HART & MILLER ISLAND
WATER QUALITY DATA REPORT

YEARS 1972-1978

by

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NOTICE TO READER

On July 1, 1980, this activity area of the Water Resources Administration was consolidated with the Environmental Health Administration of the Maryland State Department of Health and Mental Hygiene. The new organization is the Office of Environmental Programs and is housed with the Maryland State Department of Health and Mental Hygiene. The new address is:

Maryland Department of Health & Mental Hygiene
Office of Environmental Programs
O'Conner Building
201 W. Preston Street
Baltimore, Maryland 21201

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ACKNOWLEDGEMENT

This study was conducted by the Field Operations Division of the Water Resources Administration. Field work and biological sampling and analyses were carried out by the Biological Assessment Section. Water chemistry and sediment chemistry work were performed by the Laboratory Division of the Water Resources Administration. The Annapolis Field Office of the Environmental Protection Agency cooperated in the initial sampling run of this survey and performed the biological and chemical sampling analyses on this occasion. The water chemistry data tables were provided by computer printout through the courtesy of the Information Services Division of the Water Resources Administration. The typing of all additional tables and text was carried out by the secretarial staff of the Field Operations Division.

INTRODUCTION

Feasibility studies for confined spoil disposal areas were authorized by Congress as early as 1950, however, the impetus to push for such funding apparently did not exist. In 1961, the Maryland Commission on Submerged Public Land, transmitted a report to the Governor of Maryland recommending the development of effective long-term solutions to the problem of disposal of dredged materials which they felt would expand in importance and continue indefinitely.

In late 1970 contractual studies conducted for the State of Maryland recommended the Hart and Miller Island site as a potential diked disposal area for Baltimore Harbor and navigable channel dredgings. These recommendations were approved by the Committee on Submerged Lands and by the Maryland Board of Public Works in February of 1971. A Dredged Spoil Committee was subsequently formed to develop the sampling protocol for the establishment of baseline data in the Hart and Miller Island area against which changes in the environment could be compared during and after construction and during the operational phase.

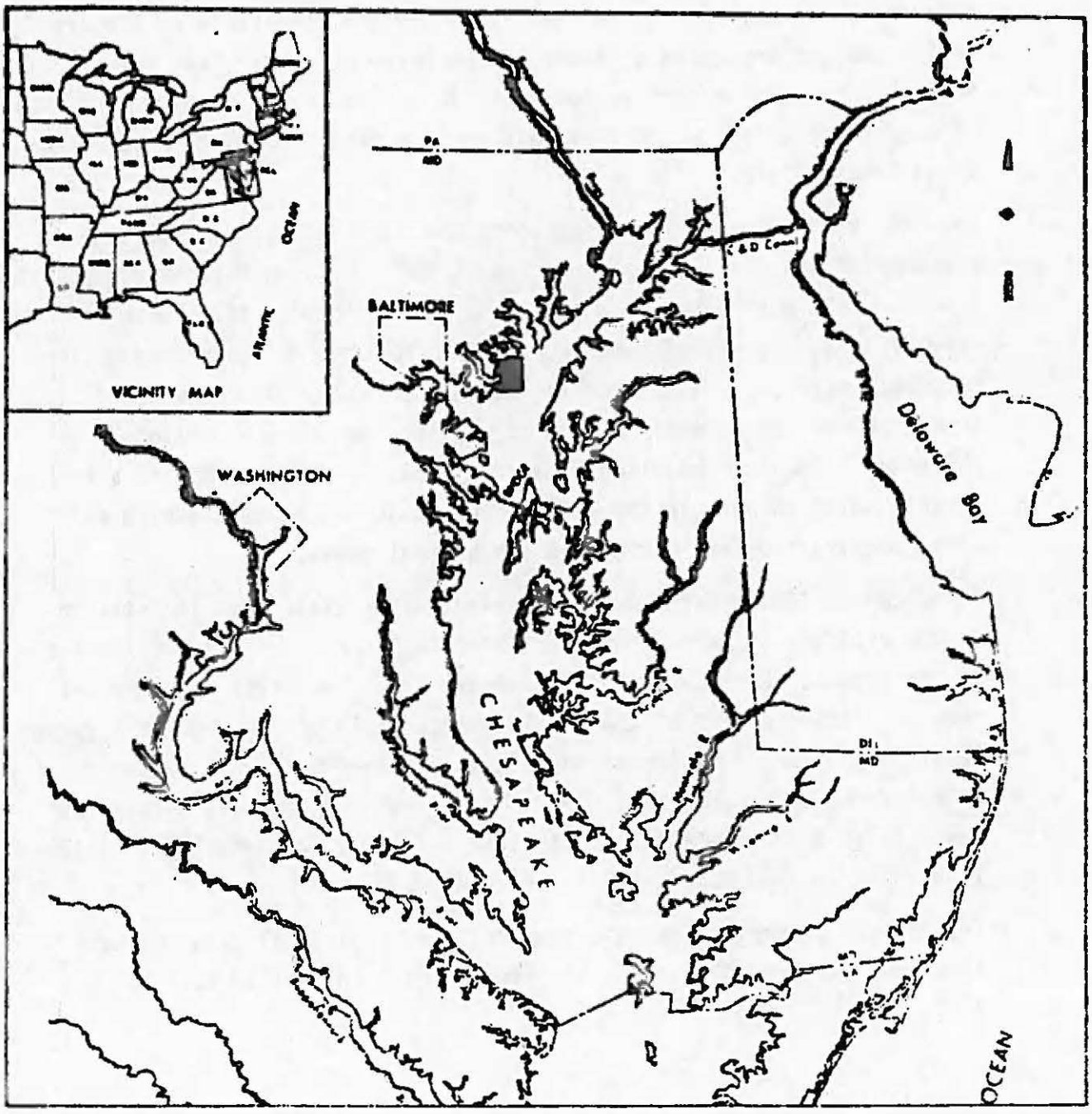
On March 15, 1972 a water quality survey was initiated at nine stations in the vicinity of Hart and Miller Islands just north of the confluence of the Patapsco River with the Chesapeake Bay. The first sampling was made as a joint effort of the EPA Annapolis Field Office and the Maryland Department of Water Resources and was thereafter continued through the sole efforts of the Maryland Department of Water Resources, carried out annually in 1973, semi-annually in 1972 and 1974, tri-annually in 1975, 1976 and 1978, and pent-annually in 1977.

This report presents physical, chemical, and biological data collected from 1972 through 1978 in the vicinity of Hart and Miller Islands.

FIGURE 1

HART – MILLER ISLAND SURVEY AREA

LOCATION MAP



DESCRIPTION OF STUDY AREA

GENERAL

The study area embraces an approximate area of 6.8 square miles (17.5 square kilometers) around Hart Island and Miller Island in upper Chesapeake Bay near the mouth of Back River. The central portion of the study area is located at $39^{o}15'$ N latitude and $76^{o}22'$ W longitude (see Figures 1 and 2) within the political boundaries of Baltimore County.

This portion of Chesapeake Bay is influenced primarily by the flow of the Susquehanna River and secondly by drainage from adjacent western shore tributaries which include the Patapsco, Back, Middle, Gunpowder and Bush Rivers. Additional effects may be exerted by the Sassafras, Bohemia and Elk Rivers from the Eastern Shore and possibly the Chesapeake and Delaware Canal.

The mean tide level in this area of the bay is 0.6 feet with average maximum flood tidal currents of 0.2 knots in a northeast direction and average maximum ebb tidal currents of about 0.4 knots in a generally southwest direction (1).

Average seasonal salinity values in this portion of the bay range from 2 to 8 parts per thousand (2). Average seasonal pH in this reach of the bay ranges from 7.5 to 7.9 and dissolved oxygen seasonal averages range from 6.9 to 11.4 mg/l (3).

Sediments in this study area range from fine grained sand inshore to clayey silt offshore. Fresh estuarine bay marshes are found on the islands (4).

SAMPLING STATION LOCATIONS

Nine sampling stations were selected in 1972 as indicated in Figure 3 and were sampled at varying intervals through 1976. In 1977 one station was dropped (within the site of the proposed diked disposal area) and five stations were added to increase the effective survey boundaries around the proposed diked disposal area as shown in Figure 4.

The sampling stations were located on selected contours. An inner series of sampling stations around the islands were located on the six-foot contour. An intermediate series of sampling station was located at or just beyond the 12-foot contour. The outer series of sampling stations were located in depths of 15 to 20 feet (see Table 1).

FIGURE 2

HART - MILLER ISLAND SURVEY AREA

LOCATION MAP

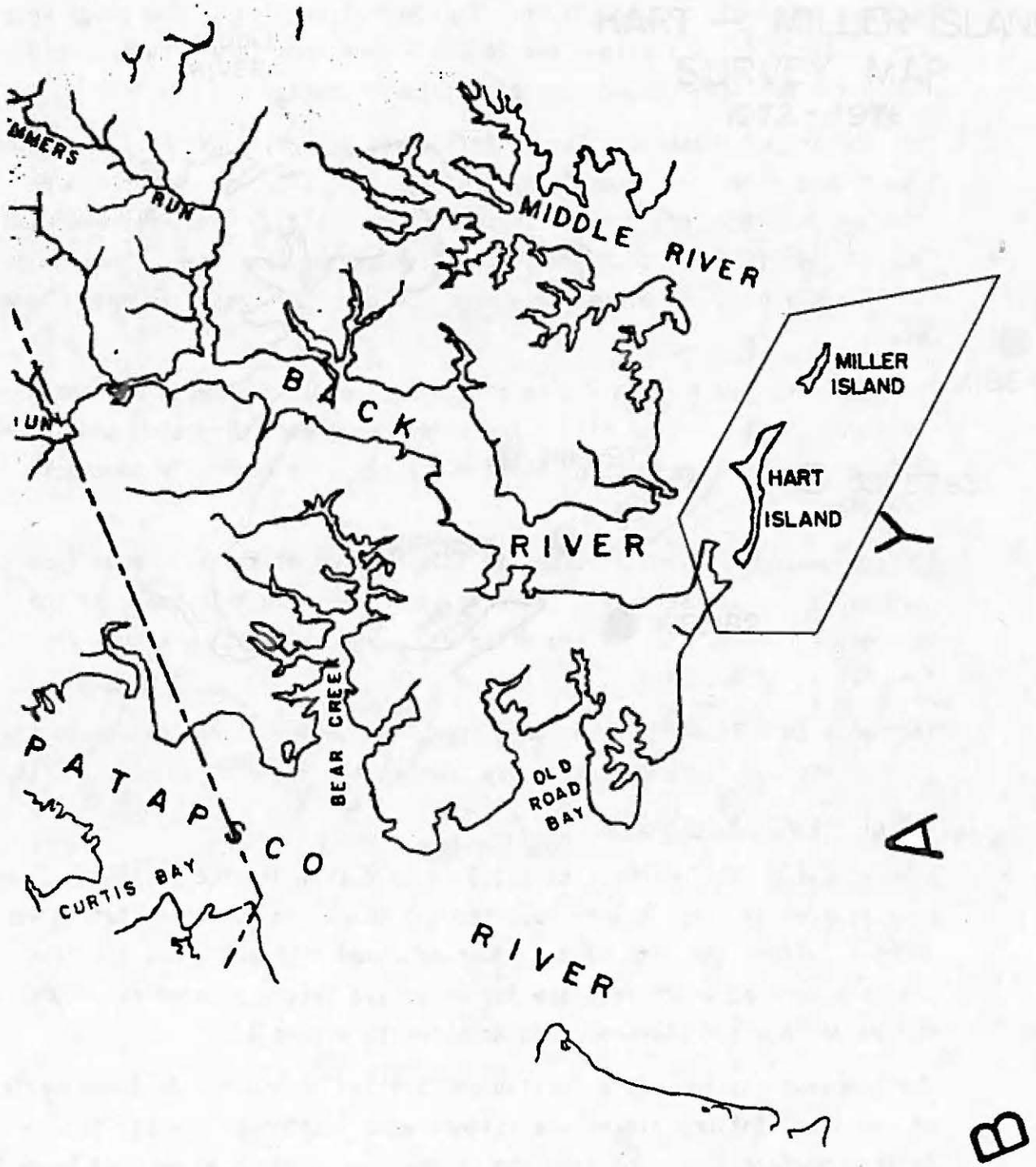


TABLE I

HART & MILLER ISLAND SURVEY

SAMPLING STATION CODES AND LOCATIONS
1972 - 1978

STATION I.D.	MD. COORDINATES EAST	NORTH	LOCATION
XIG 6405	991.0	524.9	800 yds. NE of QK. FL. G1 and 1700 yds. NW of N 41B - 15 ft. depth
XIF 5182	980.0	517.0	600 yds. SE from top Hart Island and 600 yds. S from bottom tip of Miller Island
XIF 3675	976.8	508.2	0.9 nautical miles East of Pleasure Island light
XIG 4800	989.0	515.6	1.5 nautical miles SE of the northern tip of Miller Island and 1.7 from S tip
XIF 5297	987.3	518.0	1.0 nautical miles from Northern tip of Miller Island and 1.2 from southern tip
XIF 6388	982.8	524.4	0.4 nautical miles NNE of Miller Island
XIF 4964	971.8	516.2	Mid-bay between Rocky Point and Drum Point - Hart Island
XIF 3064	971.9	504.7	1000 yds. S of FL. 15 ft. 7 and 1750 yds. W of N 19B - 14 ft. depth
XIF 4161	975.0	510.8	600 yds. from top of Pleasure Island SE and 750 yds. SE from bottom of Hart Island
XIF 4285	983.5	511.9	2500 yds. W of N 21B and 2600 yds. NE of FL. 6. 4 sec. 1 - 17 ft. depth
XIF 4785	981.9	514.4	1700 yds. SE from top of Hart Island and 1600 yds. SE from bottom of Miller Island
XIF 5578	978.3	519.4	600 yds. NE from top of Hart Island and 500 yds. E from bottom of Miller Island
XIF 5975	976.8	521.7	1200 yds. N of Hart Island and 1000 yds. SW of N2 - 9 ft. depth Hawk Cove
XIF 5793	985.5	520.9	1500 yds. SW of Quick Flushing G 1 and 900 yds. East of top of Miller Island - 5 ft. depth

FIGURE 3

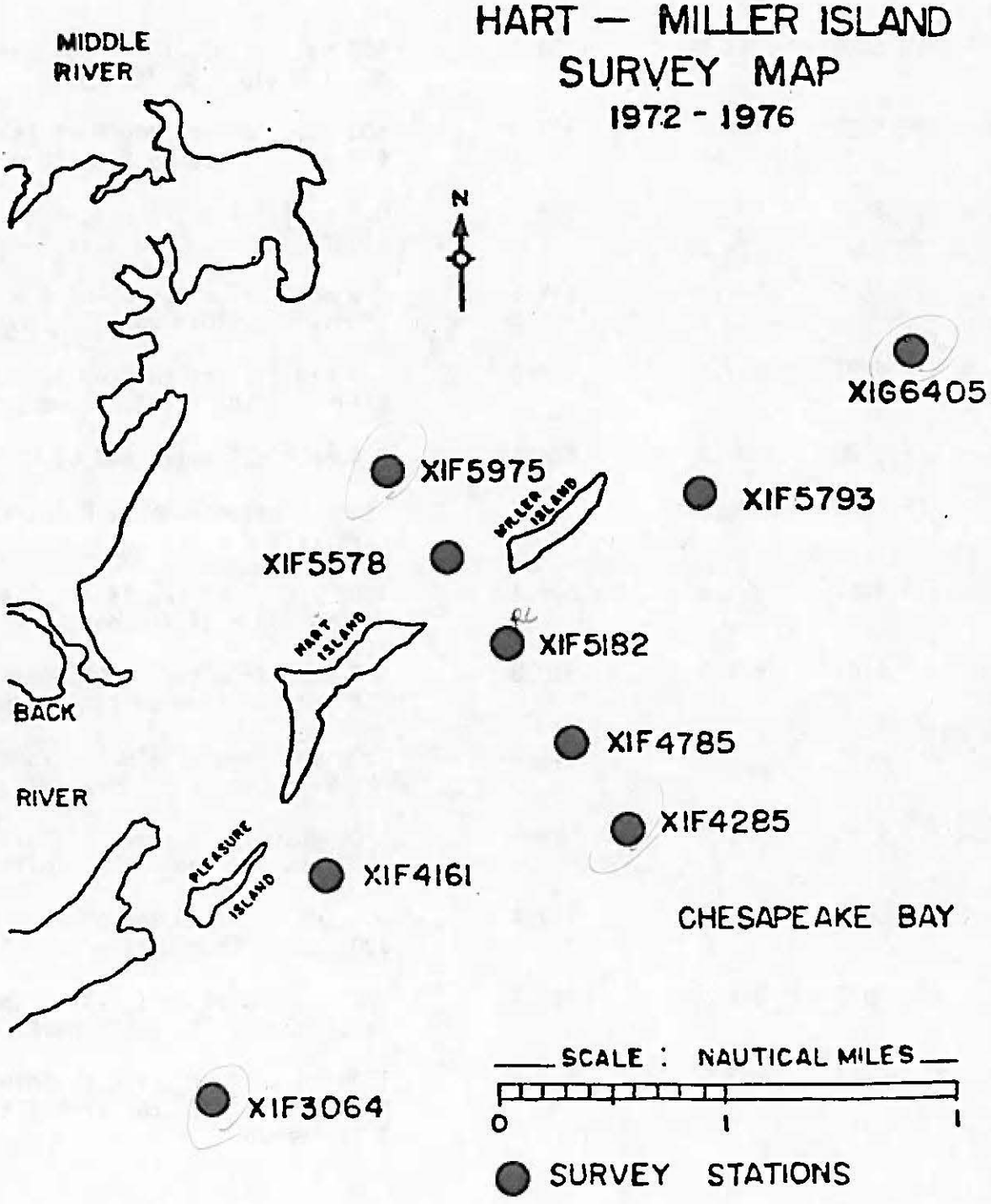
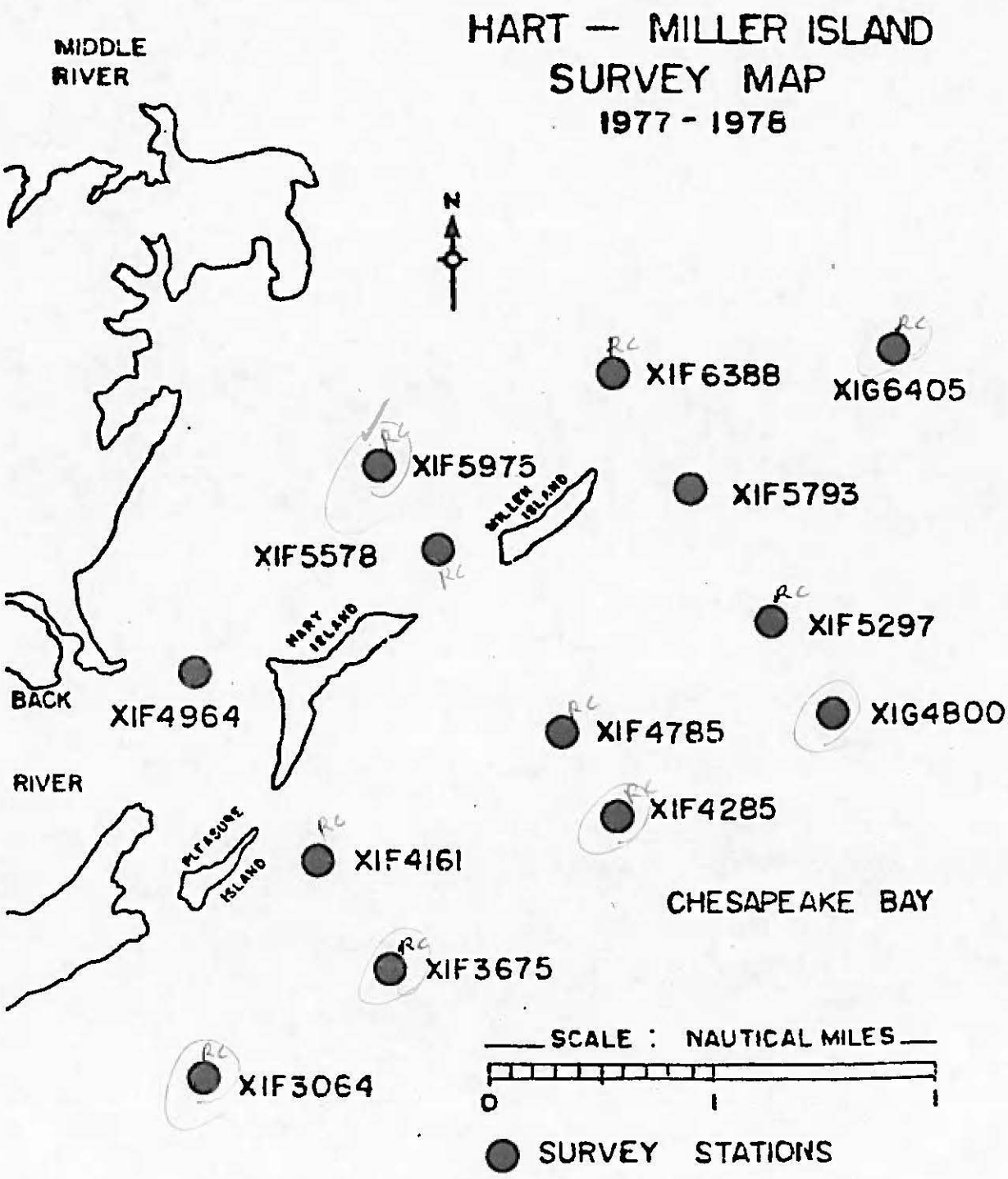

HART — MILLER ISLAND
SURVEY MAP
1972 - 1976
MIDDLE
RIVER
N
X166405
XIF5975
XIF5793
MILLER ISLAND
XIF5578
HART ISLAND
XIF5182
XIF4785
BACK
RIVER
XIF4285
PLEASURE ISLAND
XIF4161
CHESAPEAKE BAY
SCALE : NAUTICAL MILES
0
1
1
XIF3064
SURVEY STATIONS

FIGURE 4


HART — MILLER ISLAND
SURVEY MAP
1977 - 1978
MIDDLE
RIVER
N
XIF6388
XIG6405
XIF5975
XIF5793
MILLER ISLAND
XIF5578
XIF5297
MARY ISLAND
BACK
XIF4964
XIF4785
XIG4800
RIVER
XIF4285
PLEASURE ISLAND
XIF4161
CHESAPEAKE BAY
XIF3675
SCALE : NAUTICAL MILES
0
1
1
XIF3064
SURVEY STATIONS

METHODS

WATER

At each station physical and chemical measurements were made at intervals from surface to bottom using either an instrument pack or a Hydrolab Surveyor, Model 6D in-situ water quality analyzer which was calibrated against known standards. Measurements were generally taken at five-foot intervals (1.5m) to the bottom for water temperature, pH, dissolved oxygen (D.O.) and specific conductance.

Water samples were collected by a submersible pump at five-foot intervals at each station. One liter was collected unfixed for suspended solids, turbidity, pH, nitrite-nitrate, phosphate, total phosphate and chlorophyll a determinations. One liter was fixed with two milliliters of concentrated sulfuric acid for total Kjeldahl nitrogen, ammonia, total organic carbon and chemical oxygen demand determinations. One liter was fixed with five milliliters of concentrated sulfuric acid for grease and oil determinations and one liter was fixed with five milliliters of concentrated nitric acid for metals determinations (arsenic, chromium, cobalt, copper, manganese, mercury, molybdenum, nickel, and zinc). Three A.P.H.A. 300 milliliter glass stoppered BOD bottles were filled for dissolved oxygen, biochemical oxygen demand and sulfide determinations. The sample for sulfide determination was fixed with two milliliters of 22% zinc acetate. Table 2 lists the parameters and analytical methods employed.

SEDIMENT

Sediment samples were collected with a square-foot Petersen dredge ($0.09m^2$), placed in plastic whirl-pak bags and iced. All samples, both chemical and sediment, were refrigerated until return to the laboratories at which time they were again placed under refrigeration with the sediment sample being frozen. A BOD bottle containing sediments was fixed with 2 milliliters of zinc acetate for sulfide analyses.

BIOTA

The Petersen square-foot dredge was also used to sample the benthic community at the Hart and Miller survey stations, except on the first

TABLE 2

HART AND MILLER ISLAND SURVEY
PARAMETERS AND ANALYTICAL METHODS*

Temperature, conductivity, salinity - Beckman Induction Salinometer, Yellow Springs Instrument Salinometer or a Hydrolab Instrument Pack.

pH - Orion pH Meter (Model 401) or Hydrolab Instrument Pack.

Turbidity - Hellige Turbidimeter.

Suspended solids (non-filtrable residue) - Standard Methods, pp. 537.

Dissolved oxygen - Standard Methods-Azide Modification of Winkler Method, Yellow Springs Instrument Dissolved Oxygen Meter or Hydrolab Instrument Pack.

Biochemical Oxygen Demand - Standard Methods 5-day incubation at $20^{o}C$.

Chemical Oxygen Demand - Standard Methods, pp. 270.

Total Organic Carbon - Standard Methods, pp. 257.

Grease and Oil - Standard Methods, pp. 254 (water), pp. 412.

Volatile Residue - Standard Methods, pp. 538.

Phosphate, Total - Standard Methods, pp. 520.

Nitrogen, total Kjeldahl - Standard Methods, pp. 469.

Nitrogen, ammonia - Standard Methods, pp. 222.

Nitrite & Nitrate - Reference: A Practical Handbook of Seawater Analysis, J.P.H. Strickland and T.R. Parsons, Bulletin 167, Fisheries Research Board of Canada, Ottawa, Canada, 1968.

Chlorophyll a - Reference above for Nitrite (Strickland & Parsons).

Zinc - Standard Methods, pp. 211 - Atomic Absorption Spectrophotometric Method.

Cobalt - " " " " " " " "

Molybdenum - " " " " " " " "

Manganese - " " " " " " " "

Mercury - " " " " " " " "

Arsenic - " " " " " " " "

Copper - " " " " " " " "

Nickel - " " " " " " " "

Chromium - Standard Methods, pp. 426 - Atomic Absorption Spectrophotometric Method.

* Described in "Standard Methods for the Examination of Water and Wastewater", Thirteenth Edition, 1971, unless otherwise noted.

cooperative sampling run with EPA, when a 6 square inch Ponar dredge ($0.02m^2$) was employed. Normally, one dredge sample was collected at each sampling station with the exception of two sampling runs in 1976 when three dredge samples were collected at each station. The biological sampling sequence and combined total statistics for all stations by date are given in Table 3.

Dredge samples were washed on board boat through trays with stainless steel screens with an approximate final mesh opening of 0.5 millimeters. The organisms and material retained by the screens were then washed into an appropriately labeled container and preserved with 10 percent formalin. These samples were returned to the biological lab where the organisms were picked and sorted from bottom material and debris and represerved in another container with 70 percent ethanol until they were later sorted further and identified. Organisms were identified to the lowest taxa possible (usually genera) with available keys (see Taxonomic Bibliography).

The number of taxa (kinds of organisms) and the number of individuals within each taxa were used to calculate a community diversity index using the Shannon-Weaver function and employing the machine formula presented by Lloyd, Zar, and Karr, 1968 in the Biological Field and Laboratory Methods as follows (5):

$$\bar{d}\ (\text{diversity}) = \frac{C}{N}\left(N \log_{10} N - \Sigma n_i \log_{10} n_i\right)$$

where

C = 3.321928
N = total number of individuals
n_i = total number of individuals in the ith species

Higher diversity values indicate generally a relatively undisturbed environment which supports communities having large numbers of different types of organisms (taxa) with no one taxa being present in large numbers. Lower diversity values indicate a disturbed environment where certain tolerant forms increase in numbers and sensitive and intermediate forms are eliminated or reduced in numbers. Diversity values range from 0 to 4 with 3 to 4 representing unpolluted water, 2 to 3 good, 1 to 2 fair and 0 to 1 poor water quality.

TABLE 3

HART & MILLER ISLAND SURVEY

BIOLOGICAL SAMPLING SEQUENCE AND COMBINED
TOTAL STATISTICS FOR ALL STATIONS BY DATE

#	Year	Date	Agency	Total # Stations	No. Sq. Ft. Sampled per Station	Total Sq. Ft. Sampled	Total # Organisms per ft^2	Total # Organisms per m^2	Total # Taxa	Total # Organisms	Community Diversity Index
1	1972	March 15	EPA/WRA	9	0.56	5	168.4	5729	14	842	1.89
2	1973	February 14	WRA	9	1	9	9.6	2926	9	86	2.30
3	1974	February 19	WRA	9	1	9	73.7	2507	6	663	0.49
4	1974	August 20	WRA	9	1	9	120.6	4103	7	1085	0.32
5	1975	April 22	WRA	9	1	9	96.4	3280	11	868	1.89
6	1975	October 20	WRA	9	1	9	74.2	2524	7	668	0.65
7	1976	June 24	WRA	9	3	27	49.3	1677	16	1330	2.27
8	1976	December 6	WRA	7	3	21	32.7	1113	13	686	1.56
9*	1977	June 27	WRA	13	1	13	291.2	9907	18	3786	1.56
10	1977	November 7	WRA	13	1	13	65.5	2228	14	851	1.53
11	1978	April 24	WRA	13	1	13	160.6	5464	14	2088	1.88
12	1978	August 1	WRA	12	1	12	118.8	4042	15	1426	2.30
13	1978	October 9	WRA	13	1	13	93.1	3167	15	1210	2.36

* Dropped one station (XIF 5182) and added five (XIF 6388, XIF 5297, XIG 4800, XIF 4964, XIF 3675).

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APPENDICES

A - Water Chemistry Data

B - Sediment Chemistry Data

C - Biological Data

APPENDIX A

WATER CHEMISTRY DATA

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF3C64	15 MAR 72	0935		E	1	-	4.0	1420	1.26	-	7.5	9.3	1.6
	15 MAR 72	0936	17	E	1	-	4.0	3420	3.24	-	7.3	9.0	1.6
	29 SEP 72	1408	6	F	2	-	20.5	8500	5.50	7.3	-	7.9	1.7
	29 SEP 72	1409		F	2	-	20.8	8300	5.30	7.3	-	7.9	1.5
	14 FEB 73	1020		E	6	-	1.0	2900	-	7.7	7.1	11.8	8.4
	14 FEB 73	1021	5	E	6	-	1.0	3700	-	7.7	-	11.3	-
	14 FEB 73	1022	14	E	6	-	1.5	7830	-	7.6	-	11.1	-
	14 FEB 73	1023	10	E	6	-	1.5	6600	-	7.6	7.4	11.1	8.0
	27 SEP 74	1011	7	H	3	-	3.0	7700	7.51C	-	-	11.2	-
	20 AUG 74	1100		H	2	-	26.0	7400	4.20	-	-	6.9	2.2
	20 AUG 74	1103	15	H	2	-	25.9	8300	4.80	-	-	5.4	2.0
	22 APR 75	1027	6	E	1	16.0	10.1	4000	3.20	-	-	11.2	-
	22 APR 75	1030		E	1	16.0	10.6	3500	2.90	-	7.6	11.0	4.2
	22 APR 75	1031	12	E	1	16.3	10.2	5000	4.10	-	7.6	11.4	4.2
	21 OCT 75	1029		E	0	20.0	26.2	4600	2.50	-	7.7	8.2	3.3
	21 OCT 75	1026	7	E	0	-	25.9	5000	3.00	-	-	7.4	-
	21 OCT 75	1027	13	E	0	26.3	25.7	6800	3.53	-	7.5	7.3	1.8
	20 OCT 75	0945	15	E	1	-	16.7	5100	3.33C	7.6	7.5	7.8	.5
	21 OCT 75	0946	8	E	1	-	16.5	5000	3.27C	7.6	-	8.0	-
	20 OCT 75	2447		E	1	-	16.3	5200	3.43C	7.6	7.5	8.5	1.4
	23 FEB 76	1050	12		0	-	4.5	-	-	7.5	7.3	11.4	3.0L
	23 FEB 76	1051	6	L	0	-	4.2	-	-	7.5	-	11.2	-
	23 FEB 76	1052			0	-	4.2	-	-	7.5	7.3	11.2	3.0L
	20 OCT 76	0950	12	E	0	-	26.0	6300	3.44	7.7	7.7	8.4	3.5
	20 OCT 76	0951	7	E	1	-	27.3	5800	3.15	7.7	-	6.4	-
	20 OCT 76	0952	2	E	1	-	28.0	5700	3.09	7.6	-	6.4	-
	20 OCT 76	0953		E	0	-	28.0	5700	3.09	7.6	7.6	6.5	2.7
	1 DEC 76	1013	1	E	0	2.3	3.3	4900	4.62C	8.0	7.6	13.0	3.2
	6 DEC 76	1010	5	E	0	2.0	2.8	5700	3.06C	8.0	-	13.3	-
	1 DEC 76	1010	10	E	0	2.3	4.9	8200	4.53C	7.7	-	13.3	-
	6 DEC 76	1010	14	E	0	2.0	2.5	5100	8.06C	7.4	7.5	11.3	2.0
	21 APR 77	0944		E	1	10.0	8.5	1900	1.10C	7.5	7.5	11.4	1.3
	21 APR 77	0947	5	E	1	-	8.5	1510	.73C	7.4	-	10.5	-
	21 APR 77	0949	10	E	1	-	8.5	1500	.73C	7.4	-	10.4	-
	21 APR 77	0951	13	E	1	-	8.6	1500	1.10C	7.4	7.5	10.2	1.6
	14 APR 77	0922		E	0	16.3	15.3	1450	.70C	7.8	7.4	10.5	2.2
	18 APR 77	0922	5	E	1	16.0	15.0	1500	.73C	7.7	-	10.5	-
	18 APR 77	0922	10	E	1	16.0	15.0	3050	1.55C	7.7	-	10.5	-
	18 APR 77	0922	15	E	1	16.3	15.0	3900	2.04C	7.4	7.3	9.3	.7
	27 AUG 77	0900		E	0	26.0	24.0	11100	6.27C	8.2	8.2	8.1	-
	27 AUG 77	0903	5			26.3	23.7	11500	6.53C	8.2	-	7.9	-
	27 AUG 77	0900	10	E	0	26.0	23.5	12100	6.99C	8.1	-	8.0	-
	27 AUG 77	0900	14	E	0	26.0	23.5	14000	8.04C	7.3	7.9	4.3	-
	4 AUG 77	0945		F	0	25.0	26.0	12000	6.84C	-	7.3	8.3	2.7
	4 AUG 77	0945	5	F	0	25.0	25.3	12500	7.15C	-	-	7.1	-
	4 AUG 77	0845	10	F	0	25.0	25.3	14000	8.09C	-	-	6.8	-
	4 AUG 77	0845	15	F	0	25.0	25.4	15000	8.71C	-	7.3	6.7	1.4
	7 NOV 77	1000			5	15.0	15.5	5700	3.06C	-	7.5	9.2	1.0L
	7 NOV 77	1003	5		5	15.0	15.3	7000	3.92C	-	-	8.5	-
	7 NOV 77	1004	10		5	15.0	15.2	12000	6.84C	-	-	8.5	-
	7 NOV 77	1003	13		5	15.0	15.0	12000	6.84C	-	7.1	9.4	1.3L
XIF3C64	24 APR 78	0935	13	H	1	-	12.5	5100	2.72C	7.7	7.5	10.4	2.2
	24 APR 78	0930		H	1	-	12.5	2900	1.48C	8.0	7.7	11.7	2.7
	24 APR 78	0930	5	H	1	16.5	12.3	3200	1.65C	8.1	-	11.9	-
	24 APR 78	0930	10	H	1	16.5	12.3	4600	2.37C	7.7	-	11.0	-
	1 AUG 78	0945		E	2	-	26.0	11100	6.29C	7.6	7.5	8.4	1.8
	1 AUG 78	0945	5	E	2	-	26.0	7820	4.31C	7.8	-	7.3	-
	1 AUG 78	0945	10	E	2	-	26.0	10080	5.85C	7.7	-	6.9	-
	9 OCT 78	1000		E	0	15.5	15.0	12300	7.33C	8.1	7.0	10.2	3.0
	9 OCT 78	1000	5	E	0	15.5	15.8	14300	8.27C	7.7	-	9.1	-
	9 OCT 78	1000	10	E	0	15.5	16.7	16950	9.95C	7.5	-	7.8	-
	9 OCT 78	1000	13	E	0	15.5	16.8	16800	9.85C	7.5	6.6	7.4	1.4

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	GR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XEF3C64	15 MAR 72	0535		30.0	16	.24	.017	1.22	.38	-	68.00	.71
	15 MAR 72	0536	17	40.0	30	.39	.021	1.02	.31	-	38.00	1.17
	29 SEP 72	1408	6	2.5	9	.11	.019	.36	.03	-	30.00	.31
	29 SEP 72	1409		2.0	6	.11	.019	.36	.01	-	30.00	.34
	14 FEB 73	1020		23.0	28	.33	1.000	1.06	.12	-	3.00	.70
	14 FEB 73	1021	5	-	-	-	-	-	-	-	-	-
	14 FEB 73	1022	14	-	-	-	-	-	-	-	-	-
	14 FEB 73	1023	10	16.0	28	.33	1.000	1.00	.04	-	6.00	.50
	27 FEB 74	1011	7	-	-	-	-	-	-	-	-	-
	20 AUG 74	1100		4.0	-	.12	.022	.27	.01	.01	13.50	.39
	20 AUG 74	1103	15	4.0	-	.15	.021	.31	.06	.03	10.50	.56
	22 APR 75	1027	6	-	-	-	-	-	-	-	-	-
	22 APR 75	1030		10.0	6	.81	.038	.75	.11	.04	38.00	.81
	22 APR 75	1031	12	18.0	14	.95	.008	.75	.11	.04	30.00	.95
	21 JUL 75	1025		10.5	8	.03	.020	.38	.08	.08	34.50	1.03
	21 JUL 75	1026	7	-	-	-	-	-	-	-	-	-
	21 JUL 75	1027	13	13.0	16	.03	.017	.42	.07	.05	9.00	.69
	20 OCT 75	0945	15	14.0	-	.07	.040	1.00	.08	.04	1.50L	.38
	20 OCT 75	0946	8	-	-	-	-	-	-	-	-	-
	20 OCT 75	0947		13.0	-	.07	.040	.88	.12	.12	1.50L	.38
	23 FEB 76	0950	12	26.0	-	.08	.006	1.10	.07	.04	-	.15
	23 FEB 76	0951	6	-	-	-	-	-	-	-	-	-
	23 FEB 76	0952		26.0	-	.08	.006	.95	.08	.04	9.00	.31
	24 JUN 76	0920	12	16.0	-	.01	.007	.17	.05	.05	-	.44
	24 JUN 76	0921	7	-	-	-	-	-	-	-	-	-
	24 JUN 76	0922	2	-	-	-	-	-	-	-	-	-
	24 JUN 76	0923		8.0	-	.01L	.009	.23	.07	.07	43.50	-
	6 OCT 76	1010	1	7.0	-	.05	.013	.81	.07	.05	19.50	.24
	6 OCT 76	1013	5	-	-	-	-	-	-	-	-	-
	6 OCT 76	1014	10	-	-	-	-	-	-	-	-	-
	6 OCT 76	1015	14	7.0	-	.05	.013	.75	.07	.05	6.00	.36
	21 MAR 77	0845		22.0	18	.38	.024	.98	.11	.10	16.50	.38
	21 MAR 77	0847	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	0849	13	-	-	-	-	-	-	-	-	-
	21 MAR 77	0851	13	22.0	18	.38	.024	1.03	.16	.15	15.00	.50
	18 APR 77	0922		12.0	34	.13	.019	.78	.08	.04	42.00	.26
	18 APR 77	0923	5	-	-	-	-	-	-	-	-	-
	18 APR 77	0922	10	-	-	-	-	-	-	-	-	-
	18 APR 77	0922	15	11.0	18	.07	.022	.76	.03	.02	25.50	.43
	27 JUN 77	0930		8.0	12	.06	.003	.01	.08	.05	28.50	.22
	27 JUN 77	0930	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	0930	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	0930	14	5.0	10	.11	.004	.04	.08	.03	12.00	.33
	4 AUG 77	0845		4.0	12	.01	.001	.05	.04	.01	99.00	.38
	4 AUG 77	0845	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0845	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	0845	15	3.0	24	.01	.001	.05	.04	.01	22.50	.50
	7 NOV 77	1000		38.0	50	.39	.012	.49	.09	.05	1.50L	.25
	7 NOV 77	1010	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1000	10	-	-	-	-	-	-	-	-	-
XEF3J64	24 APR 78	0925	13	12.0	21	.18	.019	.82	.19	-	3.75L	.92C
	24 APR 78	0930		8.6	13	.13	.016	.83	.22	-	3.75L	.71C
	24 APR 78	0930	5	-	-	-	-	-	-	-	-	-
	24 APR 78	0933	13	-	-	-	-	-	-	-	-	-
	1 AUG 78	0945		24.0	4	.05	.016	.26	.28	-	1.32	2.28
	1 AUG 78	0945	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	0945	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1000		7.4	1008	.02	.040	.12	.14	-	40.80	.88
	9 OCT 78	1000	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1000	13	-	-	-	-	-	-	-	-	-
	9 OCT 78	1000	13	4.8	16	.16	.039	.06	.10	-	13.80	.68

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF3064	15 MAR 72	0935		-	.100L	.24	.04	.03L	.05L	-
	15 MAR 72	0936	17	-	.100L	.27	.05	.03L	.05L	-
	29 SEP 72	1408	6	-	.100L	.13	.03L	.06	.05	-
	29 SEP 72	1409		-	.100L	.10	.03L	.02	.05L	-
	14 FEB 73	1020		-	.100L	.11	.04	.07	.05	-
	14 FEB 73	1021	5	-	-	-	-	-	-	-
	14 FEB 73	1022	14	-	-	-	-	-	-	-
	14 FEB 73	1023	10	-	.100L	.16	.10	.10	.05	-
	27 FEB 74	1011	7	-	-	-	-	-	-	-
	20 AUG 74	1100		.5L	.050L	.60	.04	.03L	.05L	.5L
	20 AUG 74	1103	15	.5L	.050L	.68	.05	.03L	.05L	.5L
	22 APR 75	1027	6	-	-	-	-	-	-	-
	22 APR 75	1030		.5L	.100L	.19	.03L	.03L	.03L	1.0L
	22 APR 75	1031	12	.5L	.100L	.19	.04	.03L	.03L	1.0L
	21 JUL 75	1025		.5L	.150L	.55	.10	.05	.05L	.2L
	21 JUL 75	1026	7	-	-	-	-	-	-	-
	21 JUL 75	1027	13	.5L	.150L	.88	.06	.05L	.05L	.2L
	20 OCT 75	0945	15	.5L	.100L	.36	.07	.05L	.05L	.2L
	20 OCT 75	0946	8	-	-	-	-	-	-	-
	20 OCT 75	0947		.5L	.100L	.34	.08	.05L	.05L	.2L
	23 FEB 76	0950	12	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	0951	6	-	-	-	-	-	-	-
	23 FEB 76	0952		.5L	.100L	.05L	.03L	.05L	-	.2L
	24 JUN 76	0920	12	.5L	-	.30	.04	.05L	.05L	.1L
	24 JUN 76	0921	7	-	-	-	-	-	-	-
	24 JUN 76	0922	2	-	-	-	-	-	-	-
	24 JUN 76	0923		.5L	-	.27	.03	.05L	.05L	.1L
	6 DEC 76	1010	1	.5L	.150L	.05L	.02L	.05L	.13L	.2L
	6 DEC 76	1013	5	-	-	-	-	-	-	-
	6 DEC 76	1015	10	-	-	-	-	-	-	-
	6 DEC 76	1016	14	.5L	.150L	.06	.02L	.05L	.13L	.2L
	21 MAR 77	0845		.5L	.150L	.22	.08	.05L	.10L	.2L
	21 MAR 77	0847	5	-	-	-	-	-	-	-
	21 MAR 77	0849	13	-	-	-	-	-	-	-
	21 MAR 77	0851	13	.5L	.150L	-	.07	.05L	.10L	.2L
	18 APR 77	0922		.5L	.200L	.22	.06	.05L	.13L	.2L
	18 APR 77	0922	5	-	-	-	-	-	-	-
	18 APR 77	0922	10	-	-	-	-	-	-	-
	18 APR 77	0922	15	.5L	.200L	.23	.06	.05L	.13L	.2L
	27 JUN 77	0900		.5L	.500L	.08	.05L	.05L	.10L	.5L
	27 JUN 77	0900	5	-	-	-	-	-	-	-
	27 JUN 77	0900	10	-	-	-	-	-	-	-
	27 JUN 77	0900	14	.5	.500L	.07	.05L	.05L	.10L	.5L
	4 AUG 77	0845		.5L	.500L	.07	.05L	.05L	.10L	.5L
	4 AUG 77	0845	5	-	-	-	-	-	-	-
	4 AUG 77	0845	10	-	-	-	-	-	-	-
	4 AUG 77	0845	15	.5L	.50JL	.23	.05L	.05L	.10L	.5L
	7 NOV 77	1000		.5L	.500L	.10	.05	.05L	.10L	.2L
	7 NOV 77	1000	5	-	-	-	-	-	-	-
	7 NOV 77	1000	10	-	-	-	-	-	-	-
	7 NOV 77	1000	15	.5L	.500L	.16	.11	.15I	.13I	.2I
XIF3064	24 APR 78	0925	13	.5L	.200L	.10	.24	.05L	.10L	.1L
	24 APR 78	0930		.5L	.200L	.12	.16	.05L	.10L	.1L
	24 APR 78	0930	5	-	-	-	-	-	-	-
	24 APR 78	0930	10	-	-	-	-	-	-	-
	1 AUG 78	0945		.5L	.20JL	.12	.20	.05L	.17	.1L
	1 AUG 78	0945	5	-	-	-	-	-	-	-
	1 AUG 78	0945	10	-	-	-	-	-	-	-
	9 OCT 78	1000		-	.200L	.22	.05L	.05L	.05L	-
	9 OCT 78	1000	5	-	-	-	-	-	-	-
	9 OCT 78	1000	10	-	-	-	-	-	-	-
	9 OCT 78	1000	13	-	.200L	.26	.05L	.05L	.05L	-

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF30e4	15 MAR 72	0935		6.00	123.00	3.5	.0001L	.100L
	15 MAR 72	0936	17	6.00	270.00	9.3	.0001L	.100L
	29 SEP 72	1438	6	3.00	15.20	.1L	.0001L	.100L
	29 SEP 72	1409		3.00	13.40	.1L	.0001L	.100L
	14 FEB 73	1020		5.00	12.00	.4	.0001L	.005L
	14 FEB 73	1021	5	-	-	-	-	-
	14 FEB 73	1022	14	-	-	-	-	-
	14 FEB 73	1023	10	8.00	15.00	.4	.0001L	.005L
	27 FEB 74	1011	7	-	-	-	-	-
	20 AUG 74	1100		6.00	6.00	-	.0001L	-
	20 AUG 74	1103	15	6.00	6.00	.1L	.0001L	.010L
	22 APR 75	1027	6	-	-	-	-	-
	22 APR 75	1030		-	5.00L	1.4	.0001L	-
	22 APR 75	1031	12	-	8.00	1.5	.0001L	-
	21 JUL 75	1025		8.00	2.00L	.1L	.0006	.020L
	21 JUL 75	1026	7	-	-	-	-	-
	21 JUL 75	1027	13	9.00	2.00L	.1L	.0006	.020L
	20 OCT 75	0945	15	2.00	30.00	.4	.0001L	.010L
	20 OCT 75	0946	8	-	-	-	-	-
	23 OCT 75	0947		3.00	10.00	.4	.0001L	.010L
	23 FEB 76	0950	12	5.00	13.00	.4	.0001L	.010L
	23 FEB 76	0951	8	-	-	-	-	-
	23 FEB 76	0952		7.00	16.00	.4	.0001L	.010L
	24 JUN 76	0920	12	6.00	31.90	6.7	.0001L	.010L
	24 JUN 76	0921	7	-	-	-	-	-
	24 JUN 76	0922	2	-	-	-	-	-
	24 JUN 76	0923		7.50	28.30	2.5	.0001L	.010L
	6 DEC 76	1010	1	6.50	4.40	.4	.0001L	-
	6 DEC 76	1010	5	-	-	-	-	-
	6 DEC 76	1010	10	-	-	-	-	-
	6 DEC 76	1011	14	8.00	5.40	.4	.0001L	-
	21 MAR 77	0845		11.00	5.00L	1.0	.0007	-
	21 MAR 77	0847	5	-	-	-	-	-
	21 MAR 77	0849	10	-	-	-	-	-
	21 MAR 77	0851	13	10.00	23.00	1.0	.0026	-
	18 APR 77	0922		.50	4.30	1.0L	.0001L	-
	18 APR 77	0922	5	-	-	-	-	-
	18 APR 77	0922	10	-	-	-	-	-
	18 APR 77	0922	15	10.00	8.50	7.2	.0001L	-
	27 JUN 77	0900		23.50	61.00	1.2	.0001L	2.000L
	27 JUN 77	0900	5	-	-	-	-	-
	27 JUN 77	0900	10	-	-	-	-	-
	27 JUN 77	0900	14	22.00	1.00	1.4	.0001L	2.000L
	4 AUG 77	0845		1.65	22.40	.4	.0001L	-
	4 AUG 77	0845	5	-	-	-	-	-
	4 AUG 77	0845	10	-	-	-	-	-
	4 AUG 77	0845	15	17.00	11.90	.8	.0001L	-
	7 NOV 77	1000		10.00	22.40	39.2	.0001L	.005L
	7 NOV 77	1000	5	-	-	-	-	-
	7 NOV 77	1000	10	-	-	-	-	-
	7 NOV 77	1000	15	9.00	26.40	.1L	.0001L	.005L
XIF3C64	24 APR 78	0925	13	.50	35.90	-	.0004	-
	24 APR 78	0930		.50	20.50	-	.0011	-
	24 APR 78	0930	5	-	-	-	-	-
	24 APR 78	0930	10	-	-	-	-	-
	1 AUG 78	0945		1.45	-	-	-	-
	1 AUG 78	0945	5	-	-	-	-	-
	1 AUG 78	0945	10	-	-	-	-	-
	5 OCT 78	1000		15.00	1448.32	3.4	-	-
	9 OCT 78	1000	5	-	-	-	-	-
	9 OCT 78	1000	10	-	-	-	-	-
	9 OCT 78	1000	13	13.50	1964.16	2.1	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHOS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF4151	15 MAR 72	1040		E	1	-	4.2	1080	.06	-	7.7	8.4	2.8
	15 MAR 72	1041	13	E	1	-	4.0	1100	1.00	-	7.4	7.9	2.4
	29 SEP 72	1357	11	F	2	-	20.6	8600	5.40	7.3	-	7.8	1.4
	29 SEP 72	1358	5	F	2	-	20.6	8500	5.40	-	-	8.1	-
	29 SEP 72	1359		F	2	-	20.6	8500	5.40	7.3	-	8.0	1.6
	14 FEB 73	1105		E	6	-	1.0	2700	-	7.6	7.3	11.9	8.5
	14 FEB 73	1106	6	E	6	-	1.0	2700	-	7.7	7.0	11.7	8.4
	27 FEB 74	1041	6	H	0	-	3.0	8000	7.83C	6.2	-	11.0	-
	20 AUG 74	1120		H	2	-	26.0	7000	4.00	-	-	7.6	2.4
	20 AUG 74	1121	9	H	2	-	26.0	8000	4.60	-	-	5.9	.4
	22 APR 75	1055		E	1	14.0	10.6	3400	2.80	-	7.6	10.4	4.2
	22 APR 75	1056	13	E	1	14.0	9.9	4000	3.20	-	7.6	10.2	3.0
	22 APR 75	1057	7	E	1	14.0	10.0	3300	2.90	-	-	10.5	-
	21 JUL 75	1045	12	E	0	26.0	26.0	4600	2.90	-	7.1	6.7	2.0
	21 JUL 75	1046	6	E	0	-	26.0	4200	2.50	-	-	7.0	-
	21 JUL 75	1047		E	0	26.0	26.8	3700	2.30	-	7.9	9.4	4.9
	20 OCT 75	1010	15	E	1	-	17.1	6400	4.20C	7.5	7.5	7.4	.5
	20 OCT 75	1011	8	E	1	-	17.0	5200	3.37C	7.5	-	7.6	-
	20 OCT 75	1012		E	1	-	17.0	4850	3.13C	7.5	7.5	7.7	.5
	23 FEB 76	1017	10			-	5.0	-	-	7.7	7.2	12.0	3.0L
	23 FEB 76	1018	5	L	0	-	4.5	-	-	7.6	-	11.4	-
	23 FEB 76	1019				-	5.0	-	-	-	7.4	11.2	3.0L
	24 JUN 76	1005	14	E	0	-	27.0	5400	2.92	7.2	7.4	5.6	1.5
	24 JUN 76	1006	9	E	0	-	27.0	5300	2.86	7.1	-	5.5	-
	24 JUN 76	1007	4	E	0	-	27.0	5200	2.81	7.1	-	5.6	-
	24 JUN 76	1008		E	0	-	28.0	5200	2.81	7.1	7.4	5.7	2.4
	6 DEC 76	1035	1	E	0	1.0	2.5	4900	4.69C	8.4	7.6	14.0	3.7
	6 DEC 76	1035	5	E	0	1.0	2.5	5300	2.83C	8.0	-	14.5	-
	6 DEC 76	1035	10	E	0	1.0	2.5	6200	6.04C	8.0	7.5	13.4	3.6
	21 MAR 77	0927		E	1	10.0	8.0	1550	1.16C	7.5	7.5	10.8	1.1
	21 MAR 77	0929	5	E	1	-	8.2	1620	.79C	7.5	-	10.6	-
	21 MAR 77	0931	9	E	1	10.0	8.3	1700	1.27C	7.5	7.5	10.3	1.3
	18 APR 77	1007		E	0	16.0	15.7	690	.31C	8.2	7.3	9.8	1.3
	18 APR 77	1007	5	E	1	16.0	15.7	680	.31C	8.2	-	9.8	-
	18 APR 77	1007	9	E	0	16.0	15.5	660	.30C	8.2	7.4	9.6	1.5
	27 JUN 77	0945		E	0	26.0	24.5	10000	5.61C	8.5	8.3	8.7	5.1
	27 JUN 77	0945	5	E	0	26.0	24.4	10000	5.61C	8.4	-	8.5	-
	27 JUN 77	0945	10	E	0	26.0	24.3	10500	5.92C	8.4	8.4	8.4	6.1
	4 AUG 77	0915		F	0	25.0	26.2	12000	6.86C	-	7.1	8.3	2.7
	4 AUG 77	0915	5	F	0	25.0	26.1	12100	6.90C	-	-	6.7	-
	4 AUG 77	0915	10	F	0	25.0	26.1	12100	6.90C	-	7.2	6.7	5.4
	7 NOV 77	1042			5	15.0	15.5	7900	4.35C	-	7.3	8.5	1.0L
	7 NOV 77	1042	5		5	15.0	15.3	8200	4.53C	-	-	9.5	-
	7 NOV 77	1042	12		5	15.0	15.2	9700	5.43C	-	7.2	10.4	1.0L
	24 APR 78	0952	5	H	1	16.5	12.8	1600	.73C	7.9	-	11.2	-
	24 APR 78	1000	8	H	1	-	13.0	1550	.75C	7.9	7.7	11.1	2.5
	24 APR 78	1005		H	1	-	12.8	1500	.73C	7.9	7.6	11.2	2.5
	1 AUG 78	1015		E	2	-	25.7	6320	3.42C	7.5	7.5	7.2	1.5
	1 AUG 78	1015	5	E	2	-	25.7	6300	3.41C	7.5	-	7.3	-
	1 AUG 78	1015	10	E	2	-	25.9	6320	3.42C	7.5	-	7.2	-
	9 OCT 78	1035		E	0	15.5	14.9	12600	7.21C	8.1	7.4	10.3	4.4
XIF416L	9 OCT 78	1035	5	E	0	15.5	15.0	12600	7.21C	7.9	-	9.8	-
	9 OCT 78	1035	8	E	0	15.5	14.9	12600	7.21C	7.8	7.3	9.8	1.4

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	DR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XIF4161	15 MAR 72	1040		40.0	26	.16	.017.	1.28	.38	-	45.00	.88
	15 MAR 72	1041	13	40.0	30	.16	.017	1.31	1.25	-	33.33	.76
	29 SEP 72	1357	11	2.5	9	.12	.019	.36	.02L	-	30.00	.34
	29 SEP 72	1358	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1359		2.0	9	.09	.019	.36	.31	-	33.33	.34
	14 FEB 73	1105		23.0	28	.33	1.280	1.28	.04	-	9.00	.60
	14 FEB 73	1106	6	24.0	28	.33	1.220	1.22	.04	-	6.00	-
	27 FEB 74	1041	6	-	-	-	-	-	-	-	-	-
	20 AUG 74	1120		6.0	-	.08	.052	.27	.09	.06	31.50	.56
	20 AUG 74	1121	8	6.0	-	.13	.032	.25	.07	.05	22.50	.50
	22 APR 75	1055		8.0	4	.54	.038	.81	.08	.04	15.00	.56
	22 APR 75	1056	13	10.0	4	.73	.008	.75	.08	.08	23.00	.73
	22 APR 75	1057	7	-	-	-	-	-	-	-	-	-
	21 JUL 75	1045	12	14.0	12	.03	.017	.42	.09	.07	13.50	.95
	21 JUL 75	1046	6	-	-	-	-	-	-	-	-	-
	21 JUL 75	1047		12.5	1	.03	.050	.38	.23	.18	82.50	1.21
	20 OCT 75	1013	15	14.0	-	.37	.063	1.00	.13	.12	1.50L	.38
	20 OCT 75	1011	8	-	-	-	-	-	-	-	-	-
	20 OCT 75	1012		12.0	-	.07	.040	.88	.09	.08	1.50L	.38
	23 FEB 76	1017	13	17.0	-	.36	.036	1.10	.35	.04	-	.23
	23 FEB 76	1018	5	-	-	-	-	-	-	-	-	-
	23 FEB 76	1019		17.0	-	.06	.006	1.10	.06	.04	9.00	.31
	24 JUN 76	1035	14	16.0	-	.36	.039	.27	.39	.09	-	.44
	24 JUN 76	1006	9	-	-	-	-	-	-	-	-	-
	24 JUN 76	1007	4	-	-	-	-	-	-	-	-	-
	24 JUN 76	1008		8.0	-	.06	.011	.27	.07	.05	34.50	.22
	6 DEC 76	1035	1	7.0	-	.10	.013	.88	.10	.05	31.50	.24
	6 DEC 76	1036	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1035	13	6.0	-	.11	.013	.81	.06	.03	18.00	.43
	21 MAR 77	0927		22.0	20	.42	.024	.03	.16	.10	15.00	.75
	21 MAR 77	0929	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	0931	9	20.0	14	.36	.024	1.07	.15	.10	16.50	.75
	18 APR 77	1007		20.0	2	.04	.019	.74	.10	.07	45.00	.40
	18 APR 77	1007	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1007	9	21.0	42	.03	.017	.74	.10	.04	51.00	.30
	27 JUN 77	0945		6.0	9	.10	.003	.01	.09	.08	28.50	.22
	27 JUN 77	0945	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	0945	10	9.0	88	.10	.003	.01	.19	.13	13.50	.22
	4 AUG 77	0915		10.0	14	.01	.001	.05	.03	.01	69.00	.39
	4 AUG 77	0915	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0915	10	12.0	12	.01	.001	.05	.04	.04	21.00	.38
	7 NOV 77	1042		30.0	32	.07	.009	.46	.09	.04	10.50	.50
	7 NOV 77	1042	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1042	12	22.0	26	.07	.008	.46	.06	.05	7.50	.75
	24 APR 78	0952	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1003	8	20.0	25	.11	.014	.83	.22	-	3.75L	.750
	24 APR 78	1003		20.0	28	.11	.016	.85	.15	-	11.25	.710
	1 AUG 78	1015		12.0	5	.03	.011	.67	.20	-	1.14	.72
	1 AUG 78	1015	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1015	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1035		8.4	9	.04	.048	.11	.14	-	46.20	.80
XIF4161	9 OCT 78	1035	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1035	8	14.0	13	.02	.036	.08	.08	-	25.80	.60

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF4161	15 MAR 72	1040		-	.100L	.13	.04	.03L	.05L	-
	15 MAR 72	1041	13	-	.100L	.11	.05	.03L	.05L	-
	29 SEP 72	1357	11	-	.100L	.10	.03L	.06	.05L	-
	29 SEP 72	1358	5	-	-	-	-	-	-	-
	29 SEP 72	1359		-	.100L	.13	.03L	.04	.05L	-
	14 FEB 73	1105		-	.100L	.16	.30	.22	.05	-
	14 FEB 73	1106	6	-	.100L	.14	.28	.75	.05	-
	27 FEB 74	1041	6	-	-	-	-	-	-	-
	20 AUG 74	1120		.5L	.050L	.53	.03	.03L	.05L	.5L
	20 AUG 74	1121	8	.5L	.050L	.71	.06	.03L	.05L	.5L
	22 APR 75	1055		.5L	.100L	.07	.03L	.03L	.03L	1.0L
	22 APR 75	1056	13	.5L	.100L	.09	.03L	.03L	.03L	1.0L
	22 APR 75	1057	7	-	-	-	-	-	-	-
	21 JUL 75	1045	12	.5L	.150L	.29	.04	.05L	.05L	.2L
	21 JUL 75	1046	6	-	-	-	-	-	-	-
	21 JUL 75	1047		.5L	.150L	.30	.06	.05L	.05L	.2L
	20 OCT 75	1010	15	.5L	.100L	.28	.05	.05L	.05L	.2L
	20 OCT 75	1011	8	-	-	-	-	-	-	-
	20 OCT 75	1012		.5L	.100L	.30	.09	.05L	.05L	.2L
	23 FEB 76	1017	10	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	1018	5	-	-	-	-	-	-	-
	23 FEB 76	1019		.5L	.100L	.05L	.03L	.05L	.05L	.2L
	24 JUN 76	1005	14	.5L	-	.34	.49	.05L	.05L	.1L
	24 JUN 76	1006	9	-	-	-	-	-	-	-
	24 JUN 76	1007	4	-	-	-	-	-	-	-
	24 JUN 76	1008		.5L	.100L	.35	.87	.05L	.05L	.1L
	6 DEC 76	1035	1	.5L	.150L	.05L	.02L	.05L	.10L	.2L
	6 DEC 76	1035	5	-	-	-	-	-	-	-
	6 DEC 76	1035	13	.5L	.150L	.05L	.02L	.05L	.10L	.2L
	21 MAR 77	0927		.5L	.150L	.10	.05	.05L	.10L	.2L
	21 MAR 77	0929	5	-	-	-	-	-	-	-
	21 MAR 77	0931	9	.5L	.150L	.12	.05	.05L	.10L	.2L
	18 APR 77	1007		.5L	.200L	.14	.06	.05L	.10L	.2L
	18 APR 77	1007	5	-	-	-	-	-	-	-
	18 APR 77	1007	9	.5L	.200L	.12	.08	.05L	.10L	.2L
	27 JUN 77	0945		.5L	.500L	.05L	.05L	.05L	.10L	.5L
	27 JUN 77	0945	5	-	-	-	-	-	-	-
	27 JUN 77	0945	10	.5L	.500L	.05L	.05L	.05L	.10L	.5L
	4 AUG 77	0915		.5L	.500L	.19	.05	.05L	.10L	.5L
	4 AUG 77	0915	5	-	-	-	-	-	-	-
	4 AUG 77	0915	10	.5L	.500L	.21	.05L	.05L	.10L	.5L
	7 NOV 77	1042		.5L	.500L	.14	.16	.05	.10L	.2L
	7 NOV 77	1042	5	-	-	-	-	-	-	-
	7 NOV 77	1042	12	.5L	.500L	.28	.41	.05L	.10L	.2L
	24 APR 78	0952	5	-	-	-	-	-	-	-
	24 APR 78	1000	8	.5L	.200L	.10	.17	.05L	.10L	.1L
	24 APR 78	1005		.5L	.200L	.42	.28	.05L	.10L	.1L
	1 AUG 78	1015		.5L	.200L	.12	.05	.05L	.05L	.1L
	1 AUG 78	1015	5	-	-	-	-	-	-	-
	1 AUG 78	1015	10	-	-	-	-	-	-	-
	9 OCT 78	1035		-	.200L	.23	.05L	.05L	.05L	-
XIF4161	9 OCT 78	1035	5	-	-	-	-	-	-	-
	9 OCT 78	1035	8	-	.200L	.25	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIP4161	15 MAR 72	1343		8.00	90.00	7.4	.0001L	.100L
	15 MAR 72	1041	13	8.00	95.00	.3	.0001L	.100L
	29 SEP 72	1357	11	2.00	14.20	.1L	.0001L	.100L
	29 SEP 72	1358	5	-	-	-	-	-
	29 SEP 72	1359		2.00	14.50	.1L	.0001L	.100L
	14 FEB 73	1105		5.00	15.00	.6	.0001L	.005L
	14 FEB 73	1106	6	6.00	15.00	.6	.0001L	.005L
	27 FEB 74	1041	6	-	-	-	-	-
	20 AUG 74	1120		10.00	6.00	.1	.0001L	.010L
	20 AUG 74	1121	8	5.00	6.00	.1L	.0001L	-
	22 APR 75	1055		-	5.00L	3.3	.0001L	-
	22 APR 75	1056	13	-	5.00L	1.6	.0001L	-
	22 APR 75	1057	7	-	-	-	-	-
	21 JUL 75	1045	12	6.00	2.00L	.1L	.0009	.033
	21 JUL 75	1046	6	-	-	-	-	-
	21 JUL 75	1047		8.00	2.00L	.1L	.0001L	.020L
	20 OCT 75	1010	15	5.00	10.00L	.9	.0001L	.010L
	20 OCT 75	1011	8	-	-	-	-	-
	20 OCT 75	1012		6.00	10.00L	1.0	.0001L	.010L
	23 FEB 76	1017	10	7.00	13.00	.7	.0001L	.010L
	23 FEB 76	1018	5	-	-	-	-	-
	23 FEB 76	1019		5.00	13.00	.6	.0001L	.010L
	24 JUN 76	1035	14	6.50	26.80	1.4	.0001L	.010L
	24 JUN 76	1036	9	-	-	-	-	-
	24 JUN 76	1037	4	-	-	-	-	-
	24 JUN 76	1038		5.50	24.70	3.5	.0001L	.010L
	6 DEC 76	1035	1	7.00	7.30	.6	.0001L	-
	6 DEC 76	1036	5	-	-	-	-	-
	6 DEC 76	1035	10	6.50	3.60	.2L	.0001L	-
	21 MAR 77	0927		10.50	30.00	1.0	.0005	-
	21 MAR 77	0929	5	-	-	-	-	-
	21 MAR 77	0931	9	13.00	16.00	1.6	.0003	-
	18 APR 77	1007		12.50	4.10	1.0L	.0001L	-
	18 APR 77	1007	5	-	-	-	-	-
	18 APR 77	1007	9	11.00	15.90	3.2	.0001L	-
	27 JUN 77	0945		24.00	50.00	.2	.0001L	2.000L
	27 JUN 77	0945	5	-	-	-	-	-
	27 JUN 77	0945	13	24.00	55.00	.2	.0001L	2.000L
	4 AUG 77	0915		2.50	33.00	.9	.0001L	-
	4 AUG 77	0915	5	-	-	-	-	-
	4 AUG 77	0915	10	2.35	56.00	.1	.0001L	-
	7 NOV 77	1042		9.00	14.40	.1L	.0001L	.005L
	7 NOV 77	1042	5	-	-	-	-	-
	7 NOV 77	1042	12	10.00	14.40	.1L	.0001L	.005L
	24 APR 78	0952	5	-	-	-	-	-
	24 APR 78	1000	8	1.00	15.00	-	.0002	-
	24 APR 78	1005		.95	13.30	-	.0011	-
	1 AUG 78	1015		1.55	-	-	-	-
	1 AUG 78	1015	5	-	-	-	-	-
	1 AUG 78	1015	10	-	-	-	-	-
	9 OCT 78	1035		13.00	-	4.4	-	-
XIP4161	9 OCT 78	1035	5	-	-	-	-	-
	9 OCT 78	1035	8	11.50	-	2.3	-	-

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF4785	15 MAR 72	1154		E	1	-	3.9	950	.85	-	-	-	2.0
	15 MAR 72	1155	15	E	1	-	3.8	910	.80	-	7.7	-	2.0
	29 SEP 72	1320	13	F	2	-	20.9	9700	6.30	7.2	-	7.5	1.3
	29 SEP 72	1321	10	F	2	-	20.8	9700	6.20	-	-	7.4	-
	29 SEP 72	1322	5	F	2	-	20.9	9200	6.00	-	-	7.5	-
	29 SEP 72	1323		F	2	-	20.8	9200	6.00	7.3	-	7.6	.9
	14 FEB 73	1150		E	6	-	1.3	1900	-	7.7	7.3	11.8	8.5
	14 FEB 73	1151	5	E	6	-	1.0	3900	-	7.6	-	11.4	-
	14 FEB 73	1152	10	E	6	-	1.5	6200	-	7.5	-	11.2	-
	14 FEB 73	1153	13	E	6	-	1.5	6550	-	7.5	7.4	11.5	8.4
	27 FEB 74	1111	7	H	0	-	3.0	7100	6.88C	6.3	-	11.2	-
	20 AUG 74	1150		E	2	-	26.1	8000	4.80	-	-	6.6	1.0
	20 AUG 74	1151	14	E	2	-	25.8	8353	4.83	-	-	5.7	1.1
	22 APR 75	1135		E	1	12.0	10.8	2990	2.30	-	7.6	10.4	3.3
	22 APR 75	1136	13	E	1	12.0	10.2	3190	2.60	-	7.6	10.1	4.8
	22 APR 75	1137	7	E	2	12.0	10.1	3120	2.50	-	-	10.3	-
	21 JUL 75	1110	14	E	0	27.0	25.8	4550	2.90	-	7.0	7.2	1.3
	21 JUL 75	1111	7	E	0	-	26.0	3650	2.20	-	-	7.3	-
	21 JUL 75	1112		E	0	27.0	26.5	3300	2.00	-	7.1	7.6	1.3
	20 OCT 75	1045	14	E	0	-	16.8	5250	3.42C	7.5	7.5	7.9	.8
	20 OCT 75	1046	7	E	0	-	16.9	4600	2.97C	7.5	-	7.8	-
	20 OCT 75	1047		E	0	-	17.0	4570	2.94C	7.5	7.5	7.8	.6
	23 FEB 76	1050	12			-	6.0	-	-	7.7	7.3	11.6	3.0L
	23 FEB 76	1051	6	L	0	-	6.5	-	-	7.7	-	11.0	-
	23 FEB 76	1052				-	7.0	-	-	7.6	7.3	10.8	3.0L
	24 JUN 76	1100	15	E	0	-	28.0	4600	2.46	6.8	7.2	5.4	1.3
	24 JUN 76	1101	10	E	0	-	28.0	4600	2.46	6.8	-	5.6	-
	24 JUN 76	1102	5	E	0	-	28.0	4600	2.46	7.0	-	5.8	-
	24 JUN 76	1103		E	0	-	28.0	4600	2.46	6.8	7.2	5.9	1.8
	6 DEC 76	1125	1	E	0	1.5	2.0	4700	4.56C	7.8	7.6	13.2	2.6
	6 DEC 76	1125	5	E	0	1.5	2.0	5500	2.95C	7.9	-	13.4	-
	6 DEC 76	1125	10	E	0	1.5	2.3	6900	3.76C	7.7	-	13.6	-
	6 DEC 76	1125	15	E	0	1.5	2.5	6900	5.73C	7.7	7.7	13.0	2.0
	21 MAR 77	1003		E	1	12.3	8.7	1120	.80C	7.5	7.4	10.8	1.0
	21 MAR 77	1005	5	E	1	-	8.7	1120	.53C	7.5	-	10.8	-
	21 MAR 77	1007	10	E	1	-	8.7	1120	.53C	7.4	-	10.5	-
	21 MAR 77	1009	14	E	1	-	8.7	1150	.82C	7.4	7.4	10.6	1.1
	18 APR 77	1042		E	0	16.0	14.7	1300	.62C	7.6	7.2	9.9	1.0
	18 APR 77	1042	5	E	1	16.0	14.7	1800	.89C	7.6	-	9.6	-
	18 APR 77	1042	10	E	1	16.0	14.5	1600	.89C	7.4	-	9.2	-
	18 APR 77	1042	15	E	0	16.0	14.3	2050	1.02C	7.4	7.4	8.9	.5L
	27 JUN 77	1012		E	0	26.0	24.0	9500	5.31C	8.2	8.3	8.3	1.3
	27 JUN 77	1012	5	E	0	26.0	23.8	10100	5.68C	8.0	-	7.4	-
	27 JUN 77	1012	10	E	0	26.0	23.7	10500	5.92C	7.9	-	7.0	-
	27 JUN 77	1012	14	E	0	26.0	23.5	11000	6.22C	7.7	8.3	6.6	6.1
	4 AUG 77	0943		F	0	24.6	26.0	11100	6.29C	-	7.4	7.7	5.4
	4 AUG 77	0940	5	F	0	25.0	25.9	11100	6.29C	-	-	7.1	-
	4 AUG 77	0940	10	F	0	25.0	25.9	11100	6.29C	-	-	6.7	-
	4 AUG 77	0940	15	F	0	24.6	25.8	11100	6.29C	-	7.4	6.6	5.4
	7 NOV 77	1133				15.0	15.3	9700	5.43C	-	7.0	9.8	1.0L
	7 NOV 77	1130	5		5	15.0	15.3	9700	5.43C	-	-	8.5	-
XIF4785	7 NOV 77	1130	10		5	15.0	15.3	11000	6.22C	-	-	10.4	-
	7 NOV 77	1130	15		5	15.0	15.3	12000	6.84C	-	7.2	13.9	1.0L
	24 APR 78	1024		H	1	-	12.8	2350	1.02C	7.7	7.6	11.2	2.0
	24 APR 78	1024	5	H	1	18.0	12.3	2200	1.10C	7.6	-	11.0	-
	24 APR 78	1024	10	H	1	18.0	12.0	3250	1.67C	7.6	-	10.7	-
	24 APR 78	1024	14	H	1	-	12.2	3400	1.76C	7.6	7.5	10.6	1.6
	1 AUG 78	1043		E	2	-	25.5	5910	3.18C	7.3	7.1	7.0	.9
	1 AUG 78	1043	5	E	2	-	25.6	6070	3.28C	7.4	-	7.0	-
	1 AUG 78	1043	10	E	2	-	25.9	7020	3.83C	7.5	-	7.1	-
	1 AUG 78	1043	15	E	2	-	26.0	7400	4.06C	7.5	7.2	7.2	.9
	9 OCT 78	1100		L	0	15.5	15.0	12000	6.84C	8.0	7.5	10.4	.6
	9 OCT 78	1100	5	L	0	15.5	15.5	12500	7.15C	7.8	-	9.7	-
	9 OCT 78	1100	10	L	0	15.5	15.8	13300	7.64C	7.7	-	9.3	-
	9 OCT 78	1100	13	L	0	15.5	15.8	13300	7.64C	7.7	7.5	9.4	1.0

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XIF4785	15 MAR 72	1154		50.0	52	.17	.020	1.25	.38	-	38.00	.65
	15 MAR 72	1155	15	65.0	58	.16	.021	1.25	.50	-	38.00	.53
	29 SEP 72	1320	13	-	22	.21	.319	.36	.34	-	33.33	.47
	29 SEP 72	1321	10	-	-	-	-	-	-	-	-	-
	29 SEP 72	1322	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1323		-	6	.17	.019	.36	.31	-	33.33	.34
	14 FEB 73	1153		23.0	24	.33	1.110	1.11	.04	-	6.00	.50
	14 FEB 73	1151	5	-	-	-	-	-	-	-	-	-
	14 FEB 73	1152	10	-	-	-	-	-	-	-	-	-
	14 FEB 73	1153	13	-	24	.33	1.000	1.00	.06	-	6.00	.50
	27 FEB 74	1111	7	-	-	-	-	-	-	-	-	-
	20 AUG 74	1150		4.0	-	.12	.015	.31	.37	.03	13.53	.33
	20 AUG 74	1151	14	6.0	-	.12	.017	.32	.07	.04	27.00	.39
	22 APR 75	1155		10.0	10	.50	.008	.81	.05	.04	15.04	.50
	22 AP 75	1156	13	25.0	39	.59	.006	.97	.08	.34	33.33	.69
	22 APR 75	1157	7	-	-	-	-	-	-	-	-	-
	21 JUL 75	1210	14	6.5	1	.03	.010	.42	.04	.04	12.50	.96
	21 JUL 75	1211	7	-	-	-	-	-	-	-	-	-
	21 JUL 75	1212		7.0	1	.03	.013	.25	.07	.05	18.00	.78
	20 OCT 75	1045	14	12.0	-	.07	.049	1.00	.09	.06	1.50L	.39
	20 OCT 75	1046	7	-	-	-	-	-	-	-	-	-
	23 OCT 75	1047		21.0	-	.07	.030	1.00	.27	.19	1.50L	.25
	23 FEB 76	1050	12	15.0	-	.04	.006	1.05	.15	.04	-	.46
	23 FEB 76	1051	6	-	-	-	-	-	-	-	-	-
	23 FEB 76	1052		14.0	-	.04	.006	1.05	.05	.04	18.00	.62
	24 JUN 76	1100	15	13.0	-	.04	.009	.19	.04	.04	-	.44
	24 JUN 76	1101	10	-	-	-	-	-	-	-	-	-
	24 JUN 76	1102	5	-	-	-	-	-	-	-	-	-
	24 JUN 76	1103		12.0	-	.03	.005	.19	.04	.04	39.00	.44
	6 DEC 76	1125	1	7.0	-	.33	.312	.69	.13	.04	12.33	.24
	6 DEC 76	1125	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1125	10	-	-	-	-	-	-	-	-	-
	6 DEC 76	1125	15	7.0	-	.36	.337	.81	.38	.34	7.53	.36
	21 MAY 77	1003		24.0	22	.17	.024	1.03	.11	.06	16.50	.45
	21 MAY 77	1005	5	-	-	-	-	-	-	-	-	-
	21 MAY 77	1007	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	1009	14	23.0	26	.13	.019	.98	.08	.06	19.50	.50
	18 APR 77	1042		15.0	16	.13	.022	.76	.11	.04	25.50	.20
	18 APR 77	1042	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1042	10	-	-	-	-	-	-	-	-	-
	18 APR 77	1042	15	17.0	22	.17	.019	.83	.09	.04	19.00	.43
	27 JUL 77	1012		32.3	199	.10	.003	.01	.07	.07	10.50	.22
	27 JUN 77	1012	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1012	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	1012	14	32.3	61	.10	.003	.01	.08	.08	24.00	.43
	4 AUG 77	0940		17.0	24	.01	.001	.05	.03	.01	34.50	.50
	4 AUG 77	0943	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0940	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	0940	15	23.0	120	.01	.001	.01	.03	.01	31.33	.25
	7 NOV 77	1133		14.3	22	.06	.009	.46	.07	.04	1.50	.63
	7 NOV 77	1130	5	-	-	-	-	-	-	-	-	-
XIF4785	7 NOV 77	1130	10	-	-	-	-	-	-	-	-	-
	7 NOV 77	1130	15	20.0	33	.07	.009	.46	.06	.04	4.50	.63
	24 APR 78	1024		12.0	18	.37	.013	.83	.15	-	3.75L	.75C
	24 APR 78	1024	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1024	10	-	-	-	-	-	-	-	-	-
	24 APR 78	1024	14	12.3	23	.11	.016	.85	.22	-	7.50	.77C
	1 AUG 78	1043		18.0	2	.05	.016	.49	.36	-	.94	.60
	1 AUG 78	1043	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1043	10	-	-	-	-	-	-	-	-	-
	1 AUG 78	1043	15	34.0	11	.03	.015	.41	.60	-	10.20	.76
	9 OCT 78	1100		7.4	9	.02	.012	.01	.08	-	25.20	-
	9 OCT 78	1133	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1100	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1100	13	22.0	22	.04	.019	.06	.06	-	14.40	.38

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
X1F4785	15 MAR 72	1154		-	.100L	.23	.04	.03L	.05L	-
	15 MAR 72	1155	15	-	.100L	.31	.05	.03L	.05L	-
	29 SEP 72	1320	13	-	.100L	.15	.03L	.07	.05L	-
	29 SEP 72	1321	10	-	-	-	-	-	-	-
	29 SEP 72	1322	5	-	-	-	-	-	-	-
	29 SEP 72	1323		-	.100L	.13	.03L	.03	.05	-
	14 FEB 73	1150		-	.100L	.10	.07	.07	.05L	-
	14 FEB 73	1151	5	-	-	-	-	-	-	-
	14 FEB 73	1152	10	-	-	-	-	-	-	-
	14 FEB 73	1153	13	-	.100L	.16	.13	.13	.05L	-
	27 FEB 74	1111	7	-	-	-	-	-	-	-
	20 AUG 74	1150		.5L	.050L	.72	.03L	.03L	.05L	.6
	20 AUG 74	1151	14	.5L	.050L	.62	.04	.03L	.05L	1.1
	22 APR 75	1135		.5L	.100L	.09	.03L	.03L	.03L	1.0L
	22 APR 75	1136	13	.5L	.100L	.33	.03L	.03L	.03L	1.0L
	22 APR 75	1137	7	-	-	-	-	-	-	-
	21 JUL 75	1110	14	.5L	.150L	.23	.04	.05L	.05L	.2L
	21 JUL 75	1111	7	-	-	-	-	-	-	-
	21 JUL 75	1112		-	-	.19	.04	.05L	.06	-
	20 OCT 75	1045	14	.5L	.100L	.33	.06	.05L	.05L	.2L
	20 OCT 75	1046	7	-	-	-	-	-	-	-
	20 OCT 75	1047		.5L	.100L	.28	.06	.05L	.05L	.2L
	23 FEB 76	1050	12	.5L	.100L	.05L	.10	.05L	.05L	.2L
	23 FEB 76	1051	6	-	-	-	-	-	-	-
	23 FEB 76	1052		.5L	.100L	.05L	.03L	.05L	.05L	.2L
	24 JUN 76	1100	15	.5L	.100L	.23	.39	.05L	.05L	.1L
	24 JUN 76	1101	10	-	-	-	-	-	-	-
	24 JUN 76	1102	5	-	-	-	-	-	-	-
	24 JUN 76	1103		.5L	.100L	.18	.05	.05L	.05L	-
	6 DEC 76	1125	1	.5L	.150L	.06	.02L	.05L	.10L	.2L
	6 DEC 76	1125	5	-	-	-	-	-	-	-
	6 DEC 76	1125	10	-	-	-	-	-	-	-
	6 DEC 76	1125	15	.5L	.150L	.35	.02L	.05L	.10L	.2L
	21 MAR 77	1003		.5L	.150L	.41	.04	.05L	.10L	.2L
	21 MAR 77	1005	5	-	-	-	-	-	-	-
	21 MAR 77	1007	10	-	-	-	-	-	-	-
	21 MAR 77	1009	14	.5L	.150L	.13	.04	.05L	.10L	.2L
	18 APR 77	1042		.5L	.200L	.15	.06	.05L	.10L	.2L
	18 APR 77	1042	5	-	-	-	-	-	-	-
	18 APR 77	1042	10	-	-	-	-	-	-	-
	18 APR 77	1042	15	.5L	.200L	.20	.06	.05L	.10L	.2L
	27 JUN 77	1012		.5L	.500L	.12	.05L	.05L	.10L	.5L
	27 JUN 77	1012	5	-	-	-	-	-	-	-
	27 JUN 77	1012	10	-	-	-	-	-	-	-
	27 JUN 77	1012	14	.5L	.500L	.22	.05L	.05L	.10L	.5L
	4 AUG 77	0940		.5L	.500L	.11	.05L	.05L	.10L	.5L
	4 AUG 77	0940	5	-	-	-	-	-	-	-
	4 AUG 77	0940	10	-	-	-	-	-	-	-
	4 AUG 77	0940	15	.5L	.500L	.19	.05L	.05L	.10L	.5L
	7 NOV 77	1130		.5L	.500L	.08	.05	.05L	.10L	.2L
	7 NOV 77	1130	5	-	-	-	-	-	-	-
X1F4785	7 NOV 77	1130	10	-	-	-	-	-	-	-
	7 NOV 77	1130	15	.5L	.500L	.14	.17	.05L	.10L	.2L
	24 APR 78	1024		.5L	.200L	.08	.10	.05L	.10L	.1L
	24 APR 78	1024	5	-	-	-	-	-	-	-
	24 APR 78	1024	10	-	-	-	-	-	-	-
	24 APR 78	1024	14	.5L	.200L	.10	.11	.97	.10L	.1L
	1 AUG 78	1043		.5L	.200L	.08	.13	.05L	.05L	.1L
	1 AUG 78	1043	5	-	-	-	-	-	-	-
	1 AUG 78	1043	10	-	-	-	-	-	-	-
	1 AUG 78	1043	15	.5L	.200L	.16	.06	.05L	.05L	.1L
	9 OCT 78	1100		-	.200L	.14	.05L	.05L	.05L	-
	9 OCT 78	1100	5	-	-	-	-	-	-	-
	9 OCT 78	1100	10	-	-	-	-	-	-	-
	9 OCT 78	1100	13	-	.200L	.31	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY — PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
AI14785	15 MAR 72	1154		8.00	33.00	.7	.0001L	.100L
	15 MAR 72	1155	15	8.50	21.00	.7G	.0001L	.100L
	29 SEP 72	1320	13	4.00	15.40	.1L	.0001L	.100L
	29 SEP 72	1321	10	-	-	-	-	-
	29 SEP 72	1322	5	-	-	-	-	-
	29 SEP 72	1323		3.00	15.30	.1L	.0001L	.100L
	14 FEB 73	1150		6.00	17.00	.4	.0001L	.335L
	14 FEB 73	1151	5	-	-	-	-	-
	14 FEB 73	1152	10	-	-	-	-	-
	14 FEB 73	1153	13	8.00	15.00	.8	.0001L	.005L
	27 FEB 74	1111	7	-	-	-	-	-
	20 AUG 74	1150		27.00	6.00	.1L	.0001L	-
	20 AUG 74	1151	14	13.00	6.00	.1	.0001L	.010L
	22 APR 75	1135		-	5.00L	1.5	.0001L	-
	22 APR 75	1136	13	-	8.33	2.4	.0001L	-
	22 APR 75	1137	7	-	-	-	-	-
	21 JUL 75	1110	14	3.00	2.00	.1L	.0001	.028L
	21 JUL 75	1111	7	-	-	-	-	-
	21 JUL 75	1112		5.00	4.00	.1L	.0002	.028L
	20 OCT 75	1045	14	9.00	20.00	.6	.0001L	.010L
	20 OCT 75	1046	7	-	-	-	-	-
	20 OCT 75	1047		7.00	10.00L	.5	.0001L	.010L
	23 FEB 76	1050	12	5.00	16.00	.6	.0001L	-
	23 FEB 76	1051	6	-	-	-	-	-
	23 FEB 76	1052		7.00	22.00	.5	.0001L	.010L
	24 JUN 76	1103	15	4.53	23.93	2.3	.0001L	.010L
	24 JUN 76	1101	10	-	-	-	-	-
	24 JUN 76	1102	5	-	-	-	-	-
	24 JUN 76	1103		6.50	18.93	1.8	.0001L	.010L
	6 DEC 76	1125	1	7.00	3.60	1.0	.0001L	-
	6 DEC 76	1125	5	-	-	-	-	-
	6 DEC 76	1125	10	-	-	-	-	-
	6 DEC 76	1125	15	7.00	3.60	.2L	.0001L	-
	21 MAR 77	1003		5.00	16.00	1.8	.0002	-
	21 MAR 77	1005	5	-	-	-	-	-
	21 MAR 77	1007	10	-	-	-	-	-
	21 MAR 77	1009	14	9.00	5.00L	.8	.0001L	-
	18 APR 77	1042		12.00	39.20	2.0	.0001L	-
	18 APR 77	1342	5	-	-	-	-	-
	18 APR 77	1042	10	-	-	-	-	-
	18 APR 77	1042	15	11.00	42.30	1.2	.0001L	-
	27 JUN 77	1012		23.33	45.33	1.0	.0001L	2.000L
	27 JUN 77	1012	5	-	-	-	-	-
	27 JUN 77	1012	10	-	-	-	-	-
	27 JUN 77	1012	14	27.00	53.00	.4	.0001L	2.000L
	4 AUG 77	0940		1.30	21.90	.5	.0001L	-
	4 AUG 77	0940	5	-	-	-	-	-
	4 AUG 77	0940	10	-	-	-	-	-
	4 AUG 77	0940	15	1.40	23.20	.4	.0001L	-
	7 NOV 77	1130		11.00	22.40	.1L	.0001L	.005L
	7 NOV 77	1130	5	-	-	-	-	-
AI14785	7 NOV 77	1130	10	-	-	-	-	-
	7 NOV 77	1130	15	7.00	64.00	.1L	.0001	.005L
	24 APR 78	1024		.85	24.60	-	.0006	-
	24 APR 78	1024	5	-	-	-	-	-
	24 APR 78	1024	10	-	-	-	-	-
	24 APR 78	1024	14	.85	48.70	-	.0002	-
	1 AUG 78	1043		1.50	-	-	-	-
	1 AUG 78	1343	5	-	-	-	-	-
	1 AUG 78	1043	10	-	-	-	-	-
	1 AUG 78	1043	15	12.50	-	-	-	-
	9 OCT 78	1100		11.00	.52	3.1	-	-
	9 OCT 78	1100	5	-	-	-	-	-
	9 OCT 78	1100	10	-	-	-	-	-
	9 OCT 78	1100	13	10.50	-	2.2	-	-

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF5793	15 MAR 72	1315		E	1	-	3.9	700	.58	-	7.6	-	2.2
	15 MAR 72	1316	8	E	1	-	3.9	600	.52	-	7.6	-	1.6
	29 SEP 72	1232	13	F	2	-	20.8	9600	6.20	7.0	-	7.2	1.4
	29 SEP 72	1233	10	F	2	-	20.9	9500	6.20	-	-	7.1	-
	29 SEP 72	1234	5	F	2	-	20.7	9300	6.00	-	-	7.0	-
	29 SEP 72	1235		F	2	-	20.6	8800	5.70	7.1	-	7.8	2.8
	14 FEB 73	1220		E	6	-	1.0	2300	-	7.7	7.2	12.0	8.2
	14 FEB 73	1221	7	E	6	-	1.0	2300	-	7.6	7.2	12.4	8.9
	20 AUG 74	1210		E	2	-	25.6	6400	3.70	-	-	7.2	1.6
	20 AUG 74	1211	12	E	2	-	25.4	6500	3.80	-	-	6.9	2.4
	22 APR 75	1330		F	2	11.0	10.2	2450	2.05	-	7.6	10.5	2.1
	22 APR 75	1331	8	F	2	11.0	10.1	2610	2.15	-	7.6	10.1	3.9
	21 JUL 75	1140	7	E	0	29.0	26.3	2700	1.50	-	6.9	7.5	1.6
	21 JUL 75	1141		E	0	29.0	26.5	2750	1.55	-	7.0	7.6	1.8
	20 OCT 75	1130	12	E	0	-	16.6	3000	1.90C	7.7	7.6	8.1	.5
	20 OCT 75	1131	6	E	0	-	16.6	3000	1.90C	7.7	-	8.1	-
	20 OCT 75	1132		E	0	-	16.7	3000	1.89C	7.7	7.6	8.0	.5
	23 FEB 76	1120	9			-	4.5	-	-	7.7	7.2	12.0	3.0L
	23 FEB 76	1121	5	L	0	-	5.5	-	-	7.7	-	11.4	-
	23 FEB 76	1122				-	6.9	-	-	7.6	7.3	11.2	3.0L
	24 JUN 76	1200	12	E	0	-	28.0	4000	2.12	7.1	7.3	6.0	1.4
	24 JUN 76	1201	7	E	0	-	28.0	3900	2.07	7.3	-	6.1	-
	24 JUN 76	1202		E	0	-	28.0	3900	2.07	7.2	7.3	6.1	2.0
	6 DEC 76	1230	1	E	0	1.0	1.5	4500	4.42C	7.8	7.6	12.8	2.8
	6 DEC 76	1230	5	E	0	1.0	7.8	5000	2.66C	13.2	-	-	-
	6 DEC 76	1230	9	E	0	1.0	1.0	4900	4.92C	7.8	7.6	13.2	2.9
	21 MAR 77	1053		E	1	12.3	8.5	1250	.90C	7.6	7.4	10.9	.9
	21 MAR 77	1055	5	E	1	-	8.3	1250	.60C	7.6	-	10.8	-
	21 MAR 77	1057	9	E	1	-	8.3	1250	.91C	7.5	7.5	10.8	1.0
	18 APR 77	1132		E	0	16.0	15.5	470	.21C	7.6	7.6	9.5	.6
	18 APR 77	1132	5	E	1	16.0	15.3	450	.20C	7.6	-	9.5	-
	18 APR 77	1132	9	E	0	16.0	15.3	440	.19C	7.6	7.5	9.5	1.3
	27 JUN 77	1056		E	0	26.0	24.5	8700	4.83C	8.1	8.2	8.5	-
	27 JUN 77	1056	5	E	0	26.0	24.0	9000	5.01C	8.1	-	8.4	-
	27 JUN 77	1056	10	E	0	26.0	23.8	10000	5.61C	8.0	8.2	7.7	-
	4 AUG 77	1015		F	0	24.5	26.2	10400	5.86C	-	7.4	7.2	1.0L
	4 AUG 77	1015	5	F	0	25.0	26.1	10400	5.86C	-	-	7.0	-
	4 AUG 77	1015	10	F	0	24.5	26.0	10400	5.86C	-	7.3	7.1	1.4
	7 NOV 77	1235				15.0	15.3	9800	5.49C	-	7.2	8.5	1.0L
	7 NOV 77	1235	9		2	15.0	15.3	9800	5.49C	-	7.2	10.6	1.0L
	24 APR 78	1112		E	1	-	12.4	1300	.62C	7.6	7.6	11.0	1.9
	24 APR 78	1112	5	E	1	18.0	12.5	1300	.62C	7.6	-	11.1	-
	24 APR 78	1112	9	E	1	-	12.5	1300	.62C	7.6	7.6	10.9	1.8
	1 AUG 78	1130		E	2	-	25.5	6680	3.63C	7.5	7.1	7.3	1.8
	1 AUG 78	1130	5	E	5	-	25.4	6670	3.63C	7.5	-	7.0	-
	1 AUG 78	1130	10	E	2	-	25.4	6600	3.59C	7.5	7.1	6.9	1.5
	9 OCT 78	1140		F	0	12.8	14.9	12900	7.40C	7.8	6.7	10.2	2.0
	9 OCT 78	1140	5	F	0	12.8	14.9	11900	6.78C	7.8	-	10.2	-
	9 OCT 78	1140	8	F	0	12.8	14.9	11900	6.78C	7.8	7.3	10.3	.4

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
AIF5753	15 MAR 72	1315		52.0	30	.20	.022	1.14	.40	-	21.00	.41
	15 MAR 72	1316	8	65.0	72	.18	.021	1.14	.40	-	16.00	.59
	29 SEP 72	1232	13	2.7	7	.22	.019	.36	.02	-	22.50	.47
	29 SEP 72	1233	10	-	-	-	-	-	-	-	-	-
	29 SEP 72	1234	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1235		3.0	10	.14	.019	.36	.02	-	45.00	.39
	14 FEB 73	1220		23.0	8	.23	1.280	1.28	.04	-	6.00	.45
	14 FEB 73	1221	7	20.0	16	.20	1.170	1.17	.06	-	9.00	.50
	20 AUG 74	1210		3.0	-	.07	.013	.23	.09	.03	16.50	.20
	20 AUG 74	1211	12	3.0	-	.06	.011	.23	.03	.02	7.50	.20
	22 APR 75	1330		7.0	6	.36	.008	.31	.08	.04	30.00	.50
	22 APR 75	1331	8	6.0	4	.36	.008	.61	.08	.07	30.00	.50
	21 JUL 75	1140	7	9.8	4	.03	.013	.25	.05	.05	6.00	.65
	21 JUL 75	1141		8.6	1	.03	.013	.25	.05	.05	.90	.65
	23 OCT 75	1133	12	16.0	-	.11	.030	.85	.08	.08	1.50L	.13
	20 OCT 75	1131	6	-	-	-	-	-	-	-	-	-
	20 OCT 75	1132		14.0	-	.07	.030	.85	.08	.08	1.50L	.25
	23 FEB 76	1120	9	18.0	-	.05	.006	1.05	.05	.04	-	.31
	23 FEB 76	1121	5	-	-	-	-	-	-	-	-	-
	23 FEB 76	1122		17.0	-	.14	.006	1.11	.08	.04	25.50	.23
	24 JUN 76	1230	12	14.0	-	.02	.005	.17	.05	.05	-	.44
	24 JUN 76	1231	7	-	-	-	-	-	-	-	-	-
	24 JUN 76	1232		13.0	-	.02	.007	.20	.09	.09	24.00	.44
	6 DEC 76	1230	1	7.0	-	.03	.010	.69	.04	.04	12.00	.24
	6 DEC 76	1230	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1233	9	10.0	-	.03	.007	.75	.09	.04	10.50	.24
	21 MAR 77	1054		17.0	8	.08	.014	1.08	.05	.04	12.00	.25
	21 MAR 77	1055	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1057	9	18.0	16	.10	.017	1.07	.07	.04	13.50	.25
	18 APR 77	1132		18.0	33	.01	.017	.61	.11	.06	31.00	.22
	18 APR 77	1133	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1132	9	23.0	4	.02	.017	.78	.08	.04	36.00	.22
	27 JUN 77	1056		5.0	8	.03	.003	.01	.06	.05	10.00	.39
	27 JUN 77	1056	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1056	13	11.0	33	.04	.003	.01	.06	.05	6.00	.33
	4 AUG 77	1015		19.0	12	.01	.001	.05	.04	.01	45.00	.25
	4 AUG 77	1015	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1015	10	13.0	30	.01	.001	.05	.03	.01	33.00	.50
	7 NOV 77	1235		14.0	22	.38	.030	.46	.16	.05	1.50L	.83
	7 NOV 77	1235	9	9.8	4	.07	.008	.47	.09	.05	7.50	.75
	24 APR 78	1112		18.0	16	.05	.013	.84	.13	-	3.75L	.71C
	24 APR 78	1112	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1112	9	18.0	16	.13	.013	.83	.19	-	7.50	.75C
	1 AUG 78	1130		18.0	4	.03	.013	.93	.20	-	.84	.84
	1 AUG 78	1130	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1130	10	22.0	5	.33	.011	.76	.26	-	.66	.83
	9 OCT 78	1140		8.0	8	.02	.012	.01	.06	-	15.00	.52
	9 OCT 78	1140	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1140	8	8.0	6	.02	.012	.03	.16	-	15.00	.14

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF5793	15 MAR 72	1315		-	.100L	.18	.11	.03L	.05	-
	15 MAR 72	1316	8	-	.100	.44	.08	.03L	-	-
	29 SEP 72	1232	13	-	.100	.15	.03L	.02	.05L	-
	29 SEP 72	1233	10	-	-	-	-	-	-	-
	29 SEP 72	1234	5	-	-	-	-	-	-	-
	29 SEP 72	1235		-	.100L	.15	.03L	.02	.05L	-
	14 FEB 73	1220		-	.100L	.77	.75	1.90	.05	-
	14 FEB 73	1221	7	-	.100	2.73	4.75	10.70	.05L	-
	20 AUG 74	1210		-	.050L	.57	.08	.03L	.05L	-
	20 AUG 74	1211	12	-	.050L	.51	.03L	.03L	.05L	-
	22 APR 75	1330		.5L	.100L	.10	.03L	.03L	.03L	1.0L
	22 APR 75	1331	8	.5L	.100L	.07	.03L	.03L	.03L	1.0L
	21 JUL 75	1140	7	.5L	.150L	.22	.07	.05L	.05L	.2L
	21 JUL 75	1141		.5L	.150L	.81	.11	.05L	.05L	.2L
	20 OCT 75	1130	12	.5L	.100L	.26	.05	.05L	.05L	.2L
	20 OCT 75	1131	6	-	-	-	-	-	-	-
	20 OCT 75	1132		.5L	.100L	.27	.06	.05L	.05L	.2L
	23 FEB 76	1120	9	.5L	.100L	.05L	.10	.05L	.05L	.2L
	23 FEB 76	1121	5	-	-	-	-	-	-	-
	23 FEB 76	1122		.5L	.100L	.05L	.03L	.05L	.05L	.2L
	24 JUN 76	1200	12	.5L	.100L	.27	.14	.05L	.05L	.1L
	24 JUN 76	1201	7	-	-	-	-	-	-	-
	24 JUN 76	1202		.5L	.100L	.22	.09	.05L	.05L	.1L
	6 DEC 76	1230	1	.5L	.150L	.05L	.02L	.05L	.10L	.2L
	6 DEC 76	1230	5	-	-	-	-	-	-	-
	6 DEC 76	1230	9	.5L	.150L	.05L	.02L	.05L	.10L	.2L
	21 MAR 77	1053		.5L	.150L	.09	.05	.05L	.10L	.2L
	21 MAR 77	1055	5	-	-	-	-	-	-	-
	21 MAR 77	1057	9	.5L	.150L	.12	.03	.05L	.10L	.2L
	18 APR 77	1132		.5L	.200L	.13	.05	.06	.10L	.2L
	18 APR 77	1132	5	-	-	-	-	-	-	-
	18 APR 77	1132	9	.5L	.200L	.29	.08	.05L	.10L	.2L
	27 JUN 77	1056		.5L	.500L	.08	.05L	-	.10L	.5L
	27 JUN 77	1056	5	-	-	-	-	-	-	-
	27 JUN 77	1056	10	.5L	.500L	.14	.14	.05L	.10L	.5L
	4 AUG 77	1015		.5L	.500L	.19	.05L	.05L	.10L	.5L
	4 AUG 77	1015	5	-	-	-	-	-	-	-
	4 AUG 77	1015	10	.5L	.500L	.18	.05L	.05L	.10L	.5L
	7 NOV 77	1235		.5L	.500L	.10	.08	.05L	.10L	.2L
	7 NOV 77	1235	9	.5L	.500L	.08	.05	.05L	.10L	.2L
	24 APR 78	1112		.5L	.200L	.12	.12	.05L	.10L	.1L
	24 APR 78	1112	5	-	-	-	-	-	-	-
	24 APR 78	1112	9	.5L	.200L	.06	.15	.05L	.10L	.1L
	1 AUG 78	1130		.5L	.200L	.08	.05L	.05L	.05L	.1L
	1 AUG 78	1130	5	-	-	-	-	-	-	-
	1 AUG 78	1130	10	.5L	.200L	.11	.05	.05L	.05L	.1L
	9 OCT 78	1140		-	.200L	.14	.05L	.05L	.05L	-
	9 OCT 78	1140	5	-	-	-	-	-	-	-
	9 OCT 78	1140	8	-	.200L	.17	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF5753	15 MAR 72	1315		8.00	12.30	3.4	.0001L	.100L
	15 MAR 72	1316	8	7.10	4.00	2.3	.0001L	.100L
	29 SEP 72	1232	13	3.00	17.20	.1L	.0001L	.100L
	29 SEP 72	1233	10	-	-	-	-	-
	29 SEP 72	1234	5	-	-	-	-	-
	29 SEP 72	1235		3.00	16.00	.1L	.0001L	.100L
	14 FEB 73	1220		6.00	12.00	.4	.0001L	.005L
	14 FEB 73	1221	7	6.00	12.00	.8	.0001L	.005
	20 AUG 74	1210		11.00	6.00	.1L	.0001L	.010L
	20 AUG 74	1211	12	2.00	12.00	.1L	.0001L	.010L
	22 APR 75	1330		-	5.00L	.5	.0001L	-
	22 APR 75	1331	8	-	6.00	.5	.0001L	-
	21 JUL 75	1140	7	7.00	4.00	.1L	.0004	.020L
	21 JUL 75	1141		2.00	2.00	.1L	.0012	.020L
	20 OCT 75	1130	12	5.00	10.00L	.2	.0001L	.010L
	20 OCT 75	1131	6	-	-	-	-	-
	20 OCT 75	1132		5.00	10.00	.3	.0001L	.010L
	23 FEB 76	1120	9	9.00	22.00	.7	.0001L	.010L
	23 FEB 76	1121	5	-	-	-	-	-
	23 FEB 76	1122		8.00	36.00	.6	.0001L	.010L
	24 JUN 76	1200	12	4.50	25.40	1.3	.0001L	.010L
	24 JUN 76	1201	7	-	-	-	-	-
	24 JUN 76	1202		7.00	24.70	1.7	.0001L	.010L
	6 DEC 76	1230	1	7.00	7.60	.2L	.0001L	-
	6 DEC 76	1231	5	-	-	-	-	-
	6 DEC 76	1230	9	7.00	4.40	.2	.0001L	-
	21 MAR 77	1053		9.00	9.00	1.4	.0014	-
	21 MAR 77	1055	5	-	-	-	-	-
	21 MAR 77	1057	9	11.50	9.00	1.0	.0017	-
	18 APR 77	1132		6.50	42.60	3.2	.0001L	-
	18 APR 77	1132	5	-	-	-	-	-
	18 APR 77	1132	9	9.50	40.80	-	.0001L	-
	27 JUN 77	1056		21.00	56.00	.2	.0001L	2.000L
	27 JUN 77	1056	5	-	-	-	-	-
	27 JUN 77	1056	10	25.00	61.00	1.4	.0001L	2.000L
	4 AUG 77	1015		1.50	13.90	.8	.0001L	-
	4 AUG 77	1015	5	-	-	-	-	-
	4 AUG 77	1015	10	1.45	19.20	.6	.0001L	-
	7 NOV 77	1235		11.00	21.60	.1L	.0001L	.005L
	7 NOV 77	1235	9	8.00	19.23	.1L	.0001L	.005L
	24 APR 78	1112		.80	18.00	-	.0001L	-
	24 APR 78	1112	5	-	-	-	-	-
	24 APR 78	1112	9	.60	18.00	-	.0004	-
	1 AUG 78	1130		1.10	-	-	-	-
	1 AUG 78	1130	5	-	-	-	-	-
	1 AUG 78	1133	10	1.00	-	-	-	-
	9 OCT 78	1140		11.50	-	1.6	-	-
	9 OCT 78	1140	5	-	-	-	-	-
	9 OCT 78	1143	8	14.00	-	2.5	-	-

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHOS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
X154285	13 MAR 72	1115		E	1	-	3.7	740	.60	-	7.7	8.4	1.6
	[illegible] MAR 72	1115	15	E	1	-	3.6	740	.68	-	7.7	7.9	1.8
	29 SEP 72	1342	10	F	2	-	20.9	8600	5.70	7.4	-	8.1	1.0
	29 SEP 72	1343	5	F	2	-	20.8	8500	5.40	-	-	7.8	-
	29 SEP 72	1344		F	2	-	21.0	8300	5.30	7.4	-	8.0	1.5
	14 FEB 73	1134		E	6	-	1.0	2150	-	7.7	7.2	11.9	9.2
	14 FEB 73	1135	5	E	6	-	1.0	3200	-	7.7	-	11.2	-
	14 FEB 73	1136	10	E	6	-	1.5	6600	-	7.5	-	11.2	-
	14 FEB 73	1137	14	E	6	-	1.5	7000	-	7.5	7.3	11.9	9.2
	27 FEB 74	1137	5	H	0	-	3.0	7400	7.20C	6.3	-	11.0	-
	28 [illegible] 74	1013		H	2	-	26.0	7950	4.70	-	-	7.6	2.1
	20 [illegible] 75	1151	15	H	2	-	25.6	8550	5.00	-	-	6.0	1.6
	22 APR 75	1115		E	1	14.0	10.3	3250	2.60	-	7.6	10.6	2.7
	22 APR 75	1115	14	E	1	14.0	10.1	4080	3.20	-	7.6	10.0	2.7
	22 APR 75	1117	7	E	2	14.0	9.8	3500	2.90	-	-	10.3	-
	21 JUL 75	1130	15	E	0	26.0	25.4	4970	3.00	-	7.1	7.3	1.3
	21 JUL 75	1131	8	E	0	-	25.8	4250	2.90	-	-	7.4	-
	21 JUL 75	1103		E	0	26.0	26.0	3630	2.10	-	7.0	7.2	.4
	20 OCT 75	1030	17	E	1	-	17.2	6000	3.93C	7.5	7.5	7.5	.5
	20 OCT 75	1031	5	E	0	-	17.0	5900	3.86C	7.5	-	7.6	-
	20 OCT 75	1032		E	1	-	17.0	5650	3.68C	7.5	7.5	7.6	.5
	23 FEB 76	1033	14			-	5.5	-	-	7.6	7.4	11.8	3.0L
	23 FEB 76	1034	7	L	0	-	6.0	-	-	7.7	-	11.0	-
	23 FEB 76	1035				-	6.0	-	-	7.6	7.4	11.0	3.0L
	24 JAN 76	1057	16	E	0	-	27.0	4400	2.35	6.9	7.2	5.0	.6
	24 JAN 76	1058	11	E	0	-	27.0	4400	2.35	6.8	-	5.1	-
	24 JAN 76	1059	6	E	0	-	27.0	4300	2.29	6.9	-	5.3	-
	24 JAN 76	1060		E	0	-	27.0	4300	2.29	6.8	7.3	5.3	.7
	6 DEC 76	1122	1	E	0	2.0	2.0	5450	5.34C	7.8	7.7	13.2	1.8
	6 DEC 76	1120	5	E	0	2.0	2.0	6200	3.35C	7.8	-	12.9	-
	6 DEC 76	1120	10	E	0	2.0	2.5	7500	4.12C	7.7	-	13.2	-
	6 DEC 76	1123	15	E	0	2.0	3.0	8800	8.68C	7.7	7.6	13.4	2.0
	21 MAR 77	0947		E	1	10.0	8.6	1020	.71C	7.5	7.4	11.2	1.6
	21 MAR 77	0949	5	E	1	-	8.6	1000	.47C	7.5	-	13.9	-
	21 MAR 77	0951	10	E	1	-	8.6	1000	.47C	7.4	-	10.6	-
	21 MAR 77	0953	16	E	1	10.0	8.6	1000	.71C	7.4	7.4	10.4	1.1
	14 [illegible] 77	1012		E	0	16.0	14.5	2500	1.26C	7.5	7.3	9.7	.8
	14 APR 77	1032	5	E	1	16.0	14.5	2500	1.26C	7.5	-	9.6	-
	15 APR 77	1032	10	E	1	16.0	14.5	2550	1.29C	7.5	-	9.5	-
	14 APR 77	1032	17	E	0	16.0	14.5	2700	1.37C	7.5	7.3	9.1	.5
	27 JUN 77	1000		E	0	26.0	24.0	11000	6.22C	7.8	8.0	7.0	3.6
	27 JUN 77	1030	5	E	0	26.0	23.7	11000	6.22C	7.8	-	6.9	-
	27 JUN 77	1030	10	E	0	26.0	23.7	11300	6.41C	7.8	-	6.8	-
	27 JUN 77	1030	15	E	0	26.0	23.6	11500	6.53C	7.7	8.0	6.7	2.0
	4 AUG 77	0930		F	0	25.0	26.0	11800	6.72C	-	7.4	7.0	4.1
	4 AUG 77	0930	5	F	0	25.0	25.7	11800	6.72C	-	-	6.9	-
	4 AUG 77	0930	10	F	0	25.0	25.7	11900	6.78C	-	-	6.7	-
	4 AUG 77	0930	15	F	0	25.0	25.7	11900	6.78C	-	-	6.6	-
	4 AUG 77	0930	17	F	0	25.0	25.7	12000	6.84C	-	7.5	6.5	8.2
	7 NOV 77	1110			5	15.0	15.5	12500	7.15C	-	6.8	9.0	1.0L
	7 NOV 77	1111	5		5	15.0	15.5	12500	7.15C	-	-	8.7	-
X154285	7 NOV 77	1112	10		5	15.0	15.4	12500	7.15C	-	-	9.5	-
	7 NOV 77	1114	15		5	15.0	15.4	13000	7.46C	-	-	11.2	-
	7 NOV 77	1115	18		5	15.0	15.5	13000	7.46C	-	6.8	13.4	1.0L
	24 APR 78	1013		H	1	-	12.5	2900	1.48C	7.8	7.5	11.4	2.1
	24 APR 78	1013	5	H	1	18.0	11.4	3100	1.59C	7.6	-	11.3	-
	24 APR 78	1012	10	H	1	18.0	12.0	3900	2.04C	7.6	-	11.0	-
	24 APR 78	1013	16	H	1	-	12.3	4200	2.20C	7.7	7.4	10.9	1.7
	1 AUG 78	1032		E	2	-	29.7	6660	3.62C	7.5	7.4	7.2	1.2
	1 AUG 78	1032	5	E	2	-	25.7	6560	3.56C	7.5	-	7.2	-
	1 AUG 78	1032	10	E	2	-	26.6	8320	4.60C	7.7	-	7.4	-
	1 AUG 78	1032	15	E	2	-	25.8	8600	4.77C	7.6	7.4	7.2	1.2
	9 OCT 78	1045		L	0	15.5	15.6	12700	7.27C	7.9	7.4	10.2	.8
	9 OCT 78	1045	5	L	0	15.5	15.8	13100	7.52C	7.9	-	9.9	-
	9 OCT 78	1045	10	L	0	15.5	16.3	13900	8.32C	7.7	-	9.3	-
	9 OCT 78	1045	15	L	0	15.5	16.0	13900	8.02C	7.7	7.5	9.3	.4

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMO.. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
AIP4285	15 MAR 72	1115		65.0	42	.18	.020	1.21	.36	-	30.00	.47
	15 MAR 72	1116	15	65.3	53	.15	.021	1.23	.40	-	45.00	.47
	29 SEP 72	1342	10	1.7	8	.13	.019	.36	.011	-	30.00	.34
	29 SEP 72	1343	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1344		2.5	13	.11	.319	.36	.11	-	30.00	.31
	14 FEB 73	1134		22.0	12	.33	1.330	1.53	.08	-	3.00	.40
	14 FEB 73	1135	5	-	-	-	-	-	-	-	-	-
	14 FEB 73	1136	13	-	-	-	-	-	-	-	-	-
	14 FEB 73	1137	14	19.0	20	.33	.330	.83	.04	-	3.00	.40
	27 FEB 74	1117	8	-	-	-	-	-	-	-	-	-
	20 AUG 74	1140		3.0	-	.13	.022	.32	.03	.02	4.50	.44
	20 AUG 74	1141	15	5.0	-	.12	.022	.30	.02	.02	13.50	.44
	22 APR 75	1115		10.0	10	.45	.038	.81	.07	.07	23.00	.56
	22 APR 75	1116	14	8.3	4	.68	.038	.81	.08	.08	15.00	.69
	22 APR 75	1117	7	-	-	-	-	-	-	-	-	-
	21 JUL 75	1100	15	5.5	2	.03	.010	.42	.02	.02	7.50	.59
	21 JUL 75	1101	8	-	-	-	-	-	-	-	-	-
	21 JUL 75	1103		5.5	1	.03	.007	.29	.05	.06	1.50	.86
	20 OCT 75	1030	17	12.0	-	.07	.060	1.00	.17	.17	1.50L	.38
	20 OCT 75	1031	8	-	-	-	-	-	-	-	-	-
	20 OCT 75	1032		11.0	-	.07	.060	1.00	.08	.08	1.50L	.38
	23 FEB 76	1033	14	25.0	-	.04	.006	1.16	.06	.04	-	.23
	23 FEB 76	1034	7	-	-	-	-	-	-	-	-	-
	23 FEB 76	1035		25.0	-	.04	.006	1.10	.06	.04	25.50	.23
	24 JUN 76	1037	16	18.0	-	.09	.005	.25	.04	.04	-	.44
	24 JUN 76	1038	11	-	-	-	-	-	-	-	-	-
	24 JUN 76	1039	6	-	-	-	-	-	-	-	-	-
	24 JUN 76	1040		8.0	-	.09	.004	.27	.05	.05	9.00	.22
	6 DEC 76	1123	1	8.0	-	.06	.013	.94	.08	.04	12.00	.24
	6 DEC 76	1120	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1120	10	-	-	-	-	-	-	-	-	-
	6 DEC 76	1123	15	5.0	-	.10	.013	.69	.10	.04	6.00	.44
	21 MAR 77	0947		26.0	28	.12	.019	.98	.05	.05	16.50	.50
	21 MAR 77	0949	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	0951	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	0953	16	27.0	30	.12	.019	.98	.07	.05	22.50	.25
	18 APR 77	1032		15.0	18	.17	.022	.76	.05	.04	21.00	.43
	18 APR 77	1032	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1032	10	-	-	-	-	-	-	-	-	-
	18 APR 77	1032	17	18.0	16	.21	.019	.63	.09	.03	18.00	.43
	27 JUN 77	1003		14.0	25	.08	.003	.02	.07	.05	24.00	.43
	27 JUN 77	1000	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1000	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	1003	15	15.0	49	.08	.003	.03	.06	.05	33.00	.33
	4 AUG 77	0930		7.0	12	.01	.001	.05	.03	.01	39.00	.50
	4 AUG 77	0930	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0933	13	-	-	-	-	-	-	-	-	-
	4 AUG 77	0930	15	-	-	-	-	-	-	-	-	-
	4 AUG 77	0931	17	18.0	53	.01	.031	.35	.03	.01	16.50	.30
	7 NOV 77	1110		6.6	10	.10	.010	.42	.07	.03	7.50	.75
	7 NOV 77	1110	5	-	-	-	-	-	-	-	-	-
AIP4285	7 NOV 77	1110	10	-	-	-	-	-	-	-	-	-
	7 NOV 77	1110	15	-	-	-	-	-	-	-	-	-
	7 NOV 77	1110	18	7.6	10	.08	.012	.46	.04	.03	4.50	.63
	24 APR 78	1013		10.0	16	.11	.019	.85	.22	-	3.75L	.83C
	24 APR 78	1013	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1013	10	-	-	-	-	-	-	-	-	-
	24 APR 78	1013	16	12.0	21	.09	.020	.79	.13	-	3.75	.71C
	1 AUG 78	1032		14.0	2	.03	.016	.45	.22	-	1.14	.64
	1 AUG 78	1032	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1032	10	-	-	-	-	-	-	-	-	-
	1 AUG 78	1032	15	38.0	8	.03	.018	.45	.28	-	.42	.68
	9 OCT 78	1045		9.9	4	.02	.020	.05	.10	-	18.00	.58
	9 OCT 78	1045	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1045	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1045	15	28.0	41	.06	.028	.13	.08	-	10.20	.44

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF4285	15 MAR 72	1115		-	.100L	.22	.08	.03L	.05L	-
	15 MAR 72	1116	15	-	.100L	.28	.04	.03L	.05L	-
	29 SEP 72	1342	10	-	.100L	.10	.03L	.03	.05	-
	29 SEP 72	1343	5	-	-	-	-	-	-	-
	29 SEP 72	1344		-	.100L	.10	.03L	.06	.05L	-
	14 FEB 73	1134		-	.100L	.14	.05	.09	.05L	-
	14 FEB 73	1135	5	-	-	-	-	-	-	-
	14 FEB 73	1136	10	-	-	-	-	-	-	-
	14 FEB 73	1137	14	-	.100L	.13	.13	.20	.05	-
	27 FEB 74	1117	8	-	-	-	-	-	-	-
	26 AUG 74	1140		.5L	-	.64	.03L	.03L	.05L	1.0
	26 AUG 74	1141	15	.5L	.350L	.66	.33L	.33L	.05L	.8
	22 APR 75	1115		.5L	.100L	.06	.03L	.03L	.03L	1.0L
	22 APR 75	1116	14	.5L	.100L	.11	.03L	.03L	.03L	1.0L
	22 APR 75	1117	7	-	-	-	-	-	-	-
	21 JUL 75	1100	15	.5L	.150L	.18	.05	.35L	.35L	.2L
	21 JUL 75	1101	8	-	-	-	-	-	-	-
	21 JUL 75	1103		.5L	.150L	.20	.05	.05L	.05L	.2L
	20 OCT 75	1030	17	.5L	.100L	.38	.05	.05L	.05L	.2L
	20 OCT 75	1031	8	-	-	-	-	-	-	-
	20 OCT 75	1032		.5L	.100L	.30	.07	.35L	.35L	.2L
	23 FEB 76	1033	14	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	1034	7	-	-	-	-	-	-	-
	23 FEB 76	1035		.5L	.130L	.35L	.33L	.05L	.05L	.2L
	24 JUN 76	1037	16	.5L	.100L	.40	.11	.05L	.05L	.1L
	24 JUN 76	1038	11	-	-	-	-	-	-	-
	24 JUN 76	1039	6	-	-	-	-	-	-	-
	24 JUN 76	1040		.5L	.100L	.31	.08	.05L	.05L	.1L
	6 DEC 76	1120	1	.5L	.150L	.05L	.02L	.05L	.13L	.2L
	6 DEC 76	1123	5	-	-	-	-	-	-	-
	6 DEC 76	1120	10	-	-	-	-	-	-	-
	6 DEC 76	1120	15	.5L	.150L	.14	.02L	.35L	.13L	.2L
	21 MAR 77	0947		.5L	.150L	.14	.03	.05L	.10L	.2L
	21 MAR 77	0949	5	-	-	-	-	-	-	-
	21 MAR 77	0951	10	-	-	-	-	-	-	-
	21 MAR 77	0953	16	.5L	.150L	.15	.04	.05L	.10L	.2L
	16 APR 77	1032		.5L	.200L	.20	.06	.05L	.10L	.2L
	16 APR 77	1033	5	-	-	-	-	-	-	-
	16 APR 77	1032	10	-	-	-	-	-	-	-
	16 APR 77	1032	17	.5L	.200L	.20	.06	.05L	.10L	.2L
	27 JUN 77	1000		.5L	.500L	.10	.05L	.05L	.13L	.5L
	27 JUN 77	1003	5	-	-	-	-	-	-	-
	27 JUN 77	1000	10	-	-	-	-	-	-	-
	27 JUN 77	1000	15	.5L	.500L	.21	.05L	.35L	.13L	.5L
	4 AUG 77	0931		.5L	.500L	.12	.05L	.05L	.10L	.5L
	4 AUG 77	0939	5	-	-	-	-	-	-	-
	4 AUG 77	0930	10	-	-	-	-	-	-	-
	4 AUG 77	0930	15	-	-	-	-	-	-	-
	4 AUG 77	0930	17	.5L	.500L	.22	.22	.35L	.13L	.5L
	7 NOV 77	1110		.5L	.500L	.06	.05	.05L	.10L	.2L
	7 NOV 77	1113	5	-	-	-	-	-	-	-
XIF4285	7 NOV 77	1110	10	-	-	-	-	-	-	-
	7 NOV 77	1113	15	-	-	-	-	-	-	-
	7 NOV 77	1113	18	.5L	.500L	.08	.42	.05L	.10L	.2L
	24 APR 78	1013		.5L	.200L	.16	.08	.05L	.13L	.1L
	24 APR 78	1013	5	-	-	-	-	-	-	-
	24 APR 78	1013	10	-	-	-	-	-	-	-
	24 APR 78	1013	16	.5L	.200L	.37	.11	.05L	.13L	.1L
	1 AUG 78	1032		.5L	.200L	.09	.05	.05L	.05L	.1L
	1 AUG 78	1032	5	-	-	-	-	-	-	-
	1 AUG 78	1032	10	-	-	-	-	-	-	-
	1 AUG 78	1032	15	.5L	.200L	.24	.37	.35L	.05L	.1L
	4 OCT 78	1045		-	.200L	.20	.05L	.05L	.05L	-
	9 OCT 78	1045	5	-	-	-	-	-	-	-
	9 OCT 78	1045	10	-	-	-	-	-	-	-
	9 OCT 78	1045	15	-	.200L	.36	.04L	.05L	.05L	-

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
AIF4285	15 MAR 72	1115		17.00	29.00	4.0	.0001L	-
	15 MAR 72	1116	15	8.00	62.00	13.3	.0001L	.100L
	29 SEP 72	1342	10	3.00	14.50	.1L	.0001L	.100L
	29 SEP 72	1343	5	-	-	-	-	-
	29 SEP 72	1344		4.00	15.30	.1L	.0001L	.100L
	14 FEB 73	1134		6.00	15.30	.4	.0001L	.005L
	14 FEB 73	1135	5	-	-	-	-	-
	14 FEB 73	1136	10	-	-	-	-	-
	14 FEB 73	1137	14	5.30	15.00	.6	.0001L	.005L
	27 FEB 74	1147	8	-	-	-	-	-
	20 AUG 74	1140		5.00	6.00	.1L	.0001L	.010L
	20 AUG 74	1141	15	5.00	6.00	.1L	.0001L	.010L
	22 APR 75	1115		-	5.00L	1.0	.0001L	-
	22 APR 75	1116	14	-	5.00L	3.6	.0001L	-
	22 APR 75	1117	7	-	-	-	-	-
	21 JUL 75	1100	15	5.00	4.00	.1L	.0002	.028L
	21 JUL 75	1101	8	-	-	-	-	-
	21 JUL 75	1103		5.00	2.00L	.1L	.0008	.028L
	20 OCT 75	1030	17	6.00	10.00L	.7	.0001L	.010L
	20 OCT 75	1031	8	-	-	-	-	-
	20 OCT 75	1032		8.00	10.00L	.9	.0001L	.010L
	23 FEB 76	1033	14	5.00	13.00	.4	.0001L	.010L
	23 FEB 76	1034	7	-	-	-	-	-
	23 FEB 76	1035		5.00	19.00	.3	.0001L	.010L
	24 JUN 76	1037	16	6.00	29.00	1.0	.0001L	.010L
	24 JUN 76	1038	11	-	-	-	-	-
	24 JUN 76	1039	6	-	-	-	-	-
	24 JUN 76	1040		6.00	15.20	1.6	.0001L	.010L
	6 DEC 76	1120	1	5.00	3.60	.2L	.0001L	-
	6 DEC 76	1120	5	-	-	-	-	-
	6 DEC 76	1120	10	-	-	-	-	-
	6 DEC 76	1120	15	8.00	5.40	.2L	.0001L	-
	21 MAR 77	0947		10.50	5.00L	1.8	.0012	-
	21 MAR 77	0949	5	-	-	-	-	-
	21 MAR 77	0951	10	-	-	-	-	-
	21 MAR 77	0953	16	7.50	110.00	1.2	.0002	-
	18 APR 77	1032		9.50	2.40	.4	.0001L	-
	18 APR 77	1032	5	-	-	-	-	-
	18 APR 77	1032	10	-	-	-	-	-
	18 APR 77	1032	17	10.00	24.50	-	.0001L	-
	27 JUN 77	1000		25.00	50.00	.1L	.0001L	2.000L
	27 JUN 77	1000	5	-	-	-	-	-
	27 JUN 77	1000	10	-	-	-	-	-
	27 JUN 77	1000	15	24.00	45.00	.2	.0001L	2.000L
	4 AUG 77	0930		1.50	19.80	.2	.0001L	-
	4 AUG 77	0930	5	-	-	-	-	-
	4 AUG 77	0930	10	-	-	-	-	-
	4 AUG 77	0930	15	-	-	-	-	-
	4 AUG 77	0930	17	1.55	11.90	.8	.0001L	-
	7 NOV 77	1110		6.00	94.40	.1	.0001L	.005L
	7 NOV 77	1110	5	-	-	-	-	-
AIF4285	7 NOV 77	1110	10	-	-	-	-	-
	7 NOV 77	1110	15	-	-	-	-	-
	7 NOV 77	1110	18	10.00	115.20	.1L	.0007	.005L
	24 APR 78	1013		1.15	18.10	-	.0003	-
	24 APR 78	1013	5	-	-	-	-	-
	24 APR 78	1013	10	-	-	-	-	-
	24 APR 78	1013	16	.90	23.00	-	.0004	-
	1 AUG 78	1032		1.30	-	-	-	-
	1 AUG 78	1032	5	-	-	-	-	-
	1 AUG 78	1032	10	-	-	-	-	-
	1 AUG 78	1032	15	13.50	-	-	-	-
	9 OCT 78	1045		15.00	-	2.4	-	-
	9 OCT 78	1045	5	-	-	-	-	-
	9 OCT 78	1045	10	-	-	-	-	-
	9 OCT 78	1045	15	12.00	-	2.6	-	-

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
AIG6435	15 MAR 72	1343		F	1	-	3.5	720	.66	-	7.4	-	1.8
	15 MAR 72	1345	20	F	1	-	3.5	780	.75	-	7.5	-	1.8
	29 SEP 72	1211	11	F	2	-	21.0	10000	6.40	6.8	-	7.5	1.1
	29 SEP 72	1212	5	F	2	-	20.8	8800	5.70	-	-	7.7	-
	29 SEP 72	1213		F	2	-	20.8	8700	5.60	6.9	-	7.4	1.6
	14 FEB 73	1359		E	6	-	1.0	2300	-	7.7	7.0	12.0	8.4
	14 FEB 73	1301	5	E	6	-	1.0	2300	-	7.7	-	12.0	-
	14 FEB 73	1302	10	E	6	-	1.0	2500	-	7.7	-	11.7	-
	14 FEB 73	1303	15	E	6	-	1.5	3900	-	7.6	7.0	11.6	8.2
	27 FEB 74	1348	8	H	3	-	3.2	7100	6.84C	6.2	-	11.4	-
	27 FEB 74	1349	16	H	0	-	3.3	7000	6.72C	6.2	-	11.2	-
	20 AUG 74	1220		E	2	-	26.1	7000	4.00	-	-	6.6	2.0
	20 AUG 74	1221	10	E	2	-	25.9	7000	4.00	-	-	6.2	1.5
	22 APR 75	1315		E	2	11.0	10.2	2190	1.80	-	7.6	10.6	2.4
	22 APR 75	1316	11	F	2	11.0	9.8	2350	1.90	-	7.6	10.4	3.9
	22 APR 75	1317	6	F	2	11.0	10.1	2220	1.80	-	-	10.6	-
	21 JUL 75	1155	18	E	0	29.0	26.0	3170	2.00	-	6.9	7.9	2.2
	21 JUL 75	1156	9	E	0	-	26.0	3000	2.00	-	-	8.0	-
	21 JUL 75	1157		E	0	29.0	27.2	2600	1.50	-	6.9	8.1	2.0
	20 OCT 75	1145	15	F	0	-	16.8	4250	2.73C	7.6	7.5	7.9	.5
	20 OCT 75	1146	7	E	0	-	16.9	4250	2.73C	7.6	-	7.7	-
	20 OCT 75	1147		E	0	-	17.0	4250	2.72C	7.6	7.6	7.8	.5
	23 FEB 76	1136	16			-	5.5	-	-	7.4	7.4	11.9	3.0L
	23 FEB 76	1137	8	L	0	-	6.0	-	-	7.6	-	11.3	-
	23 FEB 76	1138				-	4.1	-	-	7.6	7.5	11.0	3.0L
	24 JUN 76	1230	15			-	27.0	3800	2.01	7.2	7.4	5.6	.7
	24 JUN 76	1231	10	L	1	-	28.0	3900	2.07	7.3	-	6.1	-
	24 JUN 76	1232	5	L	1	-	28.0	3800	2.01	7.3	-	6.0	-
	24 JUN 76	1233		L	1	-	28.0	3800	2.01	7.3	7.5	6.1	1.1
	6 DEC 76	1350	1	E	3	1.0	2.5	4900	4.69C	8.4	7.6	14.0	2.4
	6 DEC 76	1350	5	E	0	1.0	1.3	5050	2.69C	7.8	-	13.0	-
	6 DEC 76	1351	9	E	0	1.0	1.2	5250	5.27C	7.8	7.6	12.8	2.6
	21 MAR 77	1107		L	1	15.7	9.3	720	.49C	7.5	7.4	10.9	1.1
	21 MAR 77	1109	5	L	1	-	9.0	685	.31C	7.5	-	10.7	-
	21 MAR 77	1111	10	L	1	-	8.7	675	.31C	7.4	-	10.6	-
	21 MAR 77	1113	16	L	1	-	8.7	685	.47C	7.4	7.4	10.6	1.0
	18 APR 77	1142		E	0	16.0	15.0	400	.17C	7.6	7.4	9.6	.6
	18 APR 77	1142	5	E	0	16.0	15.0	400	.17C	7.6	-	9.6	-
	18 APR 77	1142	13	E	3	16.3	14.7	410	.18C	7.5	-	9.4	-
	18 APR 77	1142	17	E	0	16.0	14.7	420	.18C	7.5	7.4	9.0	2.0
	27 JUN 77	1107		E	0	26.0	24.5	9400	5.25C	8.1	8.2	8.8	-
	27 JUN 77	1107	5	E	3	26.0	24.3	10300	5.61C	8.2	-	8.8	-
	27 JUN 77	1107	10	E	0	26.0	24.0	10300	5.80C	7.9	-	7.8	-
	27 JUN 77	1107	15	E	0	26.0	23.8	10500	5.92C	7.9	8.1	7.5	4.6
	4 AUG 77	1025		F	0	24.5	26.2	10200	5.74C	-	7.5	7.3	1.0L
	4 AUG 77	1025	5	F	0	25.0	26.1	10200	5.74C	-	-	7.3	-
	4 AUG 77	1025	10	F	0	25.0	26.1	10200	5.74C	-	-	7.3	-
	4 AUG 77	1025	15	F	3	24.5	26.3	10300	5.80C	-	7.5	7.3	1.4
	7 NOV 77	1240			2	15.0	15.3	10500	5.92C	-	7.2	8.5	-
	7 NOV 77	1240	5		2	15.0	15.3	10500	5.92C	-	-	8.5	-
	7 NOV 77	1240	10		2	15.0	15.3	11000	6.22C	-	-	10.2	-
AIG6435	7 NOV 77	1240	15		2	15.0	15.3	11000	6.22C	-	-	10.6	-
	7 NOV 77	1240	18		2	15.0	15.3	11500	6.53C	-	7.2	12.2	1.0L
	24 APR 78	1127		E	1	-	13.0	1400	.68C	7.8	7.6	11.5	2.4
	24 APR 78	1127	5	E	1	18.0	12.5	1500	.73C	7.7	-	11.4	-
	24 APR 78	1127	10	E	1	18.0	12.3	1550	.75C	7.6	-	10.9	-
	24 APR 78	1127	16	E	1	-	12.5	1550	.75C	7.6	4.6	10.9	1.6
	1 AUG 78	1145		E	2	-	25.9	6900	3.76C	7.7	7.0	7.5	1.8
	1 AUG 78	1145	5	E	5	-	25.9	6890	3.76C	7.7	-	7.4	-
	1 AUG 78	1145	10	E	5	-	25.9	6900	3.76C	7.7	-	7.3	-
	1 AUG 78	1145	15	E	5	-	25.9	6920	3.77C	7.7	-	7.3	-
	1 AUG 78	1145	18	E	2	-	25.8	6900	3.76C	7.7	7.5	7.4	1.8
	9 OCT 78	1155		F	0	12.8	15.1	10600	5.98C	8.1	9.2	11.3	1.2
	9 OCT 78	1155	5	F	0	12.8	15.0	11000	6.22C	8.1	-	11.0	-
	9 OCT 78	1155	10	F	0	12.8	15.1	11900	6.78C	7.8	-	10.2	-
	9 OCT 78	1155	15	F	0	12.8	15.1	12100	6.90C	7.7	7.0	10.1	.8

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SCL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
A1Ge405	15 MAR 72	1340		50.0	44	.23	.021	1.10	1.38	-	18.30	.59
	15 MAR 72	1341	20	63.0	42	.20	.019	1.02	.38	-	18.70	.59
	29 SEP 72	1211	11	7.3	15	.25	.319	.36	.05	-	22.50	.63
	29 SEP 72	1212	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1213		4.0	6	.15	.019	.36	.05	-	22.50	.39
	14 FEB 73	1300		25.0	24	.20	1.110	1.11	.04	-	15.00	.60
	14 FEB 73	1301	5	-	-	-	-	-	-	-	-	-
	14 FEB 73	1302	10	-	-	-	-	-	-	-	-	-
	14 FEB 73	1303	15	25.0	24	.20	1.110	1.11	.04	-	12.00	.45
	27 FEB 74	1348	8	-	-	-	-	-	-	-	-	-
	27 FEB 74	1349	16	-	-	-	-	-	-	-	-	-
	20 AUG 74	1223		3.0	-	.37	.317	.25	.04	.02	13.50	.24
	20 AUG 74	1221	10	5.0	-	.11	.016	.25	.04	.02	10.50	1.20
	22 APR 75	1315		15.0	16	.27	.038	.87	.35	.34	23.00	.37
	22 APR 75	1316	11	10.0	14	.27	.008	.87	.08	.07	23.00	.44
	22 APR 75	1317	6	-	-	-	-	-	-	-	-	-
	21 JUL 75	1155	18	13.5	2	.36	.013	.33	.06	.03	.30	.81
	21 JUL 75	1156	9	-	-	-	-	-	-	-	-	-
	21 JUL 75	1157		9.4	1	.03	.017	.29	.03	.03	9.00	1.05
	20 OCT 75	1145	15	14.0	-	.37	.043	.84	.09	.08	1.50L	.25
	20 OCT 75	1146	7	-	-	-	-	-	-	-	-	-
	20 OCT 75	1147		15.0	-	.37	.033	.72	.12	.12	1.50L	.25
	23 FEB 76	1136	16	26.0	-	.04	.006	1.11	.10	.04	-	.23
	23 FEB 76	1137	8	-	-	-	-	-	-	-	-	-
	23 FEB 76	1138		33.0	-	.34	.306	1.16	.35	.04	19.50	.31
	24 JUN 76	1230	15	11.0	-	.01	.005	.26	.04	.04	-	.22
	24 JUN 76	1231	10	-	-	-	-	-	-	-	-	-
	24 JUN 76	1232	5	-	-	-	-	-	-	-	-	-
	24 JUN 76	1233		10.0	-	.01L	.005	.23	.04	.04	22.50	.22
	6 DEC 76	1350	1	8.0	-	.03	.012	.88	.04	.03	7.50	.24
	6 DEC 76	1353	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1350	9	30.0	-	.04	.012	.94	.07	.05	15.00	.24
	21 MAR 77	1107		22.0	24	.35	.314	1.33	.37	.04	15.00	.38
	21 MAR 77	1109	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1111	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	1113	16	25.0	2	.07	.014	.99	.08	.04	18.00	.38
	18 APR 77	1142		19.0	10	.02	.017	.76	.05	.04	10.50	.30
	18 APR 77	1142	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1142	10	-	-	-	-	-	-	-	-	-
	18 APR 77	1142	17	21.0	11	.05	.016	.78	.39	.36	12.00	.22
	27 JUN 77	1107		7.0	315	.06	.003	.03	.06	.05	10.50	.26
	27 JUN 77	1107	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1107	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	1107	15	24.0	51	.04	.004	.02	.11	.09	12.00	.43
	4 AUG 77	1025		18.0	38	.01	.001	.05	.33	.31	33.00	.38
	4 AUG 77	1025	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1025	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	1025	15	17.0	18	.01	.001	.05	.03	.01	33.00	.38
	7 NOV 77	1240		10.0	14	.07	.008	.46	.09	.05	9.00	.50
	7 NOV 77	1240	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1240	10	-	-	-	-	-	-	-	-	-
A1Ge435	7 NOV 77	1240	15	-	-	-	-	-	-	-	-	-
	7 NOV 77	1240	18	16.0	18	.10	.008	.49	.06	-	3.00	.53
	24 APR 78	1127		16.0	14	.05	.019	.82	.22	-	11.25	1.04C
	24 APR 78	1127	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1127	13	-	-	-	-	-	-	-	-	-
	24 APR 78	1127	16	16.0	16	.05	.014	.17	.22	-	3.75	.92C
	1 AUG 78	1145		22.0	4	.03	.015	.56	.20	-	1.44	.88
	1 AUG 78	1145	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1145	10	-	-	-	-	-	-	-	-	-
	1 AUG 78	1145	15	-	-	-	-	-	-	-	-	-
	1 AUG 78	1145	18	5.2	8	.03	.003	.02	.20	-	1.50	.68
	9 OCT 78	1155		6.8	2	.02	.012	.03	.08	-	27.30	.48
	9 OCT 78	1155	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1155	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1155	15	18.0	18	.02	.014	.03	.06	-	12.00	.42

STATION ID	DATE	TIME	DEPTH	POLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIC6405	15 MAR 72	1340		-	.100L	.15	.09	.03L	.05	-
	15 MAR 72	1341	20	-	.100L	.42	.11	.03L	.05	-
	29 SEP 72	1211	11	-	.100L	.21	.03L	.07	.05L	-
	29 SEP 72	1212	5	-	-	-	-	-	-	-
	29 SEP 72	1213		-	.100L	.19	.03L	.06	.05L	-
	14 FEB 73	1300		-	.100L	.10	.09	.10	.05L	-
	14 FEB 73	1301	5	-	-	-	-	-	-	-
	14 FEB 73	1302	10	-	-	-	-	-	-	-
	14 FEB 73	1303	15	-	.100L	.15	.11	.20	.05L	-
	27 FEB 74	1348	8	-	-	-	-	-	-	-
	27 FEB 74	1349	16	2.5L	-	-	-	-	-	1.0L
	20 AUG 74	1200		.5L	.050L	.53	.03L	.03L	.05L	.7
	23 AUG 74	1221	10	.5L	.050L	.36	.03L	.03L	.05L	1.3
	22 APR 75	1315		.5L	.100L	.10	.03L	.03L	.03L	1.0L
	22 APR 75	1316	11	.5L	.100L	.06	.03L	.03L	.03L	1.0L
	22 APR 75	1317	6	-	-	-	-	-	-	-
	21 JUL 75	1155	18	.5L	.150L	.25	.05	.05L	.05L	.2L
	21 JUL 75	1156	9	-	-	-	-	-	-	-
	21 JUL 75	1157		.5L	.150L	.25	.07	.05L	.05L	.2L
	20 OCT 75	1145	15	.5L	.100L	.35	.06	.05L	.05L	.2L
	20 OCT 75	1146	7	-	-	-	-	-	-	-
	20 OCT 75	1147		.5L	.100L	.39	.06	.05L	.05L	.2L
	23 FEB 76	1156	16	.5L	-	.05L	.03L	.05L	.05L	.2L
	2 [illegible] 76	1157	8	-	-	-	-	-	-	-
	23 FEB 76	1158		.5L	.100L	.05L	.05	.05L	.05L	.2L
	24 JUN 76	1230	15	.5L	.100L	.23	.91	.05L	.05L	.1L
	24 JUN 76	1231	10	-	-	-	-	-	-	-
	24 JUN 76	1232	5	-	-	-	-	-	-	-
	24 JUN 76	1233		.5L	.100L	.23	.83	.05L	.05L	.1L
	6 DEC 76	1350	1	.5L	.150L	.05L	.02L	.05L	.10L	.2L
	6 DEC 76	1350	5	-	-	-	-	-	-	-
	6 DEC 76	1350	9	.5L	.150L	.08	.02L	.05L	.10L	.2L
	21 MAR 77	1107		.5L	.150L	.18	.06	.05L	.10L	.2L
	21 MAR 77	1109	5	-	-	-	-	-	-	-
	21 MAR 77	1111	10	-	-	-	-	-	-	-
	21 MAR 77	1113	16	.5L	.150L	.20	.07	.05L	.10L	.2L
	18 APR 77	1142		.2L	.200L	.13	.07	.05L	.10L	.2L
	18 APR 77	1142	5	-	-	-	-	-	-	-
	18 APR 77	1142	10	-	-	-	-	-	-	-
	18 APR 77	1142	17	.5L	.200L	.36	.12	.05L	.10L	.2L
	27 JUN 77	1107		.5L	.500L	.06	.05L	.05L	.10L	.5L
	27 JUN 77	1107	5	-	-	-	-	-	-	-
	27 JUN 77	1107	10	-	-	-	-	-	-	-
	27 JUN 77	1107	15	.5L	.500L	.13	.05L	.05L	.10L	.5L
	4 AUG 77	1025		.5L	.500L	.13	.05L	.05L	.10L	.5L
	4 AUG 77	1025	5	-	-	-	-	-	-	-
	4 AUG 77	1025	13	-	-	-	-	-	-	-
	4 AUG 77	1025	19	.5L	.500L	.12	.05L	.05L	.10L	.5L
	7 NOV 77	1240		.5L	.500L	.07	.06	.05L	.10L	.2L
	7 NOV 77	1240	5	-	-	-	-	-	-	-
	7 NOV 77	1240	13	-	-	-	-	-	-	-
XIC6405	7 NOV 77	1240	15	-	-	-	-	-	-	-
	7 NOV 77	1240	19	.5L	.500L	.16	.09	.05L	.10L	.2L
	24 APR 78	1127		.5L	.200L	.05	.18	.05L	.10L	.1L
	24 APR 78	1127	5	-	-	-	-	-	-	-
	24 APR 78	1127	10	-	-	-	-	-	-	-
	24 APR 78	1127	16	.5L	.200L	.09	.12	.05L	.10L	.1L
	1 AUG 78	1145		.5L	.200L	.10	.05L	.05L	.05L	.1L
	1 AUG 78	1145	5	-	-	-	-	-	-	-
	1 AUG 78	1145	10	-	-	-	-	-	-	-
	1 AUG 78	1145	15	-	-	-	-	-	-	-
	1 AUG 78	1145	18	.5L	.200L	.25	.05	.05L	.05L	.1L
	9 OCT 78	1155		-	.200L	.13	.05L	.05L	.05L	-
	9 OCT 78	1155	5	-	-	-	-	-	-	-
	9 OCT 78	1155	10	-	-	-	-	-	-	-
	9 OCT 78	1155	15	-	.200L	.27	.05L	.05L	.05L	-

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
AIC6405	15 MAR 72	1340		7.00	25.00	11.0	.0001L	.100L
	15 MAR 72	1341	20	8.00	25.00	2.8	.0001L	.100L
	29 SEP 72	1211	11	4.00	18.40	.1L	.0001	.100L
	29 SEP 72	1212	5	-	-	-	-	-
	29 SEP 72	1213		3.00	16.30	.1L	.0001L	.100L
	14 FEB 73	1300		3.00	15.00	.7	.0001L	.005L
	14 FEB 73	1301	5	-	-	-	-	-
	14 FEB 73	1302	10	-	-	-	-	-
	14 FEB 73	1303	15	4.00	12.00	.2	.0001L	.005L
	27 FEB 74	1346	8	-	-	-	-	-
	27 FEB 74	1349	16	-	-	-	-	-
	20 AUG 74	1220		3.00	12.00	.1	.0001L	.010L
	20 AUG 74	1221	10	3.00	6.00	.1L	.0001L	.010L
	22 APR 75	1315		-	6.00	1.0	.0001L	-
	22 APR 75	1316	11	-	5.00L	2.0	.0001L	-
	22 APR 75	1317	6	-	-	-	-	-
	21 JUL 75	1155	16	3.00	2.00L	.1L	.0002	.020L
	21 JUL 75	1156	9	-	-	-	-	-
	21 JUL 75	1157		3.00	4.00	.1L	.0020	.020L
	20 OCT 75	1145	15	4.00	20.00	.3	.0001L	.010L
	20 OCT 75	1146	7	-	-	-	-	-
	20 OCT 75	1147		7.00	10.00L	.7	.0001L	.010L
	23 FEB 76	1136	16	12.00	16.00	.3	.0001L	.010L
	23 FEB 76	1137	8	-	-	-	-	-
	23 FEB 76	1138		11.00	19.00	.5	.0001L	.010L
	24 JUN 76	1230	15	6.00	24.70	1.2	.0001L	.010L
	24 JUN 76	1231	10	-	-	-	-	-
	24 JUN 76	1232	5	-	-	-	-	-
	24 JUN 76	1233		5.00	17.40	1.6	.0001L	.010L
	6 DEC 76	1353	1	5.50	3.60	.2L	.0001L	-
	6 DEC 76	1350	5	-	-	-	-	-
	6 DEC 76	1350	9	19.30	7.30	.2L	.0001L	-
	21 MAR 77	1107		8.00	5.00L	.6	.0001L	-
	21 MAR 77	1109	5	-	-	-	-	-
	21 MAR 77	1111	10	-	-	-	-	-
	21 MAR 77	1113	16	8.00	9.00	.6	.0001	-
	18 APR 77	1142		11.50	36.90	.8	.0001L	-
	18 APR 77	1142	5	-	-	-	-	-
	18 APR 77	1142	13	-	-	-	-	-
	18 APR 77	1142	17	9.50	10.70	.4	.0001L	-
	27 JUN 77	1107		22.50	55.00	1.4	.0001L	2.000L
	27 JUN 77	1107	5	-	-	-	-	-
	27 JUN 77	1107	10	-	-	-	-	-
	27 JUN 77	1107	15	19.50	55.00	.6	.0001L	2.000L
	4 AUG 77	1025		1.75	17.90	.5	.0001L	-
	4 AUG 77	1025	5	-	-	-	-	-
	4 AUG 77	1025	10	-	-	-	-	-
	4 AUG 77	1025	15	1.65	-	.8	.0001L	-
	7 NOV 77	1240		8.00	19.20	.1L	.0001L	.005L
	7 NOV 77	1240	5	-	-	-	-	-
	7 NOV 77	1240	10	-	-	-	-	-
AIC6405	7 NOV 77	1240	15	-	-	-	-	-
	7 NOV 77	1240	18	7.00	19.20	-	.0002L	.005L
	24 APR 78	1127		.85	10.50	-	.0003	-
	24 APR 78	1127	5	-	-	-	-	-
	24 APR 78	1127	10	-	-	-	-	-
	24 APR 78	1127	16	.80	16.50	-	.0011	-
	1 AUG 78	1145		1.00	-	-	-	-
	1 AUG 78	1145	5	-	-	-	-	-
	1 AUG 78	1145	10	-	-	-	-	-
	1 AUG 78	1145	15	-	-	-	-	-
	1 AUG 78	1145	18	.90	-	-	-	-
	9 OCT 78	1155		12.50	-	4.0	-	-
	9 OCT 78	1155	5	-	-	-	-	-
	9 OCT 78	1155	10	-	-	-	-	-
	9 OCT 78	1155	15	12.00	-	2.7	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHOS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF5182	15 MAR 72	1205		E	1	-	4.1	1050	.90	-	7.7	-	1.8
	15 MAR 72	1206	8	E	1	-	4.1	1050	.90	-	7.7	-	1.8
	29 SEP 72	1312	8	F	2	-	20.8	8900	5.80	7.3	-	7.7	1.4
	29 SEP 72	1313	5	F	2	-	20.8	8800	5.70	-	-	7.7	-
	29 SEP 72	1314		F	2	-	20.8	8800	5.70	7.2	-	7.7	1.5
	14 FEB 73	1208		E	6	-	1.0	2400	-	7.7	7.2	11.6	9.1
	14 FEB 73	1209	3	E	6	-	1.5	4700	-	7.5	7.5	11.2	8.7
	27 FEB 74	1056	5	M	0	-	3.0	7400	7.20C	6.2	-	11.3	-
	20 AUG 74	1200		E	2	-	26.2	7000	4.00	-	-	6.9	2.0
	20 AUG 74	1201	6	E	2	-	26.1	7000	4.00	-	-	5.9	.6
	22 APR 75	1155		E	1	12.0	10.8	2410	1.90	-	7.6	10.7	3.3
	22 APR 75	1156	11	E	1	12.0	10.0	2800	2.20	-	7.6	9.7	3.3
	22 APR 75	1157	6	E	2	12.0	10.4	2500	2.00	-	-	10.4	-
	21 JUL 75	1120	7	E	3	27.0	26.8	2950	1.80	-	7.1	8.8	3.3
	21 JUL 75	1121		E	0	27.0	27.0	3000	1.80	-	7.1	8.9	2.9
	20 OCT 75	1105	9	E	3	-	16.8	4100	2.63C	7.6	7.6	7.9	.5
	20 OCT 75	1106	5	E	0	-	16.5	3550	2.27C	7.6	-	8.0	-
	20 OCT 75	1107		E	0	-	16.5	3300	2.10C	7.6	7.6	9.0	.7
	23 FEB 76	1103	8			-	4.5	-	-	7.7	7.4	11.6	3.0L
	23 FEB 76	1104	4	L	0	-	5.0	-	-	7.7	-	11.2	-
	23 FEB 76	1105				-	5.0	-	-	7.6	7.2	11.1	3.0L
	24 JUN 76	1127	12	E	3	-	27.3	4700	2.52	6.9	7.2	5.1	1.7
	24 JUN 76	1128	7	E	0	-	28.0	4500	2.41	7.2	-	6.3	-
	24 JUN 76	1129	2	E	0	-	28.0	4500	2.41	7.2	-	6.3	-
	24 JUN 76	1130		E	0	-	28.0	4500	2.41	7.2	7.2	6.3	2.1

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XIFS182	15 MAR 72	1205		40.0	30	.16	.017	1.25	.31	-	24.00	.47
	15 MAR 72	1206	8	65.0	32	.16	.017	1.25	.31	-	21.00	.47
	29 SEP 72	1312	8	3.0	10	.14	.019	.36	.06	-	36.00	.47
	29 SEP 72	1313	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1314		-	6	.14	.019	.36	.01	-	30.00	.34
	14 FEB 73	1208		25.0	24	.33	1.170	1.17	.04	-	6.00	-
	14 FEB 73	1209	3	30.0	68	.33	1.110	1.11	.04	-	6.00	-
	27 FEB 74	1356	5	-	-	-	-	-	-	-	-	-
	20 AUG 74	1200		8.0	-	.08	.009	.30	.05	.04	19.50	.33
	20 AUG 74	1201	8	5.0	-	.15	.021	.27	.04	.02	12.30	.39
	22 APR 75	1155		8.3	4	.32	.008	.81	.06	.06	21.00	.52
	22 APR 75	1156	11	10.0	12	.50	.008	.81	.05	.04	30.00	.75
	22 APR 75	1157	6	-	-	-	-	-	-	-	-	-
	21 JUL 75	1120	7	9.9	2	.03	.017	.21	.06	.06	36.00	.65
	21 JUL 75	1121		10.0	4	.06	.017	.21	.08	.06	37.50	.81
	20 OCT 75	1105	9	20.0	-	.11	.033	.85	.15	.12	1.50L	.31
	20 OCT 75	1106	5	-	-	-	-	-	-	-	-	-
	20 OCT 75	1107		16.0	-	.07	.030	.83	.08	.08	1.50L	.25
	23 FEB 76	1103	8	17.0	-	.06	.006	1.05	.05	.04	-	.31
	23 FEB 76	1104	4	-	-	-	-	-	-	-	-	-
	23 FEB 76	1105		17.0	-	.05	.006	1.05	.06	.04	22.50	1.38
	24 JUN 76	1127	12	15.0	-	.34	.009	.13	.07	.07	-	.44
	24 JUN 76	1128	7	-	-	-	-	-	-	-	-	-
	24 JUN 76	1129	2	-	-	-	-	-	-	-	-	-
	24 JUN 76	1130		9.0	-	.01	.008	.13	.05	.05	27.00	.44

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION NO	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIFS182	15 MAR 72	1205		-	.100L	.13	.09	.03L	.05L	-
	15 MAR 72	1206	B	-	.100L	.25	.07	.03L	.05L	-
	29 SEP 72	1312	B	-	.100L	.10	.03L	.02	.05L	-
	29 SEP 72	1313	S	-	-	-	-	-	-	-
	29 SEP 72	1314		-	.100L	.13	.03L	.02	-	-
	14 FEB 73	1206		-	.100L	.20	.21	.35	.05L	-
	14 FEB 73	1207	3	-	.100L	.25	.47	.13	.05L	-
	27 FEB 74	1036	5	-	-	-	-	-	-	-
	20 AUG 74	1200		.5L	.050L	.68	.09	.03L	.05L	.5L
	20 AUG 74	1201	B	.5L	.050L	.67	.04	.03L	.05L	.7
	22 APR 75	1155		.5L	.100L	.04	.03L	.03L	.03L	1.0L
	22 APR 75	1156	11	.5L	.100L	.06	.03L	.03L	.03L	1.0L
	22 APR 75	1157	6	-	-	-	-	-	-	-
	21 JUL 75	1120	7	.5L	.150L	.24	.04	.05L	.05L	.2L
	21 JUL 75	1121		.5L	.150L	.22	.05	.05L	.06	.2L
	20 OCT 75	1105	9	.5L	.100L	.30	.07	.05L	.05L	.2L
	20 OCT 75	1106	5	-	-	-	-	-	-	-
	20 OCT 75	1107		.5L	.100L	.33	.13	.05L	.05	.2L
	23 FEB 76	1103	B	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	1104	4	-	-	-	-	-	-	-
	23 FEB 76	1105		.5L	.100L	.35L	.03L	.05	.05L	.2L
	24 JUN 76	1127	12	.5L	.100L	.24	.10	.05L	.05L	.1L
	24 JUN 76	1128	7	-	-	-	-	-	-	-
	24 JUN 76	1129	2	-	-	-	-	-	-	-
	24 JUN 76	1130		.5L	.100L	.24	.05	.05L	.05L	.1L

HART AND MILLER IS. SURVEY — PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF5182	15 MAR 72	1205		7.00	21.00	3.4	.0001L	.100L
	15 MAR 72	1206	B	6.00	25.00	1.9	.0001L	.100L
	29 SEP 72	1312	E	3.00	20.00	.1L	.0001L	.100L
	29 SEP 72	1313	S	-	-	-	-	-
	29 SEP 72	1314		4.00	17.20	.1L	.0001L	.100L
	14 FEB 73	1208		6.00	15.00	.6	.0001L	.005L
	14 FEB 73	1209	B	6.00	12.00	.6	.0001L	.005L
	27 FEB 74	1056	S	-	-	-	-	-
	20 AUG 74	1200		16.00	6.00	.1L	.0001L	.010L
	20 AUG 74	1201	B	5.00	6.00	.1L	.0001L	.010L
	22 APR 75	1155		-	5.00L	2.4	.0001L	-
	22 APR 75	1156	B	-	5.00L	1.8	.0001L	-
	22 APR 75	1157	S	-	-	-	-	-
	21 JUL 75	1120	T	2.00	2.00	.1L	.0001L	.028L
	21 JUL 75	1121		10.00	2.00L	.1L	.0002	.028L
	20 OCT 75	1105	B	4.00	10.00	.4	.0001L	.010L
	20 OCT 75	1106	S	-	-	-	-	-
	20 OCT 75	1107		4.00	20.00	.6	.0001L	.010L
	23 FEB 76	1103	B	12.00	24.00	.3	.0001L	.010L
	23 FEB 76	1104	S	-	-	-	-	-
	23 FEB 76	1105		9.00	24.00	.4	.0001L	.010L
	24 JUN 76	1127	B	5.00	26.10	1.8	.0001L	.010L
	24 JUN 76	1128	T	-	-	-	-	-
	24 JUN 76	1129	S	-	-	-	-	-
	24 JUN 76	1130		.06	25.00	1.9	.0001L	.010L

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHOS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF3675	6 DEC 76	1100	1	E	0	2.0	2.5	5500	2.95C	8.0	-	13.2	-
	6 DEC 76	1100	5	E	0	2.0	2.5	5750	3.09C	7.9	-	13.8	-
	6 DEC 76	1100	10	E	0	2.0	3.0	8200	4.53C	7.7	-	14.4	-
	6 DEC 76	1100	15	E	0	2.0	3.0	9200	5.13C	7.6	-	13.2	-
	21 MAR 77	0910		E	1	10.0	8.5	1350	.98C	7.5	7.5	11.0	1.6
	21 MAR 77	0912	5	E	1	-	8.6	1300	.62C	7.4	-	10.8	-
	21 MAR 77	0914	10	E	1	-	8.6	1300	.62C	7.4	-	10.9	-
	21 MAR 77	0916	15	E	1	10.0	8.7	1300	.94C	7.4	7.5	11.0	1.3
	18 APR 77	0945		E	0	16.0	15.0	1100	.52C	7.6	7.2	9.6	-
	18 APR 77	0945	5	E	1	16.0	15.0	1100	.52C	7.6	-	9.6	-
	18 APR 77	0945	10	E	1	16.0	14.5	2300	1.15C	7.5	-	9.5	-
	18 APR 77	0945	16	E	0	16.0	14.5	3100	1.59C	7.6	7.0	9.5	1.0
	27 JUN 77	0930		E	0	26.0	24.2	9500	5.31C	8.2	7.7	7.7	3.3
	27 JUN 77	0930	5	E	0	26.0	24.0	10000	5.61C	8.1	-	7.4	-
	27 JUN 77	0930	10	E	0	26.0	23.7	11500	6.53C	7.9	-	7.3	-
	27 JUN 77	0930	15	E	0	26.0	23.5	10500	5.92C	7.6	6.7	6.1	-
	4 AUG 77	0900		F	0	25.0	25.8	11200	6.35C	-	7.4	7.7	5.4
	4 AUG 77	0900	5	F	0	25.0	25.7	11200	6.35C	-	-	7.6	-
	4 AUG 77	0900	10	F	0	25.0	26.0	12500	7.15C	-	-	6.8	-
	4 AUG 77	0900	15	F	0	25.0	26.0	12800	7.33C	-	7.4	6.5	4.1
	7 NOV 77	1030			5	15.0	15.2	11500	6.53C	-	6.9	8.5	1.0L
	7 NOV 77	1030	5		5	15.0	15.2	11500	6.53C	-	-	8.3	-
	7 NOV 77	1030	10		5	15.0	15.2	11500	6.53C	-	-	8.8	-
	7 NOV 77	1030	15		5	15.0	15.0	11500	6.53C	-	-	10.0	-
	7 NOV 77	1030	18		5	15.0	15.0	11500	6.53C	-	6.9	10.6	1.0L
	24 APR 78	0942	5	H	1	16.5	12.4	2600	1.32C	7.8	-	11.1	-
	24 APR 78	0942	10	H	1	16.5	12.0	4050	2.12C	7.6	-	10.7	-
	24 APR 78	0942	15	H	1	16.5	12.2	4400	2.32C	7.6	-	10.8	-
	24 APR 78	0945	17	H	1	-	12.3	4500	2.37C	7.7	7.5	10.6	1.8
	24 APR 78	0950		H	1	-	13.0	2450	1.23C	8.2	7.6	11.9	3.4
	1 AUG 78	1000		E	2	-	25.6	6900	3.76C	7.6	7.5	7.4	1.8
	1 AUG 78	1000	5	E	2	-	25.6	6850	3.73C	7.6	-	7.3	-
	1 AUG 78	1000	10	E	2	-	26.0	8400	4.65C	7.6	-	7.3	-
	9 OCT 78	1025		E	0	15.5	15.1	12600	7.21C	7.9	7.2	10.2	4.0
	9 OCT 78	1025	5	E	0	15.5	15.1	12700	7.27C	7.8	-	9.9	-
	9 OCT 78	1025	13	E	0	15.5	15.2	12700	7.27C	7.8	-	9.8	-
	9 OCT 78	1025	15	E	0	15.5	15.6	13400	7.71C	7.7	7.1	9.5	2.0

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	DR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XEF3675	6 DEC 76	1100	1	-	-	-	-	-	-	-	-	-
	6 DEC 76	1100	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1100	10	-	-	-	-	-	-	-	-	-
	6 DEC 76	1100	15	-	-	-	-	-	-	-	-	-
	21 MAR 77	0910		25.0	30	.42	.029	1.03	.20	.12	15.00	.61
	21 MAR 77	0912	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	0914	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	0916	15	25.0	30	.48	.021	1.03	.16	.12	16.50	.75
	18 APR 77	0945		1.2	14	.17	.078	.06	.14	.04	21.00	.20
	18 APR 77	0945	5	-	-	-	-	-	-	-	-	-
	18 APR 77	0945	10	-	-	-	-	-	-	-	-	-
	18 APR 77	0945	16	15.0	20	.15	.017	.78	.06	.04	30.00	.40
	27 JUN 77	0930		5.0	9	.08	.033	.01	.07	.05	3.00	.43
	27 JUN 77	0930	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	0930	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	0930	15	25.0	42	.07	.033	.02	.08	.08	15.00	.43
	4 AUG 77	0900		5.0	10	.01	.001	.05	.04	.04	63.00	.50
	4 AUG 77	0900	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0900	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	0900	15	12.0	20	.01	.001	.05	.04	.01	15.00	.38
	7 NOV 77	1030		20.0	30	.08	.012	.46	.07	.03	1.50L	.53
	7 NOV 77	1030	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1030	10	-	-	-	-	-	-	-	-	-
	7 NOV 77	1030	15	-	-	-	-	-	-	-	-	-
	7 NOV 77	1030	18	16.0	16	.08	.012	.42	.06	.04	7.50	-
	24 APR 78	0942	5	-	-	-	-	-	-	-	-	-
	24 APR 78	0942	10	-	-	-	-	-	-	-	-	-
	24 APR 78	0942	15	-	-	-	-	-	-	-	-	-
	24 APR 78	0945	17	12.0	19	.14	.020	.92	.19	-	7.50	.61C
	24 APR 78	0950		12.0	11	.16	.019	.92	.39	-	3.75	.92C
	1 AUG 78	1000		16.0	9	.05	.018	.36	.52	-	2.40	.88
	1 AUG 78	1000	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1000	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1025		8.2	8	.04	.014	.03	.08	-	28.20	.44
	9 OCT 78	1025	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1025	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1025	15	18.0	12	.08	.017	.06	.08	-	12.60	.48

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF3675	6 DEC 76	1100	1	-	-	-	-	-	-	-
	6 DEC 76	1100	5	-	-	-	-	-	-	-
	6 DEC 76	1100	10	-	-	-	-	-	-	-
	6 DEC 76	1100	15	-	-	-	-	-	-	-
	21 MAR 77	0910		.5L	.150L	.20	.08	.05L	.10L	.2L
	21 MAR 77	0912	5	-	-	-	-	-	-	-
	21 MAR 77	0914	10	-	-	-	-	-	-	-
	21 MAR 77	0916	15	.5L	.150L	.18	.05	.05L	.10L	.2L
	18 APR 77	0545		.5L	.200L	.19	.05	.05L	.10L	.2L
	18 APR 77	0545	5	-	-	-	-	-	-	-
	18 APR 77	0545	10	-	-	-	-	-	-	-
	18 APR 77	0545	16	.5L	.200L	.29	.09	.05L	.10L	.2L
	27 JUN 77	0930		.5L	.500L	.06	.05L	.05L	.10L	.5L
	27 JUN 77	0930	5	-	-	-	-	-	-	-
	27 JUN 77	0930	10	-	-	-	-	-	-	-
	27 JUN 77	0930	15	.5L	.500L	.24	.05L	.05L	.10L	.5L
	4 AUG 77	0900		.5L	.500L	.08	.05L	.05L	.10L	.5L
	4 AUG 77	0900	5	-	-	-	-	-	-	-
	4 AUG 77	0900	10	-	-	-	-	-	-	-
	4 AUG 77	0900	15	.5L	.500L	.21	.05L	.05L	.10L	.5L
	7 NOV 77	1030		.5L	.500L	.11	.60	.05L	.10L	.2L
	7 NOV 77	1030	5	-	-	-	-	-	-	-
	7 NOV 77	1030	10	-	-	-	-	-	-	-
	7 NOV 77	1030	15	-	-	-	-	-	-	-
	7 NOV 77	1030	18	.5L	.500L	.17	1.45	.05L	.10L	.2L
	24 APR 78	0942	5	-	-	-	-	-	-	-
	24 APR 78	0942	10	-	-	-	-	-	-	-
	24 APR 78	0942	15	-	-	-	-	-	-	-
	24 APR 78	0945	17	.5L	.200L	.08	.13	.05L	.10L	.1L
	24 APR 78	0950		.5L	.200L	.12	.13	.05L	.10L	.1L
	1 AUG 78	1000		.5L	.200L	.09	.07	.05L	.05L	.1L
	1 AUG 78	1000	5	-	-	-	-	-	-	-
	1 AUG 78	1000	10	-	-	-	-	-	-	-
	9 OCT 78	1025		-	.200L	.21	.05L	.05L	.05L	-
	9 OCT 78	1025	5	-	-	-	-	-	-	-
	9 OCT 78	1025	10	-	-	-	-	-	-	-
	9 OCT 78	1025	15	-	.200L	-	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF3675	6 DEC 76	1100	1	-	-	-	-	-
	6 DEC 76	1100	5	-	-	-	-	-
	6 DEC 76	1100	10	-	-	-	-	-
	6 DEC 76	1100	15	-	-	-	-	-
	21 MAR 77	0910		9.00	9.00	.6	.0009	-
	21 MAR 77	0912	5	-	-	-	-	-
	21 MAR 77	0914	10	-	-	-	-	-
	21 MAR 77	0916	15	11.00	10.00	1.4	.0003	-
	18 APR 77	0945		12.00	8.50	2.8	.0001L	-
	18 APR 77	0945	5	-	-	-	-	-
	18 APR 77	0945	10	-	-	-	-	-
	18 APR 77	0945	16	13.00	4.00	.4	.0001L	-
	27 JUN 77	0930		-	56.00	.4	.0001L	2.000L
	27 JUN 77	0930	5	-	-	-	-	-
	27 JUN 77	0930	10	-	-	-	-	-
	27 JUN 77	0930	15	27.00	56.00	1.6	.0001L	2.000L
	4 AUG 77	0900		1.70	25.90	.9	.0001L	-
	4 AUG 77	0900	5	-	-	-	-	-
	4 AUG 77	0900	10	-	-	-	-	-
	4 AUG 77	0900	15	1.45	23.50	.8	.0001L	-
	7 NOV 77	1030		9.00	68.80	.1L	.0001L	.005L
	7 NOV 77	1030	5	-	-	-	-	-
	7 NOV 77	1030	10	-	-	-	-	-
	7 NOV 77	1030	15	-	-	-	-	-
	7 NOV 77	1030	18	7.00	68.80	.1L	.0001L	.005L
	24 APR 78	0942	5	-	-	-	-	-
	24 APR 78	0942	10	-	-	-	-	-
	24 APR 78	0942	15	-	-	-	-	-
	24 APR 78	0945	17	.85	23.00	-	.0004	-
	24 APR 78	0950		.90	18.10	-	.0007	-
	1 AUG 78	1000		1.30	-	-	-	-
	1 AUG 78	1000	5	-	-	-	-	-
	1 AUG 78	1000	10	-	-	-	-	-
	9 OCT 78	1025		15.50	853.12	3.2	-	-
	9 OCT 78	1025	5	-	-	-	-	-
	9 OCT 78	1025	10	-	-	-	-	-
	9 OCT 78	1025	15	11.50	-	3.9	-	-

STATION ID	DATE	*TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIG480	6 DEC 76	1200	1	E	0	1.5	2.0	6000	3.24C	7.8	-	12.9	-
	6 DEC 76	1200	5	E	0	1.5	2.0	6100	3.29C	7.8	-	13.1	-
	6 DEC 76	1200	10	E	0	1.5	2.0	6500	3.53C	7.7	-	13.1	-
	6 DEC 76	1200	15	E	0	1.5	2.5	7200	3.94C	7.7	-	13.1	-
	6 DEC 76	1200	19	E	0	1.5	3.0	7800	4.29C	7.6	-	12.8	-
	21 MAR 77	1017		E	1	12.3	8.9	655	.44C	7.5	7.3	10.9	1.0
	21 MAR 77	1019	5	E	1		- 8.7	650	.29C	7.4	-	10.6	-
	21 MAR 77	1021	10	E	1		- 8.7	660	.30C	7.4	-	10.5	-
	21 MAR 77	1023	15	E	1		- 8.7	650	.29C	7.4	-	10.5	-
	21 MAR 77	1025	18	E	1		- 8.7	640	.44C	7.4	7.4	10.5	1.2
	18 APR 77	1104		E	0	16.0	14.5	740	.34C	7.5	7.4	9.3	.6
	18 APR 77	1104	5	E	1	16.0	14.5	760	.35C	7.5	-	9.3	-
	18 APR 77	1104	10	E	1	16.0	14.3	1100	.52C	7.4	-	9.2	-
	18 APR 77	1104	15	E	1	16.0	14.3	1650	.81C	7.4	-	9.0	-
	18 APR 77	1104	19	E	0	16.0	14.3	2500	1.26C	7.4	7.3	8.9	1.0
	27 JUN 77	1030		E	0	26.0	24.0	10800	6.10C	8.1	8.3	8.4	1.5
	27 JUN 77	1030	5	E	0	26.0	23.8	11000	6.22C	8.1	-	8.1	-
	27 JUN 77	1030	10	E	0	26.0	23.6	10300	5.80C	8.0	-	7.3	-
	27 JUN 77	1030	15	E	0	26.0	23.6	11000	6.22C	7.8	8.1	6.9	3.1
	4 AUG 77	0955		F	0	24.6	25.7	11300	6.41C	-	7.5	6.9	1.0L
	4 AUG 77	0955	5	F	0	25.0	25.6	11300	6.41C	-	-	6.6	-
	4 AUG 77	0956	10	F	0	25.0	25.4	11300	6.41C	-	-	6.5	-
	4 AUG 77	0956	15	F	0	25.0	25.4	11300	6.41C	-	-	6.6	-
	4 AUG 77	0955	18	F	0	24.6	25.3	11500	6.53C	-	7.2	6.6	2.7
	7 NOV 77	1150			2	15.0	15.3	13000	7.46C	-	7.1	9.5	1.0L
	7 NOV 77	1150	5		2	15.0	15.3	13000	7.46C	-	-	8.5	-
	7 NOV 77	1150	10		2	15.0	15.5	13000	7.46C	-	-	9.2	-
	7 NOV 77	1150	15		2	15.0	15.5	13500	7.77C	-	-	10.6	-
	7 NOV 77	1150	19		2	15.0	15.5	14500	8.39C	-	7.0	13.2	1.0L
	24 APR 78	1042			1		- 12.5	2400	1.21C	7.6	7.5	11.1	1.7
	24 APR 78	1042	5	H	1	18.0	11.9	2450	1.23C	7.6	-	11.0	-
	24 APR 78	1042	10	H	1	18.0	11.8	2600	1.32C	7.6	-	10.8	-
	24 APR 78	1042	15	H	1	18.0	11.8	3000	1.53C	7.5	-	10.6	-
	24 APR 78	1042	18		1		- 12.0	3250	1.67C	7.5	7.4	10.5	1.4
	1 AUG 78	1100		E	2		- 25.8	7220	3.95C	7.6	7.3	7.1	.9
	1 AUG 78	1100	5	E	2		- 25.8	7220	3.95C	7.6	-	7.1	-
	1 AUG 78	1100	10	E	2		- 25.8	7210	3.94C	7.6	-	7.0	-
	1 AUG 78	1100	15	E	2		- 25.8	7220	3.95C	7.6	-	7.1	-
	9 OCT 78	1115		L	0	15.5	15.2	12000	6.84C	7.8	7.6	9.9	1.0L
	9 OCT 78	1115	5	L	0	15.5	15.2	12100	6.90C	7.8	-	9.7	-
	9 OCT 78	1115	10	L	0	15.5	15.3	12700	7.27C	7.7	-	9.5	-
	9 OCT 78	1115	15	L	0	15.5	15.5	13000	7.46C	7.7	-	9.4	-
	9 OCT 78	1115	18	L	0	15.5	15.5	13000	7.46C	7.7	7.5	9.6	.4

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	DR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
X1G4800	6 DEC 76	1200	1	-	-	-	-	-	-	-	-	-
	6 DEC 76	1200	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1200	10	-	-	-	-	-	-	-	-	-
	6 DEC 76	1200	15	-	-	-	-	-	-	-	-	-
	6 DEC 76	1200	19	-	-	-	-	-	-	-	-	-
	21 MAR 77	1017		24.0	32	.10	.019	.98	.08	.04	18.00	.25
	21 MAR 77	1019	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1021	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	1023	15	-	-	-	-	-	-	-	-	-
	21 MAR 77	1025	18	28.0	32	.12	.019	1.03	.11	.06	15.00	.38
	18 APR 77	1104		19.0	34	.11	.017	.78	.08	.04	15.00	.40
	18 APR 77	1104	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1104	10	-	-	-	-	-	-	-	-	-
	18 APR 77	1104	15	-	-	-	-	-	-	-	-	-
	18 APR 77	1104	19	16.0	16	.02	.022	.78	.04	.04	18.00	.40
	27 JUN 77	1030		6.0	474	.06	.001	.02	.10	.04	13.50	.43
	27 JUN 77	1030	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1030	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	1030	15	18.0	41	.06	.003	.04	.08	.05	21.00	.33
	4 AUG 77	0955		12.0	24	.01	.001	.05	.04	.01	21.00	.25
	4 AUG 77	0955	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	0955	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	0955	15	-	-	-	-	-	-	-	-	-
	4 AUG 77	0955	18	8.0	38	.01	.001	.05	.04	.01	21.00	.25
	7 NOV 77	1150		10.0	16	.13	.008	.39	.06	.03	4.00	.38
	7 NOV 77	1150	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1150	10	-	-	-	-	-	-	-	-	-
	7 NOV 77	1150	15	-	-	-	-	-	-	-	-	-
	7 NOV 77	1150	19	10.0	10	.10	.008	.46	.07	.03	1.50L	.75
	24 APR 78	1042		12.0	16	.09	.016	.82	.19	-	3.75L	.830
	24 APR 78	1042	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1042	10	-	-	-	-	-	-	-	-	-
	24 APR 78	1042	15	-	-	-	-	-	-	-	-	-
	24 APR 78	1042	18	14.0	26	.09	.013	.80	.22	-	3.75L	.960
	1 AUG 78	1100		6.2	2	.03	.016	.55	.34	-	.78	.80
	1 AUG 78	1100	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1100	10	-	-	-	-	-	-	-	-	-
	1 AUG 78	1100	15	-	-	-	-	-	-	-	-	-
	9 OCT 78	1115		8.2	9	.06	.020	.06	.08	-	16.20	.52
	9 OCT 78	1115	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1115	10	-	-	-	-	-	-	-	-	-
	9 OCT 78	1115	15	-	-	-	-	-	-	-	-	-
	9 OCT 78	1115	18	20.0	32	.04	.028	.09	.10	-	11.40	.44

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
AIG4800	6 DEC 76	1200	1	-	-	-	-	-	-	-
	6 DEC 76	1200	5	-	-	-	-	-	-	-
	6 DEC 76	1200	10	-	-	-	-	-	-	-
	6 DEC 76	1200	15	-	-	-	-	-	-	-
	6 DEC 76	1200	19	-	-	-	-	-	-	-
	21 MAR 77	1017		.5L	.150L	.15	.03	.05L	.10L	.2L
	21 MAR 77	1019	5	-	-	-	-	-	-	-
	21 MAR 77	1021	10	-	-	-	-	-	-	-
	21 MAR 77	1023	15	-	-	-	-	-	-	-
	21 MAR 77	1025	18	.5L	.150L	.18	.07	.05L	.10L	.2L
	18 APR 77	1104		.5L	.200L	.20	.05	.05L	.10L	.2L
	18 APR 77	1104	5	-	-	-	-	-	-	-
	18 APR 77	1104	10	-	-	-	-	-	-	-
	18 APR 77	1104	15	-	-	-	-	-	-	-
	18 APR 77	1104	19	.5L	.200L	.25	.05	.05L	.10L	.2L
	27 JUN 77	1030		.5L	.500L	.08	.05L	.05L	.13L	.5L
	27 JUN 77	1030	5	-	-	-	-	-	-	-
	27 JUN 77	1030	10	-	-	-	-	-	-	-
	27 JUN 77	1030	15	.5L	.500L	.20	.05L	.05L	.13L	.5L
	4 AUG 77	0955		.5L	.500L	.11	.05L	.05L	.10L	.5L
	4 AUG 77	0955	5	-	-	-	-	-	-	-
	4 AUG 77	0955	10	-	-	-	-	-	-	-
	4 AUG 77	0955	15	-	-	-	-	-	-	-
	4 AUG 77	0955	18	.5L	.500L	.18	.05L	.05L	.10L	.5L
	7 NOV 77	1150		.5L	.500L	.14	.10	.05L	.10L	.2L
	7 NOV 77	1150	5	-	-	-	-	-	-	-
	7 NOV 77	1150	10	-	-	-	-	-	-	-
	7 NOV 77	1150	15	-	-	-	-	-	-	-
	7 NOV 77	1150	19	.3L	.500L	.09	.05	.05L	.10L	.2L
	24 APR 78	1042		.5L	.200L	.39	.39	.05L	.13L	.1L
	24 APR 78	1042	5	-	-	-	-	-	-	-
	24 APR 78	1042	10	-	-	-	-	-	-	-
	24 APR 78	1042	15	-	-	-	-	-	-	-
	24 APR 78	1042	18	.5L	.200L	.08	.08	.05L	.10L	.1L
	1 AUG 78	1100		.5L	.200L	.08	.05L	.05L	.05L	.1L
	1 AUG 78	1100	5	-	-	-	-	-	-	-
	1 AUG 78	1100	10	-	-	-	-	-	-	-
	1 AUG 78	1100	15	-	-	-	-	-	-	-
	9 OCT 78	1115		-	.200L	.12	.05L	.05L	.05L	-
	9 OCT 78	1115	5	-	-	-	-	-	-	-
	9 OCT 78	1115	10	-	-	-	-	-	-	-
	9 OCT 78	1115	15	-	-	-	-	-	-	-
	9 OCT 78	1115	18	-	.200L	.34	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY — PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
AI346GO	6 DEC 76	1200	1	-	-	-	-	-
	6 DEC 76	1200	5	-	-	-	-	-
	6 DEC 76	1200	10	-	-	-	-	-
	6 DEC 76	1200	15	-	-	-	-	-
	6 DEC 76	1200	19	-	-	-	-	-
	21 MAR 77	1017		7.00	9.00	1.8	.0001L	-
	21 MAR 77	1019	5	-	-	-	-	-
	21 MAR 77	1021	10	-	-	-	-	-
	21 MAR 77	1023	15	-	-	-	-	-
	21 MAR 77	1025	19	8.00	30.00	.4	.0003	-
	18 APR 77	1104		10.00	40.80	1.2	.0001L	-
	18 APR 77	1104	5	-	-	-	-	-
	18 APR 77	1104	10	-	-	-	-	-
	18 APR 77	1104	15	-	-	-	-	-
	18 APR 77	1104	19	11.00	39.20	-	.0001L	-
	27 JUN 77	1033		23.00	40.00	.2	.0001L	2.000L
	27 JUN 77	1030	5	-	-	-	-	-
	27 JUN 77	1030	10	-	-	-	-	-
	27 JUN 77	1033	15	24.00	55.00	.4	.0001L	2.000L
	4 AUG 77	0955		1.30	19.20	.8	.0001L	-
	4 AUG 77	0955	5	-	-	-	-	-
	4 AUG 77	0955	10	-	-	-	-	-
	4 AUG 77	0955	15	-	-	-	-	-
	4 AUG 77	0955	18	1.50	27.20	.8	.0001L	-
	7 NOV 77	1150		9.00	14.40	12.8	.0001L	.005L
	7 NOV 77	1150	5	-	-	-	-	-
	7 NOV 77	1150	10	-	-	-	-	-
	7 NOV 77	1150	15	-	-	-	-	-
	7 NOV 77	1150	19	6.00	20.80	.1	.0001L	.005L
	24 APR 78	1042		.85	27.80	-	.0002	-
	24 APR 78	1042	5	-	-	-	-	-
	24 APR 78	1042	10	-	-	-	-	-
	24 APR 78	1042	15	-	-	-	-	-
	24 APR 78	1042	18	.85	26.20	-	.0010	-
	1 AUG 78	1100		1.45	-	-	-	-
	1 AUG 78	1100	5	-	-	-	-	-
	1 AUG 78	1100	10	-	-	-	-	-
	1 AUG 78	1100	15	-	-	-	-	-
	9 OCT 78	1115		10.00	-	2.1	-	-
	9 OCT 78	1115	5	-	-	-	-	-
	9 OCT 78	1115	10	-	-	-	-	-
	9 OCT 78	1115	15	-	-	-	-	-
	9 OCT 78	1115	18	13.00	-	3.0	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF6388	6 DEC 76	1340	1	E	0	1.0	1.5	3950	2.06C	7.8	-	12.6	-
	6 DEC 76	1340	5	E	0	1.0	1.2	4750	2.52C	7.8	-	12.8	-
	6 DEC 76	1340	10	E	0	1.0	1.8	5000	2.66C	7.8	-	13.0	-
	21 MAR 77	1122		L	1	15.7	9.5	730	.49C	7.6	7.2	11.5	.9
	21 MAR 77	1124	5	L	1	-	9.0	775	.36C	7.5	-	10.9	-
	21 MAR 77	1126	11	L	1	-	8.6	895	.63C	7.5	7.2	10.7	1.3
	18 APR 77	1200		E	0	16.0	14.0	430	.19C	7.4	7.4	9.0	.6
	18 APR 77	1200	5	E	0	16.0	14.0	410	.18C	7.4	-	9.7	-
	18 APR 77	1200	12	E	0	16.0	14.0	430	.19C	7.4	7.4	9.0	.5L
	27 JUN 77	1120		E	0	26.0	25.0	8500	4.71C	7.9	8.2	8.6	2.3
	27 JUN 77	1120	5	E	0	26.0	24.5	8700	4.83C	8.1	-	8.7	-
	27 JUN 77	1120	10	E	0	26.0	24.3	9100	5.07C	8.1	-	8.5	-
	27 JUN 77	1120	12	E	0	26.0	24.0	9300	5.19C	8.0	8.1	8.3	2.6
	4 AUG 77	1040		F	0	24.5	26.0	9190	5.13C	-	7.5	7.2	1.4
	4 AUG 77	1040	5	F	0	25.0	26.0	9250	5.16C	-	-	6.8	-
	4 AUG 77	1040	10	F	0	24.5	26.0	9050	5.04C	-	7.6	6.8	1.0L
	7 NOV 77	1255			2	15.0	15.0	8700	4.83C	-	7.1	8.2	1.0L
	7 NOV 77	1255	5		2	15.0	15.0	8200	4.53C	-	-	8.5	-
	7 NOV 77	1255	12		2	15.0	15.3	8200	4.53C	-	7.1	11.4	1.0L
	24 APR 78	1140		E	1	-	13.2	1350	.65C	7.7	7.6	11.3	2.1
	24 APR 78	1140	5	E	1	18.0	12.5	1350	.65C	7.7	-	11.1	-
	24 APR 78	1140	8	E	1	-	12.4	1350	.65C	7.6	7.5	10.7	1.5
	1 AUG 78	1155		E	2	-	25.6	6220	3.36C	7.3	6.6	7.1	2.1
	1 AUG 78	1155	5	E	2	-	25.6	6220	3.36C	7.3	-	7.0	-
	1 AUG 78	1155	10	E	2	-	25.6	6230	3.37C	7.3	6.9	7.0	1.8
	9 OCT 78	1215		F	0	14.0	15.1	10400	5.86C	8.0	7.4	11.0	1.3
	9 OCT 78	1215	5	F	0	14.0	15.0	11500	6.53C	7.8	-	10.2	-
	9 OCT 78	1215	10	F	0	14.0	15.1	12100	6.90C	7.6	7.2	9.8	.2

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	DR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
AIF6288	6 DEC 76	1340	1	-	-	-	-	-	-	-	-	-
	6 DEC 76	1340	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1340	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	1122		30.0	32	.05	.014	1.00	.07	.04	16.50	.25
	21 MAR 77	1124	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1126	11	30.0	38	.34	.013	1.00	.07	.04	16.00	.38
	18 APR 77	1200		18.0	16	.04	.017	.81	.05	.04	9.00	.10
	18 APR 77	1200	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1200	12	28.0	20	.35	.014	.86	.05	.04	9.30	.20
	27 JUN 77	1120		5.0	6	.08	.003	.01	.07	.04	18.00	.33
	27 JUN 77	1120	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1120	10	-	-	-	-	-	-	-	-	-
	27 JUN 77	1120	12	6.0	11	.06	.003	.01	.06	.03	19.50	.43
	4 AUG 77	1040		7.0	18	.01	.001	.05	.03	.01	24.00	.50
	4 AUG 77	1040	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1040	10	6.0	32	.01	.001	.05	.03	.01	19.50	.34
	7 NOV 77	1255		42.0	64	.37	.312	.46	.37	.34	1.50L	.51
	7 NOV 77	1255	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1255	12	48.0	76	.07	.012	.52	.11	.08	1.50L	.50
	24 APR 78	1140		10.0	14	.35	.020	.79	.26	-	3.75	1.00C
	24 APR 78	1140	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1140	8	18.0	18	.05	.016	.82	.19	-	7.50	.71C
	1 AUG 78	1155		6.0	5	.06	.010	.54	.18	-	.72	.60
	1 AUG 78	1155	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1155	10	6.2	5	.06	.010	.59	.20	-	.27	.6a
	9 OCT 78	1215		6.6	3	.02	.010	.01	.10	-	30.30	.4a
	9 OCT 78	1215	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1215	10	14.0	12	.04	.012	.11	.08	-	7.80	.36

HART AND MILLER IS. SURVEY

PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XEF6388	6 DEC 76	1340	1	-	-	-	-	-	-	-
	6 DEC 76	1340	5	-	-	-	-	-	-	-
	6 DEC 76	1340	10	-	-	-	-	-	-	-
	21 MAR 77	1122		.5L	.150L	.11	.06	.05L	.10L	.2L
	21 MAR 77	1124	5	-	-	-	-	-	-	-
	21 MAR 77	1126	11	.5L	.150L	.20	.03	.05L	.10L	.2L
	18 APR 77	1200		.5L	.200L	.13	.05	.05L	.10L	.2L
	18 APR 77	1200	5	-	-	-	-	-	-	-
	18 APR 77	1200	12	.5L	.200L	.19	.10	.05L	.10L	.2L
	27 JUN 77	1120		.5L	.500L	.10	.05L	.05L	.10L	.5L
	27 JUN 77	1120	5	-	-	-	-	-	-	-
	27 JUN 77	1120	10	-	-	-	-	-	-	-
	27 JUN 77	1120	12	.5L	.500L	.19	.05L	.05L	.10L	.5L
	4 AUG 77	1040		.5L	.500	.15	.05L	.05L	.10L	.5L
	4 AUG 77	1040	5	-	-	-	-	-	-	-
	4 AUG 77	1040	10	.5L	.500L	.21	.05L	.05L	.10L	.5L
	7 NOV 77	1255		.5L	.500L	.33	.09	.05L	.10L	.2L
	7 NOV 77	1255	5	-	-	-	-	-	-	-
	7 NOV 77	1255	12	.5L	.500L	.20	.10	.05L	.10L	.2L
	24 APR 78	1140		.5L	.200L	.08	.21	.05L	.10L	.1L
	24 APR 78	1140	5	-	-	-	-	-	-	-
	24 APR 78	1140	8	.5L	.200L	.08	.23	.05L	.10L	.1L
	1 AUG 78	1155		.5L	.200L	.08	.08	.05L	.05L	.1L
	1 AUG 78	1155	5	-	-	-	-	-	-	-
	1 AUG 78	1155	10	.5L	.200L	.10	.08	.05L	.05L	.1L
	9 OCT 78	1215		-	.200L	.18	.05L	.05L	.05L	-
	9 OCT 78	1215	5	-	-	-	-	-	-	-
	9 OCT 78	1215	10	-	.200L	.23	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF6388	6 DEC 76	1340	1	-	-	-	-	-
	6 DEC 76	1340	5	-	-	-	-	-
	6 DEC 76	1340	10	-	-	-	-	-
	21 MAR 77	1122		10.00	5.00L	.6	.0001	-
	21 MAR 77	1124	5	-	-	-	-	-
	21 MAR 77	1126	11	9.00	46.00	.6	.0002	-
	18 APR 77	1200		8.50	36.90	.8	.0001L	-
	18 APR 77	1200	5	-	-	-	-	-
	18 APR 77	1200	12	9.50	8.30	4.0	.0001L	-
	27 JUN 77	1120		18.50	45.00	1.0	.0013	2.000L
	27 JUN 77	1120	5	-	-	-	-	-
	27 JUN 77	1120	10	-	-	-	-	-
	27 JUN 77	1120	12	20.50	40.00	.8	.0001L	2.000L
	4 AUG 77	1040		1.55	20.40	.5	.0001L	-
	4 AUG 77	1040	5	-	-	-	-	-
	4 AUG 77	1040	10	1.15	20.40	.9	.0001L	-
	7 NOV 77	1255		14.00	36.80	.1L	.0001L	.005L
	7 NOV 77	1255	5	-	-	-	-	-
	7 NOV 77	1255	12	13.00	34.40	.1L	.0001L	.005L
	24 APR 78	1140		.80	15.00	-	.0020	-
	24 APR 78	1140	5	-	-	-	-	-
	24 APR 78	1140	8	.75	18.80	-	.0027	-
	1 AUG 78	1155		1.05	-	-	-	-
	1 AUG 78	1155	5	-	-	-	-	-
	1 AUG 78	1155	10	.95	-	-	-	-
	9 OCT 78	1215		11.00	-	2.6	-	-
	9 OCT 78	1215	5	-	-	-	-	-
	9 OCT 78	1215	10	9.50	-	3.8	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF5576	15 MAR 72	1420		F	1	-	4.4	1150	1.05	-	7.7	-	2.0
	29 SEP 72	1300	5	F	2	-	20.8	9200	6.00	7.2	-	7.8	1.4
	29 SEP 72	1301		F	2	-	20.7	9200	6.00	7.2	-	7.7	1.4
	14 FEB 73	1350		E	6	-	1.0	3200	-	7.7	7.2	12.0	8.4
	14 FEB 73	1351	5	E	6	-	1.0	3300	-	7.7	7.4	12.0	8.5
	20 AUG 74	1245		E	2	-	26.2	6300	3.80	-	-	7.8	2.2
	20 AUG 74	1246	4	E	2	-	26.0	6500	3.90	-	-	7.9	2.6
	22 APR 75	1250		E	2	11.5	10.1	2400	1.95	-	7.6	10.6	3.9
	22 APR 75	1251	7	E	2	11.5	10.2	2385	1.95	-	7.6	10.4	3.0
	21 JUL 75	1250	7	E	0	30.0	26.2	2960	1.80	-	6.6	9.0	2.5
	21 JUL 75	1251		E	0	30.0	27.2	2820	1.70	-	5.8	8.4	2.2
	20 OCT 75	1300	7	E	0	-	16.5	3100	1.97C	7.6	7.0	8.5	1.3
	20 OCT 75	1301		E	0	-	16.5	3070	1.95C	7.6	7.6	8.1	.7
	23 FEB 76	1215	7			-	5.0	-	-	8.0	7.5	12.2	3.0L
	23 FEB 76	1216				-	5.5	-	-	7.9	7.3	11.8	3.0L
	24 JUN 76	1324	10	L	1	-	28.0	4500	2.41	6.8	6.9	4.8	1.0
	24 JUN 76	1325	5	L	1	-	28.0	4570	2.41	6.8	-	5.4	-
	24 JUN 76	1326		L	1	-	29.0	4500	2.41	6.8	7.0	5.5	1.0
	21 MAR 77	1151		L	1	15.7	9.8	1200	.83C	7.6	7.4	11.1	1.1
	21 MAR 77	1153	6	L	1	-	8.8	1410	1.02C	7.5	7.3	10.5	1.0
	18 APR 77	1220		E	0	16.0	15.3	485	.21C	7.7	7.3	9.8	1.2
	18 APR 77	1220	5	E	0	16.0	15.3	485	.21C	7.7	-	9.8	-
	18 APR 77	1220	8	E	0	16.0	15.0	460	.21C	7.2	7.3	9.5	1.3
	27 JUN 77	1150		E	0	26.0	24.8	8950	4.98C	8.3	7.9	9.1	2.6
	27 JUN 77	1150	5	E	0	26.0	24.8	9050	5.04C	8.3	-	8.7	-
	27 JUN 77	1150	9	E	0	26.0	24.5	9300	5.19C	7.9	6.8	7.8	6.1
	4 AUG 77	1100		F	0	26.5	26.0	9980	5.60C	-	7.3	8.1	1.0L
	4 AUG 77	1100	5	F	0	26.5	25.7	9980	5.60C	-	7.3	7.9	5.4
	7 NOV 77	1325			3	13.0	15.3	6400	3.47C	-	7.3	8.7	1.0L
	7 NOV 77	1325	5		3	15.0	15.3	6400	3.47C	-	-	9.6	-
	7 NOV 77	1325	10		3	13.0	15.3	6400	3.47C	-	7.3	10.2	1.0L
	24 APR 78	1203			1	-	12.9	1100	.52C	7.8	7.6	11.4	2.4
	24 APR 78	1203	8		1	-	12.5	1335	.63C	7.6	7.6	11.0	1.7
	24 APR 78	1208	5	E	1	17.0	12.7	1150	.55C	7.8	-	11.3	-
	1 AUG 78	1220		E	2	-	25.8	5520	2.96C	7.2	6.5	7.2	1.5
	1 AUG 78	1220	5	E	2	-	25.7	5520	2.96C	7.2	6.6	7.1	2.4
	9 OCT 78	1235		F	0	14.0	15.1	11500	6.53C	8.1	7.6	11.5	2.6
	9 OCT 78	1235	5	F	0	14.0	15.6	12600	7.21C	8.1	-	11.1	-
	9 OCT 78	1235	8	F	0	14.0	15.5	12000	6.84C	8.1	9.6	11.6	.2

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XIF5578	15 MAR 72	1420		63.0	34	.16	.019	1.26	.38	-	27.00	.71
	29 SEP 72	1300	5	1.7	9	.19	.019	.36	.36	-	38.33	.47
	29 SEP 72	1301		2.0	7	.22	.019	.36	.01	-	30.00	.62
	14 FEB 73	1350		20.0	24	.33	1.170	1.17	.04	-	9.00	.60
	14 FEB 73	1351	5	19.0	8	.33	1.110	1.11	.05	-	9.33	-
	20 AUG 74	1245		3.0	-	.04	.009	.23	.15	.08	15.00	.24
	20 AUG 74	1246	4	7.3	-	.07	.034	.21	.33	.02	16.50	.32
	22 APR 75	1250		10.0	8	.32	.008	.01	.05	.04	23.00	.37
	22 APR 75	1251	7	12.0	12	.36	.008	.07	.07	.07	23.00	.48
	21 JUL 75	1253	7	15.0	8	.03	.027	.21	.11	.11	55.50	.81
	21 JUL 75	1251		7.0	1	.03	.017	.25	.08	.06	15.70	.89
	20 OCT 75	1300	7	14.0	-	.11	.030	.85	.13	.12	1.50L	.38
	20 OCT 75	1301		14.0	-	.11	.030	.75	.08	.08	1.50L	.38
	23 FEB 76	1215	7	18.0	-	.05	.006	1.16	.05	.04	-	.23
	23 FEB 76	1216		18.0	-	.02	.006	1.16	.08	.04	33.00	.15
	24 JUN 76	1324	10	13.0	-	.09	.008	.12	.07	.06	-	.44
	24 JUN 76	1325	5	-	-	-	-	-	-	-	-	-
	24 JUN 76	1326		11.0	-	.07	.009	.12	.11	.08	22.50	.44
	21 MAR 77	1151		16.0	12	.08	.014	.99	.05	-	16.50	.38
	21 MAR 77	1153	6	18.0	18	.13	.014	.99	.05	-	18.00	.38
	18 APR 77	1220		15.0	26	.01	.015	.78	.34	.32	34.50	.23
	18 APR 77	1220	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1220	8	16.0	2	.02	.016	.81	.04	.02	30.00	.10
	27 JUN 77	1153		4.0	495	.10	.003	.01	.05	.03	10.50	.43
	27 JUN 77	1150	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1150	9	4.0	6	.10	.003	.01	.06	.04	19.50	.33
	4 AUG 77	1100		13.0	6	.01	.001	.05	.04	.01	28.50	.25
	4 AUG 77	1100	5	8.0	16	.01	.001	.05	.03	.01	36.00	.25
	7 NOV 77	1325		46.0	50	.06	.014	.46	.11	.07	1.50L	.75
	7 NOV 77	1325	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1325	10	54.0	66	.06	.014	.49	.10	.07	1.50L	.50
	24 APR 78	1203		14.0	14	.03	.014	.86	.11	-	3.75	.63C
	24 APR 78	1203	8	14.0	13	.03	.016	.85	.19	-	3.75L	.75C
	24 APR 78	1203	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1220		4.8	23	.06	.316	.36	.16	-	.66	.63
	1 AUG 78	1220	5	5.2	8	.06	.010	.42	.20	-	.54	.60
	9 OCT 78	1235		7.2	9	.02	.024	.10	.08	-	35.70	.62
	9 OCT 78	1235	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1235	8	4.8	10	.02	.024	.02	.10	-	20.10	.12

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF557G	15 MAR 72	1420		-	.100L	.14	.13	.03L	.05L	-
	29 SEP 72	1300	5	-	.100L	.13	.03L	.04	.05L	-
	29 SEP 72	1301		-	.100L	.13	.03L	.02	.05L	-
	14 FEB 73	1350		-	.100L	.10	.07	.05	.05	-
	14 FEB 73	1351	5	-	.100L	.10	.05	.05	.05	-
	20 AUG 74	1245		.5L	.050L	.36	.04	.04	.05L	1.2
	20 AUG 74	1246	4	.5L	.050L	.29	.03L	.03L	.05L	.6
	22 APR 75	1250		.5L	.100L	.36	.03L	.03L	.03L	1.0L
	22 APR 75	1251	7	.5L	.100L	.10	.03L	.03L	.03L	1.0L
	21 JUL 75	1250	7	.5L	.150L	.26	.07	.05L	.05L	.2L
	21 JUL 75	1251		.5L	.150L	.44	.44	.11	.05L	.2L
	20 OCT 75	1300	7	.5L	.100L	.32	.05	.05L	.05L	.2L
	20 OCT 75	1301		.5L	.100L	.27	.07	.05L	.05L	.2L
	23 FEB 76	1215	7	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	1216		.5L	.100L	.05L	.03L	.05L	.05L	.2L
	24 JUN 76	1324	10	.5L	.100L	.49	.70	.05L	.05L	.1L
	24 JUN 76	1325	5	-	-	-	-	-	-	-
	24 JUN 76	1326		.5L	.100L	.45	1.30	.05L	.05L	.1L
	21 MAR 77	1151		.5L	.150L	.09	.03	.05L	.10L	-
	21 MAR 77	1153	6	.5L	.150L	.09	.05	.05L	.10L	.2L
	13 APR 77	1220		.5L	.200L	.11	.05	.05L	.10L	.2L
	13 APR 77	1220	5	-	-	-	-	-	-	-
	16 APR 77	1223	8	.5L	.200L	.10	.07	.05L	.10L	.2L
	27 JUN 77	1150		.5L	.500L	.07	.05L	.05L	.10L	.5L
	27 JUN 77	1150	5	-	-	-	-	-	-	-
	27 JUN 77	1153	9	.5L	.500L	.10	.05L	.05L	.10L	.5L
	4 AUG 77	1100		.5L	.500L	.21	.05L	.05L	.10L	.5L
	4 AUG 77	1100	5	.5L	.500L	.49	.05	.05L	.10L	.5L
	7 NOV 77	1325		.5L	.500L	.20	.16	.05L	.10L	.2L
	7 NOV 77	1325	5	-	-	-	-	-	-	-
	7 NOV 77	1325	10	.5L	.500L	.25	.12	.05L	.10L	.2L
	24 APR 78	1203		.5L	.200L	.08	.14	.05L	.10L	.1L
	24 APR 78	1203	8	.5L	.200L	.07	.11	.05L	.10L	.1L
	24 APR 78	1204	5	-	-	-	-	-	-	-
	1 AUG 78	1220		.5L	.200L	.06	.05L	.05L	.05L	.1L
	1 AUG 78	1220	5	.5L	.200L	.08	.05L	.05L	.05L	.1L
	9 OCT 78	1235		-	.200L	.26	.05L	.05L	.05L	-
	9 OCT 78	1235	5	-	-	-	-	-	-	-
	9 OCT 78	1235	8	-	.200L	.23	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY — PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
ALPSS/E	15 MAR 72	1423		6.00	25.00	10.3	.0001L	.100L
	29 SEP 72	1300	5	3.00	15.00	.1L	.0001L	.100L
	29 SEP 72	1301		3.00	18.20	.1L	.0001L	.100L
	14 FEB 73	1350		6.00	12.00	.2	.0001L	.005L
	14 FEB 73	1351	5	6.00	12.00	.2	.0001L	.005L
	20 AUG 74	1245		3.00	12.00	.1	.0001L	.010L
	20 AUG 74	1246	4	2.00	6.00	.1	.0001L	.010L
	22 APR 75	1250		-	6.00	.5	.0001L	-
	22 APR 75	1251	7	-	6.00	3.1	.0001L	-
	21 JUL 75	1250	7	4.00	10.00	.1L	.0001	.028L
	21 JUL 75	1251		6.00	30.00	.1L	.0001	.028L
	20 OCT 75	1300	7	8.00	10.00L	.6	.0001L	.010L
	20 OCT 75	1301		8.00	10.00	.6	.0001L	.010L
	23 FEB 76	1215	7	7.00	16.00	.5	.0001L	.010L
	23 FEB 76	1216		5.00	16.00	.5	.0001	.010L
	24 JUN 76	1324	10	5.50	24.70	2.2	.0001L	.010L
	24 JUN 76	1325	5	-	-	-	-	-
	24 JUN 76	1326		6.00	31.90	1.3	.0001L	.010L
	21 MAR 77	1151		7.50	5.00L	.6	.0001	-
	21 MAR 77	1153	6	8.50	33.00	-	.0004	-
	18 APR 77	1220		9.50	6.20	1.2	.0001L	-
	18 APR 77	1220	5	-	-	-	-	-
	18 APR 77	1220	8	11.50	4.40	4.4	.0001L	-
	27 JUN 77	1150		23.00	45.00	.2	.0001L	2.000L
	27 JUN 77	1150	5	-	-	-	-	-
	27 JUN 77	1150	9	25.50	40.00	.4	.0001L	2.000L
	4 AUG 77	1100		1.85	14.00	.6	.0001L	-
	4 AUG 77	1100	5	1.55	19.80	.3	.0001L	-
	7 NOV 77	1325		11.00	23.00	.1L	.0001L	.005L
	7 NOV 77	1325	5	-	-	-	-	-
	7 NOV 77	1325	10	9.50	24.00	11.2	.0001L	.005L
	24 APR 78	1203		.80	12.00	-	.0003	-
	24 APR 78	1203	8	.85	16.50	-	.0009	-
	24 APR 78	1204	5	-	-	-	-	-
	1 AUG 78	1221		1.05	-	-	-	-
	1 AUG 78	1220	5	1.20	-	-	-	-
	9 OCT 78	1235		14.00	-	1.8	-	-
	9 OCT 78	1235	5	-	-	-	-	-
	9 OCT 78	1235	8	13.00	-	2.9	-	-

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRUMS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF5575	15 MAR 72	1400		F	1	-	4.2	840	.68	-	7.6	-	1.6
	15 MAR 72	1401	10	F	1	-	4.3	880	.78	-	7.6	-	2.2
	29 SEP 72	1247	14	F	2	-	20.8	9600	5.20	7.1	-	7.2	1.5
	29 SEP 72	1248	10	F	2	-	20.8	9600	6.20	-	-	7.3	-
	29 SEP 72	1249	5	F	2	-	20.8	9500	6.10	-	-	7.4	-
	29 SEP 72	1250		F	2	-	20.8	-	6.00	7.2	-	7.5	1.4
	14 FEB 73	1330		E	6	-	1.0	1350	-	7.8	7.3	12.0	8.4
	14 FEB 73	1331	5	E	6	-	1.0	1730	-	7.7	-	11.9	-
	14 FEB 73	1332	9	E	6	-	1.0	2950	-	7.6	7.3	12.0	8.4
	27 FEB 74	1143	6	H	0	-	2.8	6400	6.19C	6.2	-	11.2	-
	20 AUG 74	1228		E	2	-	26.1	6300	3.80	-	-	7.4	1.5
	20 AUG 74	1229	9	E	2	28.5	25.5	6500	3.90	-	-	7.1	-
	22 APR 75	1230		E	1	12.0	11.0	2410	2.00	-	7.6	10.7	3.6
	22 APR 75	1231	8	E	1	12.0	10.2	2390	2.00	-	7.6	10.1	4.2
	21 JUL 75	1235	10	E	0	30.0	26.0	3250	2.00	-	6.8	7.2	4.7
	21 JUL 75	1236		E	0	30.0	27.5	2750	1.50	-	6.3	7.0	2.9
	8 SEP 75	1125				-	22.2	8300	5.30	5.7	7.5	8.3	-
	8 SEP 75	1126	11			-	22.1	8500	5.40	-	7.2	8.2	-
	20 OCT 75	1240	10	E	0	-	16.5	2700	1.70C	7.6	7.6	8.0	.7
	20 OCT 75	1241	5	E	0	-	16.5	2680	1.69C	7.6	-	7.9	-
	20 OCT 75	1242		E	0	-	16.7	2700	1.69C	7.6	7.7	7.9	.7
	4 NOV 75	1020	9	E	0	-	11.5	1960	1.50	-	7.8	9.9	-
	4 NOV 75	1021	1	E	0	-	11.6	1990	1.20	-	8.2	10.2	-
	9 DEC 75	1120		F	5	6.0	5.0	2300	1.96C	7.8	7.8	11.0	-
	9 DEC 75	1121	11	F	5	6.0	5.0	300	.24C	7.8	7.8	10.9	-
	23 FEB 76	1158	9			-	5.0	-	-	7.8	7.2	12.2	3.0L
	23 FEB 76	1159	4	L	0	-	6.0	-	-	7.8	-	11.6	-
	23 FEB 76	1200				-	6.5	-	-	7.8	-	11.3	3.0L
	3 MAY 76	1035		E	2	-	15.8	2400	1.40	-	7.5	9.0	-
	3 MAY 76	1036	11	E	2	-	15.8	2400	1.20L	-	7.3	9.0	-
	1 JUN 76	0920	1	F	1	25.0	20.2	1420	.80	6.5	7.2	8.2	-
	1 JUN 76	0921	12	F	1	25.0	20.0	1420	.50L	-	7.3	7.9	-
	24 JUN 76	1257	10	L	1	-	29.0	4900	2.63	7.0	7.3	5.5	.5L
	24 JUN 76	1258	5	L	1	-	29.0	4900	2.63	7.0	-	5.8	-
	24 JUN 76	1259		L	1	-	29.0	5000	2.69	7.1	7.4	5.9	3.5
	7 JUL 76	1113	10	L	1	24.5	25.3	2880	1.30	7.3	6.7	7.6	-
	7 JUL 76	1114	5	L	1	24.5	25.5	2860	1.46C	7.3	-	7.5	-
	7 JUL 76	1115	1	L	1	24.5	25.4	2860	1.30	7.2	7.0	7.4	-
	20 SEP 76	1128	9	E	0	23.6	22.5	5400	3.06C	7.2	7.5	7.0	-
	20 SEP 76	1130		E	0	23.6	23.0	8800	5.12C	8.2	7.7	10.0	-
	6 DEC 76	1330	1	E	0	1.0	1.0	3600	3.53C	7.8	7.4	12.4	2.8
	6 DEC 76	1330	5	E	0	1.0	1.0	4100	2.15C	8.0	-	13.6	-
	6 DEC 76	1330	10	E	0	1.0	1.2	5000	5.00C	8.5	7.7	14.9	4.4
	21 MAR 77	1138		L	1	15.7	9.1	1100	.77C	7.6	7.4	11.4	1.1
	21 MAR 77	1140	5	L	1	-	9.0	1220	.58C	7.5	-	10.8	-
	21 MAR 77	1142	10	L	1	15.7	8.8	1300	.93C	7.5	7.5	10.6	1.1
	18 APR 77	1213		E	0	16.0	14.7	460	.20C	7.6	7.1	9.5	1.4
	18 APR 77	1213	5	E	0	16.0	14.7	460	.20C	7.6	-	9.5	-
	18 APR 77	1213	10	E	0	16.0	14.7	465	.20C	7.6	7.1	9.4	1.1
	27 JUN 77	1136		E	0	26.0	25.0	8600	4.77C	8.5	8.1	9.9	-
	27 JUN 77	1136	5	E	0	26.0	25.0	8600	4.77C	8.5	-	9.9	-
XIF5575	27 JUN 77	1136	10	E	0	26.0	24.4	8600	4.77C	7.4	8.2	4.8	4.1
	4 AUG 77	1050		F	0	24.5	25.8	9110	5.08C	-	7.4	7.7	1.4
	4 AUG 77	1050	5	F	0	25.0	25.5	9100	5.07C	-	-	7.5	-
	4 AUG 77	1050	10	F	0	24.5	25.5	9050	5.04C	-	7.3	6.3	2.7
	7 NOV 77	1305			5	13.0	15.3	6300	3.41C	-	7.2	8.5	1.0L
	7 NOV 77	1305	5		5	15.0	15.3	6300	3.41C	-	-	8.9	-
	7 NOV 77	1305	11		5	13.0	15.3	6300	3.41C	-	7.1	10.3	1.0L
	24 APR 78	1157		E	1	-	12.9	1000	.47C	7.9	7.6	11.5	2.6
	24 APR 78	1157	5	E	1	17.0	12.6	1050	.49C	7.8	-	11.3	-
	24 APR 78	1157	10	E	1	-	12.5	1300	.62C	7.5	7.6	10.7	1.7
	1 AUG 78	1200		E	2	-	25.5	5150	2.75C	7.2	6.7	7.3	1.8
	1 AUG 78	1200	5	E	2	-	25.5	5150	2.75C	7.2	-	7.0	-
	1 AUG 78	1200	10	E	2	-	25.4	5130	2.73C	7.2	6.8	7.0	1.2
	9 OCT 78	1225		F	0	14.0	15.4	11600	6.59C	7.5	7.4	9.9	.2
	9 OCT 78	1225	5	F	0	14.0	15.0	11600	6.59C	7.5	-	9.9	-
	9 OCT 78	1225	10	F	0	14.0	15.0	11600	6.59C	7.5	7.4	9.9	1.0L

HART AND MILLER IS. SURVEY

PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SLS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
XIF5675	15 MAR 72	1403		65.0	28	.18	.019	1.22	.31	-	38.00	.71
	15 MAR 72	1401	10	40.0	24	.14	.021	1.26	.44	-	24.00	.35
	29 SEP 72	1247	14	2.0	4	.22	.019	.36	.02	-	30.00	.44
	29 SEP 72	1248	10	-	-	-	-	-	-	-	-	-
	29 SEP 72	1249	5	-	-	-	-	-	-	-	-	-
	29 SEP 72	1250		1.7	9	.29	.019	.36	.02	-	30.00	.44
	14 FEB 73	1330		23.0	16	.20	1.170	1.17	.04	-	9.00	.48
	14 FEB 73	1331	5	-	-	-	-	-	-	-	-	-
	14 FEB 73	1332	9	20.0	16	.53	1.330	1.33	-	-	6.00	.83
	27 FEB 74	1143	6	-	-	-	-	-	-	-	-	-
	20 AUG 74	1228		3.0	-	.04	.010	.23	.02	.03	12.00	.20
	20 AUG 74	1229	9	-	-	-	-	-	-	-	-	-
	22 APR 75	1230		13.0	8	.32	.008	.81	.07	.07	23.00	.75
	22 APR 75	1231	8	13.0	10	.45	.008	.79	.05	.05	23.00	.63
	21 JUL 75	1235	10	14.0	8	.14	.033	.67	.22	.22	82.50	1.13
	21 JUL 75	1236		6.5	1	.33	.017	.25	.11	.11	12.00	1.05
	8 SEP 75	1125		5.0	2	.03	.006	.20	.03	.02	1.50	.69
	8 SEP 75	1126	11	5.0	2	.03	.006	.16	.03	.02	3.00	.60
	20 OCT 75	1240	10	13.0	-	.07	.030	.88	.12	.12	1.50L	.25
	20 OCT 75	1241	5	-	-	-	-	-	-	-	-	-
	20 OCT 75	1242		13.0	-	.11	.030	.88	.17	.15	1.50L	.25
	4 NOV 75	1020	9	6.0	8	.09	.025	.75	.08	.05	1.50L	.54
	4 NOV 75	1021	1	3.0	4	.13	.038	.74	.04	.03	7.50	.45
	9 DEC 75	1123		16.0	20	.07	.006	.88	.04	.02	1.50L	.33
	9 DEC 75	1124	11	17.0	24	.07	.006	.88	.04	.02	7.50	.33
	23 FEB 76	1158	9	16.0	-	.02	.006	1.11	.06	.04	-	.38
	23 FEB 76	1159	4	-	-	-	-	-	-	-	-	-
	23 FEB 76	1200		15.0	-	.02	.006	1.00	.05	.04	9.00	.31
	3 MAY 76	1035		4.0	4	.12	.006	.57	.06	.02	9.00	.63
	3 MAY 76	1036	11	6.0	6	.04	.006	.62	.06	.02	11.30	.60
	1 JUN 76	0920	1	6.0	2	.10	.006	.32	.05	.01	10.80	.30
	1 JUN 76	0921	12	14.0	32	.05	.038	.32	.06	.06	12.30	.43
	24 JUN 76	1257	10	10.0	-	.04	.009	.03	.11	.10	-	.44
	24 JUN 76	1258	5	-	-	-	-	-	-	-	-	-
	24 JUN 76	1259		12.0	-	.05	.009	.03	.39	.09	45.00	.44
	7 JUL 76	1113	13	13.0	92	.01	.005	.18	.07	.04	30.60	.50
	7 JUL 76	1114	5	-	-	-	-	-	-	-	-	-
	7 JUL 76	1115	1	9.7	13	.01	.005	.18	.04	.04	37.20	.75
	20 SEP 76	1128	9	4.0	122	.03	.046	.21	.05	.05	22.50	.38
	20 SEP 76	1130		4.0	6	.06	.031	.14	.04	.04	27.00	.38
	6 DEC 76	1330	1	7.0	-	.03	.007	.81	.04	.03	6.30	.24
	6 DEC 76	1330	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1330	10	7.0	-	.17	.013	.94	.11	.11	63.00	.48
	21 MAR 77	1138		14.0	10	.08	.014	.99	.05	.04	16.50	.33
	21 MAR 77	1140	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1142	10	19.0	20	.07	.017	1.03	.05	.04	16.50	.25
	18 APR 77	1213		17.0	26	.31	.017	.76	.05	.04	24.30	.20
	18 APR 77	1213	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1213	10	16.0	8	.02	.017	.81	.05	.04	27.00	.20
	27 JUN 77	1136		3.0	1L	.06	.002	.01	.06	.05	30.00	.43
	27 JUN 77	1136	5	-	-	-	-	-	-	-	-	-
XIF5675	27 JUN 77	1136	10	8.0	15	.08	.003	.01	.06	.06	28.50	.33
	4 AUG 77	1050		12.0	34	.01	.001	.05	.03	.01	28.50	.38
	4 AUG 77	1050	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1050	10	9.0	20	.01	.001	.05	.04	.01	34.50	.25
	7 NOV 77	1305		52.0	72	.07	.014	.46	.07	.05	9.00	.63
	7 NOV 77	1305	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1305	11	52.0	78	.07	.015	.46	.06	.05	1.50	.75
	24 APR 78	1157		14.0	13	.03	.016	.85	.30	-	3.75L	.75C
	24 APR 78	1157	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1157	10	26.0	22	.03	.013	.89	.26	-	7.50	.67C
	1 AUG 78	1200		5.0	9	.06	.013	.31	.16	-	.54	.56
	1 AUG 78	1200	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1200	10	5.2	4	.06	.010	.33	.18	-	3.60	.64
	9 OCT 78	1225		3.6	5	.02	.010	.03	.03	-	4.50	.32
	9 OCT 78	1225	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1225	10	7.4	6	.02	.012	.03	.10	-	5.70	.46

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF5575	15 MAR 72	1400		-	.130L	.25	.10	.03L	.05	-
	15 MAR 72	1401	10	-	.100L	.16	.10	.03L	.05L	-
	29 SEP 72	1247	14	-	.100L	.13	.03L	.03	.05L	-
	29 SEP 72	1248	10	-	-	-	-	-	-	-
	29 SEP 72	1249	5	-	-	-	-	-	-	-
	29 SEP 72	1250		-	.100L	.13	.03L	.04	.05L	-
	14 FEB 73	1330		-	.100L	.10	.05	.05	.05L	-
	14 FEB 73	1331	5	-	-	-	-	-	-	-
	14 FEB 73	1332	5	-	.100L	.10	.08	.11	.05L	-
	27 FEB 74	1143	6	-	-	-	-	-	-	-
	20 AUG 74	1228		.5L	.050L	.38	.09	.09	.05L	1.0
	20 AUG 74	1229	9	.5L	-	-	-	-	-	.5L
	22 APR 75	1230		.5L	.100L	.37	.03L	.03L	.03L	1.0L
	22 APR 75	1231	8	.5L	.100L	.06	.03L	.03L	.03L	1.0L
	21 JUL 75	1235	10	.5L	.150L	.26	.05	.05L	.05L	.2L
	21 JUL 75	1236		.5L	.150L	.43	.04	.05L	.05L	.2L
	8 SEP 75	1125		-	-	-	-	-	-	-
	8 SEP 75	1126	11	-	-	-	-	-	-	-
	20 OCT 75	1240	10	.5L	.100L	.29	.07	.05L	.05L	.2L
	20 OCT 75	1241	5	-	-	-	-	-	-	-
	20 OCT 75	1242		.5L	.100L	.34	.30	.05L	.05L	.2L
	4 NOV 75	1020	9	-	-	-	-	-	-	-
	4 NOV 75	1021	1	-	-	-	-	-	-	-
	9 DEC 75	1120		-	-	-	-	-	-	-
	9 DEC 75	1121	11	-	-	-	-	-	-	-
	23 FEB 76	1158	9	.5L	.100L	.05L	.03L	.05L	.05L	.2L
	23 FEB 76	1159	4	-	-	-	-	-	-	-
	23 FEB 76	1230		.5L	.100L	.05L	.03L	.05L	.05L	.2L
	3 MAY 76	1035		-	-	-	-	-	-	-
	3 MAY 76	1036	11	-	-	-	-	-	-	-
	1 JUN 76	0920	1	-	-	-	-	-	-	-
	1 JUN 76	0921	12	-	-	-	-	-	-	-
	24 JUN 76	1257	10	.5L	.100	.45	.38	.05L	.05L	.1L
	24 JUN 76	1258	5	-	-	-	-	-	-	-
	24 JUN 76	1259		.5L	.100L	.44	1.35	.05L	.05L	.1L
	7 JUL 76	1113	10	-	-	-	-	-	-	-
	7 JUL 76	1114	5	-	-	-	-	-	-	-
	7 JUL 76	1115	1	-	-	-	-	-	-	-
	20 SEP 76	1128	9	-	-	-	-	-	-	-
	20 SEP 76	1130		-	-	-	-	-	-	-
	6 DEC 76	1330	1	.5L	.150L	.05L	.02L	.07	.10L	.2L
	6 DEC 76	1330	5	-	-	-	-	-	-	-
	6 DEC 76	1330	10	.5L	.150L	.09	.02L	.05L	.10L	.2L
	21 MAR 77	1138		.5L	.150L	.15	.07	.05L	.10L	.2L
	21 MAR 77	1140	5	-	-	-	-	-	-	-
	21 MAR 77	1142	10	.5L	.150L	.09	.05	.05L	.10L	.2L
	18 APR 77	1213		.5L	.200L	.10	.06	.05L	.10L	.2L
	18 APR 77	1213	5	-	-	-	-	-	-	-
	18 APR 77	1213	10	.5L	.200L	.12	.09	.05L	.10L	.2L
	27 JUN 77	1136		.5L	.500L	.14	.07	.05L	.05L	.5L
	27 JUN 77	1136	5	-	-	-	-	-	-	-
XIF5575	27 JUN 77	1136	10	.5L	.500L	.33	.05L	.05L	.10L	.5L
	4 AUG 77	1050		.5L	.500L	.19	.05L	.05L	.10L	.5L
	4 AUG 77	1050	5	-	-	-	-	-	-	-
	4 AUG 77	1053	10	.5L	.500L	.25	.05L	.05L	.10L	.5L
	7 NOV 77	1305		.5L	.500L	.25	.16	.05L	.10L	.2L
	7 NOV 77	1305	5	-	-	-	-	-	-	-
	7 NOV 77	1305	11	.5L	.530L	.29	.15	.05L	.10L	.2L
	24 APR 78	1157		.5L	.200L	.05	.11	.05L	.10L	.1L
	24 APR 78	1157	5	-	-	-	-	-	-	-
	24 APR 78	1157	10	.5L	.230L	.18	.10	.05L	.10L	.1L
	1 AUG 78	1200		.5L	.200L	.07	.09	.05L	.07	.1L
	1 AUG 78	1200	5	-	-	-	-	-	-	-
	1 AUG 78	1200	10	.5L	.230L	.37	.05L	.05L	.05L	.1L
	9 OCT 78	1225		-	.200L	.22	.05L	.05L	.05L	-
	9 OCT 78	1225	5	-	-	-	-	-	-	-
	9 OCT 78	1225	10	-	.230L	1.27	.05L	.05L	.05L	-

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XEF5675	15 MAR 72	1400		6.00	16.30	3.9	.0001L	.100L
	15 MAR 72	1401	10	6.00	25.00	1.0	.0001L	.100L
	29 SEP 72	1247	14	3.00	15.80	.1L	-	.100L
	29 SEP 72	1248	10	-	-	-	-	-
	29 SEP 72	1249	5	-	-	-	-	-
	29 SEP 72	1250		3.00	16.30	.1L	-	.100L
	14 FEB 73	1330		6.00	12.00	.2	.0001	.005L
	14 FEB 73	1331	5	-	-	-	-	-
	14 FEB 73	1332	9	8.00	8.00	.2	.0001L	.005L
	27 FEB 74	1143	6	-	-	-	-	-
	20 AUG 74	1228		2.00	6.00	.1L	.0001L	.010L
	20 AUG 74	1229	9	-	-	-	-	-
	22 APR 75	1230		-	5.00L	1.7	.0001L	-
	22 APR 75	1231	8	-	5.00L	1.2	.0001L	-
	21 JUL 75	1235	10	5.00	28.00	.1L	.0064	.028L
	21 JUL 75	1236		5.00	21.00	.1L	.0048	.028L
	8 SEP 75	1125		2.00	-	-	-	-
	8 SEP 75	1126	11	1.00L	-	-	-	-
	20 OCT 75	1240	10	5.00	10.00	.6	.0001L	.010L
	20 OCT 75	1241	5	-	-	-	-	-
	20 OCT 75	1242		3.00	10.00L	.6	.0001L	.010L
	4 NOV 75	1020	9	8.00	-	-	-	-
	4 NOV 75	1021	1	13.00	-	-	-	-
	9 DEC 75	1120		7.00	-	-	-	-
	9 DEC 75	1121	11	6.00	-	-	-	-
	23 FEB 76	1158	5	7.00	16.00	.3	.0001L	.010L
	23 FEB 76	1159	4	-	-	-	-	-
	23 FEB 76	1200		8.00	22.00	.6	.0001L	.010L
	3 MAY 76	1035		2.00	-	-	-	-
	3 MAY 76	1036	11	7.00	-	-	-	-
	1 JUN 76	0520	1	5.00	-	-	-	-
	1 JUN 76	0521	12	6.50	-	-	-	-
	24 JUN 76	1257	10	5.50	34.80	1.6	.0001L	.010L
	24 JUN 76	1258	5	-	-	-	-	-
	24 JUN 76	1259		5.00	26.80	.6	.0001L	.010L
	7 JUL 76	1113	10	5.00	-	-	-	-
	7 JUL 76	1114	5	-	-	-	-	-
	7 JUL 76	1115	1	6.50	-	-	-	-
	20 SEP 76	1128	9	3.00	-	-	-	-
	20 SEP 76	1130		1.00L	-	-	-	-
	6 DEC 76	1330	1	10.50	36.50	.2	.0001L	-
	6 DEC 76	1330	5	-	-	-	-	-
	6 DEC 76	1330	10	7.00	9.60	.2L	.0001L	-
	21 MAR 77	1138		5.00	40.00	1.0	.0020	-
	21 MAR 77	1140	5	-	-	-	-	-
	21 MAR 77	1142	10	9.00	30.00	1.0	.0001	-
	18 APR 77	1213		10.00	4.00	4.0	.0001L	-
	18 APR 77	1213	5	-	-	-	-	-
	18 APR 77	1213	10	10.50	-	-	.0001L	-
	27 JUN 77	1136		25.00	56.00	1.4	.0001L	2.000L
	27 JUN 77	1136	5	-	-	-	-	-
XEF5675	27 JUN 77	1136	10	26.00	50.00	1.0	.0001L	2.000L
	4 AUG 77	1050		1.25	11.20	.8	.0001L	-
	4 AUG 77	1050	5	-	-	-	-	-
	4 AUG 77	1050	10	1.35	8.50	.6	.0001L	-
	7 NOV 77	1305		11.00	25.60	.1L	.0001L	.005L
	7 NOV 77	1305	5	-	-	-	-	-
	7 NOV 77	1305	11	10.00	25.60	.1L	.0002	.005L
	24 APR 78	1157		.65	21.10	-	.0006	-
	24 APR 78	1157	5	-	-	-	-	-
	24 APR 78	1157	10	.65	25.60	-	.0004	-
	1 AUG 78	1200		1.50	-	-	-	-
	1 AUG 78	1200	5	-	-	-	-	-
	1 AUG 78	1200	10	1.55	-	-	-	-
	9 OCT 78	1225		13.50	-	2.8	-	-
	9 OCT 78	1225	5	-	-	-	-	-
	9 OCT 78	1225	10	10.00	-	1.9	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICROMHOS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF4564	21 MAR 77	1206		L	1	15.7	9.5	1500	1.07C	7.5	7.2	10.8	1.3
	21 MAR 77	1208	5	L	1	-	8.9	1550	.75C	7.4	-	10.2	-
	21 MAR 77	1210	9	L	1	15.7	8.7	1690	1.24C	7.4	7.2	10.1	2.1
	18 APR 77	1233		E	0	17.0	15.7	820	.38C	8.8	7.4	10.8	2.7
	18 APR 77	1233	5	E	0	16.0	15.5	820	.38C	8.8	-	10.6	-
	18 APR 77	1233	9	E	0	17.0	15.5	820	.38C	8.7	7.4	10.4	2.5
	27 JUN 77	1155		E	0	26.0	25.0	8700	4.83C	8.7	8.1	8.8	3.8
	27 JUN 77	1155	5	E	0	26.0	24.7	8700	4.83C	8.7	-	8.5	-
	27 JUN 77	1155	10	E	0	26.0	24.7	8950	4.98C	8.7	8.3	6.0	3.6
	4 AUG 77	1110		F	0	26.5	26.2	10200	5.74C	-	7.3	9.8	15.0
	4 AUG 77	1110	5	F	0	25.0	26.0	10100	5.68C	-	-	8.1	-
	4 AUG 77	1110	10	F	0	26.5	25.8	10300	5.80C	-	7.4	6.5	1.0L
	7 NOV 77	1347			5	15.0	15.3	5300	2.83C	-	7.4	8.3	1.0L
	7 NOV 77	1347	5		5	15.0	15.3	5300	2.83C	-	-	9.0	-
	7 NOV 77	1347	10		5	15.0	15.3	5300	2.83C	-	7.5	11.0	1.0L
	24 APR 78	1226			1	-	13.5	1150	.55C	-	7.5	11.9	3.4
	24 APR 78	1226	5	E	1	17.0	13.3	1150	.55C	8.2	-	11.7	-
	24 APR 78	1226	8		1	-	12.6	1250	.60C	7.5	7.6	10.2	2.0
	1 AUG 78	1230		E	2	-	25.7	5840	3.14C	7.3	6.0	7.2	3.0
	1 AUG 78	1230	5	E	2	-	25.7	5840	3.14C	7.2	-	7.0	-
	9 OCT 78	1250		F	0	14.0	15.1	11600	6.59C	8.7	7.9	12.5	5.8
	9 OCT 78	1250	5	F	0	14.0	14.6	11500	6.53C	8.4	-	12.3	-
	9 OCT 78	1250	9	F	0	14.0	14.8	11700	6.65C	8.3	7.7	9.3	4.2

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SOL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	OR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
X1F4564	21 MAR 77	1206		23.0	20	.35	.019	.98	.16	.10	19.50	.63
	21 MAR 77	1208	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1210	9	73.0	136	.46	.024	.98	.29	.14	43.50	1.00
	18 APR 77	1233		20.0	10	.09	.025	.76	.13	.06	88.50	.60
	18 APR 77	1233	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1233	9	23.0	18	.11	.025	.72	.10	.07	91.50	.60
	27 JUN 77	1155		14.0	24	.08	.003	.01	.16	.10	15.00	.43
	27 JUN 77	1155	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1155	10	15.0	35	.10	.004	.01	.11	.10	12.00	.33
	4 AUG 77	1110		8.0	14	.01	.001	.20	.06	.05	225.00	.25
	4 AUG 77	1110	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1110	10	17.0	18	.01	.001	.05	.05	.04	40.50	.50
	7 NOV 77	1347		68.0	84	.05	.015	.45	.04	.04	1.50L	.50
	7 NOV 77	1347	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1347	10	70.0	102	.08	.015	.45	.06	.05	7.50	.50
	24 APR 78	1226		14.0	18	.02	.013	.67	.19	-	11.25	.71C
	24 APR 78	1226	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1226	8	16.0	19	.03	.016	.63	.15	-	7.50	.67C
	1 AUG 78	1230		6.8	28	.06	.019	.24	.40	-	2.76	.80
	1 AUG 78	1230	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1250		8.2	10	.02	.036	.01L	.12	-	94.80	1.26
	9 OCT 78	1250	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1250	9	25.0	38	.02	.068	.17	.12	-	52.80	1.40

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
XIF4564	21 MAR 77	1206		.5L	.150L	.11	.04	.05L	.10L	.2L
	21 MAR 77	1208	S	-	-	-	-	-	-	-
	21 MAR 77	1210	S	.5L	.150L	.20	.08	.05L	.10L	.2L
	18 APR 77	1233		.5L	.200L	.11	.06	.05L	.10L	.2L
	18 APR 77	1233	5	-	-	-	-	-	-	-
	18 APR 77	1233	S	.5L	.200L	.10	.06	.05L	.10L	.2L
	27 JUN 77	1155		.5L	.500L	.13	.05L	.05L	.10L	.5L
	27 JUN 77	1155	5	-	-	-	-	-	-	-
	27 JUN 77	1155	10	.5L	.500L	.26	.05L	.05L	.10L	.5L
	4 AUG 77	1110		.5L	.500L	.16	.05L	.05L	.10L	.5L
	4 AUG 77	1110	5	-	-	-	-	-	-	-
	4 AUG 77	1110	10	.5L	.500L	.18	.05L	.05L	.10L	.5L
	7 NOV 77	1347		.5L	.500L	.16	.16	.05L	.10L	.2L
	7 NOV 77	1347	5	-	-	-	-	-	-	-
	7 NOV 77	1347	10	.5L	.500L	.20	.29	.05	.10L	.2L
	24 APR 78	1226		.5L	.200L	.06	-	.05L	.10L	.1L
	24 APR 78	1226	5	-	-	-	-	-	-	-
	24 APR 78	1226	8	.5L	.200L	.06	.16	.05L	.10L	.1L
	1 AUG 78	1230		.5L	.200L	.08	.05	.05L	.07	.1L
	1 AUG 78	1230	5	-	-	-	-	-	-	-
	9 OCT 78	1250		-	.200L	.24	.05L	.05L	.05L	-
	9 OCT 78	1250	5	-	-	-	-	-	-	-
	9 OCT 78	1250	9	-	.200L	.43	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
XIF4564	21 MAR 77	1206		10.00	32.00	.2L	.0001L	-
	21 MAR 77	1208	5	-	-	-	-	-
	21 MAR 77	1210	9	17.00	93.00	.4	.0013	-
	18 APR 77	1233		13.00	8.30	3.2	.0001L	-
	18 APR 77	1233	5	-	-	-	-	-
	18 APR 77	1233	9	12.50	2.10	4.4	.0001L	-
	27 JUN 77	1155		23.50	50.00	.6	.0001L	2.000L
	27 JUN 77	1155	5	-	-	-	-	-
	27 JUN 77	1155	10	25.50	45.00	.2	.0001L	2.000L
	4 AUG 77	1110		1.65	20.50	.8	.0001L	-
	4 AUG 77	1110	5	-	-	-	-	-
	4 AUG 77	1110	10	1.60	19.20	.9	.0001L	-
	7 NOV 77	1347		11.00	24.00	.1L	.0001L	.005L
	7 NOV 77	1347	5	-	-	-	-	-
	7 NOV 77	1347	10	11.00	27.20	.1L	.0001L	.005L
	24 APR 78	1226		.55	13.30	-	.0008	-
	24 APR 78	1226	5	-	-	-	-	-
	24 APR 78	1226	8	.65	16.50	-	.0009	-
	1 AUG 78	1230		1.10	-	-	-	-
	1 AUG 78	1230	5	-	-	-	-	-
	9 OCT 78	1250		19.50	-	2.8	-	-
	9 OCT 78	1250	5	-	-	-	-	-
	9 OCT 78	1250	9	14.50	-	4.2	-	-

HART AND MILLER IS. SURVEY — PART 1 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TIDE	WEATH. CODE	AIR TEMP. CENT.	WATER TEMP. CENT.	SPEC. COND. MICRONS	SALIN.	FIELD PH	LAB PH	D.O. MG/L	B.O.D. MG/L
XIF5297	6 DEC 76	1213	1	E	0	1.5	2.0	4400	2.32C	7.8	-	12.4	-
	6 DEC 76	1213	5	E	0	1.5	1.8	5950	3.21C	7.8	-	13.2	-
	6 DEC 76	1213	10	E	0	1.5	1.5	6000	3.24C	7.8	-	13.2	-
	6 DEC 76	1213	15	E	0	1.5	1.5	6000	3.24C	7.8	-	13.4	-
	21 MAR 77	1035		E	1	12.3	8.7	1100	.78C	7.5	7.4	10.8	1.2
	21 MAR 77	1037	5	E	1	-	8.7	1090	.52C	7.5	-	10.8	-
	21 MAR 77	1039	10	E	1	-	8.7	1090	.52C	7.5	-	10.6	-
	21 MAR 77	1041	14	E	1	-	8.7	1100	.78C	7.4	7.4	10.5	1.0
	18 APR 77	1118		E	0	16.0	15.2	460	.20C	7.7	7.0	9.8	1.4
	18 APR 77	1118	5	E	1	16.0	15.2	460	.20C	7.7	-	9.8	-
	18 APR 77	1118	10	E	1	16.0	15.0	470	.21C	7.7	-	9.6	-
	18 APR 77	1118	15	E	0	16.0	15.0	480	.21C	7.7	7.1	9.3	1.4
	27 JUN 77	1045		E	0	26.0	24.4	10000	5.61C	8.2	8.1	8.9	4.1
	27 JUN 77	1045	5	E	0	26.0	23.8	10100	5.68C	8.2	-	8.5	-
	27 JUN 77	1045	10	E	0	26.0	23.8	10500	5.92C	8.0	8.1	7.8	-
	4 AUG 77	1005		F	0	24.6	26.0	10900	6.16C	-	7.5	7.1	2.7
	4 AUG 77	1005	5	F	0	25.0	25.9	10900	6.16C	-	-	6.8	-
	4 AUG 77	1005	10	F	0	25.0	25.8	11000	6.22C	-	-	6.6	-
	4 AUG 77	1005	15	F	0	25.0	25.8	11200	6.35C	-	-	6.5	-
	4 AUG 77	1005	18	F	0	24.6	25.8	11200	6.35C	-	7.5	6.5	2.7
	7 NOV 77	1210			2	15.0	15.3	9600	5.37C	-	6.9	9.3	1.0L
	7 NOV 77	1210	5		2	15.0	15.3	9600	5.37C	-	-	8.7	-
	7 NOV 77	1210	10		2	15.0	15.3	10500	5.92C	-	-	10.9	-
	7 NOV 77	1210	16		2	15.0	15.5	13500	7.77C	-	7.1	12.0	1.0L
	24 APR 78	1057		H	1	-	13.0	1350	.65C	7.8	7.6	11.3	2.4
	24 APR 78	1057	5	H	1	18.0	12.3	1550	.75C	7.7	-	11.1	-
	24 APR 78	1057	10	H	1	18.0	12.3	1700	.83C	7.6	-	10.9	-
	24 APR 78	1057	15	H	1	-	12.3	1800	.89C	7.6	7.5	10.8	1.9
	1 AUG 78	1115		E	2	-	25.5	6400	3.47C	7.4	7.2	6.9	1.8
	1 AUG 78	1115	5	E	5	-	25.5	6400	3.47C	7.4	-	6.9	-
	1 AUG 78	1115	10	E	5	-	25.5	6400	3.47C	7.5	-	6.9	-
	1 AUG 78	1115	15	E	2	-	25.4	6400	3.47C	7.5	7.2	7.0	1.8
	9 OCT 78	1128		F	0	12.8	15.3	11700	6.65C	7.8	7.1	10.2	1.0
	9 OCT 78	1128	5	F	0	12.8	15.1	12000	6.84C	7.8	-	10.3	-
	9 OCT 78	1128	10	F	0	12.8	15.7	13300	7.64C	7.8	7.6	9.8	.6

HART AND MILLER IS. SURVEY — PART 2 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	TURB. JCU	SUS. SCL. MG/L	AMMON. MG/L N	NITRITE MG/L N	NITRATE MG/L N	TOT. PO4 MG/L P	DR. PO4 MG/L P	CHLOR. A UG/L	TKN MG/L N
X1F5297	6 DEC 76	1213	1	-	-	-	-	-	-	-	-	-
	6 DEC 76	1213	5	-	-	-	-	-	-	-	-	-
	6 DEC 76	1213	10	-	-	-	-	-	-	-	-	-
	6 DEC 76	1213	15	-	-	-	-	-	-	-	-	-
	21 MAR 77	1035		18.0	20	.08	.019	1.03	.07	.12	15.30	.38
	21 MAR 77	1037	5	-	-	-	-	-	-	-	-	-
	21 MAR 77	1039	10	-	-	-	-	-	-	-	-	-
	21 MAR 77	1041	14	23.0	20	.08	.017	1.03	.07	.04	19.50	.38
	18 APR 77	1118		20.0	12	.02	.017	.81	.09	.04	28.50	.12
	18 APR 77	1118	5	-	-	-	-	-	-	-	-	-
	18 APR 77	1118	10	-	-	-	-	-	-	-	-	-
	18 APR 77	1118	15	23.0	20	.01	.017	.81	.06	.04	37.50	.10
	27 JUN 77	1045		11.0	17	.10	.003	.01	.10	.08	6.00	.43
	27 JUN 77	1045	5	-	-	-	-	-	-	-	-	-
	27 JUN 77	1045	10	14.0	18	.07	.003	.01	.06	.05	31.50	.43
	4 AUG 77	1005		13.0	10	.01	.001	.05	.03	.01	42.00	.38
	4 AUG 77	1005	5	-	-	-	-	-	-	-	-	-
	4 AUG 77	1005	10	-	-	-	-	-	-	-	-	-
	4 AUG 77	1005	15	-	-	-	-	-	-	-	-	-
	4 AUG 77	1005	18	31.0	42	.01	.001	.05	.03	.31	39.00	.25
	7 NOV 77	1213		8.0	12	.07	.012	.46	.06	.03	1.50	.75
	7 NOV 77	1210	5	-	-	-	-	-	-	-	-	-
	7 NOV 77	1210	10	-	-	-	-	-	-	-	-	-
	7 NOV 77	1213	16	32.0	44	.07	.008	.46	.10	.08	7.50	.75
	24 APR 78	1057		14.0	13	.05	.016	.85	.15	-	3.75	.71C
	24 APR 78	1057	5	-	-	-	-	-	-	-	-	-
	24 APR 78	1057	10	-	-	-	-	-	-	-	-	-
	24 APR 78	1057	15	20.0	33	.06	.013	.89	.19	-	7.50	.75C
	1 AUG 78	1115		22.0	1	.35	.013	.64	.32	-	.42	.63
	1 AUG 78	1115	5	-	-	-	-	-	-	-	-	-
	1 AUG 78	1115	10	-	-	-	-	-	-	-	-	-
	1 AUG 78	1115	15	7.4	1	.33	.013	.59	.32	-	.48	.63
	9 OCT 78	1128		6.6	4	.02	.012	.01	.10	-	9.30	.42
	9 OCT 78	1128	5	-	-	-	-	-	-	-	-	-
	9 OCT 78	1128	10	17.0	24	.08	.021	.19	.08	-	13.80	.38

HART AND MILLER IS. SURVEY — PART 3 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	MOLYB. MG/L MO	NICKEL MG/L NI	MAN. MG/L MN	ZINC MG/L ZN	COPPER MG/L CU	CHROM. MG/L CR	COBALT MG/L CO
X1F5297	6 DEC 76	1213	1	-	-	-	-	-	-	-
	6 DEC 76	1213	5	-	-	-	-	-	-	-
	6 DEC 76	1213	10	-	-	-	-	-	-	-
	6 DEC 76	1213	15	-	-	-	-	-	-	-
	21 MAR 77	1035		.5L	.150L	-	.05	.05L	.10L	.2L
	21 MAR 77	1037	5	-	-	-	-	-	-	-
	21 MAR 77	1039	10	-	-	-	-	-	-	-
	21 MAR 77	1041	14	.5L	.150L	.10	.03	.05L	.10L	.2L
	18 APR 77	1118		.5L	.200L	.14	.07	.05L	.10L	.2L
	18 APR 77	1118	5	-	-	-	-	-	-	-
	18 APR 77	1118	10	-	-	-	-	-	-	-
	18 APR 77	1118	15	.5L	.200L	.16	.09	.05	.10L	.2L
	27 JUN 77	1045		.5L	.500L	.06	.05L	.05L	.10L	.5L
	27 JUN 77	1045	5	-	-	-	-	-	-	-
	27 JUN 77	1045	10	.5L	.500L	.22	.05L	.05L	.10L	.5L
	4 AUG 77	1005		.5L	.500L	.12	.05L	.05L	.10L	.5L
	4 AUG 77	1005	5	-	-	-	-	-	-	-
	4 AUG 77	1005	10	-	-	-	-	-	-	-
	4 AUG 77	1005	15	-	-	-	-	-	-	-
	4 AUG 77	1005	18	.5L	.500L	.23	.05L	.05L	.10L	.5L
	7 NOV 77	1210		.5L	.500L	.06	.15	.05L	.10L	.2L
	7 NOV 77	1210	5	-	-	-	-	-	-	-
	7 NOV 77	1210	10	-	-	-	-	-	-	-
	7 NOV 77	1210	16	.5L	.500L	.19	.10	.05L	.10L	.2L
	24 APR 78	1057		.5L	.200L	.05	.11	.05L	.10L	.1L
	24 APR 78	1057	5	-	-	-	-	-	-	-
	24 APR 78	1057	10	-	-	-	-	-	-	-
	24 APR 78	1057	15	.5L	.200L	.10	.11	.05L	.10L	.1L
	1 AUG 78	1115		.5L	.200L	.10	.05	.05L	.05L	.1L
	1 AUG 78	1115	5	-	-	-	-	-	-	-
	1 AUG 78	1115	10	-	-	-	-	-	-	-
	1 AUG 78	1115	15	.5L	.200L	.11	.05	.05L	.05L	.1L
	9 OCT 78	1128		-	.200L	.14	.05L	.05L	.05L	-
	9 OCT 78	1128	5	-	-	-	-	-	-	-
	9 OCT 78	1128	10	-	.200L	.22	.05L	.05L	.05L	-

HART AND MILLER IS. SURVEY

PART 4 OF 4 PARTS

STATION ID	DATE	TIME	DEPTH	T.O.C. MG/L C	C.O.D. MG/L	OIL & GREASE MG/L	MERCURY MG/L HG	ARSENIC MG/L AS
X1F5247	6 DEC 76	1213	1	-	-	-	-	-
	6 DEC 76	1213	5	-	-	-	-	-
	6 DEC 76	1213	10	-	-	-	-	-
	6 DEC 76	1213	15	-	-	-	-	-
	21 MAR 77	1035		9.00	16.00	.2	.0003	-
	21 MAR 77	1037	5	-	-	-	-	-
	21 MAR 77	1039	10	-	-	-	-	-
	21 MAR 77	1041	14	9.00	5.00L	.8	.0001L	-
	18 APR 77	1118		10.00	6.40	.8	.0001L	-
	18 APR 77	1118	5	-	-	-	-	-
	18 APR 77	1118	10	-	-	-	-	-
	18 APR 77	1118	15	11.00	6.40	2.4	.0001L	-
	27 JUN 77	1045		25.00	61.00	1.0	.0001L	2.000L
	27 JUN 77	1045	5	-	-	-	-	-
	27 JUN 77	1045	10	22.00	51.00	.6	.0001L	2.000L
	4 AUG 77	1005		1.40	13.90	.7	.0001L	-
	4 AUG 77	1005	5	-	-	-	-	-
	4 AUG 77	1005	10	-	-	-	-	-
	4 AUG 77	1005	15	-	-	-	-	-
	4 AUG 77	1005	18	1.50	19.00	.7	.0001L	-
	7 NOV 77	1210		12.00	43.20	.1	.0001L	.005L
	7 NOV 77	1210	5	-	-	-	-	-
	7 NOV 77	1210	10	-	-	-	-	-
	7 NOV 77	1210	16	10.00	16.80	23.2	.0001L	.005L
	24 APR 78	1057		.15	16.50	-	.0003	-
	24 APR 78	1057	5	-	-	-	-	-
	24 APR 78	1057	10	-	-	-	-	-
	24 APR 78	1057	15	.50	17.30	-	.0005	-
	1 AUG 78	1115		.90	-	-	-	-
	1 AUG 78	1115	5	-	-	-	-	-
	1 AUG 78	1115	10	-	-	-	-	-
	1 AUG 78	1115	15	1.10	-	-	-	-
	9 OCT 78	1128		11.50	-	3.6	-	-
	9 OCT 78	1128	5	-	-	-	-	-
	9 OCT 78	1128	10	13.00	-	2.3	-	-

APPENDIX B

SEDIMENT CHEMISTRY DATA

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIG 6405

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/29/72	528	418	7	9,800	8.9	<2.96	0.04	0.21	8.9	11.8	16	61	411	-	-	-	-
2/14/73	420	3,280	80,180	84,330	59	14.1	0.124	6.9	37	51	106	352	3,239	-	-	-	-
8/20/74	745	425	9,225	61,476	14.0	<5	0.051	1	12.0	13.2	25	112	750	-	-	-	-
4/22/75	2,717	2,160	97,800	57,600	42.5	3.25	0.30	-	16.2	36.2	34.5	319	3,437	-	-	-	-
7/21/75	2,954	1,406	108,100	63,978	159.7	12.8	0.066	2.44	90.0	132.6	292.1	789	9,245	-	-	-	-
10/20/75	5,425	976	118,400	53,320	52.0	<13.0	0.270	7.80	34.0	42.0	78.0	364	3,694	1.34	-	-	-
2/23/76	-	660	138,000	-	57.9	<9.0	0.26	1.30	30.7	43.4	56.5	353	2,563	1.45	-	-	-
6/24/76	3,336	7,010	117,000	58,659	47.5	<6.5	0.38	2.91	81.3	42.1	67.5	331	2,038	1.63	-	-	-
12/6/76	1,304	4,148	56,315	86,375	14.5	7.5	0.13	0.25	11.0	-	24.5	94	1,400	1.00	15,000	37.5	27,957
3/21/77	1,740	690	136,000	100,000	35.0	3.0	0.24	10.0	24.0	32.3	45.0	190.0	1,970	.90	-	44.0	-
4/18/77	Sample Lost																
6/27/77	-	685	70,000	88,668	23.0	<2.5	.230	10.0	18.0	23.0	35.5	170.0	-	.55	20,500	40.0	635
8/4/77	-	1,825	-	88,668	41.5	<2.5	.155	18.5	30.0	30.0	55.0	250.0	2,325	.90	23,250	53.0	-
11/7/77	2,075	-	-	87,500	-	-	.55	8.7	-	-	-	-	-	-	-	-	-
4/24/78	1,800	1,218	103,887	72,698	35.3	<5	.24	8.8	17.3	37.3	60	300	2,070	.60	27,000	53.0	-
8/1/78	-	-	73,633	-	2.8	<1.18	-	-	0.03	64.7	60.7	326	3,058	1.33	-	62.8	<.1
10/9/78	985	-	-	-	3.89	<0.10	-	-	16.27	6.28	7.97	68	313	0.20	-	6.9	-

Sediment Sampling Results | HART AND MILLER ISLAND SURVEY | Station I.D. XIF 5182

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg
3-15-72	95	610	2,560	1,700	<0.1	<0.5	.008	<.001	2.2	0.8	13.6	12.24	323	-
9-29-72	273	161	5	7,200	10.3	<4.1	.02	.29	5.4	5.0	26	12	1,965	-
2-14-73	4	1,230	3,340	3,475	9.2	1.7	.008	.98	1.6	5.2	59	61	2,750	-
8-20-74	360	265	4,615	14,828	1.8	<5	.012	.20	3.0	2.5	3.5	19.3	170	-
4-22-75	676	1,140	23,200	11,200	11.2	<2.5	.1	-	6.0	95.0	17.5	318	98	-
7-21-75	209	526	3,200	4,840	5.9	2.5	.05	.38	4.7	3.8	9.6	52.8	329	-
10-20-75	880	143	12,100	659	4.0	<13	.17	.08	3.4	8.0	7.0	42	291	0.16
2-23-76	-	165	3,520	-	<.89	<3.7	.02	0.30	2.9	1.8	3.9	20.8	222	<0.24
6-24-76	927	765	33,700	19,157	22.0	<6.3	.09	0.77	26.4	15.9	28.8	165	661	0.75
12-6-76	- - - - - - - - - - - - - - - - - - Sampling Discontinued at this Station -													

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 3675

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
12-6-76	2,816	34,937	79,886	85,732	39.5	3.0	0.26	4.70	28.0	-	64.0	360	2,150	1.15	21,250	71.0	163,361
3-21-77	2,025	1,125	107,000	89,700	33.5	2.5	0.31	10.0	30.5	34.1	38.5	260	1,300	.80	-	61.0	-
4-18-77	Sample Lost																
6-27-77	-	2,285	68,200	97,839	30.0	2.5	.24	30.0	20.5	28.1	43	270	1,530	1.00	21,250	47.5	974
8-4-77	-	1,580	-	97,839	45.0	<2.5	.196	26.5	31.25	36.25	59.0	352	1,275	.90	24,750	62.0	
11-7-77	1,615	-	-	56,100	14.2	-	.14	4.5	7.4	9.7	23.1	80	1,010	1.00	-	25.4	-
4-24-78	1,666	1,143	110,086	79,689	46.19	<5	.186	10.7	32.79	48.22	107.61	324.9	2,995	1.12	48,122	78.2	-
8-1-78	-	-	66,208	38,461	2.93	<1.22	-	-	40.24	65.85	52.93	414.6	1,010	<1.22	-	62.4	
10-9-78	935	-	-	-	5.93	<0.10	-	-	14.0	9.45	17.80	115.0	403	0.22	-	10.0	

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIG 4830

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
12-6-76	360.2	4,327	99,934	107,283	45.0	3.0	0.72	11.00	23.0	-	61.0	300	2,800	1.15	22,350	69.5	30,286
3-21-77	1,740	690	136,000	100,000	39.5	2.5	0.24	10.0	16.0	30.9	15.0	190	1,970	.90	-	41.0	-
4-18-77	Sample Lost																
6-27-77	-	1,045	52,000	97,924	30.5	2.5	.31	25.0	19.5	27.6	43.0	190	1,795	1.00	22,500	43.0	1,712
8-4-77	-	445	-	97,924	30.0	<2.5	.16	26.5	26.2	28.7	54.0	225	1,625	.80	22,250	49.0	-
11-7-77	1,675	-	-	84,600	33.2	-	.25	9.6	17.8	29.3	63	390	1,920	1.2	-	46.5	-
4-24-78	1,520	1,101.6	125,277	60,692	41.96	<5	.264	11.7	19.4	42.66	91.3	287	2,242	1.69	41,865	62.6	-
8-1-78	-	-	81,181	60,606	2.47	<0.82	-	-	24.2	58.39	53.6	223	2,549	<0.82	-	47.5	<.1
10-9-78	942	-	-	-	4.00	<0.10	-	-	8.12	5.83	3.97	138	348	0.15	-	0.32	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 5297

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
12-6-76	1,521	2,493	8,697	7,671	6.5	<2.5	.009	0.23	5.5	-	11.3	405	250	.15	27,500	9.5	4,272
3-21-77	310	60	13,900	13,784	6.4	<2.5	0.10	<4.0	3.5	5.3	10.5	385	333	.35	-	9.5	-
4-18-77	Sample Lost																
6-27-77	-	215	5,000	78,272	5.0	<2.5	.09	20.0	3.5	4.0	10.0	33.0	217	.25	3,050	9.5	68
8-4-77	-	755	-	78,272	29.0	<2.5	.157	19.5	20.9	25.5	49.0	214.0	1,375	.75	20,750	46.0	-
11-7-77	1,666	-	-	34,900	13.2	-	.30	.90	-	2.0	7.8	26	142	<0.5	-	5.2	-
4-24-78	83	2,161	11,417	10,652	5.97	<5	<0.02	2.5	2.39	4.78	14.6	38.8	368	< .5	3,960	8.96	-
8-1-78	-	-	31,200	-	<0.85	<0.85	-	-	6.28	9.68	11.5	53.8	390	<0.85	-	<0.02	< .1
10-9-78	128	-	-	-	1.02	<0.10	-	-	1.23	0.82	2.9	3.0	109	<0.1	-	0.95	-

Sediment Sampling Results

HART AND MILLER ISLAND SURVEY

Station I.D.: XIF 6388

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	Ac mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
12-6-76	1,521	7,069	110,228	90,490	42.5	2.5	0.70	4.40	24.5	-	75.0	365	1,700	1.55	19,500	75.0	147,735
3-21-77	761	785	102,000	88,235	36.5	3.0	0.24	<4.0	17.5	29.0	41.5	235	1,625	1.05	-	44.5	-
4-18-77	Sample Lost																
6-27-77	-	1,020	87,000	88,197	32.0	2.5	.21	10.0	20.0	28.3	53.0	200	990	0.90	15,200	47.5	1,095
8-4-77	-	780	-	88,197	40.0	<2.5	.226	24.5	27.5	28.7	64.0	286	1,725	1.20	22,250	92.0	-
11-7-77	1,675	-	-	75,400	37.8	-	.26	10.5	20.4	38.0	89.0	380	1,640	1.50	-	65.8	-
4-24-78	1,680	1,298	94,757	67,853	43.0	<5	.19	10.2	16.8	42.3	86.2	297	1,952	1.58	43,608	64.3	-
8-1-78	-	-	15,694	73,170	Too many shells to perform metal analysis												<.1
10-9-78	846	-	-	-	4.14	<0.10	-	-	5.9	7.06	5.7	75	214	0.24	-	8.09	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 4954

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
12-6-76	- Station Iced In -																
3-21-77	2,632	1,430	113,000	101,538	28.5	2.5	.35	7.0	50.0	55.5	49.0	305	735	1.75	-	68.5	-
4-18-77	- Sample Lost -																
6-27-77	-	2,650	61,900	96,755	15.5	<2.5	.29	25.0	46.5	36.8	39.5	200	353	1.05	15,500	54.0	350
8-4-77	-	1,920	-	96,755	24.0	<2.5	.26	22.0	62.5	47.5	55.0	287	575	1.50	21,000	80.0	-
11-7-77	1,785	-	-	80,100	17.8	-	.550	9.0	46.2	55.1	59	300	450	1.2	-	83.9	9.0
4-24-78	2,750	1,611.6	103,645	83,375	25.6	<5	.35	7.7	39.2	60.3	70.4	407	1,002	1.49	36,210	72.0	-
8-1-78	-	-	137,240	219,780	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
10-9-78	1,116	-	-	-	3.7	<0.10	-	-	25.4	17.4	11.3	87	94	0.37	-	14.0	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 3064

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S = mg/kg
3/15/72	3,950	935	310,545	87,400	77.7	<0.5	0.030	<.001	57.6	4	135.5	665	4,446	-	-	-	-
9/29/72	313	69	4	7,600	13.7	<3.9	0.03	0.18	3.9	7.8	16	11	400	-	-	-	-
2/14/73	250	3,340	107,000	76,160	74	31	0.125	10.6	65	69	102	396	3,065	-	-	-	-
8/20/74	815	670	7,690	99,020	25	<5	0.109	9	24	26	42	235	775	-	-	-	-
4/22/75	2,145	3,230	116,600	49,300	77.5	5	0.34	-	42.5	61.2	91.2	656	3,062	-	-	-	-
7/21/75	4,121	1,783	129,800	76,487	219.2	9	0.35	5.6	109.6	165.2	352.9	2,402	7,207	-	-	-	-
10/20/75	3,203	1,468	77,600	34,340	55	<13	0.21	6.6	28.7	48	96	526	2,400	0.71	-	-	-
2/23/76	-	1,130	138,000	-	83.2	<9.2	0.27	1.20	53.3	58.9	68.4	580	2,665	2.21	-	-	-
6/24/76	676	1,910	100,000	59,040	55.8	<6.3	0.60	1.51	118.0	55.13	86.3	657	1,348	1.88	-	-	-
12/6/76	6,222	66,585	82,579	77,734	54.5	2.5	0.76	14.00	34.0	-	85.5	540	2,100	1.40	22,250	93.0	428,940
3/21/77	2,261	1,535	106,000	92,936	43.5	3.0	0.55	6.0	40.0	44.0	51.0	360	1,610	1.25	-	74.0	-
4/18/77	- Sample Lost -																
6/27/77	-	1,200	68,000	90,083	40.5	2.5	.22	20.0	18.0	30.7	50.0	335	2,375	1.00	20,500	55.0	1,130
8/4/77	-	1,455	-	90,082	72.5	2.5	.227	26.0	40.0	51.25	92.5	535	3,050	1.20	29,750	82.0	-
11/7/77	1,575	-	-	81,200	37.5	-	.270	11.7	36.0	42.4	66	400	1,370	0.9	-	72.8	-
4/24/78	1,400	1,575	91,514	82,810	45.9	<5	.270	10.7	32.7	49.1	111.8	380	2,215	1.18	39,450	75.1	-
8/1/78	-	-	77,173	88,235	3.34	<0.93	-	-	47.68	76.07	65.49	428	1,252	1.11	-	74.03	-
10/9/78	952	-	-	-	5.87	<0.10	-	-	15.00	10.90	11.80	148	403	0.25	-	12.00	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 4161

Date.	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	4,650	1,460	165,670	73,800	42.9	<0.5	0.019	<.001	48.6	3.5	100	454	2,847	-	-	-	-
9/29/72	2,989	826	68	100,000	71	<6.8	0.24	0.65	53	65	102	400	2,770	-	-	-	-
2/14/73	3	1,000	3,300	2,300	5.1	3.2	0.009	0.49	2.3	2.7	15	25	757	-	-	-	-
8/20/74	205	1,295	6,150	15,696	2.5	<5	0.020	1	4.5	3.2	7.5	29	175	-	-	-	-
4/22/75	2,590	2,590	104,700	64,300	65	0.4	0.32	-	31.25	51.2	76	262	3,067	-	-	-	-
7/21/75	1,564	716	54,000	39,893	-	-	-	1.36	-	-	-	-	-	-	-	-	-
10/20/75	3,215	1,011	123,300	39,280	69	<13	0.23	6.3	33.3	48	122	608	3,530	1.65	-	-	-
2/23/76	-	700	62,700	-	27.6	<6.0	0.23	1.00	26.8	23.8	28.6	238	1,627	0.95	-	-	-
6/24/76	770	1,190	27,400	14,705	11.5	<6.3	2.08	1.13	20.0	11.2	15.0	99	598	0.63	-	-	-
12/6/76	3,053	16,376	15,036	26,483	11.0	<2.5	0.16	0.12	14.5	-	18.5	106	290	0.50	5,500	30.0	20,377
3/21/77	314	75	11,600	13,100	5.85	<2.5	0.10	<4.0	6.5	7.0	12.5	47.5	418	.40	-	12.0	-
4/18/77	Sample Lost																
6/27/77	-	240	9,070	28,738	4.5	<2.5	0.065	25.0	5.5	5.4	8.0	38.5	133	.50	2,750	10.0	124
8/4/77	-	150	-	28,738	8.3	<2.5	0.080	12.0	9.35	11.2	14.6	92.5	565	.90	7,100	21.5	-
11/7/77	1,500	-	-	58,300	8.1	-	.19	1.5	10.6	10.3	13	88	300	<0.5	-	18.6	-
4/24/78	111	4,430	33,227	9,143	3.70	<5	.03	.90	4.40	6.18	16.2	42	494	<.5	4,505	10.4	-
8/1/78	-	-	10,589	20,833	<0.82	<0.82	-	-	8.40	28.83	10.5	61.78	436	<0.82	-	11.37	<.1
10/9/78	246	-	-	-	0.42	<0.10	-	-	0.86	1.04	0.9	2.81	25	<0.10	-	0.13	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 4285

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	5,900	920	150,480	65,500	56.4	<0.5	0.040	<.001	52.7	2.0	117.1	43	4,023	-	-	-	-
9/29/72	2,906	1,170	51	94,800	85	<6.8	0.22	0.32	49.7	66.7	114	430	3,480	-	-	-	-
2/14/73	330	2,680	63,130	75,490	70	6.7	0.151	1.95	49	54	84	369	3,080	-	-	-	-
8/20/74	875	1,490	12,300	109,124	27	<5	0.082	8	19	20	33	195	175	-	-	-	-
4/22/75	2,114	2,170	127,400	74,500	50	5.5	0.34	-	27.50	43.7	60.0	261	3,062	-	-	-	-
7/21/75	3,185	2,315	127,100	66,493	158.8	8.9	0.29	3.20	82.7	106.4	258.5	1,329	8,449	-	-	-	-
10/20/75	3,477	981	130,200	50,410	50	<13	0.17	5.9	31.1	41	76	390	2,930	0.94	-	-	-
2/23/76	-	465	92,000	-	55	<3.2	0.26	0.6	21.8	41.2	56.9	360	1,443	2.05	-	-	-
6/24/76	2,833	2,395	109,000	77,272	53	<6.3	0.50	3.74	88.8	44.0	65.0	314	2,510	1.37	-	-	-
12/6/76	1,911	5,587	119,429	103,196	43	2.5	0.55	7.50	26.5	-	58.0	310	2,151	1.05	21,500	71.0	115,700
3/21/77	2,128	690	95,600	102,803	34.0	2.5	.22	7.0	20.0	27.6	32.5	220	1,430	.85	-	44.0	-
4/18/77	Sample Lost																
6/27/77	-	455	66,000	96,690	30.0	<2.5	.20	20.0	23.0	24.4	39.5	200	1,360	1.00	23,500	40.0	1,677
8/4/77		-	-	96,690	32.5	<2.5	.19	29.5	23.75	30.0	52.5	262	1,600	.75	24,250	54.0	-
11/7/77	1,615	-	-	87,900	31.2	-	.36	12.2	19.6	29.2	50.0	250	1,900	0.90	-	50.7	-
4/24/78	1,208	1,081	116,310	73,555	47.3	<5	.35	5.4	27.4	47.8	85.0	350	2,840	1.60	45,900	73.0	-
8/1/78	-	-	49,350	148,148	2.26	<0.94	-	-	25.56	54.89	49.8	281	1,203	1.13	-	76.57	<.1
10/9/78	960	-	-	-	6.44	<0.10	-	-	9.81	8.59	11.0	73	484	0.19	-	9.16	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 4785

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	3,400	1,075	125,785	84,700	57.6	<0.5	0.29	<.001	53.4	3.5	133.6	450.76	5,152	-	-	-	-
9/29/72	2,485	764	47	89,700	71	<5.9	0.18	0.43	42.9	57.6	89	390	3,410	-	-	-	-
2/14/73	270	3,280	43,220	49,940	48	5.9	0.112	4.9	31	41	59	303	1,780	-	-	-	-
8/20/74	840	1,755	18,455	113,256	31	<5	0.083	5	18	26	52	245	1,200	-	-	-	-
4/22/75	2,431	2,460	113,200	64,000	42.5	5	0.37	-	8.25	44.5	60	312.5	2,000	-	-	-	-
7/21/75	3,756	1,456	131,100	67,822	162.8	10.2	0.20	3.1	95.2	109	276.2	1,201	6,686	-	-	-	-
10/20/75	4,010	1,206	132,300	53,690	58	<13	0.29	5.3	30.5	47	96	538	2,331	1.51	-	-	-
2/23/76	-	1,145	98,700	-	59	<8.7	0.29	0.8	36.4	48.5	57.6	372	2,652	1.39	-	-	-
6/24/76	4,621	730	112,000	77,253	67.4	<6.3	0.49	1.67	107.5	55.8	101.3	478	2,265	2.13	-	-	-
12/6/76	4,030	17,827	107,719	97,829	44.0	2.5	0.40	4.40	29.0	-	66.5	375	1,700	1.20	20,700	78.0	135,228
3/21/77	2,195	940	92,700	81,921	34.5	3.0	.24	9.50	17.5	32.8	39.0	260	1,445	1.05	-	55.0	-
4/18/77	Sample Lost																
6/27/77	-	665	51,600	95,243	24.0	2.5	.19	25.0	14.0	22.4	35.5	165	920	1.00	16,500	41.5	700
8/4/77	-	-	-	95,243	31.5	<2.5	.192	29.0	32.5	31.2	54.0	281	1,100	.90	23,750	57.5	-
11/7/77	1,162	-	-	75,100	23.7	-	.10	10.5	20.7	25.0	39.0	290	1,310	1.9	-	46.8	-
4/24/78	1,920	1,226	111,633	78,212	39.4	<5	.23	10.7	28.9	46.2	79.8	379	1,946	1.50	38,224	74.5	-
8/1/78	-	-	69,263	153,846	2.53	<1.15	-	-	37.24	62.9	58.4	370	1,264	1.15	-	61.8	<.1
10/9/78	925	-	-	-	3.22	<0.10	-	-	5.93	5.63	6.3	65	107	0.20	-	6.5	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 5578

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	130	895	1,975	2,000	<0.1	<0.5	.006	<.001	1.8	0.8	10.0	13.44	31	-	-	-	-
9/29/72	193	81	2	4,800	15.4	<3.8	.02	.46	<2.0	5.0	67	22	3,165	-	-	-	-
2/14/73	67	2,400	19,170	11,420	9.5	4.7	.066	1.5	6.7	9.1	19.7	55	405	-	-	-	-
8/20/74	105	95	770	9,420	<1	<5	.009	<0.1	1.0	1.0	1.2	6.2	115	-	-	-	-
4/22/75	2,426	2,110	103,100	61,400	51.2	5.0	.48	-	30.5	45.2	79.5	381	2,343	-	-	-	-
7/21/75	2,222	1,027	69,900	36,421	72.9	6.0	.25	1.68	20.5	55.0	174.7	748.5	3,593	-	-	-	-
10/20/75	604	231	22,600	11,270	7	<13	.14	.6	3.9	7	14	87	579	0.39	-	-	-
2/23/76	-	1,510	32,500	-	31.1	<4.0	.11	0.90	6.4	12.5	17.0	102	804	0.64	-	-	-
6/24/76	533	1,205	31,300	19,480	14.3	<6.3	.10	0.75	12.8	13.3	20.0	134	614	0.75	-	-	-
12/6/76	Station Iced In																
3/21/77	529	55	7,120	6,973	2.7	<2.5	.08	<4.0	2.0	2.8	5.0	180	303	.25	-	6.0	-
4/18/77	Sample Lost																
6/27/77	-	190	13,400	6,153	5.0	<2.5	.90	10.0	5.5	5.3	10.5	41.0	363	.35	3,500	11.0	11.0
8/4/77	-	55	-	6,153	2.6	<2.5	.040	<10.0	2.25	1.85	4.2	16.0	260	<.25	1,275	5.5	-
11/7/77	1,533	-	-	73,700	15.5	-	.21	5.9	17.8	22.7	37.8	190	600	.60	-	38.4	-
4/24/78	481	1,125	36,409	25,811	14.3	<5.0	.108	3.6	10.9	16.0	36.2	110	680	.60	9,700	30.3	-
8/01/78	-	-	3,924	153,846	<0.86	<0.86	-	-	2.4	2.4	4.6	17.7	163	<0.86	-	3.97	<.1
10/9/78	598	-	-	-	1.00	<0.10	-	-	3.69	2.01	2.6	30.3	46	0.09	-	2.18	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 5975

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	4,450	4,185	115,320	96,000	51.9	<0.5	.043	<.001	54.8	2.0	126.3	494	1,679	-	-	-	-
9/29/72	1,220	253	24	36,500	38	<3.6	.09	.42	24.4	24.2	42	204	2,040	-	-	-	-
2/14/73	250	2,460	98,840	68,480	63	4.4	.36	4.2	56	65	120	455	2,360	-	-	-	-
8/20/74	575	1,345	9,225	95,912	24	<5	.157	3.0	23	26	49	204	925	-	-	-	-
4/22/75	2,622	1,610	107,000	70,600	37.5	3.5	.56	-	14.5	41.2	60	281	788	-	-	-	-
7/21/75	2,619	2,187	111,800	68,526	161.4	9.7	.15	2.30	87.6	126.9	344.0	1,241	7,310	-	-	-	-
10/20/75	3,472	1,109	135,300	5,648	65.0	<13	.44	6.9	33.0	46	93	444	1,739	1.64	-	-	-
2/23/76	-	1,050	102,000	-	14.4	<8.7	.62	1.90	47.7	46.6	69.4	426	1,736	2.08	-	-	-
6/24/76	869	1,313	39,000	24,309	50.9	<6.3	0.24	0.71	72.3	48.9	88.8	364	1,315	2.00	-	-	-
12/6/76	3,543	7,790	106,550	110,902	45.0	3.0	0.81	5.50	30.0	-	91.0	415	1,800	1.65	21,000	91.0	152,887
3/21/77	1,642	555	96,000	92,537	34.0	2.5	.25	9.0	27.0	32.0	47.5	235	1,520	1.00	-	52.0	-
4/18/77	Sample Lost																
6/27/77	-	855	96,000	91,495	27.0	<2.5	.34	10.0	27.5	29.0	50.5	205	830	1.00	16,000	52.0	1,040
8/4/77	-	5,855	-	91,495	35.0	<2.5	.302	26.0	35.0	31.25	66.5	290	1,225	1.15	19,750	66.0	-
11/7/77	1,024	-	-	75,400	32.2	-	.33	13.3	30.6	38.9	72	270	1,150	1.00	-	71.9	-
4/24/78	1,720	809	107,414	70,773	39.0	<5	.39	10.1	23.6	45.9	113	279	1,184	1.69	27,563	80.6	-
8/1/78	-	-	57,340	34,482	1.61	<1.0	-	-	8.6	18.6	40.1	<1	1,104	1.00	-	36.7	<.1
10/9/78	895	-	-	-	4.26	<0.10	-	-	12.1	7.4	72.9	79	154	0.32	-	7.6	-

Sediment Sampling Results — HART AND MILLER ISLAND SURVEY — Station I.D.: XIF 5793

Date	Kjel N mg/kg	Grease & Oil mg/kg	C.O.D. mg/kg	Volatile Residue mg/kg	Co mg/kg	Mo mg/kg	Hg mg/kg	As mg/kg	T. Cr mg/kg	Cu mg/kg	Ni mg/kg	Zn mg/kg	Mn mg/kg	Cd mg/kg	Fe mg/kg	Pb mg/kg	S mg/kg
3/15/72	150	1,370	3,530	2,300	2.86	<0.5	.019	<.001	2.8	1.2	22.8	20.61	792	-	-	-	-
9/29/72	1,340	543	26	36,500	32	<3.6	.09	.34	27.0	28.8	40	178	966	-	-	-	-
2/14/73	11	1,790	3,800	3,000	7.1	1.6	.007	.19	1.6	3.2	26	36	162	-	-	-	-
8/20/74	540	215	6,150	37,640	7.5	<5	.029	2.00	7.0	7.9	14.5	61	675	-	-	-	-
4/22/75	135	500	2,200	2,800	4.2	3.0	<.01	-	.75	3.0	15.0	29.25	1,475	-	-	-	-
7/21/75	86	152	31,300	2,767	5.9	2.5	.016	.32	1.9	2.8	13.4	28	996	-	-	-	-
10/20/75	1,328	305	2,520	15,420	12	<13	.07	.6	3.9	49	25	96	467	0.49	-	-	-
2/23/76	-	155	39,000	-	3.01	<3.8	0.02	0.80	0.98	3.3	17.4	40	2,018	0.60	-	-	-
6/24/76	869	1,313	966	24,309	23.5	<6.3	0.24	0.71	34.1	18.9	40.0	193	663	1.00	-	-	-
12/6/76	320	9,087	26,300	3,906	5.0	<2.5	0.01	0.03	1.5	-	24.0	300	2,700	0.45	580	5.0	24,957
3/21/77	665	160		27,553	8.8	3.0	.13	<4.0	5.0	8.0	14.5	70	810	.40	-	16.0	-
4/18/77	Sample Lost																
6/27/77	-	155	4,030	4,537	4.0	<2.5	.90	10.0	3.5	3.70	9.0	26.0	424	.25	2,400	7.5	13
8/4/77	-	10	-	4,537	2.8	<2.5	.011	<10.0	1.45	1.50	5.2	15.0	655	<.25	1,215	5.0	-
11/7/77	Sample Missing																
4/24/78	346	2,587	5,447	6,734	5.38	<5.0	.200	.50	.70	2.99	24.9	39.8	1,703	<.50	1,514	6.47	-
8/1/78	-	-	57,340	75,000	<0.87	<0.87	-	-	5.52	9.07	14.2	59.2	293	18.68	-	11.03	<.1
10/9/78	263	-	-	-	1.04	<0.10	-	-	1.32	0.92	2.98	32.9	166	0.11	-	0.13	-

APPENDIX C

BIOLOGICAL DATA

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIG 6405

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 8-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	1	-	2	-	-	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	2	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	3	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	1	-	-	1	-	-	-	-	-	-
Nereis sp.	5	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	-	-	2	-	1	-	-	-	-
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	4	-	-	5	4	9	2	23	2	52	38	69
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hyaniola grayi	-	-	-	-	1	-	-	-	-	-	-	-	-
Unidentified sp.	1	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	P	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	2	7	-	1	2	-	1	2	2	1	3	9	14
Lironeca sp.	11	-	-	-	-	-	-	-	-	-	-	-	-
Edotea triloba	-	1	-	-	-	-	-	-	-	-	-	-	-
Corophium lacustre	-	-	-	-	1	-	-	-	-	-	-	-	-
Gammarus fasciatus	-	-	-	-	-	-	-	-	-	-	13	-	-
Gammarus sp.	432	-	-	-	-	-	-	-	3	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	-	-	-	-	-
Parahaustorius longimerus	-	-	-	-	-	-	-	-	5	-	-	5	2
Leptocheirus plumulosus	-	-	-	-	39	-	10	-	423	10	58	35	99
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhithropanopeus harrisii	5	-	-	1	-	-	-	-	-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	1	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	5	-	-	-	-	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptochironomus sp.	-	1	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldia demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	2	-	-	-	-	-	-	-	-	-	-	-	-
Mulinia cuneata	-	-	50	512	-	21	38	1	-	-	-	6	2
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	-	-	-	-	-	-	1	-	-	-	-	-	-
Mya arenaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	9	4	1	4	7	2	8	3	7	3	4	5	5
Total # of Organisms	463	13	50	515	54	25	65	5	458	13	126	93	186
Community Diversity Index	0.53	1.57	0.0	0.06	1.47	0.63	1.94	1.52	0.51	0.99	1.50	1.80	1.43
Bottom Type	Shell	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 6388

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.									-	1	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.									-	-	-	-	-
Limnodrilus hoffmeisteri									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
Nais sp.									-	-	-	-	-
Polychaetes													
Nereis succinea									-	-	-	-	-
Nereis sp.									-	-	-	-	-
Heteromastus filiformis									1	-	-	-	-
Spio sp.									-	-	-	-	-
Scolecolipedes viridis									27	10	25	30	17
Streblospio benedicti									-	-	-	-	-
Pectinaria gouldii									-	-	-	-	-
Hypaniola grayi									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.									-	-	-	27	-
Cyathura polita									7	2	3	6	6
Tiron sp.									-	-	-	-	-
Chiridotea tuftsi									1	-	-	-	-
Edotea triloba									-	-	-	-	-
Corophium lacustre									-	-	-	-	-
Gammarus fasciatus									-	-	-	-	-
Gammarus sp.									-	-	-	-	-
Mylita nitida									-	1	-	20	-
Parahaustorius longimerus									-	-	-	-	-
Leptocheirus plumulosus									217	56	40	1	40
Crangon septemspinosa									-	-	-	-	-
Rithropanopeus harrisii									-	-	-	14	1
INSECTA (larvae)													
Clinotanypus sp.									1	-	-	-	2
Coelotanypus sp.									-	-	-	-	-
Procladius sp.									-	-	-	-	-
Chironomus decorus									-	-	-	-	-
Cryptochironomus sp.									-	-	-	-	-
Glyptotendipes sp.									-	-	-	-	-
Polypedilum sp.									-	-	-	-	-
MOLLUSCA													
Hydrobia sp.									-	-	-	-	-
Valsella demissa									-	-	-	-	-
Brachiodontes recurvus									-	-	-	-	-
Congeria leucophaeta									-	-	-	-	-
Rangia cuneata									-	-	-	-	3
Macoma mitchelli									-	-	-	-	-
Macoma sp.									-	-	-	-	-
Mya arenaria									-	-	-	-	-
Total # of Taxa									6	5	3	6	6
Total # of Organisms									254	70	68	98	69
Community Diversity Index									0.77	0.98	1.17	2.21	1.69
Bottom Type									Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 4964

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.									-	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.									-	11	-	-	139
Limnodrilus hoffmeisteri									164	-	56	-	-
Unidentified sp.									-	-	-	-	-
Nais sp.									-	-	-	-	-
Polychaetes													
Nereis succinea									-	-	-	-	-
Nereis sp.									-	-	-	-	-
Heteromastus filiformis									-	-	-	-	-
Spio sp.									-	-	-	-	-
Scolecolipedes viridis									14	-	8	-	1
Streblospio benedicti									-	-	-	-	-
Pectinaria gouldii									-	-	-	-	-
Hypaniola grayi									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.									-	-	-	-	-
Cyathura polita									-	-	-	-	-
Lironeca sp.									-	-	-	-	-
Chiridotea tuftsi									-	-	-	-	-
Edotea triloba									-	-	-	-	-
Corophium lacustre									-	1	-	-	-
Gammarus fasciatus									-	-	-	-	-
Gammarus sp.									-	-	-	-	-
Melita nitida									-	-	-	-	-
Parahaustorius longimerus									-	-	-	-	-
Leptocheirus plumulosus									5	2	20	-	3
Crangon septemspinosa									-	-	-	-	-
Rhithropanopeus harrisii									-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.									-	1	-	-	2
Coelotanypus sp.									-	-	-	-	-
Procladius sp.									-	-	-	-	-
Chironomus decorus									14	-	-	-	-
Cryptochironomus sp.									-	-	-	-	-
Glyptotendipes sp.									-	-	-	-	-
Polypedilum sp.									-	-	-	-	-
MOLLUSCA													
Hydrobia sp.									-	-	-	-	-
Yoldella demissa									-	-	-	-	-
Brachiodontes recurvus									-	-	-	-	-
Congeria leuconhaeta									-	-	-	-	-
Rangia cuneata									-	-	-	-	-
Macoma mitchelli									-	-	-	-	-
Macoma sp.									-	-	-	-	-
Mya arenaria									-	-	-	-	-
Total # of Taxa									5	4	3	-	4
Total # of Organisms									198	15	84	-	145
Community Diversity Index									0.93	1.23	1.20	-	0.30
Bottom Type									Mud	Mud	Mud	-	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 5182

ORGANISM	SAMPLING DATE III 18-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	1	-						
ANNELIDS													
Oligochaetes													
Tubifex sp.	-	-	-	-	-	-	-						
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-						
Unidentified sp.	-	-	-	-	-	-	-						
Nais sp.	-	-	-	-	-	-	-						
Polychaetes													
Nereis succinea	-	-	-	-	-	-	-						
Nereis sp.	-	-	-	-	-	-	-						
Heteromastus filiformis	-	-	-	-	-	-	-						
Spio sp.	-	-	-	-	-	-	-						
Scolecolipedes viridis	-	2	-	-	-	7	12						
Streblospio benedicti	-	-	-	-	-	-	-						
Pectinaria gouldii	-	-	-	-	-	-	-						
Hypaniola gravi	-	-	-	-	-	-	-						
Unidentified sp.	-	-	-	-	-	-	-						
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-						
Cyathura polita	-	-	-	1	-	3	2						
Tiron sp.	-	-	-	-	-	-	-						
Chiridotea tuftsi	-	-	-	-	-	-	-						
Edotea triloba	-	-	-	-	-	4	-						
Corophium lacustre	-	-	2	-	-	-	68						
Gammarus fasciatus	-	-	-	-	-	-	-						
Gammarus sp.	4	-	-	-	-	-	-						
Melita nitida	-	-	-	-	-	-	-						
Parahaustorius longimerus	-	-	-	-	-	-	-						
Leptocheirus plumulosus	-	1	1	-	-	3	-						
Crangon septemspinosa	-	-	-	-	-	-	1						
Rithropanopeus harrisii	-	-	-	-	-	-	-						
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-						
Coelotanypus sp.	-	-	-	-	-	-	-						
Procladius sp.	-	-	-	-	-	-	-						
Chironomus decorus	-	-	-	-	-	-	1						
Cryptochironomus sp.	-	-	1	-	-	-	-						
Glyptotendipes sp.	-	-	-	-	-	-	-						
Polypedilum sp.	-	-	-	-	-	-	-						
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-						
Volsella demissa	-	-	-	-	-	-	-						
Brachiodontes recurvus	-	-	-	-	-	-	-						
Congeria leuconhaeta	-	-	-	-	-	-	-						
Rangia cuneata	-	2	21	17	-	8	4						
Macoma mitchelli	-	-	-	-	-	-	-						
Macoma sp.	-	-	-	-	-	-	-						
Mya arenaria	-	-	-	-	-	-	-						
Total # of Taxa	1	3	4	2	0	6	6						
Total # of Organisms	4	5	25	18	0	26	88						
Community Diversity Index	0.0	1.52	0.79	0.31	0.0	2.34	1.15						
Bottom Type	Mud	Mud	Mud	Mud	Mud	Mud	Mud						

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 3675

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.									2	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.									-	-	-	-	-
Limnodrilus hoffmeisteri									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
Nais sp.									-	-	-	-	-
Polychaetes													
Nereis succinea									-	-	1	-	3
Nereis sp.									-	-	-	-	-
Heteromastus filiformis									4	1	2	1	4
Spio sp.									-	-	-	-	-
Scolecolipedes viridis									160	-	19	4	7
Streblospio benedicti									-	-	-	-	-
Pectinaria gouldii									-	-	-	-	-
Hypaniola grayi									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.									-	-	-	-	-
Cyathura polita									9	1	3	16	11
Lironeca sp.									-	-	-	-	-
Chiridotea tuftsi									-	-	-	-	-
Edotea triloba									-	-	-	-	-
Corophium lacustre									7	-	-	-	-
Gammarus fasciatus									-	-	-	-	-
Gammarus sp.									-	-	-	-	-
Melita nitida									-	1	-	1	1
Paraheustorius longimerus									-	-	-	-	-
Leptocheirus plumulosus									141	1	22	18	59
Crangon septemspinosa									-	-	-	-	-
Rithropanopeus harrisii									-	-	-	1	-
INSECTA (larvae)													
Clinotanypus sp.									-	-	-	-	-
Coelotanypus sp.									-	-	-	-	-
Procladius sp.									-	-	-	-	-
Chironomus decorus									-	-	-	-	-
Cryptochironomus sp.									-	-	-	-	-
Glyptotendipes sp.									-	-	-	-	-
Polypedilum sp.									-	-	-	-	-
MOLLUSCA													
Hydrobia sp.									-	-	-	-	-
Yoldella demissa									-	-	-	-	-
Brachiodontes recurvus									-	-	-	-	-
Congeria leuconhaeta									-	-	-	-	-
Rangia cuneata									-	-	-	2	1
Macoma mitchelli									-	-	-	-	-
Macoma sp.									-	-	-	-	-
Mya arenaria									-	-	-	-	-
Total # of Taxa									6	4	5	7	7
Total # of Organisms									323	4	47	43	86
Community Diversity Index									1.41	2.00	1.60	1.95	1.57
Bottom Type									Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIG 4800

ORGANISM	SAMPLING DATE III 16-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.									5	3	4	3	1
ANNELIDS													
Oligochaetes													
Tubifex sp.									-	-	-	-	-
Limnodrilus hoffmeisteri									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
Nais sp.									-	-	-	-	-
Polychaetes													
Nereis succinea									-	-	-	-	-
Nereis sp.									-	-	-	-	-
Heteromastus filiformis									-	-	-	-	-
Spio sp.									-	-	-	-	-
Scolecolipedes viridis									37	5	8	3	2
Streblospio benedicti									-	-	-	-	-
Pectinaria gouldii									-	-	-	-	-
Hypaniola grayi									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.									-	-	-	-	-
Cyathura polita									2	3	2	7	8
Lironeca sp.									-	-	-	-	-
Chiridotea tuftsi									-	-	-	-	-
Edotea triloba									-	-	-	-	-
Corophium lacustre									-	-	2	-	-
Gammarus fasciatus									4	-	-	-	-
Gammarus sp.									-	-	-	-	-
Melita nitida									-	4	-	-	-
Parahaustorius longimerus									-	-	-	-	-
Leptocheirus plumulosus									388	82	27	7	67
Crangon septemspinosa									-	-	-	-	-
Rhithropanopeus harrisii									-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.									-	-	-	-	-
Coelotanypus sp.									-	-	-	-	-
Procladius sp.									-	-	-	-	-
Chironomus decorus									-	-	-	-	-
Cryptochironomus sp.									-	-	-	-	-
Glyptotendipes sp.									-	-	-	-	-
Polypedilum sp.									-	-	-	-	-
MOLLUSCA													
Hydrobia sp.									-	-	-	-	-
Volsella demissa									-	-	-	-	-
Brachiodontes recurvus									-	-	-	-	-
Congeria leucophaeta									-	-	-	-	-
Rangia cuneata									-	-	-	-	-
Macoma mitchelli									-	-	-	-	-
Macoma sp.									-	-	-	-	-
Mya arenaria									-	-	-	-	-
Total # of Taxa									5	5	5	4	4
Total # of Organisms									436	97	43	20	78
Community Diversity Index									0.62	0.92	1.60	1.88	0.74
Bottom Type									Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 5297

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.									-	-	-	2	-
ANNELIDS													
Oligochaetes													
Tubifex sp.									-	-	-	-	-
Limnodrilus hoffmeisteri									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
Nais sp.									-	-	-	-	-
Polychaetes													
Nereis succinea									-	-	-	-	1
Nereis sp.									-	-	-	-	-
Heteromastus filiformis									-	1	-	2	-
Spio sp.									-	-	-	-	-
Scolecolipedes viridis									191	32	170	68	16
Streblospio benedicti									-	-	-	-	-
Pectinaria gouldii									-	-	-	-	-
Hypaniola grayi									-	-	-	-	-
Unidentified sp.									-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.									-	-	-	-	-
Cyathura polita									-	1	-	18	2
Tiron sp.									-	-	-	-	-
Chiridotea tuftsi									-	-	-	1	-
Edotea triloba									-	-	-	-	-
Corophium lacustre									-	2	26	-	-
Gammarus fasciatus									-	-	-	-	-
Gammarus sp.									-	-	-	-	-
Melita nitida									-	-	-	-	-
Parahaustorius longimerus									-	-	-	-	-
Leptocheirus plumulosus									133	25	203	98	53
Crangon septemspinosa									-	-	-	-	-
Rhithropanopeus harrisii									-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.									-	-	-	-	-
Coelotanypus sp.									-	-	-	-	-
Procladius sp.									-	-	-	-	-
Chironomus decorus									-	-	-	-	-
Cryptochironomus sp.									-	-	-	-	-
Glyptotendipes sp.									-	-	-	-	-
Polypedilum sp.									-	-	-	-	-
MOLLUSCA													
Hydrobia sp.									-	-	-	-	-
Yoldia sp.									-	-	-	-	-
Brachiodontes recurvus									-	-	-	-	-
Congeria leuconhaeta									-	-	-	-	-
Nanola cuneata									-	-	-	9	1
Macoma mitchelli									-	-	-	-	-
Macoma sp.									-	-	-	-	-
Mya arenaria									-	-	-	-	-
Total # of Taxa									2	5	3	7	5
Total # of Organisms									324	61	399	198	73
Community Diversity Index									0.97	1.37	1.27	1.72	1.12
Bottom Type									Sand	Sand	Sand	Sand	Sand

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 3064

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	5	1	2	2	2	1	-	2	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	14	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	1	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	-	-	-	-	1	-	-	1	-
Nereis sp.	3	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	2	-	30	3	26	4	6	8	4
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scoloplos viridis	-	1	-	4	18	5	91	17	11	18	30	17	8
Streblospio benedicti	-	-	-	-	-	-	-	-	-	1	-	-	-
Pectinaria gouldii	1	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	1	-	-	1	2	-	6	1	4	-	3	20	15
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	-	-	-	-	-	-	-	-	-
Edotea triloba	-	-	-	-	-	-	-	-	-	-	-	-	-
Corophium lacustre	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus fasciatus	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus sp.	29	-	-	-	-	-	-	-	-	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	2	-	4	-	1
Parahaustorius longimerus	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptocheirus plumulosus	-	1	1	3	5	2	54	56	144	32	35	38	56
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	2	-	-	-	-	-	-
Procladius sp.	-	-	-	-	1	-	2	-	-	1	-	-	-
Chironomus decorus	-	-	-	-	-	-	1	-	-	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	1	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	2	2	50	14	11	-	11	16	-	-	-	20	-
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	3	2
Macoma sp.	3	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	1	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	9	4	2	4	7	3	9	6	7	6	5	8	6
Total # of Organisms	55	5	51	22	44	8	199	95	190	57	78	109	86
Community Diversity Index	2.04	1.92	0.14	1.46	2.27	1.29	2.06	1.67	1.22	1.56	1.73	2.43	1.56
Bottom Type	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 4161

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	-	2	-	-	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	3	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	3	-	-	-	-	-	1	-	-
Nereis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	3	-	-	-	1	-	18	-	1	1	-	5	2
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	6	-	-	40	5	52	13	88	18	188	72	11
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	2	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	4	-	-	-	1	2	3	2	1	5	1	4	6
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	1	-	-	-	-	-	-	1	-	-	-	-
Edotea triloba	-	-	-	-	-	-	-	-	1	-	1	1	-
Corophium lacustre	-	-	-	-	-	-	-	2	-	-	3	-	1
Gammarus fasciatus	-	-	-	-	-	-	1	-	-	-	-	-	-
Gammarus sp.	19	-	-	-	-	-	-	-	-	-	-	-	-
Mallta nitida	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranaustorius longimerus	-	-	-	-	-	-	-	-	-	-	1	-	-
Leptocheirus plumulosus	-	2	-	12	1	-	29	59	97	55	60	61	13
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	1	2	6	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	4	3	64	12	115	31	10	2	-	1	-	2	13
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	27	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	2	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	8	4	1	2	6	3	8	6	8	5	7	6	6
Total # of Organisms	65	12	64	24	159	38	116	80	196	80	255	145	46
Community Diversity Index	2.35	1.73	0.0	0.14	0.99	0.84	2.09	1.28	1.36	1.26	1.01	1.47	2.22
Bottom Type	Mud	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 4285

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	-	9	-	2	6	-	1	1
ANNELIDS													
Oligochaetes													
Tubifex sp.	-	-	-	-	-	-	-	-	-	12	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	5	-	-	-	-	-	-	-	-
Nereis sp.	5	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	3	-	8	-	2	10	1	1	1
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	7	2	-	34	3	34	6	47	2	29	22	8
Streblospio benedicti	-	-	-	-	-	-	-	-	-	1	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	2	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	1	2	2	-	3	-	4	-	4	5	8	4	11
Tiron sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	-	-	-	-	-	-	-	-	-
Edotea triloba	-	-	-	-	-	-	-	-	-	-	1	-	-
Corophium lacustre	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus fasciatus	-	-	-	-	-	-	-	-	1	-	-	-	-
Gammarus sp.	17	-	-	-	-	-	-	-	-	-	-	-	-
Mysella nitida	-	-	-	-	-	-	-	-	-	1	-	-	1
Parahaustorius longimerus	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptocheirus plumulosus	-	-	-	-	-	-	10	1	230	120	104	8	81
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	2	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	1	-	4	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	-	3	210	223	204	98	238	149	-	-	-	-	1
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	2
Macoma sp.	3	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	6	4	3	2	5	2	6	3	7	8	5	5	8
Total # of Organisms	28	13	214	227	249	101	303	156	288	157	143	36	106
Community Diversity Index	1.66	1.67	0.15	0.13	0.89	0.19	1.16	0.29	0.94	1.34	1.13	1.55	1.27
Bottom Type	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 4785

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	1	-	5	-	1	-	-	1	1
ANNELIDS													
Oligochaetes													
Tubifex sp.	1	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	6	-	-	1	-	-	1	1	-
Nereis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	1	-	-	2	6	2	-	-	-
Spio sp.	-	-	-	-	-	-	-	1	-	-	-	-	-
Scolecolipedes viridis	-	12	-	-	7	3	45	24	68	18	61	11	16
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	1	-	-	-	-	3	1	6	4	-	2	6	3
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	-	-	-	-	-	-	-	-	-
Edotea triloba	-	-	-	-	-	-	-	-	-	-	-	-	-
Corophium lacustre	-	-	-	-	-	1	-	-	-	-	19	-	-
Gammarus fasciatus	-	-	-	-	-	-	-	1	-	-	-	-	-
Gammarus sp.	1	-	-	-	-	-	-	-	-	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	-	-	1	-	1
Paraphoxus longimerus	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptocheirus plumulosus	-	-	-	-	6	-	1	9	181	37	55	17	68
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	1	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	1	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Volsella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	-	5	200	-	96	92	95	190	-	-	-	4	-
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	7	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	2	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	5	2	1	0	6	4	5	8	6	3	7	6	5
Total # of Organisms	12	17	200	0	117	99	147	234	261	57	140	40	89
Community Diversity Index	1.78	0.87	0.0	0.0	1.03	0.47	1.19	1.05	1.15	1.09	1.68	2.04	1.05
Bottom Type	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 5578

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	-	-	-	2	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	-	-	3	-	-	-	-	-	-
Nereis sp.	1	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	1	-	1	-	-	-	-	-	-
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	P	1	3	9	-	22	-	36	31	62	16	58
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	6	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	1	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	1	-	1	-	1	-	3	-	2	4	3	7	8
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	-	-	-	-	-	-	-	-	-
Edotea triloba	-	-	-	-	-	-	1	-	-	-	-	1	-
Corophium lacustre	-	2	20	-	-	-	-	-	99	1	12	-	2
Gammarus fasciatus	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	-	-	-	-	-
Parahaustorius longimerus	-	-	-	-	-	-	-	-	-	-	-	2	-
Leptocheirus plumulosus	-	14	5	1	32	2	6	-	58	58	43	80	22
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	-	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	7	-	1	-	-	-	1	-	-
Chironomus decorus	-	-	-	-	-	-	10	-	8	-	-	-	-
Cryptochironomus sp.	-	-	1	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leuconhaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	7	-	17	3	-	4	5	-	-	-	-	5	34
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	4	3	6	3	5	2	9	-	6	4	6	6	5
Total # of Organisms	15	16	45	7	50	6	52	-	165	94	122	111	124
Community Diversity Index	1.56	0.54	1.03	1.45	1.48	0.91	2.47	-	1.90	1.22	1.60	1.36	1.81
Bottom Type	Sand	Sand	Sand	Sand	Sand	Sand	Sand	-	Sand	Sand	Sand	Sand	Sand

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 5975

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Nais sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	-	-	-	-	-	-	-	-	-
Nereis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	-	-	2	-	1	-	-	-	-
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	P	3	1	2	3	25	19	10	11	27	18	21
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyathura polita	1	1	-	1	1	-	3	1	4	3	4	14	7
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	-	-	-	-	-	-	-	-	1
Idotea triloba	-	-	-	-	-	-	-	-	-	-	-	-	-
Corophium lacustre	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus fasciatus	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	3	4	-	-	-
Parahaustorius longimerus	-	-	-	-	-	-	-	-	-	-	-	2	-
Leptocheirus plumulosus	-	2	4	8	54	4	15	12	337	94	56	40	2
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	1	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	1	2	1	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	12	-	-	-	3	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	2	-
Glyptotendipes sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldiella demissa	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachiodontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Rangia cuneata	-	-	3	3	-	-	10	72	15	-	-	134	10
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	1	3	3	4	4	2	5	5	8	5	3	7	5
Total # of Organisms	1	3	10	13	69	7	55	105	375	113	87	211	41
Community Diversity Index	0.0	0.91	1.57	1.49	0.95	0.98	1.87	1.30	0.70	0.91	1.13	1.59	1.76
Bottom Type	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud	Mud

HART & MILLER ISLAND SURVEY
BIOLOGICAL FINDINGS
Station XIF 5793

ORGANISM	SAMPLING DATE III 15-72	II 14-73	II 19-74	VIII 20-74	IV 22-75	X 20-75	VI 24-76	XII 6-76	VI 27-77	XI 7-77	IV 24-78	VIII 1-78	X 9-78
NEMERTEAN													
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	2	-
ANNELIDS													
Oligochaetes													
Tubifex sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Limnodrilus hoffmeisteri	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Naid sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes													
Nereis succinea	-	-	-	-	-	-	1	-	-	-	-	-	3
Nereis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Heteromastus filiformis	-	-	-	-	-	-	-	-	-	-	-	-	-
Spio sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scolecolipedes viridis	-	-	1	-	95	4	15	2	215	2	154	215	11
Streblospio benedicti	-	-	-	-	-	-	-	-	-	-	-	-	-
Pectinaria gouldii	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypaniola grayi	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
ARTHROPODA													
Crustaceans													
Balanus sp.	-	-	-	-	-	-	-	-	-	-	-	-	28
Cyathura polita	-	-	-	-	-	5	67	-	1	1	8	17	2
Lironeca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiridotea tuftsi	-	-	-	-	2	-	-	1	-	1	-	1	1
Edotea triloba	-	-	-	-	-	1	-	-	-	-	-	2	-
Corophium lacustre	-	-	-	-	-	-	-	-	3	1	320	-	31
Gammarus fasciatus	-	-	-	-	-	-	-	-	-	-	-	-	-
Gammarus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Melita nitida	-	-	-	-	-	-	-	-	-	-	1	-	-
Parahaustorius longimerus	-	-	-	-	-	-	-	-	-	3	-	-	-
Leptocheirus plumulosus	-	-	-	3	5	-	-	6	95	25	13	60	4
Crangon septemspinosa	-	-	-	-	-	-	-	-	-	-	-	-	-
Rithropanopeus harrisii	-	-	-	-	-	-	-	-	-	-	-	3	-
INSECTA (larvae)													
Clinotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelotanypus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Procladius sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Chironomus decorus	-	-	-	-	-	-	-	-	-	-	-	-	-
Cryptochironomus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Glyptotendipes sp.	-	-	-	-	-	-	1	-	4	-	-	-	-
Polypedilum sp.	-	-	-	-	-	-	1	-	-	-	-	-	-
MOLLUSCA													
Hydrobia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Yoldia limatula	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachidontes recurvus	-	-	-	-	-	-	-	-	-	-	-	-	-
Congeria leucophaeta	-	-	-	-	-	-	-	-	-	-	-	-	-
Mulinia cuneata	-	2	3	256	22	348	221	2	-	-	-	22	1
Macoma mitchelli	-	-	-	-	-	-	-	-	-	-	-	-	-
Macoma sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mya arenaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Total # of Taxa	0	1	2	2	4	4	6	4	5	6	5	8	8
Total # of Organisms	0	2	4	259	124	358	306	11	318	33	496	322	81
Community Diversity Index	0.0	0.0	0.81	0.09	1.02	0.22	1.11	1.68	1.07	1.32	1.18	1.50	2.13
Bottom Type	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand

APPENDIX D

LETTER RECOMMENDING PARAMETERS TO BE SAMPLED (1971)

PAUL W. McKEE
DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

October 29, 1971

Water Quality Investigation
Hart and Miller Island
Disposal Area

I. Frequency -

Every 3 months coinciding with photographic surveillance.

II. Stations -

Numbers 1 thru 9 as shown on accompanying map.

III. Sampling and Analysis of Water -

1) Verticle profiles at each station for dissolved oxygen, temperature, pH and conductivity/salinity. These will be made in the field.

2) For each of the 9 stations, samples for the following analyses will be made for surface and bottom water.

a. Total Chromium
b. Copper
c. Nickel
d. Cobalt
f. Molybdenum
g. Zinc
h. Manganese

Water Quality Investigation
Hart and Miller Island
Disposal Area
Page 2
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i. Mercury
j. Arsenic
k. Suspended solids, turbidity
l. pH
m. D.O.
n. BOD_5
o. Nitrogen Cycle
   1) NH_3
   2) TKN
   3) NO_2
   4) NO_3
p. Orthophosphate
q. Total phophorous
r. Chlorophyll a
s. Grease and oil
t. T.O.C.
u. C.O.D.
v. Sulfides

IV. Sampling and Analysis of Sediments of Each of the 9 Stations

a. Volatile Solids
b. C.O.D.
c. Total Kjeldahl Nitrogen
d. Oil-grease
e. Chromium
f. Copper
g. Nickel

h. Cobalt
i. Cadmium
j. Molybdenum
k. Zinc
l. Manganese
m. Mercury
n. Arsenic
o. Sulfides

V. Sampling and Analysis of Biota -

The rangia clam, Rangea cuneata, is the selected test organism for monitoring.

1) The heavy metals listed above.
2) Chlorinated hydrocarbon pesticides including breakdown products which may produce toxic effects.
3) Organo-phosphate pesticides.

VI. Ecological Study -

Concurrently an ecological survey of the marine ecosystem will be made to enumerate populations before, during and after construction of the diked spoil disposal facility.

The Maryland Fish and Wildlife Administration should be directed by the Department of Natural Resources to carry-out the biological survey and to supply samples of the Rangia Clam (and other organisms if needed) for heavy metals and pesticides analyses.

This proposal is a modification of the proposal submitted August 13, 1971, which was reviewed and recommended for approval by the Committee for Dredge Spoil Disposal from Baltimore Harbor.

The earlier proposal included a biological survey and some chemical analyses by Environmental Protection Agency.

This revised proposal includes analyses routinely made by Environmental Protection Agency for dredged spoil. Although all parameters routinely measured by Environmental Protection Agency and criteria for excessive concentrations may not be recognized or accepted by Maryland these parameters have been included in the proposed program in order that the State can provide its own data for decision making.

AES:eet