
09/11/74	3.9	2.874	434	0	6723	2.7	41	0.0	825	12777			
MAXIMUM	4.4	28.393	732	0	17647	11.9	612	5.6	1400	28114	24.2	1405	2.1
MINIMUM	3.5	1.906	50	0	3929	0.3	3	0.0	35	2025	16.7	709	1.8
AVERAGE		9.719	259	0	7613	2.4	117	0.6	415	11834	21.7	951	1.9



STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK ABOVE REVLOC

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	6.5	4,199	6	12	-135	0.4	9	0.0	46	1037			
12/07/73	5.9	5,936	14	18	-127	0.3	9	0.0	10	314			
01/09/74	5.8	12,213	6	18	-789	0.6	39	0.0	24	1575			
02/06/74	6.1	8,316	10	20	-440	1.2	53	0.0	26	1164			
02/21/74	6.2	6,352	4	26	-753	0.4	13	0.0	125	4274			
03/18/74	5.7	10,933	4	14	-589	0.2	11	0.0	10	579			
04/11/74	6.1	21,919	4	2	236	0.0	0	0.0	35	4120			
05/09/74	5.8	12,359	2	22	-1332	1.2	79	0.0	30	1989			
06/19/74	5.3	3,712	2	36	-680	1.7	34	0.0	100	2000			
06/26/74	5.5	12,102	2	30	-1826	1.4	91	0.0	150	9778			
07/18/74	5.7	4,130	6	50	-979	25.0	556	16.8	225	5005			
08/01/74	6.7	1,608	6	64	-502	3.4	29	1.1	225	1948			
08/13/74	6.1	2,464	6	54	-637	2.1	27	0.0	175	2323			
08/21/74	6.3	1,471	14	52	-301	3.0	23	0.0	175	1387			
09/05/74	6.1	10,117	10	16	-327	1.1	59	0.0	225	12261			
09/11/74	6.1	2,218	8	20	-143	1.3	16	0.0	175	2092			
MAXIMUM	6.7	21,919	14	64	236	25.0	556	16.8	225	12261			
MINIMUM	5.3	1,471	2	2	-1826	0.0	0	0.0	10	314			
AVERAGE		7,503	6	28	-583	2.7	66	1.1	109	3240			

SAMPLE NUMBER 2 SUB-BASIN 75 DRAINAGE AREA/ACRES 263446 OPERATION SCARLIFT PROJECT SL-185

LATITUDE 40 26 56 LONGITUDE 79 17 18 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - BLACKLICK CREEK 3,875' ABOVE MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/18/73	3.1	224,800	180	0	218100	27.4	33198	1.1	574	693306			
11/16/73	3.2	1013,800	100	0	546438	7.1	38787	4.5	225	1228725			
12/17/73	3.1	793,200	180	0	769562	17.9	76527	4.5	150	640705			
01/22/74	3.5	3096,800	36	0	756135	5.6	117605	1.1	200	4200750			
02/08/74	3.1	833,000	68	0	305311	13.4	60159	11.2	150	673064			
03/06/74	3.3	1986,000	50	0	535227	6.6	70642	2.2	225	2407032			
04/03/74	3.6	1030,000	38	0	374020	11.1	109470	1.1	50	492270			
05/01/74	3.2	553,000	80	0	238453	11.0	32787	1.1	175	521479			
06/19/74	3.4	771,000	64	0	265964	32.9	136721	0.0	125	518883			
06/26/74	3.2	698,000	90	0	338599	6.9	25958	0.0	150	563984			
07/18/74	2.8	193,300	260	0	270890	9.4	9792	0.0	950	989696			
08/01/74	3.2	165,800	154	0	137623	4.3	3841	0.0	650	580797			
08/13/74	3.2	211,200	90	0	102453	3.1	3527	0.0	350	398323			
08/21/74	2.9	136,100	400	0	293431	2.5	1833	0.0	775	568489			
09/05/74	3.2	1069,900	56	0	322938	7.1	40934	5.6	300	1730028			
09/11/74	3.2	263,500	80	0	113621	9.7	13775	0.0	550	781014			
MAXIMUM	3.6	3896,800	400	0	769562	32.9	136721	11.2	950	4200750			
MINIMUM	2.8	136,100	36	0	102453	2.5	1833	0.0	50	398323			
AVERAGE		916,962	120	0	369348**	11.0	48472	1.7	349	1061921			

\* Loading values are considered questionable due to problems in calculation of flow and/or insufficient mixing  
 \*\* Adjusted figure is 336,676 - calculated by adding and subtracting all acid and alkaline contributions, from tributary sub-basins and direct discharges to the main stem, to the average acid load noted at sampling station #66A, sub-basin 75

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 22A SUB-BASIN 75 DRAINAGE AREA/ACRES 122434  
LATITUDE 40 28 24 LONGITUDE 79 11 00

STREAM OR SOURCE NAME - USGS STREAM GAGING STATION AT JOSEPHINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY*	TOTAL IRON MG/L	IRON LB/DAY*	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/19/73	3.1	131.870	220	0	156371	24.3	17271	0.0	573	407214	
11/19/73	3.1	321.000	140	0	242226	161.6	279597	159.0	226	390978	
12/19/73	3.0	330.860	152	0	271066	26.2	46720	0.0	450	802335	
01/23/74	3.0	1081.700	80	0	466429	21.2	123595	10.1	130	757190	
02/11/74	3.1	267.000	600	0	863478	54.4	78287	25.8	250	359649	
03/07/74	3.3	516.000	72	0	200249	12.4	34484	3.4	150	416928	
04/04/74	3.5	1620.000	36	0	314344	16.6	144941	3.4	150	1308960	
05/02/74	3.4	294.000	74	0	117264	12.9	20441	0.0	225	356328	
06/19/74	3.0	194.000	100	0	104566	21.5	22480	0.0	425	444260	
06/26/74	2.9	340.000	180	0	329868	16.7	30603	0.0	225	412080	
07/18/74	2.8	103.000	300	0	166551	17.3	9603	6.7	775	430231	
08/01/74	3.2	86.000	200	0	92708	10.7	4959	1.1	875	405576	
08/13/74	3.0	91.000	900	0	441441	11.3	5541	0.0	1100	430746	
08/21/74	2.7	74.000	300	0	119658	12.0	4786	1.1	1100	430746	
09/05/74	2.9	455.000	200	0	490490	21.2	51980	19.0	325	796705	
09/11/74	3.3	158.000	104	0	88568	19.0	16180	1.1	575	489642	
MAXIMUM	3.5	1620.000	900	0	863478	161.6	279597	159.0	1100	1308960	
MINIMUM	2.7	74.000	36	0	88568	10.7	4786	0.0	130	331058	
AVERAGE		378.964	228	0	279080**	28.7	55717	14.4	445	534242	

\* Loading values are considered questionable due to problems in calculation of flow and/or insufficient mixing

\*\* Adjusted figures is 209,830 - calculated by adding and subtracting all acid and alkaline contributions, from tributary sub-basins and direct discharges to the main stem, to the average acid load noted at sampling station #68A, sub-basin 75

OPERATION SCARLIFT PROJECT SL-105  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 22 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 46 LONGITUDE 79 10 27

STREAM OR SOURCE NAME - 3 DRIFT MINES (BELLS MILL MINE)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/19/73	2.7	0.223	600	0	721	140.1	168	100.8	947	1138	
11/19/73	2.5	0.349	900	0	1692	20.6	38	6.7	975	1833	
12/19/73	2.6	0.712	1140	0	4374	64.0	245	0.0	1025	3933	
01/23/74	2.6	1.059	600	0	3424	161.0	918	80.6	575	3281	
02/11/74	2.8	0.626	2500	0	8435	330.5	1115	151.2	675	2277	
03/07/74	2.8	0.626	700	0	2361	109.2	368	95.2	725	2445	
04/04/74	2.7	0.626	400	0	1349	193.6	653	157.9	825	2783	
05/02/74	2.8	0.519	620	0	1734	176.0	492	71.7	950	2657	
06/12/74	3.0	0.545	700	0	2056	164.0	481	96.3	800	2350	
06/19/74	2.6	0.395	400	0	851	118.4	252	84.0	850	1809	
07/26/74	2.5	0.263	700	0	992	245.0	347	154.6	1225	1736	
08/22/74	2.5	0.151	1000	0	349.0	284	308.0	308.0	1450	1180	
09/05/74	2.9	0.171	900	0	829	264.0	243	233.4	1325	1221	
MAXIMUM	3.0	1.059	2500	0	8435	349.0	1115	308.0	1450	3933	
MINIMUM	2.5	0.151	400	0	721	20.6	38	0.0	575	1138	
AVERAGE		0.481	858	0	2279	179.6	431	118.4	949	2203	

STREAM OR SOURCE NAME - BELLS MILL MINE AND MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/20/73	2.6	0.118	1000	0	636	541.6	344	84.0	1174	746			
11/19/73	2.6	0.403	1000	0	2172	157.1	341	149.0	1075	2334			
12/19/73	2.7	0.772	1060	0	4410	73.3	305	1.1	975	4056			
01/23/74	2.6	1.305	500	0	3516	184.2	1295	114.2	130	2752			
02/11/74	2.8	0.681	500	0	1835	304.4	1117	152.3	750	5281			
03/07/74	2.8	1.108	700	0	4482	140.8	901	121.0	825	1192			
04/04/74	2.7	0.681	500	0	1835	189.4	695	147.8	325	2244			
05/02/74	2.7	0.595	620	0	1988	188.0	602	147.8	700	3367			
06/12/74	2.9	0.595	700	0	2244	203.0	651	144.5	1050	1444			
06/26/74	2.4	0.335	740	0	1336	90.9	164	0.0	800	1444			
07/18/74	2.5	0.368	800	0	1586	176.7	350	14.6	1225	2429			
07/26/74	2.5	0.243	600	0	785	248.0	324	224.0	1250	1637			
08/01/74	2.6	0.215	820	0	950	277.0	321	249.8	1225	1419			
08/13/74	2.8	0.368	1000	0	1983	137.1	271	112.0	975	1933			
08/21/74	2.4	0.215	1000	0	1158	241.0	279	0.0	1375	1593			
08/22/74	2.5	0.189	800	0	814	246.0	250	226.2	1600	1629			
09/05/74	2.4	0.210	900	0	1018	273.0	309	257.6	1400	1584			
09/11/74	2.7	0.279	1200	0	1804	203.2	305	179.2	1425	2142			
MAXIMUM	2.9	1.305	1200	0	4482	541.6	1295	257.6	1600	5281			
MINIMUM	2.4	0.118	500	0	636	73.3	164	0.0	130	746			
AVERAGE		0.486	802	0	1920	215.2	490	129.1	1015	2150			

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73		0.000	0	0	0	0.0	0	0.0	0	0			
11/20/73	2.8	0.001	200	0	1	4.9	0	0.0	275	1			
12/19/73	2.9	0.004	600	0	12	21.4	0	0.0	265	5			
01/23/74	2.7	0.002	300	0	3	6.9	0	0.0	100	1			
02/12/74	2.8	0.002	200	0	2	9.2	0	0.0	200	2			
03/07/74	2.9	0.003	124	0	2	3.8	0	0.0	175	2			
04/05/74	2.8	0.002	140	0	1	3.4	0	0.0	150	1			
05/03/74	2.9	0.001	160	0	0	2.6	0	0.0	175	0			
06/12/74	3.3	0.001	140	0	0	6.7	0	0.0	200	1			
MAXIMUM	3.3	0.004	600	0	12	21.4	0	0.0	275	5			
MINIMUM	2.7	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.001	207	0	2	6.5	0	0.0	171	1			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5024 SUB-BASIN 75 DRAINAGE AREA/ACRES

SAMPLE NUMBER 5024 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 40 LONGITUDE 79 10 07  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
11/20/73	4.0	0.003	14	0	0	0.3	0	0.0	30	0	0	0	
12/19/73	4.0	0.007	12	0	0	0.0	0	0.0	35	1	1	1	
01/23/74	3.9	0.012	4	0	0	0.1	0	0.0	75	4	4	4	
02/12/74	3.9	0.007	6	0	0	0.0	0	0.0	19	0	0	0	
03/07/74	3.9	0.019	4	0	0	0.0	0	0.0	30	3	3	3	
04/05/74	3.9	0.026	4	0	0	0.3	0	0.0	35	4	4	4	
05/03/74	3.7	0.007	6	0	0	0.1	0	0.0	200	7	7	7	
06/12/74	4.4	0.007	10	0	0	0.0	0	0.0	175	6	6	6	
MAXIMUM	4.4	0.026	14	0	0	0.3	0	0.0	200	7	7	7	
MINIMUM	3.7	0.000	0	0	0	0.0	0	0.0	0	0	0	0	
AVERAGE		0.009	6	0	0	0.0	0	0.0	66	3	3	3	

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OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5025 SUB-BASIN 75 DRAINAGE AREA/ACRES

SAMPLE NUMBER 5025 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 38 LONGITUDE 79 10 12  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/24/73	4.9	0.003	8	2	0	0.1	0	0.0	36	0	0	0	
11/20/73	4.9	0.012	6	2	0	0.0	0	0.0	30	1	1	1	
12/19/73	4.2	0.009	6	0	0	0.0	0	0.0	30	1	1	1	
01/23/74	4.4	0.022	2	0	0	0.1	0	0.0	45	5	5	5	
02/12/74	4.5	0.012	6	0	0	0.0	0	0.0	21	1	1	1	
03/07/74	4.5	0.019	4	0	0	0.2	0	0.0	45	4	4	4	
04/05/74	4.8	0.019	4	4	0	0.5	0	0.0	30	3	3	3	
05/03/74	4.6	0.007	4	2	0	0.0	0	0.0	35	1	1	1	
06/12/74	5.0	0.012	8	20	0	0.0	0	0.0	125	8	8	8	
MAXIMUM	5.0	0.022	8	20	0	0.5	0	0.0	125	8	8	8	
MINIMUM	4.2	0.003	2	0	0	0.0	0	0.0	21	0	0	0	
AVERAGE		0.012	5	3	0	0.1	0	0.0	44	3	3	3	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5026 SUB-BASIN 75 DRAINAGE AREA/ACRES

5026 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 33 LONGITUDE 79 10 17  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/24/73	2.7	1.480	1200	0	9572	109.5	873	0.0	1074	8566			
11/20/73	2.7	0.165	780	0	693	57.3	50	0.0	775	689			
12/19/73	2.8	0.323	500	0	870	66.0	114	0.0	600	1044			
01/23/74	2.8	0.682	200	0	735	42.0	154	0.0	450	1653			
02/12/74	2.8	0.254	400	0	547	51.5	70	0.0	275	376	2.5	4	
03/07/74	2.7	0.361	384	0	747	50.0	97	0.0	400	778			
04/05/74	2.7	0.305	400	0	657	45.3	74	0.0	350	575			
05/03/74	2.7	0.127	500	0	342	43.8	29	0.0	350	239			
06/12/74	2.9	0.115	600	0	371	59.8	37	0.0	600	371			
07/26/74	2.2	0.073	600	0	236	68.4	26	17.9	800	314			
08/12/74	2.7	0.040	1000	0	215	63.9	13	0.0	800	172			
09/04/74	2.6	0.115	1100	0	681	76.6	47	0.0	1050	650			
MAXIMUM	2.9	1.480	1200	0	9572	109.5	873	17.9	1074	8566	2.5	4	
MINIMUM	2.2	0.040	200	0	215	42.0	13	0.0	275	172	2.5	4	
AVERAGE		0.336	638	0	1306	61.1	132	1.4	627	1286	2.5	4	

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OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

5028 SUB-BASIN 75 DRAINAGE AREA/ACRES

5028 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 31 LONGITUDE 79 10 20  
STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/24/73	2.6	NO DATA	1200	0		162.6		0.0	974				
11/20/73	2.6	NO DATA	880	0		55.4		1.1	975				
12/19/73	2.8	NO DATA	900	0		31.0		0.0	400				
01/23/74	2.7	NO DATA	300	0		24.0		0.0	390				
02/12/74	2.7	NO DATA	400	0		30.0		0.0	250				
03/07/74	2.7	NO DATA	314	0		24.5		0.0	350				
04/05/74	2.7	NO DATA	400	0		26.7		0.0	250				
05/03/74	2.7	NO DATA	400	0		24.9		0.0	325				
06/12/74	2.8	NO DATA	550	0		29.7		0.0	425				
07/26/74	2.2	0.008	600	0	25	41.8	1	16.8	625	26			
08/12/74	2.7	0.004	1300	0	28	42.9	0	0.0	775	16			
09/04/74	2.6	NO DATA	1300	0		57.0		0.0	1100				
MAXIMUM	2.8	0.008	1300	0	28	162.6	1	16.8	1100	26			
MINIMUM	2.2	0.004	300	0	25	24.0	0	0.0	250	16			
AVERAGE		0.006	712	0	26	45.8	1	1.4	569	21			

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	2.2	0.006	7600	0	245	4033.8	130	1982.4	12500	404			
11/26/73	2.7	0.031	5900	0	985	572.7	95	0.0	4800	802			
12/21/73	2.6	0.044	5100	0	1209	142.5	33	0.0	5275	1251			
01/25/74	2.2	0.019	17320	0	1773	10456.3	1070	1792.0	5950	609			
02/13/74	2.3	0.014	17600	0	1328	4182.5	315	952.0	6000	452			
03/11/74	2.5	0.067	8000	0	2889	1499.3	541	1064.0	5625	2031	670.0	241	
04/08/74	2.2	0.014	15600	0	1177	2950.0	222	1792.0	6000	452			
05/06/74	2.5	0.006	14700	0	475	3210.0	103	162.4	6000	194			
06/20/74	2.2	0.014	18600	0	1403	1766.0	133	1120.0	22000	1660			
06/26/74	2.2	0.014	18900	0	1426	559.2	42	504.0	19000	1433			
07/18/74	2.1	0.010	30700	0	1654	2970.0	160	2800.0	19000	1024			
08/01/74	2.2	0.014	35800	0	2701	4480.0	338	3808.0	31500	2376			
08/13/74	2.5	0.014	23500	0	1773	3680.0	277	2184.0	23500	1773			
08/21/74	2.2	0.006	28100	0	908	3540.0	114	2396.8	20000	646			
09/05/74	2.4	0.044	11500	0	2727	960.0	227	582.4	6800	1612			
09/11/74	2.5	0.014	30000	0	2263	3212.0	242	1848.0	16000	1207			
MAXIMUM	2.7	0.067	35800	0	2889	10456.3	1070	3808.0	31500	2376	670.0	241	
MINIMUM	2.1	0.006	5100	0	245	142.5	33	0.0	4800	194	670.0	241	
AVERAGE		0.020	18057	0	1558	3013.3	253	1436.7	13121	1120	670.0	241	

SUB-BASIN 75 HESHON TO W. OF DIAS

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
10/25/73	2.7	0.003	700	0	11	333.9	5	177.0	652	10			
11/28/73	2.8	0.053	980	0	279	326.1	93	0.0	1050	299			
12/27/73	2.8	0.146	900	0	708	359.5	282	106.4	725	570			
01/25/74	2.7	0.125	500	0	336	229.0	154	125.4	725	488			
02/13/74	2.8	0.074	500	0	199	209.1	83	124.3	675	269			
03/11/74	2.6	0.118	400	0	254	257.3	163	203.8	825	524			
04/08/74	2.8	0.092	660	0	327	172.7	85	136.2	600	297			
05/06/74	2.8	0.053	480	0	137	146.0	41	125.4	750	214			
06/13/74	3.0	0.074	700	0	279	190.0	75	147.8	700	279			
07/26/74	2.7	0.030	600	0	97	165.0	26	141.1	875	141			
08/15/74	2.9	0.026	400	0	56	196.5	27	145.6	525	73			
09/09/74	2.8	0.034	1000	0	183	186.2	34	175.8	1125	206			
MAXIMUM	3.0	0.146	1000	0	708	359.5	282	203.8	1125	570			
MINIMUM	2.6	0.003	400	0	11	146.0	5	0.0	525	10			
AVERAGE		0.069	651	0	239	230.9	89	134.0	768	281			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4886 SUB-BASIN 75  
LONGITUDE 79 04 51

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/25/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	0
11/28/73	6.2	0.029	10	34	-3	0.1	0	0.0	65	10	0	0	0
12/27/73	5.5	0.048	4	24	-5	0.3	0	0.0	45	11	0	0	0
01/28/74	6.1	0.015	2	16	-1	0.3	0	0.0	25	2	0	0	0
02/14/74	6.6	0.010	4	44	-2	0.1	0	0.0	65	3	0	0	0
03/12/74	6.3	0.028	0	48	-7	0.0	0	0.0	25	3	0	0	0
04/08/74	6.0	0.012	6	72	-4	1.2	0	0.0	30	1	0	0	0
05/07/74	6.0	0.011	2	50	-2	0.0	0	0.0	175	10	0	0	0
06/14/74	6.9	0.002	6	98	0	0.2	0	0.0	350	3	0	0	0
MAXIMUM	6.9	0.048	10	98	0	1.2	0	0.0	350	11	0	0	0
MINIMUM	5.5	0.000	0	0	-7	0.0	0	0.0	0	0	0	0	0
AVERAGE		0.017	3	42	-3	0.2	0	0.0	86	5	0	0	0

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4887A SUB-BASIN 75  
LONGITUDE 79 04 43

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/26/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	0
11/28/73	5.2	0.002	8	6	0	0.4	0	0.0	35	0	0	0	0
12/27/73	5.1	0.002	6	2	0	0.0	0	0.0	35	0	0	0	0
05/07/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	0
MAXIMUM	5.2	0.002	8	6	0	0.4	0	0.0	35	0	0	0	0
MINIMUM	5.1	0.000	0	0	0	0.0	0	0.0	0	0	0	0	0
AVERAGE		0.001	3	2	0	0.1	0	0.0	17	0	0	0	0

OPERATION SCARLIFT PROJECT SL-105  
BLACKLICK CREEK WATERSHED

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DRAINAGE AREA/ACRES

SUB-BASIN 75

SAMPLE NUMBER 4878

LATITUDE 40 29 02 LONGITUDE 79 03 18

STREAM OR SOURCE NAME -- MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUSS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	2.2	0.007	17600	0	664	5447.0	205	50.4	12500	471			
11/29/73	2.1	0.020	18000	0	1940	7205.3	776	3718.4	21000	2263			
12/27/73	2.1	0.080	13000	0	5605	7256.2	3128	4760.0	6000	2587			
01/29/74	2.4	0.024	8900	0	1151	37481.3	4848	3024.0	7750	1002			
02/14/74	2.1	0.013	8600	0	602	5556.3	389	2128.0	5650	395			
03/12/74	2.3	0.059	9700	0	3084	5601.5	1781	2352.0	5875	1868			
04/09/74	2.4	0.028	8620	0	1300	2650.0	399	2016.0	5875	886			
05/07/74	2.5	0.028	5280	0	796	2060.0	310	952.0	5500	830			
06/14/74	2.8	0.013	10600	0	742	3440.0	241	2576.0	12000	840			
07/29/74	2.4	0.008	9850	0	424	3180.0	137	3136.0	9200	396			
MAXIMUM	2.8	0.080	18000	0	5605	37481.3	4848	4760.0	21000	2587			
MINIMUM	2.1	0.007	5280	0	424	2060.0	137	50.4	5500	395			
AVERAGE		0.028	11015	0	1631	7987.7	1221	2471.2	9135	1154			

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OPERATION SCARLIFT PROJECT SL-105  
BLACKLICK CREEK WATERSHED

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DRAINAGE AREA/ACRES

SUB-BASIN 75

SAMPLE NUMBER 4879

LATITUDE 40 28 55 LONGITUDE 79 03 08

STREAM OR SOURCE NAME -- MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRUSS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	2.6	0.328	3000	0	5303	303.9	537	44.8	399	705			
11/29/73	3.3	0.446	4	0	9	13.2	31	11.2	425	1021			
12/27/73	3.3	1.872	18	0	181	7.3	73	0.0	295	2976			
01/29/74	2.8	0.186	300	0	300	117.3	117	52.6	1700	1704			
02/14/74	2.7	0.071	240	0	91	128.7	49	62.7	275	105			
03/12/74	2.8	0.699	700	0	2637	132.2	498	112.0	550	2071			
04/09/74	2.7	0.356	340	0	652	79.9	153	51.5	275	527			
05/07/74	2.8	0.098	1000	0	528	89.3	47	15.7	475	250			
06/14/74	2.8	0.013	2000	0	140	550.0	38	352.8	1200	84			
07/29/74	2.3	0.010	2100	0	113	429.0	23	7.8	1800	97			
MAXIMUM	3.3	1.872	3000	0	5303	550.0	537	352.8	1800	2976			
MINIMUM	2.3	0.010	4	0	9	7.3	23	0.0	275	84			
AVERAGE		0.407	970	0	995	185.0	156	71.1	739	954			



SAMPLE NUMBER 4878A SUB-BASIN 75 DRAINAGE AREA/ACRES 75 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 29 04 LONGITUDE 79 03 31 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - SEEPAGE FROM STRIP PIT NO. 115 FILLED WITH MINE WASTE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
05/07/74	2.5	0.152	1840	0	1507	411.0	336	0.0	1300	1065			
06/14/74	2.8	0.045	5200	0	1261	1560.0	378	728.0	4975	1206			
07/29/74	2.4	0.005	2750	0	74	705.0	18	1.1	1150	30			
08/15/74	2.6	0.001	2500	0	13	176.4	0	9.0	1550	8			
09/09/74	2.6	0.056	5000	0	1509	2257.0	681	616.0	3750	1131			
MAXIMUM	2.8	0.152	5200	0	1509	2257.0	681	728.0	4975	1206			
MINIMUM	2.4	0.001	1840	0	13	176.4	0	0.0	1150	8			
AVERAGE		0.051	3458	0	873	1021.8	283	270.8	2545	688			

AA-110

SAMPLE NUMBER 4878B SUB-BASIN 75 DRAINAGE AREA/ACRES 75 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 58 LONGITUDE 79 03 18 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - SEEPAGE FROM STRIP PIT NO. 115 FILLED WITH MINE WASTE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
05/07/74	2.5	0.005	6000	0	161	882.0	23	0.0	5675	152			
06/14/74	2.7	0.003	11600	0	187	1040.0	16	13.4	3900	63			
07/29/74	2.3	0.003	11600	0	187	1520.0	24	25.8	10800	174			
08/15/74	2.5	0.002	13100	0	141	689.5	7	504.0	10500	113			
09/09/74	2.6	0.008	14500	0	625	3515.0	151	1512.0	9800	422			
MAXIMUM	2.7	0.008	14500	0	625	3515.0	151	1512.0	10800	422			
MINIMUM	2.3	0.002	6000	0	141	689.5	7	0.0	3900	63			
AVERAGE		0.004	11360	0	260	1529.3	44	411.0	8135	185			

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4879A SUB-BASIN 75

LATITUDE 40 28 53 LONGITUDE 79 03 09

STREAM OR SOURCE NAME - SEEPAGE FROM STRIP PIT NO. 115 FILLED WITH MINE WASTE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
05/07/74	2.6	0.013	1100	0	77	286.0	20	0.0	950	66			
06/14/74	2.9	0.061	3900	0	1282	900.0	295	437.9	3450	1134			
07/29/74	2.3	0.022	5500	0	652	1560.0	184	392.0	1950	231			
08/15/74	2.6	0.015	7400	0	598	3187.5	257	952.0	5250	424			
09/09/74	2.6	0.045	3600	0	873	2367.0	574	1512.0	3400	824			
MAXIMUM	2.9	0.061	7400	0	1282	3187.5	574	1512.0	5250	1134			
MINIMUM	2.3	0.013	1100	0	77	286.0	20	0.0	950	66			
AVERAGE		0.031	4300	0	696	1660.1	266	658.7	3000	536			

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4879B SUB-BASIN 75

LATITUDE 40 28 56 LONGITUDE 79 03 15

STREAM OR SOURCE NAME - SEEPAGE FROM STRIP PIT NO. 115 FILLED WITH MINE WASTE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
05/07/74	2.5	0.009	5600	0	271	1130.0	54	0.0	5250	254			
06/14/74	2.7	0.004	6200	0	133	1070.0	23	159.0	6000	129			
07/29/74	2.3	0.005	7400	0	199	1570.0	42	112.0	3750	101			
08/15/74	2.5	0.003	8800	0	142	892.5	14	320.2	6250	101			
09/09/74	2.4	0.011	11000	0	652	2932.0	173	1288.0	5200	308			
MAXIMUM	2.7	0.011	11000	0	652	2932.0	173	1288.0	6250	308			
MINIMUM	2.3	0.003	5600	0	133	892.5	14	0.0	3750	101			
AVERAGE		0.006	7800	0	279	1518.9	61	377.4	5290	178			

STREAM OR SOURCE NAME - SEEPAGE FROM STRIP PIT NO. 115 FILLED WITH MINE WASTE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERRIOUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
05/07/74	2.5	0.037	13400	0	2672	3690.0	735	1064.0	5950	1186	
06/14/74	2.8	0.048	15400	0	3984	3790.0	980	2072.0	7000	1811	
07/29/74	2.4	0.024	13900	0	1798	3790.0	490	3360.0	13800	1785	
08/15/74	2.6	0.013	14700	0	1030	198.5	13	47.0	1100	77	
09/09/74	2.5	0.029	14700	0	2297	3210.0	501	1120.0	8800	1375	
MAXIMUM	2.8	0.048	15400	0	3984	3790.0	980	3360.0	13800	1811	
MINIMUM	2.4	0.013	13400	0	1030	198.5	13	47.0	1100	77	
AVERAGE		0.030	14420	0	2356	2935.7	544	1532.6	7330	1247	

SUB-BASIN 75 DIAS TO CONFLUENCE OF N. & S. BRANCHES BLACKLICK CREEK

STREAM OR SOURCE NAME - BLACKLICK CREEK 250' UPSTREAM OF BRIDGE ON RT. 56

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY*	TOTAL IRON MG/L	TOTAL IRON LB/DAY*	FERRIOUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY*	MAN- GANESE MG/L
10/30/73	3.1	985.483	46	0	244340	18.4	97730	11.2	116	615926	
11/29/73	3.7	627.259	48	0	162284	9.4	31776	0.0	150	506825	
12/21/73	3.4	1785.163	34	0	327148	15.1	145276	0.0	115	1105015	
01/29/74	3.4	905.596	72	0	351443	25.7	125443	10.1	300	1464348	
02/14/74	3.1	217.056	100	0	116993	35.7	41765	20.2	225	263071	5.9 28797
03/12/74	3.4	712.449	86	0	330248	14.3	54908	2.2	150	575658	
04/09/74	3.4	526.320	76	0	215601	22.6	64111	6.7	225	637899	
05/07/74	3.3	193.065	60	0	62437	26.3	27366	10.1	450	468182	
06/19/74	2.9	127.214	200	0	137136	33.3	22832	0.0	675	462804	
06/26/74	3.0	266.016	300	0	430147	20.2	28961	0.0	350	501706	
07/18/74	2.8	84.048	300	0	135905	19.1	8651	0.0	750	339722	
08/01/74	3.3	65.280	122	0	42926	17.3	6086	4.5	975	343046	
08/13/74	3.3	60.384	140	0	45565	12.8	4165	4.5	725	235920	
08/21/74	3.6	53.950	84	0	24383	25.4	7372	0.0	1100	319312	
09/05/74	3.1	310.080	50	0	83566	15.1	25234	7.8	350	584810	
09/11/74	3.1	126.480	10	0	6817	19.7	13430	13.4	675	460166	
MAXIMUM	3.7	1785.163	300	0	430147	35.7	145276	20.2	1100	1464348	5.9 28797
MINIMUM	2.8	53.950	10	0	24383	9.4	4165	0.0	115	235920	5.9 28797
AVERAGE		440.359	108	0	169809**	20.6	44069	5.6	458	555276	5.9 28797

\* Loading values are considered questionable due to problems in calculation of flow and/or insufficient mixing

\*\* Adjusted figures 184,560 - calculated by adding and subtracting all acid and alkaline contributions, from tributary sub-basins and direct discharges to the main stem, to the average acid load noted at sampling station #66A, sub-basin 75

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4866 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 43 LONGITUDE 79 02 12  
STREAM OR SOURCE NAME - SEEPAGE - DEEPMINE INTERSECTION (CALDWELL #11)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
10/30/73	2.6	0.668	900	0	3240	147.0	529	72.8	974	3506			
11/29/73	2.5	0.042	920	0	208	224.5	50	59.4	1100	249			
12/28/73	2.5	0.112	600	0	362	115.7	69	0.0	875	528			
01/29/74	2.8	0.067	600	0	216	166.7	60	76.2	850	306			
02/14/74	2.6	0.056	780	0	235	242.9	73	103.0	1050	316			
03/12/74	2.8	0.134	400	0	288	63.0	45	39.2	650	469			
04/09/74	2.8	0.067	680	0	245	133.7	48	72.8	925	333			
05/07/74	2.7	0.034	840	0	153	187.0	34	101.9	1100	201			
06/17/74	2.7	0.042	600	0	135	107.7	24	33.6	1150	260			
07/29/74	2.5	0.030	950	0	153	167.0	27	35.8	1450	234			
08/22/74	2.6	0.034	700	0	128	161.0	29	108.6	2600	476			
09/10/74	2.8	0.067	1300	0	469	88.5	31	56.0	1100	397			
MAXIMUM	2.8	0.668	1300	0	3240	242.9	529	108.6	2600	3506			
MINIMUM	2.5	0.030	400	0	128	63.0	24	0.0	650	201			
AVERAGE		0.112	772	0	486	150.3	85	63.2	1152	606			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4866A SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 42 LONGITUDE 79 02 03  
STREAM OR SOURCE NAME - DRIFT NINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/29/73	2.5	0.009	580	0	28	14.0	0	0.0	600	29			
12/28/73	2.6	0.067	900	0	325	16.4	5	0.0	750	270			
01/29/74	2.7	0.022	400	0	47	22.7	2	0.0	575	68			
02/14/74	2.5	0.012	540	0	34	26.4	1	0.0	525	33			
03/12/74	2.7	0.048	400	0	103	13.7	3	0.0	525	135			
04/09/74	2.8	0.018	460	0	44	28.5	2	0.0	575	55			
05/07/74	2.7	0.009	500	0	24	20.1	0	0.0	625	30			
06/17/74	2.6	0.009	300	0	14	17.4	0	0.0	800	38			
07/29/74	2.7	0.002	500	0	5	15.0	0	2.2	850	9			
08/22/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/10/74	2.7	0.013	520	0	36	12.7	0	0.0	650	45			
MAXIMUM	2.8	0.067	900	0	325	28.5	5	2.2	850	270			
MINIMUM	2.5	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.019	463	0	60	16.9	1	0.2	588	65			

SAMPLE NUMBER 4858 SUB-BASIN 75 DRAINAGE AREA/ACRES 75 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 02 LONGITUDE 79 01 01 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE (SCOTT GLEN MINE)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	2.7	0.446	240	0	576	606.6	1458	504.0	2476	5951			
11/30/73	2.4	0.814	2460	0	10793	680.4	2985	241.9	2300	10091			
12/31/73	1.532	1.532	1600	0	7934	786.0	6490	211.7	2150	10660			
01/30/74	2.7	0.920	1780	0	5938	844.9	4189	501.8	1850	6172			
02/15/74	2.7	0.619	2160	0	18918	896.3	2990	336.0	2375	20801	69.2	606	
03/13/74	2.6	1.625	1980	0	9050	874.4	7658	488.3	2400	10969			
04/10/74	2.6	0.848	1500	0	4428	673.5	3078	507.4	2150	5805			
05/08/74	2.4	0.501	20700*	0	3832	658.0	1776	116.5	2500	6387			
06/18/74	2.5	0.474	1800	0	4860	406.0	1037	0.0	1150	2442			
06/26/74	2.3	0.394	2050	0	43959	142.6	302	0.0	1650	4455			
07/18/74	2.4	0.501	2200	0	4353	352.0	950	238.6	2225	5361			
08/01/74	2.6	0.394	3500	0	6508	720.0	1529	380.8	3250	6043			
08/13/74	2.5	0.369	2400	0	11901	543.0	1079	539.8	2275	11281			
08/21/74	2.5	0.345	1900	0	5427	544.0	1011	112.0	3000	8570			
09/05/74	2.7	0.920	20700	0	43959	684.0	3391	672.0	3250	20801	69.2	606	
09/11/74	2.7	0.530	240	0	576	2860.0	8170	672.0	1150	2442	69.2	606	
MAXIMUM	2.7	1.625	3194	0	9523	142.6	3006	0.0	2285	7961	69.2	606	
MINIMUM	2.3	0.345	0	0	0	766.9	3066	345.1					
AVERAGE		0.702											

\* TEST RESULT QUESTIONABLE

SAMPLE NUMBER 4857 SUB-BASIN 75 DRAINAGE AREA/ACRES 75 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 07 LONGITUDE 79 00 42 BLACKLICK CREEK WATERSHED

STREAM OR SOURCE NAME - DRIFT MINE (AMERFORD MINE)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/05/73	2.6	0.035	180	0	33	234.6	44	224.0	1349	254			
11/30/73	2.4	0.095	600	0	481	126.2	64	123.2	1050	537			
12/31/73	2.3	0.234	700	0	756	276.9	349	110.9	800	1009			
01/30/74	2.8	0.296	580	0	1116	179.3	286	136.6	575	917			
02/15/74	2.8	0.162	500	0	506	250.0	218	154.6	700	611			
03/13/74	2.7	0.318	580	0	857	210.1	360	142.2	600	1028	25.2	43	
04/10/74	2.7	0.206	580	0	643	148.5	164	133.3	800	888			
05/08/74	2.6	0.116	400	0	325	162.0	101	144.5	600	375			
06/18/74	2.7	0.116	520	0	250	126.1	78	112.0	875	547			
08/01/74	2.6	0.026	800	0	91	190.0	26	189.3	925	129			
08/13/74	2.8	0.012	800	0	51	191.4	12	181.4	700	45			
09/11/74	2.8	0.054	800	0	232	1120.0	325	257.6	950	276			
MAXIMUM	2.8	0.318	940	0	1116	1120.0	360	257.6	1349	1028	25.2	43	
MINIMUM	2.4	0.012	180	0	33	126.1	12	110.9	575	45	25.2	43	
AVERAGE		0.139	604	0	445	267.9	169	159.1	827	551	25.2	43	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4871 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 30 LONGITUDE 79 00 54

STREAM OR SOURCE NAME

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
07/31/74	2.7	0.003	300	0	4	5.2	0	0.0	375	6	
08/19/74	2.8	0.002	300	0	3	6.4	0	0.0	250	2	
09/10/74	2.7	0.006	320	0	10	6.2	0	0.0	350	11	
MAXIMUM	2.8	0.006	320	0	10	6.4	0	0.0	375	11	
MINIMUM	2.7	0.002	300	0	3	5.2	0	0.0	250	2	
AVERAGE		0.003	306	0	6	5.9	0	0.0	325	6	

AA-115

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER 4873 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 39 LONGITUDE 79 00 40

STREAM OR SOURCE NAME

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
11/30/73	2.8	0.026	300	0	42	4.7	0	0.0	350	49	
12/28/73	2.9	0.048	200	0	51	0.6	0	0.0	200	51	
01/29/74	3.2	0.037	152	0	30	0.9	0	0.0	1150	229	
02/15/74	2.9	0.026	200	0	28	1.0	0	0.0	300	42	
03/13/74	3.1	0.037	140	0	27	0.7	0	0.0	300	59	
04/09/74	3.1	0.037	200	0	39	6.5	1	0.0	275	54	
05/08/74	3.1	0.021	210	0	23	1.0	0	0.0	275	31	
06/18/74	2.9	0.015	100	0	8	1.7	0	0.0	400	32	
MAXIMUM	3.2	0.048	300	0	51	6.5	1	0.0	1150	229	
MINIMUM	2.8	0.015	100	0	8	0.6	0	0.0	200	31	
AVERAGE		0.030	187	0	31	2.1	0	0.0	406	68	

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4870 SUB-BASIN 75 DRAINAGE AREA/ACRES

4870 SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 40 LONGITUDE 79 00 37

STREAM OR SOURCE NAME

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
11/30/73	2.6	0.071	300	0	114	1.8	0	0.0	350	133	
12/28/73	2.7	0.196	200	0	211	1.2	1	0.0	150	158	
01/29/74	2.9	0.246	400	0	530	2.7	3	0.0	275	364	
02/15/74	2.7	0.038	200	0	40	2.5	0	0.0	275	56	
03/13/74	2.9	0.402	240	0	520	1.5	3	0.0	250	541	
04/09/74	2.9	0.116	220	0	137	8.8	5	0.0	225	140	
05/08/74	2.8	0.021	260	0	29	2.7	0	0.0	325	36	
06/18/74	2.7	0.017	200	0	18	2.2	0	0.0	400	36	
07/31/74	2.7	0.006	350	0	11	2.5	0	0.0	600	19	
08/19/74	2.9	0.004	500	0	10	3.6	0	0.0	425	9	
09/10/74	2.9	0.035	260	0	49	1.8	0	0.0	350	66	
MAXIMUM	2.9	0.402	500	0	530	8.8	5	0.0	600	541	
MINIMUM	2.6	0.004	200	0	10	1.2	0	0.0	150	9	
AVERAGE		0.104	284	0	152	2.8	1	0.0	329	142	

AA-116

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

4874A SUB-BASIN 75 DRAINAGE AREA/ACRES

4874A SUB-BASIN 75 DRAINAGE AREA/ACRES  
LATITUDE 40 28 28 LONGITUDE 79 00 13

STREAM OR SOURCE NAME - SEEPAGE AREA

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM MG/L	MAN- GANESE MG/L
12/06/73	2.7	0.265	900	0	1285	341.2	487	147.8	2750	3927	
12/28/74	2.7	0.213	500	0	574	381.1	437	144.5	725	832	
01/29/74	2.7	0.140	700	0	528	330.5	249	175.8	125	94	
02/15/74	2.6	0.091	560	0	274	358.7	174	187.0	775	380	
03/13/74	2.7	0.170	800	0	733	394.1	361	217.3	975	893	
04/09/74	2.7	0.166	640	0	572	284.5	254	215.0	925	827	
05/08/74	2.6	0.096	600	0	310	229.0	118	215.0	725	375	
06/18/74	2.6	0.084	500	0	226	151.5	88	140.0	1075	486	
07/25/74	2.3	0.069	500	0	185	255.0	94	246.4	975	362	
08/15/74	2.7	0.050	1000	0	269	262.4	70	239.7	725	195	
09/10/74	2.6	0.072	1000	0	388	334.4	129	252.0	1050	407	
MAXIMUM	2.7	0.265	1000	0	1285	394.1	487	252.0	2750	3927	
MINIMUM	2.3	0.050	500	0	185	151.5	68	140.0	125	94	
AVERAGE		0.128	700	0	486	301.8	222	198.2	984	798	

SAMPLE NUMBER 66A SUB-BASIN 75 DRAINAGE AREA/ACRES 80157 OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 27 31 LONGITUDE 78 57 46 BLACKCLICK CREEK 20.9 MILES ABOVE MOUTH BLACKCLICK CREEK WATERSHED

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	3.1	214.000	40	0	46138	25.1	28949	13.9	551	635366	0.0	0	
12/03/73	2.9	345.000	200	0	371910	26.5	49276	15.7	225	418140	0.0	0	
12/31/73	3.9	575.000	94	0	221917	33.8	104753	15.7	225	418140	4.1	9675	0.9
01/30/74	3.3	438.000	120	0	86671	45.4	32789	26.9	400	288904	0.0	0	
02/18/74	2.5	134.000	80	0	266481	17.0	56627	10.1	225	749016	0.0	0	
03/13/74	3.3	618.000	54	0	149604	1.0	2770	0.0	225	622968	0.0	0	
04/11/74	3.4	514.000	60	0	57080	21.7	37158	6.7	350	599182	0.0	0	
05/09/74	3.7	176.500	140	0	237736	21.7	37158	10.1	750	524247	0.0	0	
06/05/74	3.3	317.700	100	0	69908	39.3	27473	0.0	450	472875	0.0	0	
06/19/74	2.9	129.700	300	0	315315	19.6	20599	0.0	775	377116	0.0	0	
06/26/74	3.0	195.000	100	0	48663	19.2	9342	0.0	925	460115	0.0	0	
07/18/74	2.9	90.284	160	0	79599	21.7	10795	15.7	1125	604499	0.0	0	
07/30/74	3.1	92.300	160	0	85983	28.3	15207	14.6	850	389155	0.0	0	
08/01/74	3.5	99.703	202	0	92491	31.6	14468	28.0	400	641625	0.0	0	
08/13/74	3.1	84.950	94	0	42746	21.9	9959	0.0	700	481057	0.0	0	
08/21/74	4.1	84.370	52	0	83411	18.3	29352	17.9	1175	749016	4.1	9675	0.9
09/05/74	3.4	297.600	800	0	549780	24.6	16905	23.5	225	213918	0.0	0	0.9
09/11/74	3.4	127.500	800	0	549780	24.6	16905	23.5	563	502550	2.0	4837	0.9
MAXIMUM	4.1	618.000	800	0	549780	45.4	104753	28.0	1175	749016	4.1	9675	0.9
MINIMUM	2.5	84.370	40	0	42746	1.9	2770	0.0	225	213918	0.0	0	0.9
AVERAGE		251.867	162	0	165143	25.2	31558	12.4	563	502550	2.0	4837	0.9

PA-117

SAMPLE NUMBER 4744 SUB-BASIN 75 DRAINAGE AREA/ACRES OPERATION SCARLIFT PROJECT SL-185  
 LATITUDE 40 28 57 LONGITUDE 78 56 04 BLACKCLICK CREEK WATERSHED

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/06/73	3.5	0.557	24	0	72	0.0	0	0.0	46	137	0.0	0	
12/04/73	3.3	0.045	18	0	4	0.1	0	0.0	35	8	0.0	0	
01/02/74	3.7	0.168	8	0	7	0.1	0	0.0	40	36	0.0	0	
01/31/74	4.2	0.112	6	0	3	0.1	0	0.0	150	90	0.0	0	
02/19/74	4.0	0.019	10	0	1	0.0	0	0.0	49	5	0.0	0	
03/13/74	4.3	0.335	8	0	14	0.0	0	0.0	25	72	0.0	0	
04/10/74	4.3	0.134	6	0	4	1.1	0	0.0	42	17	0.0	0	
05/08/74	4.2	0.008	4	0	0	0.1	0	0.0	260	4	0.0	0	
06/18/74	3.6	0.003	4	0	0	0.3	0	0.0	0	0	0.0	0	
07/31/74		0.000	0	0	0	0.0	0	0.0	0	0	0.0	0	
08/19/74		0.000	0	0	0	0.0	0	0.0	0	0	0.0	0	
09/10/74	4.0	0.002	12	0	0	0.7	0	0.0	225	2	0.0	0	
MAXIMUM	4.3	0.557	24	0	72	1.1	0	0.0	260	137	0.0	0	
MINIMUM	3.3	0.000	0	0	0	0.0	0	0.0	0	0	0.0	0	
AVERAGE		0.115	8	0	8	0.2	0	0.0	76	31	0.0	0	



STREAM OR SOURCE NAME - POINT DISCHARGE AND MINE WASTE DUMP DRAINAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/06/73	2.9	NO DATA	1080	0	0	155.6	4	75.0	1874	19	450	19	
12/04/73	2.9	0.008	620	0	26	104.2	4	42.6	450	63	975	63	
01/02/74	2.4	0.012	600	0	38	237.1	15	125.4	975	3130	2525	3130	
01/31/74	2.1	0.230	3100	0	3843	1400.4	1736	907.2	2175	1840	450	756	
02/18/74	2.6	0.157	2600	0	2200	1045.6	884	126.6	925	1016	150	92	
03/13/74	2.7	0.312	900	0	1513	227.1	381	13.0	90	36	0	0	
04/10/74	2.3	0.204	400	0	439	183.2	201	0.0	0	0	0	0	
05/08/74	3.3	0.114	130	0	79	13.0	7	0.0	0	0	0	0	
06/18/74	3.0	0.076	66	0	27	8.2	3	0.0	0	0	0	0	
07/31/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
08/19/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
09/10/74	2.8	0.056	400	0	120	35.5	10	7.8	400	120	2525	3130	
MAXIMUM	3.3	0.312	3100	0	3843	1400.4	1736	907.2	2525	3130	400	120	
MINIMUM	2.1	0.000	0	0	0	0.0	0	0.0	0	0	0	0	
AVERAGE		0.106	824	0	753	284.1	295	136.3	834	643			

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STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/06/73	1.7	0.002	7750	0	83	9669.4	104	8456.0	13750	148	52500	565	
12/04/73	1.7	0.002	98000	0	1056	895.4	9	784.0	53000	571	105000	565	
01/02/74	1.1	0.002	11100	0	119	20591.4	221	15960.0	24900	268	12400	534	
01/31/74	1.0	0.001	111000	0	598	143109.4	771	21224.0	12000	258	55000	662	
02/18/74	1.4	0.002	33600	0	362	37299.2	402	28448.0	41000	323	60000	2522	
03/13/74	1.3	0.008	97000	0	4182	61750.0	2662	13944.0	78000	834	105000	1148	
04/10/74	1.6	0.009	34400	0	1668	16780.0	813	11872.0	12250	594	12000	258	
05/08/74	1.6	0.004	62200	0	1341	18600.0	401	13160.0	55000	594	41000	662	
06/18/74	1.4	0.005	36000	0	970	16274.0	438	15680.0	41000	323	60000	2522	
07/31/74	1.2	0.003	67200	0	1086	18250.0	295	18200.0	78000	834	105000	1148	
08/19/74	1.3	0.001	69700	0	375	28310.0	152	20104.0	20720.0	2522	105000	2522	
09/10/74	1.1	0.006	73300	0	2370	28440.0	919	20720.0	12000	148	43316	708	
MAXIMUM	1.9	0.009	111000	0	4182	143109.4	2662	28448.0	105000	2522	12000	148	
MINIMUM	1.0	0.001	7750	0	83	895.4	9	784.0	24900	268	55000	662	
AVERAGE		0.003	58437	0	1184	33330.7	599	15712.6	43316	708			

STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK AT BRIDGE JUST ABOVE MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY*	TOTAL IRON MG/L	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY*	MAN-GANESE MG/L
11/08/73	3.0	41.260	600	0	133434	125.2	27843	901	200358	4469
12/05/73	2.9	86.880	520	0	243507	145.2	67994	800	374626	
01/02/74	2.7	90.140	700	0	340098	111.0	53929	475	230758	
01/31/74	2.9	106.000	700	0	399938	250.0	142835	900	514206	
02/19/74	2.8	56.690	800	0	244447	309.0	94417	775	236794	
03/14/74	2.9	136.850	500	0	368810	155.6	114773	475	350336	
04/11/74	2.9	139.170	400	0	300050	142.0	106517	475	356275	
05/09/74	2.9	70.400	380	0	144193	135.0	51226	600	227673	
06/05/74	2.9	79.800	200	0	86024	116.0	49894	525	225754	
06/19/74	2.7	56.700	400	0	122255	109.3	33403	1425	435456	
06/26/74	2.6	67.429	300	0	109032	51.8	18826	650	236203	
07/18/74	2.5	20.781	500	0	56004	247.6	27733	1250	140001	
07/30/74	2.7	26.200	500	0	70609	125.0	17652	1375	194168	
08/01/74	2.8	29.304	550	0	86871	158.0	24955	1250	197421	
08/13/74	2.9	28.170	700	0	106285	196.5	29835	1050	159414	
08/21/74	2.9	23.870	600	0	77195	49.2	6329	1225	157589	
09/05/74	2.9	91.660	400	0	197618	26.1	12893	625	308710	
09/11/74	3.1	36.400	240	0	47087	65.0	12752	1000	196196	
MAXIMUM	3.1	139.170	800	0	399938	309.0	142835	1425	514206	4469
MINIMUM	2.5	20.781	200	0	47087	26.1	6329	475	140001	4469
AVERAGE		65.983	499	0	174080**	139.8	49656	876	263441	4469

\*. Loading values are considered questionable due to insufficient mixing

\*\* Adjusted figure is 96,362 - calculated by working backwards from sampling station #66A, sub-basin 75, and considering all contributions from tributary sub-basins and direct discharges to the main stem between sampling station #66A and this station

STREAM OR SOURCE NAME - DRIFT MINE (VINTON - COLLIER'S MINE NO. 6)

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	FERROUS IRON MG/L	SULFATE MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/08/73	3.4	1.258	4400	0	29834	1024.5	6946	7000	47464	693
12/05/73	2.8	1.241	13000*	0	86956	510.6	3415	5250	35116	693
01/02/74	2.6	0.966	2500	0	13016	1689.7	8797	3825	19915	693
01/31/74	3.0	1.650	2400	0	21344	1338.8	11906	4975	44244	693
02/19/74	2.8	1.650	2560	0	22767	1900.0	16897	3775	33572	693
03/14/74	3.0	1.650	2700	0	24012	1338.8	11906	3775	33572	693
04/11/74	2.5	1.055	1500	0	8529	1430.0	8131	3875	22034	693
05/09/74	2.8	1.055	2450	0	13931	1210.0	6880	3125	17769	693
06/05/74	2.8	1.055	2600	0	14784	1230.0	6994	3500	19902	693
06/26/74	2.5	0.797	2100	0	9021	348.9	1498	2350	10094	693
07/18/74	2.5	0.880	3100	0	14703	858.0	4069	2650	12569	693
08/01/74	2.8	0.568	3100	0	9490	1240.0	3796	2950	9031	693
08/13/74	2.8	0.679	3400	0	12443	6970.0	25508	3700	13541	693
08/21/74	2.6	0.310	2500	0	4177	935.0	1562	4250	7101	693
09/05/74	2.6	0.369	3200	0	6364	996.0	1900	4350	8651	693
09/11/74	2.8	0.369	2900	0	5767	3420.0	6802	4750	9447	693
MAXIMUM	3.4	1.650	13000	0	86956	6970.0	25508	7000	47464	693
MINIMUM	2.5	0.310	1500	0	4177	348.9	1498	2350	7101	693
AVERAGE		0.972	3400	0	18571	1652.5	7943	4006	21501	669

\* TEST RESULT QUESTIONABLE

(14012) ADJUSTED AVERAGE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4750 SUB-BASIN 76  
LONGITUDE 78 54 37

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73		0.000	0	0	0	0.0	0	0.0	0	0	0	0	0
12/05/73	2.2	0.001	1800	0	9	416.8	2	4.5	1700	9	1425	514	
01/02/74	2.4	0.067	1100	0	397	531.9	192	0.0	1425	514	825	44	
01/31/74	2.6	0.010	854	0	46	166.7	8	0.0	825	44	975	15	
02/19/74	2.5	0.003	1100	0	17	266.1	4	0.0	550	17	700	15	
03/15/74	2.7	0.006	640	0	20	81.0	2	0.0	700	18	600	22	
04/15/74	2.6	0.004	570	0	12	140.0	3	1.1	0	0	0	0	
05/13/74	2.5	0.005	690	0	18	115.0	3	2.2	0	0	0	0	
06/04/74	2.5	0.007	580	0	21	97.5	3	4.5	0	0	0	0	
07/31/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
08/19/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
09/10/74		0.000	0	0	0	0.0	0	0.0	0	0	0	0	
MAXIMUM	2.7	0.067	1800	0	397	531.9	192	4.5	1700	514			
MINIMUM	2.2	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.008	611	0	45	151.2	18	1.0	622	54			

AA-120

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

4794 SUB-BASIN 076  
LONGITUDE 78 54 30

STREAM OR SOURCE NAME - 2 DRIFT MINES

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/08/73	3.1	0.038	188	0	38	2.7	0	0.0	391	80	0	0	
12/05/73	2.6	0.157	900*	0	761	5.8	4	0.0	340	287	0	0	
01/03/74	3.1	0.187	148	0	149	4.3	4	0.0	260	261	0	0	
01/31/74	3.1	0.220	88	0	104	2.3	2	0.0	150	177	0	0	
02/19/74	3.0	0.084	140	0	63	2.8	1	0.0	220	99	0	0	
03/15/74	3.1	0.283	100	0	152	2.7	4	0.0	150	228	0	0	
04/15/74	3.0	0.264	98	0	139	3.0	4	0.0	150	213	0	0	
05/13/74	3.0	0.597	78	0	250	1.3	4	0.0	100	321	0	0	
06/04/74	2.9	0.292	60	0	94	2.0	3	0.0	150	235	0	0	
07/31/74	3.0	0.042	160	0	36	2.2	0	0.0	300	67	0	0	
08/19/74	2.9	0.030	500	0	80	2.9	0	0.0	275	44	0	0	
09/10/74	3.0	0.073	2000*	0	786	3.4	1	0.0	350	137	0	0	
MAXIMUM	3.1	0.597	2000	0	786	5.8	4	0.0	391	321	0	0	
MINIMUM	2.6	0.030	60	0	36	1.3	0	0.0	100	44	0	0	
AVERAGE		0.188	371	0	221	2.9	2	0.0	236	179	0	0	

(111) ADJUSTED AVERAGE

\* TEST RESULT QUESTIONABLE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 4542 SUB-BASIN 76  
LATITUDE 40 28 59 LONGITUDE 78 54 12

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/08/73	2.9	0.064	1500	0	517	275.2	94	0.0	2224	767			
12/05/73	2.6	0.165	4300*	0	3824	302.5	269	0.0	1700	1511			
01/03/74	2.8	0.442	900	0	2144	226.8	545	1.1	950	2263			
01/31/74	2.8	0.400	604	0	1302	129.7	277	0.0	675	1455			
02/19/74	2.7	0.165	700	0	622	163.7	145	0.0	775	689			
03/15/74	2.8	0.793	800	0	3419	78.5	335	0.0	550	2350			
04/15/74	2.7	0.464	550	0	1375	119.0	297	6.7	725	1812			
05/13/74	2.8	0.361	620	0	1206	108.0	210	2.2	650	1264			
06/04/74	2.6	0.342	900	0	1106	112.0	206	4.5	725	1336			
07/31/74	2.6	0.055	600	0	266	152.0	45	0.0	1375	407			
08/19/74	2.6	0.040	1100	0	237	346.5	74	0.0	1200	258			
09/10/74	2.6	0.104	1400	0	784	129.5	72	7.8	400	224			
MAXIMUM	2.9	0.793	4300	0	3824	346.5	545	7.8	2224	2350			
MINIMUM	2.6	0.040	550	0	237	78.5	45	0.0	400	224			
AVERAGE		0.282	1164	0	1400	178.7	214	1.8	995	1195			

(1180) ADJUSTED AVERAGE

\* TEST RESULT QUESTIONABLE

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

SAMPLE NUMBER 1108 SUB-BASIN 76  
LATITUDE 40 29 13 LONGITUDE 78 52 50

STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK 3.3 MILES ABOVE MOUTH

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	4.4	35.483	76	0	14535	4.9	937	0.0	476	91013			
12/05/73	4.1	74.716	72	0	28995	4.5	1811	0.0	275	110729			
01/05/74	4.0	77.520				4.3	1796	0.0					
02/01/74	4.0	91.160	60	0	29481	4.5	2214	0.0	50	24522			
02/20/74	4.3	48.753	116	0	30482	7.9	2075	2.2	450	118226			
03/15/74	4.1	117.691	50	0	31717	6.4	4059	0.0	275	174418			
04/11/74	4.2	119.686	48	0	30965	4.0	2580	0.0	225	145059			
05/09/74	4.1	60.544	74	0	24148	3.5	1141	0.0	425	138645			
06/19/74	3.8	48.762	98	0	25757	3.7	972	3.4	700	183979			
06/26/74	4.2	57.988	40	0	12502	3.1	968	0.0	350	109365			
07/18/74	3.5	17.871	98	0	9439	8.0	770	7.8	975	93912			
08/01/74	3.9	25.201	118	0	16028	4.4	597	1.1	1150	156195			
08/13/74	4.3	24.226	70	0	9140	4.9	639	0.0	775	101192			
08/21/74	4.3	20.528	80	0	8851	4.0	442	1.1	1175	130003			
09/05/74	3.9	78.827	78	0	33140	3.0	1274	0.0	575	244284			
09/11/74	4.4	31.304	88	0	14848	3.4	573	0.0	1025	172923			
MAXIMUM	4.4	119.686	118	0	33140	8.0	4059	7.8	1175	244284			
MINIMUM	3.5	17.871	40	0	8851	3.0	442	0.0	50	24522			
AVERAGE		58.141	77	0	21335	4.6	1428	0.9	593	132964			

STREAM OR SOURCE NAME - SOUTH BRANCH BLACKLICK CREEK AT BRIDGE TO S. OF TWIN ROCKS

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINIUM MG/L	MAN- GANESE MG/L
11/09/73	4.4	32.512	68	0	11916	4.9	858	0.0	1024	179433	
12/05/73	4.2	68.461	90	0	33210	4.7	1734	0.0	300	110701	
01/04/74	4.0	71.030	60	0	22971	5.4	2066	0.0	232	88787	
02/01/74	4.1	83.528	72	0	32415	4.7	2115	0.0	450	202555	
02/20/74	4.5	44.671	86	0	20706	7.6	1829	1.1	450	108327	
03/15/74	4.2	107.837	56	0	32549	6.4	3719	0.0	175	101690	
04/11/74	4.3	109.665	50	0	29554	10.0	5910	0.0	325	192023	
05/09/74	4.2	55.475	74	0	22126	4.0	1196	2.2	400	119604	
06/19/74	4.0	44.679	82	0	19747	4.1	986	3.4	800	192655	
06/26/74	4.0	53.134	40	0	11455	3.8	1088	0.0	425	121676	
07/18/74	3.6	16.375	102	0	9002	3.6	317	0.0	925	81629	
08/01/74	4.2	23.091	90	0	11201	4.5	559	1.1	1125	140000	
08/13/74	4.3	22.197	84	0	10049	4.5	538	0.0	850	101684	
08/21/74	4.4	18.809	80	0	8110	4.3	435	1.1	1275	129255	
09/05/74	4.1	72.228	60	0	23358	3.4	1323	0.0	600	231585	
09/11/74	4.4	28.683	90	0	13914	3.8	587	0.0	1025	158444	
MAXIMUM	4.5	109.665	102	0	33210	10.0	5910	3.4	1275	233585	
MINIMUM	3.6	16.375	40	0	8110	3.4	317	0.0	175	81629	
AVERAGE		53.273	74	0	19518	4.9	1579	0.5	648	141378	

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	ALUMINIUM MG/L	MAN- GANESE MG/L
11/09/73	3.0	0.020	100	0	10	31.8	3	0.0	346	37	
12/06/73	3.0	0.039	208	0	43	8.5	1	0.0	320	67	
01/08/74	3.0	0.032	180	0	31	10.9	1	0.0	800	137	
02/01/74	3.1	0.054	154	0	44	10.6	3	0.0	275	80	
02/20/74	2.9	0.032	240	0	41	36.5	6	1.1	300	51	
03/19/74	2.8	0.054	160	0	46	10.2	2	0.0	225	65	
04/15/74	3.1	0.062	100	0	33	6.0	2	0.0	150	50	
05/13/74	3.2	0.132	60	0	42	2.6	1	0.0	150	106	
09/12/74	2.8	0.014	600	0	45	15.1	1	1.1	625	47	
MAXIMUM	3.2	0.132	600	0	46	36.5	6	1.1	800	137	
MINIMUM	2.8	0.014	60	0	10	2.6	1	0.0	150	37	
AVERAGE		0.048	200	0	37	14.6	2	0.2	354	71	

OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

111R SUB-BASIN 76

LATITUDE 40 29 00 LONGITUDE 78 51 41

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	0.034	500	0	91	21.2	3	0.0	350	64			
12/06/73	2.9	0.042	300	0	67	12.8	2	0.0	265	59			
01/08/74	2.8	0.038	10	0	2	9.7	1	0.0	225	46			
02/01/74	2.9	0.042	300	0	67	5.4	1	0.0	525	118			
02/20/74	2.9	0.026	220	0	30	10.3	1	0.0	275	38			
03/19/74	2.8	0.042	180	0	40	6.2	1	0.0	150	33			
04/15/74	3.0	0.042	114	0	25	6.0	1	0.0	175	39			
05/13/74	3.0	0.052	100	0	28	3.1	0	0.0	150	42			
09/12/74	2.9	0.009	500	0	24	10.8	0	0.0	550	26			
MAXIMUM	3.0	0.052	500	0	91	21.2	3	0.0	550	118			
MINIMUM	2.8	0.009	10	0	2	3.1	0	0.0	150	26			
AVERAGE		0.036	247	0	42	9.5	1	0.0	296	52			

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OPERATION SCARLIFT PROJECT SL-185

BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

111C SUB-BASIN 76

LATITUDE 40 29 01 LONGITUDE 78 51 43

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.8	0.030	400	0	64	24.0	3	0.0	426	68			
12/06/73	2.4	0.076	420	0	172	15.2	6	0.0	350	143			
01/08/74	2.7	0.039	8	0	1	12.9	2	0.0	325	68			
02/01/74	2.9	0.054	100	0	29	6.9	2	0.0	350	101			
02/20/74	2.8	0.019	240	0	24	11.7	1	0.0	275	28			
03/19/74	2.7	0.064	200	0	68	7.9	2	0.0	200	68			
04/15/74	2.9	0.064	148	0	51	8.0	2	0.0	300	103			
05/13/74	2.9	0.129	80	0	55	5.2	3	0.0	100	69			
09/12/74	2.9	0.012	500	0	32	11.5	0	0.0	575	37			
MAXIMUM	2.9	0.129	500	0	172	24.0	6	0.0	575	143			
MINIMUM	2.4	0.012	8	0	1	5.2	0	0.0	100	28			
AVERAGE		0.054	232	0	55	11.4	2	0.0	322	76			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER I11D SUB-BASIN 76 DRAINAGE AREA/ACRES  
LATITUDE 40 29 02 LONGITUDE 78 51 48

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	0.194	400	0	418	21.2	22	5.8	351	366			
12/06/73	2.5	0.407	420	0	921	18.9	41	0.0	315	690			
01/08/74	2.7	0.261	8	0	11	12.9	18	0.0	225	316			
02/01/74	2.9	0.359	100	0	193	8.4	16	0.0	150	290			
02/20/74	2.9	0.088	200	0	94	15.5	7	1.1	325	154			
03/19/74	2.4	0.420	180	0	407	9.1	20	0.0	225	509			
04/15/74	2.9	0.407	152	0	333	10.0	21	0.0	150	328			
05/13/74	2.9	0.939	100	0	506	8.2	41	0.0	225	1138			
09/12/74	3.0	0.064	500	0	172	14.4	4	1.1	525	181			
MAXIMUM	3.0	0.939	500	0	921	21.2	41	5.8	525	1138			
MINIMUM	2.5	0.064	8	0	11	8.2	4	0.0	150	154			
AVERAGE		0.348	228	0	339	13.1	21	0.8	276	441			

OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

SAMPLE NUMBER I11E SUB-BASIN 76 DRAINAGE AREA/ACRES 12  
LATITUDE 40 29 06 LONGITUDE 78 51 43

STREAM OR SOURCE NAME - UNNAMED STREAM

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	0.056	400	0	120	5.6	1	0.0	449	135			
12/06/73	2.4	0.072	420	0	162	4.6	1	0.0	360	139			
01/08/74	2.8	0.056	190	0	57	4.0	1	0.0	245	73	10.9	3	
02/01/74	2.9	0.083	300	0	134	2.5	1	0.0	225	100			
02/20/74	3.0	0.052	200	0	56	3.2	0	0.0	225	63			
03/19/74	2.8	0.095	200	0	102	3.4	1	0.0	150	76			
04/15/74	2.9	0.083	158	0	70	3.0	1	0.0	150	67			
05/13/74	2.9	0.107	200	0	115	2.6	1	0.0	150	86			
09/12/74	3.0	0.019	900	0	92	3.3	0	0.0	425	43			
MAXIMUM	3.0	0.107	900	0	162	5.6	1	0.0	449	139	10.9	3	
MINIMUM	2.4	0.019	158	0	56	2.5	0	0.0	150	43	10.9	3	
AVERAGE		0.069	329	0	101	3.5	1	0.0	264	87	10.9	3	

OPERATION SCARLIFT PROJECT SL-105  
BLACKLICK CREEK WATERSHED

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DRAINAGE AREA/ACRES

SUB-BASIN 76

SAMPLE NUMBER 5039

LATITUDE 40 27 54 LONGITUDE 78 49 51

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLUW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.6	0.012	1040	0	67	105.9	6	9.2	561	36			
12/07/73	2.7	0.019	4100	0	419	130.5	13	5.6	2400	245			
01/09/74	2.5	0.028	2740	0	413	69.1	10	1.1	1650	249			
02/05/74	2.6	0.048	2500	0	646	170.1	44	10.1	1875	485			
02/21/74	2.6	0.019	2640	0	270	219.4	22	11.2	2475	253			
03/19/74	2.6	0.034	2780	0	509	77.0	14	0.0	1825	334			
04/16/74	2.4	0.022	3200	0	379	130.0	15	4.5	1625	192			
05/13/74	2.6	0.011	2210	0	131	96.8	5	0.0	2025	120			
06/06/74	2.6	0.008	2940	0	126	113.0	4	9.0	3000	129			
08/02/74	2.5	0.006	3560	0	115	182.0	5	0.0	2550	82			
08/20/74	2.5	0.004	4500	0	97	196.5	4	0.0	3775	81			
09/12/74	2.3	0.011	4100	0	243	88.1	5	12.3	4500	266			
MAXIMUM	2.7	0.048	4500	0	646	219.4	44	12.3	4500	485			
MINIMUM	2.3	0.004	1040	0	67	69.1	4	0.0	561	36			
AVERAGE		0.018	3025	0	284	131.5	12	5.2	2355	206			

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OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

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DRAINAGE AREA/ACRES

SUB-BASIN 76

SAMPLE NUMBER 5040

LATITUDE 40 27 53 LONGITUDE 78 49 46

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLUW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN-GANESE MG/L
11/09/73	2.9	0.012	2300	0	148	31.8	2	8.1	3251	210			
12/07/73	2.9	0.019	3220	0	329	27.0	2	0.0	1700	174			
01/09/74	2.7	0.026	2270	0	318	29.4	4	0.0	2300	322			
02/05/74	2.8	0.026	2084	0	292	27.8	3	0.0	1675	234			
02/21/74	2.8	0.019	2440	0	249	37.5	3	6.5	2475	253			
03/19/74	2.8	0.034	2700	0	494	20.2	3	0.0	1700	311			
04/16/74	2.7	0.030	2700	0	436	29.0	4	2.2	2100	339			
05/13/74	2.8	0.026	2234	0	313	22.5	3	0.0	1975	276			
06/06/74	2.8	0.019	2800	0	286	26.2	2	0.0	3500	358			
08/02/74	2.5	0.007	4100	0	154	34.7	1	3.4	5000	188			
08/20/74	2.8	0.003	3500	0	56	20.2	0	66.7	2805	45			
09/12/74	2.5	0.019	3800	0	389	15.4	1	1.1	3250	332			
MAXIMUM	2.9	0.034	4100	0	494	37.5	4	66.7	5000	358			
MINIMUM	2.5	0.003	2084	0	56	15.4	0	0.0	1675	45			
AVERAGE		0.020	2845	0	284	26.8	2	7.3	2644	253			



OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5043 SUB-BASIN 76

LATITUDE 40 27 58 LONGITUDE 78 49 35

STREAM OR SOURCE NAME - DRIFT MINE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	5.5	0.140	30	12	13	0.7	0	0.0	86	64			
12/07/73	6.2	0.176	10	24	-13	0.8	0	0.0	90	85			
01/09/74	6.0	0.195	6	30	-25	0.7	0	0.0	74	77			
02/06/74	5.6	0.176	10	30	-18	0.7	0	0.0	225	213			
02/21/74	7.0	0.107	0	30	-17	0.4	0	0.0	105	60			
03/19/74	5.8	0.303	10	30	-32	0.2	0	0.0	150	244			
04/16/74	5.6	0.303	14	24	-16	1.0	1	0.0	45	73			
05/13/74	5.4	0.403	4	32	-60	0.7	1	0.0	110	238			
MAXIMUM	7.0	0.403	30	32	13	1.0	1	0.0	225	244			
MINIMUM	5.4	0.107	0	12	-60	0.2	0	0.0	45	60			
AVERAGE		0.225	10	26	-21	0.6	0	0.0	110	132			

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OPERATION SCARLIFT PROJECT SL-185  
BLACKLICK CREEK WATERSHED

DRAINAGE AREA/ACRES

5043A SUB-BASIN 76

LATITUDE 40 28 00 LONGITUDE 78 49 37

STREAM OR SOURCE NAME - MINE WASTE DUMP SEEPAGE

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73		0.000	0	0	0	0.0	0	0.0	0	0			
11/12/73		0.000	0	0	0	0.0	0	0.0	0	0			
12/07/73		0.000	0	0	0	0.0	0	0.0	0	0			
01/09/74		0.000	0	0	0	0.0	0	0.0	0	0			
02/06/74		0.000	0	0	0	0.0	0	0.0	0	0			
03/19/74	2.7	0.010	2000	0	107	64.3	3	0.0	1300	70			
04/16/74	5.2	0.002	2	8	6	5.0	0	0.0	60	0			
05/13/74	3.7	0.006	192	0	6	0.4	0	0.0	425	13			
06/07/74		0.000	0	0	0	0.0	0	0.0	0	0			
07/31/74		0.000	0	0	0	0.0	0	0.0	0	0			
08/20/74		0.000	0	0	0	0.0	0	0.0	0	0			
09/12/74	2.9	0.002	1400	0	15	5.9	0	1.1	1500	16			
MAXIMUM	5.2	0.010	2000	8	107	64.3	3	1.1	1500	70			
MINIMUM	2.7	0.000	0	0	0	0.0	0	0.0	0	0			
AVERAGE		0.001	299	0	10	6.3	0	0.0	273	8			

DATE	PH	FLOW CFS	TOTAL P ACIDITY MG/L	TOTAL ALK MG/L	NET ACID LB/DAY	TOTAL IRON MG/L	TOTAL IRON LB/DAY	FERROUS IRON MG/L	SULFATE MG/L	SULFATE LB/DAY	ALUMINUM MG/L	ALUMINUM LB/DAY	MAN- GANESE MG/L
11/12/73	6.3	0.482	4	12	-20	0.3	0	0.0	41	106			
12/07/73	6.0	0.662	20	16	14	0.6	2	0.0	30	106			
01/09/74	6.0	0.681	4	16	-44	0.3	1	0.0	23	83			
02/06/74	6.5	0.404	6	22	-34	0.4	0	0.0	150	326			
02/21/74	5.2	0.215				0.0	0	0.0					
03/19/74	5.5	1.036	2	14	-67	1.3	7	0.0	35	194			
04/16/74	3.5	1.030	340 *	0	1887	2.0	11	0.0	600	3331			
05/13/74	5.4	3.629	2	12	-195	0.0	0	0.0	21	410			
06/07/74	5.6	0.293	6	24	-28	0.0	0	0.0	35	55			
07/31/74	7.2	0.235	0	92	-116	0.8	1	0.0	250	316			
08/20/74	6.6	0.166	10	96	-76	1.6	1	0.0	200	178			
09/12/74	5.9	0.210	16	40	-27	0.9	1	0.0	225	254			
MAXIMUM	7.2	3.629	340	96	1887	2.0	11	0.0	600	3331			
MINIMUM	3.5	0.166	0	0	-195	0.0	0	0.0	21	55			
AVERAGE		0.753	37	31	117	0.6	2	0.0	146	487			

\*TEST RESULT QUESTIONABLE