



# CLEAR TECHNICAL REPORT NO. 52

## MERCURY ANALYSES OF 1976 SEDIMENT CORES FROM LAKE ERIE, DETROIT RIVER, LAKE ST. CLAIR AND ST. CLAIR RIVER

by

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## INTRODUCTION

Studies of mercury occurrence and distribution in Lake Erie sediments have shown that mercury is concentrated in the surficial sediments (Thomas and Jaquet, 1976; Walters and Wolery, 1974). Kovacik (1972) and Kovacik and Walters (1973) determined that a major accumulation of mercury is located in the sediments south of the mouth of the Detroit River. Walters et al. (1974) calculated that this reservoir of mercury, which was from pollution sources, contained 228 metric tons.

The present project was initiated in June, 1976, to provide additional sampling detail, which was necessary to adequately describe the extent of the heavy metal reservoir in the central and eastern basins of Lake Erie. Secondary objectives were to 1) determine the potential of the St. Clair River-Lake St. Clair-Detroit River as a long-term source of polluted sediments, and 2) determine the effect of sediment resuspension and transport in moving polluted sediments into the central and eastern basins of Lake Erie.

## METHODS

The Center for Lake Erie Area Research boat, Sea Ray, a 22-foot fiberglass boat designed for lake research work was used to collect sediment cores and water samples at 19 stations (Table 1) in the Detroit River, Lake St. Clair, and St. Clair River, June 11-14, 1976. Stations D1-D4 (Table 1) were sampled on November 14, 1976, using the 12-foot BGSU boat

R/V SANDBAGGER. These sediment cores were collected with a hand-driven check valve core tube with CAB (cellulose acetate butyrate) plastic liner (38 mm).

Samples from the eastern basin of Lake Erie were collected in cooperation with R. A. Sweeney, Director of the Great Lakes Laboratory, Buffalo, New York. The R/V CA DAMBACK was used to collect cores at 18 stations (Table 1) during July 14-17, 1976, as part of the Lake Erie Eastern Basin Cruise 2. A 5 cm gravity coring device with check valve and CAB plastic liners was used for sample collection.

The western and central basins of Lake Erie were sampled in cooperation with C. E. Herdendorf, Director, Center for Lake Erie Area Research, The Ohio State University. The R/V HYDRA was used to collect cores at 37 stations (Table 1) during the periods August 21, September 8-14, and October 18-29. A Wildco 5 cm gravity coring device with check valve and CAB plastic liners were used for sample collection.

The heavy metal analyses were performed using standard atomic absorption procedures. Mercury was determined by the cold vapor atomic absorption method of Hatch and Ott (1968) as modified by Skoch and Turk (1972). This procedure was further modified to conform to the changes proposed by Iskander et al. (1972). The results for mercury were checked against standard samples of sediment and mercury-loaded gelatin and found to agree within  $\pm 5$  percent. We feel that the overall uncertainty associated with our mercury results is  $\pm 10$  percent of the stated value, based on replicate determination and checks

against standard samples.

Chromium and nickel were determined using the standard atomic absorption procedure described in Perkin-Elmer (1976) with a Boling 3-slot burner. Uncertainty in the chromium and nickel values is ±10 percent based on replicate analyses.

#### RESULTS AND DISCUSSION

##### Detroit River, Lake St. Clair, and St. Clair River Cores

The results of mercury, chromium, and nickel analyses of 150 sample intervals from cores from the Detroit River, Lake St. Clair, and St. Clair River are contained in Table 2. The sediments encountered in this sampling area were predominantly sandy in nature. Therefore, only short cores were recovered in most cases. The surficial sediments of this area ranged from 0.16-1.0 ppm for the Detroit River, 0.06-.10 ppm for Lake St. Clair, and 0.07-81 ppm for the St. Clair River. The low values in the Lake St. Clair sediments may be due to their sandy character. Fine sediment, which contains the greatest amount of metals, does not accumulate in this system. However, the results for stations D1-D4 which are located in the protected environment near Peach Island show a range of 0.40 to 0.50 ppm mercury consistent with the fine-grained sediment. The highest levels of mercury (81 ppm) were found at station 46, which is near the Canadian shore just down-stream from the Dow Chemical plant at Sarnia, Ontario. These results indicate that the Detroit River is still a significant source of polluted sediments to Lake Erie.

### Lake Erie Cores

The results of mercury, chromium, and nickel analyses of 620 sample intervals from cores in Lake Erie are contained in Table 3. The ranges of mercury in the surficial sediments were 0.25-2.2 ppm in the western basin, 0.003-0.46 ppm in the central basin, and 0.02-0.54 ppm in the eastern basin. The highest values were observed near the mouth of the Detroit River (station 60), near Cleveland, Ohio (station 45), and near Erie, Pennsylvania (station 63).

The maximum levels of mercury observed at station 60 (2.2 ppm) were not as high as those observed in our October 1972 GS-1 cruise. Therefore, polluted sediments may be undergoing resuspension and transport out of western Lake Erie and into the central and eastern basins as proposed by Thomas and Jaquet (1976). This conclusion is supported by the results for stations 53, 54, and 74, which now have surficial sediments moderately enriched in mercury. Lower mercury concentrations were reported by Walters *et al.* (1974) for the surficial sediments they collected in 1971.

Chromium and nickel showed high enrichment in the surficial sediments near the mouth of the Detroit River. Very little pollution by these metals was observed in the eastern basin cores. However, the pollution levels increased going westward toward Cleveland and the western basin. Walters and Wolery (1974) reported elevated levels of chromium in Buffalo harbor. In addition McGuire and Walters (1975) reported inputs of chromium and nickel from Toledo Harbor. Therefore,

most of the input of chromium and nickel to Lake Erie is from the cities of Detroit, Toledo, Cleveland, and Buffalo since the Lake St. Clair and St. Clair River sediments show very little surface enrichment (Table 2).

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Table 1. Station Locations

Station	Latitude N.	Longitude W.	Lake Erie Basin	St. Clair River	Lake St. Clair	Detroit River	OSU	NY	BGSU
2	42 04 48		83 10 00				x	x	
3	42 04 48		83 08 30				x	x	x
6	42 06 54		83 10 42				x	x	x
31	42 27 18		82 34 00				x	x	x
32	42 27 18		82 30 00				x	x	x
36	42 29 19		82 40 12				x	x	x
37	42 29 21		82 45 48				x	x	x
38	42 29 20		82 51 45				x	x	x
40	42 33 00		82 40 00				x	x	x
41	42 33 39		82 42 57				x	x	x
42	42 33 40		82 48 47				x	x	x
44	42 40 16		82 42 51				x	x	x
45	43 00 42		82 25 18				x	x	x
46	42 56 03		82 26 48				x	x	x
47	42 53 42		82 27 48				x	x	x
48	42 49 36		82 28 45				x	x	x
49	42 43 06		82 28 45				x	x	x
50	42 36 54		82 35 06				x	x	x
D1	42 20 42.6		82 55 42				x	x	x
D2	42 20 43.8		82 55 45				x	x	x
D3	42 20 40.8		82 55 43.8				x	x	x
D4	42 20 38.4		82 55 45				x	x	x
5	42 38 30		79 16 18				x	x	x
6	42 37 54		79 24 00				x	x	x
7	42 30 48		79 28 42				x	x	x
9	42 32 18		79 37 00				x	x	x
10	42 40 48		79 41 30				x	x	x
11	42 48 12		79 33 30				x	x	x
12	42 46 12		79 47 30				x	x	x
13	42 45 12		80 00 48				x	x	x
14	42 38 30		79 56 00				x	x	x
15	42 31 00		79 53 36				x	x	x
16	42 20 00		79 45 30				x	x	x
17	42 19 48		80 00 00				x	x	x
18	42 25 18		80 04 48				x	x	x

Table 1. Station Locations (cont.)

Station	Latitude N.	Longitude W.	Lake Erie Basin	St. Clair River	Lake St. Clair	River	Detroit River	OSU	NY	BGSU
19	42 30 54	80 09 12						x		
20	42 29 05	80 18 18						x		
21	42 20 18	80 12 48						x		
22	42 12 48	80 07 42						x		
24	42 05 54	80 29 00						x		
30	42 25 48	81 12 18						x		
31	42 15 12	81 06 24						x		
32	42 04 54	81 00 42						x		
33	41 55 54	80 55 00						x		
34	41 50 00	81 08 54						x		
36	41 56 06	81 28 42						x		
37	42 06 36	81 34 30						x		
38	42 16 54	81 40 18						x		
39	42 21 30	81 42 24						x		
41	42 08 06	82 08 24						x		
42	41 57 54	82 02 30						x		
43	41 47 18	81 56 42						x		
45	41 36 24	81 53 48						x		
46	41 40 54	82 05 12						x		
47	41 50 18	82 12 48						x		
49	41 55 54	82 24 30						x		
51	41 38 30	82 24 12						x		
52	41 31 54	82 27 12						x		
53	41 25 12	82 30 12						x		
54	41 34 00	82 38 06						x		
56	41 54 42	82 50 24						x		
57	41 49 54	83 01 06						x		
58	41 41 06	82 56 00						x		
60	41 53 30	83 11 48						x		
63	42 25 00	79 48 00						x		
64	42 12 00	80 03 00						x		
65	41 39 00	82 44 00						x		
66	41 58 00	82 40 00						x		
68	41 45 00	82 51 00						x		
73	41 58 40	81 45 25						x		
74	41 40 00	82 35 00						x		

Table 1. Station Locations (cont.)

Station	Latitude N.	Longitude W.	Lake Erie Basin	St. Clair River	Lake St. Clair	Detroit River	OSU	NY	BGSU
78	42 07 00			81 15 00		C	x	x	
79	42 15 00			80 48 00		C		x	
80	42 41 30			80 08 00		E		x	
81	41 36 36			82 50 40		C		x	
82	41 34 30			82 10 00		C		x	
CLH	41 31 47			81 40 00				x	

W = Western Basin  
 C = Central Basin  
 E = Eastern Basin

TABLE 2. RESULTS OF ANALYSES OF DETROIT RIVER, LAKE ST. CLAIR, AND ST. CLAIR RIVER SEDIMENT CORES FOR MERCURY, CHROMIUM, AND NICKEL

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	PPM	PPM	PPM
2	1	0.0	2.0	43	0.280	0.490	140.0
2	1	2.0	4.0	23	0.310	0.410	63.0
2	1	4.0	6.0	19	0.260	0.320	53.0
2	1	6.0	8.4	28	0.220	0.300	89.0
3	1	0.0	2.0	70	0.300	1.000	67.0
3	1	2.0	4.0	45	0.510	0.920	63.0
3	1	4.0	6.0	43	0.380	0.670	82.0
3	1	6.0	8.0	42	0.730	1.300	92.0
3	1	8.0	10.0	42	0.480	0.830	110.0
3	1	10.0	12.0	40	0.630	1.000	160.0
3	1	12.0	14.0	40	0.520	0.870	130.0
3	1	14.0	16.0	36	0.250	0.390	75.0
3	1	16.0	20.0	39	0.280	0.460	73.0
3	1	20.0	24.0	39	0.130	0.220	54.0
3	1	24.0	28.0	38	0.180	0.280	35.0
3	1	28.0	32.0	42	0.260	0.450	26.0
3	1	32.0	36.0	42	0.190	0.330	21.0
3	1	36.0	40.0	42	0.180	0.310	20.0
3	1	40.0	44.5	38	0.094	0.150	22.0
6	1	0.0	2.0	37	0.280	0.450	36.0
6	1	2.0	4.0	20	0.230	0.290	31.0
6	1	4.0	6.0	15	0.160	0.190	18.0
6	1	6.0	8.0	21	0.430	0.540	58.0
6	1	8.0	10.0	10	0.350	0.400	20.0
6	1	10.0	12.0	26	0.640	0.870	24.0
6	1	12.0	13.3	32	0.020	0.029	19.0
31	1	0.0	2.0	18	0.095	0.110	1.2
31	1	2.0	4.0	18	0.092	0.110	3.2
31	1	4.0	6.0	21	0.088	0.110	1.3
31	1	6.0	8.0	18	0.130	0.160	2.1
31	1	8.0	10.0	19	0.058	0.071	3.6
31	1	10.0	12.0	19	0.062	0.077	2.8
31	1	12.0	14.0	18	0.021	0.025	0.7
31	1	14.0	16.0	17	0.013	0.016	4.7
31	1	16.0	20.0	16	0.021	0.025	3.6
31	1	20.0	24.0	17	0.025	0.030	3.2
31	1	24.0	28.0	18	0.017	0.021	5.2
32	1	0.0	2.0	24	0.086	0.110	4.1

TABLE 2. (CONTINUED)

STATION	CORE	INTERVAL		WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	PPM	PPM	PPM	PPM
32	1	2.0	4.7	16	0.072	0.085	3.5	4.3
36	1	0.0	2.0	26	0.096	0.130	9.0	12.0
36	1	2.0	4.0	INTERVAL NOT ANALYZED				
36	1	4.0	6.0	21	0.034	0.043	11.0	11.0
36	1	6.0	8.0	22	0.016	0.020	17.0	28.0
36	1	8.0	9.6	33	0.016	0.024	14.0	27.0
37	1	0.0	2.0	38	0.110	0.180	15.0	16.0
37	1	2.0	4.0	32	0.040	0.059	22.0	27.0
37	1	4.0	6.0	30	0.024	0.034	25.0	34.0
37	1	6.0	8.0	29	0.018	0.026	20.0	31.0
37	1	8.0	10.0	30	0.021	0.030	22.0	32.0
37	1	10.0	12.0	30	0.025	0.035	19.0	33.0
37	1	12.0	14.4	33	0.024	0.035	31.0	35.0
38	1	0.0	5.0	29	0.020	0.028	22.0	36.0
40	1	0.0	2.0	25	0.018	0.023	4.8	4.3
40	1	2.0	4.0	18	0.019	0.023	4.6	4.0
40	1	4.0	6.0	19	0.014	0.018	6.6	9.9
40	1	6.0	8.0	21	0.035	0.044	6.6	9.1
40	1	8.0	10.0	21	0.036	0.045	5.3	8.2
41	1	0.0	2.0	22	0.058	0.074	5.5	6.6
41	1	2.0	4.0	14	0.065	0.076	6.4	7.6
41	1	4.0	5.5	13	0.038	0.044	3.9	8.6
42	1	0.0	1.0	21	0.013	0.016	3.8	6.8
44	1	0.0	2.0	24	0.059	0.077	11.0	17.0
44	1	2.0	4.0	35	0.024	0.038	20.0	33.0
44	1	4.0	6.0	35	0.019	0.030	18.0	40.0
44	1	6.0	8.0	31	0.029	0.043	18.0	35.0
44	1	8.0	10.0	27	0.019	0.027	19.0	38.0
44	1	10.0	12.0	27	0.022	0.030	18.0	32.0
44	1	12.0	14.0	32	0.025	0.036	17.0	37.0
44	1	14.0	16.0	34	0.018	0.028	20.0	44.0
44	1	16.0	20.0	34	0.021	0.031	17.0	34.0
44	1	20.0	24.0	31	0.050	0.072	18.0	41.0
44	1	24.0	27.0	37	0.029	0.046	22.0	38.0
45	1	0.0	2.0	22	0.007	0.009	2.0	3.0
45	1	2.0	4.0	16	0.007	0.008	2.4	3.6
45	1	4.0	6.0	16	0.017	0.020	2.7	3.8

TABLE 2. (CONTINUED)

STATION	CORE	INTERVAL		WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	PPM	PPM	PPM	PPM
45	1	6.0	8.0	15	0.010	0.011	2.4	3.6
45	1	8.0	10.0	15	0.011	0.013	2.0	6.6
45	1	10.0	12.0	17	0.010	0.012	3.0	3.8
45	1	12.0	14.0	17	0.012	0.014	3.1	4.8
45	1	14.0	16.0	17	0.013	0.016	3.3	5.6
45	1	16.0	20.0	16	0.008	0.010	2.4	3.5
45	1	20.0	23.7	19	0.012	0.015	2.4	5.3
46	1	0.0	2.0	46	44.000	81.000	8.8	21.0
46	1	2.0	4.0	38	8.100	13.000	11.0	23.0
46	1	4.0	6.0	32	11.000	16.000	13.0	19.0
46	1	6.0	8.0	32	29.000	43.000	6.8	25.0
46	1	8.0	10.0	33	15.000	23.000	12.0	22.0
46	1	10.0	12.0	29	5.600	8.000	17.0	43.0
46	1	12.0	14.0	28	0.390	0.540	18.0	43.0
46	1	14.0	16.0	31	0.150	0.220	20.0	42.0
46	1	16.0	20.0	28	1.500	2.100	13.0	29.0
46	1	20.0	24.0	25	0.110	0.150	18.0	39.0
46	1	24.0	27.0	24	0.360	0.480	16.0	42.0
47	1	0.0	2.0	55	0.026	0.058	6.7	26.0
47	1	2.0	4.0	27	0.030	0.041	4.3	9.0
47	1	4.0	6.0	47	0.031	0.059	14.0	25.0
47	1	6.0	8.0	46	0.039	0.072	13.0	22.0
47	1	8.0	10.0	41	0.044	0.075	12.0	21.0
47	1	10.0	12.0	38	0.048	0.078	9.6	21.0
47	1	12.0	14.0	15	0.025	0.029	4.8	11.0
48	1	0.0	2.0	26	0.015	0.020	3.1	2.9
48	1	2.0	4.0	20	0.012	0.016	3.0	4.4
48	1	4.0	6.0	17	0.016	0.019	2.5	5.0
48	1	6.0	7.5	16	0.034	0.041	3.8	4.7
48	2	0.0	5.0	24	0.012	0.016	4.1	6.5
49	1	0.0	2.0	36	0.190	0.310	15.0	34.0
49	1	2.0	4.0	30	0.038	0.055	14.0	34.0
49	1	4.0	6.0	30	0.024	0.034	18.0	38.0
49	1	6.0	8.0	30	0.026	0.037	19.0	39.0
49	1	8.0	10.0	28	0.049	0.068	14.0	37.0
49	1	10.0	12.0	27	0.023	0.032	18.0	41.0
49	1	12.0	14.0	27	0.027	0.037	17.0	36.0
49	1	14.0	16.0	27	0.049	0.067	19.0	38.0
50	1	0.0	2.0	44	0.070	0.120	3.9	9.6

TABLE 2. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
50	1	2.0 4.0	19	0.051	0.063	4.8	7.8
D1	1	0.0 2.0	64	0.160	0.460	7.0	54.0
D1	1	2.0 4.0	65	0.240	0.680	17.0	54.0
D1	1	4.0 6.0	64	0.200	0.550	19.0	50.0
D1	1	6.0 8.0	63	0.170	0.470	18.0	51.0
D1	1	8.0 10.0	69	0.120	0.380	21.0	56.0
D1	1	10.0 12.0	67	0.140	0.420	17.0	53.0
D1	1	12.0 14.0	72	0.015	0.055	19.0	49.0
D1	1	14.0 16.0	70	0.001	0.002	22.0	53.0
D1	1	16.0 20.0	INTERVAL NOT ANALYZED				
D1	1	20.0 24.0	66	0.003	0.010	18.0	61.0
D1	1	24.0 28.0	INTERVAL NOT ANALYZED				
D1	1	28.0 32.0	47	0.011	0.020	18.0	56.0
D1	1	32.0 36.0	INTERVAL NOT ANALYZED				
D1	1	36.0 40.0	31	0.015	0.022	16.0	38.0
D2	1	0.0 2.0	57	0.220	0.500	19.0	53.0
D2	1	2.0 4.0	60	0.220	0.560	20.0	58.0
D2	1	4.0 6.0	64	0.220	0.620	24.0	65.0
D2	1	6.0 8.0	67	0.210	0.640	22.0	62.0
D2	1	8.0 10.0	62	0.190	0.490	20.0	57.0
D2	1	10.0 12.0	56	0.110	0.250	15.0	49.0
D2	1	12.0 14.0	60	0.100	0.260	21.0	52.0
D2	1	14.0 16.0	56	0.097	0.220	21.0	57.0
D2	1	16.0 20.0	INTERVAL NOT ANALYZED				
D2	1	20.0 24.0	60	0.091	0.230	22.0	58.0
D2	1	24.0 28.0	INTERVAL NOT ANALYZED				
D2	1	28.0 32.0	53	0.001	0.002	19.0	47.0
D2	1	32.0 35.0	INTERVAL NOT ANALYZED				
D3	1	0.0 2.0	33	0.270	0.400	16.0	37.0
D3	1	2.0 4.0	36	0.150	0.240	16.0	38.0
D3	1	4.0 6.0	30	0.055	0.079	19.0	46.0
D3	1	6.0 8.0	24	0.006	0.008	21.0	41.0
D3	1	8.0 10.0	26	0.004	0.005	19.0	38.0
D3	1	10.0 12.0	29	0.002	0.003	21.0	41.0
D3	1	12.0 14.0	26	0.003	0.004	19.0	40.0
D3	1	14.0 16.0	29	0.003	0.004	21.0	41.0
D3	1	16.0 20.0	INTERVAL NOT ANALYZED				
D3	1	20.0 24.0	29	0.003	0.004	17.0	37.0
D4	1	0.0 2.0	24	0.360	0.470	10.0	26.0
D4	1	2.0 4.0	29	0.027	0.039	13.0	31.0
D4	1	4.0 6.0	42	0.002	0.004	17.0	44.0

TABLE 2. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
D4	1	6.0 8.0	44			17.0	47.0
D4	1	8.0 10.0	39	0.001	0.002	17.0	39.0
D4	1	10.0 12.0	37	0.003	0.005	20.0	38.0
D4	1	12.0 14.0	38	0.007	0.012	18.0	37.0
D4	1	14.0 16.0	35	0.001	0.001	19.0	39.0
D4	1	16.0 20.0	INTERVAL NOT ANALYZED				
D4	1	20.0 24.0	30	0.002	0.003	18.0	34.0
D4	1	24.0 28.0	INTERVAL NOT ANALYZED				
D4	1	28.0 32.0	33	0.001	0.001	22.0	45.0
D4	1	32.0 36.0	INTERVAL NOT ANALYZED				
D4	1	36.0 40.0	31			18.0	36.0
D4	1	40.0 50.0	INTERVAL NOT ANALYZED				

TABLE 3. RESULTS OF ANALYSES OF LAKE ERIE SEDIMENT CORES FOR MERCURY, CHROMIUM, AND NICKEL

STATION	CORE	INTERVAL		WAT	FF	WET	HG	DRY	HG	CR	NI
		TOP	BOTTOM								
5	1	0.0	4.0	42		0.014		0.024		15.0	28.0
5	1	4.0	6.0	36		0.014		0.021		14.0	28.0
5	1	6.0	8.0	33		0.011		0.016		15.0	29.0
5	1	8.0	10.0	32		0.012		0.018		16.0	29.0
5	1	10.0	12.0	33		0.016		0.024		16.0	28.0
5	1	12.0	14.0	30		0.019		0.027		16.0	29.0
5	1	14.0	16.0	32		0.019		0.028		17.0	30.0
5	1	16.0	20.0	32		0.021		0.031		13.0	37.0
5	1	20.0	24.0	28		0.026		0.036		11.0	18.0
5	1	24.0	28.0	39		0.028		0.046		11.0	20.0
5	1	28.0	32.0	41		0.044		0.076		19.0	27.0
6	1	0.0	2.0	64		0.011		0.030		59.0	63.0
6	1	2.0	4.0	58		0.120		0.290		62.0	64.0
6	1	4.0	6.0	55		0.150		0.330		74.0	64.0
6	1	6.0	8.0	55		0.190		0.420		76.0	65.0
6	1	8.0	10.0	51		0.130		0.260		55.0	59.0
6	1	10.0	12.0	49		0.095		0.190		48.0	60.0
6	1	12.0	14.0	48		0.084		0.160		42.0	58.0
6	1	14.0	16.0	55		0.100		0.230		33.0	44.0
6	1	16.0	20.0	54		0.150		0.330		21.0	28.0
6	1	20.0	24.0	55		0.044		0.097		18.0	28.0
6	1	24.0	28.0	56		0.069		0.160		18.0	28.0
6	1	28.0	32.0	54		0.031		0.068		16.0	32.0
6	1	32.0	36.0	56		0.061		0.140		18.0	31.0
6	1	36.0	40.0	56		0.030		0.067		17.0	31.0
6	1	40.0	43.0			INTERVAL NOT ANALYZED					
7	1	0.0	4.0	51		0.140		0.290		53.0	63.0
7	1	4.0	6.0	49		0.100		0.200		49.0	63.0
7	1	6.0	8.0	47		0.100		0.190		45.0	58.0
7	1	8.0	10.0	42		0.091		0.160		35.0	51.0
7	1	10.0	12.0	44		0.081		0.140		28.0	45.0
7	1	12.0	14.0	45		0.092		0.170		30.0	45.0
7	1	14.0	16.0	45		0.075		0.140		30.0	46.0
7	1	16.0	20.0	61		0.036		0.092		23.0	36.0
7	1	20.0	24.0	58		0.018		0.042		20.0	30.0
7	1	24.0	28.0	55		0.014		0.031		19.0	31.0
7	1	28.0	32.0	55		0.007		0.015		19.0	30.0
7	1	32.0	36.0	53		0.040		0.085		27.0	44.0
7	1	36.0	38.0	49		0.025		0.049		19.0	30.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
9	1	0.0 2.0	71	0.055	0.190	60.0	72.0
9	1	2.0 4.0	61	0.110	0.280	63.0	78.0
9	1	4.0 6.0	57	0.081	0.190	53.0	72.0
9	1	6.0 8.0	54	0.065	0.140	48.0	70.0
9	1	8.0 10.0	52	0.051	0.110	41.0	60.0
9	1	10.0 12.0	53	0.069	0.150	38.0	56.0
9	1	12.0 14.0	49	0.058	0.120	33.0	53.0
9	1	14.0 16.0	64	0.013	0.038	34.0	53.0
9	1	16.0 20.0	57	0.032	0.074	22.0	40.0
9	1	20.0 24.0	59	0.029	0.070	25.0	42.0
9	1	24.0 28.0	58	0.013	0.032	23.0	42.0
9	1	28.0 32.0	54	0.012	0.026	23.0	41.0
9	1	32.0 36.0	50	0.020	0.040	23.0	36.0
9	1	36.0 40.0	51			25.0	42.0
10	1	0.0 2.0	83			44.0	67.0
10	1	2.0 4.0	91	0.002	0.017	43.0	66.0
10	1	4.0 6.0	83	0.003	0.020	44.0	70.0
10	1	6.0 8.0	79	0.004	0.021	40.0	64.0
10	1	8.0 10.0	63	0.001	0.004	40.0	64.0
10	1	10.0 12.0	59	0.001	0.001	29.0	52.0
10	1	12.0 14.0	56	0.002	0.005	27.0	46.0
10	1	14.0 16.0	54	0.240	0.530	30.0	44.0
10	1	16.0 20.0	60	0.400	1.000	30.0	48.0
10	1	20.0 24.0	64	0.001	0.004	25.0	44.0
10	1	24.0 28.0	67	0.001	0.003	28.0	46.0
10	1	28.0 32.0	58	0.008	0.020	28.0	49.0
10	1	32.0 36.0	51	0.011	0.023	27.0	46.0
10	1	36.0 40.0	48	0.008	0.016	26.0	46.0
10	1	40.0 43.0	48	0.022	0.043	27.0	47.0
11	1	0.0 2.0	18	0.083	0.100	19.0	30.0
11	1	2.0 4.0	31	0.036	0.052	21.0	42.0
11	1	4.0 6.0	33	0.031	0.046	20.0	43.0
12	1	0.0 2.0	33	0.016	0.024	14.0	21.0
12	1	2.0 4.0	32	0.017	0.024	15.0	22.0
12	1	4.0 6.0	31	0.025	0.036	17.0	26.0
12	1	6.0 8.0	38	0.031	0.051	17.0	28.0
12	1	8.0 10.0	29	0.027	0.038	14.0	25.0
12	1	10.0 12.0	30	0.042	0.061	16.0	23.0
12	1	12.0 14.0	29	0.020	0.029	16.0	25.0
12	1	14.0 16.0	29	0.009	0.013	13.0	20.0
12	1	16.0 20.0	27	0.020	0.028	15.0	24.0
12	1	20.0 25.0	29	0.020	0.028	19.0	33.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
13	1	0.0 2.0	30	0.008	0.012	14.0	22.0
13	1	2.0 4.0	26	0.020	0.027	11.0	23.0
13	1	4.0 6.0	30	0.010	0.015	12.0	21.0
13	1	6.0 8.0	25	0.012	0.016	14.0	23.0
13	1	8.0 10.0	25	0.011	0.015	14.0	26.0
13	1	10.0 12.0	24	0.010	0.014	13.0	22.0
13	1	12.0 14.0	25	0.010	0.014	14.0	25.0
13	1	14.0 16.0	24	0.006	0.008	13.0	21.0
13	1	16.0 20.0	26	0.007	0.009	17.0	26.0
13	1	20.0 24.0	25	0.016	0.022	16.0	24.0
14	1	0.0 2.0	72	0.062	0.220	39.0	69.0
14	1	2.0 4.0	73	0.048	0.180	37.0	62.0
14	1	4.0 6.0	67	0.440	1.400	39.0	60.0
14	1	6.0 8.0	65	0.130	0.380	40.0	61.0
14	1	8.0 10.0	54	0.045	0.097	36.0	58.0
14	1	10.0 12.0	58	0.045	0.110	34.0	56.0
14	1	12.0 14.0	60	0.190	0.490	31.0	52.0
14	1	14.0 16.0	58	0.059	0.140	28.0	48.0
14	1	16.0 20.0	62	0.043	0.110	24.0	39.0
14	1	20.0 24.0	58	0.063	0.150	24.0	40.0
14	1	24.0 28.0	55	0.048	0.110	24.0	43.0
14	1	28.0 32.0	51	0.027	0.055	15.0	28.0
14	1	32.0 36.0	60	0.031	0.076	22.0	40.0
14	1	36.0 40.0	56	0.018	0.040	26.0	48.0
14	1	40.0 48.0	55	0.018	0.041	20.0	36.0
15	1	0.0 2.0	60	0.005	0.013	37.0	59.0
15	1	2.0 4.0	60	0.004	0.010	43.0	61.0
15	1	4.0 6.0	61	0.008	0.020	47.0	63.0
15	1	6.0 8.0	60	0.033	0.082	46.0	60.0
15	1	8.0 10.0	57	0.004	0.010	46.0	61.0
15	1	10.0 12.0	59	0.007	0.018	43.0	61.0
15	1	12.0 14.0	57	0.002	0.005	47.0	64.0
15	1	14.0 16.0	71	0.001	0.004	41.0	63.0
15	1	16.0 20.0	61	0.046	0.120	29.0	39.0
15	1	20.0 24.0	61	0.026	0.067	22.0	33.0
15	1	24.0 28.0	59	0.018	0.044	26.0	41.0
15	1	28.0 32.0	58	0.057	0.140	25.0	35.0
15	1	32.0 36.0	59	0.110	0.260	21.0	33.0
15	1	36.0 40.0	55	0.046	0.100	22.0	34.0
15	1	40.0 47.5	62	0.130	0.350	23.0	35.0
16	1	0.0 2.0	55	0.120	0.270	46.0	62.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL		WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	FPM	PPM	PPM	PPM
16	1	2.0	4.0	49	0.044	0.086	41.0	58.0
16	1	4.0	6.0	47	0.033	0.062	29.0	50.0
16	1	6.0	8.0	48	0.036	0.070	26.0	46.0
16	1	8.0	10.0	46	0.028	0.051	23.0	47.0
16	1	10.0	12.0	48	0.026	0.050	26.0	48.0
16	1	12.0	14.0	49	0.023	0.045	25.0	50.0
16	1	14.0	16.0	59	0.003	0.008	24.0	45.0
16	1	16.0	20.0	46	0.014	0.026	16.0	25.0
16	1	20.0	24.0	43	0.026	0.046	12.0	21.0
16	1	24.0	28.0	45	0.020	0.036	17.0	29.0
16	1	28.0	32.0	36	0.014	0.022	12.0	21.0
16	1	32.0	36.0	36	0.008	0.013	22.0	37.0
16	1	36.0	40.0	35	0.011	0.017	15.0	26.0
16	1	40.0	43.5	38	0.023	0.037	15.0	23.0
17	1	0.0	2.0	26	0.006	0.009	17.0	33.0
17	1	2.0	4.0	29	0.011	0.015	20.0	39.0
17	1	4.0	6.0	34	0.014	0.021	24.0	47.0
17	1	6.0	8.0	33	0.003	0.004	24.0	45.0
17	1	8.0	10.0	32	0.005	0.008	26.0	45.0
17	1	10.0	12.0	30	0.002	0.003	21.0	44.0
17	1	12.0	14.0	31	0.019	0.028	22.0	45.0
17	1	14.0	16.0	36	0.016	0.024	22.0	48.0
18	1	0.0	2.0	60	0.017	0.043	27.0	48.0
18	1	2.0	4.0	41	0.019	0.033	25.0	47.0
18	1	4.0	6.0	40	0.027	0.045	25.0	47.0
18	1	6.0	8.0	42	0.020	0.034	25.0	47.0
18	1	8.0	10.0	40	0.013	0.021	24.0	47.0
18	1	10.0	12.0	64	0.019	0.053	69.0	130.0
18	1	12.0	14.0	41	0.010	0.017	25.0	45.0
18	1	14.0	16.0	44	0.024	0.043	26.0	48.0
18	1	16.0	20.0	54	0.032	0.068	21.0	35.0
18	1	20.0	24.0	41	0.015	0.026	13.0	20.0
18	1	24.0	28.0	54	0.006	0.014	20.0	32.0
18	1	28.0	32.0	56	0.030	0.069	21.0	31.0
18	1	32.0	36.0	56	0.027	0.061	22.0	32.0
18	1	36.0	40.0	53	0.004	0.008	21.0	30.0
18	1	40.0	49.0	67	0.004	0.013	24.0	32.0
19	1	0.0	2.0	75	0.015	0.062	25.0	40.0
19	1	2.0	4.0	58	0.019	0.045	21.0	31.0
19	1	4.0	6.0	54	0.019	0.041	19.0	31.0
19	1	6.0	8.0	51	0.028	0.057	17.0	26.0
19	1	8.0	10.0	49	0.010	0.019	19.0	31.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL		WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	PPM	PPM	PPM	PPM
19	1	10.0	12.0	59	0.016	0.038	22.0	34.0
19	1	12.0	14.0	46	0.014	0.027	18.0	27.0
19	1	14.0	16.0	46	0.026	0.048	16.0	26.0
19	1	16.0	20.0	52	0.020	0.042	21.0	32.0
19	1	20.0	24.0	57	0.011	0.025	26.0	40.0
19	1	24.0	28.0	54	0.010	0.022	30.0	52.0
19	1	28.0	32.0	47	0.008	0.014	19.0	24.0
19	1	32.0	36.0	51	0.013	0.027	25.0	37.0
19	1	36.0	40.0	51	0.015	0.030	23.0	34.0
20	1	0.0	2.0	36	0.009	0.015	13.0	24.0
20	1	2.0	4.0	26	0.014	0.019	13.0	22.0
20	1	4.0	6.0	30	0.015	0.022	17.0	29.0
20	1	6.0	8.0	34	0.013	0.020	18.0	31.0
20	1	8.0	10.0	34	0.017	0.026	19.0	38.0
20	1	10.0	12.0	29	0.017	0.024	16.0	33.0
20	1	12.0	14.0	23	0.011	0.014	11.0	24.0
20	1	14.0	16.0	25	0.009	0.012	12.0	25.0
21	1	0.0	2.0	23	0.002	0.003	9.2	11.0
21	1	2.0	4.0	25	0.030	0.039	11.0	16.0
21	1	4.0	6.0	24	0.003	0.003	10.0	18.0
21	1	6.0	8.0	22	0.001	0.002	9.5	14.0
21	1	8.0	10.0	23	0.004	0.006	13.0	28.0
21	1	10.0	12.0	32	0.006	0.008	14.0	23.0
21	1	12.0	13.8	27	0.018	0.025	15.0	33.0
22	1	0.0	2.0	INTERVAL NOT ANALYZED				
22	1	2.0	4.0	38	0.063	0.100	34.0	42.0
22	1	4.0	6.0	37	0.036	0.057	28.0	38.0
22	1	6.0	8.0	39	0.073	0.120	34.0	42.0
22	1	8.0	10.0	39	0.035	0.057	29.0	41.0
22	1	10.0	12.0	43	0.061	0.110	36.0	46.0
22	1	12.0	14.0	46	0.046	0.085	38.0	46.0
22	1	14.0	16.0	38	0.043	0.068	22.0	36.0
22	1	16.0	20.0	36	0.062	0.096	18.0	32.0
22	1	20.0	24.0	35	0.068	0.110	17.0	34.0
24	1	0.0	4.0	70	0.025	0.085	43.0	61.0
24	1	4.0	6.0	26	0.012	0.016	13.0	29.0
24	1	6.0	8.0	30	0.007	0.010	15.0	37.0
24	1	8.0	10.0	31	0.010	0.015	17.0	41.0
24	1	10.0	12.0	29	0.006	0.008	12.0	32.0
24	1	12.0	14.0	29	0.008	0.012	18.0	42.0
24	1	14.0	16.0	31	0.008	0.012	10.0	30.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL TOP	INTERVAL BOTTOM	WATER %	WET HG PPM	DRY HG PPM	CR PPM	NI PPM
24	1	16.0	20.0		INTERVAL NOT ANALYZED			
24	1	20.0	24.0	31	0.012	0.017	17.0	42.0
24	1	24.0	28.0		INTERVAL NOT ANALYZED			
24	1	28.0	32.0	31	0.012	0.017	15.0	39.0
24	1	32.0	36.0		INTERVAL NOT ANALYZED			
24	1	36.0	38.0	29	0.013	0.019	9.6	30.0
30	1	0.0	2.0	60	0.001	0.003	20.0	40.0
30	1	2.0	4.0	51	0.004	0.007	18.0	35.0
30	1	4.0	6.0	51	0.003	0.006	16.0	33.0
30	1	6.0	8.0	50	0.001	0.003	18.0	40.0
30	1	8.0	10.0	46	0.004	0.008	17.0	37.0
30	1	10.0	12.0	44	0.006	0.010	18.0	35.0
30	1	12.0	14.0	44	0.008	0.015	16.0	37.0
30	1	14.0	16.0	43	0.006	0.010	15.0	30.0
30	1	16.0	20.0		INTERVAL NOT ANALYZED			
30	1	20.0	24.0	43	0.008	0.015	16.0	41.0
30	1	24.0	28.0		INTERVAL NOT ANALYZED			
30	1	28.0	32.0	36	0.005	0.009	12.0	33.0
30	1	32.0	36.0		INTERVAL NOT ANALYZED			
30	1	36.0	40.0	35	0.005	0.008	2.5	18.0
30	1	40.0	50.0		INTERVAL NOT ANALYZED			
30	1	50.0	60.0	38	0.007	0.012	3.3	20.0
30	1	60.0	70.0		INTERVAL NOT ANALYZED			
30	1	70.0	80.0	36	0.006	0.009	14.0	36.0
30	1	80.0	90.0		INTERVAL NOT ANALYZED			
30	1	90.0	99.0	36	0.005	0.009	10.0	31.0
31	1	0.0	2.0	53	0.014	0.030	17.0	33.0
31	1	2.0	4.0	51	0.011	0.022	17.0	36.0
31	1	4.0	6.0	47	0.009	0.017	18.0	41.0
31	1	6.0	8.0	44	0.010	0.017	18.0	46.0
31	1	8.0	10.0	45	0.012	0.021	17.0	41.0
31	1	10.0	12.0	47	0.010	0.018	19.0	45.0
31	1	12.0	14.0	42	0.009	0.015	17.0	41.0
31	1	14.0	16.0	48	0.010	0.019	19.0	48.0
31	1	16.0	20.0	43	0.007	0.013	14.0	35.0
31	1	20.0	24.0	43	0.014	0.025	18.0	40.0
31	1	24.0	28.0	41	0.006	0.011	15.0	38.0
31	1	28.0	32.0	40	0.005	0.009	16.0	37.0
31	1	32.0	36.0	41	0.008	0.014	14.0	36.0
31	1	36.0	40.0	42	0.010	0.017	18.0	41.0
31	1	40.0	50.0	41	0.007	0.011	16.0	38.0
31	1	50.0	60.0	39	0.010	0.017	15.0	33.0
31	1	60.0	68.0	34	0.010	0.015	5.5	17.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
32	1	0.0 2.0	63	0.019	0.051	27.0	34.0
32	1	2.0 4.0	56	0.015	0.035	16.0	26.0
32	1	4.0 6.0	47	0.010	0.019	16.0	26.0
32	1	6.0 8.0	41	0.008	0.013	14.0	29.0
32	1	8.0 10.0	40	0.007	0.012	17.0	33.0
32	1	10.0 12.0	35	0.007	0.011	13.0	27.0
32	1	12.0 14.0	29	0.006	0.008	13.0	23.0
32	1	14.0 16.0	29	0.006	0.008	13.0	23.0
32	1	16.0 20.0	INTERVAL NOT ANALYZED				
32	1	20.0 24.0	31	0.008	0.012	8.8	16.0
32	1	24.0 28.0	INTERVAL NOT ANALYZED				
32	1	28.0 32.0	27	0.007	0.010	11.0	18.0
32	1	32.0 36.0	INTERVAL NOT ANALYZED				
32	1	36.0 40.0	31	0.008	0.012	13.0	21.0
32	1	40.0 50.0	INTERVAL NOT ANALYZED				
32	1	50.0 60.0	34	0.005	0.007	14.0	24.0
32	1	60.0 70.0	INTERVAL NOT ANALYZED				
32	1	70.0 81.5	28	0.006	0.008	12.0	20.0
33	1	0.0 2.0	85	0.037	0.260	63.0	72.0
33	1	2.0 4.0	72	0.050	0.180	45.0	51.0
33	1	4.0 6.0	65	0.037	0.100	23.0	36.0
33	1	6.0 8.0	49	0.014	0.028	15.0	27.0
33	1	8.0 10.0	44	0.017	0.030	15.0	30.0
33	1	10.0 12.0	37	0.012	0.020	16.0	33.0
33	1	12.0 14.0	36	0.010	0.016	15.0	36.0
33	1	14.0 16.0	39	0.012	0.019	15.0	33.0
33	1	16.0 20.0	INTERVAL NOT ANALYZED				
33	1	20.0 24.0	38	0.022	0.036	14.0	37.0
33	1	24.0 28.0	INTERVAL NOT ANALYZED				
33	1	28.0 32.0	34	0.014	0.021	14.0	38.0
33	1	32.0 36.0	INTERVAL NOT ANALYZED				
33	1	36.0 40.0	28	0.009	0.012	14.0	38.0
34	1	0.0 2.0	57	0.088	0.210	55.0	71.0
34	1	2.0 4.0	58	0.120	0.300	37.0	64.0
34	1	4.0 6.0	55	0.210	0.460	26.0	47.0
34	1	6.0 8.0	57	0.190	0.440	34.0	61.0
34	1	8.0 10.0	54	0.160	0.360	32.0	48.0
34	1	10.0 12.0	56	0.220	0.500	25.0	55.0
34	1	12.0 14.0	48	0.180	0.350	17.0	42.0
34	1	14.0 16.0	40	0.120	0.200	12.0	36.0
34	1	16.0 20.0	INTERVAL NOT ANALYZED				
34	1	20.0 24.0	41	0.084	0.140	15.0	39.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL TOP	INTERVAL BOTTOM	WATER %	WET HG PPM	DRY HG PPM	CR PPM	NI PPM
34	1	24.0	28.0	INTERVAL NOT ANALYZED				
34	1	28.0	32.0	41	0.032	0.054	14.0	34.0
34	1	32.0	36.0	INTERVAL NOT ANALYZED				
34	1	36.0	40.0	39	0.020	0.033	13.0	37.0
34	1	40.0	44.0	INTERVAL NOT ANALYZED				
36	1	0.0	2.0	78	0.071	0.320	58.0	68.0
36	1	2.0	4.0	76	0.064	0.270	51.0	63.0
36	1	4.0	6.0	76	0.035	0.150	32.0	55.0
36	1	6.0	8.0	75	0.033	0.130	27.0	45.0
36	1	8.0	10.0	73	0.026	0.094	25.0	46.0
36	1	10.0	12.0	67	0.015	0.046	22.0	42.0
36	1	12.0	14.0	62	0.015	0.039	23.0	43.0
36	1	14.0	16.0	62	0.011	0.028	24.0	42.0
36	1	16.0	20.0	INTERVAL NOT ANALYZED				
36	1	20.0	24.0	60	0.011	0.028	24.0	47.0
36	1	24.0	28.0	INTERVAL NOT ANALYZED				
36	1	28.0	32.0	57	0.011	0.025	23.0	47.0
36	1	32.0	36.0	INTERVAL NOT ANALYZED				
36	1	36.0	40.0	57	0.010	0.023	24.0	44.0
36	1	40.0	50.0	INTERVAL NOT ANALYZED				
36	1	50.0	60.0	55	0.010	0.022	22.0	41.0
36	1	60.0	70.0	INTERVAL NOT ANALYZED				
36	1	70.0	80.0	52	0.014	0.029	23.0	39.0
36	1	80.0	86.0	INTERVAL NOT ANALYZED				
37	1	0.0	2.0	81	0.032	0.170	54.0	99.0
37	1	2.0	4.0	79	0.014	0.068	53.0	97.0
37	1	4.0	6.0	75	0.020	0.081	41.0	85.0
37	1	6.0	8.0	73	0.014	0.052	33.0	83.0
37	1	8.0	10.0	71	0.008	0.026	29.0	73.0
37	1	10.0	12.0	68	0.009	0.029	26.0	70.0
37	1	12.0	14.0	66	0.014	0.040	28.0	70.0
37	1	14.0	16.0	64	0.006	0.016	26.0	70.0
37	1	16.0	20.0	65	0.003	0.008	28.0	73.0
37	1	20.0	24.0	64	0.004	0.012	28.0	72.0
37	1	24.0	28.0	64	0.003	0.008	28.0	73.0
37	1	28.0	32.0	63	0.008	0.021	26.0	70.0
37	1	32.0	36.0	62	0.008	0.021	28.0	73.0
37	1	36.0	40.0	61	0.005	0.012	27.0	70.0
37	1	40.0	50.0	61	0.005	0.014	24.0	64.0
37	1	50.0	60.0	60	0.005	0.013	26.0	65.0
37	1	60.0	70.0	59	0.009	0.022	28.0	73.0
37	1	70.0	80.0	58			26.0	65.0
37	1	80.0	90.0	61	0.010	0.025	25.0	65.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
38	1	0.0 2.0	76	0.038	0.160	41.0	86.0
38	1	2.0 4.0	83	0.012	0.070	34.0	71.0
38	1	4.0 6.0	82	0.016	0.087	28.0	68.0
38	1	6.0 8.0	67	0.016	0.047	23.0	55.0
38	1	8.0 10.0	69	0.011	0.036	23.0	55.0
38	1	10.0 12.0	64	0.012	0.033	20.0	51.0
38	1	12.0 14.0	61	0.012	0.030	21.0	50.0
38	1	14.0 16.0	63	0.014	0.037	22.0	55.0
38	1	16.0 20.0	INTERVAL NOT ANALYZED				
38	1	20.0 24.0	60	0.027	0.068	23.0	67.0
38	1	24.0 28.0	INTERVAL NOT ANALYZED				
38	1	28.0 32.0	56	0.013	0.029	24.0	58.0
38	1	32.0 36.0	INTERVAL NOT ANALYZED				
38	1	36.0 40.0	55	0.017	0.037	24.0	61.0
38	1	40.0 50.0	INTERVAL NOT ANALYZED				
38	1	50.0 60.0	52	0.018	0.037	22.0	55.0
38	1	60.0 70.0	INTERVAL NOT ANALYZED				
38	1	70.0 80.0	49	0.019	0.036	22.0	54.0
38	1	80.0 90.0	INTERVAL NOT ANALYZED				
38	1	90.0 94.0	47	0.035	0.065	21.0	54.0
39	1	0.0 2.0	71	0.013	0.047	33.0	73.0
39	1	2.0 4.0	74	0.008	0.032	28.0	53.0
39	1	4.0 6.0	74	0.005	0.020	21.0	47.0
39	1	6.0 8.0	69	0.009	0.028	21.0	51.0
39	1	8.0 10.0	67	0.006	0.018	20.0	49.0
39	1	10.0 12.0	67	0.002	0.006	19.0	50.0
39	1	12.0 14.0	59	0.005	0.013	21.0	50.0
39	1	14.0 16.0	64	0.004	0.010	17.0	43.0
39	1	16.0 20.0	INTERVAL NOT ANALYZED				
39	1	20.0 24.0	54	0.006	0.014	19.0	45.0
39	1	24.0 28.0	INTERVAL NOT ANALYZED				
39	1	28.0 32.0	52	0.005	0.010	21.0	51.0
39	1	32.0 36.0	INTERVAL NOT ANALYZED				
39	1	36.0 40.0	51	0.006	0.013	21.0	51.0
39	1	40.0 50.0	INTERVAL NOT ANALYZED				
39	1	50.0 60.0	50	0.006	0.011	18.0	43.0
39	1	60.0 70.0	INTERVAL NOT ANALYZED				
39	1	70.0 80.0	48	0.007	0.014	20.0	50.0
39	1	80.0 84.0	INTERVAL NOT ANALYZED				
41	1	0.0 2.0	74	0.009	0.033	39.0	57.0
41	1	2.0 4.0	81	0.008	0.041	36.0	58.0
41	1	4.0 6.0	71	0.011	0.039	28.0	47.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
41	1	6.0 8.0	67	0.002	0.007	27.0	46.0
41	1	8.0 10.0	62	0.013	0.034	28.0	45.0
41	1	10.0 12.0	57	0.006	0.013	26.0	45.0
41	1	12.0 14.0	56	0.008	0.019	26.0	43.0
41	1	14.0 16.0	60	0.004	0.011	23.0	46.0
41	1	16.0 20.0	INTERVAL NOT ANALYZED				
41	1	20.0 24.0	62	0.005	0.013	26.0	44.0
41	1	24.0 28.0	INTERVAL NOT ANALYZED				
41	1	28.0 32.0	61	0.009	0.024	25.0	44.0
41	1	32.0 36.0	INTERVAL NOT ANALYZED				
41	1	36.0 40.0	60	0.007	0.017	26.0	43.0
41	1	40.0 50.0	INTERVAL NOT ANALYZED				
41	1	50.0 57.0	53	0.011	0.023	25.0	42.0
42	1	0.0 2.0	79	0.020	0.095	52.0	84.0
42	1	2.0 4.0	77	0.021	0.092	52.0	82.0
42	1	4.0 6.0	77	0.021	0.089	47.0	81.0
42	1	6.0 8.0	70	0.007	0.025	38.0	70.0
42	1	8.0 10.0	70	0.025	0.082	29.0	57.0
42	1	10.0 12.0	68	0.026	0.081	31.0	75.0
42	1	12.0 14.0	68	0.020	0.062	28.0	69.0
42	1	14.0 16.0	65	0.014	0.040	31.0	76.0
42	1	16.0 20.0	INTERVAL NOT ANALYZED				
42	1	20.0 24.0	68	0.005	0.017	27.0	50.0
42	1	24.0 28.0	INTERVAL NOT ANALYZED				
42	1	28.0 32.0	72	0.003	0.011	27.0	60.0
42	1	32.0 36.0	INTERVAL NOT ANALYZED				
42	1	36.0 40.0	69	0.004	0.013	24.0	55.0
42	1	40.0 50.0	INTERVAL NOT ANALYZED				
42	1	50.0 60.0	73	0.006	0.022	26.0	58.0
42	1	60.0 70.0	INTERVAL NOT ANALYZED				
42	1	70.0 80.0	64	0.009	0.025	29.0	65.0
42	1	80.0 90.0	INTERVAL NOT ANALYZED				
42	1	90.0 100.0	62	0.010	0.026	28.0	62.0
42	1	100.0 113.0	INTERVAL NOT ANALYZED				
42	2	0.0 2.0	80	0.017	0.086	32.0	55.0
42	2	2.0 4.0	76	0.006	0.026	29.0	52.0
42	2	4.0 6.0	72	0.005	0.020	29.0	56.0
42	2	6.0 8.0	70	0.005	0.017	27.0	50.0
42	2	8.0 10.0	67	0.007	0.022	29.0	61.0
42	2	10.0 12.0	68	0.006	0.018	30.0	60.0
42	2	12.0 14.0	67	0.004	0.012	27.0	59.0
42	2	14.0 16.0	70	0.002	0.007	29.0	59.0
42	2	16.0 20.0	INTERVAL NOT ANALYZED				

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL		WATER	WET HG	DRY HG	CR	NI
		TOP	BOTTOM	%	PPM	PPM	PPM	PPM
42	2	20.0	24.0	63	0.009	0.026	27.0	59.0
42	2	24.0	28.0	INTERVAL NOT ANALYZED				
42	2	28.0	32.0	63	0.009	0.023	25.0	56.0
42	2	32.0	36.0	INTERVAL NOT ANALYZED				
42	2	36.0	40.0	61	0.007	0.017	26.0	57.0
42	2	40.0	50.0	INTERVAL NOT ANALYZED				
42	2	50.0	60.0	60	0.005	0.012	27.0	57.0
42	2	60.0	70.0	INTERVAL NOT ANALYZED				
42	2	70.0	84.0	57	0.009	0.021	24.0	54.0
43	1	0.0	2.0	84	0.006	0.040	30.0	74.0
43	1	2.0	4.0	84			34.0	82.0
43	1	4.0	6.0	75	0.046	0.190	27.0	68.0
43	1	6.0	8.0	67	0.012	0.036	26.0	72.0
43	1	8.0	10.0	71	0.011	0.037	27.0	86.0
43	1	10.0	12.0	67	0.020	0.061	28.0	85.0
43	1	12.0	14.0	65	0.016	0.047	27.0	92.0
43	1	14.0	16.0	66	0.011	0.032	25.0	83.0
43	1	16.0	20.0	INTERVAL NOT ANALYZED				
43	1	20.0	24.0	61	0.016	0.041	26.0	79.0
43	1	24.0	28.0	INTERVAL NOT ANALYZED				
43	1	28.0	32.0	59	0.013	0.031	26.0	76.0
45	1	0.0	2.0	71	0.130	0.460	55.0	95.0
45	1	2.0	4.0	71	0.076	0.260	53.0	92.0
45	1	4.0	6.0	71	0.085	0.300	54.0	91.0
45	1	6.0	8.0	69	0.100	0.330	54.0	87.0
45	1	8.0	10.0	70	0.072	0.240	58.0	93.0
45	1	10.0	12.0	66	0.110	0.340	50.0	85.0
45	1	12.0	14.0	50	0.030	0.061	23.0	51.0
45	1	14.0	16.0	46	0.016	0.029	16.0	40.0
45	1	16.0	20.0	INTERVAL NOT ANALYZED				
45	1	20.0	24.0	50	0.009	0.019	22.0	49.0
45	1	24.0	28.0	INTERVAL NOT ANALYZED				
45	1	28.0	32.0	48	0.013	0.026	20.0	49.0
45	1	32.0	36.0	INTERVAL NOT ANALYZED				
45	1	36.0	40.0	42	0.012	0.021	17.0	42.0
45	1	40.0	50.0	INTERVAL NOT ANALYZED				
45	1	50.0	56.0	41	0.013	0.023	18.0	42.0
46	1	0.0	2.0	74	0.015	0.057	25.0	57.0
46	1	2.0	4.0	70	0.012	0.040	23.0	52.0
46	1	4.0	6.0	63	0.016	0.042	25.0	56.0
46	1	6.0	8.0	64	0.012	0.032	23.0	46.0
46	1	8.0	10.0	62	0.012	0.031	23.0	54.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
46	1	10.0 12.0	56	0.012	0.028	22.0	56.0
46	1	12.0 14.0	52	0.014	0.029	21.0	55.0
46	1	14.0 16.0	52	0.012	0.024	20.0	57.0
46	1	16.0 20.0	INTERVAL NOT ANALYZED				
46	1	20.0 24.0	49	0.011	0.021	22.0	54.0
46	1	24.0 28.0	INTERVAL NOT ANALYZED				
46	1	28.0 32.0	52	0.012	0.025	21.0	58.0
46	1	32.0 36.0	INTERVAL NOT ANALYZED				
46	1	36.0 40.0	45	0.013	0.024	16.0	50.0
46	1	40.0 44.0	INTERVAL NOT ANALYZED				
47	1	0.0 2.0	80	0.047	0.230	52.0	100.0
47	1	2.0 4.0	77	0.038	0.170	51.0	110.0
47	1	4.0 6.0	74	0.034	0.130	48.0	110.0
47	1	6.0 8.0	72	0.037	0.140	36.0	85.0
47	1	8.0 10.0	70	0.026	0.089	31.0	79.0
47	1	10.0 12.0	70	0.017	0.055	29.0	81.0
47	1	12.0 14.0	69	0.015	0.048	28.0	70.0
47	1	14.0 16.0	73	0.006	0.023	27.0	74.0
47	1	16.0 20.0	INTERVAL NOT ANALYZED				
47	1	20.0 24.0	72	0.003	0.011	26.0	68.0
47	1	24.0 28.0	INTERVAL NOT ANALYZED				
47	1	28.0 32.0	69	0.004	0.012	24.0	66.0
47	1	32.0 36.0	INTERVAL NOT ANALYZED				
47	1	36.0 40.0	72	0.003	0.010	27.0	79.0
47	1	40.0 50.0	INTERVAL NOT ANALYZED				
47	1	50.0 60.0	60	0.009	0.022	28.0	75.0
47	1	60.0 70.0	INTERVAL NOT ANALYZED				
47	1	70.0 80.0	INTERVAL NOT ANALYZED				
47	1	80.0 90.0	INTERVAL NOT ANALYZED				
47	1	90.0 100.0	INTERVAL NOT ANALYZED				
47	1	100.0 110.0	INTERVAL NOT ANALYZED				
47	1	110.0 120.0	INTERVAL NOT ANALYZED				
47	1	120.0 133.0	INTERVAL NOT ANALYZED				
47	2	0.0 2.0	82	0.012	0.066	37.0	80.0
47	2	2.0 4.0	85	0.008	0.056	6.2	27.0
47	2	4.0 6.0	84	0.006	0.039	32.0	76.0
47	2	6.0 8.0	85	0.004	0.029	29.0	73.0
47	2	8.0 10.0	81	0.003	0.018	29.0	74.0
47	2	10.0 12.0	63	0.005	0.013	27.0	69.0
47	2	12.0 14.0	68	0.008	0.024	27.0	63.0
47	2	14.0 16.0	75	0.004	0.017	30.0	68.0
47	2	16.0 20.0	INTERVAL NOT ANALYZED				
47	2	20.0 24.0	64	0.007	0.019	28.0	74.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	TOP	BOTTOM	WATER %	WET HG PPM	DRY HG PPM	CR PPM	NI PPM
47	2	24.0	28.0		INTERVAL NOT ANALYZED				
47	2	28.0	32.0		61 0.007	0.018	26.0	68.0	
47	2	32.0	36.0		INTERVAL NOT ANALYZED				
47	2	36.0	40.0		62 0.006	0.017	28.0	74.0	
47	2	40.0	50.0		INTERVAL NOT ANALYZED				
47	2	50.0	60.0		57 0.004	0.010	25.0	60.0	
47	2	60.0	70.0		INTERVAL NOT ANALYZED				
47	2	70.0	80.0		53 0.008	0.016	23.0	56.0	
47	2	80.0	86.0		INTERVAL NOT ANALYZED				
49	1	0.0	2.0		63 0.078	0.210	31.0	67.0	
49	1	2.0	4.0		54 0.059	0.130	25.0	54.0	
49	1	4.0	6.0		51 0.043	0.089	23.0	51.0	
49	1	6.0	8.0		53 0.037	0.080	20.0	50.0	
49	1	8.0	10.0		50 0.032	0.064	18.0	46.0	
49	1	10.0	12.0		51 0.025	0.051	17.0	44.0	
49	1	12.0	14.0		52 0.026	0.055	19.0	46.0	
49	1	14.0	16.0		55 0.020	0.045	18.0	43.0	
49	1	16.0	20.0		INTERVAL NOT ANALYZED				
49	1	20.0	24.0		50 0.010	0.020	18.0	41.0	
49	1	24.0	28.0		INTERVAL NOT ANALYZED				
49	1	28.0	32.0		30 0.006	0.008	12.0	30.0	
49	1	32.0	36.0		INTERVAL NOT ANALYZED				
49	1	36.0	40.0		34 0.005	0.007	14.0	35.0	
49	1	40.0	50.0		INTERVAL NOT ANALYZED				
49	1	50.0	58.0		35 0.035	0.054	15.0	40.0	
51	1	0.0	2.0		70 0.069	0.230	40.0	54.0	
51	1	2.0	4.0		65 0.110	0.330	39.0	52.0	
51	1	4.0	6.0		62 0.097	0.260	36.0	46.0	
51	1	6.0	8.0		62 0.063	0.170	40.0	54.0	
51	1	8.0	10.0		54 0.040	0.086	28.0	40.0	
51	1	10.0	12.0		50 0.030	0.060	23.0	35.0	
51	1	12.0	14.0		48 0.022	0.042	21.0	33.0	
51	1	14.0	16.0		48 0.014	0.028	17.0	27.0	
51	1	16.0	20.0		INTERVAL NOT ANALYZED				
51	1	20.0	24.0		40 0.009	0.014	14.0	22.0	
51	1	24.0	28.0		INTERVAL NOT ANALYZED				
51	1	28.0	32.0		36 0.015	0.023	15.0	23.0	
51	1	32.0	36.0		INTERVAL NOT ANALYZED				
51	1	36.0	40.0		39 0.013	0.021	15.0	24.0	
51	1	40.0	50.0		INTERVAL NOT ANALYZED				
51	1	50.0	60.0		32 0.022	0.033	14.0	25.0	
52	1	0.0	2.0		70 0.150	0.490	45.0	83.0	

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
52	1	2.0 4.0	70	0.170	0.560	51.0	110.0
52	1	4.0 6.0	68	0.140	0.440	48.0	100.0
52	1	6.0 8.0	74	0.096	0.370	48.0	99.0
52	1	8.0 10.0	67	0.091	0.270	39.0	88.0
52	1	10.0 12.0	56	0.077	0.180	32.0	71.0
52	1	12.0 14.0	53	0.074	0.160	28.0	71.0
52	1	14.0 16.0	46	0.067	0.120	22.0	55.0
52	1	16.0 20.0	INTERVAL NOT ANALYZED				
52	1	20.0 24.0	44	0.017	0.030	17.0	42.0
52	1	24.0 28.0	INTERVAL NOT ANALYZED				
52	1	28.0 32.0	37	0.016	0.025	13.0	39.0
52	1	32.0 36.0	INTERVAL NOT ANALYZED				
52	1	36.0 40.0	38	0.015	0.024	16.0	42.0
52	1	40.0 50.0	INTERVAL NOT ANALYZED				
52	1	50.0 59.0	35	0.011	0.017	15.0	41.0
53	1	0.0 2.0	63	0.160	0.430	43.0	91.0
53	1	2.0 4.0	68	0.160	0.490	47.0	99.0
53	1	4.0 6.0	66	0.140	0.420	45.0	100.0
53	1	6.0 8.0	62	0.140	0.370	38.0	91.0
53	1	8.0 10.0	62	0.130	0.350	40.0	85.0
53	1	10.0 12.0	61	0.140	0.350	37.0	83.0
53	1	12.0 14.0	61	0.120	0.300	40.0	90.0
53	1	14.0 16.0	58	0.063	0.150	34.0	77.0
53	1	16.0 20.0	INTERVAL NOT ANALYZED				
53	1	20.0 24.0	56	0.057	0.130	31.0	71.0
53	1	24.0 28.0	INTERVAL NOT ANALYZED				
53	1	28.0 32.0	55	0.057	0.130	25.0	63.0
53	1	32.0 36.0	INTERVAL NOT ANALYZED				
53	1	36.0 40.0	52	0.040	0.083	23.0	60.0
53	1	40.0 52.0	INTERVAL NOT ANALYZED				
54	1	0.0 2.0	75	0.030	0.120	52.0	83.0
54	1	2.0 4.0	72	0.053	0.190	49.0	74.0
54	1	4.0 6.0	73	0.057	0.210	44.0	73.0
54	1	6.0 8.0	72	0.046	0.170	42.0	69.0
54	1	8.0 10.0	69	0.049	0.160	41.0	66.0
54	1	10.0 12.0	67	0.075	0.230	38.0	63.0
54	1	12.0 14.0	64	0.026	0.074	27.0	48.0
54	1	14.0 16.0	67	0.082	0.250	35.0	61.0
54	1	16.0 20.0	INTERVAL NOT ANALYZED				
54	1	20.0 24.0	59	0.062	0.150	29.0	59.0
54	1	24.0 28.0	INTERVAL NOT ANALYZED				
54	1	28.0 32.0	46	0.028	0.052	16.0	33.0
54	1	32.0 36.0	INTERVAL NOT ANALYZED				

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
54	1	36.0 40.0	35	0.008	0.012	14.0	29.0
54	1	40.0 50.0	INTERVAL NOT ANALYZED				
56	1	0.0 2.0	68	0.280	0.870	74.0	71.0
56	1	2.0 4.0	66	0.310	0.910	74.0	70.0
56	1	4.0 6.0	72	0.230	0.820	76.0	73.0
56	1	6.0 8.0	62	0.270	0.720	77.0	74.0
56	1	8.0 10.0	61	0.210	0.520	76.0	74.0
56	1	10.0 12.0	56	0.320	0.720	53.0	54.0
56	1	12.0 14.0	44	0.044	0.078	20.0	28.0
56	1	14.0 16.0	44	0.018	0.032	19.0	28.0
56	1	16.0 20.0	INTERVAL NOT ANALYZED				
56	1	20.0 24.0	44	0.015	0.026	17.0	26.0
56	1	24.0 28.0	INTERVAL NOT ANALYZED				
56	1	28.0 32.0	39	0.010	0.016	17.0	24.0
56	1	32.0 36.0	INTERVAL NOT ANALYZED				
56	1	36.0 40.0	36	0.013	0.021	15.0	22.0
56	1	40.0 49.0	INTERVAL NOT ANALYZED				
57	1	0.0 2.0	65	0.610	1.800	91.0	72.0
57	1	2.0 4.0	66	0.410	1.200	93.0	70.0
57	1	4.0 6.0	66	0.420	1.300	98.0	75.0
57	1	6.0 8.0	67	0.390	1.200	98.0	78.0
57	1	8.0 10.0	66	0.500	1.500	98.0	79.0
57	1	10.0 12.0	66	0.580	1.700	95.0	67.0
57	1	12.0 14.0	62	0.740	2.000	95.0	63.0
57	1	14.0 16.0	66	0.640	1.900	110.0	79.0
57	1	16.0 20.0	INTERVAL NOT ANALYZED				
57	1	20.0 24.0	65	0.430	1.200	110.0	69.0
57	1	24.0 28.0	INTERVAL NOT ANALYZED				
57	1	28.0 32.0	58			80.0	57.0
57	1	32.0 37.5	INTERVAL NOT ANALYZED				
58	1	0.0 2.0	65	0.210	0.610	82.0	100.0
58	1	2.0 4.0	69	0.260	0.830	84.0	110.0
58	1	4.0 6.0	73	0.110	0.420	81.0	100.0
58	1	6.0 8.0	86	0.110	0.760	87.0	120.0
58	1	8.0 10.0	85	0.260	1.700	89.0	130.0
58	1	10.0 12.0	76	0.180	0.760	68.0	96.0
58	1	12.0 14.0	66	0.100	0.310	38.0	73.0
58	1	14.0 16.0	61	0.098	0.250	37.0	79.0
58	1	16.0 20.0	INTERVAL NOT ANALYZED				
58	1	20.0 24.0	51	0.022	0.045	24.0	37.0
58	1	24.0 24.0	INTERVAL NOT ANALYZED				
58	1	28.0 32.0	51	0.020	0.042	22.0	52.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CP	NI
		TOP	BOTTOM	%	FPM	PPM	PPM
58	1	32.0	36.0		INTERVAL NOT ANALYZED		
58	1	36.0	40.0	45	0.018	0.032	21.0
58	1	40.0	50.0		INTERVAL NOT ANALYZED		
58	1	50.0	60.0	42	0.016	0.027	17.0
58	1	60.0	68.0		INTERVAL NOT ANALYZED		
60	1	0.0	2.0	79	0.330	1.600	180.0
60	1	2.0	4.0	72	0.620	2.200	190.0
60	1	4.0	6.0	64	0.700	1.900	180.0
60	1	6.0	8.0	66	0.520	1.500	180.0
60	1	8.0	10.0	56	0.320	0.730	90.0
60	1	10.0	12.0	50	0.280	0.570	78.0
60	1	12.0	14.0	50	0.170	0.340	75.0
60	1	14.0	16.0	51	0.150	0.300	69.0
60	1	16.0	20.0		INTERVAL NOT ANALYZED		
60	1	20.0	24.0	48	0.160	0.310	44.0
60	1	24.0	28.0		INTERVAL NOT ANALYZED		
60	1	28.0	33.0	25	0.015	0.021	9.6
63	1	0.0	2.0	68	0.170	0.540	51.0
63	1	2.0	4.0	77	0.061	0.260	48.0
63	1	4.0	6.0	69	0.030	0.098	46.0
63	1	6.0	8.0	64		39.0	66.0
63	1	8.0	10.0	60	0.053	0.130	39.0
63	1	10.0	12.0	60		32.0	59.0
63	1	12.0	14.0	61	0.047	0.120	29.0
63	1	14.0	16.0	58	0.027	0.065	29.0
63	1	16.0	20.0	67	0.025	0.075	25.0
63	1	20.0	24.0	70	0.019	0.063	24.0
63	1	24.0	28.0	69	0.008	0.025	24.0
63	1	28.0	32.0	64	0.013	0.036	25.0
63	1	32.0	36.0	70	0.017	0.057	24.0
63	1	36.0	40.0	64	0.017	0.048	24.0
63	1	40.0	48.5	53	0.044	0.092	22.0
64	1	0.0	2.0	47	0.013	0.024	23.0
64	1	2.0	4.0	50	0.013	0.025	25.0
64	1	4.0	6.0	50	0.025	0.050	30.0
64	1	6.0	8.0	43	0.044	0.077	29.0
64	1	8.0	10.0	46	0.031	0.058	26.0
64	1	10.0	12.0	34	0.041	0.063	24.0
64	1	12.0	14.0	34	0.062	0.094	23.0
64	1	14.0	16.0	35	0.047	0.072	25.0
64	1	16.0	20.0	40	0.040	0.067	31.0
64	1	20.0	24.0	39	0.044	0.072	28.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
64	1	24.0 28.0	45	0.054	0.098		
64	1	28.0 31.0	45	0.029	0.053	28.0	27.0
65	1	0.0 2.0	59	0.100	0.250	30.0	37.0
65	1	2.0 4.0	55	0.130	0.280	31.0	39.0
65	1	4.0 6.0	52	0.110	0.240	29.0	37.0
65	1	6.0 8.0	52	0.150	0.310	29.0	37.0
65	1	8.0 10.0	47	0.073	0.140	21.0	29.0
65	1	10.0 12.0	38	0.030	0.048	17.0	26.0
65	1	12.0 14.0	41	0.024	0.040	19.0	29.0
65	1	14.0 16.0	47	0.019	0.035	19.0	30.0
65	1	16.0 20.0	INTERVAL NOT ANALYZED				
65	1	20.0 24.0	36	0.016	0.026	15.0	24.0
65	1	24.0 28.0	INTERVAL NOT ANALYZED				
65	1	28.0 32.0	37	0.022	0.035	18.0	27.0
65	1	32.0 36.0	INTERVAL NOT ANALYZED				
65	1	36.0 40.0	39	0.023	0.037	19.0	29.0
65	1	40.0 46.0	INTERVAL NOT ANALYZED				
66	1	0.0 2.0	60	0.230	0.580	44.0	43.0
66	1	2.0 4.0	62	0.230	0.610	37.0	46.0
66	1	4.0 6.0	61	0.240	0.620	33.0	43.0
66	1	6.0 8.0	59	0.220	0.550	32.0	37.0
66	1	8.0 10.0	46	0.100	0.190	14.0	18.0
66	1	10.0 12.0	45	0.047	0.085	12.0	16.0
66	1	12.0 14.0	45	0.046	0.085	13.0	18.0
66	1	14.0 16.0	44	0.052	0.093	18.0	21.0
66	1	16.0 20.0	INTERVAL NOT ANALYZED				
66	1	20.0 24.0	41	0.042	0.072	17.0	27.0
66	1	24.0 28.0	INTERVAL NOT ANALYZED				
66	1	28.0 32.0	38	0.034	0.054	14.0	22.0
66	1	32.0 36.0	INTERVAL NOT ANALYZED				
66	1	36.0 40.0	41	0.030	0.051	15.0	25.0
66	1	40.0 49.0	INTERVAL NOT ANALYZED				
68	1	0.0 2.0	65	0.180	0.520	62.0	77.0
68	1	2.0 4.0	66	0.200	0.590	63.0	83.0
68	1	4.0 6.0	64	0.250	0.690	62.0	79.0
68	1	6.0 8.0	62	0.200	0.540	62.0	69.0
68	1	8.0 10.0	61	0.280	0.730	68.0	75.0
68	1	10.0 12.0	60	0.200	0.510	61.0	70.0
68	1	12.0 14.0	58	0.130	0.320	56.0	64.0
68	1	14.0 16.0	58	0.210	0.500	46.0	55.0
68	1	16.0 20.0	INTERVAL NOT ANALYZED				
68	1	20.0 24.0	51	0.036	0.074	22.0	36.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL TOP	INTERVAL BOTTOM	WATER %	WET HG PPM	DRY HG PPM	CR PPM	NI PPM
68	1	24.0	28.0		INTERVAL NOT ANALYZED			
68	1	28.0	32.0	46	0.023	0.043	20.0	34.0
68	1	32.0	36.0		INTERVAL NOT ANALYZED			
68	1	36.0	42.0	45	0.023	0.041	23.0	37.0
73	1	0.0	2.0	81	0.027	0.140	43.0	53.0
73	1	2.0	4.0	75	0.020	0.079	26.0	41.0
73	1	4.0	6.0	75	0.014	0.056	29.0	44.0
73	1	6.0	8.0	80	0.009	0.048	27.0	43.0
73	1	8.0	10.0	72	0.011	0.038	26.0	45.0
73	1	10.0	12.0	73	0.006	0.024	27.0	47.0
73	1	12.0	14.0	72	0.005	0.018	27.0	46.0
73	1	14.0	16.0	68	0.006	0.020	25.0	43.0
73	1	16.0	20.0		INTERVAL NOT ANALYZED			
73	1	20.0	24.0	72	0.006	0.022	26.0	44.0
73	1	24.0	28.0		INTERVAL NOT ANALYZED			
73	1	28.0	32.0	66	0.004	0.013	26.0	46.0
73	1	32.0	36.0		INTERVAL NOT ANALYZED			
73	1	36.0	40.0	68	0.005	0.015	26.0	46.0
73	1	40.0	50.0		INTERVAL NOT ANALYZED			
73	1	50.0	60.0	71	0.004	0.013	25.0	43.0
73	1	60.0	70.0		INTERVAL NOT ANALYZED			
73	1	70.0	80.0	68	0.007	0.023	28.0	44.0
73	1	80.0	86.0		INTERVAL NOT ANALYZED			
74	1	0.0	2.0	80	0.110	0.560	39.0	44.0
74	1	2.0	4.0	71	0.110	0.380	37.0	44.0
74	1	4.0	6.0	62	0.130	0.330	33.0	41.0
74	1	6.0	8.0	57	0.094	0.220	31.0	37.0
74	1	8.0	10.0	44	0.038	0.069	20.0	27.0
74	1	10.0	12.0	39	0.044	0.073	16.0	22.0
74	1	12.0	14.0	36	0.041	0.064	15.0	20.0
74	1	14.0	16.0	37	0.024	0.038	11.0	17.0
74	1	16.0	20.0		INTERVAL NOT ANALYZED			
74	1	20.0	24.0	28	0.014	0.020	11.0	16.0
74	1	24.0	28.0		INTERVAL NOT ANALYZED			
74	1	28.0	31.5	24	0.021	0.028	10.0	17.0
78	1	0.0	2.0	85	0.014	0.092	46.0	85.0
78	1	2.0	4.0	71	0.035	0.120	35.0	68.0
78	1	4.0	6.0	73	0.026	0.098	25.0	57.0
78	1	6.0	8.0	75	0.018	0.069	22.0	61.0
78	1	8.0	10.0	67	0.010	0.031	19.0	56.0
78	1	10.0	12.0	65	0.016	0.046	19.0	57.0
78	1	12.0	14.0	59	0.015	0.037	17.0	53.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WFT HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
78	1	14.0 16.0	72	0.008	0.029	20.0	67.0
78	1	16.0 20.0	INTERVAL NOT ANALYZED				
78	1	20.0 24.0	57	0.009	0.020	18.0	62.0
78	1	24.0 28.0	INTERVAL NOT ANALYZED				
78	1	28.0 32.0	54	0.021	0.046	17.0	60.0
78	1	32.0 36.0	INTERVAL NOT ANALYZED				
78	1	36.0 40.0	52	0.018	0.039	18.0	59.0
78	1	40.0 50.0	INTERVAL NOT ANALYZED				
78	1	50.0 60.0	52	0.018	0.036	16.0	53.0
78	1	60.0 70.0	INTERVAL NOT ANALYZED				
78	1	70.0 80.0	48	0.020	0.039	16.0	53.0
78	1	80.0 92.0	INTERVAL NOT ANALYZED				
79	1	0.0 2.0	38	0.009	0.014	13.0	26.0
79	1	2.0 4.0	29	0.013	0.019	7.4	18.0
79	1	4.0 6.0	25	0.011	0.014	8.5	17.0
79	1	6.0 8.0	28	0.015	0.020	17.0	28.0
80	1	0.0 2.0	33	0.003	0.005	11.0	18.0
80	1	2.0 4.0	29	0.012	0.017	12.0	16.0
80	1	4.0 6.0	31	0.004	0.006	13.0	19.0
80	1	6.0 8.0	31	0.009	0.013	11.0	18.0
80	1	8.0 10.0	30	0.007	0.010	13.0	22.0
80	1	10.0 12.0	33	0.002	0.003	14.0	22.0
80	1	12.0 14.0	31	0.005	0.008	13.0	20.0
80	1	14.0 16.0	32	0.006	0.009	14.0	20.0
80	1	16.0 20.0	30	0.004	0.006	12.0	20.0
80	1	20.0 24.0	29	0.006	0.008	12.0	19.0
80	1	24.0 28.0	29	0.006	0.009	13.0	19.0
80	1	28.0 32.1	26	0.009	0.012	11.0	20.0
81	1	0.0 2.0	67	0.200	0.620	68.0	77.0
81	1	2.0 4.0	69	0.150	0.490	62.0	76.0
81	1	4.0 6.0	73	0.150	0.540	70.0	78.0
81	1	6.0 8.0	62	0.240	0.650	66.0	78.0
81	1	8.0 10.0	63	0.260	0.690	68.0	79.0
81	1	10.0 12.0	61	0.240	0.620	65.0	76.0
81	1	12.0 14.0	60	0.210	0.510	54.0	70.0
81	1	14.0 16.0	59	0.130	0.320	41.0	52.0
81	1	16.0 20.0	INTERVAL NOT ANALYZED				
81	1	20.0 24.0	57	0.044	0.100	22.0	40.0
81	1	24.0 28.0	INTERVAL NOT ANALYZED				
81	1	28.0 32.0	58	0.028	0.067	24.0	43.0
81	1	32.0 36.0	INTERVAL NOT ANALYZED				
81	1	36.0 40.0	55	0.033	0.074	24.0	41.0

TABLE 3. (CONTINUED)

STATION	CORE	INTERVAL	WATER	WET HG	DRY HG	CR	NI
		TOP BOTTOM	%	PPM	PPM	PPM	PPM
81	1	40.0 49.5	INTERVAL NOT ANALYZED				
82	1	0.0 2.0	72	0.059	0.220	34.0	45.0
82	1	2.0 4.0	46	0.047	0.087	15.0	20.0
82	1	4.0 6.0	26	0.018	0.025	8.7	13.0
82	1	6.0 8.0	24	0.012	0.015	8.8	14.0
82	1	8.0 10.0	24	0.009	0.012	9.2	18.0
82	1	10.0 12.0	22	0.010	0.012	9.6	16.0
82	1	12.0 14.0	22	0.010	0.013	8.6	17.0
82	1	14.0 16.0	22	0.007	0.009	7.5	15.0
82	1	16.0 20.0	22	0.009	0.012	8.9	18.0
CLH	1	0.0 2.0	42	0.180	0.310	100.0	110.0
CLH	1	2.0 4.0	31	0.190	0.280	56.0	83.0
CLH	1	4.0 6.0	40	0.140	0.230	71.0	90.0
CLH	1	6.0 8.0	47	0.160	0.310	150.0	110.0
CLH	1	8.0 10.0	41	0.180	0.300	88.0	110.0
CLH	1	10.0 12.0	41	0.140	0.230	85.0	110.0
CLH	1	12.0 14.0	40	0.120	0.210	69.0	110.0
CLH	1	14.0 16.0	44	0.150	0.270	87.0	120.0
CLH	1	16.0 20.0	INTERVAL NOT ANALYZED				
CLH	1	20.0 24.0	50	0.310	0.620	170.0	190.0
CLH	1	24.0 28.0	INTERVAL NOT ANALYZED				
CLH	1	28.0 32.0	45	0.130	0.240	87.0	100.0
CLH	1	32.0 36.0	INTERVAL NOT ANALYZED				
CLH	1	36.0 40.0	45	0.190	0.350	150.0	130.0