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Segmental Analysis of Mercury in Hair in 80 Women of Nome, Alaska

MMS U.S. Department of the Interior
Minerals Management Service
Alaska OCS Region

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SEGMENTAL ANALYSIS OF MERCURY IN HAIR IN 80 WOMEN OF NOME, ALASKA

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SUMMARY

Eighty samples of hair from women of child-bearing age from Nome, Alaska, and seven control samples from women living in the Sequim, Washington, area were analyzed for mercury concentration by segmental analysis in an effort to determine whether seasonal fluctuations in mercury concentration in the hair samples can be correlated to seasonal seafood consumption. Full-length hair strands were analyzed in 1.1-cm segments representing 1 month's growth using a strong acid digestion and cold vapor atomic fluorescence analysis. It is assumed that the concentration of mercury in each segment is an indicator of the mercury body burden of the subject during the month in which the segment emerged from the scalp.

When mercury concentration versus month of growth is plotted for each participant, a number of trends are seen. Forty of the hair samples, including one control, are either too short to show any particular trend or have steady concentrations between 0.2 and 3 ppm for all segments. Eighteen of the samples show seasonal variability, with five of the controls showing winter highs and the remainder, all Nome residents, showing summer highs. Twenty-six of the samples show a steady increase in mercury concentration toward the distal end of the strand regardless of month of growth. Fourteen of the 26 distally increasing samples, including 1 control, have a maximum of less than 3 ppm, while the remainder have maximums as high as 16 ppm. The remaining three samples show a combination of distal increases and seasonal variation.

Those individuals with maximums over 3 ppm are of interest. These 12 individuals exceed normal levels for people consuming fish 1 to 4 times per month and in some cases 1 to 4 times per week. Some also exceed the commonly accepted levels of concern for fetal effects of mercury poisoning. However, the trend of increasing mercury concentrations toward the distal end of the hair strand regardless of month of emergence and the documented presence of elevated levels of elemental mercury in the Nome area suggest that these elevated levels may actually be due to external contamination of the hair strands by adsorption and not due to ingestion of contaminated foodstuffs such as seafood.

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INTRODUCTION

In the autumn of 1989, 200 samples of human hair from women of child-bearing age residing in Nome, Alaska, were analyzed for total mercury. The mercury analyses were conducted at Battelle/Marine Sciences Laboratory (MSL)[a] as part of a baseline monitoring study undertaken by Minerals Management Service (MMS) during the preparation of an environmental impact statement evaluating the feasibility of off-shore gold dredging leases. There was concern that off-shore dredging could release elemental mercury, which is often associated with gold deposits, to the waters of Norton Sound. This mercury could then be accumulated by marine mammals and fish of the region that are, in turn, consumed by the population of Nome.

The results of the 1989 study (Crecelius et al. 1990) prompted MMS to pursue a more thorough investigation of the mercury levels. To that end, 80 full-length hair samples were collected in the autumn of 1990 from 27 participants of the original study, including 10 of 16 with relatively high mercury levels, plus 53 additional heavy users of subsistence foods. The goal of this study was to analyze the full-length hair samples in segments equivalent to 1 month of growth to ascertain whether variations occur in the levels of mercury in the hair as a function of dietary habits such as seasonal consumption of certain forms of marine life.

A total of 828 hair segments from the 80 Nome participants were analyzed as well as samples from 7 control subjects and 2 standard reference materials. Results are presented in Appendices A, B, and C, and analytical methods are presented in Appendix D.

(a) The Marine Sciences Laboratory is part of the Pacific Northwest Laboratory, which is operated for the U.S. Department of Energy by Battelle Memorial Institute under Contract DE-AC06-76RLO 1830. This work was supported by the Minerals Management Service under a Related Services Agreement with the U.S. Department of Energy.

SAMPLING AND SAMPLE HANDLING

Samples were collected by personnel from Norton Sound Health Corporation using methods and equipment supplied by MSL. Samples were taken as close to the scalp as possible by a gloved staff member using clean scissors. The sample was carefully bound with tape within 2 cm of the scalp end to maintain the hair in a bundle and placed in labeled polyethylene bags for shipment to MSL. Upon arrival at MSL, each sample was carefully removed from the bag and sectioned into 1.1-cm lengths. This length has been determined to be equivalent to 1-month growth on average (Marsh 1989). Each segment was placed in a labeled, pre-weighed, acid-cleaned glass vial. The portion of the sample that was in contact with the tape was discarded and the amount discarded was recorded. To reduce sample loss from static electricity, samples were wetted with distilled water during segmentation and dried prior to weighing. The number of segments generated from each sample has varied from 2 to 26, recording between 2 and 26 months of mercury exposure.

PRELIMINARY ANALYSES

The samples were received and logged in at MSL on November 1, 1991. Prior to beginning analysis of the samples, the following preliminary experiments were performed to be certain the procedure was appropriate and would work as expected:

- An experiment to ascertain whether any significant contamination to the hair sample would occur during storage in polyethylene bags indicated an insignificant contamination level of 0.013 ng of mercury.
- Using samples of the Japanese certified hair standard, NIES-5, a series of digestions were performed to optimize the digestion method and time while still assuring complete digestion. This resulted in the HNO_3/H_2SO_4 digestion at 350°F for 3 hours as presented in our Standard Operating Procedure sent to MMS in December 1990.

Once these experiments were completed and the Standard Operating Procedure was finalized, analysis was begun.

ANALYTICAL METHODS

Samples were digested in sets of 24 to 40 segments. This usually included two or three segmented samples (depending on the length), a blank, NIES hair standard, a spiked NIES hair standard, and another tissue standard (usually DORM-1 dogfish muscle). Digestion batches were visually separated from each other using different colored labels so that the appropriate batch blank could be applied during analysis. Individual samples were identified by their participant number, and the segments were identified alphabetically, beginning with "a" at the scalp. Samples were digested by refluxing in a concentrated nitric/sulfuric acid solution and analyzed by cold vapor atomic fluorescence as outlined in Appendix D.

The instrumentation was calibrated daily using a four-point linear regression and a calibration check standard NBS-1641b. The average of the daily calibration checks was 1.51 ±0.07 μg/mL, which compares very well with the certified value of 1.52 ±0.04 μg/mL. Two tissue standards (NIES-5 human hair and DORM-1 dogfish muscle) were digested with each set and analyzed several times daily. A spiked NIES-5 hair sample was analyzed for matrix spike recovery as well. The data for these quality control analyses may be found in Appendix A.

A total of 828 hair segments were analyzed, not including duplicates, control samples, and standards. Seven samples from women of childbearing age living in the Sequim, Washington, area were segmented and analyzed as controls. Two of the samples were split prior to segmentation and analyzed as duplicates: control sample #7 was duplicated at MSL, and sample #62 was duplicated at another laboratory. The mean deviation between mercury concentrations in each segment of the duplicated sample was 6.5% for the sample duplicated in-house and 19% for the sample duplicated at another laboratory. Raw data for all of the analyses can be found in Appendix B. Data tables and graphs for all of the participant samples and control samples, as well as the duplicates, can be found in Appendix C. In the generation of data, all values were first hand-calculated and then calculated within the project computer spreadsheet as a calculation crosscheck.

Initially, a problem was encountered with the mercury values in the tissue standards consistently running 10% to 15% high. This problem was finally resolved when it was discovered that when the sample vials were warmed to dry the samples after segmentation, the labels were actually losing weight as some of the adhesive evaporated. When the vials were reweighed following sample addition, the calculated weight difference was, therefore, too small, resulting in calculated mercury concentrations being too high. Because the weights of the segmented hair samples were very small, this weight difference is significant. This problem was rectified by heating the labeled vials briefly prior to the initial weighing. Because the "blank" vial was always weighed and treated exactly like the samples, its weight difference after heating was used to correct the concentrations of the samples analyzed prior to identification of the cause of the problem. Once this was done, the tissue standards once again fell into their certified ranges.

Another problem related to the very low sample weights was that the segments at the distal end of the samples (where there were fewer strands than at the scalp) were so light that we were often working near the limits of the balance, resulting in a potentially larger margin of error in the sample weight and therefore in the final concentration. Samples exhibiting this problem are flagged on the final graph. Two segments were lost in the course of the study: one caused by a vial rupture during digestion and one because of an apparent weighing error.

RESULTS AND DISCUSSION

The results for each participant are presented graphically and tabulated in Appendix C. A summary of minimum, maximum, and average concentrations for each participant, as well as the concentration determined in the previous study when applicable, is presented in Table 1. When referring to the set of graphs in Appendix C, you will note that the scale of the y-axis (mercury concentration in parts per million) varies. The scale for most of the graphs has a maximum of 3 ppm. However, 13 of the graphs have a y-axis scale with a maximum of 10 ppm and 3 of the graphs have a y-axis maximum of 16 ppm. We attempted to graph all of them on the same scale, but the few samples approaching 16 ppm caused most of the samples in the 0 to 3 ppm range to disappear into the baseline.

The data reveal several interesting trends, the most prevalent of which is a steady increase in the mercury concentration from scalp to ends regardless of growth month. This would be expected to some degree because of exposure of the hair strand to airborne contaminants. The longer the hair strand has been exposed to the environment, the greater the degree of external contamination. Most of the hair samples that were long enough to exhibit any trend at all exhibit this distal increase, but the overall Hg concentrations are still at or below normal levels of 1.9 ±0.9 ppm (derived from an average of 559 samples from 13 industrialized countries from individuals consuming fish 1 to 4 times per month) (Mitra 1986). However, 15 of the samples exhibit this trend to a greater extent, with distal end concentrations approaching 16 ppm. When this trend became apparent, we enlisted the help of several women in the Sequim, Washington, area to provide control samples to see if this was a trend outside Nome, as well. Because the level of concern is generally considered to be 10 ppm (Mitra 1986), it is important to determine whether these high concentrations are truly representative of body burden in these 15 individuals.

In the samples with maximum concentrations less than 3 ppm, there was a variety of trends ranging from little variation (common in the short samples, of course) to distal increases or (rarely) decreases, seasonal increases

TABLE 1. Minimum, Maximum, and Average Mercury Concentrations for Each Participant as Well as the Average Concentration Determined During the Previous (1989) Study. When two participant numbers are given, the first is for the present study and the second is for the 1989 study. No statistically significant correlation was found between mercury concentration and chemical hair treatments as indicated in the perm/color column.

	Present Study			1989 Study	Comments	
Participant ID	Minimum (Hg) ppm	Maximum (Hg) ppm	Average (Hg) ppm	Average (Hg) ppm	Length[a]	Perm/Color
1	1.078	2.744	1.384			
2/38	1.290	15.194	4.979	0.89		
3/99	2.901	12.743	7.423	2.15		P
4/146	1.712	1.917	1.783	3.16	SHORT	P
5/152	1.335	6.575	2.864	3.75		P
6/84	0.755	2.527	1.625	3.82		P
7/166	0.653	0.742	0.697	0.39	SHORT	
8	0.599	0.842	0.720		SHORT	
9	0.729	7.535	2.853			
10	0.430	0.842	0.573		SHORT	P
11	0.532	0.866	0.657		SHORT	P
12/9	1.081	6.198	2.898	1.96		
13	0.423	1.139	0.637			P
14/145	0.762	3.975	1.838	0.80		P
15/170	1.129	6.424	3.450	3.01		
16/117	0.945	3.283	1.565	6.22	SHORT	
17	0.531	1.433	0.861			P
18/168	0.252	0.661	0.507	3.80		C
19/194	0.382	1.680	0.759	2.05		P
20	0.487	0.611	0.545		SHORT	P
21	0.891	1.566	1.129			
22	1.520	2.788	2.083		SHORT	P
23/30	0.272	1.106	0.659	0.57		
24/85	1.027	3.896	1.931	3.70		P
25/20	1.049	2.409	1.610	2.15		P
26/67	0.727	1.278	1.056	0.49		
27/27	0.413	1.026	0.537	0.59		P
28	0.681	1.386	0.980		SHORT	P
29/70	0.709	2.596	1.150	1.12		
30	0.789	3.396	1.643			
31	1.259	4.386	1.944			P
32	0.802	1.790	1.166			
33	1.947	3.333	2.564		SHORT	
34	0.821	2.859	1.781			
35	0.559	3.153	1.336			P
36	0.290	0.793	0.440			P
37/193	0.388	1.091	0.590	0.53		P
38/185	0.667	1.591	0.992	0.70		P
39/32	0.628	0.924	0.717	0.58		P
40	0.727	0.994	0.853		SHORT	
41	0.992	2.998	1.961			P
42	0.365	0.807	0.578			P
43	0.817	2.525	1.365			
44/150	0.463	0.980	0.669	0.85		P
45/66	0.715	0.836	0.775	1.38	SHORT	P
46/116	0.457	0.814	0.611	0.37		P
47	0.800	1.806	1.255			
48	1.457	4.532	2.611			
49	1.348	1.710	1.532		SHORT	P

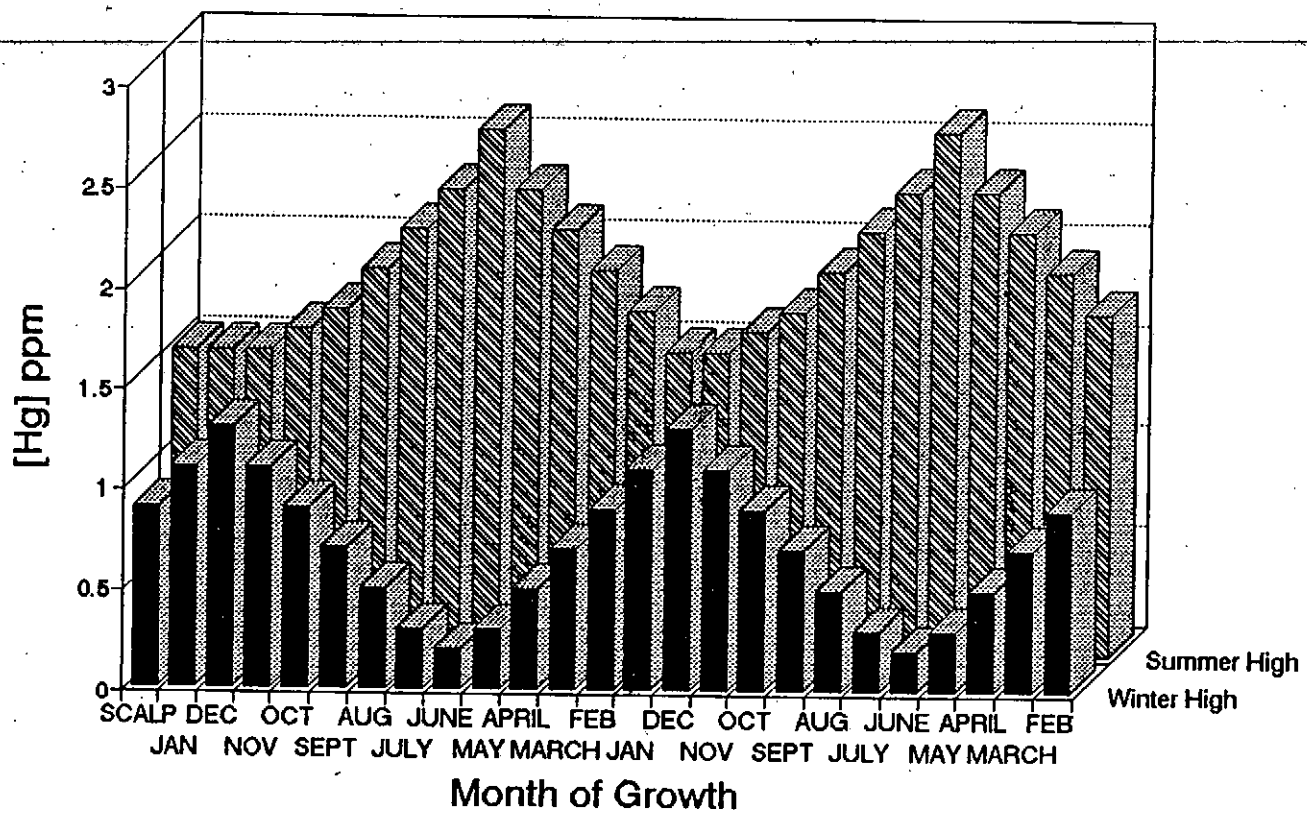
TABLE 1. (contd)

Participant ID	Present Study Minimum (Hg) ppm	Present Study Maximum (Hg) ppm	Present Study Average (Hg) ppm	1989 Study Average (Hg) ppm	Comments Length[a]	Comments Perm/Color
50	1.402	1.902	1.626			
51	1.197	1.644	1.403			
52	0.508	1.613	0.850			P
53	0.209	0.380	0.270			P
54	0.429	1.242	0.830			
55	1.176	2.387	1.755			P
56	1.394	2.628	2.073		SHORT	P
57	1.195	2.324	1.543			
58	0.315	0.704	0.417			
59	2.025	2.123	2.068		SHORT	
60	0.564	1.064	0.748			
61	0.847	2.533	1.366		SHORT	
62	0.836	1.215	1.031			
62 DUP	0.660	1.240	0.973			
63	1.664	2.284	1.990		SHORT	
64	0.712	1.232	0.973			
65	0.954	1.764	1.196			
66	2.051	3.113	2.306			
67	1.037	1.790	1.490		SHORT	
68	0.565	1.402	0.828			P
69/155	0.563	1.224	0.872	0.20		P
70	0.221	0.770	0.455		SHORT	P
71/108	0.332	1.459	0.642	0.66		
72	1.700	2.583	1.993			P
73	0.420	0.794	0.612		SHORT	P
74	1.028	1.358	1.207		SHORT	P
75	0.309	0.322	0.316		SHORT	P
76	0.530	0.895	0.712			P
77	0.254	1.787	0.577			P
78	0.852	1.537	1.096			
79/93	1.381	1.604	1.493	0.54	SHORT	P
80	0.516	1.192	0.895			
CONTROL 1	0.403	0.728	0.605			
CONTROL 2	0.590	1.572	0.963			
CONTROL 3	0.164	0.805	0.359			P
CONTROL 4	0.427	1.341	0.874			
CONTROL 5	0.493	1.272	0.764			
CONTROL 6	0.249	0.597	0.475			P
CONTROL 7	0.430	1.178	0.872			
CONTROL 7DUP	0.392	1.149	0.848			

(a) Five segments or fewer.

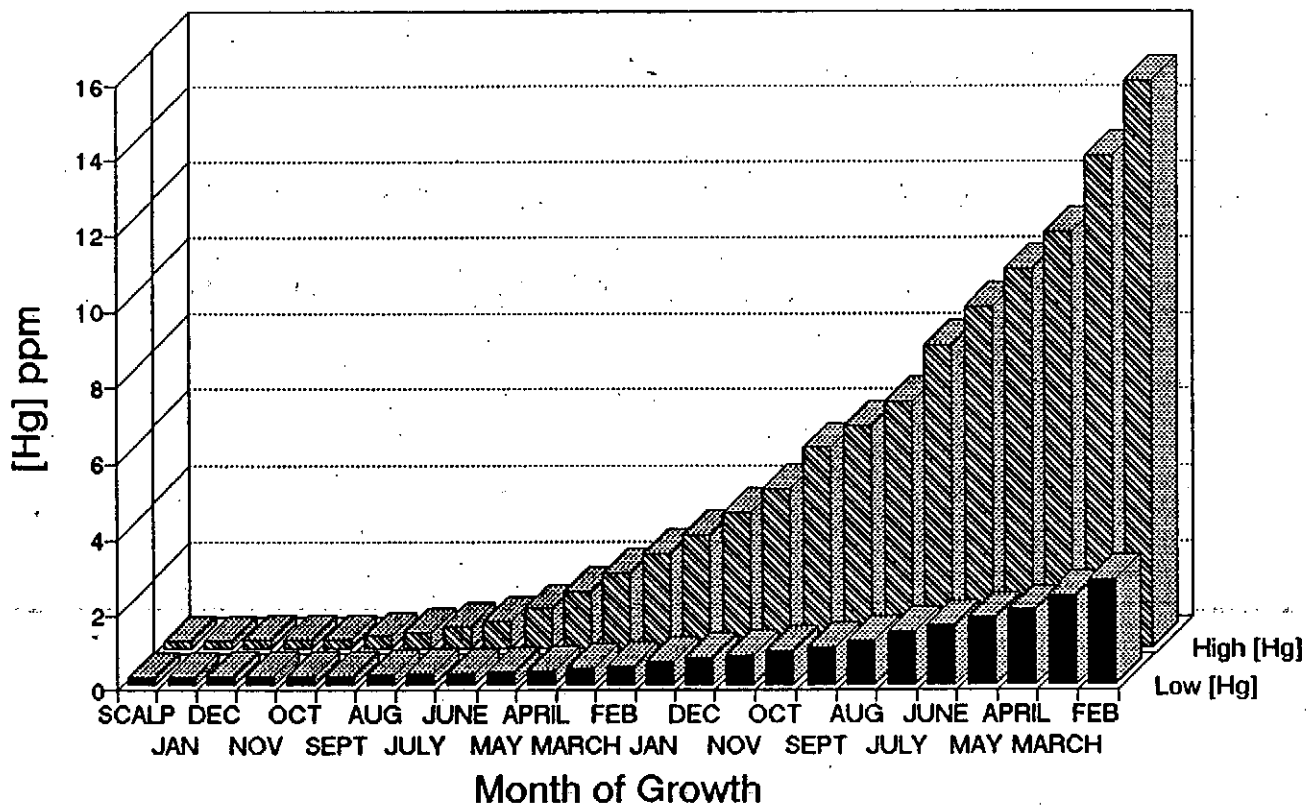
(usually autumn/winter for the control samples and summer for the Nome participants) or any combination thereof. Idealized examples of the common trends are presented in Figures 1, 2, and 3. Figure 1 exemplifies the samples with seasonal trends, both summer and winter highs. As illustrated, the samples with summer highs tend to have higher concentrations overall, as well. Figure 2 illustrates both large and small distal increases and Figure 3 illustrates seasonal trends superimposed on a distal increase and samples that show no trend, predominantly from lack of length. The most common trend appears to be seasonal increases with or without a superimposed distal increase. Note that six of the seven control subjects fall into this category; however, the control subjects show winter increases while almost all of the Nome participants show seasonal variation peak during the summer months. None of the controls analyzed has an average concentration over 1 ppm. Because 65 of the 80 participants of the study had maximum mercury in hair concentrations of less than 3 ppm, it can be inferred, assuming that these subjects consume quantities of marine life representative of the population of Nome as a whole, that consumption of marine life from Norton Sound does not contribute levels of mercury that are above normal levels of concern.

In the remaining 15 samples, those with maximums in the 3 to 16 ppm range, all of the participants except participant #3 exhibit a nearly constant concentration for the first 3 or 4 months of emergence followed by a steady increase toward the distal end regardless of month of emergence. Participant #3 showed this general trend, but the values fluctuate somewhat because of low segment weights. This trend suggests that the participants showing the distal increase (particularly those greater than 3 ppm) are exposed to some source of mercury that results in hair strand uptake by adsorption rather than ingestion. Dr. Tom Clarkson of the University of Rochester told us in May 1991 that similar trends were seen in the hair of infants and their families exposed to diapers containing phenylmercury. Wilson et al. (1974) report similar trends in a family using a shampoo containing an unusually high concentration of mercury. In these cases, it is probably the first few segments (those most recently emerged from the scalp) that are indicative of the true body burden of the participant. There was initial suspicion that the



Seasonal Variability - Winter Highs: C1,C2,C4,C5,C6,26. n=6
Seasonal Variability - Summer Highs: 13,17,27,32,41,44,52,53,64, 68,78,80. n=12

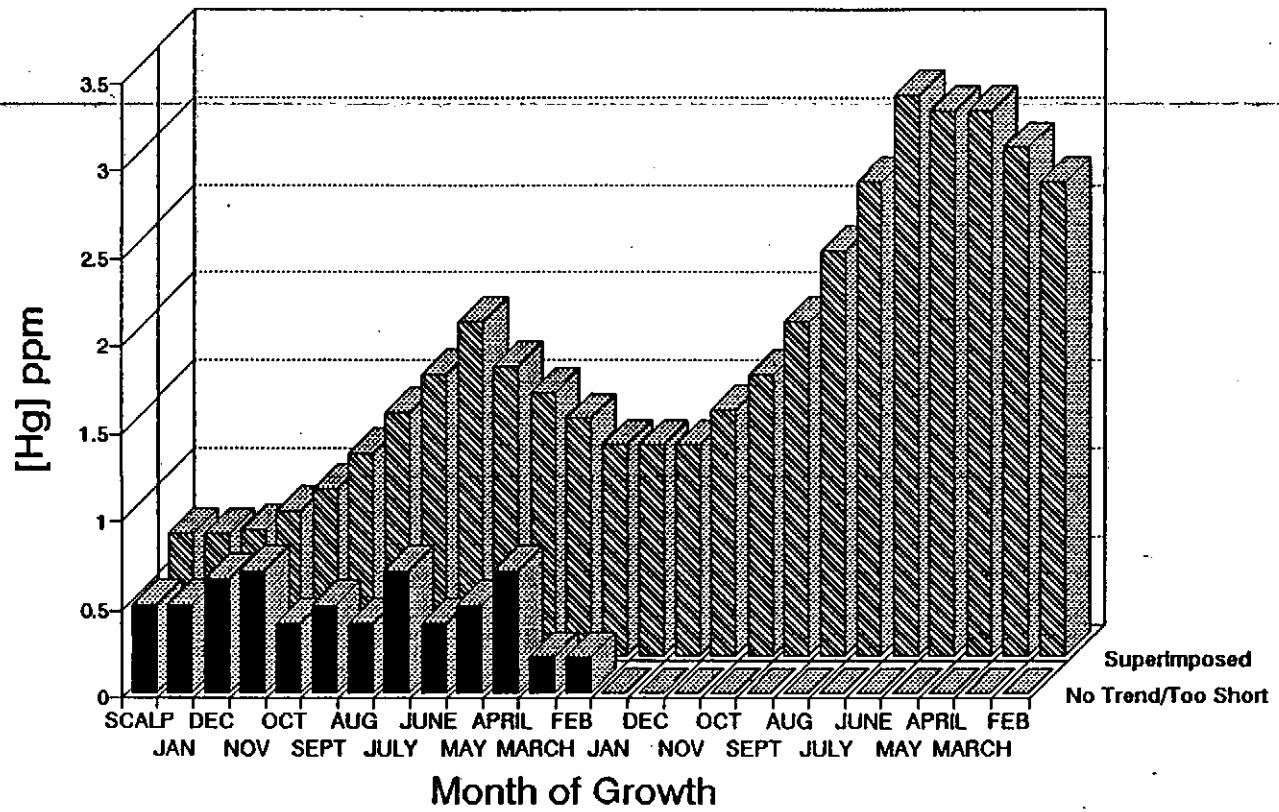
FIGURE 1. Idealized Examples of Seasonally Variable Trends



Distal Increase - Overall [Hg] <3 ppm: C3,1,6,19,23,29,36,37, 43,47,58, 69,71,77. n=14

Distal Increase - Overall [Hg] >3 ppm: 2,3,5,9,12,14,15,16, 24,30,31,35. n=12

FIGURE 2. Idealized Examples of Distally Increasing Trends



Superimposed Seasonal/Distal Increase: 25,34,54. n=3
No Apparent Trend: C7, 4,7,8,10,11,18,20,21,22,28,33,38,39,40,42, 45,46,48,49,50,51,55,56,57,59,60,61,62,63,65,66,67, 70,72,73,74,75,76,79. n=40

FIGURE 3. Idealized Examples of Other Trends

distal increases could be an analytical artifact caused by processing contamination or weighing error in the distal ends of the hair strands. These segments were sometimes up to 50% lighter than segments near the scalp from the same subject because of layered haircuts or breakage. However, examination of the numerous replicate analyses of the 31 digestions of the NIES-5 hair standard varying in weight from 0.0032 to 0.0156 grams (a total of 81 analyses) shows that this is not probable (See Figure 4). This graph shows the correlation between sample weight of the analyses of 31 digestions of the NIES Hair Standard weighing between 0.003 and 0.0156 and the corresponding analytical result, illustrating the fact that the increase in the mercury concentration at the distal end of many samples cannot be attributed to contamination. The certified mercury concentration for this standard is 4.4 ±0.4 ppm. The range of NIES-5 digestion weights bracket the sample weights with the exception of the few flagged as somewhat unreliable because of low weights on the graphs. The graph shows that there is little or no correlation between sample size and analyzed concentration, except for sample weights less than 0.004 grams. However, even the slight correlation seen at weights less than 0.004 grams does not account for the order-of-magnitude increases seen in many of the samples.

Because apparent seasonal variations were seen only in the samples having lower maximum concentrations (<3ppm), this apparent absorption may be masking seasonal effects in those with higher, probably non-dietary, concentrations. Possible sources of this adsorbed mercury are airborne mercury (such as vapor from latex paints containing mercury as a mildew retardant), water, or sediment tracked into buildings and contributing mercury to the vapor phase. However, the fact that most of the Nome participants who showed seasonal variations had peak levels in the summer may indicate that the contamination may have an outdoor source. It is known that, in the early part of this century, when mercury was heavily used in the gold ore purification process, large amounts of elemental mercury were released to the environment in the vicinity of Nome and soil levels in the range of 350 to 1000 ppm have been measured within the city limits (MMS 89-0049). The relatively high mercury concentrations measured in the hair of the individuals exhibiting this trend may be indicative of this rather large source of mercury contamination in the Nome area.

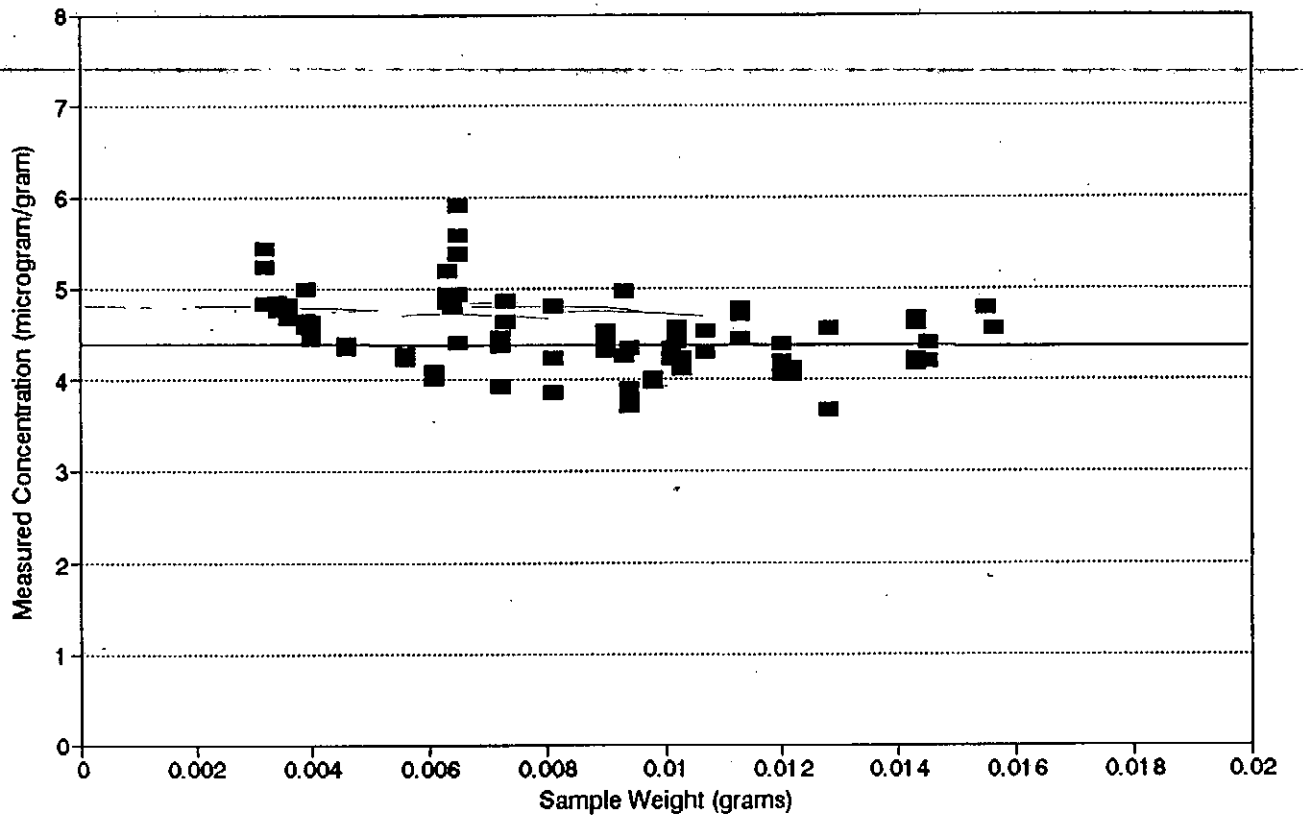


FIGURE 4. Correlation of Sample Weight and Measured Mercury Concentration.

SUGGESTIONS FOR FURTHER STUDY

If these data are to be used as a reliable indicator for exposure assessment, it is important to determine whether the steady distal increase seen in many of the samples is indeed caused by abiotic adsorption from the environment. If that is the case, there are implications with respect to the interpretation of this and other mercury in hair data, both segmental and total hair. Several possibilities for investigating this include the following:

- If adsorption is taking place, it would be in the form of elemental mercury, as opposed to methylmercury, which is the predominant species of mercury found in marine mammals and fish. It would be possible to resolve the question of the origin of the mercury increase by analyzing segmented hair from the same subject for both methylmercury and total mercury (methylmercury + elemental mercury). If the increase is an accurate reflection of the mercury ingested by the subject, the trend should be the same for both types of mercury. If the increase is due to abiotic adsorption, the methylmercury levels should remain relatively constant while the total mercury level increases toward the distal end of the hair. By analyzing hair in this way, the results would be indicative of both body burden as a result of ingestion of organomercury compounds common in fish and marine mammals and abiotically adsorbed mercury.

- Passive air samplers can be placed in the homes of several of the participants, both those exhibiting low trendless mercury levels and those exhibiting high, distally increasing mercury levels, to see if there is a correlation between the vapor levels and hair levels. Water samples could also be taken in these homes, though this parameter is somewhat more difficult to interpret because the water is also ingested.

- It would be of interest to geographically plot the locations of the homes and/or work places (and occupations) of the participants exhibiting the high, distally increasing concentrations and to note relationships with areas of documented high levels of mercury in the soil. It would also be interesting to note other habits of the participants that would affect their exposure to air or water-borne mercury, such as living in different locations during summer versus winter, leaving Nome at a certain time of year for extended periods, exposing themselves to possible sources during certain seasons (i.e., gardening would expose them to possibly contaminated soil in the summer time), etc.

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APPENDIX A

CALIBRATION AND STANDARD DATA

A.1 CALIBRATION DATA

TISSUE DIGESTION CALIBRATION SHEET

PROJECT ID: NOME SEGMENTAL ANALYSIS

FILENAME: NOMCAL

SEQ#	DATE RUN	START SEQ#	END SEQ#	BLANK (AREA)	FACTOR AREA/ng	MEAN STD 1641b
1	14JAN91	10	22	28	5852	
2	15JAN91	23	51	26.5	5588	1.55
3	16JAN91	52	60	83	5771	1.54
4	16JAN91	61	80	226	5771	1.54
5	17JAN91	81	102	30	5750	1.55
6	17JAN91	103	107	26	5750	1.55
7	18JAN91	108	130	43	5742	1.51
8	21JAN91	131	145	39	6081	1.38
9	22JAN91	146	164	17.5	6084	1.54
10	23JAN91	165	183	30	6138	1.47
11	24JAN91	184	209	28.5	5958	1.57
12	29JAN91	210	231	43	5808	1.58
13	30JAN91	232	257	34	5939	1.56
14	31JAN91	258	270	31	5897	1.61
15	31JAN91	271	280	19	5897	1.61
16	1FEB91	281	303	28	6104	1.55
17	4FEB91	304	311	24	6288	1.51
18	5FEB91	312	317	22	6321	1.51

TISSUE DIGESTION CALIBRATION SHEET

PROJECT ID: NOME SEGMENTAL ANALYSIS

FILENAME: NOMCAL

SEQ#	DATE RUN	START SEQ#	END SEQ#	BLANK (AREA)	FACTOR AREA/ng	MEAN STD 1641b
19	5FEB91	318	332	25	6321	1.51
20	6FEB91	333	353	40	6336	1.61
21	7FEB91	354	360	33.5	6294	1.59
22	7FEB91	361	366	44	6294	1.59
23	12FEB91	367	368	53	7839	1.41
24	12FEB91	369	384	30	7839	1.41
25	13FEB91	385	405	34	7495	1.36
26	14FEB91	406	428	27	6850	1.52
27	18FEB91	429	442	33	7838	1.48
28	19FEB91	452	456	24	7916	1.41
29	19FEB91	457	464	29	7916	1.41
30	20FEB91	465	492	24.5	7979	1.47
31	4MAR91	493	526	64	9058	1.46
32	5MAR91	527	531	28	9163	1.50
33	5MAR91	532	559	24	9163	1.50
34	6MAR91	560	596	24	9058	1.52
35	7MAR91	597	633	46	9128	1.55
36	8MAR91	634	665	37	9073	1.57

TISSUE DIGESTION CALIBRATION SHEET

PROJECT ID: NOME SEGMENTAL ANALYSIS

FILENAME: NOMCAL

SEQ#	DATE RUN	START SEQ#	END SEQ#	BLANK (AREA)	FACTOR AREA/ng	MEAN STD 1641b
37	11MAR91	666	668	35	9439	1.51
38	11MAR91	669	697	39.5	9439	1.51
39	12MAR91	698	727	39.5	9589	1.46
40	13MAR91	728	762	37.5	9393.6	1.39
41	14MAR91	763	770	34	6912	1.56
42	14MAR91	771	788	32	6912	1.53
43	18MAR91	789	820	56.5	6904	1.56
44	22MAR91	821	839	31	4048	1.47
45	25MAR91	840	867	30.5	3737	1.50
46	26MAR91	868	881	26.5	3910	1.41
47	26MAR91	882	895	43.5	3910	1.41
48	27MAR91	896	917	22.5	4025	1.51
49	27MAR91	918	926	24	4025	1.51
50	28MAR91	927	959	29	4502	1.50
51	29MAR91	960	965	42	4513	1.44
52	29MAR91	966	986	43	4513	1.44
53	2APR91	987	1003	30	4574	1.48
54	2APR91	1004	1016	28	4574	1.48

TISSUE DIGESTION CALIBRATION SHEET

PROJECT ID: NOME SEGMENTAL ANALYSIS

FILENAME: NOMCAL

SEQ#	DATE RUN	START SEQ#	END SEQ#	BLANK (AREA)	FACTOR AREA/ng	MEAN STD 1641b
55	3APR91	1017	1031	28	4806	1.52
56	3APR91	1032	1052	45.5	4806	1.52
57	4APR91	1053	1071	35.5	4764.4	1.54
58	4APR91	1072	1075	43	4764.4	1.54
59	5APR91	1076	1103	35	4936	1.64
60	8APR91	1104	1115	30	4840	1.65
61	8APR91	1116	1132	26	4840	1.65
62	9APR91	1133	1162	26.5	4876	1.55
63	10APR91	1163	1196	29.5	4920	1.47
64	18APR91	1197	1225	37	6917	1.57
65	19APR91	1226	1256	42.5	7172	1.41
66	22APR91	1257	1259	47	8150	1.52
67	22APR91	1260	1284	53	8150	1.52
68	23APR91	1285	1301	46.5	8233	1.54
					MEAN	1.51
					STD DEV	0.07
				CERTIFIED	VALUE	1.52±0.04

A.2 ANALYSIS RECORD FOR TISSUE STANDARD DORM-1

DORM-1

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
DORM-1-01	9JAN91	0.790
DORM-1-01	9JAN91	0.716
DORM-1-01	9JAN91	0.707
DORM-1-02	14JAN91	0.856
DORM-1-02	14JAN91	0.832
DORM-1-02	14JAN91	0.879
DORM-1-03	16JAN91	0.930
DORM-1-03	16JAN91	0.896
DORM-1-03	16JAN91	0.783
DORM-1-04	17JAN91	0.903
DORM-1-04	17JAN91	0.911
DORM-1-05	22JAN91	0.748
DORM-1-05	22JAN91	0.819
DORM-1-05	22JAN91	0.803
DORM-1-06	23JAN91	0.638
DORM-1-06	23JAN91	0.817
DORM-1-06	23JAN91	0.879
DORM-1-06	23JAN91	0.856
DORM-1-06	23JAN91	0.779
DORM-1-07	25JAN91	0.963
DORM-1-07	25JAN91	0.906
DORM-1-07	25JAN91	0.857

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
DORM-1-07	25JAN91	0.887
DORM-1-08	28JAN91	0.905
DORM-1-08	28JAN91	0.915
DORM-1-08	28JAN91	0.944
DORM-1-08	28JAN91	0.907
DORM-1-09	31JAN91	0.871
DORM-1-09	31JAN91	0.852
DORM-1-10	8FEB91	0.810
DORM-1-10	8FEB91	0.824
DORM-1-10	8FEB91	0.948
DORM-1-10	8FEB91	0.909
DORM-1-11	12FEB91	0.804
DORM-1-12	14FEB91	0.743
DORM-1-12	14FEB91	0.766
DORM-1-13	20FEB91	0.803
DORM-1-13	20FEB91	0.777
DORM-1-14	4MAR91	0.840
DORM-1-14	4MAR91	0.850
DORM-1-15	5MAR91	0.852
DORM-1-15	5MAR91	0.851
DORM-1-16	6MAR91	0.800
DORM-1-16	6MAR91	0.833

DORM-1

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
DORM-1-16	6MAR91	0.880
DORM-1-17	11MAR91	0.867
DORM-1-18	12MAR91	0.920
DORM-1-18	12MAR91	0.877
DORM-1-18	12MAR91	0.980
DORM-1-19	13MAR91	0.727
DORM-1-19	13MAR91	0.891
DORM-1-20	21MAR91	0.828
DORM-1-21	22MAR91	1.112
DORM-1-21	22MAR91	1.132
DORM-1-21	22MAR91	1.078
DORM-1-22	25MAR91	0.800
DORM-1-22	25MAR91	0.870
DORM-1-23	26MAR91	0.810
DORM-1-23	26MAR91	0.857
DORM-1-24	27MAR91	0.840
DORM-1-25	29MAR91	0.914
DORM-1-25	29MAR91	0.833
DORM-1-26	1APR91	0.926
DORM-1-26	1APR91	0.892
DORM-1-26	1APR91	0.935
DORM-1-27	2APR91	0.778

DORM-1

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
DORM-1-27	2APR91	0.766
DORM-1-28	4APR91	0.913
DORM-1-29	9APR91	0.840
DORM-1-30	17APR91	1.135
DORM-1-30	17APR91	1.023
DORM-1-31	18APR91	0.849
MEAN		0.864
STD DEV		0.091

A.3 ANALYSIS RECORD FOR HAIR STANDARD NIES-5

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
NIES-01	9JAN91	4.402
NIES-01	9JAN91	5.913
NIES-01	9JAN91	5.576
NIES-01	9JAN91	5.386
NIES-01	9JAN91	4.927
NIES-02	14JAN91	3.677
NIES-02	14JAN91	4.568
NIES-03	16JAN91	4.580
NIES-03	16JAN91	4.416
NIES-04	17JAN91	4.540
NIES-04	17JAN91	4.307
NIES-04 OLD	17JAN91	4.794
NIES-05	22JAN91	4.720
NIES-05	22JAN91	4.450
NIES-05	22JAN91	4.786
NIES-06	23JAN91	4.342
NIES-07	25JAN91	4.248
NIES-07	25JAN91	4.157
NIES-07	25JAN91	4.123
NIES-08	28JAN91	4.577
NIES-09	31JAN91	3.857
NIES-09	31JAN91	4.811

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
NIES-09	31JAN91	4.247
NIES-10	8FEB91	4.671
NIES-10	8FEB91	4.620
NIES-10	8FEB91	4.247
NIES-10	8FEB91	4.185
NIES-11	12FEB91	3.986
NIES-11	12FEB91	4.011
NIES-11	12FEB91	3.984
NIES-12	14FEB91	3.716
NIES-12	14FEB91	3.790
NIES-12	14FEB91	3.913
NIES-13	20FEB91	4.090
NIES-13	20FEB91	4.082
NIES-13	20FEB91	4.011
NIES-14	4MAR91	4.342
NIES-14	4MAR91	4.245
NIES-15	5MAR91	4.142
NIES-15	5MAR91	4.054
NIES-16	6MAR91	4.315
NIES-16	6MAR91	4.548
NIES-16	6MAR91	4.402
NIES-17	11MAR91	4.215

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
NIES-17	11MAR91	4.412
NIES-18	12MAR91	4.269
NIES-18	12MAR91	4.966
NIES-19	13MAR91	4.839
NIES-19	13MAR91	5.235
NIES-19	13MAR91	5.453
NIES-20	21MAR91	4.830
NIES-20	21MAR91	4.829
NIES-21	22MAR91	4.877
NIES-21	22MAR91	4.636
NIES-22	25MAR91	4.896
NIES-22	25MAR91	4.879
NIES-22	25MAR91	4.820
NIES-23	26MAR91	3.938
NIES-23	26MAR91	4.461
NIES-23	26MAR91	4.376
NIES-24	29MAR91	4.205
NIES-24	27MAR91	4.398
NIES-24	27MAR91	4.066
NIES-25	29MAR91	4.988
NIES-25	29MAR91	4.646
NIES-25	29MAR91	4.593

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g
NIES-26	1APR91	4.856
NIES-26	1APR91	4.937
NIES-26	1APR91	5.186
NIES-27	2APR91	4.286
NIES-27	2APR91	4.237
NIES-28	4APR91	4.829
NIES-28	4APR91	4.684
NIES-29	9APR91	4.769
NIES-29	9APR91	4.856
NIES-30	17APR91	4.398
NIES-30	17APR91	4.347
NIES-31	18APR91	4.454
NIES-31	18APR91	4.629
NIES-31	18APR91	4.573
NIES-31	18APR91	4.613
MEAN		4.51
STD DEV		0.42

A.4 ANALYSIS RECORD FOR SPIKED HAIR STANDARD NIES-5

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g	% SPIKE RECOVERY
NIES SPIKE-01	9JAN91	15.209	87.3
NIES SPIKE-01	9JAN91	15.357	88.5
NIES SPIKE-01	9JAN91	16.728	99.5
NIES SPIKE-02	14JAN91	10.531	105.4
NIES SPIKE-02	14JAN91	10.594	96.8
NIES SPIKE-03	16JAN91	8.702	65.6
NIES SPIKE-03	16JAN91	11.956	116.4
NIES SPIKE-04	17JAN91	12.439	102.4
NIES SPIKE-05	*22JAN91	9.956	96.7
NIES SPIKE-05	22JAN91	10.284	103.5
NIES SPIKE-05	22JAN91	8.175	65.5
NIES SPIKE-06	23JAN91	15.232	105.3
NIES SPIKE-07	25JAN91	15.117	99.6
NIES SPIKE-08	28JAN91	12.876	108.2
NIES SPIKE-09	31JAN91	9.271	103.9
NIES SPIKE-09	31JAN91	9.850	115.1
NIES SPIKE-10	8FEB91	10.273	120.1
NIES SPIKE-11	12FEB91	10.324	85.5
NIES SPIKE-12	14FEB91	12.542	86.6
NIES SPIKE-13	20FEB91	11.311	74.4
NIES SPIKE-13	20FEB91	11.876	80.4
NIES SPIKE-13	20FEB91	11.205	73.3

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g	% SPIKE RECOVERY
NIES SPIKE-14	4MAR91	11.856	93.0
NIES SPIKE-14	4MAR91	12.363	99.9
NIES SPIKE-15	5MAR91	12.990	104.0
NIES SPIKE-15	5MAR91	13.213	106.8
NIES SPIKE-16	6MAR91	8.326	69.4
NIES SPIKE-16	6MAR91	9.508	89.9
NIES SPIKE-17	11MAR91	16.094	96.5
NIES SPIKE-17	11MAR91	16.024	96.0
NIES SPIKE-17	11MAR91	14.894	86.7
NIES SPIKE-18	12MAR91	15.025	97.8
NIES SPIKE-18	12MAR91	16.279	110.2
NIES SPIKE-19	13MAR91	19.549	100.0
NIES SPIKE-20	21MAR91	21.703	110.2
NIES SPIKE-21	22MAR91	13.562	98.4
NIES SPIKE-22	25MAR91	14.954	97.9
NIES SPIKE-23	26MAR91	15.098	102.6
NIES SPIKE-24	27MAR91	13.548	100.4
NIES SPIKE-25	29MAR91	15.273	98.5
NIES SPIKE-26	1APR91	20.182	102.2
NIES SPIKE-27	2APR91	15.412	110.2
NIES SPIKE-28	4APR91	14.718	92.7
NIES SPIKE-29	9APR91	36.701	94.3

CERTIFIED HAIR STANDARD NIES

BATTELLE ID	DIGESTION DATE	ΣHg [Hg]µg/g	% SPIKE RECOVERY
NIES SPIKE-29	9APR91	33.583	85.2
NIES SPIKE-30	17APR91	18.337	102.5
NIES SPIKE-31	18APR91	20.164	115.9
MEAN			96.6
STD DEV			12.7

APPENDIX B

RAW DATA

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
10	NIES-1	126	9JAN91	0.0065	250	0.076	2424	5.386	0.057
11	NIES SPIKE-1	127	9JAN91	0.0061	250	0.071	7011	16.728	0.061
12	DORM-1-1	128	9JAN91	0.0987	250	1.154	4865	0.716	0.004
13	1-1	129	9JAN91	0.0128	250	0.150	1015	1.127	0.029
14	1-2	131	9JAN91	0.0152	250	0.178	1242	1.167	0.024
15	1-3	132	9JAN91	0.0161	250	0.188	1131	1.001	0.023
16	DORM-1-1 dup	144	9JAN91	0.0987	250	1.154	4806	0.707	0.004
17	1-6	145	9JAN91	0.0163	250	0.191	1208	1.058	0.023
18	1-7	146	9JAN91	0.0162	250	0.189	1174	1.034	0.023
19	1-8	151	9JAN91	0.0155	250	0.181	1451	1.342	0.024
20	1-9	152	9JAN91	0.0143	250	0.167	1268	1.267	0.026
21	1-4	157	9JAN91	0.0145	250	0.170	1007	0.987	0.026
22	1-5	158	9JAN91	0.0157	250	0.184	1139	1.034	0.024
23	NIES-1 dup	170	9JAN91	0.0065	250	0.076	2538	5.913	0.057
24	1-10	171	9JAN91	0.0140	250	0.164	1695	1.824	0.027
25	DORM-1-1 dup	173	9JAN91	0.0987	250	1.154	5119	0.790	0.004
26	NIES SPIKE-1 dup	174	9JAN91	0.0061	250	0.071	6089	15.209	0.061
27	1-11	175	9JAN91	0.0071	250	0.083	1299	2.743	0.052
28	1-1 dup	176	9JAN91	0.0128	250	0.150	996	1.159	0.029
29	NIES-1 dup	178	9JAN91	0.0065	250	0.076	2395	5.576	0.057
30	1-2 dup	179	9JAN91	0.0152	250	0.178	1261	1.243	0.024
31	1-3 dup	180	9JAN91	0.0161	250	0.188	1243	1.156	0.023

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
32	1-4 dup	182	9JAN91	0.0145	250	0.170	1150	1.186	0.026
33	1-5 dup	183	9JAN91	0.0157	250	0.184	1216	1.159	0.024
34	1-6 dup	184	9JAN91	0.0163	250	0.191	1192	1.094	0.023
35	1-7 dup	185	9JAN91	0.0162	250	0.189	1408	1.305	0.023
36	1-8 dup	186	9JAN91	0.0155	250	0.181	1557	1.511	0.024
37	1-9 dup	187	9JAN91	0.0143	250	0.167	1463	1.537	0.026
38	1-10 dup	188	9JAN91	0.0140	250	0.164	1662	1.788	0.027
39	1-11 dup	189	9JAN91	0.0071	250	0.083	1303	2.751	0.052
40	NIES SPIKE-1 dup	190	9JAN91	0.0061	250	0.071	6148	15.357	0.061
41	3-1	192	9JAN91	0.0020	250	0.023	534	3.872	0.186
42	3-2	193	9JAN91	0.0023	250	0.027	464	2.901	0.162
43	3-3	194	9JAN91	0.0021	250	0.025	467	3.199	0.177
44	NIES-1 dup	195	9JAN91	0.0065	250	0.076	2121	4.927	0.057
45	3-4	196	9JAN91	0.0018	250	0.021	589	4.769	0.207
46	3-5	197	9JAN91	0.0019	250	0.022	635	4.889	0.196
47	3-6	198	9JAN91	0.0018	250	0.021	594	4.812	0.207
48	3-7	199	9JAN91	0.0016	250	0.019	439	3.931	0.233
49	3-8	200	9JAN91	0.0008	250	0.009	378	6.695	0.465
50	3-9	201	9JAN91	0.0006	250	0.007	399	9.462	0.620
51	3-10	202	9JAN91	0.0004	250	0.005	301	10.444	0.930
52	3-11	212	9JAN91	0.0006	250	0.007	603	12.842	0.620
53	3-12	213	9JAN91	0.0006	250	0.007	494	10.150	0.620

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
54	3-13	214	9JAN91	0.0004	250	0.005	414	12.262	0.930
55	3-14	215	9JAN91	0.0014	250	0.016	704	6.573	0.266
56	3-15	216	9JAN91	0.0006	250	0.007	501	10.323	0.620
57	3-16	217	9JAN91	0.0006	250	0.007	599	12.743	0.620
58	NIES-1 dup	218	9JAN91	0.0065	250	0.076	2014	4.402	0.057
59	3-14 dup	219	9JAN91	0.0014	250	0.016	668	6.192	0.266
60	3-8 dup	220	9JAN91	0.0008	250	0.009	347	4.890	0.465
61	NIES-2	222	14JAN91	0.0128	250	0.150	4172	4.568	0.029
62	7-1	225	14JAN91	0.0274	250	0.320	1487	0.682	0.014
63	7-2	226	14JAN91	0.0254	250	0.297	1448	0.713	0.015
64	7-3	228	14JAN91	0.0216	250	0.253	1178	0.653	0.017
65	NIES SPIKE-2	229	14JAN91	0.0117	100	0.055	3552	10.531	0.079
66	DORM-1-2 dup	230	14JAN91	0.1612	100	0.754	4052	0.879	0.006
67	7-4	231	14JAN91	0.0165	250	0.193	1052	0.742	0.023
68	8-1	232	14JAN91	0.0354	250	0.414	2238	0.842	0.011
69	8-2	233	14JAN91	0.0251	250	0.294	1240	0.599	0.015
70	2-1	235	14JAN91	0.0147	250	0.172	1506	1.290	0.025
71	2-2	236	14JAN91	0.0162	250	0.189	1684	1.334	0.023
72	2-3	237	14JAN91	0.0161	250	0.188	1978	1.612	0.023
73	2-4	238	14JAN91	0.0143	250	0.167	1813	1.644	0.026
74	2-5	239	14JAN91	0.0154	250	0.180	2161	1.862	0.024
75	2-6	240	14JAN91	0.0135	250	0.158	2130	2.090	0.028

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
76	2-7	241	14JAN91	0.0118	250	0.138	2148	2.414	0.032
77	2-8	242	14JAN91	0.0127	250	0.149	2728	2.919	0.029
78	2-9	243	14JAN91	0.0113	250	0.132	2583	3.091	0.033
79	2-10	244	14JAN91	0.0121	250	0.142	3034	3.439	0.031
81	2-7 dup	253	14JAN91	0.0118	250	0.138	2153	2.676	0.032
82	2-8 dup	254	14JAN91	0.0127	250	0.149	2739	3.172	0.029
83	NIES-2	256	14JAN91	0.0128	250	0.150	3195	3.677	0.029
84	NIES SPIKE-2	257	14JAN91	0.0117	100	0.055	3364	10.594	0.079
85	DORM-1-2	258	14JAN91	0.1612	100	0.754	3639	0.832	0.006
86	2-11	259	14JAN91	0.0110	250	0.129	2934	3.926	0.034
87	2-12	260	14JAN91	0.0111	250	0.130	3386	4.496	0.034
88	2-13	261	14JAN91	0.0111	250	0.130	3761	4.999	0.034
89	2-14	262	14JAN91	0.0110	250	0.129	3651	4.895	0.034
90	2-15	263	14JAN91	0.0098	250	0.115	3634	5.469	0.038
91	2-16	264	14JAN91	0.0087	250	0.102	3580	6.068	0.043
92	2-17	265	14JAN91	0.0090	250	0.105	4188	6.871	0.041
93	2-18	266	14JAN91	0.0080	250	0.094	4522	8.350	0.047
94	2-19	267	14JAN91	0.0089	250	0.104	4958	8.235	0.042
95	2-20	268	14JAN91	0.0076	250	0.089	4877	9.485	0.049
96	2-21	269	14JAN91	0.0087	250	0.102	5557	9.448	0.043
97	2-22	270	14JAN91	0.0057	250	0.067	5857	15.203	0.065
98	2-2 dup	271	14JAN91	0.0162	250	0.189	1719	1.551	0.023

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
99	2-13 dup	272	14JAN91	0.0111	250	0.130	3895	5.178	0.034
100	DORM-1-2	274	14JAN91	0.1612	100	0.754	3741	0.856	0.006
101	2-18 dup	275	14JAN91	0.0080	250	0.094	4481	8.274	0.047
102	2-22 dup	276	14JAN91	0.0057	250	0.067	5850	15.185	0.065
103	NIES-3	278	16JAN91	0.0102	250	0.119	3055	4.416	0.036
104	NIES SPIKE-3	279	16JAN91	0.0115	250	0.134	6755	8.702	0.032
105	DORM-1-3	280	16JAN91	0.0460	250	0.538	2798	0.896	0.008
106	5-1	281	16JAN91	0.0188	250	0.220	1885	1.471	0.020
107	5-2	282	16JAN91	0.0214	250	0.250	1964	1.347	0.017
108	DORM-1-3	291	16JAN91	0.0460	250	0.538	2917	0.930	0.008
109	5-3	292	16JAN91	0.0182	250	0.213	1747	1.394	0.020
110	5-4	293	16JAN91	0.0144	250	0.168	1334	1.335	0.026
111	5-5	295	16JAN91	0.0143	250	0.167	1351	1.362	0.026
112	5-6	296	16JAN91	0.0144	250	0.168	1397	1.400	0.026
113	5-7	297	16JAN91	0.0123	250	0.144	1373	1.610	0.030
114	5-8	298	16JAN91	0.0130	250	0.152	1804	2.017	0.029
115	NIES-3	300	16JAN91	0.0102	250	0.119	3180	4.580	0.036
116	NIES SPIKE-3	301	16JAN91	0.0115	100	0.054	3736	11.956	0.081
117	5-9	302	16JAN91	0.0127	250	0.149	1813	2.076	0.029
118	5-10	303	16JAN91	0.0107	250	0.125	2034	2.771	0.035
119	5-11	304	16JAN91	0.0080	250	0.094	1839	3.343	0.047
120	5-12	305	16JAN91	0.0085	250	0.099	2362	4.063	0.044

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
121	5-13	306	16JAN91	0.0078	250	0.091	2311	4.330	0.048
122	5-14	307	16JAN91	0.0077	250	0.090	2723	5.183	0.048
123	5-15	308	16JAN91	0.0065	250	0.076	2465	5.549	0.057
124	6-1	311	16JAN91	0.0104	250	0.122	570	0.755	0.036
125	6-2	312	16JAN91	0.0096	250	0.112	611	0.881	0.039
126	6-3	313	16JAN91	0.0096	250	0.112	617	0.890	0.039
127	6-4	314	16JAN91	0.0089	250	0.104	535	0.823	0.042
128	5-16	316	16JAN91	0.0059	250	0.069	2648	6.575	0.063
129	6-5	317	16JAN91	0.0089	250	0.104	603	0.937	0.042
130	6-6	318	16JAN91	0.0079	250	0.092	723	1.282	0.047
131	6-7	330	16JAN91	0.0073	250	0.085	823	1.510	0.051
132	6-8	331	16JAN91	0.0082	250	0.096	1098	1.816	0.045
133	6-9	332	16JAN91	0.0079	250	0.092	1174	2.020	0.047
134	6-10	333	16JAN91	0.0077	250	0.090	1053	1.852	0.048
135	6-11	334	16JAN91	0.0071	250	0.083	1057	2.016	0.052
136	6-12	335	16JAN91	0.0064	250	0.075	988	2.085	0.058
137	DORM-1-3	337	16JAN91	0.0460	250	0.538	2600	0.783	0.008
138	6-13	338	16JAN91	0.0064	250	0.075	1102	2.336	0.058
139	6-14	339	16JAN91	0.0057	250	0.067	856	2.016	0.065
140	6-15	340	16JAN91	0.0053	250	0.062	868	2.200	0.070
141	6-16	341	16JAN91	0.0052	250	0.061	941	2.439	0.072
142	6-15 dup	342	16JAN91	0.0053	250	0.062	882	2.237	0.070

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
143	6-16 dup	343	16JAN91	0.0052	250	0.061	1006	2.615	0.072
144	6-3 dup	344	16JAN91	0.0096	250	0.112	631	0.867	0.039
145	6-13 dup	345	16JAN91	0.0064	250	0.075	1140	2.419	0.058
146	DORM-1-4	356	17JAN91	0.0771	250	0.902	5016	0.911	0.005
147	NIES-4	357	17JAN91	0.0107	250	0.125	3474	4.540	0.035
148	OLD NIES 4A	358	17JAN91	0.0155	250	0.181	5304	4.794	0.024
149	4-1	360	17JAN91	0.0078	250	0.091	1027	1.819	0.048
150	4-2	361	17JAN91	0.0079	250	0.092	1095	1.917	0.047
151	4-3	362	17JAN91	0.0083	250	0.097	1062	1.769	0.045
152	4-4	363	17JAN91	0.0076	250	0.089	906	1.643	0.049
153	4-5	364	17JAN91	0.0040	250	0.047	536	1.822	0.093
154	9-1	365	17JAN91	0.0145	250	0.170	770	0.729	0.026
155	9-2	366	17JAN91	0.0137	250	0.160	887	0.892	0.027
156	9-3	367	17JAN91	0.0121	250	0.142	979	1.117	0.031
157	9-4	368	17JAN91	0.0110	250	0.129	1000	1.255	0.034
158	NIES SPIKE-4	370	17JAN91	0.0096	100	0.045	3416	12.439	0.097
159	9-5	371	17JAN91	0.0092	250	0.108	1138	1.712	0.040
160	9-6	372	17JAN91	0.0074	250	0.087	1082	2.022	0.050
161	9-7	373	17JAN91	0.0061	250	0.071	1135	2.575	0.061
162	9-8	374	17JAN91	0.0044	250	0.051	1168	3.675	0.085
163	4-3 dup	375	17JAN91	0.0083	250	0.097	998	1.660	0.045
164	9-6 dup	376	17JAN91	0.0074	250	0.087	1093	2.043	0.050

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
165	NIES-4	386	17JAN91	0.0107	250	0.125	3338	4.307	0.035
166	9-9	387	17JAN91	0.0044	250	0.051	1188	3.667	0.085
167	9-10	388	17JAN91	0.0049	250	0.057	2199	6.167	0.076
168	9-11	389	17JAN91	0.0035	250	0.041	1923	7.535	0.106
169	9-2 dup	390	17JAN91	0.0137	250	0.160	956	0.942	0.027
170	10-1	391	17JAN91	0.0111	250	0.130	701	0.842	0.034
171	10-2	392	17JAN91	0.0110	250	0.129	547	0.655	0.034
172	10-3	393	17JAN91	0.0109	250	0.127	413	0.490	0.034
173	10-4	394	17JAN91	0.0109	250	0.127	389	0.459	0.034
174	10-5	395	17JAN91	0.0096	250	0.112	326	0.430	0.039
175	10-2 dup	396	17JAN91	0.0110	250	0.129	534	0.638	0.034
176	11-1	397	17JAN91	0.0083	250	0.097	546	0.866	0.045
177	11-2	398	17JAN91	0.0072	250	0.084	306	0.534	0.052
178	11-3	399	17JAN91	0.0074	250	0.087	313	0.533	0.050
179	11-4	400	17JAN91	0.0072	250	0.084	322	0.565	0.052
180	11-5	401	17JAN91	0.0059	250	0.069	318	0.680	0.063
181	11-6	402	17JAN91	0.0070	250	0.082	416	0.768	0.053
182	11-2 dup	403	17JAN91	0.0072	250	0.084	304	0.530	0.052
183	DORM-1-4	404	17JAN91	0.0771	250	0.902	5026	0.903	0.005
184	DORM-1-5	414	22JAN91	0.1019	250	1.192	5337	0.748	0.004
185	NIES-5	415	22JAN91	0.0113	250	0.132	3745	4.720	0.033
186	NIES SPIKE-5	416	22JAN91	0.0131	250	0.153	7481	9.956	0.071

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
187	12a	417	22JAN91	0.0188	250	0.220	1444	1.081	0.020
188	12b	418	22JAN91	0.0182	250	0.213	1631	1.264	0.020
189	12c	419	22JAN91	0.0176	250	0.206	2393	1.928	0.021
190	12d	420	22JAN91	0.0165	250	0.193	2907	2.504	0.023
191	12e	421	22JAN91	0.0180	250	0.210	5472	4.340	0.021
192	12f	422	22JAN91	0.0129	250	0.151	5599	6.198	0.029
193	12b dup	423	22JAN91	0.0165	250	0.193	1646	1.407	0.023
194	NIES SPIKE-5	424	22JAN91	0.0131	100	0.061	3647	8.175	0.028
195	13a	425	22JAN91	0.0090	250	0.105	540	0.816	0.041
196	13b	426	22JAN91	0.0113	250	0.132	601	0.727	0.033
197	13c	427	22JAN91	0.0096	250	0.112	392	0.543	0.039
198	13d	428	22JAN91	0.0098	250	0.115	327	0.437	0.038
199	13e	429	22JAN91	0.0099	250	0.116	320	0.423	0.038
200	13f	430	22JAN91	0.0075	250	0.088	287	0.495	0.050
201	13g	431	22JAN91	0.0076	250	0.089	295	0.503	0.049
202	13h	432	22JAN91	0.0076	250	0.089	280	0.475	0.049
203	13i	433	22JAN91	0.0073	250	0.085	298	0.530	0.051
204	13j	434	22JAN91	0.0060	250	0.070	290	0.626	0.062
205	13k	435	22JAN91	0.0050	250	0.058	351	0.926	0.074
206	13l	436	22JAN91	0.0038	250	0.044	330	1.139	0.098
207	13f dup	437	22JAN91	0.0075	250	0.088	265	0.453	0.050
208	13k dup	438	22JAN91	0.0050	250	0.058	366	0.969	0.074

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
209	NIES-5	440	22JAN91	0.0113	250	0.132	3532	4.450	0.033
210	DORM-1-5	481	22JAN91	0.1015	250	1.187	5687	0.819	0.004
211	NIES-5	482	22JAN91	0.0113	250	0.132	3716	4.786	0.033
212	14a	485	22JAN91	0.0105	250	0.123	579	0.752	0.035
213	14b	486	22JAN91	0.0090	250	0.105	581	0.880	0.041
214	14a dup	487	22JAN91	0.0105	250	0.123	594	0.773	0.035
215	14c	488	22JAN91	0.0077	250	0.090	547	0.964	0.048
216	14d	489	22JAN91	0.0076	250	0.089	560	1.002	0.049
217	14e	490	22JAN91	0.0086	250	0.101	672	1.077	0.043
218	14f	491	22JAN91	0.0069	250	0.081	517	1.011	0.054
219	14g	493	22JAN91	0.0081	250	0.095	694	1.183	0.046
220	14f dup	494	22JAN91	0.0069	250	0.081	734	1.474	0.054
221	14i	495	22JAN91	0.0068	250	0.080	896	1.847	0.055
222	14j	496	22JAN91	0.0062	250	0.073	967	2.194	0.060
223	14k	497	22JAN91	0.0050	250	0.058	932	2.618	0.074
224	14l	498	22JAN91	0.0046	250	0.054	1032	3.165	0.081
225	14m	499	22JAN91	0.0043	250	0.050	1078	3.544	0.087
226	14n	500	22JAN91	0.0048	250	0.056	1339	3.975	0.078
227	14i dup	501	22JAN91	0.0068	250	0.080	915	1.888	0.055
228	NIES-6	504	23JAN91	0.0094	250	0.110	2798	4.342	0.040
229	NIES SPIKE-6	506	23JAN91	0.0073	100	0.034	3047	15.232	0.127
230	NIES SPIKE-5	507	22JAN91	0.0131	100	0.061	3703	10.284	0.071

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
231	DORM-1-6	508	23JAN91	0.1063	250	1.243	5922	0.817	0.003
232	17a	520	23JAN91	0.0082	250	0.096	675	1.126	0.045
233	17b	521	23JAN91	0.0060	250	0.070	357	0.775	0.062
234	17c	522	23JAN91	0.0062	250	0.073	320	0.664	0.060
235	DORM-1-6	523	23JAN91	0.1063	100	0.497	2631	0.879	0.009
236	17d	524	23JAN91	0.0063	250	0.074	268	0.535	0.059
237	17e	525	23JAN91	0.0067	250	0.078	281	0.531	0.056
238	17f	526	23JAN91	0.0075	250	0.088	332	0.572	0.050
239	17g	528	23JAN91	0.0061	250	0.071	353	0.753	0.061
240	17h	529	23JAN91	0.0059	250	0.069	338	0.742	0.063
241	17i	530	23JAN91	0.0033	250	0.039	236	0.881	0.113
242	DORM-1-6	531	23JAN91	0.1063	100	0.497	2561	0.856	0.009
243	17j	532	23JAN91	0.0031	250	0.036	270	1.096	0.120
244	17k	533	23JAN91	0.0044	250	0.051	421	1.266	0.085
245	17l	534	23JAN91	0.0033	250	0.039	372	1.475	0.113
246	C1a	535	23JAN91	0.0185	250	0.216	857	0.641	0.020
247	C1c	537	23JAN91	0.0198	250	0.232	1095	0.772	0.019
248	C1d	538	23JAN91	0.0203	250	0.237	792	0.538	0.018
249	17b dup	539	23JAN91	0.0060	250	0.070	325	0.698	0.062
250	17l dup	540	23JAN91	0.0033	250	0.039	616	2.539	0.113
251	C1b	541	23JAN91	0.0213	250	0.249	1056	0.691	0.017
252	C1e	542	23JAN91	0.0186	250	0.218	760	0.562	0.020

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
253	C1f	543	23JAN91	0.0197	250	0.230	819	0.574	0.019
254	C1g	544	23JAN91	0.0180	250	0.210	692	0.526	0.021
255	171 dup2	545	23JAN91	0.0033	250	0.039	353	1.392	0.113
256	DORM-1-6	546	23JAN91	0.1063	100	0.497	1919	0.638	0.009
257	DORM-1-6	557	23JAN91	0.1063	100	0.497	2314	0.779	0.009
258	C1h	558	23JAN91	0.0223	250	0.261	781	0.488	0.017
259	C1i	559	23JAN91	0.0189	250	0.221	673	0.493	0.020
260	C1j	561	23JAN91	0.0184	250	0.215	542	0.403	0.020
261	C1k	562	23JAN91	0.0180	250	0.210	642	0.492	0.021
262	C1l	563	23JAN91	0.0183	250	0.214	668	0.505	0.020
263	C1m	564	23JAN91	0.0147	250	0.172	665	0.625	0.025
264	C1n	565	23JAN91	0.0162	250	0.189	781	0.671	0.023
265	C1o	566	23JAN91	0.0138	250	0.161	724	0.728	0.027
266	C1p	567	23JAN91	0.0119	250	0.139	623	0.721	0.031
267	C1q	568	23JAN91	0.0101	250	0.118	493	0.663	0.037
268	C1r	569	23JAN91	0.0084	250	0.098	431	0.691	0.044
269	C1s	570	23JAN91	0.0063	250	0.074	342	0.716	0.059
270	C1k dup	571	23JAN91	0.0180	250	0.210	635	0.487	0.021
271	DORM-1-7	574	25JAN91	0.0278	100	0.130	714	0.906	0.033
272	NIES-7	575	25JAN91	0.0103	250	0.120	3036	4.248	0.036
273	NIES SPIKE-7	576	25JAN91	0.0070	100	0.033	2938	15.117	0.133
274	15a	577	25JAN91	0.0078	250	0.091	638	1.151	0.048

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
275	15b	578	25JAN91	0.0077	250	0.090	753	1.382	0.048
276	15c	579	25JAN91	0.0066	250	0.077	533	1.129	0.056
277	15d	580	25JAN91	0.0069	250	0.081	644	1.313	0.054
278	15e	581	25JAN91	0.0056	250	0.065	677	1.704	0.066
279	15f	582	25JAN91	0.0061	250	0.071	966	2.251	0.061
280	15g	583	25JAN91	0.0059	250	0.069	1020	2.460	0.063
281	DORM-1-7	594	25JAN91	0.0278	100	0.130	792	0.963	0.033
282	NIES-7	595	25JAN91	0.0103	250	0.120	3084	4.157	0.036
283	15h	596	25JAN91	0.0089	250	0.104	1773	2.747	0.042
284	15i	597	25JAN91	0.0059	250	0.069	1290	2.997	0.063
285	15j	598	25JAN91	0.0073	250	0.085	1893	3.579	0.051
286	15k	599	25JAN91	0.0069	250	0.081	1983	3.969	0.054
287	15l	600	25JAN91	0.0066	250	0.077	2017	4.222	0.056
288	15m	601	25JAN91	0.0065	250	0.076	2040	4.336	0.057
289	15n	602	25JAN91	0.0057	250	0.067	1953	4.731	0.065
290	15o	603	25JAN91	0.0050	250	0.058	1866	5.150	0.074
291	15p	604	25JAN91	0.0043	250	0.050	1647	5.275	0.087
292	15q	605	25JAN91	0.0041	250	0.048	1580	5.303	0.091
293	15r	606	25JAN91	0.0039	250	0.046	1548	5.460	0.095
294	15s	607	25JAN91	0.0034	250	0.040	1587	6.424	0.109
295	15h dup	608	25JAN91	0.0089	250	0.104	1703	2.637	0.042
296	15p dup	609	25JAN91	0.0043	250	0.050	1655	5.301	0.087

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
297	NIES-7	611	25JAN91	0.0103	250	0.120	3059	4.123	0.036
298	16a	612	25JAN91	0.0063	250	0.074	453	0.945	0.059
299	16b	613	25JAN91	0.0069	250	0.081	646	1.255	0.054
300	16c	614	25JAN91	0.0075	250	0.088	1213	2.213	0.050
301	16d	615	25JAN91	0.0048	250	0.056	1153	3.283	0.078
302	16e	616	25JAN91	0.1223	250	1.430	1169	0.131	0.003
303	18a	617	25JAN91	0.0086	250	0.101	183	0.252	0.043
304	DORM-1-7	643	25JAN91	0.0278	100	0.130	749	0.887	0.033
305	18b	645	25JAN91	0.0083	250	0.097	193	0.277	0.045
306	18c	646	25JAN91	0.0087	250	0.102	280	0.400	0.043
307	18d	647	25JAN91	0.0083	250	0.097	369	0.565	0.045
308	18e	648	25JAN91	0.0083	250	0.097	417	0.644	0.045
309	18f	649	25JAN91	0.0074	250	0.087	340	0.581	0.050
310	18g	650	25JAN91	0.0072	250	0.084	299	0.519	0.052
311	18b dup	652	25JAN91	0.0083	250	0.097	206	0.298	0.045
312	DORM-1-7	662	25JAN91	0.0278	250	0.325	1783	0.857	0.013
313	18h	663	25JAN91	0.0076	250	0.089	326	0.541	0.049
314	18i	664	25JAN91	0.0050	250	0.058	226	0.552	0.074
315	18j	665	25JAN91	0.0036	250	0.042	198	0.661	0.103
316	18h dup	666	25JAN91	0.0036	250	0.042	202	0.676	0.103
317	DORM-1-8	668	28JAN91	0.0372	100	0.174	1020	0.905	0.025
318	NIES-8	669	28JAN91	0.0156	250	0.182	5303	4.577	0.024

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
319	NIES SPIKE-8	670	28JAN91	0.0096	100	0.045	3680	12.876	0.097
320	19a	671	28JAN91	0.0053	250	0.062	193	0.429	0.070
321	19b	672	28JAN91	0.0052	250	0.061	172	0.382	0.072
322	19c	673	28JAN91	0.0045	250	0.053	172	0.442	0.083
323	19c dup	674	28JAN91	0.0045	250	0.053	167	0.427	0.083
324	19d	675	28JAN91	0.0053	250	0.062	210	0.472	0.070
325	19e	676	28JAN91	0.0052	250	0.061	172	0.382	0.072
326	19f	677	28JAN91	0.0050	250	0.058	171	0.395	0.074
327	19g	678	28JAN91	0.0052	250	0.061	174	0.388	0.072
328	19h	679	28JAN91	0.0056	250	0.065	219	0.469	0.066
329	19i	680	28JAN91	0.0049	250	0.057	191	0.458	0.076
330	19j	681	28JAN91	0.0044	250	0.051	224	0.612	0.085
331	19k	682	28JAN91	0.0045	250	0.053	259	0.703	0.083
332	19l	683	28JAN91	0.0040	250	0.047	267	0.818	0.093
333	19l dup1	696	28JAN91	0.0040	250	0.047	255	0.725	0.093
334	19l dup2	697	28JAN91	0.0040	250	0.047	271	0.779	0.093
335	19m	698	28JAN91	0.0040	250	0.047	296	0.864	0.093
336	DORM-1-8	699	28JAN91	0.0372	100	0.174	1049	0.915	0.025
337	19n	700	28JAN91	0.0035	250	0.041	295	0.983	0.106
338	19o	701	28JAN91	0.0029	250	0.034	319	1.298	0.128
339	19p	702	28JAN91	0.0026	250	0.030	317	1.438	0.143
340	19q	703	28JAN91	0.0027	250	0.032	335	1.475	0.138

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
341	19r	704	28JAN91	0.0029	250	0.034	392	1.638	0.128
342	19r dup	705	28JAN91	0.0029	250	0.034	410	1.722	0.128
343	20a	706	28JAN91	0.0116	250	0.136	565	0.611	0.032
344	20b	707	28JAN91	0.0104	250	0.122	414	0.485	0.036
345	20c	708	28JAN91	0.0144	250	0.168	613	0.537	0.026
346	20b dup	709	28JAN91	0.0104	250	0.122	416	0.488	0.036
347	DORM-1-8	710	28JAN91	0.0372	250	0.435	2539	0.907	0.010
348	21a	711	28JAN91	0.0066	250	0.077	591	1.127	0.056
349	21b	712	28JAN91	0.0053	250	0.062	472	1.100	0.070
350	21c	713	28JAN91	0.0053	250	0.062	501	1.174	0.070
351	21d	714	28JAN91	0.0040	250	0.047	304	0.891	0.093
352	21e	715	28JAN91	0.0049	250	0.057	375	0.923	0.076
353	21f	716	28JAN91	0.0042	250	0.049	389	1.121	0.089
354	DORM-1-8	727	28JAN91	0.0372	250	0.435	2619	0.944	0.010
355	21g	728	28JAN91	0.0036	250	0.042	462	1.617	0.103
356	21g dup	729	28JAN91	0.0036	250	0.042	435	1.515	0.103
357	22a	730	28JAN91	0.0057	250	0.058	1106	2.918	0.074
358	22b	731	28JAN91	0.0052	250	0.061	777	1.943	0.072
359	22c	732	28JAN91	0.0046	250	0.054	548	1.520	0.081
360	22a dup	734	28JAN91	0.0057	250	0.067	1149	2.659	0.065
361	DORM-1-9	736	31JAN91	0.0281	250	0.329	1846	0.871	0.013
362	NIES-9	738	31JAN91	0.0081	250	0.095	2912	4.811	0.046

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
363	23a	739	31JAN91	0.0035	250	0.041	114	0.272	0.106
364	23b	740	31JAN91	0.0050	250	0.058	154	0.299	0.074
365	NIES SPIKE-9	741	31JAN91	0.0159	100	0.074	4384	9.271	0.058
366	23c	742	31JAN91	0.0036	250	0.042	137	0.351	0.103
367	DORM-1-5	785	22JAN91	0.1015	250	1.187	7529	0.803	0.004
368	14h	787	22JAN91	0.0066	250	0.077	818	1.264	0.056
369	23d	789	31JAN91	0.0039	250	0.046	197	0.467	0.095
370	23e	790	31JAN91	0.0038	250	0.044	191	0.462	0.098
371	23f	791	31JAN91	0.0044	250	0.051	203	0.429	0.085
372	23g	792	31JAN91	0.0044	250	0.051	223	0.478	0.085
373	23h	793	31JAN91	0.0037	250	0.043	237	0.610	0.101
374	23i	794	31JAN91	0.0037	250	0.043	226	0.578	0.101
375	23j	795	31JAN91	0.0036	250	0.042	276	0.745	0.103
376	NIES SPIKE-9	797	31JAN91	0.0159	100	0.074	5773	9.850	0.058
377	23k	799	31JAN91	0.0039	250	0.046	301	0.758	0.095
378	23l	800	31JAN91	0.0024	250	0.028	248	0.991	0.155
379	23m	801	31JAN91	0.0034	250	0.040	311	0.902	0.109
380	23n	802	31JAN91	0.0030	250	0.035	325	1.073	0.124
381	NIES-9	803	31JAN91	0.0081	250	0.095	2894	3.857	0.046
382	23o	804	31JAN91	0.0035	250	0.041	358	1.022	0.106
383	23p	805	31JAN91	0.0029	250	0.034	324	1.106	0.128
384	23g dup	806	31JAN91	0.0044	250	0.051	232	0.501	0.085

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
385	NIES-9	818	31JAN91	0.0081	250	0.095	3049	4.247	0.046
386	24a	819	31JAN91	0.0048	250	0.056	656	1.478	0.078
387	24b	820	31JAN91	0.0059	250	0.069	621	1.135	0.063
388	24c	821	31JAN91	0.0056	250	0.065	604	1.161	0.066
389	24d	822	31JAN91	0.0063	250	0.074	633	1.085	0.059
390	24e	823	31JAN91	0.0049	250	0.057	476	1.029	0.076
391	24f	824	31JAN91	0.0056	250	0.065	538	1.027	0.066
392	24g	825	31JAN91	0.0051	250	0.060	504	1.051	0.073
393	24h	826	31JAN91	0.0053	250	0.062	637	1.298	0.070
394	24i	827	31JAN91	0.0048	250	0.056	673	1.519	0.078
395	24j	828	31JAN91	0.0051	250	0.060	824	1.767	0.073
396	24k	829	31JAN91	0.0044	250	0.051	806	2.002	0.085
397	24l	830	31JAN91	0.0042	250	0.049	773	2.007	0.089
398	24m	831	31JAN91	0.0045	250	0.053	949	2.320	0.083
399	24n	832	31JAN91	0.0040	250	0.047	993	2.735	0.093
400	24o	833	31JAN91	0.0040	250	0.047	970	2.670	0.093
401	24p	834	31JAN91	0.0040	250	0.047	1022	2.818	0.093
402	24q	835	31JAN91	0.0033	250	0.039	1161	3.896	0.113
403	24r	836	31JAN91	0.0030	250	0.035	1030	3.788	0.124
404	24i dup	837	31JAN91	0.0048	250	0.056	646	1.455	0.078
405	DORM-9	838	31JAN91	0.0281	250	0.329	2133	0.852	0.013
406	DORM-1-10	849	8FEB91	0.0275	100	0.129	862	0.948	0.034

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
407	NIES-10	850	8FEB91	0.0143	250	0.167	5319	4.620	0.026
408	NIES SPIKE-10	851	8FEB91	0.0154	100	0.072	5096	10.273	0.060
409	25a	853	8FEB91	0.0049	250	0.057	773	1.901	0.076
410	25b	854	8FEB91	0.0042	250	0.049	552	1.560	0.089
411	25c	855	8FEB91	0.0035	250	0.041	384	1.273	0.106
412	25d	856	8FEB91	0.0038	250	0.044	352	1.068	0.098
413	25e	857	8FEB91	0.0040	250	0.047	363	1.049	0.093
414	25f	858	8FEB91	0.0035	250	0.041	385	1.277	0.106
415	25g	859	8FEB91	0.0022	250	0.026	303	1.566	0.169
416	25h	860	8FEB91	0.0029	250	0.034	330	1.304	0.128
417	25i	861	8FEB91	0.0023	250	0.027	327	1.628	0.162
418	25j	862	8FEB91	0.0019	250	0.022	287	1.708	0.196
419	25k	863	8FEB91	0.0017	250	0.020	281	1.865	0.219
420	25l	864	8FEB91	0.0016	250	0.019	257	1.795	0.233
421	25m	865	8FEB91	0.0019	250	0.022	259	1.524	0.196
422	25n	866	8FEB91	0.0013	250	0.015	232	1.969	0.286
423	25o	867	8FEB91	0.0013	250	0.015	226	1.911	0.286
424	25p	868	8FEB91	0.0010	250	0.012	220	2.409	0.372
425	25c dup	869	8FEB91	0.0035	250	0.041	371	1.227	0.106
426	25l dup	870	8FEB91	0.0016	250	0.019	252	1.755	0.233
427	DORM-1-10	873	8FEB91	0.0275	250	0.322	2029	0.909	0.014
428	NIES-10	874	8FEB91	0.0143	250	0.167	5378	4.671	0.026

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
429	DORM-1-10	886	8FEB91	0.0275	250	0.322	2074	0.810	0.014
430	26a	887	8FEB91	0.0059	250	0.069	539	0.936	0.063
431	26b	889	8FEB91	0.0058	250	0.068	461	0.805	0.064
432	26c	890	8FEB91	0.0056	250	0.065	406	0.727	0.066
433	26d	891	8FEB91	0.0060	250	0.070	469	0.793	0.062
434	26e	892	8FEB91	0.0066	250	0.077	543	0.843	0.056
435	26f	893	8FEB91	0.0065	250	0.076	603	0.957	0.057
436	26g	894	8FEB91	0.0082	250	0.096	818	1.044	0.045
437	26h	895	8FEB91	0.0056	250	0.065	658	1.218	0.066
438	26i	896	8FEB91	0.0064	250	0.075	745	1.214	0.058
439	26j	897	8FEB91	0.0061	250	0.071	656	1.114	0.061
440	26k	898	8FEB91	0.0062	250	0.073	689	1.154	0.060
441	26l	899	8FEB91	0.0069	250	0.081	723	1.091	0.054
442	DORM-1-10	901	8FEB91	0.0275	250	0.322	2110	0.824	0.014
443	NIES-10	914	8FEB91	0.0143	250	0.167	5564	4.185	0.026
444	26a dup	915	8FEB91	0.0059	250	0.069	593	1.042	0.063
445	26i dup	916	8FEB91	0.0064	250	0.075	790	1.293	0.058
446	26m	917	8FEB91	0.0058	250	0.068	586	1.047	0.064
447	26n	918	8FEB91	0.0056	250	0.065	626	1.161	0.066
448	26o	919	8FEB91	0.0047	250	0.055	474	1.034	0.079
449	26p	920	8FEB91	0.0048	250	0.056	513	1.100	0.078
450	26q	921	8FEB91	0.0043	250	0.050	438	1.040	0.087

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
451	26r	922	8FEB91	0.0041	250	0.048	462	1.154	0.091
452	26s	923	8FEB91	0.0046	250	0.054	469	1.045	0.081
453	26t	924	8FEB91	0.0041	250	0.048	458	1.143	0.091
454	26u	925	8FEB91	0.0036	250	0.042	450	1.278	0.103
455	26v	926	8FEB91	0.0041	250	0.048	492	1.233	0.091
456	NIES-10	927	8FEB91	0.0143	250	0.167	5646	4.247	0.026
457	DORM-1-11	929	12FEB91	0.0319	250	0.373	2402	0.804	0.012
458	27a	932	12FEB91	0.0058	250	0.068	312	0.527	0.064
459	27b	933	12FEB91	0.0057	250	0.067	300	0.514	0.065
460	27c	934	12FEB91	0.0058	250	0.068	278	0.464	0.064
461	NIES-11	935	12FEB91	0.0098	250	0.115	3643	3.984	0.038
462	NIES SPIKE-11	936	12FEB91	0.0110	100	0.052	4197	10.324	0.009
463	27d	937	12FEB91	0.0061	250	0.071	272	0.430	0.061
464	27e	938	12FEB91	0.0050	250	0.058	220	0.413	0.074
465	NIES-11	951	12FEB91	0.0098	250	0.115	3692	4.011	0.038
466	27a dup	952	12FEB91	0.0058	250	0.068	292	0.494	0.064
467	27f	953	12FEB91	0.0061	250	0.071	270	0.431	0.061
468	27f dup	954	12FEB91	0.0061	250	0.071	257	0.408	0.061
469	27g	955	12FEB91	0.0049	250	0.057	232	0.454	0.076
470	27h	956	12FEB91	0.0048	250	0.056	241	0.483	0.078
471	27i	957	12FEB91	0.0043	250	0.050	226	0.502	0.087
472	27j	958	12FEB91	0.0046	250	0.054	259	0.546	0.081

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
473	27k	959	12FEB91	0.0041	250	0.048	243	0.571	0.091
474	27l	960	12FEB91	0.0046	250	0.054	301	0.644	0.081
475	27m	961	12FEB91	0.0029	250	0.034	302	1.026	0.128
476	29a	962	12FEB91	0.0065	250	0.076	508	0.797	0.057
477	29b	963	12FEB91	0.0067	250	0.078	468	0.709	0.056
478	29c	964	12FEB91	0.0062	250	0.073	489	0.803	0.060
479	29d	965	12FEB91	0.0062	250	0.073	453	0.741	0.060
480	29c dup	966	12FEB91	0.0062	250	0.073	513	0.844	0.060
481	29e	967	12FEB91	0.0063	250	0.074	466	0.751	0.059
482	29f	968	12FEB91	0.0060	250	0.070	475	0.805	0.062
483	29g	969	12FEB91	0.0056	250	0.065	502	0.914	0.066
484	29h	970	12FEB91	0.0051	250	0.060	479	0.955	0.073
485	29i	971	12FEB91	0.0052	250	0.061	508	0.996	0.072
486	NIES-11	973	12FEB91	0.0098	250	0.115	3669	3.986	0.038
487	29j	974	12FEB91	0.0049	250	0.057	575	1.204	0.076
488	29k	975	12FEB91	0.0036	250	0.042	590	1.683	0.103
489	29l	976	12FEB91	0.0028	250	0.033	549	2.008	0.133
490	29m	977	12FEB91	0.0025	250	0.029	613	2.523	0.149
491	29m dup	978	12FEB91	0.0025	250	0.029	647	2.669	0.149
492	29g dup	979	12FEB91	0.0056	250	0.065	472	0.856	0.066
493	DORM-1-12	1243	14FEB91	0.0162	100	0.076	574	0.743	0.057
494	NIES-12	1244	14FEB91	0.0094	250	0.110	3764	3.716	0.040

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
495	28a	1246	14FEB91	0.0088	250	0.103	699	0.681	0.042
496	28b	1247	14FEB91	0.0071	250	0.083	682	0.822	0.052
497	28c	1249	14FEB91	0.0070	250	0.082	830	1.033	0.053
498	28d	1250	14FEB91	0.0065	250	0.076	1032	1.406	0.057
499	30a	1251	14FEB91	0.0076	250	0.089	687	0.774	0.049
500	30b	1252	14FEB91	0.0081	250	0.095	747	0.796	0.046
501	30c	1253	14FEB91	0.0071	250	0.083	673	0.810	0.052
502	30d	1254	14FEB91	0.0062	250	0.073	641	0.879	0.060
503	30e	1255	14FEB91	0.0064	250	0.075	976	1.345	0.058
504	30f	1256	14FEB91	0.0055	250	0.064	1249	2.034	0.068
505	30g	1257	14FEB91	0.0043	250	0.050	937	1.917	0.087
506	30h	1258	14FEB91	0.0044	250	0.051	1353	2.766	0.085
507	30i	1259	14FEB91	0.0036	250	0.042	1359	3.396	0.103
508	NIES SPIKE-12	1260	14FEB91	0.0079	100	0.037	4262	12.542	0.118
509	NIES-12	1262	14FEB91	0.0094	250	0.110	3838	3.790	0.040
510	DORM-1-12	1263	14FEB91	0.0162	250	0.189	1379	0.766	0.023
511	30a dup	1264	14FEB91	0.0076	250	0.089	711	0.804	0.049
512	28d dup	1265	14FEB91	0.0065	250	0.076	1004	1.365	0.057
513	31a	1266	14FEB91	0.0064	250	0.075	1053	1.459	0.058
514	31b	1267	14FEB91	0.0053	250	0.062	921	1.527	0.070
515	31c	1268	14FEB91	0.0053	250	0.062	945	1.569	0.070
516	31d	1269	14FEB91	0.0046	250	0.054	727	1.361	0.081

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
517	31e	1270	14FEB91	0.0050	250	0.058	731	1.259	0.074
518	31f	1271	14FEB91	0.0042	250	0.049	777	1.603	0.089
519	31g	1272	14FEB91	0.0045	250	0.053	753	1.445	0.083
520	31g dup	1273	14FEB91	0.0045	250	0.053	731	1.399	0.083
521	31h	1274	14FEB91	0.0040	250	0.047	678	1.449	0.093
522	31i	1275	14FEB91	0.0043	250	0.050	749	1.504	0.087
523	31j	1276	14FEB91	0.0040	250	0.047	755	1.631	0.093
524	31k	1277	14FEB91	0.0032	250	0.037	667	1.779	0.116
525	31l	1278	14FEB91	0.0030	250	0.035	751	2.162	0.124
526	31m	1279	14FEB91	0.0029	250	0.034	946	2.871	0.128
527	31n	1290	14FEB91	0.0029	250	0.034	966	3.019	0.128
528	31o	1291	14FEB91	0.0024	250	0.028	1156	4.386	0.155
529	30h dup	1298	14FEB91	0.0040	250	0.047	1262	2.879	0.093
530	31m dup	1299	14FEB91	0.0029	250	0.034	1024	3.205	0.128
531	NIES-12	1293	14FEB91	0.0094	250	0.110	3969	3.913	0.040
532	DORM-1-13	1295	20FEB91	0.0422	250	0.493	3537	0.777	0.009
533	NIES-13	1296	20FEB91	0.0061	250	0.071	2646	4.011	0.061
534	NIES SPIKE-13	1297	20FEB91	0.0081	100	0.038	3914	11.205	0.115
535	32a	1300	20FEB91	0.0079	250	0.092	1366	1.585	0.047
536	32b	1301	20FEB91	0.0085	250	0.099	1695	1.835	0.044
537	32c	1302	20FEB91	0.0093	250	0.109	1683	1.665	0.040
538	32d	1303	20FEB91	0.0090	250	0.105	1006	1.018	0.041

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
539	32e	1304	20FEB91	0.0081	250	0.095	723	0.805	0.046
540	32f	1305	20FEB91	0.0063	250	0.074	572	0.812	0.059
541	32g	1306	20FEB91	0.0074	250	0.087	660	0.802	0.050
542	32h	1307	20FEB91	0.0065	250	0.076	639	0.883	0.057
543	32i	1308	20FEB91	0.0053	250	0.062	608	1.028	0.070
544	32j	1309	20FEB91	0.0046	250	0.054	573	1.114	0.081
545	32k	1310	20FEB91	0.0045	250	0.053	598	1.190	0.083
546	32l	1311	20FEB91	0.0032	250	0.037	471	1.304	0.116
547	32b dup	1314	20FEB91	0.0085	250	0.099	1613	1.745	0.044
548	32h dup	1315	20FEB91	0.0065	250	0.076	627	0.866	0.057
549	33a	1312	20FEB91	0.0098	250	0.115	2069	1.947	0.038
550	33b	1313	20FEB91	0.0101	250	0.118	2633	2.411	0.037
551	33c	1316	20FEB91	0.0076	250	0.089	2738	3.333	0.049
552	34a	1320	20FEB91	0.0100	250	0.117	1489	1.367	0.037
553	34c	1321	20FEB91	0.0087	250	0.102	993	1.039	0.043
554	34d	1322	20FEB91	0.0111	250	0.130	1115	0.917	0.034
555	34e	1323	20FEB91	0.0093	250	0.109	859	0.838	0.040
556	34f	1324	20FEB91	0.0092	250	0.108	833	0.821	0.040
557	34g	1325	20FEB91	0.0082	250	0.096	821	0.907	0.045
558	NIES-13	1326	20FEB91	0.0061	250	0.071	2692	4.082	0.061
559	NIES SPIKE-13	1327	20FEB91	0.0081	100	0.038	3951	11.311	0.115
560	NIES-13	1339	20FEB91	0.0061	250	0.071	2667	4.090	0.061

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
561	NIES SPIKE-13	1340	20FEB91	0.0081	100	0.038	4100	11.876	0.115
562	34h	1341	20FEB91	0.0107	250	0.125	1388	1.203	0.035
563	34i	1342	20FEB91	0.0094	250	0.110	1508	1.490	0.040
564	34j	1343	20FEB91	0.0102	250	0.119	1761	1.608	0.036
565	34k	1344	20FEB91	0.0097	250	0.113	1948	1.873	0.038
566	34l	1345	20FEB91	0.0079	250	0.092	1460	1.716	0.047
567	34m	1346	20FEB91	0.0087	250	0.102	1608	1.719	0.043
568	34n	1347	20FEB91	0.0089	250	0.104	1605	1.677	0.042
569	34o	1348	20FEB91	0.0087	250	0.102	1484	1.584	0.043
570	34p	1349	20FEB91	0.0098	250	0.115	1651	1.567	0.038
571	34q	1350	20FEB91	0.0036	250	0.042	726	1.841	0.103
572	34r	1351	20FEB91	0.0036	250	0.042	799	2.032	0.103
573	34s	1352	20FEB91	0.0033	250	0.039	789	2.188	0.113
574	34t	1353	20FEB91	0.0040	250	0.047	1042	2.403	0.093
575	DORM-13	1355	20FEB91	0.0422	250	0.493	3612	0.803	0.009
576	34u	1356	20FEB91	0.0036	250	0.042	1089	2.793	0.103
577	34v	1357	20FEB91	0.0036	250	0.042	997	2.552	0.103
578	34w	1358	20FEB91	0.0036	250	0.042	959	2.452	0.103
579	34x	1359	20FEB91	0.0040	250	0.047	1125	2.598	0.093
580	34y	1360	20FEB91	0.0037	250	0.043	1007	2.508	0.101
581	34z	1361	20FEB91	0.0038	250	0.044	1175	2.859	0.098
582	34c dup	1362	20FEB91	0.0087	250	0.102	976	1.033	0.043

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT ng	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
583	34q dup	1363	20FEB91	0.0036	250	0.042	699	1.770	0.103
584	NIES-14	1364	4MAR91	0.0101	250	0.118	4669	4.342	0.037
585	NIES SPIKE-14	1365	4MAR91	0.0094	100	0.044	4746	11.856	0.099
586	DORM-1-14	1367	4MAR91	0.0429	250	0.502	3888	0.850	0.009
587	C2a	1368	4MAR91	0.0116	250	0.136	749	0.590	0.032
588	C2b	1369	4MAR91	0.0094	250	0.110	827	0.806	0.040
589	C2c	1370	4MAR91	0.0113	250	0.132	1038	0.847	0.033
590	C2d	1371	4MAR91	0.0101	250	0.118	1029	0.939	0.037
591	C2e	1372	4MAR91	0.0106	250	0.124	1013	0.881	0.035
592	C2f	1373	4MAR91	0.0087	250	0.102	650	0.679	0.043
593	C2g	1374	4MAR91	0.0104	250	0.122	711	0.624	0.036
594	C2h	1375	4MAR91	0.0100	250	0.117	649	0.590	0.037
595	C2i	1376	4MAR91	0.0103	250	0.120	710	0.629	0.036
596	C2j	1377	4MAR91	0.0093	250	0.109	955	0.945	0.040
597	NIES-14	1390	4MAR91	0.0101	250	0.118	4623	4.245	0.037
598	C2k	1391	4MAR91	0.0088	250	0.103	1086	1.107	0.042
599	C2l	1392	4MAR91	0.0089	250	0.104	1303	1.323	0.042
600	C2m	1393	4MAR91	0.0087	250	0.102	1312	1.363	0.043
601	C2n	1394	4MAR91	0.0063	250	0.074	964	1.365	0.059
602	C2o	1395	4MAR91	0.0054	250	0.063	923	1.521	0.069
603	C2d dup	1396	4MAR91	0.0101	250	0.118	1092	0.970	0.037
604	C2k dup	1398	4MAR91	0.0088	250	0.103	1117	1.140	0.042

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
605	35a	1399	4MAR91	0.0074	250	0.087	453	0.515	0.050
606	35b	1400	4MAR91	0.0067	250	0.078	495	0.628	0.056
607	35c	1401	4MAR91	0.0066	250	0.077	463	0.592	0.056
608	35d	1402	4MAR91	0.0063	250	0.074	499	0.674	0.059
609	35e	1403	4MAR91	0.0071	250	0.083	579	0.703	0.052
610	35f	1404	4MAR91	0.0064	250	0.075	667	0.909	0.058
611	35g	1405	4MAR91	0.0052	250	0.061	681	1.144	0.072
612	35h	1406	4MAR91	0.0058	250	0.068	829	1.265	0.064
613	35i	1407	4MAR91	0.0042	250	0.049	784	1.646	0.089
614	35j	1408	4MAR91	0.0039	250	0.046	750	1.691	0.095
615	NIES SPIKE-14	1409	4MAR91	0.0094	100	0.044	5008	12.363	0.099
616	DORM-1-14	1410	4MAR91	0.0429	250	0.502	3891	0.840	0.009
617	35k	1411	4MAR91	0.0038	250	0.044	1061	2.502	0.098
618	35l	1412	4MAR91	0.0033	250	0.039	1126	3.066	0.113
619	35a dup	1413	4MAR91	0.0074	250	0.087	472	0.539	0.050
620	35j dup	1414	4MAR91	0.0039	250	0.046	822	1.864	0.095
621	36a	1415	4MAR91	0.0061	250	0.071	224	0.273	0.061
622	36b	1416	4MAR91	0.0056	250	0.065	196	0.251	0.066
623	36c	1417	4MAR91	0.0048	250	0.056	205	0.310	0.078
624	36d	1418	4MAR91	0.0041	250	0.048	209	0.372	0.091
625	36e	1419	4MAR91	0.0036	250	0.042	203	0.409	0.103
626	36f	1420	4MAR91	0.0020	250	0.023	192	0.684	0.186

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
627	36c dup	1421	4MAR91	0.0048	250	0.056	199	0.299	0.078
628	DORM-1-15	1423	5MAR91	0.0225	250	0.263	2089	0.852	0.017
629	NIES-15	1424	5MAR91	0.0122	250	0.143	5436	4.142	0.030
630	NIES SPIKE-15	1425	5MAR91	0.0091	100	0.043	5176	13.213	0.102
631	37a	1426	5MAR91	0.0094	250	0.110	418	0.375	0.040
632	37b	1427	5MAR91	0.0110	250	0.129	480	0.373	0.034
633	37c	1428	5MAR91	0.0097	250	0.113	435	0.380	0.038
634	NIES-15	1440	5MAR91	0.0122	250	0.143	5285	4.054	0.030
635	37d	1441	5MAR91	0.0100	250	0.117	458	0.397	0.037
636	37e	1442	5MAR91	0.0085	250	0.099	429	0.435	0.044
637	37f	1443	5MAR91	0.0089	250	0.104	594	0.590	0.042
638	37g	1444	5MAR91	0.0091	250	0.106	647	0.632	0.041
639	37h	1445	5MAR91	0.0076	250	0.089	555	0.642	0.049
640	37i	1446	5MAR91	0.0052	250	0.061	457	0.761	0.072
641	37j	1447	5MAR91	0.0062	250	0.073	502	0.707	0.060
642	37k	1448	5MAR91	0.0045	250	0.053	558	1.091	0.083
643	38a	1449	5MAR91	0.0090	250	0.105	936	0.941	0.041
644	38b	1450	5MAR91	0.0081	250	0.095	610	0.667	0.046
645	38c	1451	5MAR91	0.0073	250	0.085	657	0.800	0.051
646	38d	1452	5MAR91	0.0053	250	0.062	555	0.921	0.070
647	38e	1453	5MAR91	0.0042	250	0.049	507	1.055	0.089
648	38f	1454	5MAR91	0.0035	250	0.041	628	1.591	0.106

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
649	DORM-1-15	1456	5MAR91	0.0225	250	0.263	2069	0.851	0.017
650	NIES SPIKE-15	1457	5MAR91	0.0091	100	0.043	5054	12.990	0.102
651	C3a	1458	5MAR91	0.0200	250	0.234	446	0.193	0.019
652	C3b	1459	5MAR91	0.0195	250	0.228	401	0.176	0.019
653	C3c	1460	5MAR91	0.0193	250	0.226	372	0.164	0.019
654	C3d	1461	5MAR91	0.0176	250	0.206	368	0.177	0.021
655	C3e	1462	5MAR91	0.0168	250	0.196	361	0.182	0.022
656	C3f	1463	5MAR91	0.0220	250	0.257	521	0.207	0.017
657	C3g	1464	5MAR91	0.0187	250	0.219	496	0.231	0.020
658	C3h	1465	5MAR91	0.0135	250	0.158	482	0.311	0.028
659	C3i	1466	5MAR91	0.0143	250	0.167	646	0.401	0.026
660	C3j	1467	5MAR91	0.0135	250	0.158	770	0.512	0.028
661	C3k	1468	5MAR91	0.0091	250	0.106	648	0.633	0.041
662	C3l	1469	5MAR91	0.0068	250	0.080	537	0.693	0.055
663	C3m	1470	5MAR91	0.0068	250	0.080	618	0.805	0.055
664	37c dup	1471	5MAR91	0.0097	250	0.113	425	0.377	0.038
665	37j dup	1472	5MAR91	0.0062	250	0.073	577	0.821	0.060
666	38a	1485	5MAR91	0.0090	250	0.105	919	0.890	0.041
667	C3a	1486	5MAR91	0.0200	250	0.234	422	0.175	0.019
668	C3f	1487	5MAR91	0.0220	250	0.257	525	0.202	0.017
669	DORM-1-16	1489	6MAR91	0.0413	250	0.483	4049	0.880	0.009
670	NIES-16	1490	6MAR91	0.0090	250	0.105	4326	4.315	0.041

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
671	NIES SPIKE-16	1491	6MAR91	0.0132	100	0.062	5581	9.508	0.070
672	39a	1492	6MAR91	0.0057	250	0.067	544	0.802	0.065
673	39b	1493	6MAR91	0.0055	250	0.064	491	0.744	0.068
674	39c	1494	6MAR91	0.0047	250	0.055	388	0.672	0.079
675	39d	1495	6MAR91	0.0051	250	0.060	408	0.655	0.073
676	39e	1496	6MAR91	0.0054	250	0.063	414	0.628	0.069
677	39f	1497	6MAR91	0.0043	250	0.050	338	0.629	0.087
678	39g	1498	6MAR91	0.0037	250	0.043	341	0.738	0.101
679	39h	1499	6MAR91	0.0037	250	0.043	336	0.726	0.101
680	39i	1500	6MAR91	0.0035	250	0.041	307	0.692	0.106
681	39j	1501	6MAR91	0.0036	250	0.042	292	0.635	0.103
682	39k	1502	6MAR91	0.0032	250	0.037	269	0.650	0.116
683	NIES-16	1504	6MAR91	0.0090	250	0.105	4558	4.548	0.041
684	39l	1505	6MAR91	0.0035	250	0.041	285	0.635	0.106
685	39m	1506	6MAR91	0.0022	250	0.026	264	0.924	0.169
686	39n	1507	6MAR91	0.0027	250	0.032	224	0.619	0.138
687	39o	1508	6MAR91	0.0024	250	0.028	284	0.923	0.155
688	39p	1509	6MAR91	0.0025	250	0.029	253	0.774	0.149
689	40a	1510	6MAR91	0.0091	250	0.106	943	0.899	0.041
690	40b	1511	6MAR91	0.0088	250	0.103	1005	0.994	0.042
691	40c	1512	6MAR91	0.0089	250	0.104	817	0.791	0.042
692	40d	1513	6MAR91	0.0053	250	0.062	465	0.727	0.070

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
693	NIES SPIKE-16	1514	6MAR91	0.0132	100	0.062	4892	8.326	0.070
694	39c dup	1515	6MAR91	0.0047	250	0.055	401	0.697	0.079
695	39n dup	1516	6MAR91	0.0027	250	0.032	232	0.646	0.138
696	40c dup	1517	6MAR91	0.0089	250	0.104	819	0.793	0.042
697	DORM-1-16	1518	6MAR91	0.0413	250	0.483	3836	0.833	0.009
698	NIES-16	1530	6MAR91	0.0090	250	0.105	4482	4.402	0.041
699	41a	1531	6MAR91	0.0067	250	0.078	785	0.992	0.056
700	41b	1532	6MAR91	0.0060	250	0.070	920	1.309	0.062
701	41c	1535	6MAR91	0.0071	250	0.083	832	0.995	0.052
702	41d	1536	6MAR91	0.0081	250	0.095	1053	1.116	0.046
703	41e	1537	6MAR91	0.0067	250	0.078	1119	1.437	0.056
704	41f	1538	6MAR91	0.0066	250	0.077	1179	1.540	0.056
705	41g	1539	6MAR91	0.0071	250	0.083	1529	1.871	0.052
706	41h	1540	6MAR91	0.0057	250	0.067	1486	2.263	0.065
707	41i	1541	6MAR91	0.0056	250	0.065	1471	2.280	0.066
708	41j	1542	6MAR91	0.0055	250	0.064	1538	2.430	0.068
709	DORM-1-16	1544	6MAR91	0.0413	250	0.483	3743	0.800	0.009
710	41k	1545	6MAR91	0.0059	250	0.069	1708	2.522	0.063
711	41l	1546	6MAR91	0.0049	250	0.057	1673	2.973	0.076
712	41m	1547	6MAR91	0.0048	250	0.056	1653	2.998	0.078
713	41n	1548	6MAR91	0.0045	250	0.053	1369	2.635	0.083
714	41o	1549	6MAR91	0.0044	250	0.051	1368	2.693	0.085

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
715	41p	1550	6MAR91	0.0040	250	0.047	768	1.624	0.093
716	41q	1552	6MAR91	0.0037	250	0.043	1063	2.467	0.101
717	41r	1553	6MAR91	0.0044	250	0.051	1014	1.975	0.085
718	41s	1554	6MAR91	0.0038	250	0.044	851	1.904	0.098
719	41t	1555	6MAR91	0.0043	250	0.050	887	1.758	0.087
720	41u	1556	6MAR91	0.0039	250	0.046	740	1.602	0.095
721	41v	1557	6MAR91	0.0031	250	0.036	652	1.762	0.120
722	41e dup	1558	6MAR91	0.0067	250	0.078	1128	1.449	0.056
723	41p dup	1559	6MAR91	0.0040	250	0.047	761	1.609	0.093
724	DORM-1-17	1574	11MAR91	0.0111	250	0.130	1095	0.867	0.034
725	NIES-17	1575	11MAR91	0.0145	250	0.170	7065	4.412	0.026
726	NIES SPIKE-17	1576	11MAR91	0.0062	100	0.029	4095	14.894	0.150
727	42a	1577	11MAR91	0.0070	250	0.082	318	0.365	0.053
728	42b	1578	11MAR91	0.0078	250	0.091	419	0.445	0.048
729	42c	1579	11MAR91	0.0069	250	0.081	337	0.395	0.054
730	42d	1580	11MAR91	0.0067	250	0.078	379	0.464	0.056
731	42e	1581	11MAR91	0.0079	250	0.092	512	0.547	0.047
732	42f	1582	11MAR91	0.0051	250	0.060	381	0.613	0.073
733	42g	1583	11MAR91	0.0072	250	0.084	436	0.504	0.052
734	42h	1584	11MAR91	0.0066	250	0.077	411	0.515	0.056
735	42i	1585	11MAR91	0.0063	250	0.074	479	0.638	0.059
736	42j	1586	11MAR91	0.0055	250	0.064	525	0.807	0.068

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
737	42k	1587	11MAR91	0.0058	250	0.068	522	0.760	0.064
738	NIES SPIKE-17	1589	11MAR91	0.0062	100	0.029	4422	16.094	0.150
739	42l	1590	11MAR91	0.0052	250	0.061	418	0.666	0.072
740	42m	1591	11MAR91	0.0054	250	0.063	395	0.603	0.069
741	42n	1592	11MAR91	0.0049	250	0.057	397	0.668	0.076
742	42o	1593	11MAR91	0.0047	250	0.055	339	0.584	0.079
743	42p	1594	11MAR91	0.0050	250	0.058	382	0.627	0.074
744	42c dup	1596	11MAR91	0.0069	250	0.081	374	0.444	0.054
745	42m dup	1597	11MAR91	0.0054	250	0.063	400	0.611	0.069
746	43a	1598	11MAR91	0.0078	250	0.091	745	0.826	0.048
747	43b	1599	11MAR91	0.0070	250	0.082	666	0.817	0.053
748	43c	1600	11MAR91	0.0055	250	0.064	600	0.931	0.068
749	43d	1601	11MAR91	0.0053	250	0.062	576	0.925	0.070
750	43e	1602	11MAR91	0.0057	250	0.067	572	0.854	0.065
751	43f	1603	11MAR91	0.0057	250	0.067	559	0.833	0.065
752	NIES SPIKE-17	1605	11MAR91	0.0062	100	0.029	4403	16.024	0.150
753	42q dup	1606	11MAR91	0.0052	250	0.061	381	0.601	0.072
754	43g	1607	11MAR91	0.0052	250	0.061	574	0.939	0.072
755	43h	1608	11MAR91	0.0044	250	0.051	557	1.075	0.085
756	43i	1609	11MAR91	0.0040	250	0.047	540	1.144	0.093
757	43j	1610	11MAR91	0.0042	250	0.049	591	1.200	0.089
758	43k	1611	11MAR91	0.0031	250	0.036	446	1.200	0.120

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
759	43l	1612	11MAR91	0.0036	250	0.042	586	1.387	0.103
760	43m	1613	11MAR91	0.0028	250	0.033	526	1.588	0.133
761	43n	1614	11MAR91	0.0032	250	0.037	600	1.600	0.116
762	43o	1615	11MAR91	0.0027	250	0.032	476	1.478	0.138
763	NIES-17	1672	11MAR91	0.0145	250	0.170	4974	4.215	0.026
764	43n dup	1673	11MAR91	0.0032	250	0.037	471	1.689	0.116
765	43o dup	1674	11MAR91	0.0027	250	0.032	554	2.383	0.138
766	43p	1679	11MAR91	0.0021	250	0.025	430	2.333	0.177
767	43r	1680	11MAR91	0.0017	250	0.020	381	2.525	0.219
768	43q	1681	11MAR91	0.0017	250	0.020	354	2.329	0.219
769	43c dup	1682	11MAR91	0.0055	250	0.064	453	0.942	0.068
770	43k dup	1683	11MAR91	0.0031	250	0.036	379	1.377	0.120
771	DORM-1-18	1685	12MAR91	0.0231	250	0.270	1669	0.877	0.016
772	NIES-18	1686	12MAR91	0.0093	250	0.109	3241	4.269	0.040
773	NIES SPIKE-18	1687	12MAR91	0.0069	100	0.032	3384	15.025	0.135
774	44a	1688	12MAR91	0.0056	250	0.065	313	0.621	0.066
775	44b	1689	12MAR91	0.0050	250	0.058	270	0.589	0.074
776	44c	1690	12MAR91	0.0049	250	0.057	264	0.586	0.076
777	44d	1691	12MAR91	0.0051	250	0.060	238	0.500	0.073
778	44e	1692	12MAR91	0.0046	250	0.054	204	0.463	0.081
779	44f	1693	12MAR91	0.0044	250	0.051	205	0.486	0.085
780	44g	1694	12MAR91	0.0042	250	0.049	185	0.451	0.089

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
781	44h	1695	12MAR91	0.0051	250	0.060	273	0.585	0.073
782	44i	1696	12MAR91	0.0039	250	0.046	217	0.587	0.095
783	44j	1697	12MAR91	0.0044	250	0.051	277	0.689	0.085
784	44k	1698	12MAR91	0.0044	250	0.051	327	0.829	0.085
785	44l	1699	12MAR91	0.0051	250	0.060	375	0.832	0.073
786	44m	1700	12MAR91	0.0044	250	0.051	310	0.782	0.085
787	44d dup	1701	12MAR91	0.0051	250	0.060	221	0.458	0.073
788	DORM-1-18	1702	12MAR91	0.0231	250	0.270	1749	0.920	0.016
789	NIES-18	1714	12MAR91	0.0093	250	0.109	3785	4.966	0.040
790	44n	1715	12MAR91	0.0037	500	0.087	642	0.980	0.050
791	44o	1716	12MAR91	0.0036	500	0.084	560	0.866	0.052
792	44p	1717	12MAR91	0.0028	500	0.065	490	0.959	0.066
793	C4b	1720	12MAR91	0.0080	500	0.187	681	0.483	0.023
794	C4c	1721	12MAR91	0.0070	500	0.164	779	0.639	0.027
795	C4a	1722	12MAR91	0.0085	500	0.199	643	0.427	0.022
796	44o dup	1723	12MAR91	0.0036	500	0.084	471	0.713	0.052
797	C4d	1724	12MAR91	0.0076	500	0.178	1092	0.844	0.024
798	C4e	1725	12MAR91	0.0069	500	0.161	1136	0.969	0.027
799	C4f	1726	12MAR91	0.0059	500	0.138	1059	1.052	0.032
800	C4g	1727	12MAR91	0.0057	500	0.133	944	0.964	0.033
801	C4h	1728	12MAR91	0.0053	500	0.124	826	0.899	0.035
802	C4i	1729	12MAR91	0.0046	500	0.108	601	0.733	0.040

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
803	DORM-1-18	1731	12MAR91	0.0231	500	0.540	3712	0.980	0.008
804	C4j	1732	12MAR91	0.0041	500	0.096	524	0.706	0.045
805	C4k	1733	12MAR91	0.0040	500	0.094	653	0.924	0.047
806	C4l	1734	12MAR91	0.0029	500	0.068	544	1.041	0.064
807	C4m	1735	12MAR91	0.0024	500	0.056	534	1.232	0.078
808	C4n	1736	12MAR91	0.0016	500	0.037	403	1.341	0.116
809	C4g dup	1737	12MAR91	0.0057	500	0.133	992	1.016	0.033
810	C4m dup	1738	12MAR91	0.0024	500	0.056	503	1.152	0.078
811	NIES SPIKE-18	1739	12MAR91	0.0069	100	0.032	3684	16.279	0.135
812	NIES-19	1740	13MAR91	0.0032	500	0.075	2557	4.839	0.058
813	DORM-1-19	1741	13MAR91	0.0244	500	0.571	3567	0.891	0.008
814	NIES SPIKE-19	1743	13MAR91	0.0049	100	0.023	3150	19.549	0.190
815	45a	1744	13MAR91	0.0186	500	0.435	2566	0.836	0.010
816	45b	1745	13MAR91	0.0164	500	0.384	1949	0.715	0.011
817	46a	1746	13MAR91	0.0102	500	0.239	809	0.457	0.018
818	46b	1747	13MAR91	0.0095	500	0.222	866	0.528	0.020
819	46c	1748	13MAR91	0.0089	500	0.208	902	0.588	0.021
820	46d	1749	13MAR91	0.0077	500	0.180	916	0.691	0.024
821	NIES-19	1882	13MAR91	0.0032	250	0.037	824	5.235	0.116
822	46e	1883	13MAR91	0.0084	500	0.196	464	0.544	0.022
823	46f	1884	13MAR91	0.0073	500	0.171	388	0.517	0.025
824	46e dup	1885	13MAR91	0.0084	500	0.196	486	0.572	0.022

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
825	46g	1886	13MAR91	0.0074	500	0.173	545	0.734	0.025
826	NIES-19	1887	13MAR91	0.0032	500	0.075	1683	5.453	0.058
827	46h	1888	13MAR91	0.0074	500	0.173	601	0.814	0.025
828	47a	1889	13MAR91	0.0076	500	0.178	746	0.994	0.024
829	47b	1890	13MAR91	0.0070	500	0.164	594	0.850	0.027
830	47c	1891	13MAR91	0.0072	500	0.168	678	0.949	0.026
831	47d	1892	13MAR91	0.0058	500	0.136	615	1.064	0.032
832	DORM-1-19	1894	13MAR91	0.0244	500	0.571	1710	0.727	0.008
833	47e	1895	13MAR91	0.0066	500	0.154	593	0.899	0.028
834	47f	1896	13MAR91	0.0059	500	0.138	726	1.244	0.032
835	47g	1897	13MAR91	0.0047	500	0.110	712	1.530	0.040
836	47h	1898	13MAR91	0.0036	500	0.084	583	1.620	0.052
837	47i	1899	13MAR91	0.0025	500	0.058	419	1.639	0.074
838	47j	1900	13MAR91	0.0021	500	0.049	390	1.806	0.089
839	47b dup	1901	13MAR91	0.0070	500	0.164	529	0.751	0.027
840	NIES-20	1911	21MAR91	0.0035	500	0.082	1508	4.830	0.053
841	DORM-1-20	1913	21MAR91	0.0682	250	0.798	2499	0.828	0.005
842	NIES SPIKE-20	1914	21MAR91	0.0048	250	0.056	4583	21.703	0.078
843	48b	1916	21MAR91	0.0147	500	0.344	5003	3.882	0.013
844	48c	1917	21MAR91	0.0141	500	0.330	3089	2.482	0.013
845	48d	1918	21MAR91	0.0134	500	0.313	1907	1.602	0.014
846	48e	1919	21MAR91	0.0073	500	0.171	960	1.457	0.025

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
847	48f	1920	21MAR91	0.0040	500	0.094	573	1.552	0.047
848	49a	1921	21MAR91	0.0125	500	0.292	1531	1.373	0.015
849	48a	1922	21MAR91	0.0164	250	0.192	3263	4.532	0.023
850	49b	1923	21MAR91	0.0108	500	0.253	1645	1.710	0.017
851	49c	1924	21MAR91	0.0107	500	0.250	1480	1.550	0.017
852	49d	1925	21MAR91	0.0085	500	0.199	1180	1.547	0.022
853	49a dup	1926	21MAR91	0.0125	500	0.292	1475	1.322	0.015
854	50a	1927	21MAR91	0.0141	500	0.330	2146	1.717	0.013
855	50b	1928	21MAR91	0.0122	500	0.285	2081	1.923	0.015
856	50c	1929	21MAR91	0.0124	500	0.290	1672	1.515	0.015
857	50d	1931	21MAR91	0.0120	500	0.281	1645	1.539	0.016
858	50e	1932	21MAR91	0.0128	500	0.299	1599	1.402	0.015
859	50f	1933	21MAR91	0.0101	500	0.236	1327	1.469	0.018
860	50g	1934	21MAR91	0.0111	500	0.260	1614	1.632	0.017
861	50h	1935	21MAR91	0.0118	500	0.246	1590	1.698	0.018
862	50i	1936	21MAR91	0.0097	500	0.227	1643	1.902	0.019
863	50j	1937	21MAR91	0.0095	500	0.222	1448	1.707	0.020
864	50k	1938	21MAR91	0.0093	500	0.218	1319	1.585	0.020
865	50l	1939	21MAR91	0.0075	500	0.175	1086	1.610	0.025
866	48b dup	1940	21MAR91	0.0147	250	0.172	2718	4.207	0.025
867	50b dup	1941	21MAR91	0.0122	500	0.285	1860	1.716	0.015
868	NIES-20	1955	21MAR91	0.0035	500	0.082	1572	4.829	0.053

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
869	50j dup	1956	21MAR91	0.0095	500	0.222	1372	1.549	0.020
870	C5a	1957	21MAR91	0.0078	500	0.182	419	0.550	0.024
871	C5b	1958	21MAR91	0.0083	500	0.194	588	0.740	0.022
872	C5c	1959	21MAR91	0.0084	500	0.196	916	1.158	0.022
873	C5d	1960	21MAR91	0.0091	500	0.213	1085	1.272	0.020
874	C5e	1961	21MAR91	0.0085	500	0.199	851	1.061	0.022
875	C5f	1962	21MAR91	0.0069	500	0.161	430	0.639	0.027
876	C5g	1963	21MAR91	0.0074	500	0.173	384	0.528	0.025
877	C5h	1964	21MAR91	0.0079	500	0.185	396	0.511	0.024
878	C5i	1965	21MAR91	0.0076	500	0.178	432	0.583	0.024
879	C5j	1966	21MAR91	0.0073	500	0.171	473	0.669	0.025
880	C5c dup	1967	21MAR91	0.0084	500	0.196	828	1.043	0.022
881	C5h dup	1968	21MAR91	0.0079	500	0.185	370	0.475	0.024
882	DORM-1-21	1971	22MAR91	0.0307	500	0.718	3070	1.078	0.006
883	NIES-21	1972	22MAR91	0.0073	250	0.085	1591	4.636	0.051
884	NIES SPIKE-21	1973	22MAR91	0.0079	100	0.037	2003	13.562	0.118
885	51a	1974	22MAR91	0.0080	500	0.187	959	1.251	0.023
886	51b	1975	22MAR91	0.0075	500	0.175	1010	1.409	0.025
887	51c	1976	22MAR91	0.0072	500	0.168	1070	1.559	0.026
888	51d	1977	22MAR91	0.0065	500	0.152	1021	1.644	0.029
889	51e	1978	22MAR91	0.0067	500	0.157	955	1.488	0.028
890	51f	1979	22MAR91	0.0059	500	0.138	803	1.408	0.032

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
891	DORM-1-21	1981	22MAR91	0.0307	250	0.359	1605	1.112	0.012
892	51g	1982	22MAR91	0.0046	500	0.108	675	1.501	0.040
893	51h	1983	22MAR91	0.0047	500	0.110	648	1.406	0.040
894	51i	1984	22MAR91	0.0035	500	0.082	505	1.442	0.053
895	51j	1985	22MAR91	0.0038	500	0.089	508	1.337	0.049
896	NIES-21	1997	22MAR91	0.0073	500	0.171	3374	4.877	0.025
897	51k	1998	22MAR91	0.0038	500	0.089	479	1.276	0.049
898	51l	1999	22MAR91	0.0033	500	0.077	406	1.234	0.056
899	51m	2000	22MAR91	0.0030	500	0.070	371	1.234	0.062
900	51e dup	2001	22MAR91	0.0067	500	0.157	1076	1.670	0.028
901	51l dup	2002	22MAR91	0.0033	500	0.077	383	1.160	0.056
902	DORM-1-21	2003	22MAR91	0.0307	500	0.718	3295	1.132	0.006
903	52a	2004	22MAR91	0.0085	500	0.199	1313	1.613	0.022
904	52b	2005	22MAR91	0.0083	500	0.194	996	1.246	0.022
905	52c	2006	22MAR91	0.0085	500	0.199	620	0.747	0.022
906	52d	2007	22MAR91	0.0081	500	0.189	455	0.567	0.023
907	52e	2008	22MAR91	0.0079	500	0.185	400	0.508	0.024
908	52f	2009	22MAR91	0.0080	500	0.187	493	0.625	0.023
909	52g	2011	22MAR91	0.0084	500	0.196	446	0.536	0.022
910	52h	2012	22MAR91	0.0090	500	0.210	519	0.586	0.021
911	52i	2013	22MAR91	0.0081	500	0.189	490	0.613	0.023
912	52j	2014	22MAR91	0.0072	500	0.168	482	0.678	0.026

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
913	52k	2015	22MAR91	0.0068	500	0.159	476	0.708	0.027
914	52l	2016	22MAR91	0.0056	500	0.131	573	1.044	0.033
915	52m	2017	22MAR91	0.0036	500	0.084	519	1.465	0.052
916	52c dup	2018	22MAR91	0.0085	500	0.199	675	0.815	0.022
917	52k dup	2019	22MAR91	0.0068	500	0.159	584	0.877	0.027
918	NIES-22	2020	25MAR91	0.0064	250	0.075	1499	4.896	0.058
919	NIES SPIKE-22	2021	25MAR91	0.0070	250	0.082	4951	14.954	0.053
920	DORM-1-22	2023	25MAR91	0.0159	250	0.186	623	0.800	0.023
921	53a	2024	25MAR91	0.0159	250	0.186	229	0.274	0.023
922	53b	2025	25MAR91	0.0159	250	0.186	259	0.314	0.023
923	53c	2026	25MAR91	0.0154	250	0.180	222	0.273	0.024
924	53d	2027	25MAR91	0.0129	250	0.151	157	0.219	0.029
925	53e	2029	25MAR91	0.0145	500	0.339	316	0.214	0.013
926	53g	2031	25MAR91	0.0141	500	0.330	340	0.238	0.013
927	NIES-22	2043	25MAR91	0.0064	500	0.150	3277	4.820	0.029
928	53f	2044	25MAR91	0.0169	500	0.395	435	0.228	0.011
929	53h	2045	25MAR91	0.0158	500	0.370	377	0.209	0.012
930	53j	2047	25MAR91	0.0159	500	0.372	487	0.274	0.012
931	53k	2048	25MAR91	0.0114	500	0.267	402	0.311	0.016
932	53l	2049	25MAR91	0.0110	500	0.257	434	0.350	0.017
933	53m	2050	25MAR91	0.0066	500	0.154	293	0.380	0.028
934	53i	2051	25MAR91	0.0149	500	0.348	395	0.233	0.012

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
935	53c dup	2052	25MAR91	0.0154	500	0.360	497	0.289	0.012
936	53k dup	2053	25MAR91	0.0114	500	0.267	381	0.293	0.016
937	54a	2054	25MAR91	0.0084	500	0.196	563	0.604	0.022
938	54b	2055	25MAR91	0.0088	500	0.206	486	0.493	0.021
939	54c	2056	25MAR91	0.0087	500	0.203	422	0.429	0.021
940	54d	2057	25MAR91	0.0083	500	0.194	442	0.473	0.022
941	54e	2058	25MAR91	0.0073	500	0.171	420	0.509	0.025
942	54f	2059	25MAR91	0.0077	500	0.180	452	0.522	0.024
943	DORM-1-22	2061	25MAR91	0.0159	500	0.372	1485	0.870	0.012
944	54g	2062	25MAR91	0.0070	500	0.164	551	0.708	0.027
945	54h	2063	25MAR91	0.0075	500	0.175	587	0.707	0.025
946	54i	2064	25MAR91	0.0073	500	0.171	562	0.693	0.025
947	54j	2065	25MAR91	0.0071	500	0.166	501	0.631	0.026
948	54k	2066	25MAR91	0.0060	500	0.140	459	0.681	0.031
949	54l	2067	25MAR91	0.0065	500	0.152	524	0.723	0.029
950	54m	2068	25MAR91	0.0057	500	0.133	507	0.796	0.033
951	54n	2069	25MAR91	0.0054	500	0.126	526	0.874	0.034
952	54o	2070	25MAR91	0.0028	500	0.065	385	1.207	0.066
953	54p	2071	25MAR91	0.0035	500	0.082	469	1.194	0.053
954	54q	2072	25MAR91	0.0032	500	0.067	337	1.026	0.065
955	54r	2073	25MAR91	0.0031	500	0.073	373	1.054	0.060
956	54s	2074	25MAR91	0.0030	500	0.070	397	1.165	0.062

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
957	54t	2075	25MAR91	0.0035	500	0.082	406	1.023	0.053
958	54u	2076	25MAR91	0.0037	500	0.087	409	0.975	0.050
959	54v	2077	25MAR91	0.0033	500	0.077	363	0.961	0.056
960	NIES-22	2089	25MAR91	0.0064	500	0.150	3338	4.879	0.029
961	54w	2090	25MAR91	0.0027	500	0.063	396	1.242	0.069
962	54x	2091	25MAR91	0.0024	500	0.056	343	1.188	0.078
963	54b dup	2092	25MAR91	0.0088	500	0.206	527	0.522	0.021
964	54k dup	2093	25MAR91	0.0060	500	0.140	475	0.684	0.031
965	54t dup	2096	25MAR91	0.0035	500	0.082	443	1.085	0.053
966	DORM-1-23	2097	26MAR91	0.0280	500	0.655	2575	0.857	0.007
967	NIES-23	2098	26MAR91	0.0072	500	0.168	3369	4.376	0.026
968	NIES SPIKE-23	2099	26MAR91	0.0071	100	0.033	2306	15.098	0.131
969	55a	2100	26MAR91	0.0062	500	0.145	1605	2.387	0.030
970	55b	2101	26MAR91	0.0060	500	0.140	1489	2.283	0.031
971	55c	2102	26MAR91	0.0059	500	0.138	1395	2.171	0.032
972	55d	2103	26MAR91	0.0055	500	0.129	1075	1.778	0.034
973	55e	2104	26MAR91	0.0043	500	0.101	773	1.608	0.043
974	55f	2105	26MAR91	0.0044	500	0.103	589	1.176	0.042
975	55g	2106	26MAR91	0.0046	500	0.108	666	1.283	0.040
976	55h	2107	26MAR91	0.0048	500	0.112	749	1.393	0.039
977	55g dup	2110	26MAR91	0.0046	500	0.108	638	1.225	0.040
978	56a	2111	26MAR91	0.0062	500	0.145	955	1.394	0.030

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
979	56b	2112	26MAR91	0.0058	500	0.136	1112	1.746	0.032
980	NIES-23	2114	26MAR91	0.0072	500	0.168	3036	3.938	0.026
981	56c	2115	26MAR91	0.0040	500	0.094	1077	2.449	0.047
982	56d	2116	26MAR91	0.0046	500	0.108	1319	2.628	0.040
983	56b dup	2117	26MAR91	0.0058	500	0.136	1203	1.895	0.032
984	55b dup	2118	26MAR91	0.0060	500	0.140	1475	2.261	0.031
985	C6a	2119	26MAR91	0.0127	500	0.297	377	0.249	0.015
986	C6b	2120	26MAR91	0.0147	500	0.344	537	0.318	0.013
987	DORM-1-23	2141	26MAR91	0.0280	500	0.655	2456	0.810	0.007
988	C6h	2142	26MAR91	0.0118	500	0.276	635	0.479	0.016
989	C6j	2143	26MAR91	0.0103	500	0.241	556	0.477	0.018
990	C6i	2144	26MAR91	0.0117	500	0.274	697	0.533	0.016
991	C6k	2145	26MAR91	0.0105	500	0.246	476	0.397	0.018
992	C6b dup	2146	26MAR91	0.0147	500	0.344	557	0.335	0.013
993	C6h dup	2147	26MAR91	0.0118	500	0.276	730	0.555	0.016
994	C6l	2148	26MAR91	0.0048	500	0.112	282	0.491	0.039
995	C6m	2149	26MAR91	0.0040	500	0.094	215	0.432	0.047
996	C6m dup	2150	26MAR91	0.0040	500	0.094	208	0.416	0.047
997	C6n	2151	26MAR91	0.0031	500	0.073	228	0.597	0.060
998	NIES-23	2153	26MAR91	0.0072	500	0.168	3466	4.461	0.026
999	C6c	2154	26MAR91	0.0135	500	0.316	756	0.503	0.014
1000	C6d	2155	26MAR91	0.0150	500	0.351	974	0.588	0.012

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1001	C6e	2156	26MAR91	0.0135	500	0.316	824	0.550	0.014
1002	C6f	2157	26MAR91	0.0131	500	0.306	699	0.477	0.014
1003	C6g	2158	26MAR91	0.0115	500	0.269	671	0.521	0.016
1004	NIES SPIKE-24	2162	27MAR91	0.0082	100	0.038	2405	13.548	0.113
1005	57a	2163	27MAR91	0.0079	500	0.185	1298	1.503	0.024
1006	DORM-24	2164	27MAR91	0.0794	250	0.929	3594	0.840	0.005
1007	NIES-24	2165	27MAR91	0.0120	250	0.140	2851	4.398	0.031
1008	57b	2166	27MAR91	0.0056	500	0.131	962	1.559	0.033
1009	57c	2167	27MAR91	0.0059	500	0.138	936	1.439	0.032
1010	57d	2168	27MAR91	0.0041	500	0.096	825	1.817	0.045
1011	57e	2169	27MAR91	0.0049	500	0.115	710	1.301	0.038
1012	57f	2170	27MAR91	0.0037	500	0.087	562	1.349	0.050
1013	57g	2172	27MAR91	0.0032	500	0.075	437	1.195	0.058
1014	57h	2173	27MAR91	0.0025	500	0.058	368	1.271	0.074
1015	57i	2174	27MAR91	0.0025	500	0.058	400	1.391	0.074
1016	57j	2175	27MAR91	0.0023	500	0.054	497	1.906	0.081
1017	NIES-24	2187	27MAR91	0.0120	250	0.140	2770	4.066	0.031
1018	57k	2188	27MAR91	0.0024	500	0.056	458	1.594	0.078
1019	57l	2189	27MAR91	0.0016	500	0.037	446	2.324	0.116
1020	57b dup	2190	27MAR91	0.0056	500	0.131	902	1.388	0.033
1021	57j dup	2191	27MAR91	0.0023	500	0.054	505	1.845	0.081
1022	60a	2192	27MAR91	0.0110	500	0.257	1344	1.064	0.017

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1023	60b	2193	27MAR91	0.0111	500	0.260	1146	0.896	0.017
1024	60c	2194	27MAR91	0.0110	500	0.257	912	0.715	0.017
1025	60d	2195	27MAR91	0.0110	500	0.257	725	0.564	0.017
1026	60e	2196	27MAR91	0.0115	500	0.269	858	0.642	0.016
1027	60f	2197	27MAR91	0.0080	500	0.187	557	0.588	0.023
1028	60b dup	2198	27MAR91	0.0111	500	0.260	1185	0.927	0.017
1029	75a	2200	27MAR91	0.0191	500	0.447	698	0.312	0.010
1030	75b	2201	27MAR91	0.0144	500	0.337	550	0.322	0.013
1031	75a dup	2202	27MAR91	0.0191	500	0.447	684	0.306	0.010
1032	NIES-24	2203	29MAR91	0.0120	250	0.140	2864	4.205	0.031
1033	DORM-1-25	2205	29MAR91	0.0454	250	0.531	2171	0.833	0.008
1034	NIES-25	2206	29MAR91	0.0039	500	0.091	2059	4.593	0.048
1035	NIES SPIKE-25	2207	29MAR91	0.0067	100	0.031	2346	15.273	0.139
1036	58a	2208	29MAR91	0.0093	500	0.218	467	0.403	0.020
1037	58b	2209	29MAR91	0.0101	500	0.236	426	0.335	0.018
1038	58c	2210	29MAR91	0.0097	500	0.227	392	0.318	0.019
1039	58d	2211	29MAR91	0.0101	500	0.236	426	0.335	0.018
1040	58e	2212	29MAR91	0.0092	500	0.215	371	0.315	0.020
1041	58f	2213	29MAR91	0.0094	500	0.220	392	0.328	0.020
1042	58g	2214	29MAR91	0.0101	500	0.236	440	0.347	0.018
1043	58h	2215	29MAR91	0.0089	500	0.208	526	0.480	0.021
1044	58i	2216	29MAR91	0.0061	500	0.143	471	0.621	0.030

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1045	58j	2217	29MAR91	0.0050	500	0.117	441	0.704	0.037
1046	58b dup	2218	29MAR91	0.0101	500	0.236	402	0.314	0.018
1047	58h dup	2219	29MAR91	0.0089	500	0.208	514	0.468	0.021
1048	59a	2220	29MAR91	0.0107	500	0.250	2481	2.025	0.017
1049	59b	2221	29MAR91	0.0106	500	0.248	2505	2.064	0.018
1050	NIES-25	2223	29MAR91	0.0039	500	0.091	2082	4.646	0.048
1051	59c	2224	29MAR91	0.0063	500	0.147	1597	2.191	0.030
1052	59d	2225	29MAR91	0.0026	500	0.061	666	2.123	0.072
1053	NIES-25	2247	29MAR91	0.0039	500	0.091	2203	4.988	0.048
1054	59c dup	2248	29MAR91	0.0063	500	0.147	1389	1.928	0.030
1055	61a	2249	29MAR91	0.0060	500	0.140	1729	2.533	0.031
1056	61b	2250	29MAR91	0.0060	500	0.140	1184	1.718	0.031
1057	61c	2251	29MAR91	0.0054	500	0.126	545	0.847	0.034
1058	61d	2252	29MAR91	0.0040	500	0.094	431	0.887	0.047
1059	61e	2253	29MAR91	0.0031	500	0.073	358	0.934	0.060
1060	61b dup	2254	29MAR91	0.0060	500	0.140	1066	1.541	0.031
1061	63a	2255	29MAR91	0.0123	500	0.288	2540	1.827	0.015
1062	63b	2256	29MAR91	0.0121	500	0.283	3123	2.290	0.015
1063	63c	2257	29MAR91	0.0118	500	0.276	3005	2.258	0.016
1064	63d	2258	29MAR91	0.0091	500	0.213	1976	1.914	0.020
1065	63e	2259	29MAR91	0.0054	500	0.126	1037	1.664	0.034
1066	63b dup	2260	29MAR91	0.0121	500	0.283	3107	2.278	0.015

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1067	67a	2261	29MAR91	0.0085	500	0.199	1018	1.037	0.022
1068	67b	2262	29MAR91	0.0075	500	0.175	1409	1.643	0.025
1069	67c	2263	29MAR91	0.0075	500	0.175	1555	1.818	0.025
1070	67c dup	2266	29MAR91	0.0075	500	0.175	1508	1.762	0.025
1071	DORM-25	2267	29MAR91	0.0454	500	1.062	4661	0.914	0.004
1072	DORM-26	2268	1APR91	0.0371	500	0.868	3910	0.935	0.005
1073	NIES-26	2269	1APR91	0.0063	500	0.147	3684	5.186	0.030
1074	NIES SPIKE-26	2270	1APR91	0.0048	100	0.022	2202	20.182	0.194
1075	73a	2271	1APR91	0.0080	500	0.187	417	0.420	0.023
1076	NIES-26	2283	1APR91	0.0063	500	0.147	3626	4.937	0.030
1077	73b	2284	1APR91	0.0098	500	0.229	730	0.614	0.019
1078	73c	2285	1APR91	0.0071	500	0.166	686	0.794	0.026
1079	73b dup	2286	1APR91	0.0098	500	0.229	746	0.628	0.019
1080	74a	2287	1APR91	0.0053	500	0.124	814	1.273	0.035
1081	74b	2288	1APR91	0.0051	500	0.119	648	1.041	0.036
1082	74c	2289	1APR91	0.0036	500	0.084	520	1.167	0.052
1083	74d	2290	1APR91	0.0034	500	0.080	568	1.358	0.055
1084	74b dup	2291	1APR91	0.0051	500	0.119	633	1.016	0.036
1085	C7a-1	2292	1APR91	0.0094	500	0.220	502	0.430	0.020
1086	C7b-1	2293	1APR91	0.0102	500	0.239	668	0.538	0.018
1087	C7c-1	2294	1APR91	0.0080	500	0.187	596	0.607	0.023
1088	C7d-1	2295	1APR91	0.0086	500	0.201	851	0.822	0.022

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1089	C7e-1	2296	1APR91	0.0087	500	0.203	903	0.864	0.021
1090	C7f-1	2297	1APR91	0.0088	500	0.206	1133	1.081	0.021
1091	C7g-1	2298	1APR91	0.0069	500	0.161	978	1.184	0.027
1092	C7h-1	2299	1APR91	0.0075	500	0.175	978	1.089	0.025
1093	DORM-1-26	2301	1APR91	0.0371	500	0.868	4003	0.926	0.005
1094	C7i-1	2302	1APR91	0.0070	500	0.164	867	1.030	0.027
1095	C7j-1	2303	1APR91	0.0086	500	0.201	930	0.901	0.022
1096	C7k-1	2304	1APR91	0.0062	500	0.145	771	1.028	0.030
1097	C7b-1 dup	2305	1APR91	0.0102	500	0.239	658	0.529	0.018
1098	C7g-1 dup	2306	1APR91	0.0069	500	0.161	968	1.171	0.027
1099	C7j-1 dup	2307	1APR91	0.0086	500	0.201	988	0.960	0.022
1100	C7a-2	2308	1APR91	0.0118	500	0.276	569	0.392	0.016
1101	C7b-2	2309	1APR91	0.0122	500	0.285	776	0.526	0.015
1102	C7c-2	2310	1APR91	0.0085	500	0.199	587	0.563	0.022
1103	C7d-2	2311	1APR91	0.0103	500	0.241	893	0.722	0.018
1104	NIES-26	2324	1APR91	0.0063	500	0.147	3493	4.856	0.030
1105	C7e-2	2326	1APR91	0.0109	500	0.255	1113	0.878	0.017
1106	C7f-2	2327	1APR91	0.0093	500	0.218	1126	1.041	0.020
1107	C7g-2	2328	1APR91	0.0098	500	0.229	1305	1.149	0.019
1108	C7h-2	2329	1APR91	0.0086	500	0.201	993	0.989	0.022
1109	C7i-2	2330	1APR91	0.0091	500	0.213	962	0.905	0.020
1110	C7j-2	2331	1APR91	0.0112	500	0.262	1269	0.977	0.017

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1111	C7k-2	2332	1APR91	0.0083	500	0.194	1094	1.132	0.022
1112	C7b-2 dup	2333	1APR91	0.0122	500	0.285	752	0.523	0.015
1113	C7f-2 dup	2334	1APR91	0.0093	500	0.218	1204	1.115	0.020
1114	C7i-2 dup	2335	1APR91	0.0091	500	0.213	994	0.936	0.020
1115	DORM-1-26	2338	1APR91	0.0371	500	0.868	3777	0.892	0.005
1116	DORM-1-27	2339	2APR91	0.0397	500	0.929	3522	0.778	0.005
1117	NIES-27	2340	2APR91	0.0056	500	0.131	2712	4.237	0.033
1118	NIES SPIKE-27	2341	2APR91	0.0075	100	0.035	2643	15.412	0.124
1119	64a	2343	2APR91	0.0076	500	0.178	963	1.089	0.024
1120	64b	2344	2APR91	0.0071	500	0.166	780	0.938	0.026
1121	64c	2345	2APR91	0.0056	500	0.131	644	0.975	0.033
1122	64d	2346	2APR91	0.0063	500	0.147	604	0.810	0.030
1123	64e	2347	2APR91	0.0065	500	0.152	550	0.712	0.029
1124	64f	2348	2APR91	0.0061	500	0.143	628	0.872	0.030
1125	64g	2349	2APR91	0.0058	500	0.136	590	0.859	0.032
1126	64h	2350	2APR91	0.0055	500	0.129	508	0.774	0.034
1127	64i	2351	2APR91	0.0051	500	0.119	550	0.908	0.036
1128	64j	2352	2APR91	0.0048	500	0.112	489	0.852	0.039
1129	64k	2353	2APR91	0.0044	500	0.103	551	1.054	0.042
1130	64l	2355	2APR91	0.0045	500	0.105	583	1.093	0.041
1131	64m	2356	2APR91	0.0040	500	0.094	541	1.137	0.047
1132	64n	2357	2APR91	0.0046	500	0.108	515	0.939	0.040

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1133	NIES-27	2369	2APR91	0.0056	500	0.131	2764	4.286	0.033
1134	64o	2370	2APR91	0.0038	500	0.089	466	1.014	0.049
1135	64p	2371	2APR91	0.0036	500	0.084	399	0.907	0.052
1136	64q	2372	2APR91	0.0040	500	0.094	457	0.944	0.047
1137	64r	2373	2APR91	0.0029	500	0.068	397	1.120	0.064
1138	64s	2375	2APR91	0.0030	500	0.070	408	1.115	0.062
1139	64t	2376	2APR91	0.0032	500	0.075	444	1.144	0.058
1140	64u	2377	2APR91	0.0028	500	0.065	420	1.232	0.066
1141	64b dup	2378	2APR91	0.0071	500	0.166	733	0.873	0.026
1142	64k dup	2379	2APR91	0.0044	500	0.103	508	0.960	0.042
1143	64t dup	2380	2APR91	0.0032	500	0.075	465	1.202	0.058
1144	65b	2382	2APR91	0.0071	500	0.166	927	1.112	0.026
1145	65c	2383	2APR91	0.0074	500	0.173	832	0.954	0.025
1146	65d	2384	2APR91	0.0080	500	0.187	916	0.975	0.023
1147	65e	2385	2APR91	0.0068	500	0.159	815	1.017	0.027
1148	DORM-1-27	2387	2APR91	0.0397	500	0.929	3494	0.766	0.005
1149	65f	2388	2APR91	0.0064	500	0.150	958	1.276	0.029
1150	65g	2389	2APR91	0.0056	500	0.131	1153	1.764	0.033
1151	65b dup	2390	2APR91	0.0071	500	0.166	902	1.081	0.026
1152	65f dup	2391	2APR91	0.0064	500	0.150	964	1.284	0.029
1153	65a	2392	2APR91	0.0070	500	0.164	1052	1.285	0.027
1154	66a	2393	2APR91	0.0136	500	0.318	3217	2.057	0.014

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1155	66b	2394	2APR91	0.0141	500	0.330	3367	2.077	0.013
1156	66c	2395	2APR91	0.0135	500	0.316	3255	2.097	0.014
1157	66d	2396	2APR91	0.0129	500	0.302	3030	2.042	0.014
1158	66e	2397	2APR91	0.0115	500	0.269	2805	2.119	0.016
1159	66f	2398	2APR91	0.0110	500	0.257	3297	2.607	0.017
1160	66g	2399	2APR91	0.0088	500	0.206	2399	2.364	0.021
1161	66h	2400	2APR91	0.0041	500	0.096	1482	3.113	0.045
1162	66b dup	2401	2APR91	0.0141	500	0.330	3283	2.025	0.013
1163	DORM-1-28	2413	4APR91	0.0205	500	0.479	2184	0.913	0.009
1164	NIES-28	2414	4APR91	0.0036	500	0.084	2030	4.829	0.052
1165	NIES SPIKE-28	2415	4APR91	0.0067	100	0.031	2299	14.718	0.139
1166	68a	2416	4APR91	0.0049	500	0.115	820	1.402	0.038
1167	68b	2417	4APR91	0.0057	500	0.133	677	0.987	0.033
1168	68c	2418	4APR91	0.0044	500	0.103	494	0.917	0.042
1169	68d	2419	4APR91	0.0045	500	0.105	376	0.669	0.041
1170	68e	2420	4APR91	0.0040	500	0.094	311	0.612	0.047
1171	68f	2421	4APR91	0.0040	500	0.094	294	0.575	0.047
1172	68g	2422	4APR91	0.0044	500	0.103	303	0.540	0.042
1173	68h	2423	4APR91	0.0045	500	0.105	346	0.611	0.041
1174	68i	2424	4APR91	0.0033	500	0.077	346	0.833	0.056
1175	68j	2425	4APR91	0.0039	500	0.091	402	0.830	0.048
1176	68k	2426	4APR91	0.0031	500	0.073	379	0.980	0.060

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1177	681	2427	4APR91	0.0032	500	0.075	385	0.965	0.058
1178	68b dup	2428	4APR91	0.0057	500	0.133	657	0.957	0.033
1179	68g dup	2429	4APR91	0.0044	500	0.103	328	0.590	0.042
1180	NIES-28	2431	4APR91	0.0036	500	0.084	1970	4.684	0.052
1181	69a	2432	4APR91	0.0064	500	0.150	444	0.563	0.029
1182	69b	2433	4APR91	0.0062	500	0.145	511	0.675	0.030
1183	69c	2434	4APR91	0.0057	500	0.133	473	0.676	0.033
1184	69d	2435	4APR91	0.0055	500	0.129	531	0.792	0.034
1185	69e	2436	4APR91	0.0050	500	0.117	533	0.875	0.037
1186	69f	2437	4APR91	0.0049	500	0.115	662	1.122	0.038
1187	69g	2438	4APR91	0.0047	500	0.110	593	1.042	0.040
1188	69h	2439	4APR91	0.0044	500	0.103	649	1.224	0.042
1189	69b dup	2440	4APR91	0.0062	500	0.145	491	0.647	0.030
1190	70a	2441	4APR91	0.0098	500	0.229	893	0.766	0.019
1191	70b	2442	4APR91	0.0079	500	0.185	476	0.491	0.024
1192	70c	2443	4APR91	0.0085	500	0.199	467	0.447	0.022
1193	70d	2444	4APR91	0.0090	500	0.210	385	0.343	0.021
1194	70e	2445	4APR91	0.0074	500	0.173	218	0.221	0.025
1195	70a dup	2446	4APR91	0.0098	500	0.229	902	0.774	0.019
1196	69g dup	2447	4APR91	0.0047	500	0.110	612	1.077	0.040
1197	DORM-1-29	2616	9APR91	0.0528	500	1.235	7211	0.840	0.004
1198	NIES-29	2617	9APR91	0.0034	500	0.080	2660	4.769	0.055

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1199	NIES SPIKE-29	2618	9APR91	0.0044	100	0.021	5262	36.701	0.211
1200	62a	2619	9APR91	0.0070	500	0.164	1060	0.903	0.027
1201	62b	2620	9APR91	0.0066	500	0.154	1404	1.280	0.028
1202	62c	2622	9APR91	0.0074	500	0.173	1460	1.189	0.025
1203	62d	2623	9APR91	0.0056	500	0.131	981	1.042	0.033
1204	62e	2624	9APR91	0.0068	500	0.159	1141	1.004	0.027
1205	62f	2625	9APR91	0.0050	500	0.117	713	0.836	0.037
1206	62b dup	2626	9APR91	0.0066	500	0.154	1265	1.150	0.028
1207	71a	2627	9APR91	0.0113	500	0.264	921	0.484	0.016
1208	71b	2628	9APR91	0.0111	500	0.260	684	0.360	0.017
1209	71c	2629	9APR91	0.0096	500	0.225	562	0.338	0.019
1210	71d	2630	9APR91	0.0110	500	0.257	661	0.351	0.017
1211	71e	2631	9APR91	0.0100	500	0.234	732	0.430	0.019
1212	71f	2632	9APR91	0.0093	500	0.218	916	0.584	0.020
1213	NIES-29	2633	9APR91	0.0034	500	0.080	2708	4.856	0.055
1214	71g	2634	9APR91	0.0067	500	0.157	767	0.673	0.028
1215	71h	2635	9APR91	0.0055	500	0.129	1031	1.117	0.034
1216	71i	2636	9APR91	0.0038	500	0.089	934	1.459	0.049
1217	71d dup	2637	9APR91	0.0110	500	0.257	593	0.312	0.017
1218	NIES SPIKE-29	2638	9APR91	0.0044	100	0.021	4818	33.583	0.211
1219	72a	2639	9APR91	0.0103	500	0.241	3244	1.925	0.018
1220	72b	2640	9APR91	0.0096	500	0.225	2677	1.700	0.019

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1221	72c	2641	9APR91	0.0090	500	0.210	2509	1.698	0.021
1222	72d	2642	9APR91	0.0079	500	0.185	2449	1.887	0.024
1223	72e	2643	9APR91	0.0089	500	0.208	3104	2.130	0.021
1224	72f	2644	9APR91	0.0050	500	0.117	2126	2.583	0.037
1225	72c dup	2645	9APR91	0.0090	500	0.210	2618	1.773	0.021
1226	NIES-30	2658	17APR91	0.0046	500	0.108	3397	4.347	0.040
1227	DORM-1-30	2659	17APR91	0.0262	500	0.613	4539	1.023	0.007
1228	NIES SPIKE-30	2660	17APR91	0.0055	100	0.026	3426	18.337	0.169
1229	76a	2661	17APR91	0.0071	500	0.166	1109	0.895	0.026
1230	76b	2662	17APR91	0.0062	500	0.145	715	0.647	0.030
1231	76c	2663	17APR91	0.0065	500	0.152	654	0.561	0.029
1232	76d	2664	17APR91	0.0071	500	0.166	813	0.647	0.026
1233	76e	2665	17APR91	0.0058	500	0.136	746	0.723	0.032
1234	76f	2666	17APR91	0.0063	500	0.147	918	0.828	0.030
1235	76c dup	2667	17APR91	0.0065	500	0.152	587	0.499	0.029
1236	78a	2668	17APR91	0.0078	500	0.182	2054	1.537	0.024
1237	DORM-1-30	2670	17APR91	0.0262	500	0.613	5029	1.135	0.007
1238	78b	2671	17APR91	0.0081	500	0.189	1825	1.312	0.023
1239	78c	2672	17APR91	0.0072	500	0.168	1150	0.917	0.026
1240	78d	2673	17APR91	0.0078	500	0.182	1216	0.897	0.024
1241	78e	2674	17APR91	0.0075	500	0.175	1310	1.007	0.025
1242	78f	2675	17APR91	0.0065	500	0.152	1141	1.007	0.029

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1243	78g	2676	17APR91	0.0071	500	0.166	1218	0.987	0.026
1244	78h	2677	17APR91	0.0075	500	0.175	1115	0.852	0.025
1245	78i	2678	17APR91	0.0064	500	0.150	980	0.873	0.029
1246	78j	2680	17APR91	0.0056	500	0.131	1006	1.026	0.033
1247	78k	2681	17APR91	0.0058	500	0.136	1103	1.090	0.032
1248	78l	2682	17APR91	0.0062	500	0.145	1390	1.296	0.030
1249	78m	2683	17APR91	0.0057	500	0.133	1356	1.374	0.033
1250	78n	2684	17APR91	0.0044	500	0.103	1150	1.501	0.042
1251	78o	2685	17APR91	0.0043	500	0.101	1021	1.357	0.043
1252	78p	2686	17APR91	0.0040	500	0.094	815	1.151	0.047
1253	78q	2687	17APR91	0.0031	500	0.073	504	0.887	0.060
1254	78r	2688	17APR91	0.0026	500	0.061	450	0.934	0.072
1255	78s	2689	17APR91	0.0027	500	0.063	433	0.862	0.069
1256	78t	2690	17APR91	0.0021	500	0.049	432	1.106	0.089
1257	NIES-30	2702	17APR91	0.0046	500	0.108	3903	4.398	0.040
1258	78d dup	2703	17APR91	0.0078	500	0.182	1304	0.845	0.024
1259	78k dup	2704	17APR91	0.0058	500	0.136	1177	1.022	0.032
1260	DORM-1-31	2705	18APR91	0.0393	500	0.919	6414	0.849	0.005
1261	NIES-31	2706	18APR91	0.0040	500	0.094	3570	4.613	0.047
1262	NIES SPIKE-31	2708	18APR91	0.0055	100	0.026	4281	20.164	0.169
1263	77a	2709	18APR91	0.0086	500	0.201	470	0.254	0.022
1264	77b	2710	18APR91	0.0081	500	0.189	473	0.272	0.023

NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1265	77c	2711	18APR91	0.0076	500	0.178	449	0.273	0.024
1266	77d	2712	18APR91	0.0070	500	0.164	394	0.256	0.027
1267	77e	2713	18APR91	0.0069	500	0.161	474	0.320	0.027
1268	77f	2714	18APR91	0.0066	500	0.154	549	0.394	0.028
1269	77g	2715	18APR91	0.0071	500	0.166	650	0.441	0.026
1270	77h	2716	18APR91	0.0060	500	0.140	653	0.525	0.031
1271	77j	2718	18APR91	0.0059	500	0.138	829	0.690	0.032
1272	NIES-31	2720	18APR91	0.0040	500	0.094	3449	4.454	0.047
1273	77k	2721	18APR91	0.0052	500	0.122	1142	1.099	0.036
1274	77l	2722	18APR91	0.0035	500	0.082	1245	1.787	0.053
1275	77b dup	2723	18APR91	0.0081	500	0.189	420	0.238	0.023
1276	77i	2724	18APR91	0.0057	500	0.133	736	0.629	0.033
1277	79a	2725	18APR91	0.0079	500	0.185	2469	1.604	0.024
1278	79b	2726	18APR91	0.0067	500	0.157	1863	1.417	0.028
1279	79b dup	2727	18APR91	0.0067	500	0.157	1770	1.344	0.028
1280	80a	2728	18APR91	0.0051	500	0.119	1212	1.192	0.036
1281	80b	2729	18APR91	0.0047	500	0.110	1039	1.101	0.040
1282	80c	2730	18APR91	0.0045	500	0.105	867	0.949	0.041
1283	80d	2731	18APR91	0.0042	500	0.098	992	1.173	0.044
1284	80e	2732	18APR91	0.0045	500	0.105	831	0.907	0.041
1285	NIES-31	2744	18APR91	0.0040	500	0.094	3612	4.629	0.047
1286	80f	2745	18APR91	0.0037	500	0.087	722	0.948	0.050

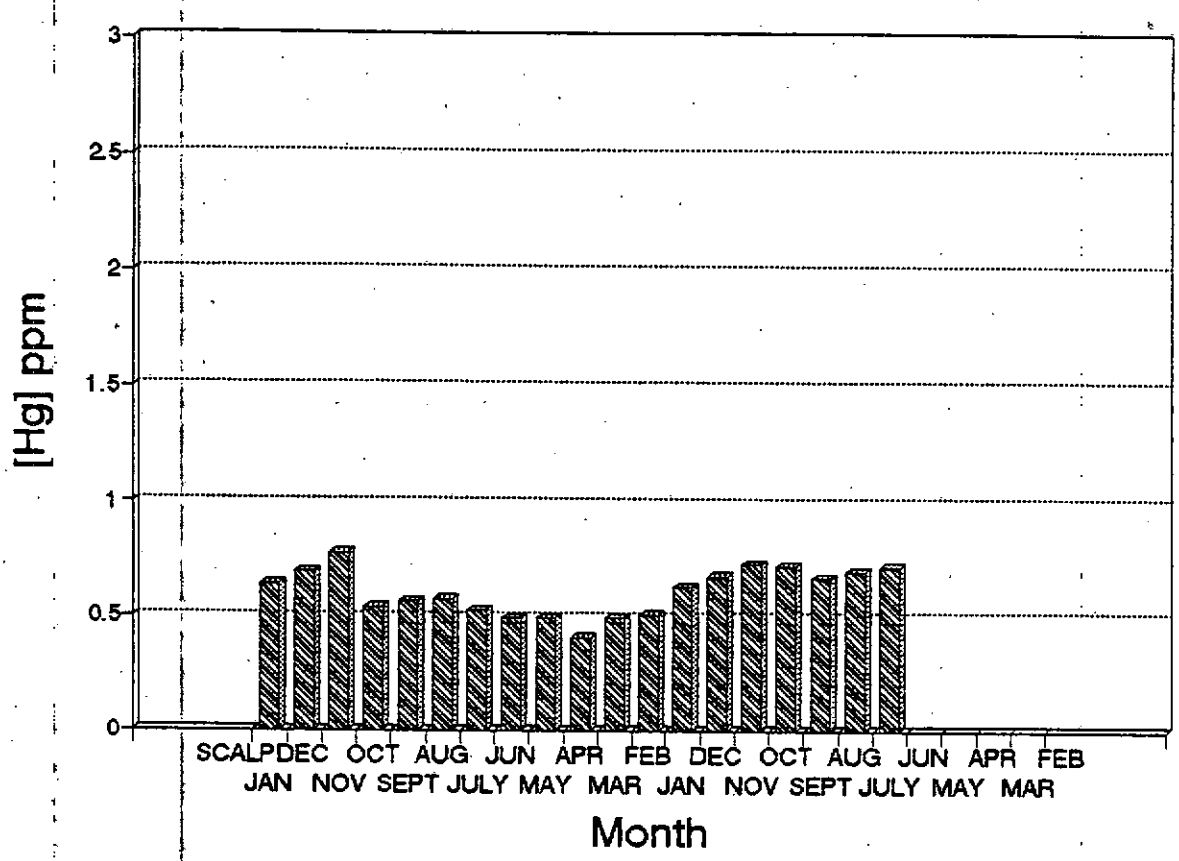
NOME SEGMENTAL HAIR ANALYSIS

SEQ#	BATTELLE ID	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	SAMPLE VOL ANALYZED µl	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
1287	80g	2746	18APR91	0.0044	500	0.103	612	0.667	0.042
1288	80h	2747	18APR91	0.0045	500	0.105	494	0.516	0.041
1289	80i	2748	18APR91	0.0044	500	0.103	591	0.643	0.042
1290	80j	2749	18APR91	0.0042	500	0.098	562	0.637	0.044
1291	80k	2750	18APR91	0.0045	500	0.105	757	0.820	0.041
1292	80l	2751	18APR91	0.0043	500	0.101	693	0.781	0.043
1293	80m	2752	18APR91	0.0040	500	0.094	681	0.824	0.047
1294	80n	2753	18APR91	0.0035	500	0.082	686	0.949	0.053
1295	80o	2754	18APR91	0.0035	500	0.082	647	0.891	0.053
1296	80p	2755	18APR91	0.0031	500	0.073	634	0.984	0.060
1297	80q	2756	18APR91	0.0021	500	0.049	526	1.186	0.089
1298	80c dup	2757	18APR91	0.0045	500	0.105	860	0.939	0.041
1299	80j dup	2758	18APR91	0.0042	500	0.098	628	0.719	0.044
1300	80p dup	2759	18APR91	0.0031	500	0.073	647	1.006	0.060
1301	NIES-31	2760	18APR91	0.0040	500	0.094	3569	4.573	0.047

APPENDIX C

RESULT GRAPHS BY PARTICIPANT NUMBER

[Hg] vs Month
Participant Control #1



PROJECT ID: NOME SEGMENTAL ANALYSIS

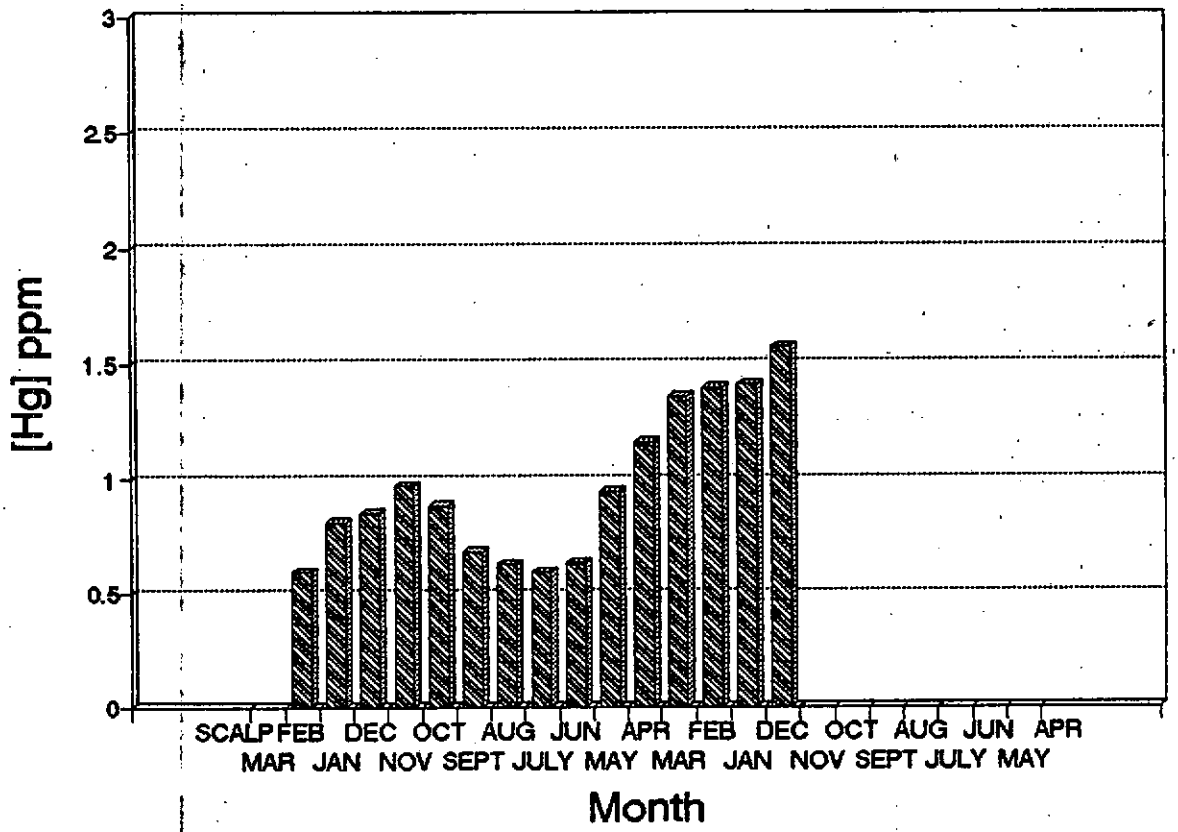
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE CHRIS

FILE #: NOMSEGC1

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
C1a	JAN	535	23JAN91	0.0185	250	0.216	857	0.641	0.020	0.641
C1b	DEC	541	23JAN91	0.0213	250	0.249	1056	0.691	0.017	0.691
C1c	NOV	537	23JAN91	0.0198	250	0.232	1095	0.772	0.019	0.772
C1d	OCT	538	23JAN91	0.0203	250	0.237	792	0.538	0.018	0.538
C1e	SEPT	542	23JAN91	0.0186	250	0.218	760	0.562	0.020	0.562
C1f	AUG	543	23JAN91	0.0197	250	0.230	819	0.574	0.019	0.574
C1g	JULY	544	23JAN91	0.0180	250	0.210	692	0.526	0.021	0.526
C1h	JUN	558	23JAN91	0.0223	250	0.261	781	0.488	0.017	0.488
C1i	MAY	559	23JAN91	0.0189	250	0.221	673	0.493	0.020	0.493
C1j	APR	561	23JAN91	0.0184	250	0.215	542	0.403	0.020	0.403
C1k dup	MAR	571,562	23JAN91	0.0180	250	0.210	635	0.487	0.021	0.489
C1l	FEB	563	23JAN91	0.0183	250	0.214	668	0.505	0.020	0.505
C1m	JAN	564	23JAN91	0.0147	250	0.172	665	0.625	0.025	0.625
C1n	DEC	565	23JAN91	0.0162	250	0.189	781	0.671	0.023	0.671
C1o	NOV	566	23JAN91	0.0138	250	0.161	724	0.728	0.027	0.728
C1p	OCT	567	23JAN91	0.0119	250	0.139	623	0.721	0.031	0.721
C1q	SEPT	568	23JAN91	0.0101	250	0.118	493	0.663	0.037	0.663
C1r	AUG	569	23JAN91	0.0084	250	0.098	431	0.691	0.044	0.691
C1s	JULY	570	23JAN91	0.0063	250	0.074	342	0.716	0.059	0.716

[Hg] vs Month
Participant Control #2



PROJECT ID: NOME SEGMENTAL ANALYSIS

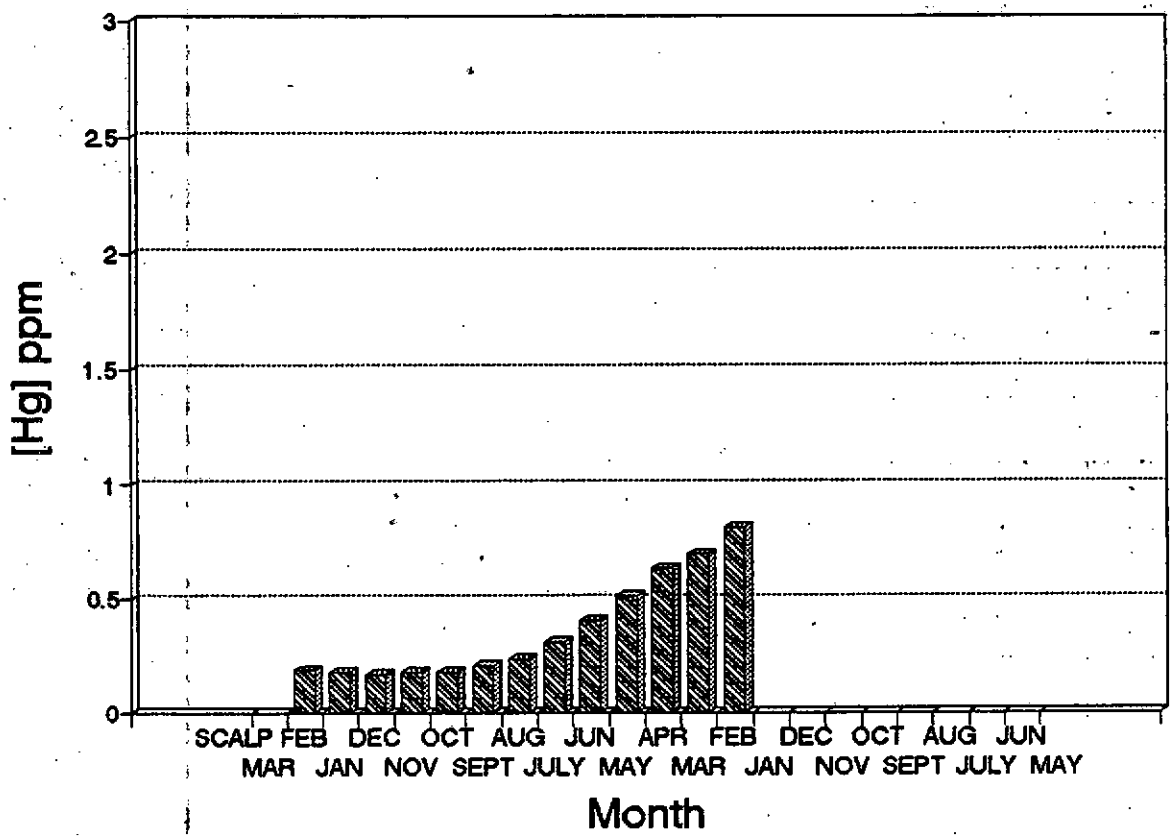
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C2

FILE #: NOMSEGC2

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C2a	FEB	1368	4MAR91	0.0116	250	0.136	749	0.590	0.032	0.590
C2b	JAN	1369	4MAR91	0.0094	250	0.110	827	0.806	0.040	0.806
C2c	DEC	1370	4MAR91	0.0113	250	0.132	1038	0.847	0.033	0.847
C2d dup	NOV	1396,1371	4MAR91	0.0101	250	0.118	1092	0.998	0.037	0.969
C2e	OCT	1372	4MAR91	0.0106	250	0.124	1013	0.881	0.035	0.881
C2f	SEPT	1373	4MAR91	0.0087	250	0.102	650	0.679	0.043	0.679
C2g	AUG	1374	4MAR91	0.0104	250	0.122	711	0.624	0.036	0.624
C2h	JULY	1375	4MAR91	0.0100	250	0.117	649	0.590	0.037	0.590
C2i	JUN	1376	4MAR91	0.0103	250	0.120	710	0.629	0.036	0.629
C2j	MAY	1377	4MAR91	0.0093	250	0.109	955	0.945	0.040	0.945
C2k dup	APR	1398,1391	4MAR91	0.0088	250	0.103	1117	1.173	0.042	1.156
C2l	MAR	1392	4MAR91	0.0089	250	0.104	1303	1.357	0.042	1.357
C2m	FEB	1393	4MAR91	0.0087	250	0.102	1312	1.398	0.043	1.398
C2n	JAN	1394	4MAR91	0.0063	250	0.074	964	1.409	0.059	1.409
C2o	DEC	1395	4MAR91	0.0054	250	0.063	923	1.572	0.069	1.572

[Hg] vs Month
Participant Control #3



PROJECT ID: NOME SEGMENTAL ANALYSIS

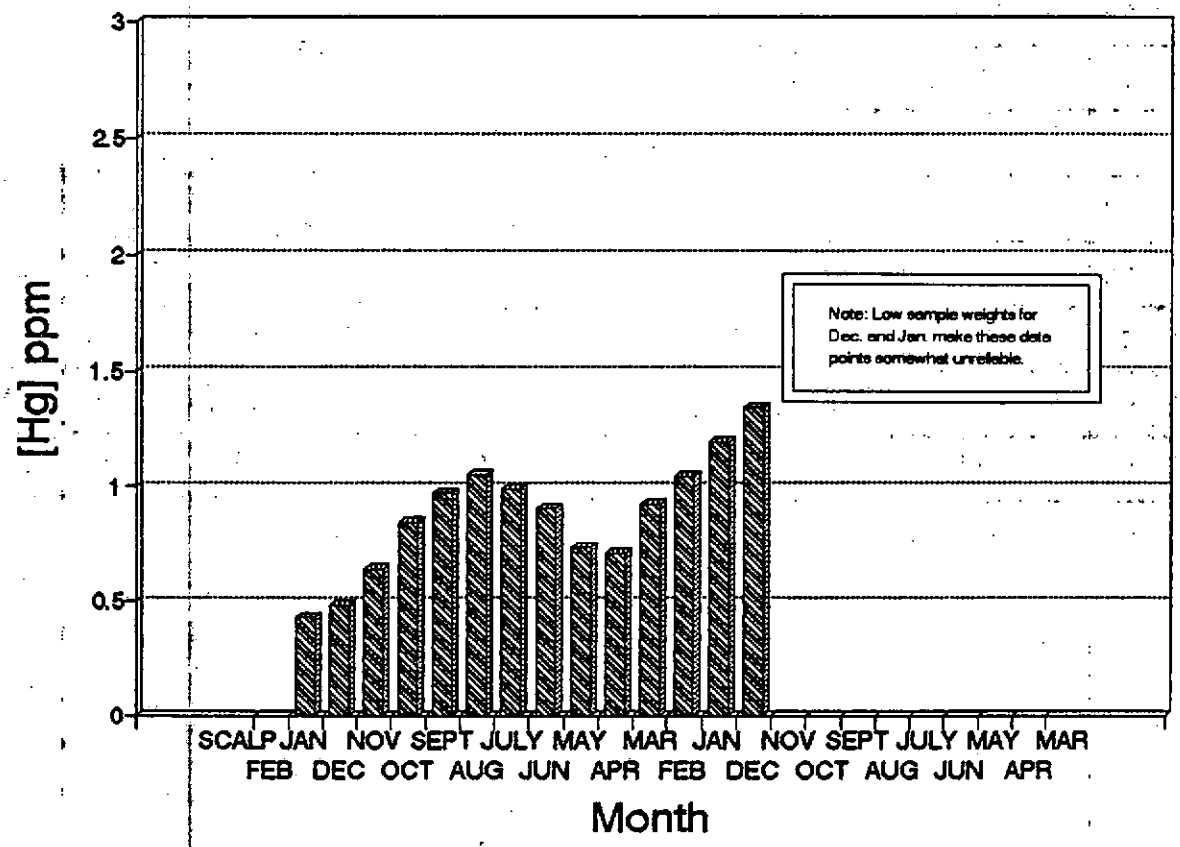
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C3

FILE #: NOMSEGC3

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C3a dup	FEB	1486,1458	4MAR91	0.0200	250	0.234	422	0.175	0.019	0.184
C3b	JAN	1459	4MAR91	0.0195	250	0.228	401	0.176	0.019	0.176
C3c	DEC	1460	4MAR91	0.0193	250	0.226	372	0.164	0.019	0.164
C3d	NOV	1461	4MAR91	0.0176	250	0.206	368	0.177	0.021	0.177
C3e	OCT	1462	4MAR91	0.0168	250	0.196	361	0.182	0.022	0.182
C3f dup	SEPT	1487,1463	4MAR91	0.0220	250	0.257	525	0.202	0.017	0.205
C3g	AUG	1464	4MAR91	0.0187	250	0.219	496	0.231	0.020	0.231
C3h	JULY	1465	4MAR91	0.0135	250	0.158	482	0.311	0.028	0.311
C3i	JUN	1466	4MAR91	0.0143	250	0.167	646	0.401	0.026	0.401
C3j	MAY	1467	4MAR91	0.0135	250	0.158	770	0.512	0.028	0.512
C3k	APR	1468	4MAR91	0.0091	250	0.106	648	0.633	0.041	0.633
C3l	MAR	1469	4MAR91	0.0068	250	0.080	537	0.693	0.055	0.693
C3m	FEB	1470	4MAR91	0.0068	250	0.080	618	0.805	0.055	0.805

[Hg] vs Month
Participant Control #4



PROJECT ID:NOME SEGMENTAL ANALYSIS

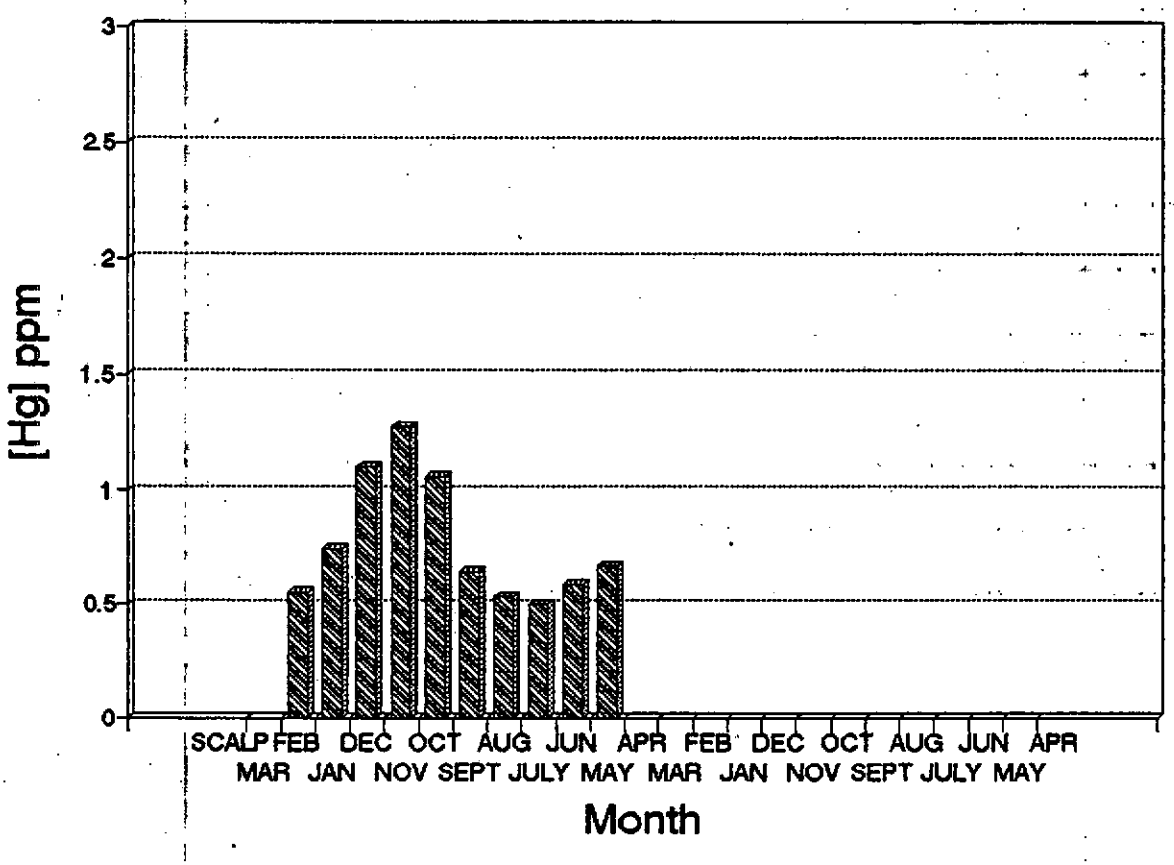
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C4

FILE #: NOMSEGC4

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	FEB									
C4a	JAN	1722	12MAR91	0.0085	500	0.199	643	0.427	0.022	0.427
C4b	DEC	1720	12MAR91	0.0080	500	0.187	681	0.483	0.023	0.483
C4c	NOV	1721	12MAR91	0.0070	500	0.164	779	0.639	0.027	0.639
C4d	OCT	1724	12MAR91	0.0076	500	0.178	1092	0.844	0.024	0.844
C4e	SEPT	1725	12MAR91	0.0069	500	0.161	1136	0.969	0.027	0.969
C4f	AUG	1726	12MAR91	0.0059	500	0.138	1059	1.052	0.032	1.052
C4g dup	JULY	1737,1727	12MAR91	0.0057	500	0.133	992	1.016	0.033	0.990
C4h	JUN	1728	12MAR91	0.0053	500	0.124	826	0.899	0.035	0.899
C4i	MAY	1729	12MAR91	0.0046	500	0.108	601	0.733	0.040	0.733
C4j	APR	1732	12MAR91	0.0041	500	0.096	524	0.706	0.045	0.706
C4k	MAR	1733	12MAR91	0.0040	500	0.094	653	0.924	0.047	0.924
C4l	FEB	1734	12MAR91	0.0029	500	0.068	544	1.041	0.064	1.041
C4m dup	JAN	1738,1735	12MAR91	0.0024	500	0.056	503	1.152	0.078	1.192
C4n	DEC	1736	12MAR91	0.0016	500	0.037	403	1.341	0.116	1.341

[Hg] vs Month
Participant Control #5



PROJECT ID: NOME SEGMENTAL ANALYSIS

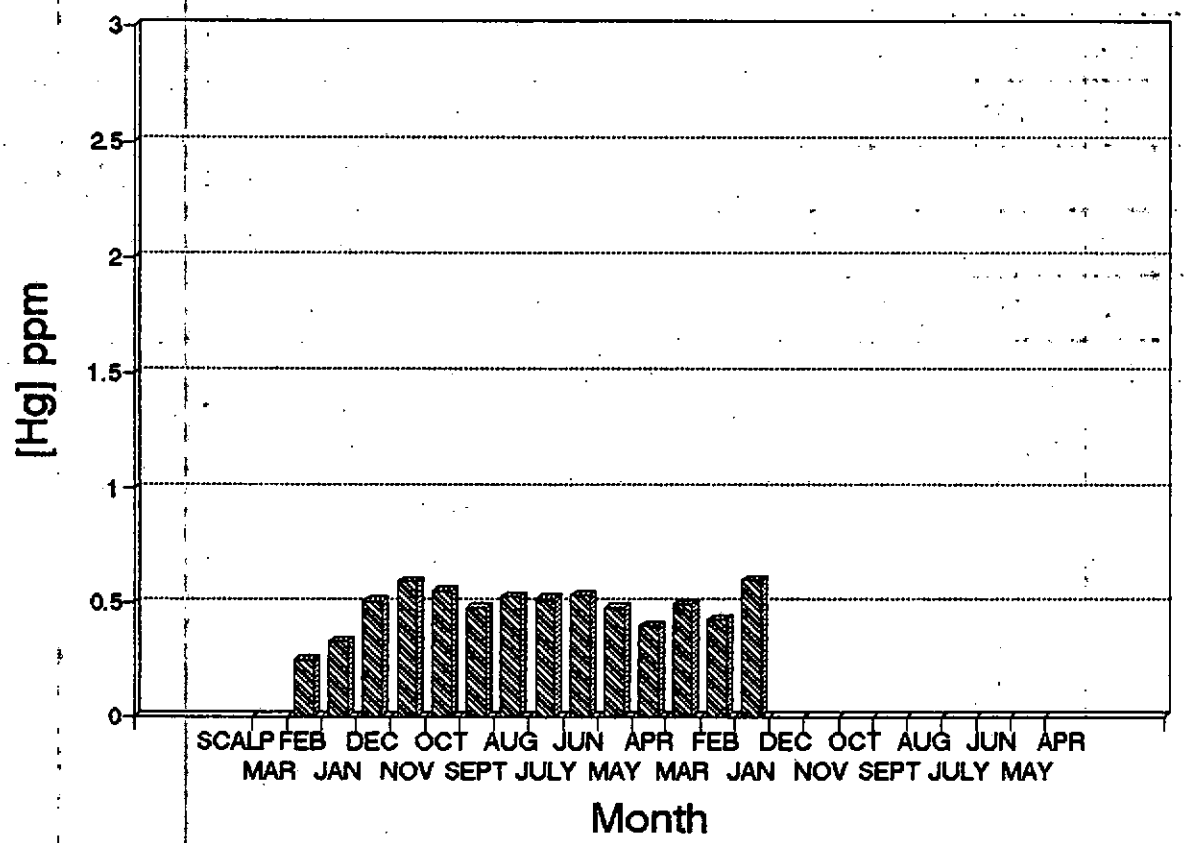
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C5

FILE #: NOMSEGC5

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C5a	FEB	1957	21MAR91	0.0078	500	0.182	419	0.550	0.024	0.550
C5b	JAN	1958	21MAR91	0.0083	500	0.194	588	0.740	0.022	0.740
C5c dup	DEC	1967,1959	21MAR91	0.0084	500	0.196	828	1.043	0.022	1.101
C5d	NOV	1960	21MAR91	0.0091	500	0.213	1085	1.272	0.020	1.272
C5e	OCT	1961	21MAR91	0.0085	500	0.199	851	1.061	0.022	1.061
C5f	SEPT	1962	21MAR91	0.0069	500	0.161	430	0.639	0.027	0.639
C5g	AUG	1963	21MAR91	0.0074	500	0.173	384	0.528	0.025	0.528
C5h dup	JULY	1968,1964	21MAR91	0.0079	500	0.185	370	0.475	0.024	0.493
C5i	JUN	1965	21MAR91	0.0076	500	0.178	432	0.583	0.024	0.583
C5j	MAY	1966	21MAR91	0.0073	500	0.171	473	0.669	0.025	0.669

[Hg] vs Month
Participant Control #6



PROJECT ID: NOME SEGMENTAL ANALYSIS

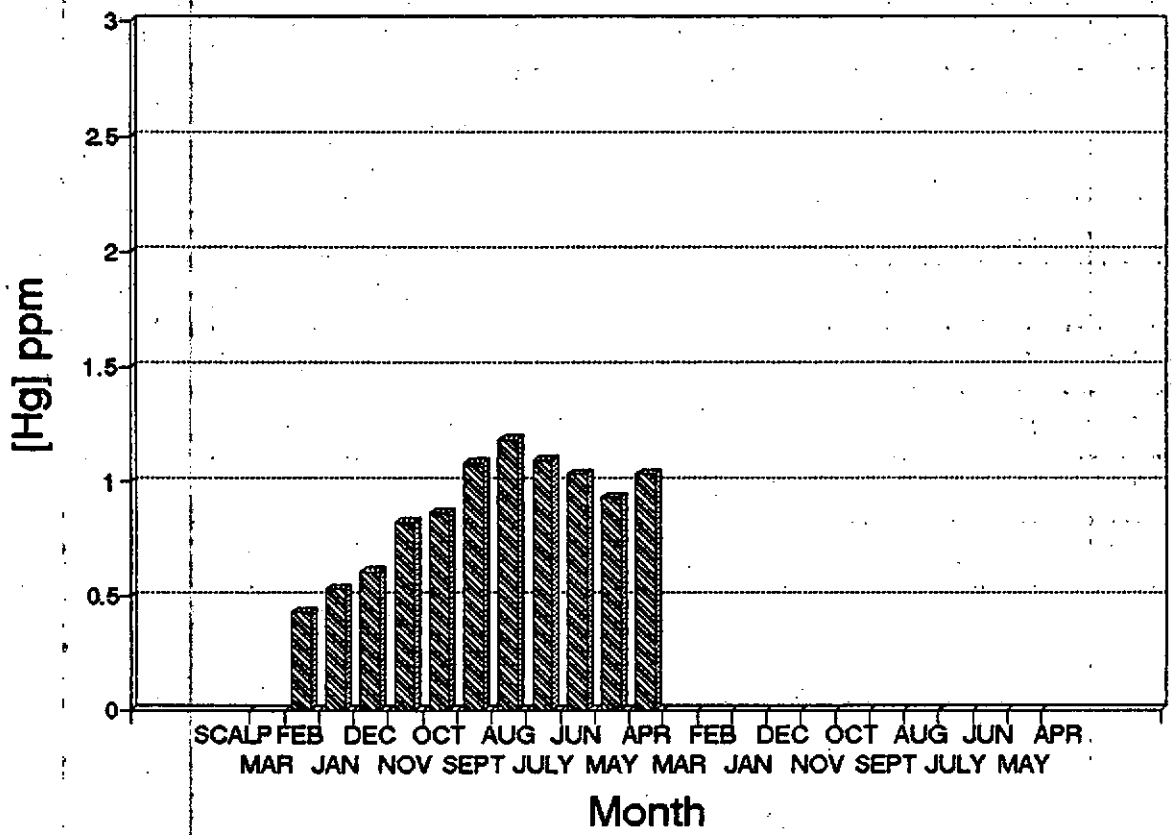
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C6

FILE #: NOMSEGC6

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C6a	FEB	2119	26MAR91	0.0127	500	0.297	377	0.249	0.015	0.249
C6b dup	JAN	2146,2120	26MAR91	0.0147	500	0.344	557	0.335	0.013	0.327
C6c	DEC	2154	26MAR91	0.0135	500	0.316	756	0.503	0.014	0.503
C6d	NOV	2155	26MAR91	0.0150	500	0.351	974	0.588	0.012	0.588
C6e	OCT	2156	26MAR91	0.0135	500	0.316	824	0.550	0.014	0.550
C6f	SEPT	2157	26MAR91	0.0131	500	0.306	699	0.477	0.014	0.477
C6g	AUG	2158	26MAR91	0.0115	500	0.269	671	0.521	0.016	0.521
C6h dup	JULY	2147,2142	26MAR91	0.0118	500	0.276	730	0.555	0.016	0.517
C6i	JUN	2144	26MAR91	0.0117	500	0.274	697	0.533	0.016	0.533
C6j	MAY	2143	26MAR91	0.0103	500	0.241	556	0.477	0.018	0.477
C6k	APR	2145	26MAR91	0.0105	500	0.246	476	0.397	0.018	0.397
C6l	MAR	2148	26MAR91	0.0048	500	0.112	282	0.491	0.039	0.491
C6m dup	FEB	2150,2149	26MAR91	0.0040	500	0.094	208	0.416	0.047	0.424
C6n	JAN	2151	26MAR91	0.0031	500	0.073	228	0.597	0.060	0.597

[Hg] vs Month
Participant Control #7



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

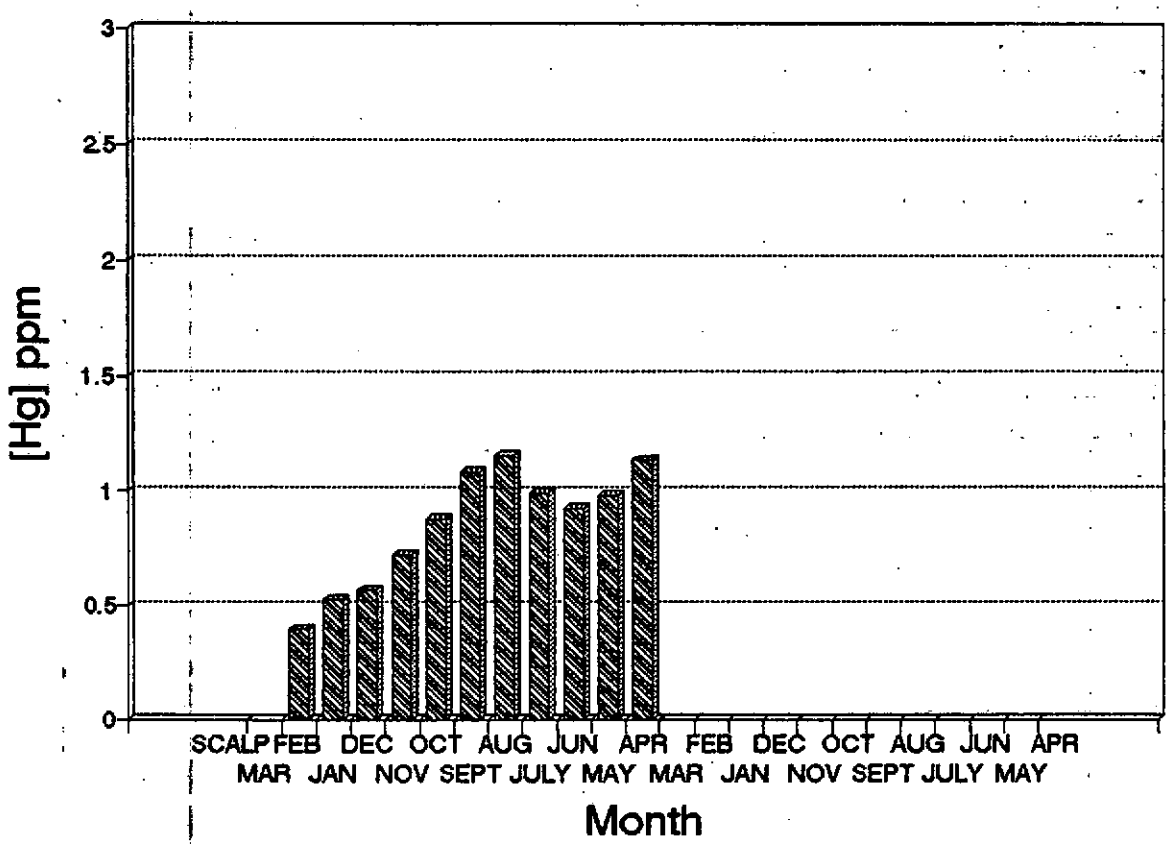
ANALYSIS: ΣHg/HAIR SAMPLE C7

FILE #: NOMSEGC7

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C7a-1	FEB	2292	1APR91	0.0094	500	0.220	502	0.430	0.020	0.430
C7b-1 dup	JAN	2305,2293	1APR91	0.0102	500	0.239	658	0.529	0.018	0.533
C7c-1	DEC	2294	1APR91	0.0080	500	0.187	596	0.607	0.023	0.607
C7d-1	NOV	2295	1APR91	0.0086	500	0.201	851	0.822	0.022	0.822
C7e-1	OCT	2296	1APR91	0.0087	500	0.203	903	0.864	0.021	0.864
C7f-1	SEPT	2297	1APR91	0.0088	500	0.206	1133	1.081	0.021	1.081
C7g-1 dup	AUG	2306,2298	1APR91	0.0069	500	0.161	968	1.171	0.027	1.178
C7h-1	JULY	2299	1APR91	0.0075	500	0.175	978	1.089	0.025	1.089
C7i-1	JUN	2302	1APR91	0.0070	500	0.164	867	1.030	0.027	1.030
C7j-1 dup	MAY	2307,2303	1APR91	0.0086	500	0.201	988	0.960	0.022	0.931
C7k-1	APR	2304	1APR91	0.0062	500	0.145	771	1.028	0.030	1.028

[Hg] vs Month

Participant Control #7 dup



PROJECT ID: NOME SEGMENTAL ANALYSIS

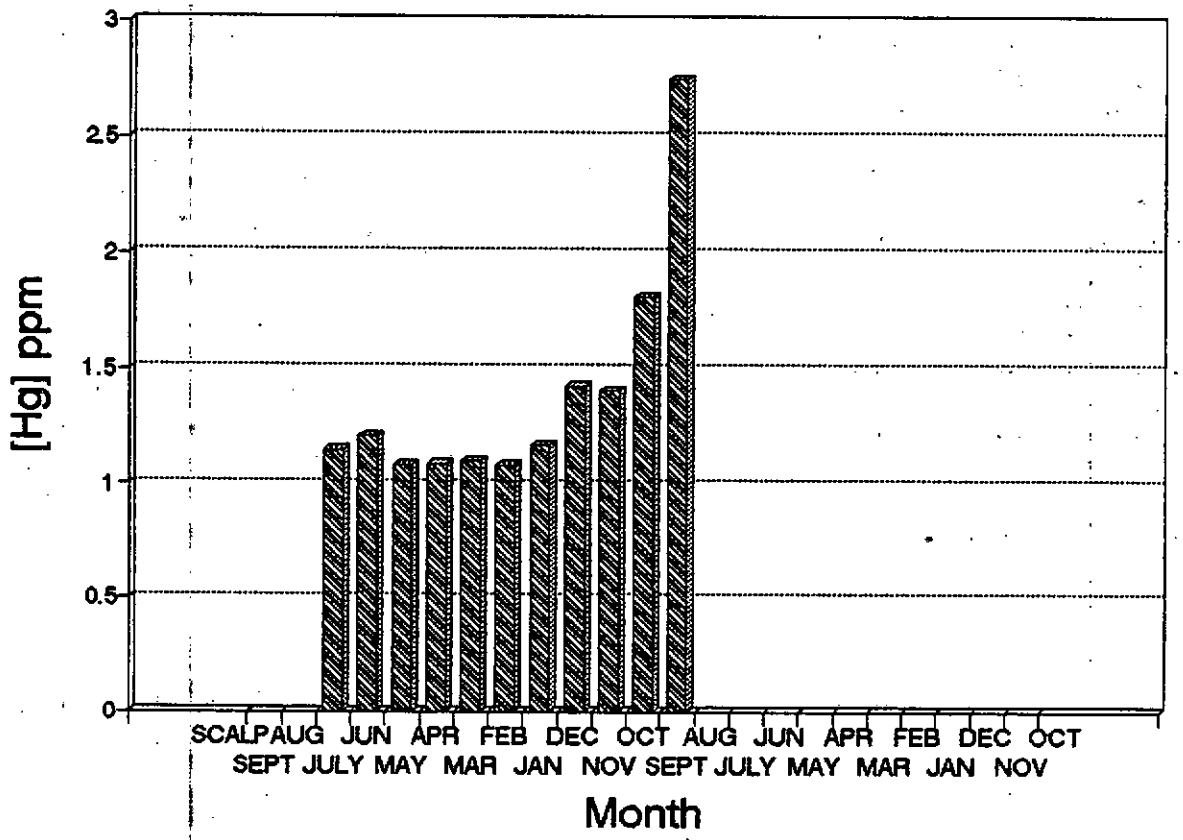
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE C7 dup

FILE #: NOMSEC7d

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	MAR									
C7a-2	FEB	2308	1APR91	0.0118	500	0.276	569	0.392	0.016	0.392
C7b-2 dup	JAN	2333,2309	1APR91	0.0122	500	0.285	752	0.523	0.015	0.524
C7c-2	DEC	2310	1APR91	0.0085	500	0.199	587	0.563	0.022	0.563
C7d-2	NOV	2311	1APR91	0.0103	500	0.241	893	0.722	0.018	0.722
C7e-2	OCT	2326	1APR91	0.0109	500	0.255	1113	0.878	0.017	0.878
C7f-2 dup	SEPT	2334,2327	1APR91	0.0093	500	0.218	1204	1.115	0.020	1.078
C7g-2	AUG	2328	1APR91	0.0098	500	0.229	1305	1.149	0.019	1.149
C7h-2	JULY	2329	1APR91	0.0086	500	0.201	993	0.989	0.022	0.989
C7i-2 dup	JUN	2335,2330	1APR91	0.0091	500	0.213	994	0.936	0.020	0.920
C7j-2	MAY	2331	1APR91	0.0112	500	0.262	1269	0.977	0.017	0.977
C7k-2	APR	2332	1APR91	0.0083	500	0.194	1094	1.132	0.022	1.132

[Hg] vs Month
Participant #1



PROJECT ID: NOME SEGMENTAL ANALYSIS

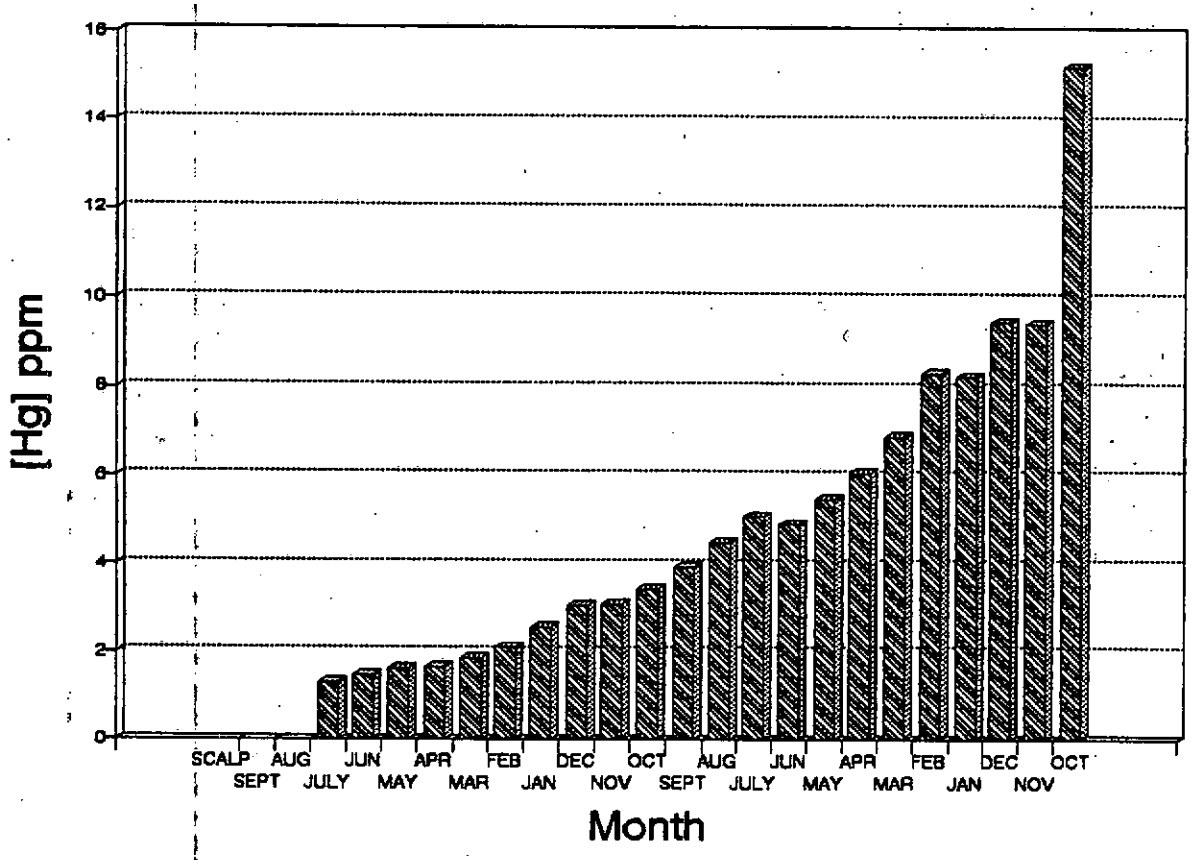
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 1

FILE #: NOMSEG01

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
1a dup	JULY	176,129	9JAN91	0.0128	250	0.150	996	1.157	0.029	1.14201
1b dup	JUN	179,131	9JAN91	0.0152	250	0.178	1261	1.241	0.024	1.20421
1c dup	MAY	180,132	9JAN91	0.0161	250	0.188	1243	1.155	0.023	1.07796
1d dup	APR	182,157	9JAN91	0.0145	250	0.170	1150	1.184	0.026	1.08536
1e dup	MAR	183,158	9JAN91	0.0157	250	0.184	1216	1.158	0.024	1.09599
1f dup	FEB	184,145	9JAN91	0.0163	250	0.191	1192	1.093	0.023	1.07531
1g dup	JAN	185,146	9JAN91	0.0162	250	0.189	1408	1.304	0.023	1.16863
1h dup	DEC	186,151	9JAN91	0.0155	250	0.181	1557	1.510	0.024	1.42553
1i dup	NOV	187,152	9JAN91	0.0143	250	0.167	1463	1.536	0.026	1.40136
1j dup	OCT	188,171	9JAN91	0.0140	250	0.164	1662	1.786	0.027	1.80409
1k dup	SEPT	189,175	9JAN91	0.0071	250	0.083	1303	2.748	0.052	2.74373

[Hg] vs Month
Participant #2



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: LASORSA/CITTERMAN

ANALYSIS: ΣHg/HAIR SAMPLE 2

FILE #: NOMSEG02

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
2a	JULY	235	14JAN91	0.0147	250	0.172	1506	1.290	0.025	1.290
2b dup	JUN	271,236	14JAN91	0.0162	250	0.189	1719	1.551	0.023	1.442
2c	MAY	237	14JAN91	0.0161	250	0.188	1978	1.612	0.023	1.612
2d	APR	238	14JAN91	0.0143	250	0.167	1813	1.644	0.026	1.644
2e	MAR	239	14JAN91	0.0154	250	0.180	2161	1.862	0.024	1.862
2f	FEB	240	14JAN91	0.0135	250	0.158	2130	2.090	0.028	2.090
2g dup	JAN	253,241	14JAN91	0.0118	250	0.138	2153	2.676	0.032	2.545
2h dup	DEC	254,242	14JAN91	0.0127	250	0.149	2739	3.172	0.029	3.046
2i	NOV	243	14JAN91	0.0113	250	0.132	2583	3.091	0.033	3.091
2j	OCT	244	14JAN91	0.0121	250	0.142	3034	3.439	0.031	3.439
2k	SEPT	259	14JAN91	0.0110	250	0.129	2934	3.926	0.034	3.926
2l	AUG	260	14JAN91	0.0111	250	0.130	3386	4.496	0.034	4.496
2m dup	JULY	272,261	14JAN91	0.0111	250	0.130	3895	5.178	0.034	5.089
2n	JUN	262	14JAN91	0.0110	250	0.129	3651	4.895	0.034	4.895
2o	MAY	263	14JAN91	0.0098	250	0.115	3634	5.469	0.038	5.469
2p	APR	264	14JAN91	0.0087	250	0.102	3580	6.068	0.043	6.068
2q	MAR	265	14JAN91	0.0090	250	0.105	4188	6.871	0.041	6.871
2r dup	FEB	275,266	14JAN91	0.0080	250	0.094	4481	8.274	0.047	8.312

PROJECT ID: NOME SEGMENTAL ANALYSIS

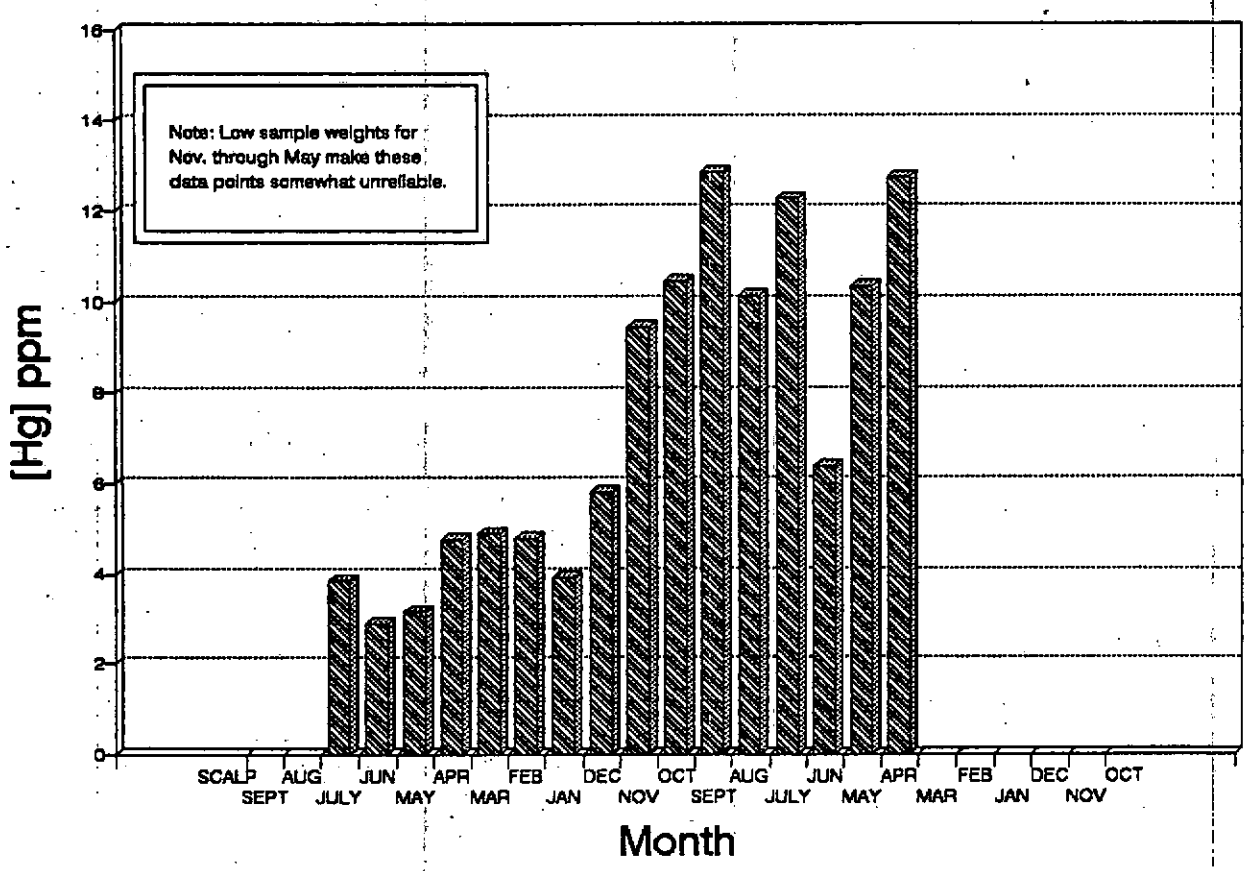
ANALYST: LASORSA/CITTERMAN

ANALYSIS: ΣHg/HAIR SAMPLE 2

FILE #: NOMSEG02

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
2s	JAN	267	14JAN91	0.0089	250	0.104	4958	8.235	0.042	8.235
2t	DEC	268	14JAN91	0.0076	250	0.089	4877	9.485	0.049	9.485
2u	NOV	269	14JAN91	0.0087	250	0.102	5557	9.448	0.043	9.448
2v dup	OCT	276,270	14JAN91	0.0057	250	0.067	5850	15.185	0.065	15.194

[Hg] vs Month
Participant #3

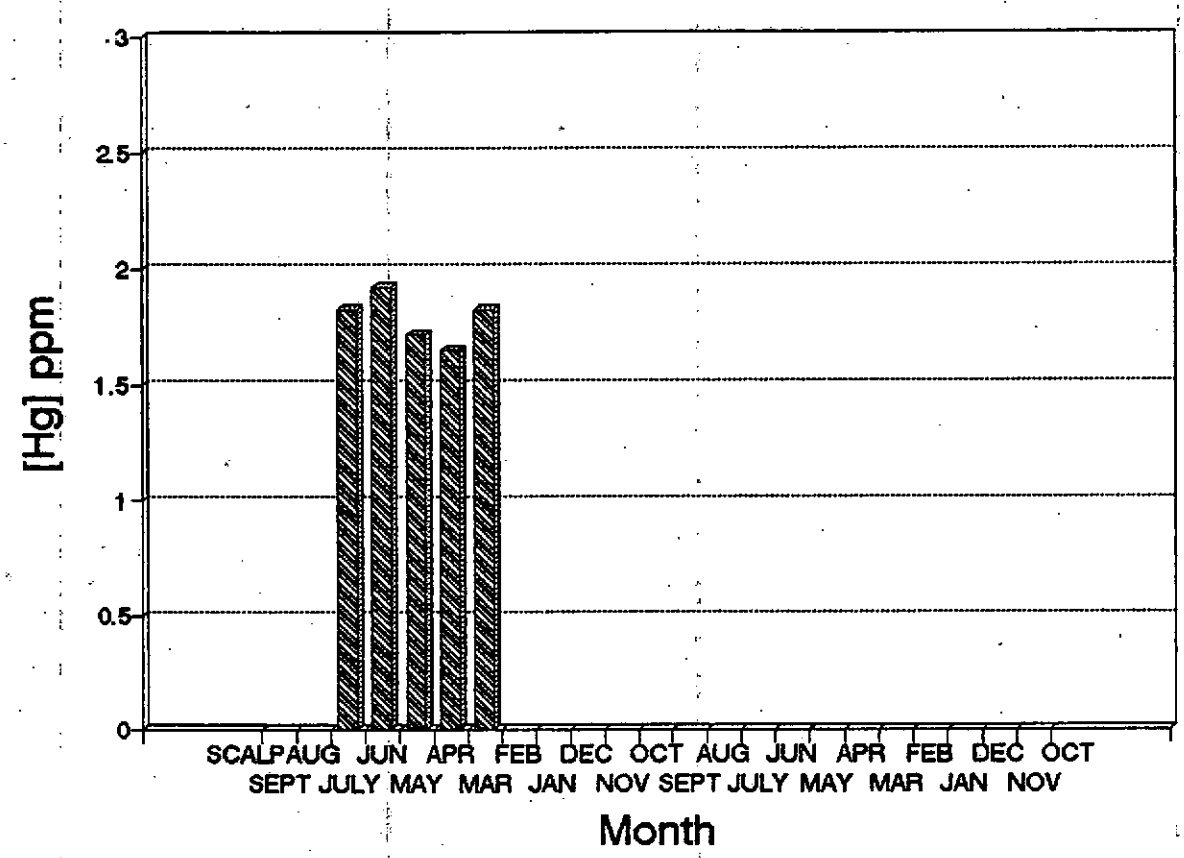


PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: LASORSA/CITTERMAN

ANALYSIS: ΣHg/HAIR SAMPLE 3 FILE #: NOMSEG03

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
3a	JULY	192	9JAN91	0.0020	250	0.023	534	3.872	0.186	3.872
3b	JUN	193	9JAN91	0.0023	250	0.027	464	2.901	0.162	2.901
3c	MAY	194	9JAN91	0.0021	250	0.025	467	3.199	0.177	3.199
3d	APR	196	9JAN91	0.0018	250	0.021	589	4.769	0.207	4.769
3e	MAR	197	9JAN91	0.0019	250	0.022	635	4.889	0.196	4.889
3f	FEB	198	9JAN91	0.0018	250	0.021	594	4.812	0.207	4.812
3g	JAN	199	9JAN91	0.0016	250	0.019	439	3.931	0.233	3.931
3h dup	DEC	220,200	9JAN91	0.0008	250	0.009	347	4.890	0.465	5.792
3i	NOV	201	9JAN91	0.0006	250	0.007	399	9.462	0.620	9.462
3j	OCT	202	9JAN91	0.0004	250	0.005	301	10.444	0.930	10.444
3k	SEPT	212	9JAN91	0.0006	250	0.007	603	12.842	0.620	12.842
3l	AUG	213	9JAN91	0.0006	250	0.007	494	10.150	0.620	10.150
3m	JULY	214	9JAN91	0.0004	250	0.005	414	12.262	0.930	12.262
3n dup	JUN	219,215	9JAN91	0.0014	250	0.016	668	6.192	0.266	6.382
3o	MAY	216	9JAN91	0.0006	250	0.007	501	10.323	0.620	10.323
3p	APR	217	9JAN91	0.0006	250	0.007	599	12.743	0.620	12.743

[Hg] vs Month
Participant #4



PROJECT ID: NOME SEGMENTAL ANALYSIS

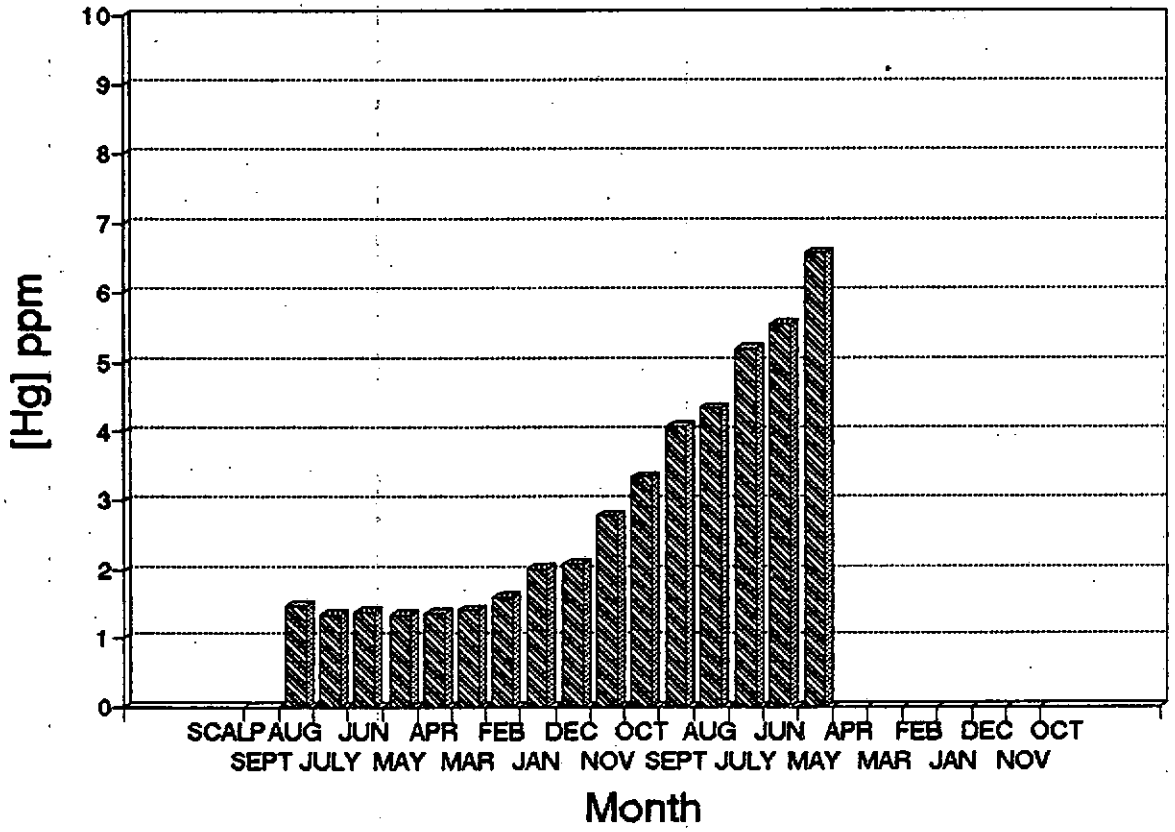
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 4

FILE #: NOMSEG04

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
4a	JULY	360	17JAN91	0.0078	250	0.091	1027	1.819	0.048	1.819
4b	JUN	361	17JAN91	0.0079	250	0.092	1095	1.917	0.047	1.917
4c dup	MAY	375,362	17JAN91	0.0083	250	0.097	998	1.660	0.045	1.715
4d	APR	363	17JAN91	0.0076	250	0.089	906	1.643	0.049	1.643
4e	MAR	364	17JAN91	0.0040	250	0.047	536	1.822	0.093	1.822

[Hg] vs Month
Participant #5



PROJECT ID: NOME SEGMENTAL ANALYSIS

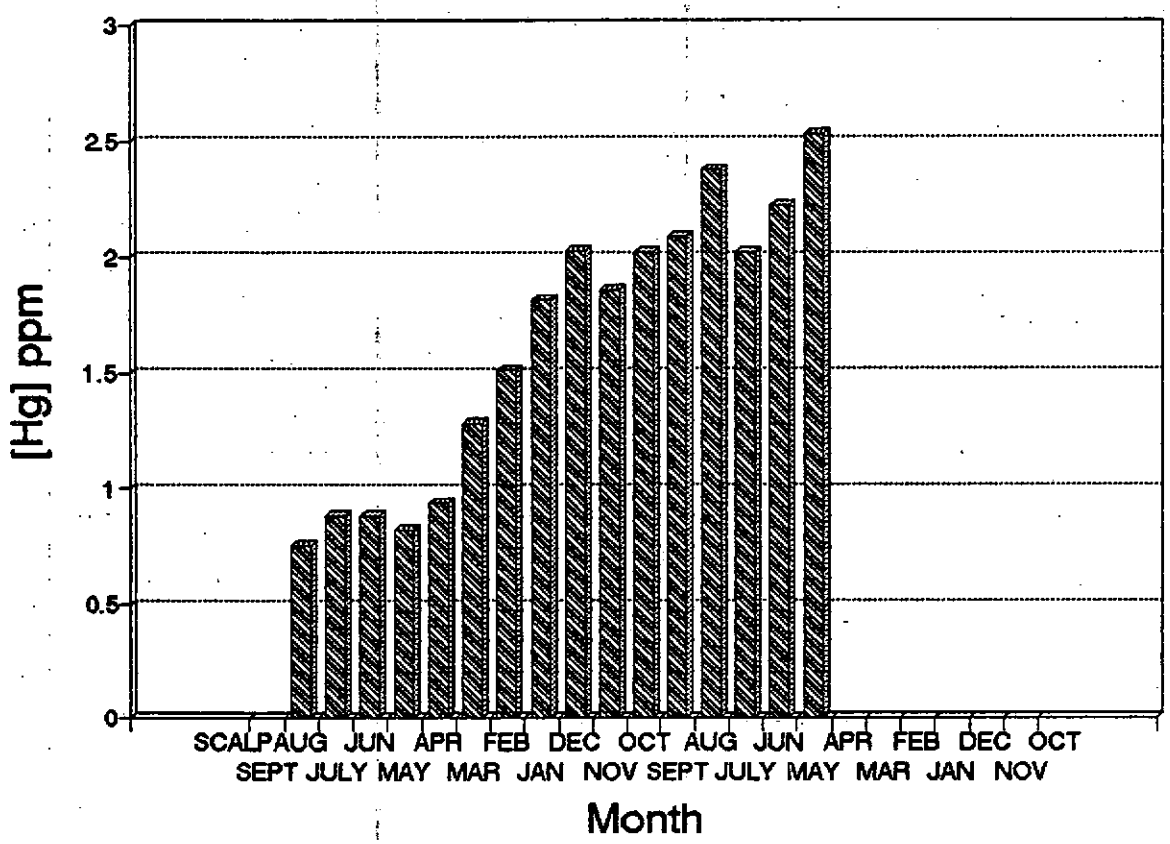
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 5

FILE #: NOMSEG05

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
5a	AUG	281	16JAN91	0.0188	250	0.220	1885	1.471	0.020	1.471
5b	JULY	282	16JAN91	0.0214	250	0.250	1964	1.347	0.017	1.347
5c	JUN	292	16JAN91	0.0182	250	0.213	1747	1.394	0.020	1.394
5d	MAY	293	16JAN91	0.0144	250	0.168	1334	1.335	0.026	1.335
5e	APR	295	16JAN91	0.0143	250	0.167	1351	1.362	0.026	1.362
5f	MAR	296	16JAN91	0.0144	250	0.168	1397	1.400	0.026	1.400
5g	FEB	297	16JAN91	0.0123	250	0.144	1373	1.610	0.030	1.610
5h	JAN	298	16JAN91	0.0130	250	0.152	1804	2.017	0.029	2.017
5i	DEC	302	16JAN91	0.0127	250	0.149	1813	2.076	0.029	2.076
5j	NOV	303	16JAN91	0.0107	250	0.125	2034	2.771	0.035	2.771
5k	OCT	304	16JAN91	0.0080	250	0.094	1839	3.343	0.047	3.343
5l	SEPT	305	16JAN91	0.0085	250	0.099	2362	4.063	0.044	4.063
5m	AUG	306	16JAN91	0.0078	250	0.091	2311	4.330	0.048	4.330
5n	JULY	307	16JAN91	0.0077	250	0.090	2723	5.183	0.048	5.183
5o	JUN	308	16JAN91	0.0065	250	0.076	2465	5.549	0.057	5.549
5p	MAY	316	16JAN91	0.0059	250	0.069	2648	6.575	0.063	6.575

[Hg] vs Month
Participant #6

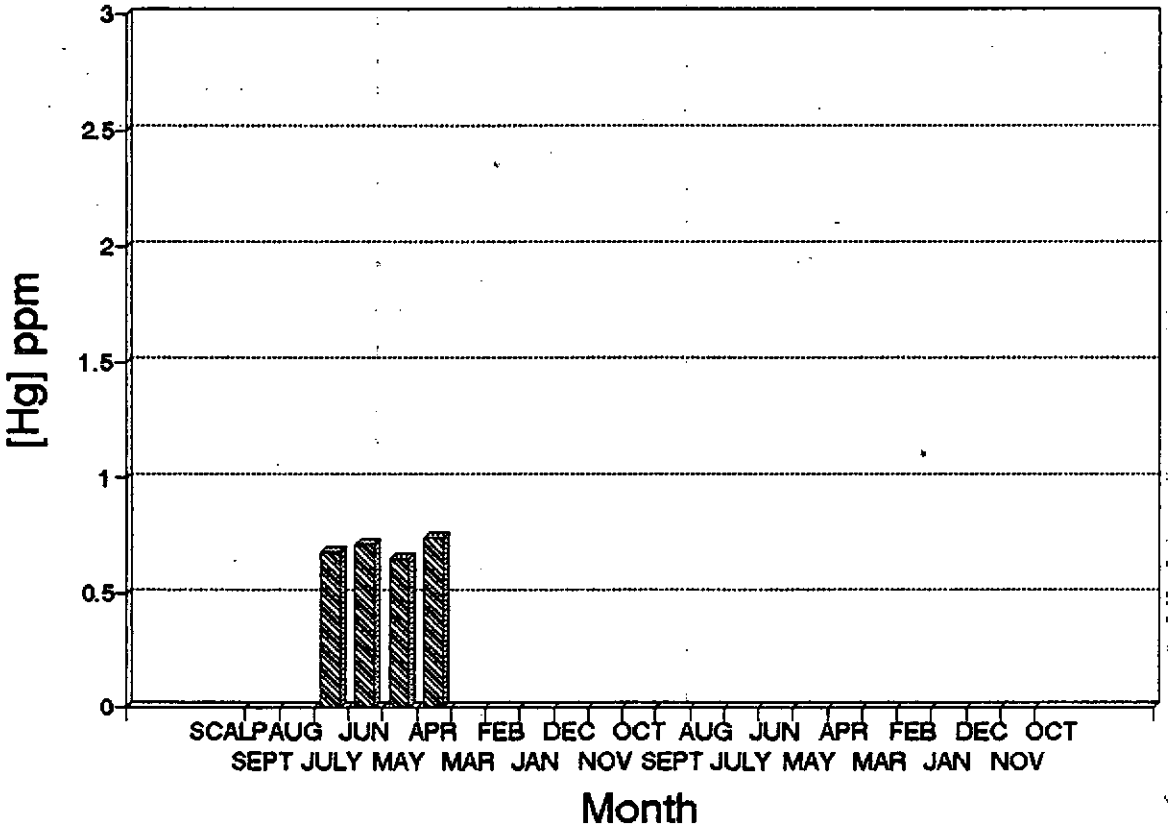


PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 6 FILE #: NOMSEG06

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MEAN [Hg]µg/g
	SCALP								
	SEPT								
6a	AUG	311	16JAN91	0.0104	250	0.122	570	0.755	0.755
6b	JULY	312	16JAN91	0.0096	250	0.112	611	0.881	0.881
6c dup	JUN	344,313	16JAN91	0.0096	250	0.112	631	0.867	0.879
6d	MAY	314	16JAN91	0.0089	250	0.104	535	0.823	0.823
6e	APR	317	16JAN91	0.0089	250	0.104	603	0.937	0.937
6f	MAR	318	16JAN91	0.0079	250	0.092	723	1.282	1.282
6g	FEB	330	16JAN91	0.0073	250	0.085	823	1.510	1.510
6h	JAN	331	16JAN91	0.0082	250	0.096	1098	1.816	1.816
6i	DEC	332	16JAN91	0.0079	250	0.092	1174	2.020	2.020
6j	NOV	333	16JAN91	0.0077	250	0.090	1053	1.852	1.852
6k	OCT	334	16JAN91	0.0071	250	0.083	1057	2.016	2.016
6l	SEPT	335	16JAN91	0.0064	250	0.075	988	2.085	2.085
6m dup	AUG	345,338	16JAN91	0.0064	250	0.075	1140	2.419	2.377
6n	JULY	339	16JAN91	0.0057	250	0.067	856	2.016	2.016
6o dup	JUN	342,340	16JAN91	0.0053	250	0.062	882	2.237	2.218
6p dup	MAY	343,341	16JAN91	0.0052	250	0.061	1006	2.615	2.527

[Hg] vs Month
Participant #7



PROJECT ID: NOME SEGMENTAL ANALYSIS

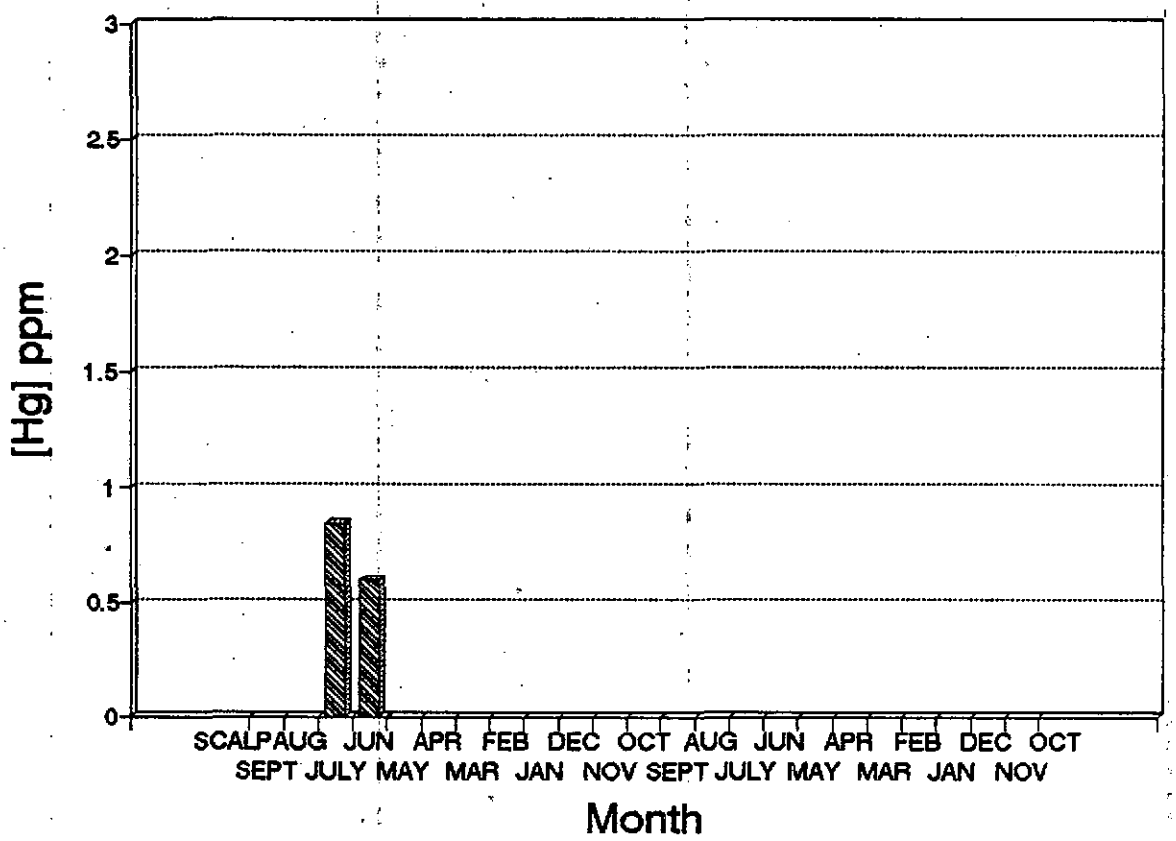
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 7

FILE #: NOMSEG07

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
	SCALP								
	SCALP								
	SEPT								
	AUG								
7a	JULY	225	14JAN91	0.0274	250	0.320	1487	0.682	0.014
7b	JUN	226	14JAN91	0.0254	250	0.297	1448	0.713	0.015
7c	MAY	228	14JAN91	0.0216	250	0.253	1178	0.653	0.017
7d	APR	231	14JAN91	0.0165	250	0.193	1052	0.742	0.023

[Hg] vs Month
Participant #8



PROJECT ID: NOME SEGMENTAL ANALYSIS

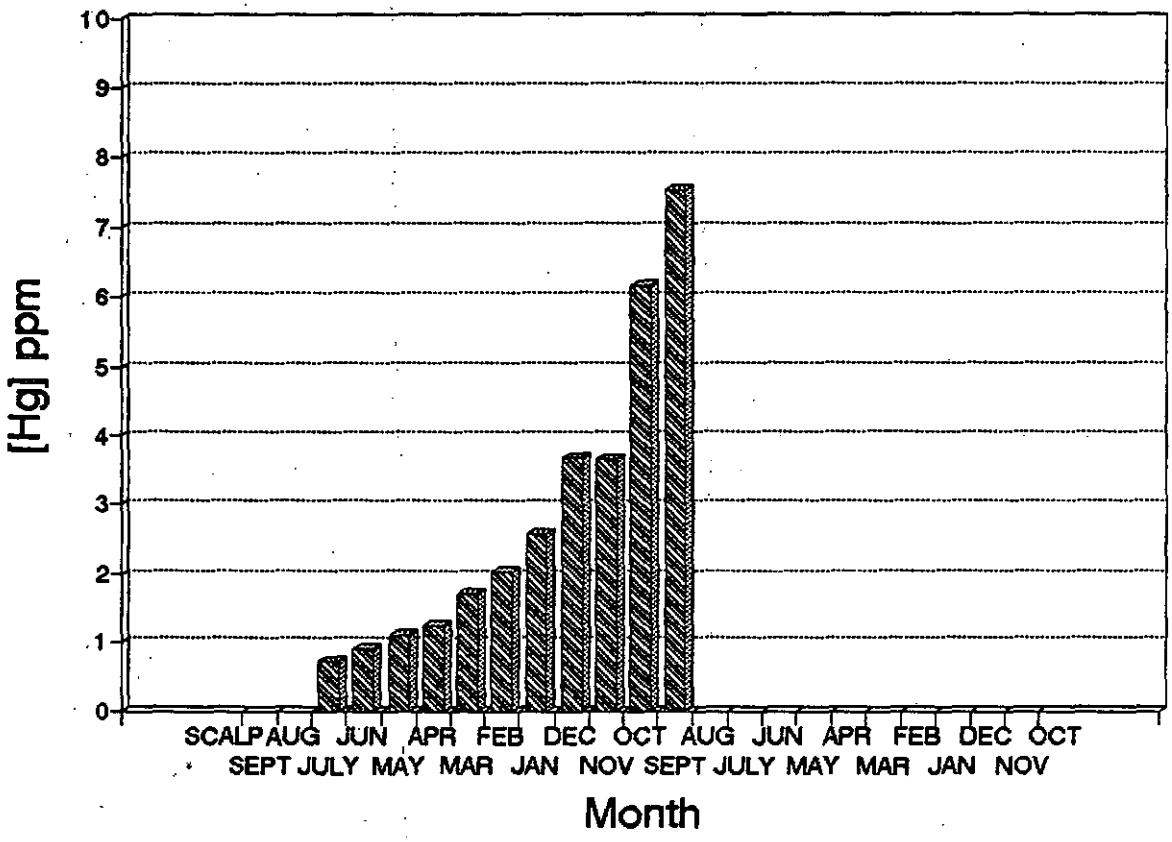
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 8

FILE #: NOMSEG08

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
	SCALP								
8a	JULY	232	14JAN91	0.0354	250	0.414	2238	0.842	0.011
8b	JUN	233	14JAN91	0.0251	250	0.294	1240	0.599	0.015

[Hg] vs Month
Participant #9



PROJECT ID: NOME SEGMENTAL ANALYSIS

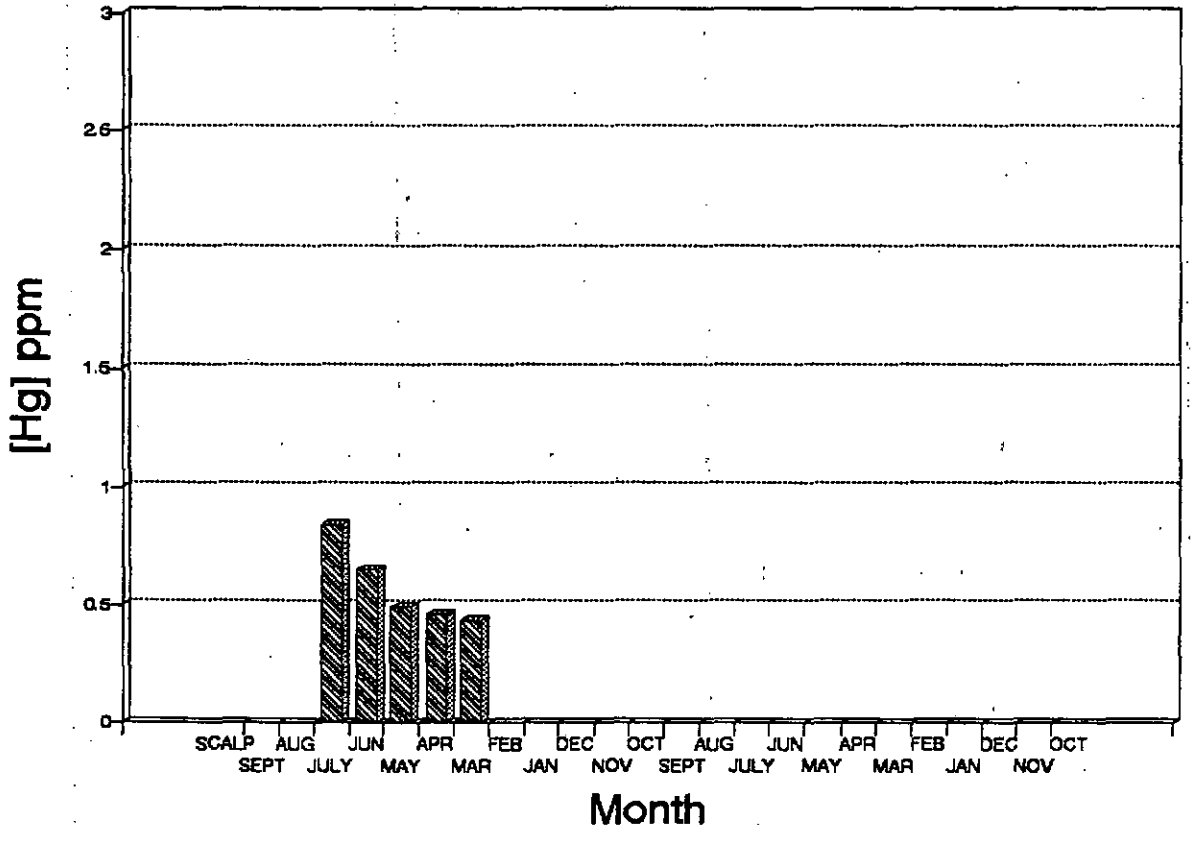
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 9

FILE #: NOMSEG09

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g
	SCALP								
	SEPT								
	AUG								
9a	JULY	365	17JAN91	0.0145	250	0.170	770	0.729	0.026
9b dup	JUN	390,366	17JAN91	0.0137	250	0.160	956	0.942	0.027
9c	MAY	367	17JAN91	0.0121	250	0.142	979	1.117	0.031
9d	APR	368	17JAN91	0.0110	250	0.129	1000	1.255	0.034
9e	MAR	371	17JAN91	0.0092	250	0.108	1138	1.712	0.040
9f dup	FEB	376,372	17JAN91	0.0074	250	0.087	1093	2.043	0.050
9g	JAN	373	17JAN91	0.0061	250	0.071	1135	2.575	0.061
9h	DEC	374	17JAN91	0.0044	250	0.051	1168	3.675	0.085
9i	NOV	387	17JAN91	0.0044	250	0.051	1188	3.667	0.085
9j	OCT	388	17JAN91	0.0049	250	0.057	2199	6.167	0.076
9k	SEPT	389	17JAN91	0.0035	250	0.041	1923	7.535	0.106

[Hg] vs Month
Participant #10



PROJECT ID: NOME SEGMENTAL ANALYSIS

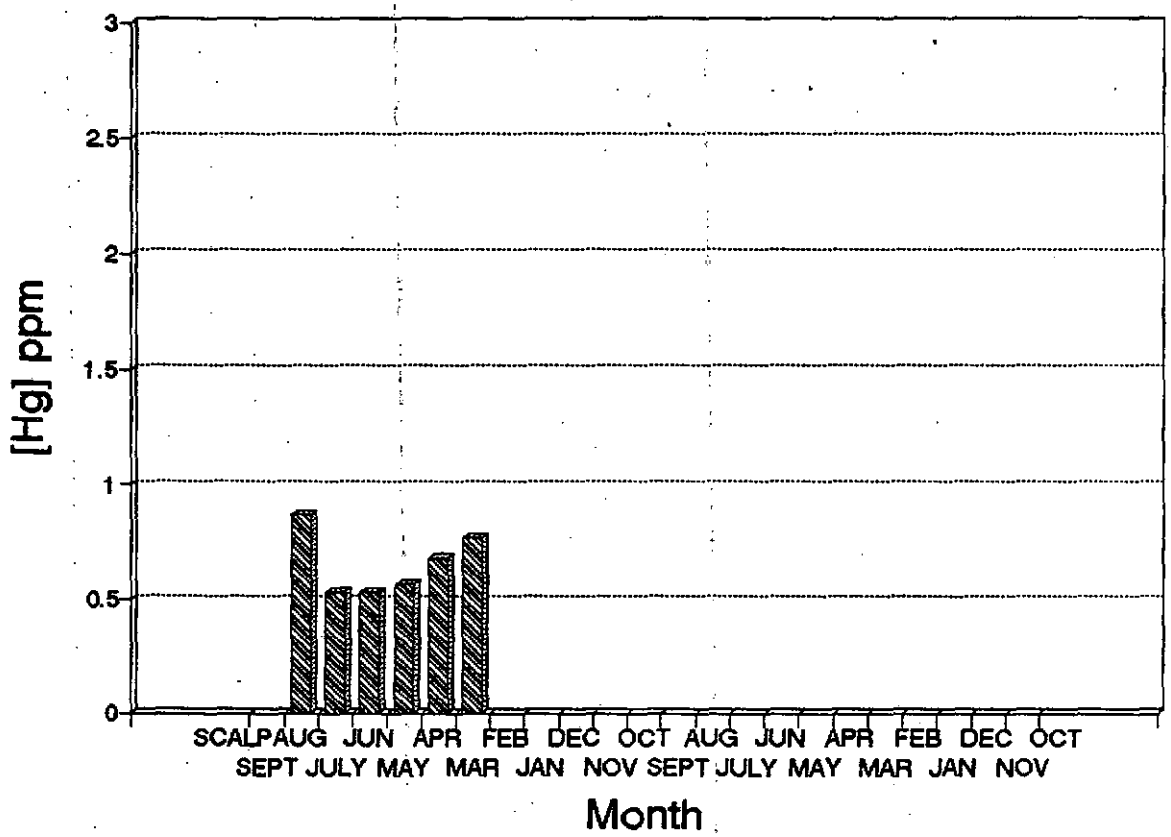
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 10

FILE #: NOMSEG10

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
10a	JULY	391	17JAN91	0.0111	250	0.130	701	0.842	0.034	0.842
10b dup	JUN	396,392	17JAN91	0.0110	250	0.129	534	0.638	0.034	0.647
10c	MAY	393	17JAN91	0.0109	250	0.127	413	0.490	0.034	0.490
10d	APR	394	17JAN91	0.0109	250	0.127	389	0.459	0.034	0.459
10e	MAR	395	17JAN91	0.0096	250	0.112	326	0.430	0.039	0.430

[Hg] vs Month
Participant #11



PROJECT ID: NOME SEGMENTAL ANALYSIS

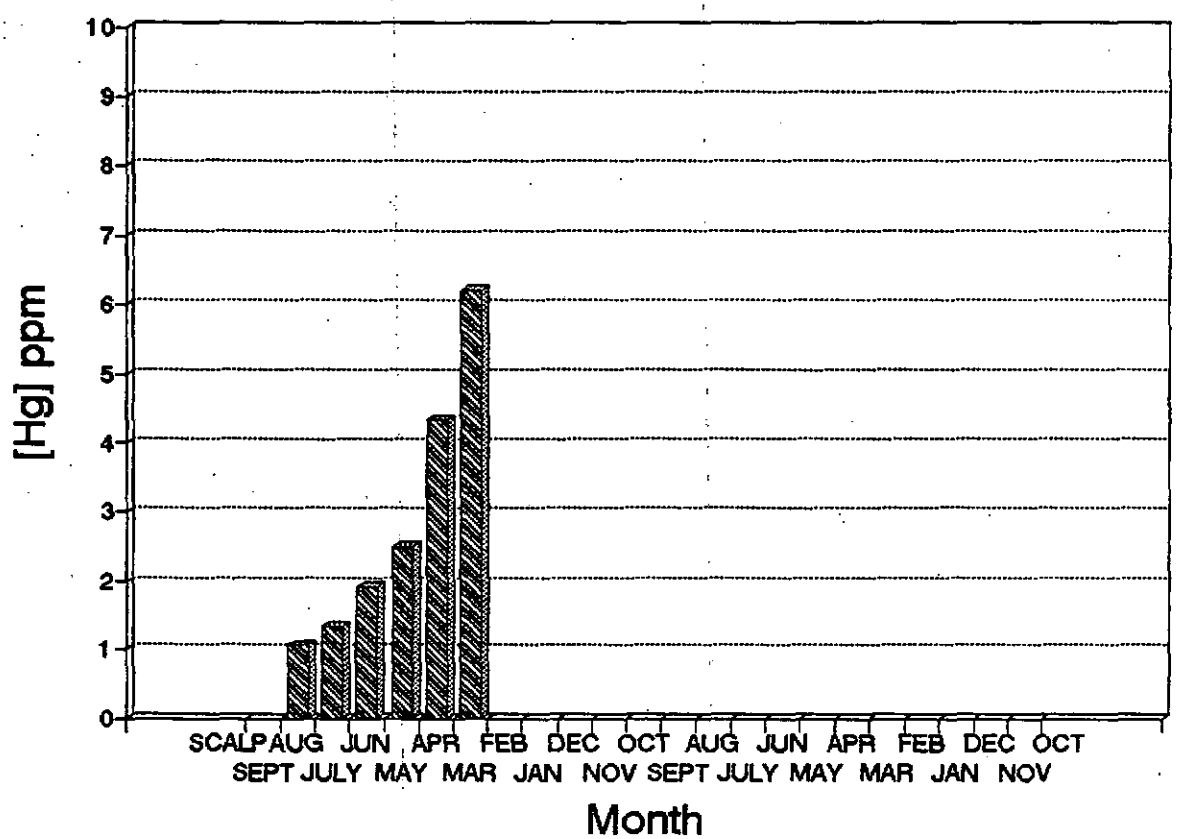
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 11

FILE #: NOMSEG11

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
11a	AUG	397	17JAN91	0.0083	250	0.097	546	0.866	0.045	0.866
11b dup	JULY	403,398	17JAN91	0.0072	250	0.084	304	0.530	0.052	0.532
11c	JUN	399	17JAN91	0.0074	250	0.087	313	0.533	0.050	0.533
11d	MAY	400	17JAN91	0.0072	250	0.084	322	0.565	0.052	0.565
11e	APR	401	17JAN91	0.0059	250	0.069	318	0.680	0.063	0.680
11f	MAR	402	17JAN91	0.0070	250	0.082	416	0.768	0.053	0.768

[Hg] vs Month
Participant #12



PROJECT ID: NOME SEGMENTAL ANALYSIS

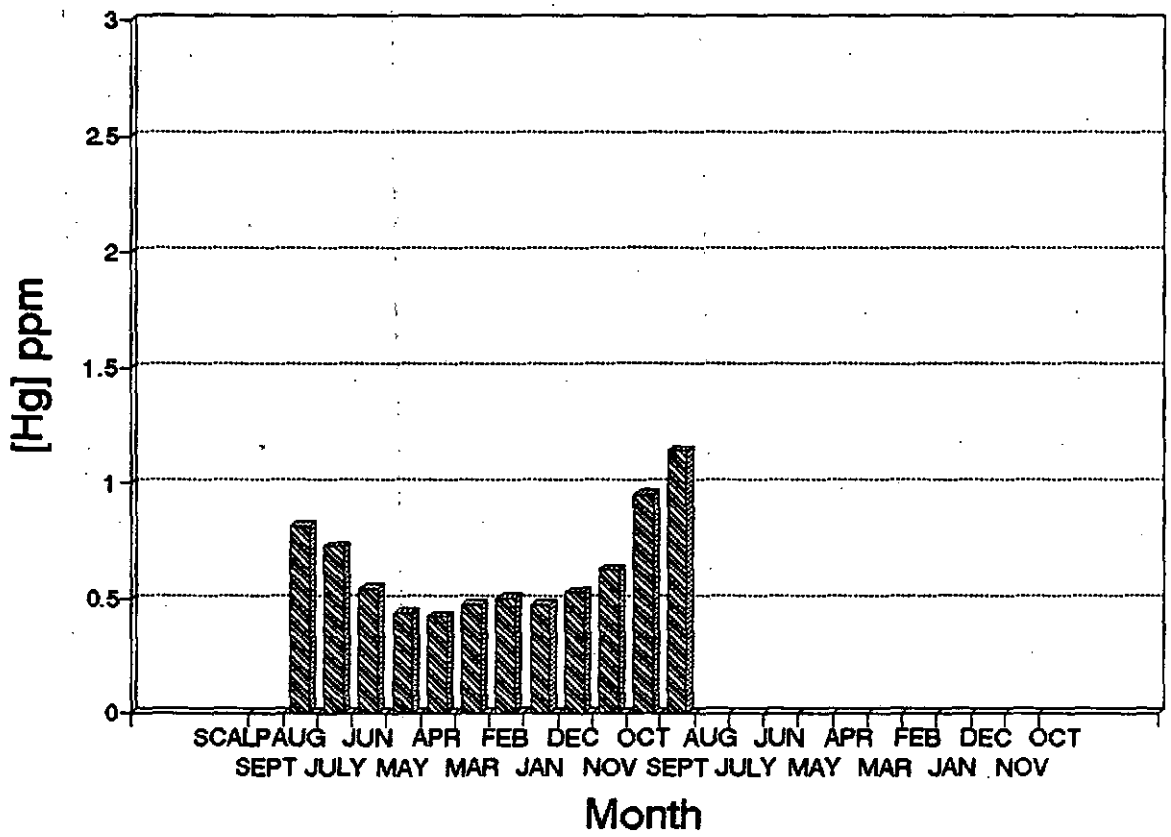
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 12

FILE #: NOMSEG12

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
12a	AUG	417	22JAN91	0.0188	250	0.220	1444	1.081	0.020	1.081
12b dup	JULY	423,418	22JAN91	0.0165	250	0.193	1646	1.407	0.023	1.335
12c	JUN	419	22JAN91	0.0176	250	0.206	2393	1.928	0.021	1.928
12d	MAY	420	22JAN91	0.0165	250	0.193	2907	2.504	0.023	2.504
12e	APR	421	22JAN91	0.0180	250	0.210	5472	4.340	0.021	4.340
12f	MAR	422	22JAN91	0.0129	250	0.151	5599	6.198	0.029	6.198

[Hg] vs Month
Participant #13



PROJECT ID: NOME SEGMENTAL ANALYSIS

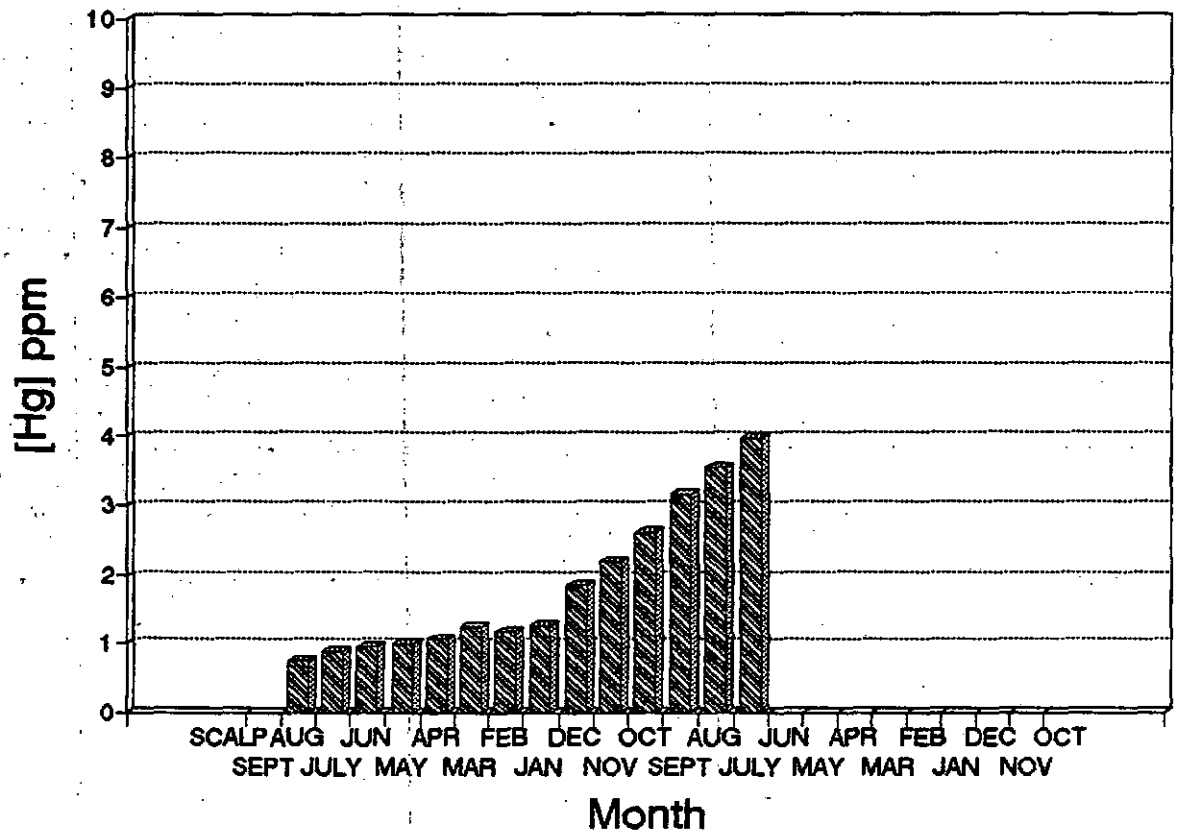
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 13

FILE #: NOMSEG13

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
13a	AUG	425	22JAN91	0.0090	250	0.105	540	0.816	0.041	0.816
13b	JULY	426	22JAN91	0.0113	250	0.132	601	0.727	0.033	0.727
13c	JUN	427	22JAN91	0.0096	250	0.112	392	0.543	0.039	0.543
13d	MAY	428	22JAN91	0.0098	250	0.115	327	0.437	0.038	0.437
13e	APR	429	22JAN91	0.0099	250	0.116	320	0.423	0.038	0.423
13f dup	MAR	437,430	22JAN91	0.0075	250	0.088	265	0.453	0.050	0.474
13g	FEB	431	22JAN91	0.0076	250	0.089	295	0.503	0.049	0.503
13h	JAN	432	22JAN91	0.0076	250	0.089	280	0.475	0.049	0.475
13i	DEC	433	22JAN91	0.0073	250	0.085	298	0.530	0.051	0.530
13j	NOV	434	22JAN91	0.0060	250	0.070	290	0.626	0.062	0.626
13k dup	OCT	438,435	22JAN91	0.0050	250	0.058	366	0.969	0.074	0.947
13l	SEPT	436	22JAN91	0.0038	250	0.044	330	1.139	0.098	1.139

[Hg] vs Month
Participant #14



PROJECT ID: NOME SEGMENTAL ANALYSIS

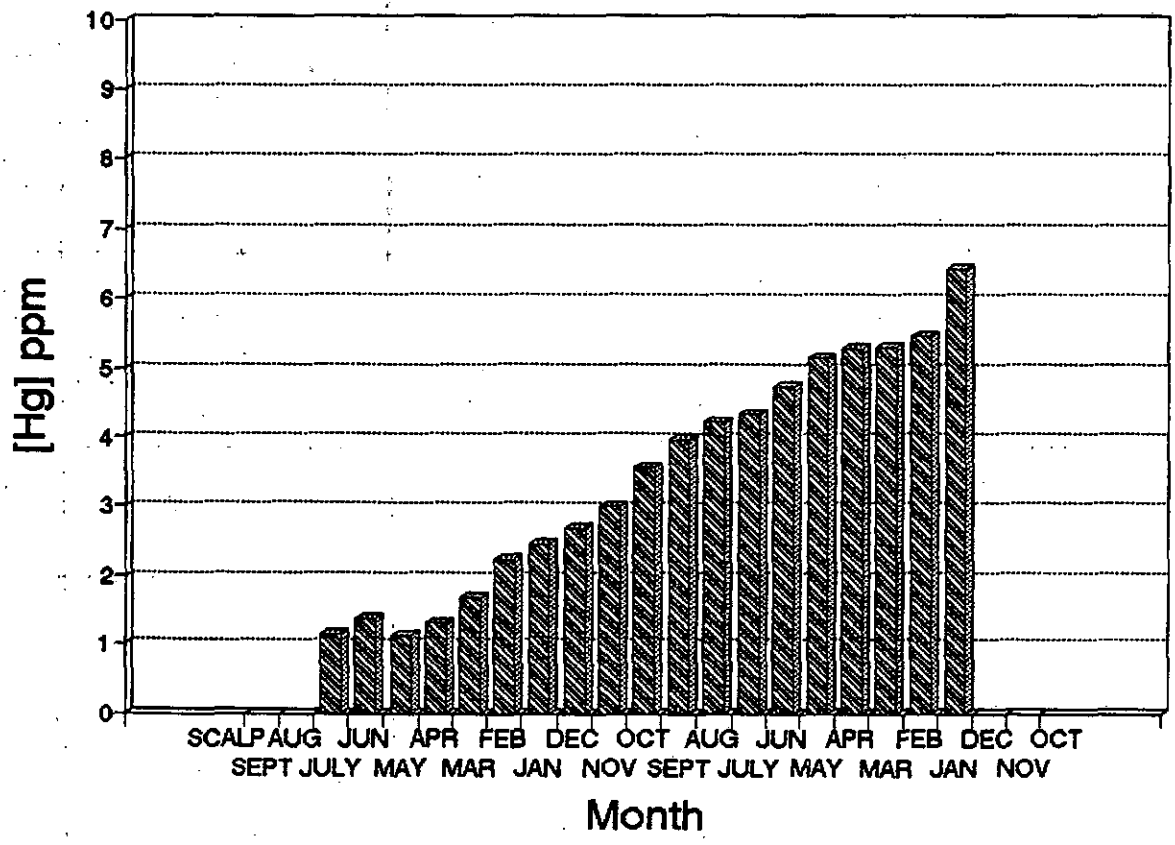
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 14

FILE #: NOMSEG14

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
14a dup	AUG	487,485	22JAN91	0.0105	250	0.123	594	0.773	0.035	0.762
14b	JULY	486	22JAN91	0.0090	250	0.105	581	0.880	0.041	0.880
14c	JUN	488	22JAN91	0.0077	250	0.090	547	0.964	0.048	0.964
14d	MAY	489	22JAN91	0.0076	250	0.089	560	1.002	0.049	1.002
14e	APR	490	22JAN91	0.0086	250	0.101	672	1.077	0.043	1.077
14f dup	MAR	494,491	22JAN91	0.0069	250	0.081	734	1.474	0.054	1.243
14g	FEB	493	22JAN91	0.0081	250	0.095	694	1.183	0.046	1.183
14h	JAN	787	22JAN91	0.0066	250	0.077	818	1.264	0.056	1.264
14i dup	DEC	501,495	22JAN91	0.0068	250	0.080	915	1.888	0.055	1.867
14j	NOV	496	22JAN91	0.0062	250	0.073	967	2.194	0.060	2.194
14k	OCT	497	22JAN91	0.0050	250	0.058	932	2.618	0.074	2.618
14l	SEPT	498	22JAN91	0.0046	250	0.054	1032	3.165	0.081	3.165
14m	AUG	499	22JAN91	0.0043	250	0.050	1078	3.544	0.087	3.544
14n	JULY	500	22JAN91	0.0048	250	0.056	1339	3.975	0.078	3.975

[Hg] vs Month
Participant #15



PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 15 FILE #: NOMSEG15

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
15a	JULY	577	25JAN91	0.0078	250	0.091	638	1.151	0.048	1.151
15b	JUN	578	25JAN91	0.0077	250	0.090	753	1.382	0.048	1.382
15c	MAY	579	25JAN91	0.0066	250	0.077	533	1.129	0.056	1.129
15d	APR	580	25JAN91	0.0069	250	0.081	644	1.313	0.054	1.313
15e	MAR	581	25JAN91	0.0056	250	0.065	677	1.704	0.066	1.704
15f	FEB	582	25JAN91	0.0061	250	0.071	966	2.251	0.061	2.251
15g	JAN	583	25JAN91	0.0059	250	0.069	1020	2.460	0.063	2.460
15h dup	DEC	608,586	25JAN91	0.0089	250	0.104	1703	2.637	0.042	2.692
15i	NOV	597	25JAN91	0.0059	250	0.069	1290	2.997	0.063	2.997
15j	OCT	598	25JAN91	0.0073	250	0.085	1893	3.579	0.051	3.579
15k	SEPT	599	25JAN91	0.0069	250	0.081	1983	3.969	0.054	3.969
15l	AUG	600	25JAN91	0.0066	250	0.077	2017	4.222	0.056	4.222
15m	JULY	601	25JAN91	0.0065	250	0.076	2040	4.336	0.057	4.336
15n	JUN	602	25JAN91	0.0057	250	0.067	1953	4.731	0.065	4.731
15o	MAY	603	25JAN91	0.0050	250	0.058	1866	5.150	0.074	5.150
15p dup	APR	609,604	25JAN91	0.0043	250	0.050	1655	5.301	0.087	5.288
15q	MAR	605	25JAN91	0.0041	250	0.048	1580	5.303	0.091	5.303
15r	FEB	606	25JAN91	0.0039	250	0.046	1548	5.460	0.095	5.460

PROJECT ID: NOME SEGMENTAL ANALYSIS

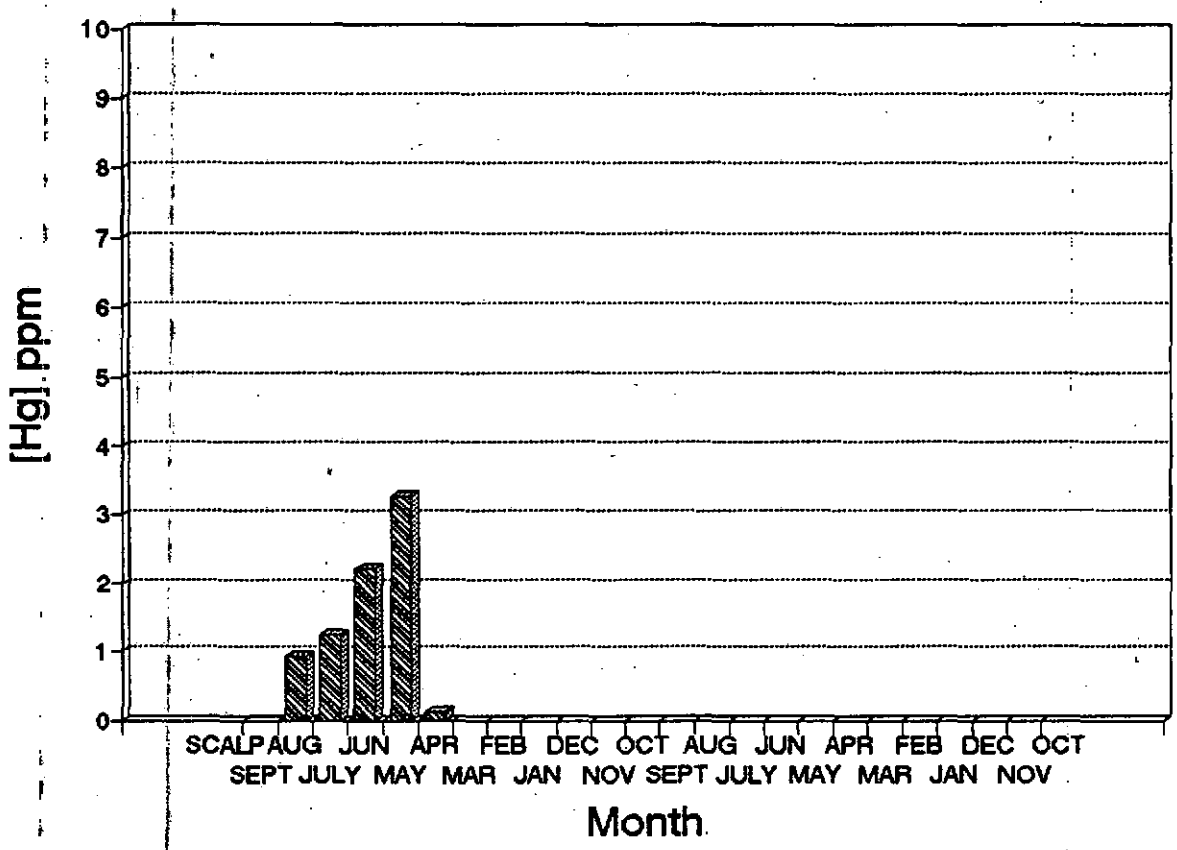
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 15

FILE #: NOMSEG15

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
15s	JAN	607	25JAN91	0.0034	250	0.040	1587	6.424	0.109	6.424

[Hg] vs Month
Participant #16



PROJECT ID: NOME SEGMENTAL ANALYSIS

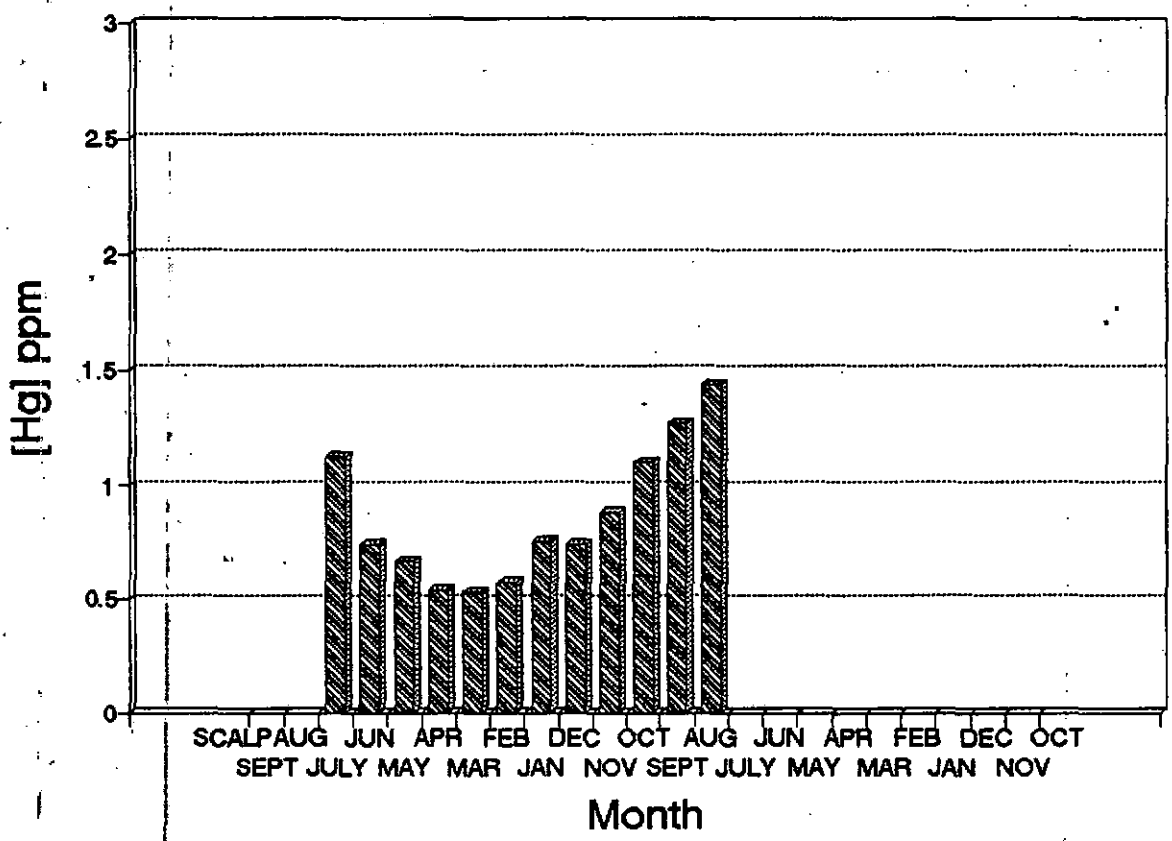
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 16

FILE #: NOMSEG16

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
16a	AUG	612	25JAN91	0.0063	250	0.074	453	0.945	0.059	0.945
16b	JULY	613	25JAN91	0.0069	250	0.081	646	1.255	0.054	1.255
16c	JUN	614	25JAN91	0.0075	250	0.088	1213	2.213	0.050	2.213
16d	MAY	615	25JAN91	0.0048	250	0.056	1153	3.283	0.078	3.283
16e	APR	616	25JAN91	0.1223	250	1.430	1169	0.131	0.003	0.131
	MAR	SAMPLE #16e HAS A WEIGHING ERROR								

[Hg] vs Month
Participant #17



PROJECT ID: NOME SEGMENTAL ANALYSIS

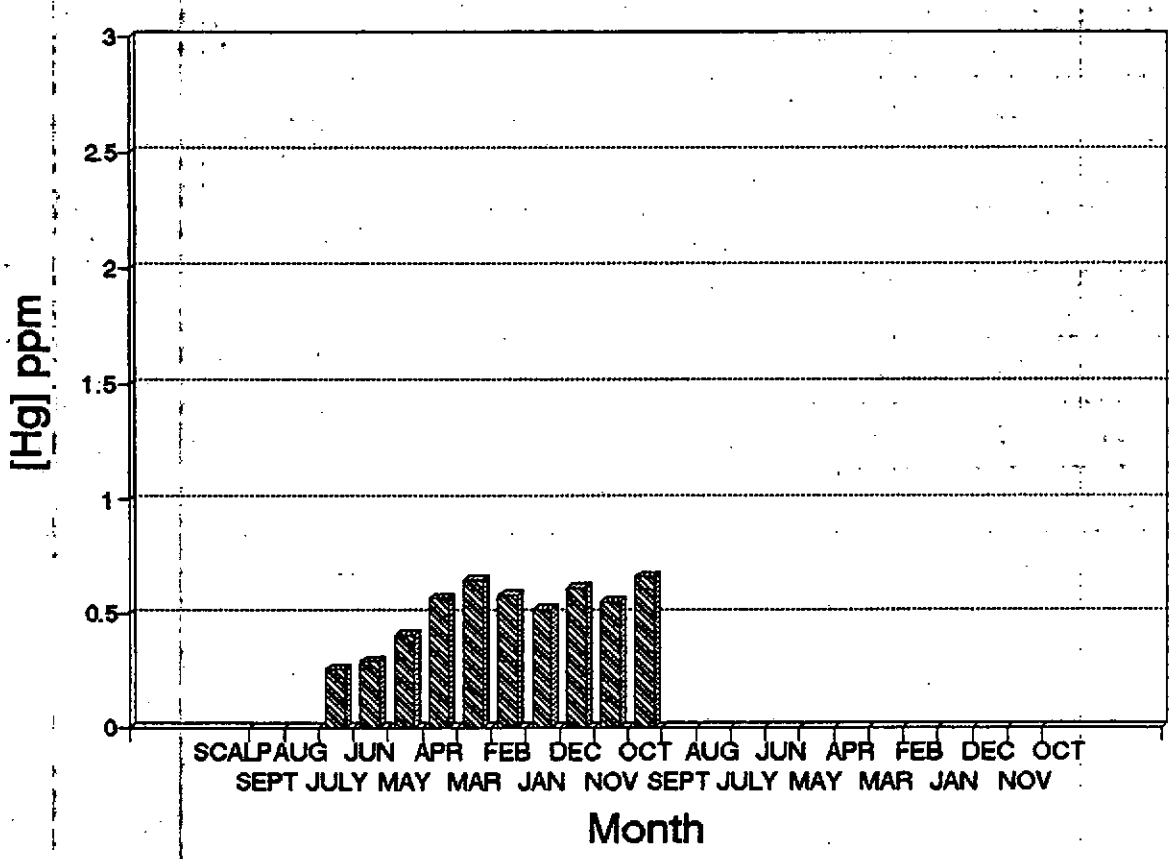
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 17

FILE #: NOMSEG17

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
17a	JULY	520	23JAN91	0.0082	250	0.096	675	1.126	0.045	1.126
17b dup	JUN	539,521	23JAN91	0.0060	250	0.070	325	0.698	0.062	0.737
17c	MAY	522	23JAN91	0.0062	250	0.073	320	0.664	0.060	0.664
17d	APR	524	23JAN91	0.0063	250	0.074	268	0.535	0.059	0.535
17e	MAR	525	23JAN91	0.0067	250	0.078	281	0.531	0.056	0.531
17f	FEB	526	23JAN91	0.0075	250	0.088	332	0.572	0.050	0.572
17g	JAN	528	23JAN91	0.0061	250	0.071	353	0.753	0.061	0.753
17h	DEC	529	23JAN91	0.0059	250	0.069	338	0.742	0.063	0.742
17i	NOV	530	23JAN91	0.0033	250	0.039	236	0.881	0.113	0.881
17j	OCT	532	23JAN91	0.0031	250	0.036	270	1.096	0.120	1.096
17k	SEPT	533	23JAN91	0.0044	250	0.051	421	1.266	0.085	1.266
171 dup	AUG	545,534	23JAN91	0.0033	250	0.039	353	1.392	0.113	1.433

[Hg] vs Month
Participant #18



PROJECT ID: NOME SEGMENTAL ANALYSIS

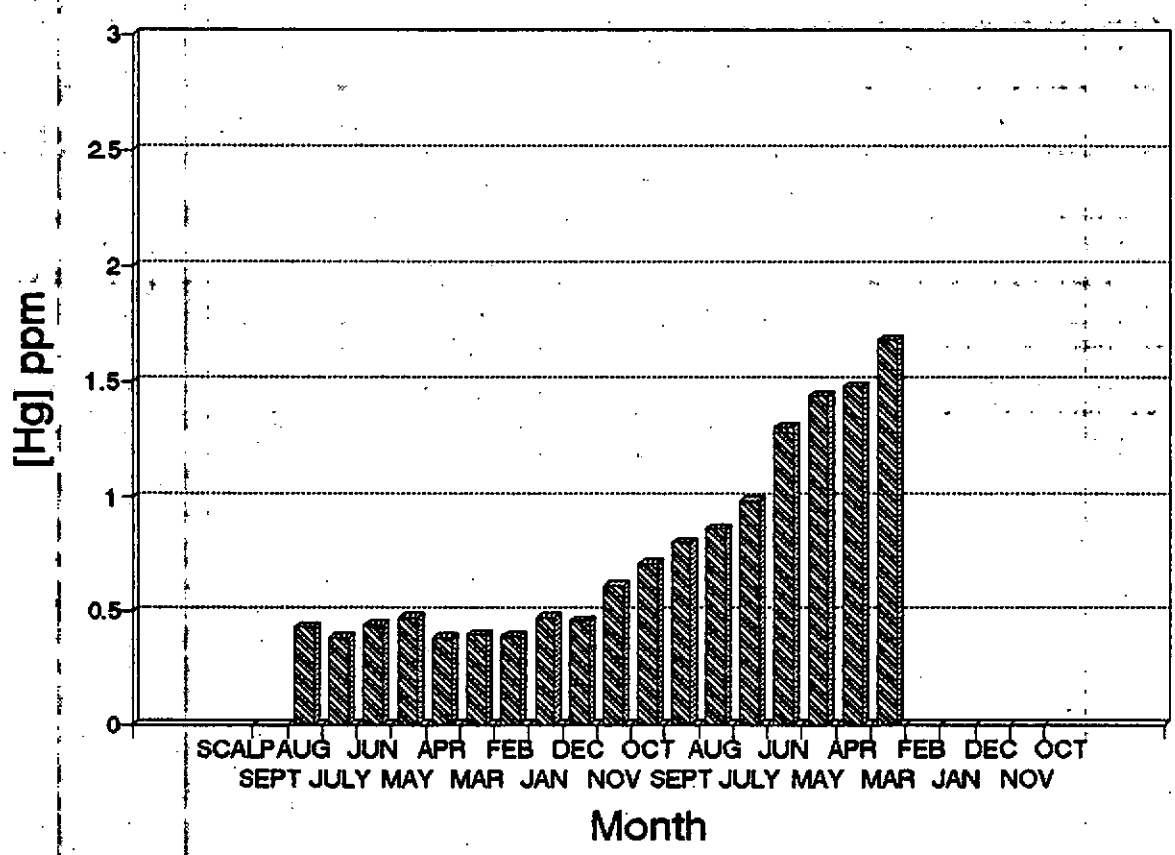
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 18

FILE #: NOMSEG18

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
18a	JULY	617	25JAN91	0.0086	250	0.101	183	0.252	0.043	0.252
18b dup	JUN	652,645	25JAN91	0.0083	250	0.097	206	0.298	0.045	0.288
18c	MAY	646	25JAN91	0.0087	250	0.102	280	0.400	0.043	0.400
18d	APR	647	25JAN91	0.0083	250	0.097	369	0.565	0.045	0.565
18e	MAR	648	25JAN91	0.0083	250	0.097	417	0.644	0.045	0.644
18f	FEB	649	25JAN91	0.0074	250	0.087	340	0.581	0.050	0.581
18g	JAN	650	25JAN91	0.0072	250	0.084	299	0.519	0.052	0.519
18h dup	DEC	666,663	25JAN91	0.0036	250	0.042	202	0.676	0.103	0.609
18i	NOV	664	25JAN91	0.0050	250	0.058	226	0.552	0.074	0.552
18j	OCT	665	25JAN91	0.0036	250	0.042	198	0.661	0.103	0.66138

[Hg] vs Month
Participant #19



PROJECT ID: NOME SEGMENTAL ANALYSIS

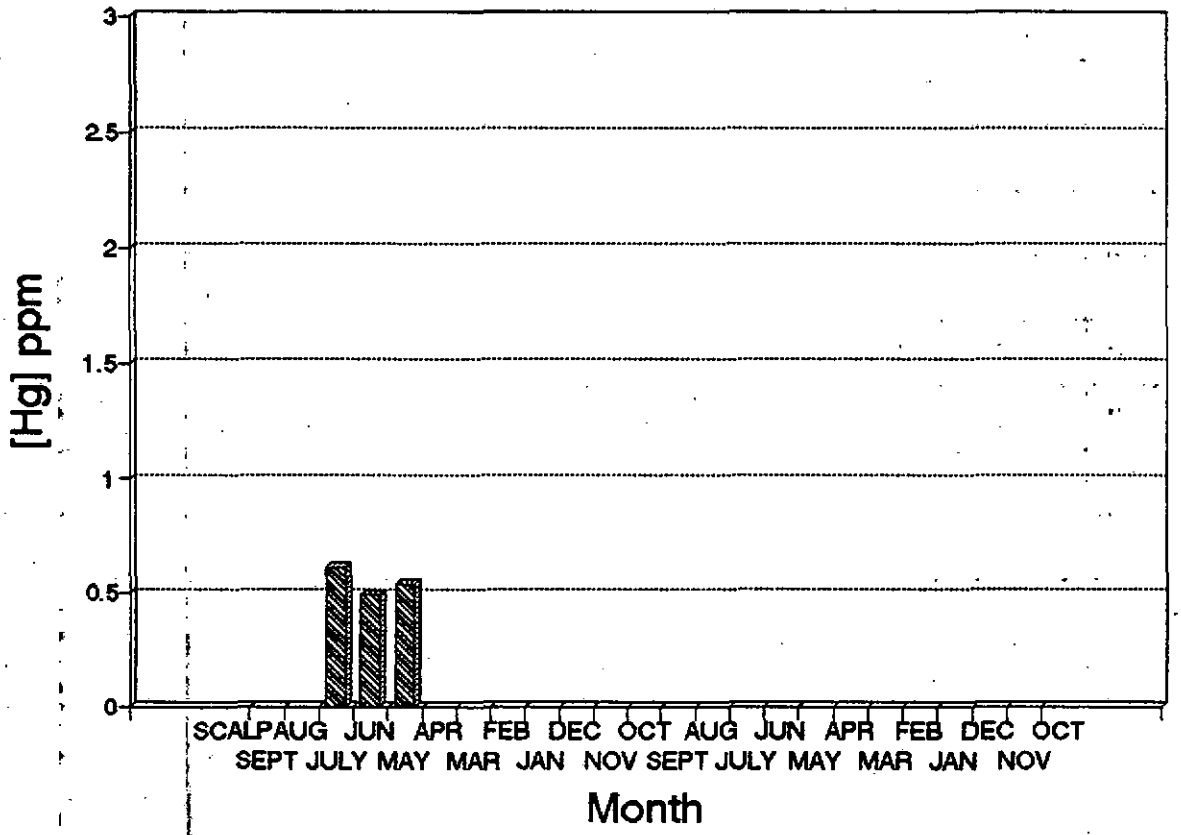
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 19

FILE #: NOMSEG19

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
19a	AUG	671	28JAN91	0.0053	250	0.062	193	0.429	0.070	0.429
19b	JULY	672	28JAN91	0.0052	250	0.061	172	0.382	0.072	0.382
19c dup	JUN	674,673	28JAN91	0.0045	250	0.053	167	0.427	0.083	0.434
19d	MAY	675	28JAN91	0.0053	250	0.062	210	0.472	0.070	0.472
19e	APR	676	28JAN91	0.0052	250	0.061	172	0.382	0.072	0.382
19f	MAR	677	28JAN91	0.0050	250	0.058	171	0.395	0.074	0.395
19g	FEB	678	28JAN91	0.0052	250	0.061	174	0.388	0.072	0.388
19h	JAN	679	28JAN91	0.0056	250	0.065	219	0.469	0.066	0.469
19i	DEC	680	28JAN91	0.0049	250	0.057	191	0.458	0.076	0.458
19j	NOV	681	28JAN91	0.0044	250	0.051	224	0.612	0.085	0.612
19k	OCT	682	28JAN91	0.0045	250	0.053	259	0.703	0.083	0.703
19l dup	SEPT	697,683	28JAN91	0.0040	250	0.047	271	0.779	0.093	0.799
19m	AUG	698	28JAN91	0.0040	250	0.047	296	0.864	0.093	0.864
19n	JULY	700	28JAN91	0.0035	250	0.041	295	0.983	0.106	0.983
19o	JUN	701	28JAN91	0.0029	250	0.034	319	1.298	0.128	1.298
19p	MAY	702	28JAN91	0.0026	250	0.030	317	1.438	0.143	1.438
19q	APR	703	28JAN91	0.0027	250	0.032	335	1.475	0.138	1.475
19r dup	MAR	705,704	28JAN91	0.0029	250	0.034	410	1.722	0.128	1.680

[Hg] vs Month
Participant #20



PROJECT ID: NOME SEGMENTAL ANALYSIS

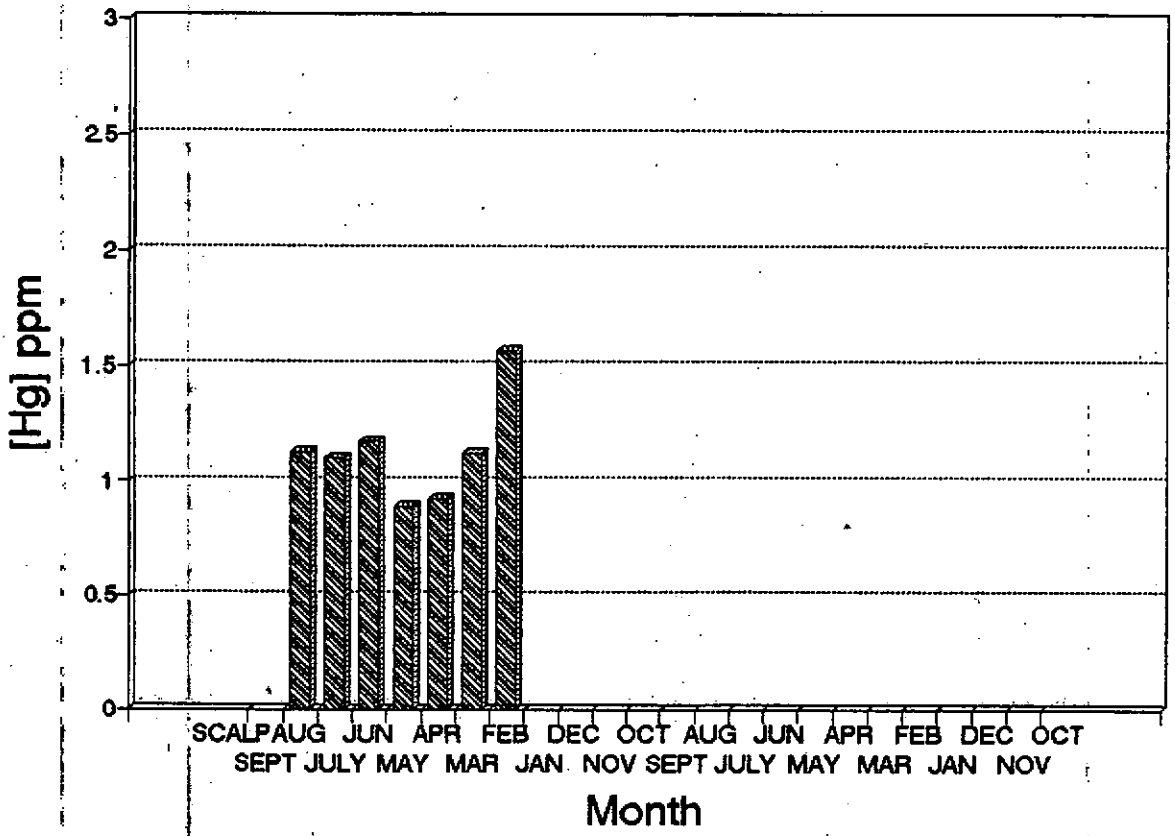
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 20

FILE #: NOMSEG20

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
20a	JULY	706	28JAN91	0.0116	250	0.136	565	0.611	0.032	0.611
20b dup	JUN	709,707	28JAN91	0.0104	250	0.122	416	0.488	0.036	0.487
20c	MAY	708	28JAN91	0.0144	250	0.168	613	0.537	0.026	0.537

[Hg] vs Month
Participant #21



PROJECT ID: NOME SEGMENTAL ANALYSIS

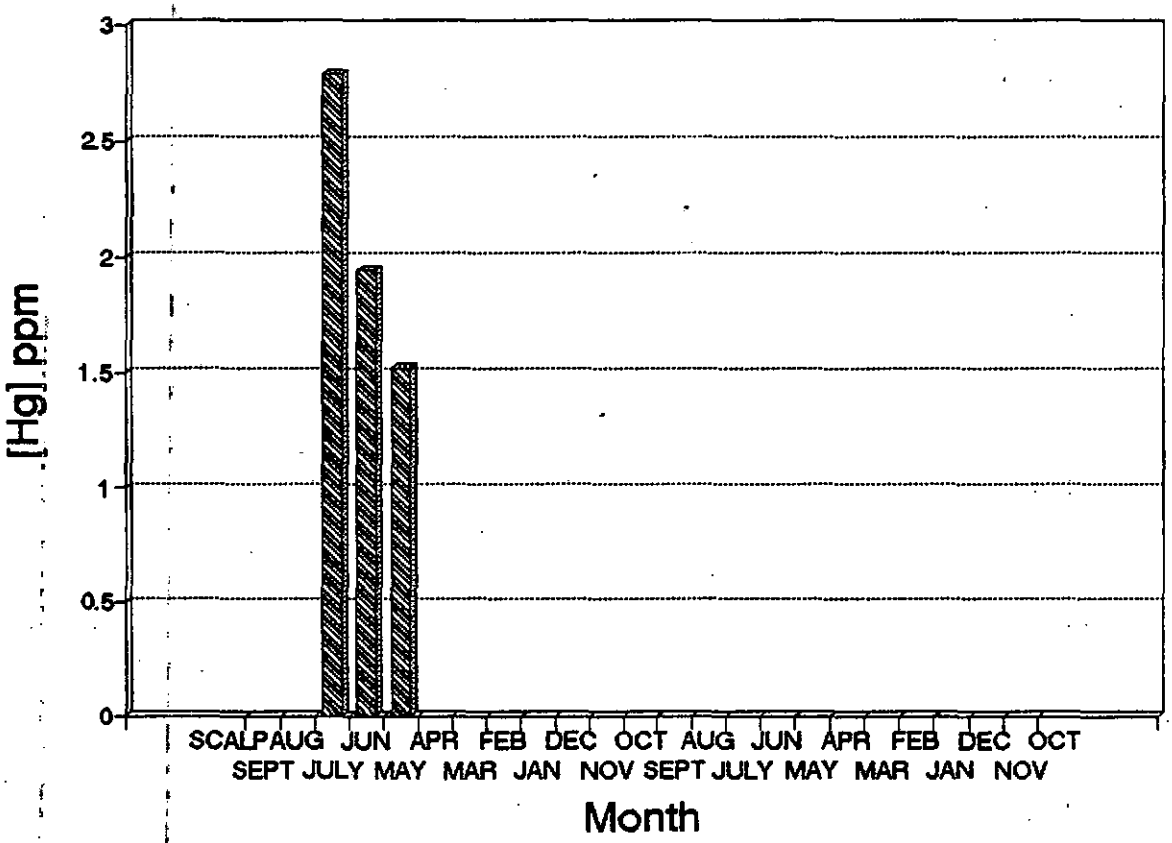
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 21

FILE #: NOMSEG21

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
21a	AUG	711	28JAN91	0.0066	250	0.077	591	1.127	0.056	1.127
21b	JULY	712	28JAN91	0.0053	250	0.062	472	1.100	0.070	1.100
21c	JUN	713	28JAN91	0.0053	250	0.062	501	1.174	0.070	1.174
21d	MAY	714	28JAN91	0.0040	250	0.047	304	0.891	0.093	0.891
21e	APR	715	28JAN91	0.0049	250	0.057	375	0.923	0.076	0.923
21f	MAR	716	28JAN91	0.0042	250	0.049	389	1.121	0.089	1.121
21g dup	FEB	729,728	28JAN91	0.0036	250	0.042	435	1.515	0.103	1.566

[Hg] vs Month
Participant #22



PROJECT ID: NOME SEGMENTAL ANALYSIS

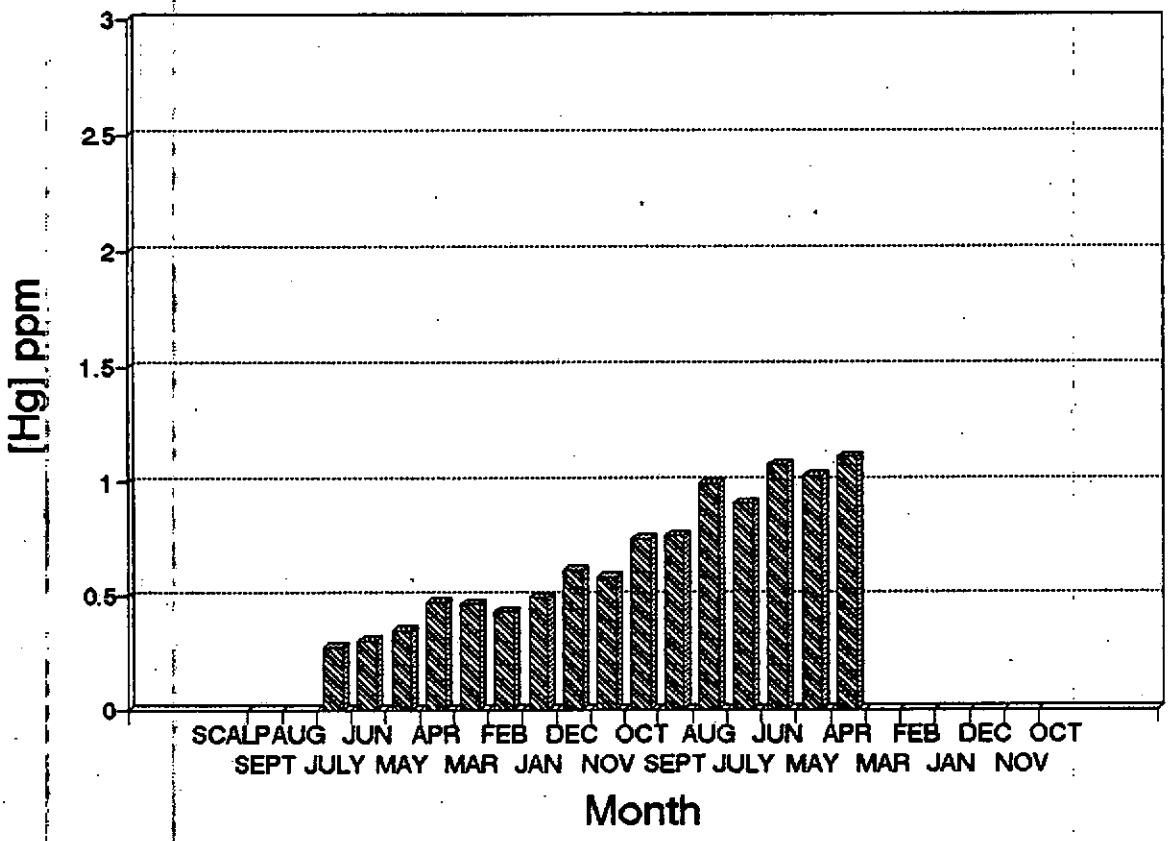
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 22

FILE #: NOMSEG22

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
22a dup	JULY	734,730	28JAN91	0.0057	250	0.067	1149	2.659	0.065	2.788
22b	JUN	731	28JAN91	0.0052	250	0.061	777	1.943	0.072	1.943
22c	MAY	732	28JAN91	0.0046	250	0.054	548	1.520	0.081	1.520

[Hg] vs Month
Participant #23



PROJECT ID: NOME SEGMENTAL ANALYSIS

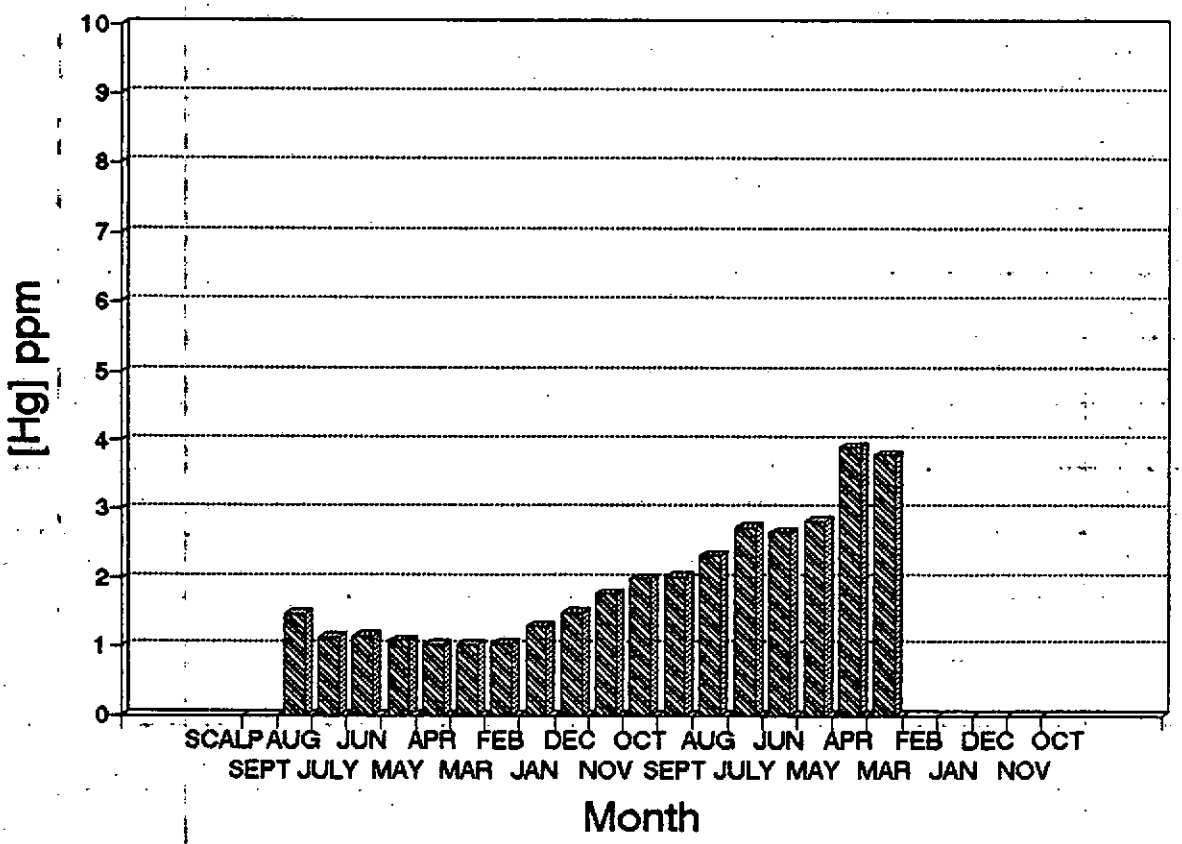
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 23

FILE #: NOMSEG23

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
23a	JULY	739	31JAN91	0.0035	250	0.041	114	0.272	0.106	0.272
23b	JUN	740	31JAN91	0.0050	250	0.058	154	0.299	0.074	0.299
23c	MAY	742	31JAN91	0.0036	250	0.042	137	0.351	0.103	0.351
23d	APR	789	31JAN91	0.0039	250	0.046	197	0.467	0.095	0.467
23e	MAR	790	31JAN91	0.0038	250	0.044	191	0.462	0.098	0.462
23f	FEB	791	31JAN91	0.0044	250	0.051	203	0.429	0.085	0.429
23g dup	JAN	806,792	31JAN91	0.0044	250	0.051	232	0.501	0.085	0.490
23h	DEC	793	31JAN91	0.0037	250	0.043	237	0.610	0.101	0.610
23i	NOV	794	31JAN91	0.0037	250	0.043	226	0.578	0.101	0.578
23j	OCT	795	31JAN91	0.0036	250	0.042	276	0.745	0.103	0.745
23k	SEPT	799	31JAN91	0.0039	250	0.046	301	0.758	0.095	0.758
23l	AUG	800	31JAN91	0.0024	250	0.028	248	0.991	0.155	0.991
23m	JULY	801	31JAN91	0.0034	250	0.040	311	0.902	0.109	0.902
23n	JUN	802	31JAN91	0.0030	250	0.035	325	1.073	0.124	1.073
23o	MAY	804	31JAN91	0.0035	250	0.041	358	1.022	0.106	1.022
23p	APR	805	31JAN91	0.0029	250	0.034	324	1.106	0.128	1.106

[Hg] vs Month
Participant #24



PROJECT ID: NOME SEGMENTAL ANALYSIS

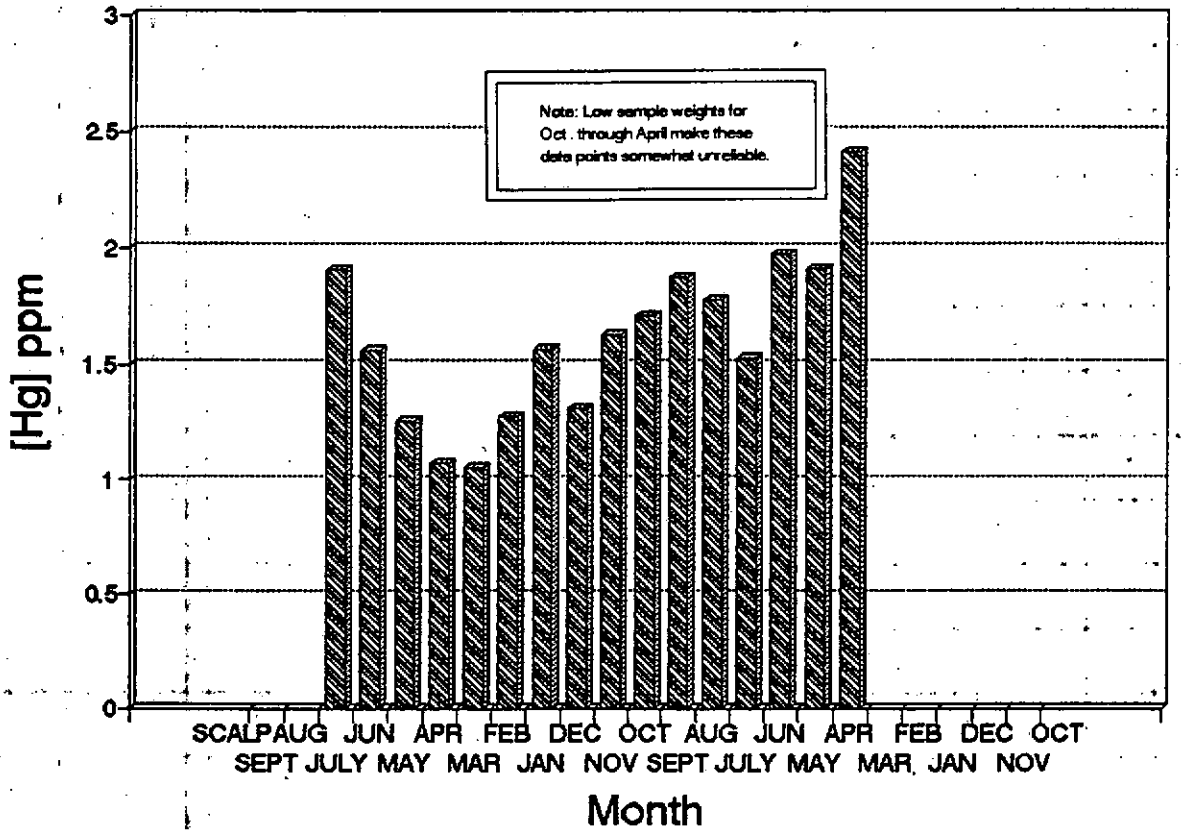
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 24

FILE #: NOMSEG24

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
24a	AUG	819	31JAN91	0.0048	250	0.056	656	1.478	0.078	1.478
24b	JULY	820	31JAN91	0.0059	250	0.069	621	1.135	0.063	1.135
24c	JUN	821	31JAN91	0.0056	250	0.065	604	1.161	0.066	1.161
24d	MAY	822	31JAN91	0.0063	250	0.074	633	1.085	0.059	1.085
24e	APR	823	31JAN91	0.0049	250	0.057	476	1.029	0.076	1.029
24f	MAR	824	31JAN91	0.0056	250	0.065	538	1.027	0.066	1.027
24g	FEB	825	31JAN91	0.0051	250	0.060	504	1.051	0.073	1.051
24h	JAN	826	31JAN91	0.0053	250	0.062	637	1.298	0.070	1.298
24i dup	DEC	837,827	31JAN91	0.0048	250	0.056	646	1.455	0.078	1.487
24j	NOV	828	31JAN91	0.0051	250	0.060	824	1.767	0.073	1.767
24k	OCT	829	31JAN91	0.0044	250	0.051	806	2.002	0.085	2.002
24l	SEPT	830	31JAN91	0.0042	250	0.049	773	2.007	0.089	2.007
24m	AUG	831	31JAN91	0.0045	250	0.053	949	2.320	0.083	2.320
24n	JULY	832	31JAN91	0.0040	250	0.047	993	2.735	0.093	2.735
24o	JUN	833	31JAN91	0.0040	250	0.047	970	2.670	0.093	2.670
24p	MAY	834	31JAN91	0.0040	250	0.047	1022	2.818	0.093	2.818
24q	APR	835	31JAN91	0.0033	250	0.039	1161	3.896	0.113	3.896
24r	MAR	836	31JAN91	0.0030	250	0.035	1030	3.788	0.124	3.788

[Hg] vs Month
Participant #25



PROJECT ID: NOME SEGMENTAL ANALYSIS

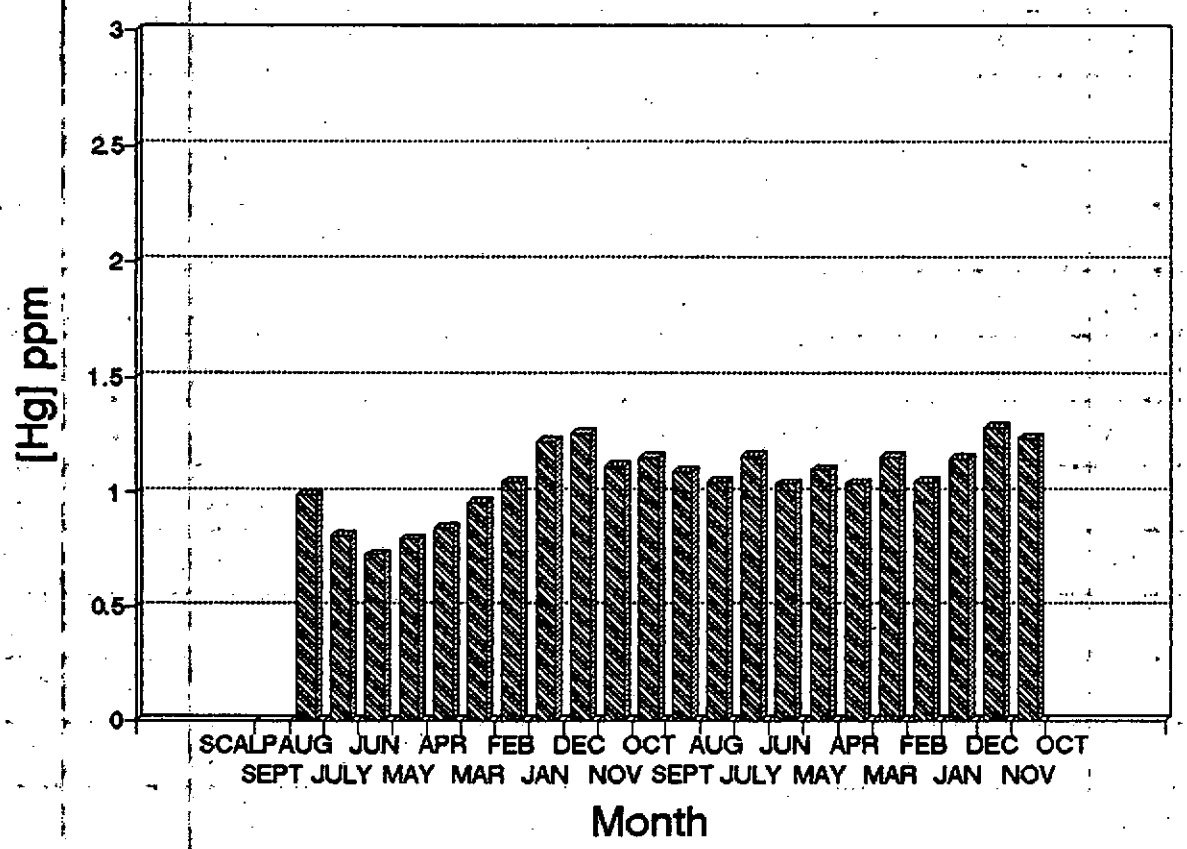
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 25

FILE #: NOMSEG25

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
25a	JULY	853	8FEB91	0.0049	250	0.057	773	1.901	0.076	1.901
25b	JUN	854	8FEB91	0.0042	250	0.049	552	1.560	0.089	1.560
25c dup	MAY	869,855	8FEB91	0.0035	250	0.041	371	1.227	0.106	1.250
25d	APR	856	8FEB91	0.0038	250	0.044	352	1.068	0.098	1.068
25e	MAR	857	8FEB91	0.0040	250	0.047	363	1.049	0.093	1.049
25f	FEB	858	8FEB91	0.0035	250	0.041	385	1.277	0.106	1.277
25g	JAN	859	8FEB91	0.0022	250	0.026	303	1.566	0.169	1.566
25h	DEC	860	8FEB91	0.0029	250	0.034	330	1.304	0.128	1.304
25i	NOV	861	8FEB91	0.0023	250	0.027	327	1.628	0.162	1.628
25j	OCT	862	8FEB91	0.0019	250	0.022	287	1.708	0.196	1.708
25k	SEPT	863	8FEB91	0.0017	250	0.020	281	1.865	0.219	1.865
25l dup	AUG	870,864	8FEB91	0.0016	250	0.019	252	1.755	0.233	1.775
25m	JULY	865	8FEB91	0.0019	250	0.022	259	1.524	0.196	1.524
25n	JUN	866	8FEB91	0.0013	250	0.015	232	1.969	0.286	1.969
25o	MAY	867	8FEB91	0.0013	250	0.015	226	1.911	0.286	1.911
25p	APR	868	8FEB91	0.0010	250	0.012	220	2.409	0.372	2.409

[Hg] vs Month
Participant #26



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 26

FILE #: NOMSEG26

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
26a dup	AUG	915,887	8FEB91	0.0059	250	0.069	593	1.042	0.063	0.989
26b	JULY	889	8FEB91	0.0058	250	0.068	461	0.805	0.064	0.805
26c	JUN	890	8FEB91	0.0056	250	0.065	406	0.727	0.066	0.727
26d	MAY	891	8FEB91	0.0060	250	0.070	469	0.793	0.062	0.793
26e	APR	892	8FEB91	0.0066	250	0.077	543	0.843	0.056	0.843
26f	MAR	893	8FEB91	0.0065	250	0.076	603	0.957	0.057	0.957
26g	FEB	894	8FEB91	0.0082	250	0.096	818	1.044	0.045	1.044
26h	JAN	895	8FEB91	0.0056	250	0.065	658	1.218	0.066	1.218
26i dup	DEC	916,896	8FEB91	0.0064	250	0.075	790	1.293	0.058	1.253
26j	NOV	897	8FEB91	0.0061	250	0.071	656	1.114	0.061	1.114
26k	OCT	898	8FEB91	0.0062	250	0.073	689	1.154	0.060	1.154
26l	SEPT	899	8FEB91	0.0069	250	0.081	723	1.091	0.054	1.091
26m	AUG	917	8FEB91	0.0058	250	0.068	586	1.047	0.064	1.047
26n	JULY	918	8FEB91	0.0056	250	0.065	626	1.161	0.066	1.161
26o	JUN	919	8FEB91	0.0047	250	0.055	474	1.034	0.079	1.034
26p	MAY	920	8FEB91	0.0048	250	0.056	513	1.100	0.078	1.100
26q	APR	921	8FEB91	0.0043	250	0.050	438	1.040	0.087	1.040
26r	MAR	922	8FEB91	0.0041	250	0.048	462	1.154	0.091	1.154
26s	FEB	923	8FEB91	0.0046	250	0.054	469	1.045	0.081	1.045

PROJECT ID: NOME SEGMENTAL ANALYSIS

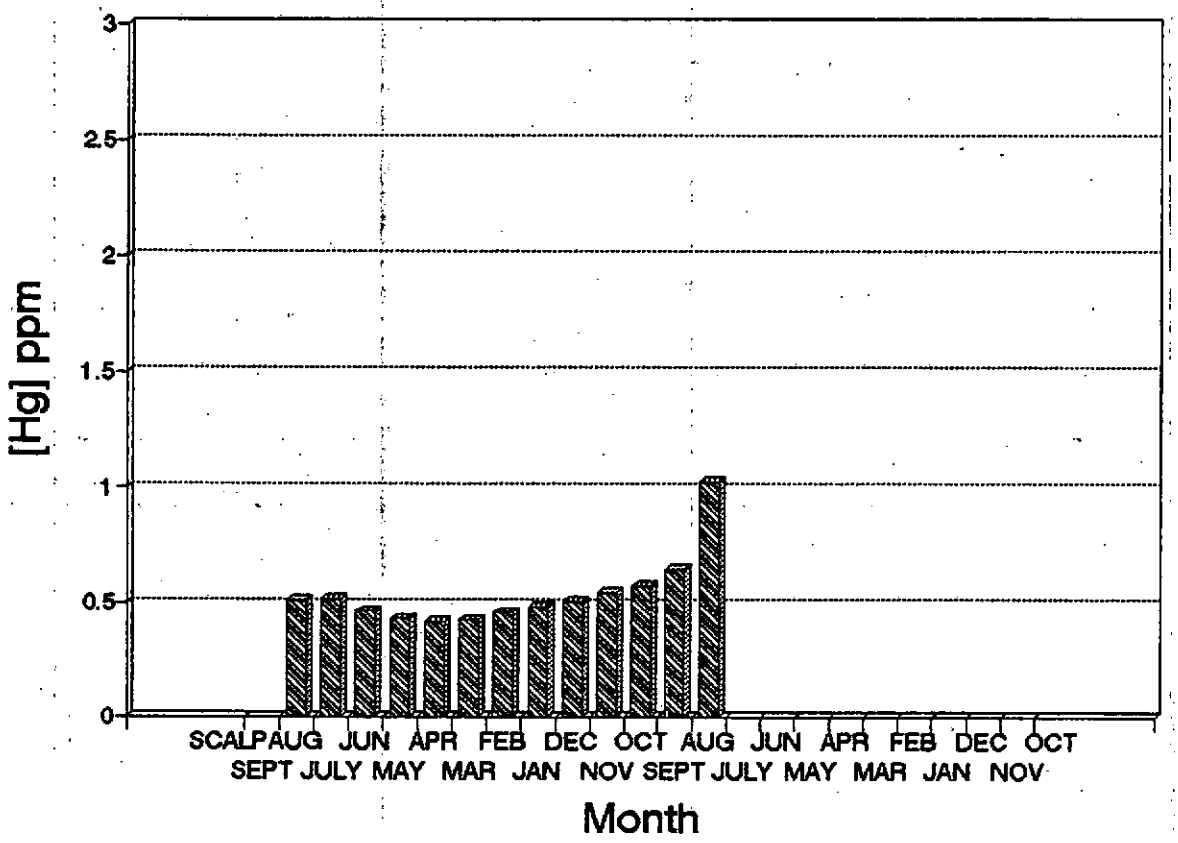
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 26

FILE #: NOMSEG26

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
26t	JAN	924	8FEB91	0.0041	250	0.048	458	1.143	0.091	1.143
26u	DEC	925	8FEB91	0.0036	250	0.042	450	1.278	0.103	1.278
26v	NOV	926	8FEB91	0.0041	250	0.048	492	1.233	0.091	1.233

[Hg] vs Month
Participant #27



PROJECT ID: NOME SEGMENTAL ANALYSIS

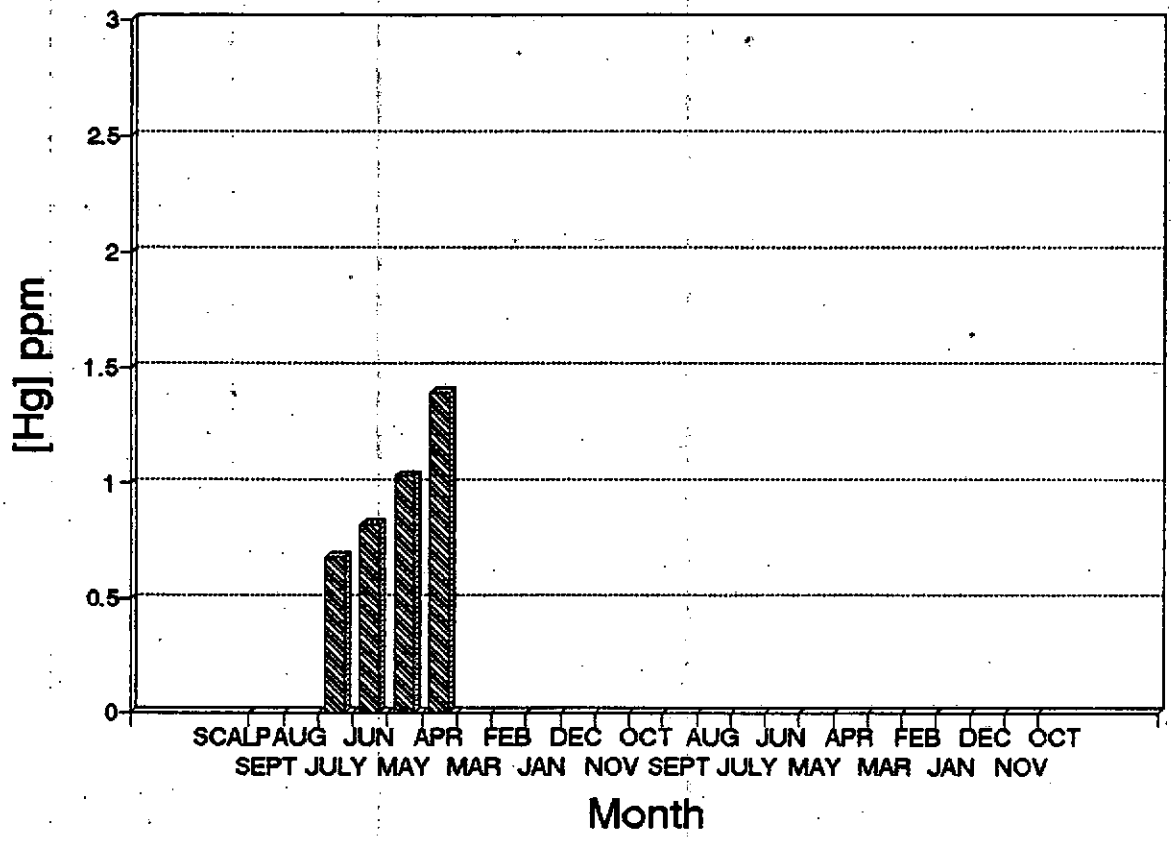
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 27

FILE #: NOMSEG27

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
27a dup	AUG	952,932	12FEB91	0.0058	250	0.068	292	0.494	0.064	0.511
27b	JULY	933	12FEB91	0.0057	250	0.067	300	0.514	0.065	0.514
27c	JUN	934	12FEB91	0.0058	250	0.068	278	0.464	0.064	0.464
27d	MAY	937	12FEB91	0.0061	250	0.071	272	0.430	0.061	0.430
27e	APR	938	12FEB91	0.0050	250	0.058	220	0.413	0.074	0.413
27f dup	MAR	954,953	12FEB91	0.0061	250	0.071	257	0.408	0.061	0.420
27g	FEB	955	12FEB91	0.0049	250	0.057	232	0.454	0.076	0.454
27h	JAN	956	12FEB91	0.0048	250	0.056	241	0.483	0.078	0.483
27i	DEC	957	12FEB91	0.0043	250	0.050	226	0.502	0.087	0.502
27j	NOV	958	12FEB91	0.0046	250	0.054	259	0.546	0.081	0.546
27k	OCT	959	12FEB91	0.0041	250	0.048	243	0.571	0.091	0.571
27l	SEPT	960	12FEB91	0.0046	250	0.054	301	0.644	0.081	0.644
27m	AUG	961	12FEB91	0.0029	250	0.034	302	1.026	0.128	1.026

[Hg] vs Month
Participant #28



PROJECT ID: NOME SEGMENTAL ANALYSIS

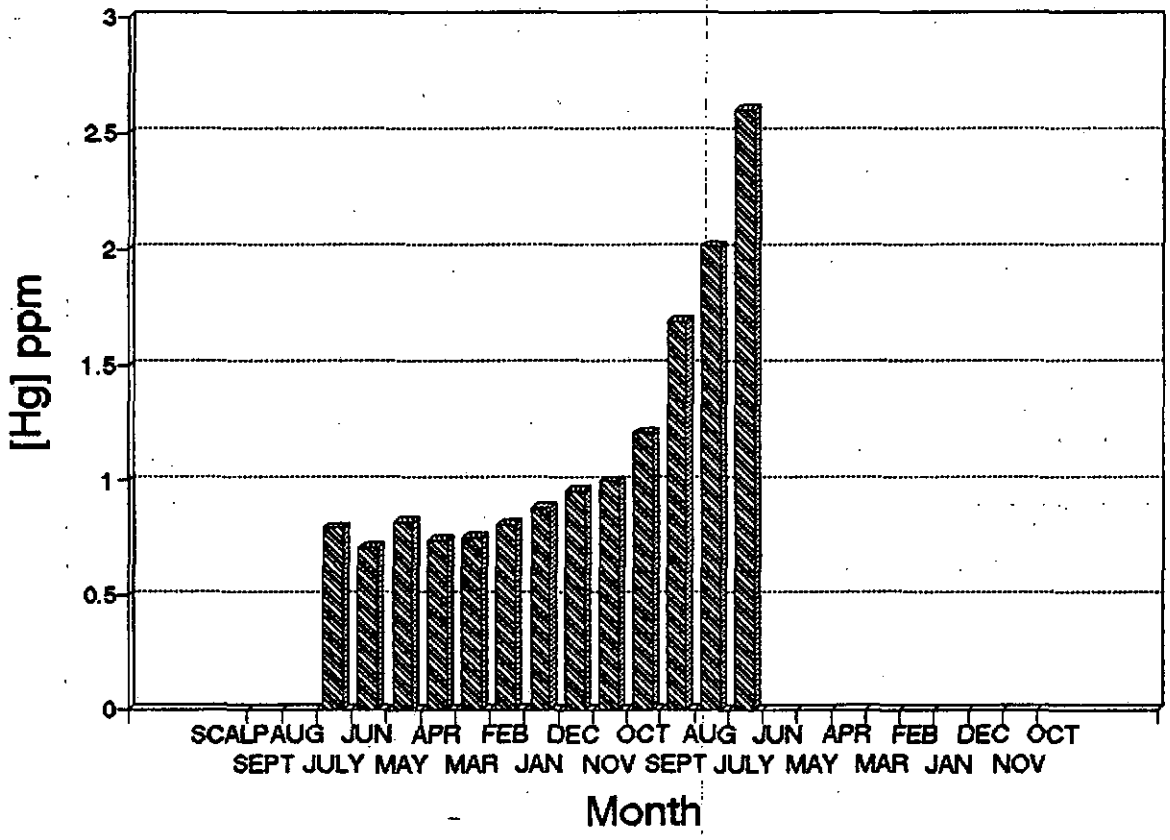
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 28

FILE #: NOMSEG28

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
28a	JULY	1246	14FEB91	0.0088	250	0.103	699	0.681	0.042	0.681
28b	JUN	1247	14FEB91	0.0071	250	0.083	682	0.822	0.052	0.822
28c	MAY	1249	14FEB91	0.0070	250	0.082	830	1.033	0.053	1.033
28d dup	APR	1265,1250	14FEB91	0.0065	250	0.076	1004	1.365	0.057	1.386

[Hg] vs Month
Participant #29



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

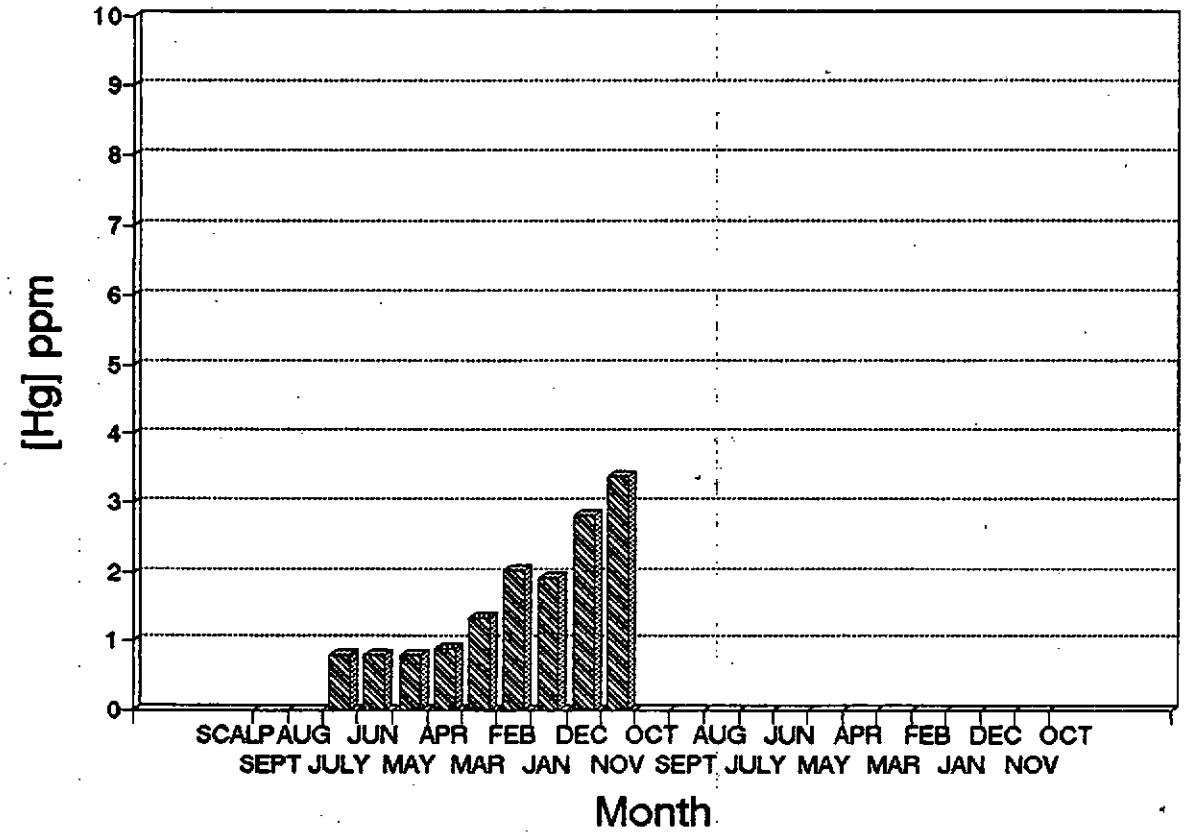
ANALYSIS: ΣHg/HAIR SAMPLE 29

FILE #: NOMSEG29

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
29a	JULY	962	12FEB91	0.0065	250	0.076	508	0.797	0.057	0.797
29b	JUN	963	12FEB91	0.0067	250	0.078	468	0.709	0.056	0.709
29c dup	MAY	966,964	12FEB91	0.0062	250	0.073	513	0.844	0.060	0.824
29d	APR	965	12FEB91	0.0062	250	0.073	453	0.741	0.060	0.741
29e	MAR	967	12FEB91	0.0063	250	0.074	466	0.751	0.059	0.751
29f	FEB	968	12FEB91	0.0060	250	0.070	475	0.805	0.062	0.805
29g dup	JAN	979,969	12FEB91	0.0056	250	0.065	472	0.856	0.066	0.885
29h	DEC	970	12FEB91	0.0051	250	0.060	479	0.955	0.073	0.955
29i	NOV	971	12FEB91	0.0052	250	0.061	508	0.996	0.072	0.996
29j	OCT	974	12FEB91	0.0049	250	0.057	575	1.204	0.076	1.204
29k	SEPT	975	12FEB91	0.0036	250	0.042	590	1.683	0.103	1.683
291	AUG	976	12FEB91	0.0028	250	0.033	549	2.008	0.133	2.008
29m dup	JULY	978,977	12FEB91	0.0025	250	0.029	647	2.669	0.149	2.596

NOTE: SAMPLE 29i WAS TRANSFERED TO ANOTHER VIAL AFTER THE ADDITION OF BrCl

[Hg] vs Month
Participant #30



PROJECT ID: NOME SEGMENTAL ANALYSIS

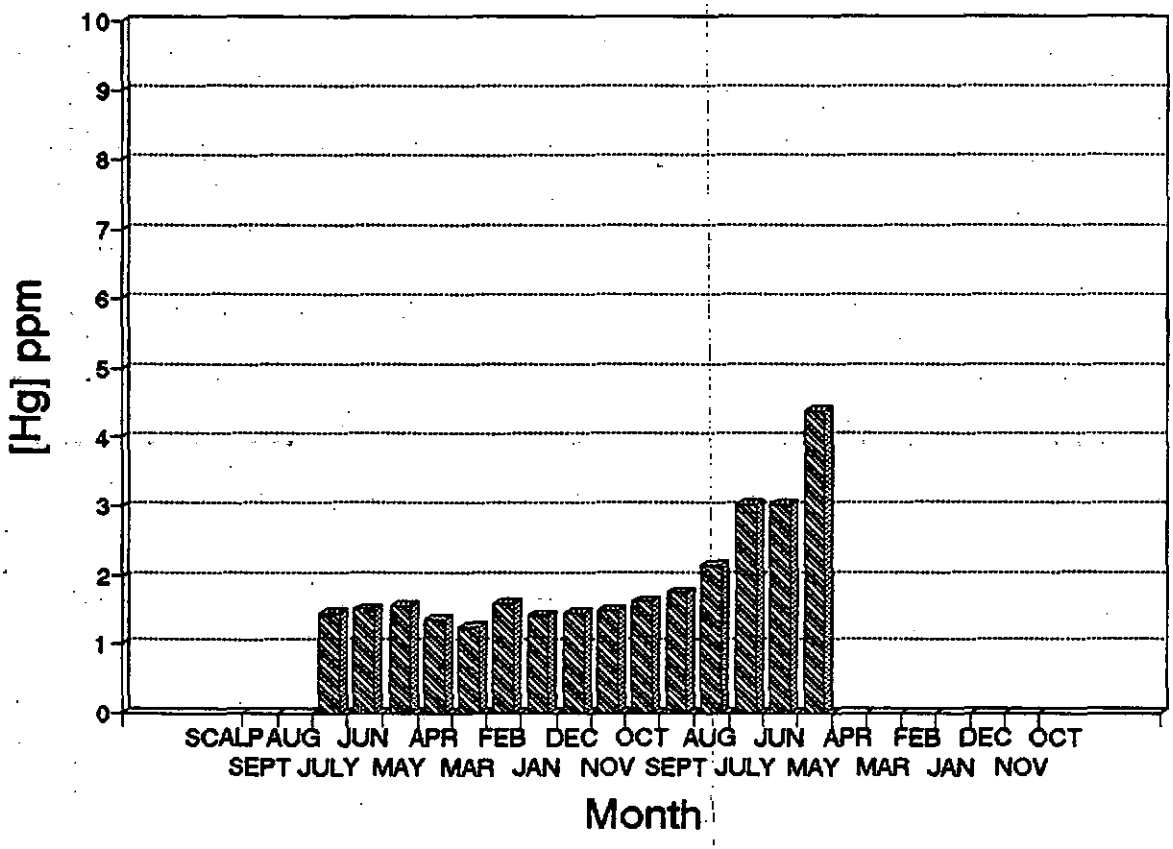
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 30

FILE #: NOMSEG30

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
30a dup	JULY	1264,1251	14FEB91	0.0076	250	0.089	711	0.804	0.049	0.789
30b	JUN	1252	14FEB91	0.0081	250	0.095	747	0.796	0.046	0.796
30c	MAY	1253	14FEB91	0.0071	250	0.083	673	0.810	0.052	0.810
30d	APR	1254	14FEB91	0.0062	250	0.073	641	0.879	0.060	0.879
30e	MAR	1255	14FEB91	0.0064	250	0.075	976	1.345	0.058	1.345
30f	FEB	1256	14FEB91	0.0055	250	0.064	1249	2.034	0.068	2.034
30g	JAN	1257	14FEB91	0.0043	250	0.050	937	1.917	0.087	1.917
30h dup	DEC	1298,1258	14FEB91	0.0040	250	0.047	1262	2.879	0.093	2.822
30i	NOV	1259	14FEB91	0.0036	250	0.042	1359	3.396	0.103	3.396

[Hg] vs Month
Participant #31



PROJECT ID: NOME SEGMENTAL ANALYSIS

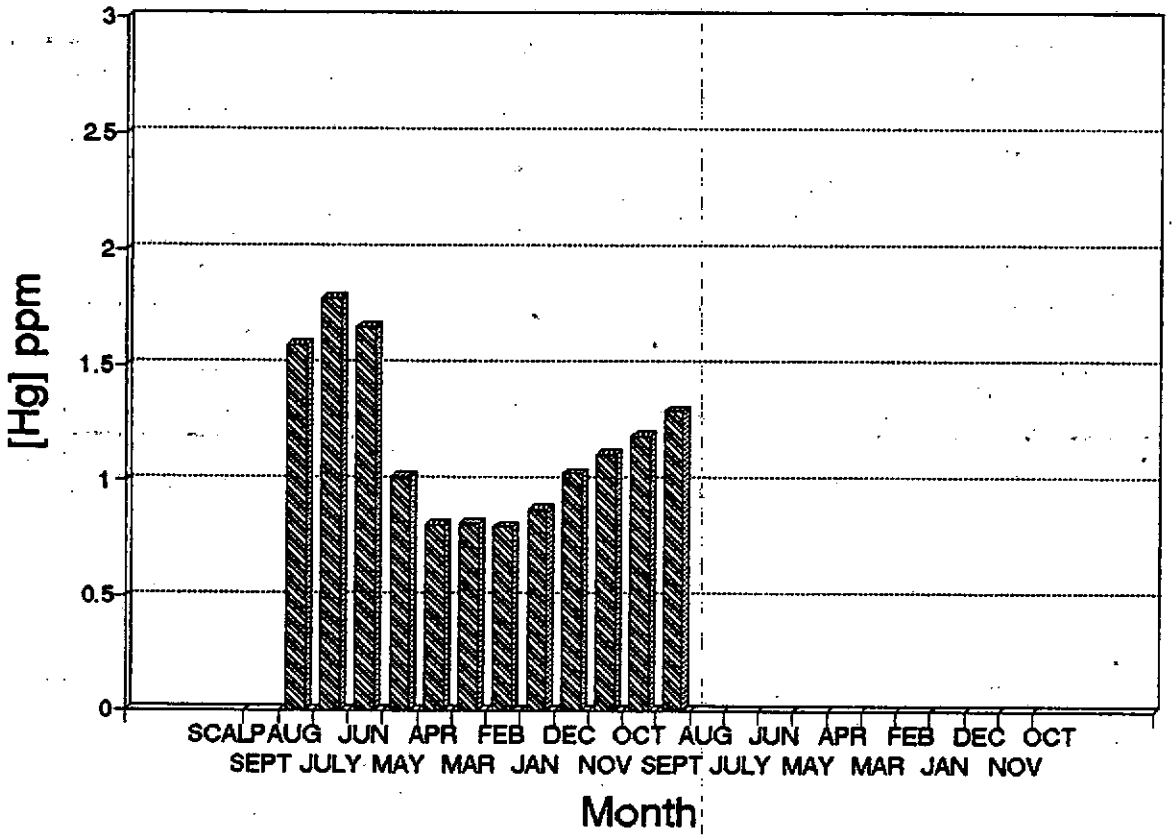
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 31

FILE #: NOMSEG31

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
31a	JULY	1266	14FEB91	0.0064	250	0.075	1053	1.459	0.058	1.459
31b	JUN	1267	14FEB91	0.0053	250	0.062	921	1.527	0.070	1.527
31c	MAY	1268	14FEB91	0.0053	250	0.062	945	1.569	0.070	1.569
31d	APR	1269	14FEB91	0.0046	250	0.054	727	1.361	0.081	1.361
31e	MAR	1270	14FEB91	0.0050	250	0.058	731	1.259	0.074	1.259
31f	FEB	1271	14FEB91	0.0042	250	0.049	777	1.603	0.089	1.603
31g dup	JAN	1273,1272	14FEB91	0.0045	250	0.053	731	1.399	0.083	1.422
31h	DEC	1274	14FEB91	0.0040	250	0.047	678	1.449	0.093	1.449
31i	NOV	1275	14FEB91	0.0043	250	0.050	749	1.504	0.087	1.504
31j	OCT	1276	14FEB91	0.0040	250	0.047	755	1.631	0.093	1.631
31k	SEPT	1277	14FEB91	0.0032	250	0.037	667	1.779	0.116	1.779
31l	AUG	1278	14FEB91	0.0030	250	0.035	751	2.162	0.124	2.162
31m dup	JULY	1299,1279	14FEB91	0.0029	250	0.034	1024	3.205	0.128	3.038
31n	JUN	1290	14FEB91	0.0029	250	0.034	966	3.019	0.128	3.019
31o	MAY	1291	14FEB91	0.0024	250	0.028	1156	4.386	0.155	4.386

[Hg] vs Month
Participant #32



PROJECT ID: NOME SEGMENTAL ANALYSIS

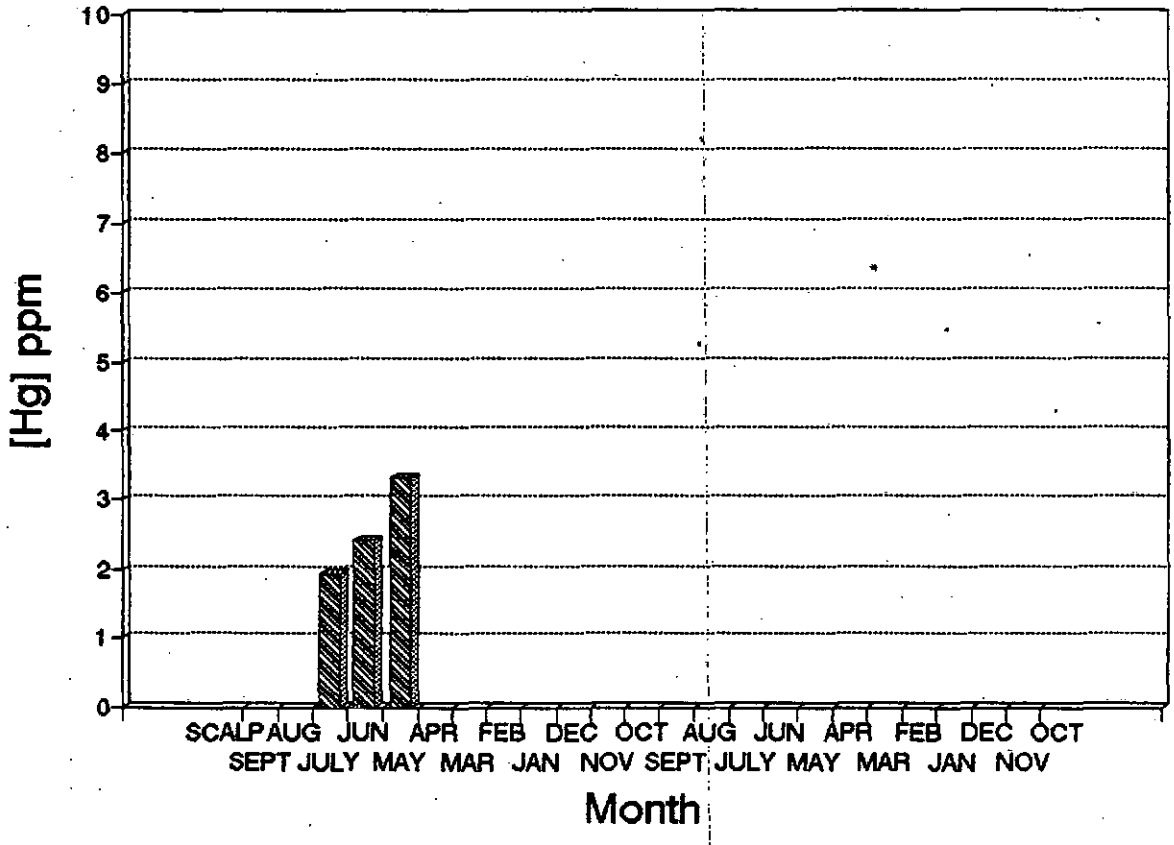
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 32

FILE #: NOMSEG32

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
32a	AUG	1300	20FEB91	0.0079	250	0.092	1366	1.585	0.047	1.585
32b dup	JULY	1314,1301	20FEB91	0.0085	250	0.099	1613	1.745	0.044	1.790
32c	JUN	1302	20FEB91	0.0093	250	0.109	1683	1.665	0.040	1.665
32d	MAY	1303	20FEB91	0.0090	250	0.105	1006	1.018	0.041	1.018
32e	APR	1304	20FEB91	0.0081	250	0.095	723	0.805	0.046	0.805
32f	MAR	1305	20FEB91	0.0063	250	0.074	572	0.812	0.059	0.812
32g	FEB	1306	20FEB91	0.0074	250	0.087	660	0.802	0.050	0.802
32h dup	JAN	1315,1307	20FEB91	0.0065	250	0.076	627	0.866	0.057	0.874
32i	DEC	1308	20FEB91	0.0053	250	0.062	608	1.028	0.070	1.028
32j	NOV	1309	20FEB91	0.0046	250	0.054	573	1.114	0.081	1.114
32k	OCT	1310	20FEB91	0.0045	250	0.053	598	1.190	0.083	1.190
32l	SEPT	1311	20FEB91	0.0032	250	0.037	471	1.304	0.116	1.304

[Hg] vs Month
Participant #33



PROJECT ID: NOME SEGMENTAL ANALYSIS

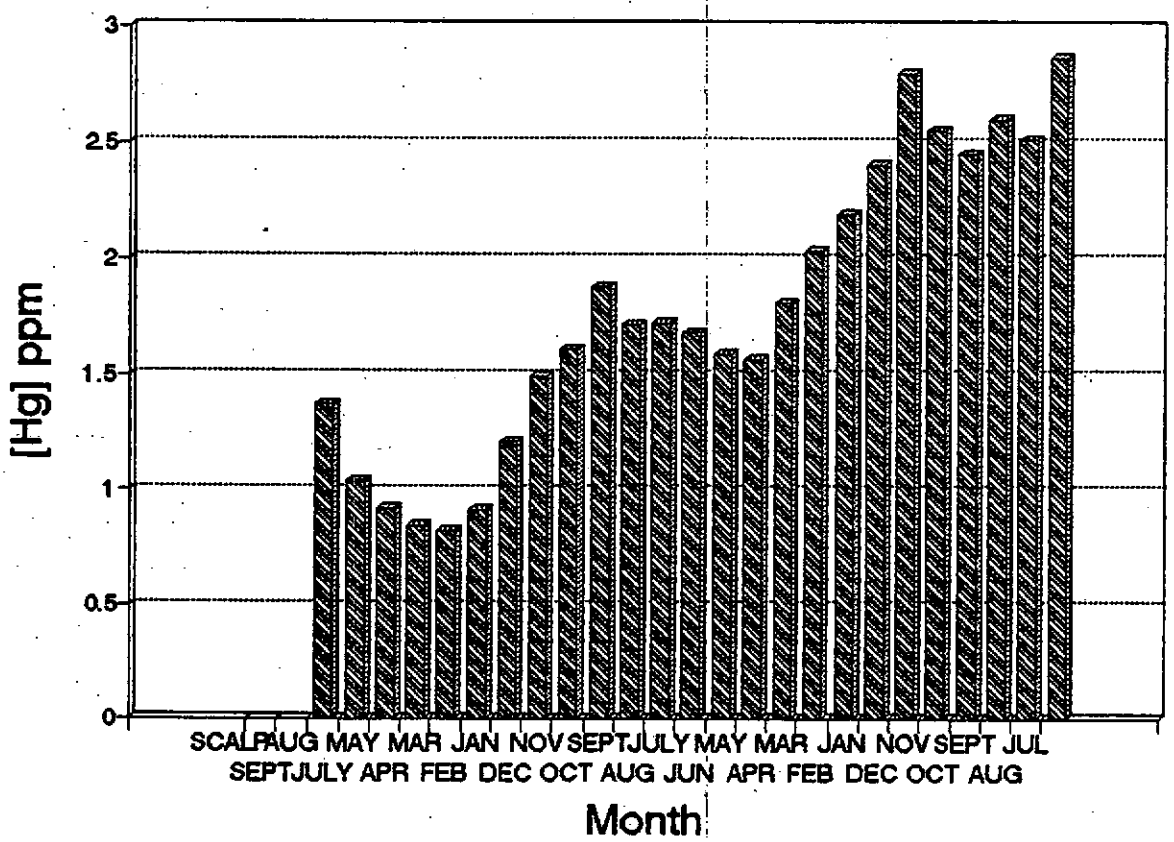
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 33

FILE #: NOMSEG33

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
33a	JULY	1312	20FEB91	0.0098	250	0.115	2069	1.947	0.038	1.947
33b	JUN	1313	20FEB91	0.0101	250	0.118	2633	2.411	0.037	2.411
33c	MAY	1316	20FEB91	0.0076	250	0.089	2738	3.333	0.049	3.333

[Hg] vs Month
Participant #34



PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 34 FILE #: NOMSEG34

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
34a	JULY	1320	20FEB91	0.0100	250	0.117	1489	1.367	0.037	1.367
34c dup	MAY	1362,1321	20FEB91	0.0087	250	0.102	976	1.033	0.043	1.036
34d	APR	1322	20FEB91	0.0111	250	0.130	1115	0.917	0.034	0.917
34e	MAR	1323	20FEB91	0.0093	250	0.109	859	0.838	0.040	0.838
34f	FEB	1324	20FEB91	0.0092	250	0.108	833	0.821	0.040	0.821
34g	JAN	1325	20FEB91	0.0082	250	0.096	821	0.907	0.045	0.907
34h	DEC	1341	20FEB91	0.0107	250	0.125	1388	1.203	0.035	1.203
34i	NOV	1342	20FEB91	0.0094	250	0.110	1508	1.490	0.040	1.490
34j	OCT	1343	20FEB91	0.0102	250	0.119	1761	1.608	0.036	1.608
34k	SEPT	1344	20FEB91	0.0097	250	0.113	1948	1.873	0.038	1.873
34l	AUG	1345	20FEB91	0.0079	250	0.092	1460	1.716	0.047	1.716
34m	JULY	1346	20FEB91	0.0087	250	0.102	1608	1.719	0.043	1.719
34n	JUN	1347	20FEB91	0.0089	250	0.104	1605	1.677	0.042	1.677
34o	MAY	1348	20FEB91	0.0087	250	0.102	1484	1.584	0.043	1.584
34p	APR	1349	20FEB91	0.0098	250	0.115	1651	1.567	0.038	1.567
34q dup	MAR	1363,1350	20FEB91	0.0036	250	0.042	699	1.770	0.103	1.805
34r	FEB	1351	20FEB91	0.0036	250	0.042	799	2.032	0.103	2.032
34s	JAN	1352	20FEB91	0.0033	250	0.039	789	2.188	0.113	2.188

NOTE: SAMPLE 34b LOST

PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

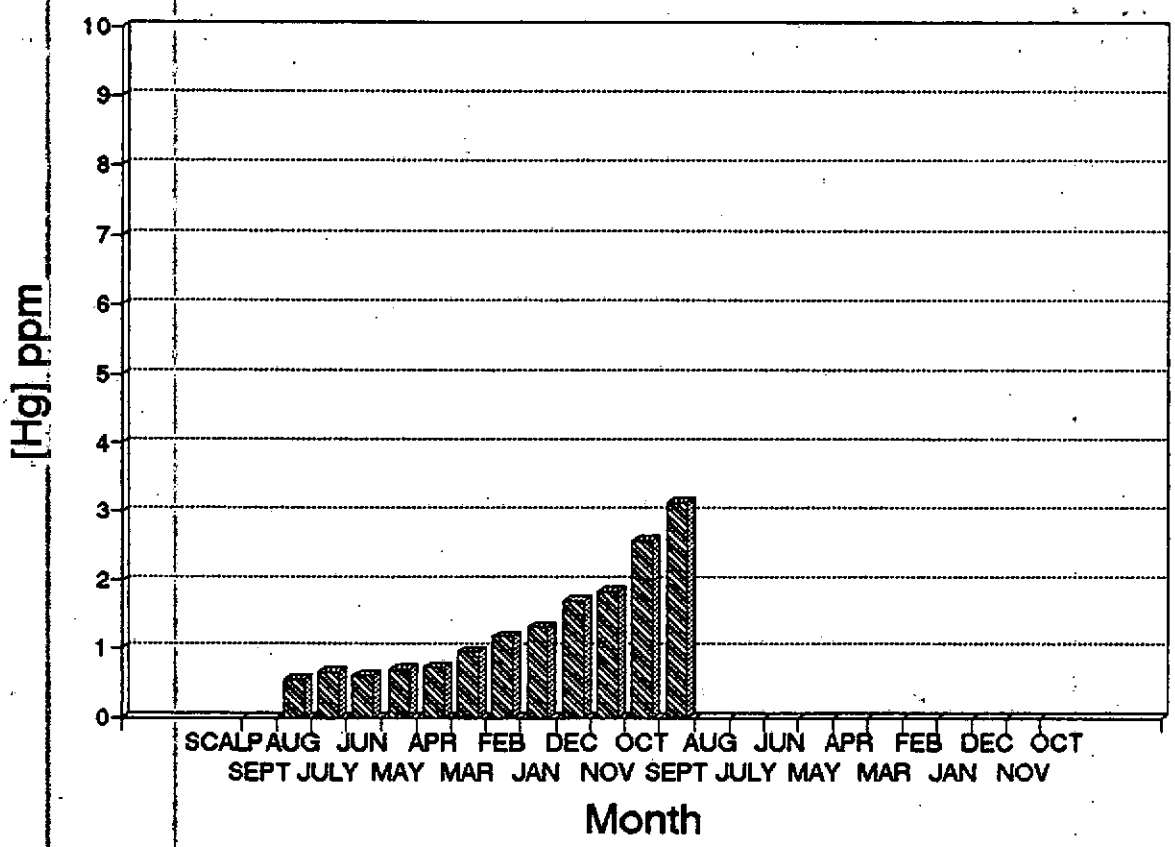
ANALYSIS: ΣHg/HAIR SAMPLE 34

FILE #: NOMSEG34

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
34t	DEC	1353	20FEB91	0.0040	250	0.047	1042	2.403	0.093	2.403
34u	NOV	1356	20FEB91	0.0036	250	0.042	1089	2.793	0.103	2.793
34v	OCT	1357	20FEB91	0.0036	250	0.042	997	2.552	0.103	2.552
34w	SEPT	1358	20FEB91	0.0036	250	0.042	959	2.452	0.103	2.452
34x	AUG	1359	20FEB91	0.0040	250	0.047	1125	2.598	0.093	2.598
34y	JUL	1360	20FEB91	0.0037	250	0.043	1007	2.508	0.101	2.508
34z	JUN	1361	20FEB91	0.0038	250	0.044	1175	2.859	0.098	2.859

NOTE: SAMPLE 34b LOST

[Hg] vs Month
Participant #35



PROJECT ID: NOME SEGMENTAL ANALYSIS

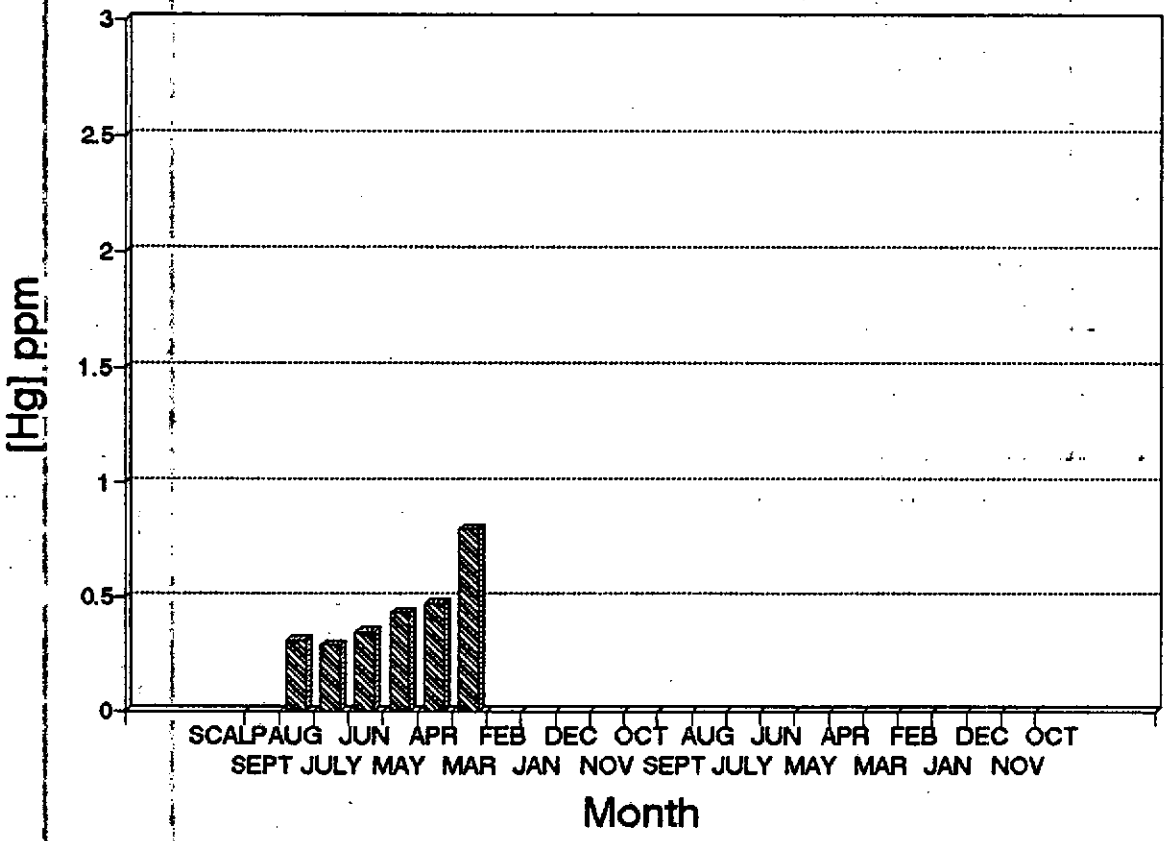
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 35

FILE #: NOMSEG35

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
35a dup	AUG	1413,1399	4MAR91	0.0074	250	0.087	472	0.572	0.050	0.559
35b	JULY	1400	4MAR91	0.0067	250	0.078	495	0.664	0.056	0.664
35c	JUN	1401	4MAR91	0.0066	250	0.077	463	0.628	0.056	0.628
35d	MAY	1402	4MAR91	0.0063	250	0.074	499	0.712	0.059	0.712
35e	APR	1403	4MAR91	0.0071	250	0.083	579	0.738	0.052	0.738
35f	MAR	1404	4MAR91	0.0064	250	0.075	667	0.948	0.058	0.948
35g	FEB	1405	4MAR91	0.0052	250	0.061	681	1.193	0.072	1.193
35h	JAN	1406	4MAR91	0.0058	250	0.068	829	1.310	0.064	1.310
35i	DEC	1407	4MAR91	0.0042	250	0.049	784	1.708	0.089	1.708
35j dup	NOV	1414,1408	4MAR91	0.0039	250	0.046	822	1.932	0.095	1.845
35k	OCT	1411	4MAR91	0.0038	250	0.044	1061	2.576	0.098	2.576
35l	SEPT	1412	4MAR91	0.0033	250	0.039	1126	3.153	0.113	3.153

[Hg] vs Month
Participant #36



PROJECT ID: NOME SEGMENTAL ANALYSIS

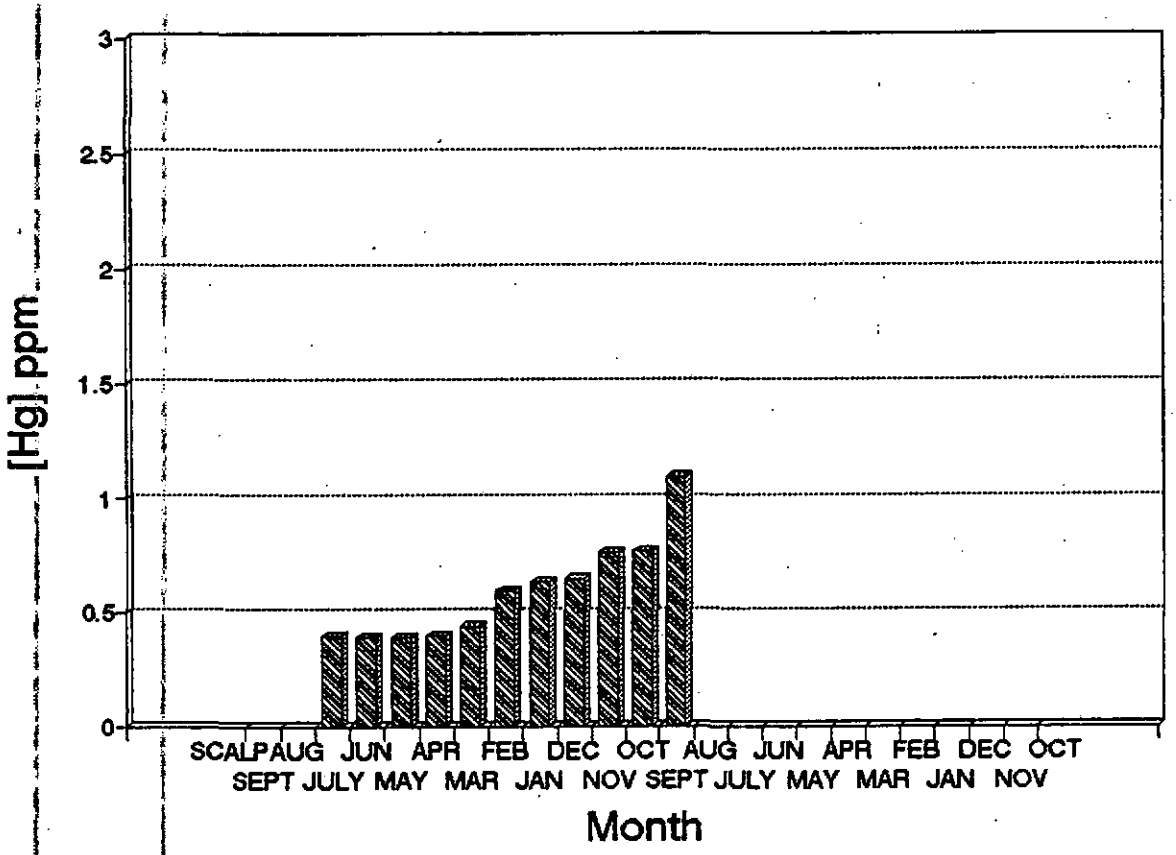
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 36

FILE #: NOMSEG36

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
36a	AUG	1415	4MAR91	0.0061	250	0.071	224	0.310	0.061	0.310
36b	JULY	1416	4MAR91	0.0056	250	0.065	196	0.290	0.066	0.290
36c dup	JUN	1421,1417	4MAR91	0.0048	250	0.056	199	0.344	0.078	0.350
36d	MAY	1418	4MAR91	0.0041	250	0.048	209	0.426	0.091	0.426
36e	APR	1419	4MAR91	0.0036	250	0.042	203	0.469	0.103	0.469
36f	MAR	1420	4MAR91	0.0020	250	0.023	192	0.793	0.186	0.793

[Hg] vs Month
Participant #37



PROJECT ID: NOME SEGMENTAL ANALYSIS

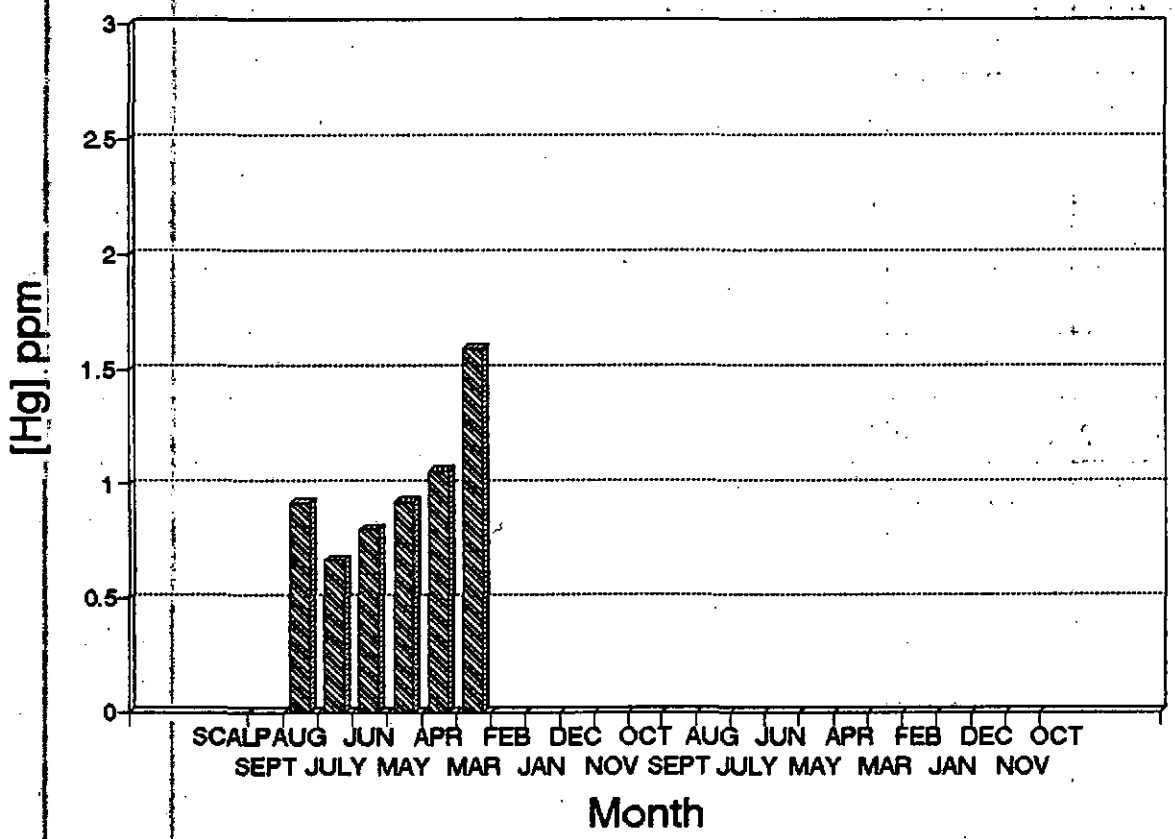
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 37

FILE #: NOMSEG37

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
37a	JULY	1426	5MAR91	0.0094	250	0.110	418	0.396	0.040	0.396
37b	JUN	1427	5MAR91	0.0110	250	0.129	480	0.391	0.034	0.391
37c dup	MAY	1471,1428	5MAR91	0.0097	250	0.113	425	0.377	0.038	0.388
37d	APR	1441	5MAR91	0.0100	250	0.117	458	0.397	0.037	0.397
37e	MAR	1442	5MAR91	0.0085	250	0.099	429	0.435	0.044	0.435
37f	FEB	1443	5MAR91	0.0089	250	0.104	594	0.590	0.042	0.590
37g	JAN	1444	5MAR91	0.0091	250	0.106	647	0.632	0.041	0.632
37h	DEC	1445	5MAR91	0.0076	250	0.089	555	0.642	0.049	0.642
37i	NOV	1446	5MAR91	0.0052	250	0.061	457	0.761	0.072	0.761
37j dup	OCT	1472,1447	5MAR91	0.0062	250	0.073	577	0.821	0.060	0.764
37k	SEPT	1448	5MAR91	0.0045	250	0.053	558	1.091	0.083	1.091

[Hg] vs Month
Participant #38



PROJECT ID: NOME SEGMENTAL ANALYSIS

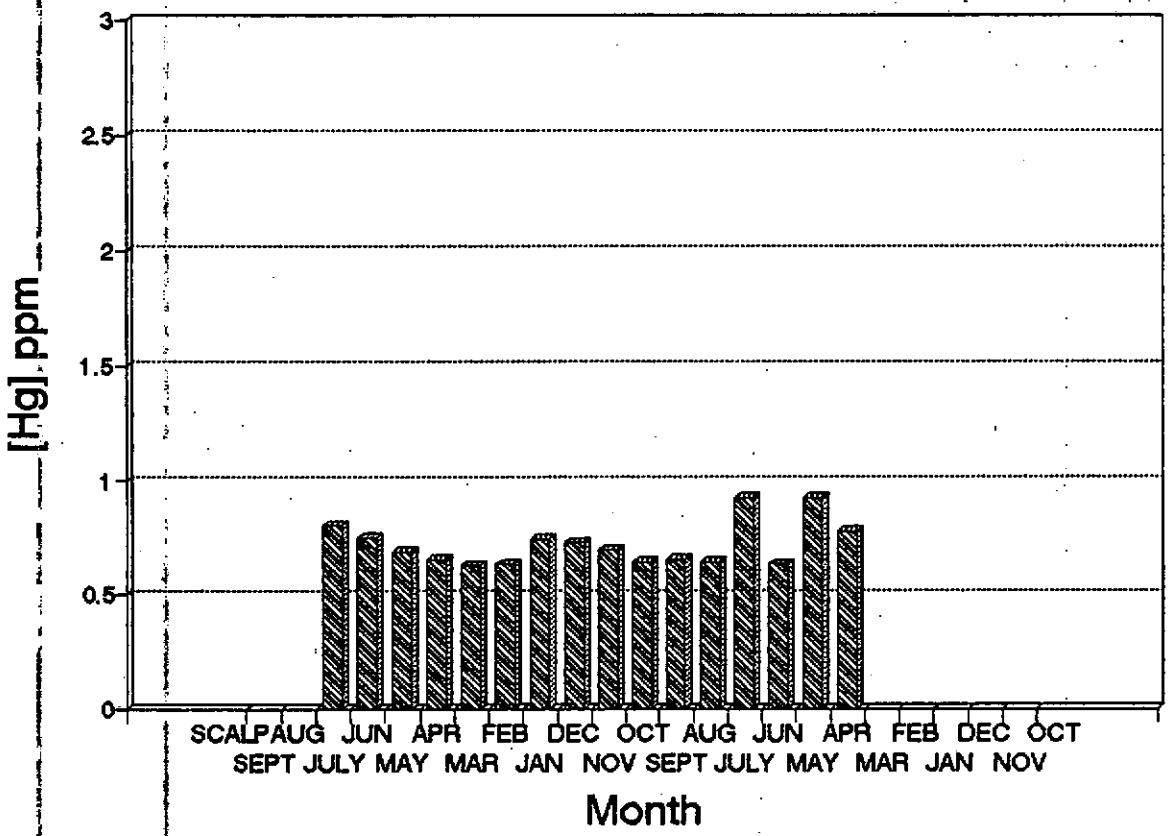
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 38

FILE #: NOMSEG38

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
38a dup	AUG	1485,1449	5MAR91	0.0090	250	0.105	919	0.890	0.041	0.916
38b	JULY	1450	5MAR91	0.0081	250	0.095	610	0.667	0.046	0.667
38c	JUN	1451	5MAR91	0.0073	250	0.085	657	0.800	0.051	0.800
38d	MAY	1452	5MAR91	0.0053	250	0.062	555	0.921	0.070	0.921
38e	APR	1453	5MAR91	0.0042	250	0.049	507	1.055	0.089	1.055
38f	MAR	1454	5MAR91	0.0035	250	0.041	628	1.591	0.106	1.591

[Hg] vs Month
Participant #39



PROJECT ID: NOME SEGMENTAL ANALYSIS

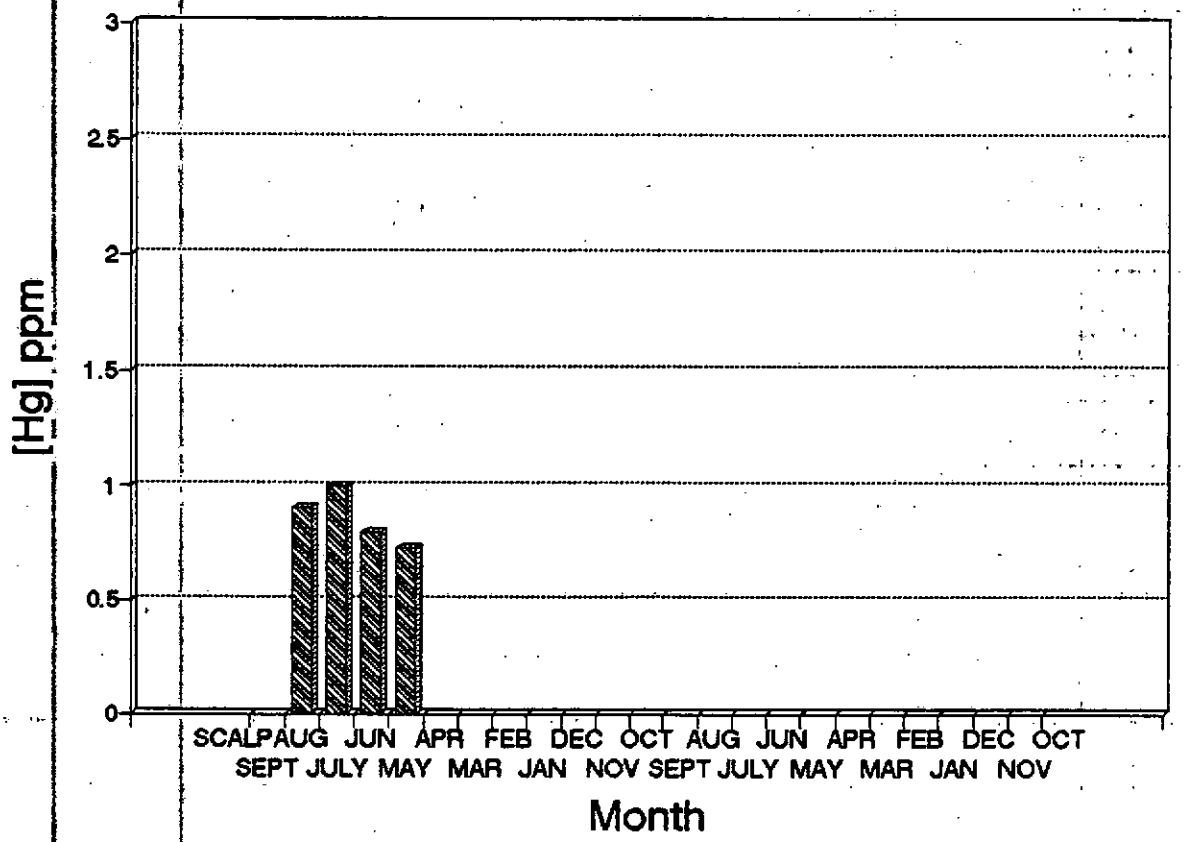
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 39

FILE #: NOMSEG39

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
39a	JULY	1492	6MAR91	0.0057	250	0.067	544	0.802	0.065	0.802
39b	JUN	1493	6MAR91	0.0055	250	0.064	491	0.744	0.068	0.744
39c dup	MAY	1515,1494	6MAR91	0.0047	250	0.055	401	0.697	0.079	0.684
39d	APR	1495	6MAR91	0.0051	250	0.060	408	0.655	0.073	0.655
39e	MAR	1496	6MAR91	0.0054	250	0.063	414	0.628	0.069	0.628
39f	FEB	1497	6MAR91	0.0043	250	0.050	338	0.629	0.087	0.629
39g	JAN	1498	6MAR91	0.0037	250	0.043	341	0.738	0.101	0.738
39h	DEC	1499	6MAR91	0.0037	250	0.043	336	0.726	0.101	0.726
39i	NOV	1500	6MAR91	0.0035	250	0.041	307	0.692	0.106	0.692
39j	OCT	1501	6MAR91	0.0036	250	0.042	292	0.635	0.103	0.635
39k	SEPT	1502	6MAR91	0.0032	250	0.037	269	0.650	0.116	0.650
39l	AUG	1505	6MAR91	0.0035	250	0.041	285	0.635	0.106	0.635
39m	JULY	1506	6MAR91	0.0022	250	0.026	264	0.924	0.169	0.924
39n dup	JUN	1516,1507	6MAR91	0.0027	250	0.032	232	0.646	0.138	0.632
39o	MAY	1508	6MAR91	0.0024	250	0.028	284	0.923	0.155	0.923
39p	APR	1509	6MAR91	0.0025	250	0.029	253	0.774	0.149	0.774

[Hg] vs Month
Participant #40



PROJECT ID: NOME SEGMENTAL ANALYSIS

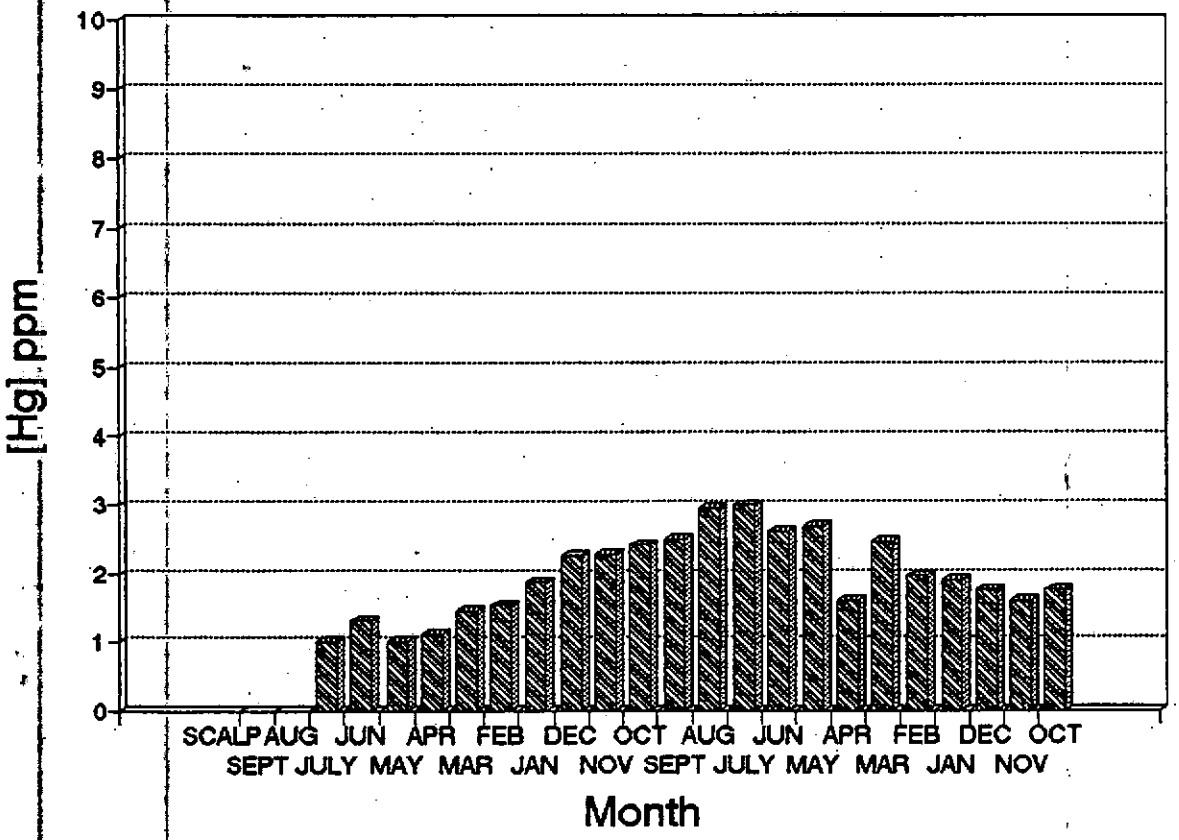
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 40

FILE #: NOMSEG40

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
40a	AUG	1510	6MAR91	0.0091	250	0.106	943	0.899	0.041	0.899
40b	JULY	1511	6MAR91	0.0088	250	0.103	1005	0.994	0.042	0.994
40c dup	JUN	1517,1512	6MAR91	0.0089	250	0.104	819	0.793	0.042	0.792
40d	MAY	1513	6MAR91	0.0053	250	0.062	465	0.727	0.070	0.727

[Hg] vs Month
Participant #41



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 41

FILE #: NOMSEG41

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
41a	JULY	1531	6MAR91	0.0067	250	0.078	785	0.992	0.056	0.992
41b	JUN	1532	6MAR91	0.0060	250	0.070	920	1.309	0.062	1.309
41c	MAY	1535	6MAR91	0.0071	250	0.083	832	0.995	0.052	0.995
41d	APR	1536	6MAR91	0.0081	250	0.095	1053	1.116	0.046	1.116
41e dup	MAR	1558,1537	6MAR91	0.0067	250	0.078	1128	1.449	0.056	1.443
41f	FEB	1538	6MAR91	0.0066	250	0.077	1179	1.540	0.056	1.540
41g	JAN	1539	6MAR91	0.0071	250	0.083	1529	1.871	0.052	1.871
41h	DEC	1540	6MAR91	0.0057	250	0.067	1486	2.263	0.065	2.263
41i	NOV	1541	6MAR91	0.0056	250	0.065	1471	2.280	0.066	2.280
41j	OCT	1542	6MAR91	0.0055	250	0.064	1538	2.430	0.068	2.430
41k	SEPT	1545	6MAR91	0.0059	250	0.069	1708	2.522	0.063	2.522
41l	AUG	1546	6MAR91	0.0049	250	0.057	1673	2.973	0.076	2.973
41m	JULY	1547	6MAR91	0.0048	250	0.056	1653	2.998	0.078	2.998
41n	JUN	1548	6MAR91	0.0045	250	0.053	1369	2.635	0.083	2.635
41o	MAY	1549	6MAR91	0.0044	250	0.051	1368	2.693	0.085	2.693
41p dup	APR	1559,1550	6MAR91	0.0040	250	0.047	761	1.609	0.093	1.616
41q	MAR	1552	6MAR91	0.0037	250	0.043	1063	2.467	0.101	2.467
41r	FEB	1553	6MAR91	0.0044	250	0.051	1014	1.975	0.085	1.975

PROJECT ID: NOME SEGMENTAL ANALYSIS

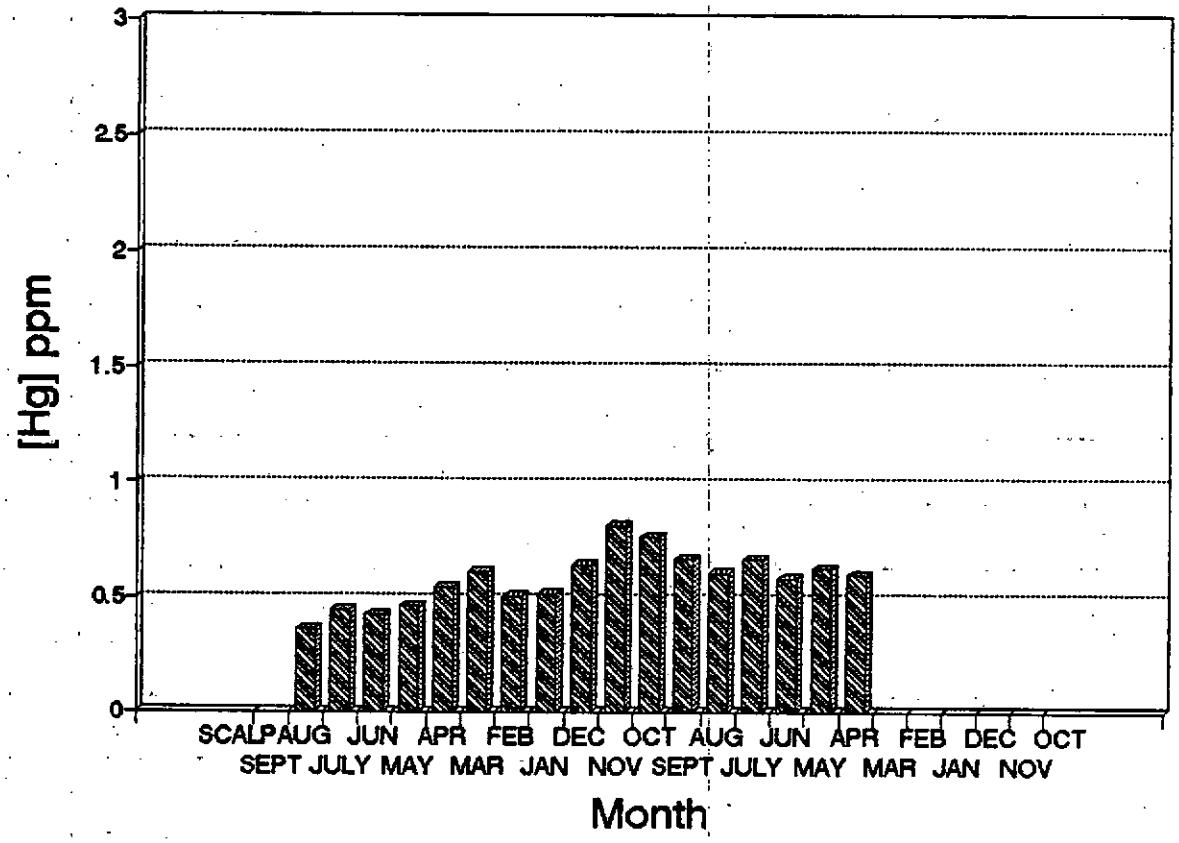
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 41

FILE #: NOMSEG41

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
41s	JAN	1554	6MAR91	0.0038	250	0.044	851	1.904	0.098	1.904
41t	DEC	1555	6MAR91	0.0043	250	0.050	887	1.758	0.087	1.758
41u	NOV	1556	6MAR91	0.0039	250	0.046	740	1.602	0.095	1.602
41v	OCT	1557	6MAR91	0.0031	250	0.036	652	1.762	0.120	1.762

[Hg] vs Month
Participant #42



PROJECT ID: NOME SEGMENTAL ANALYSIS

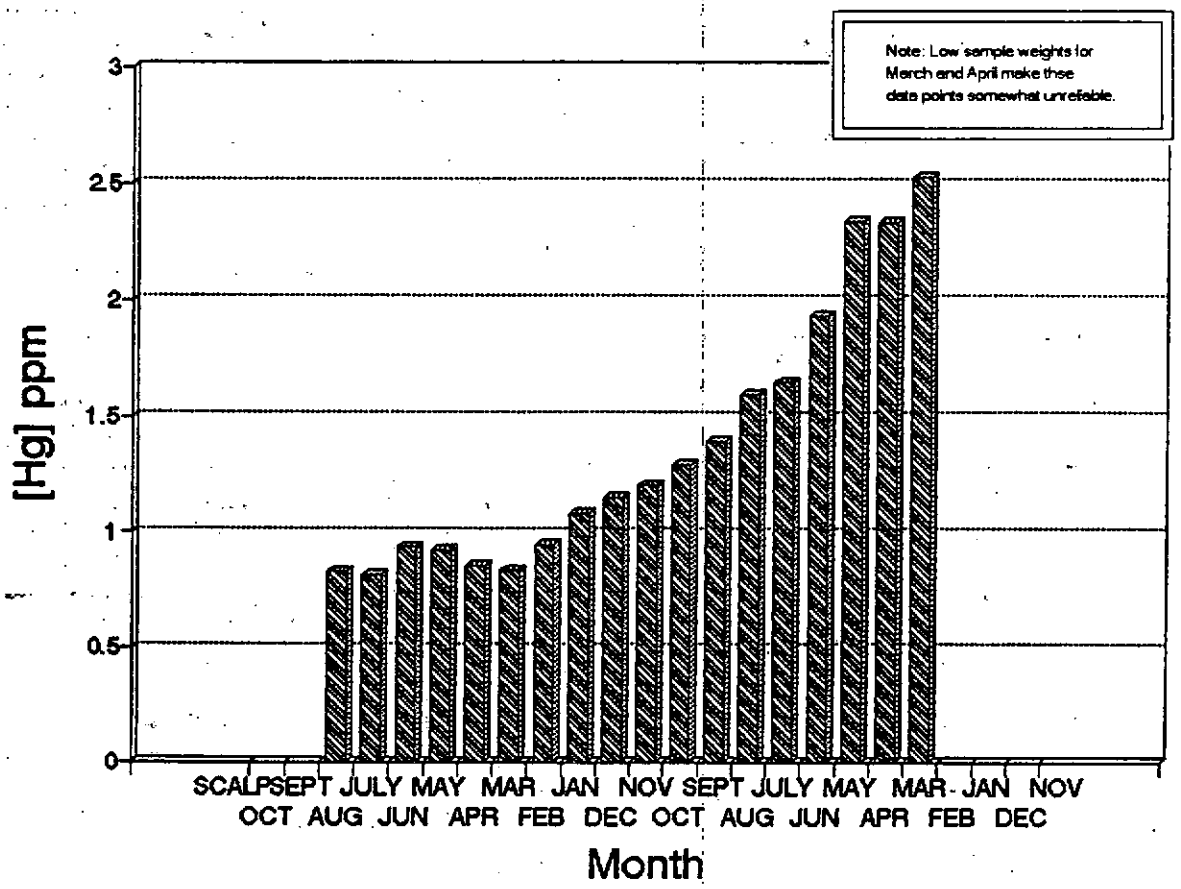
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 42

FILE #: NOMSEG42

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
42a	AUG	1577	11MAR91	0.0070	250	0.082	318	0.365	0.053	0.365
42b	JULY	1578	11MAR91	0.0078	250	0.091	419	0.445	0.048	0.445
42c dup	JUN	1596,1579	11MAR91	0.0069	250	0.081	374	0.444	0.054	0.420
42d	MAY	1580	11MAR91	0.0067	250	0.078	379	0.464	0.056	0.464
42e	APR	1581	11MAR91	0.0079	250	0.092	512	0.547	0.047	0.547
42f	MAR	1582	11MAR91	0.0051	250	0.060	381	0.613	0.073	0.613
42g	FEB	1583	11MAR91	0.0072	250	0.084	436	0.504	0.052	0.504
42h	JAN	1584	11MAR91	0.0066	250	0.077	411	0.515	0.056	0.515
42i	DEC	1585	11MAR91	0.0063	250	0.074	479	0.638	0.059	0.638
42j	NOV	1586	11MAR91	0.0055	250	0.064	525	0.807	0.068	0.807
42k	OCT	1587	11MAR91	0.0058	250	0.068	522	0.760	0.064	0.760
42l	SEPT	1590	11MAR91	0.0052	250	0.061	418	0.666	0.072	0.666
42m dup	AUG	1597,1591	11MAR91	0.0054	250	0.063	400	0.611	0.069	0.607
42n	JULY	1592	11MAR91	0.0049	250	0.057	397	0.668	0.076	0.668
42o	JUN	1593	11MAR91	0.0047	250	0.055	339	0.584	0.079	0.584
42p	MAY	1594	11MAR91	0.0050	250	0.058	382	0.627	0.074	0.627
42q	APR	1606	11MAR91	0.0052	250	0.061	381	0.601	0.072	0.601

[Hg] vs Month
Participant #43



PROJECT ID: NOME SEGMENTAL ANALYSIS

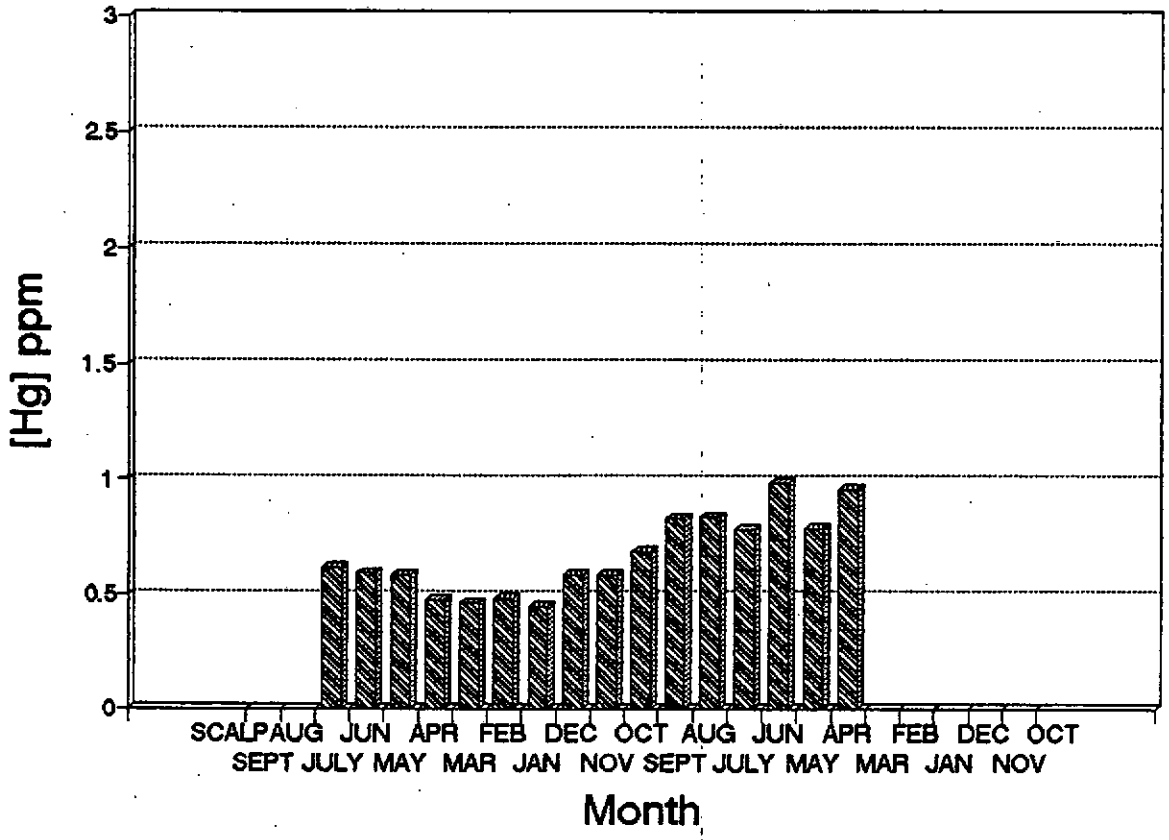
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 43

FILE #: NOMSEG43

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
43a	AUG	1598	11MAR91	0.0078	250	0.091	745	0.826	0.048	0.826
43b	JULY	1599	11MAR91	0.0070	250	0.082	666	0.817	0.053	0.817
43c dup	JUN	1682,1600	11MAR91	0.0055	250	0.064	453	0.942	0.068	0.937
43d	MAY	1601	11MAR91	0.0053	250	0.062	576	0.925	0.070	0.925
43e	APR	1602	11MAR91	0.0057	250	0.067	572	0.854	0.065	0.854
43f	MAR	1603	11MAR91	0.0057	250	0.067	559	0.833	0.065	0.833
43g	FEB	1607	11MAR91	0.0052	250	0.061	574	0.939	0.072	0.939
43h	JAN	1608	11MAR91	0.0044	250	0.051	557	1.075	0.085	1.075
43i	DEC	1609	11MAR91	0.0040	250	0.047	540	1.144	0.093	1.144
43j	NOV	1610	11MAR91	0.0042	250	0.049	591	1.200	0.089	1.200
43k dup	OCT	1683,1611	11MAR91	0.0031	250	0.036	379	1.377	0.120	1.288
43l	SEPT	1612	11MAR91	0.0036	250	0.042	586	1.387	0.103	1.387
43m	AUG	1613	11MAR91	0.0028	250	0.033	526	1.588	0.133	1.588
43n dup	JULY	1673,1614	11MAR91	0.0032	250	0.037	471	1.689	0.116	1.645
43o dup	JUN	1674,1615	11MAR91	0.0027	250	0.032	554	2.383	0.138	1.931
43p	MAY	1679	11MAR91	0.0021	250	0.025	430	2.333	0.177	2.333
43q	APR	1681	11MAR91	0.0017	250	0.020	354	2.329	0.219	2.329
43r	MAR	1680	11MAR91	0.0017	250	0.020	381	2.525	0.219	2.525

[Hg] vs Month
Participant #44

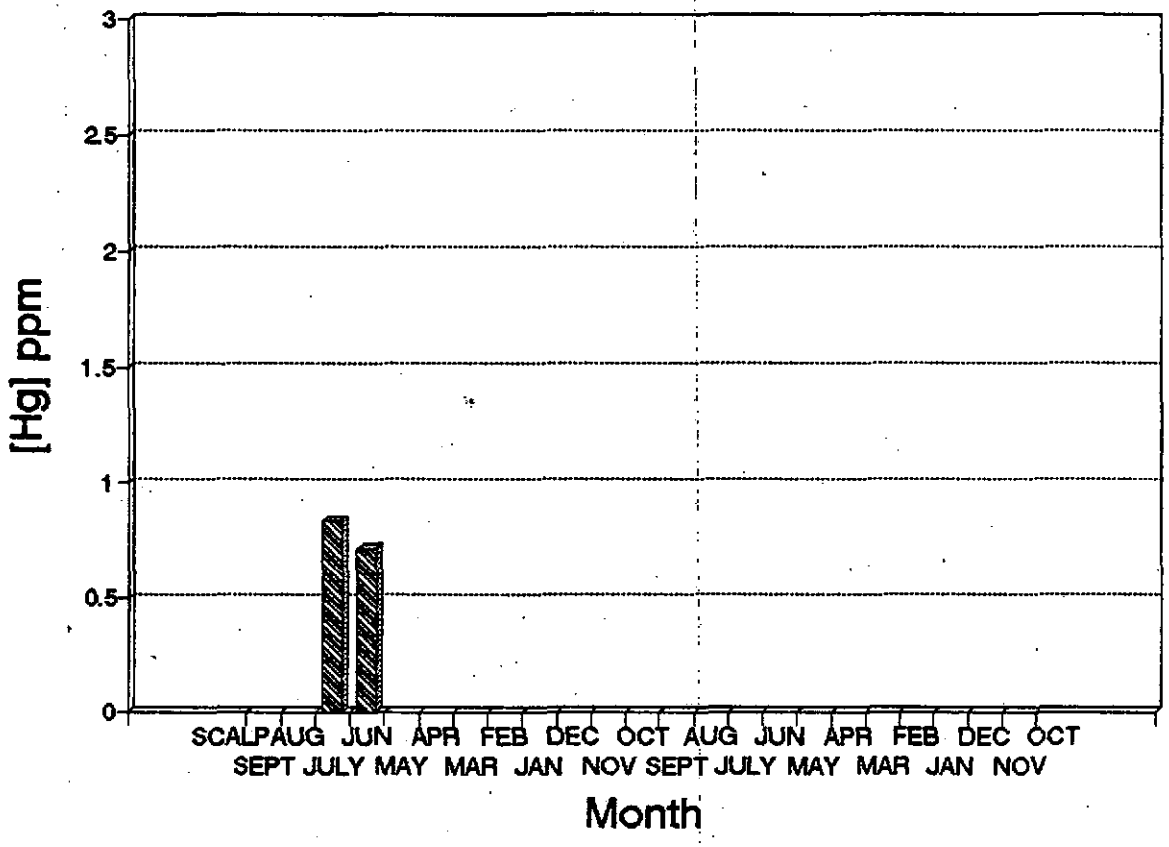


PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 44 FILE #: NOMSEG44

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
44a	JULY	1688	12MAR91	0.0056	250	0.065	313	0.621	0.066	0.621
44b	JUN	1689	12MAR91	0.0050	250	0.058	270	0.589	0.074	0.589
44c	MAY	1690	12MAR91	0.0049	250	0.057	264	0.586	0.076	0.586
44d dup	APR	1701,1691	12MAR91	0.0051	250	0.060	221	0.458	0.073	0.479
44e	MAR	1692	12MAR91	0.0046	250	0.054	204	0.463	0.081	0.463
44f	FEB	1693	12MAR91	0.0044	250	0.051	205	0.486	0.085	0.486
44g	JAN	1694	12MAR91	0.0042	250	0.049	185	0.451	0.089	0.451
44h	DEC	1695	12MAR91	0.0051	250	0.060	273	0.585	0.073	0.585
44i	NOV	1696	12MAR91	0.0039	250	0.046	217	0.587	0.095	0.587
44j	OCT	1697	12MAR91	0.0044	250	0.051	277	0.689	0.085	0.689
44k	SEPT	1698	12MAR91	0.0044	250	0.051	327	0.829	0.085	0.829
44l	AUG	1699	12MAR91	0.0051	250	0.060	375	0.832	0.073	0.832
44m	JULY	1700	12MAR91	0.0044	250	0.051	310	0.782	0.085	0.782
44n	JUN	1715	12MAR91	0.0037	500	0.087	642	0.980	0.050	0.980
44o dup	MAY	1723,1716	12MAR91	0.0036	500	0.084	471	0.713	0.052	0.790
44p	APR	1717	12MAR91	0.0028	500	0.065	490	0.959	0.066	0.959

[Hg] vs Month
Participant #45



PROJECT ID: NOME SEGMENTAL ANALYSIS

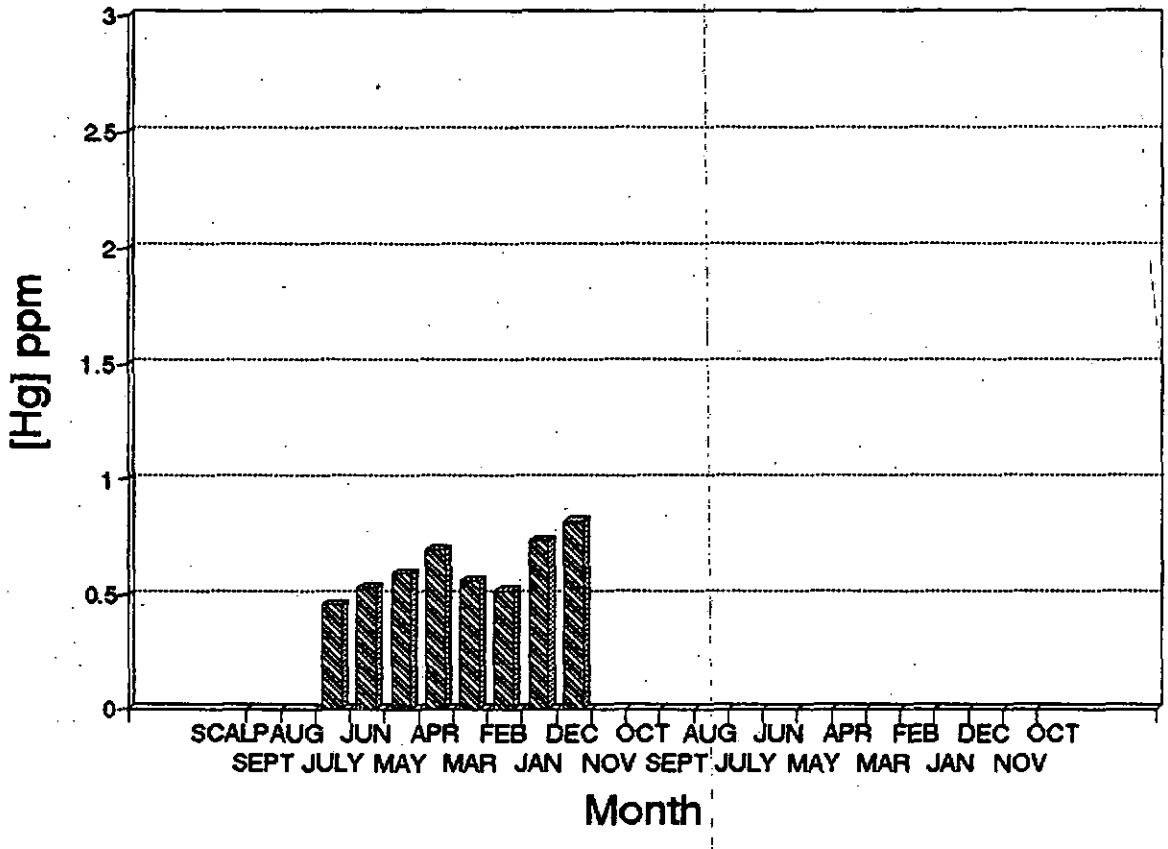
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 45

FILE #: NOMSEG45

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
45a	JULY	1744	13MAR91	0.0186	500	0.435	2566	0.836	0.010	0.836
45b	JUN	1745	13MAR91	0.0164	500	0.384	1949	0.715	0.011	0.715

[Hg] vs Month
Participant #46



PROJECT ID: NOME SEGMENTAL ANALYSIS

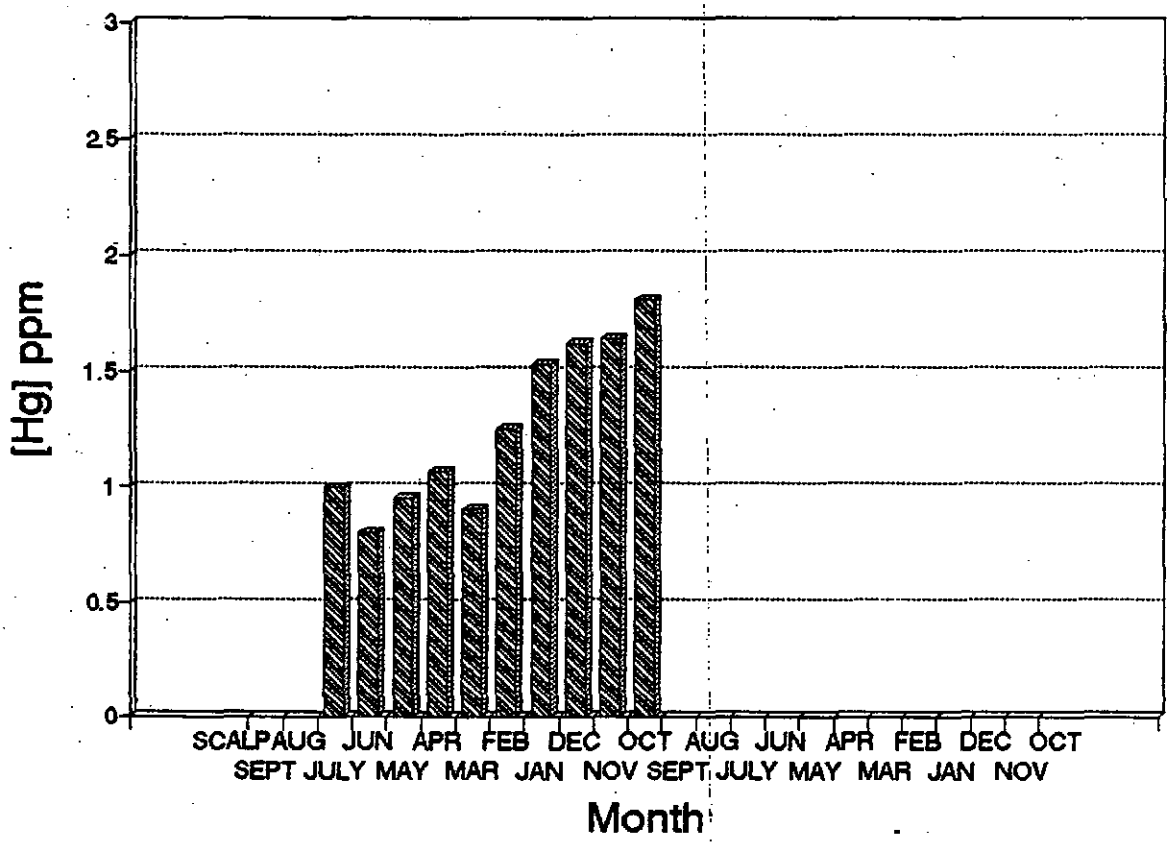
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE46

FILE #: NOMSEG46

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
46a	JULY	1746	13MAR91	0.0102	500	0.239	809	0.457	0.018	0.457
46b	JUN	1747	13MAR91	0.0095	500	0.222	866	0.528	0.020	0.528
46c	MAY	1748	13MAR91	0.0089	500	0.208	902	0.588	0.021	0.588
46d	APR	1749	13MAR91	0.0077	500	0.180	916	0.691	0.024	0.691
46e dup	MAR	1885,1883	13MAR91	0.0084	500	0.196	486	0.572	0.022	0.558
46f	FEB	1884	13MAR91	0.0073	500	0.171	388	0.517	0.025	0.517
46g	JAN	1886	13MAR91	0.0074	500	0.173	545	0.734	0.025	0.734
46h	DEC	1888	13MAR91	0.0074	500	0.173	601	0.814	0.025	0.814

[Hg] vs Month
Participant #47



PROJECT ID: NOME SEGMENTAL ANALYSIS

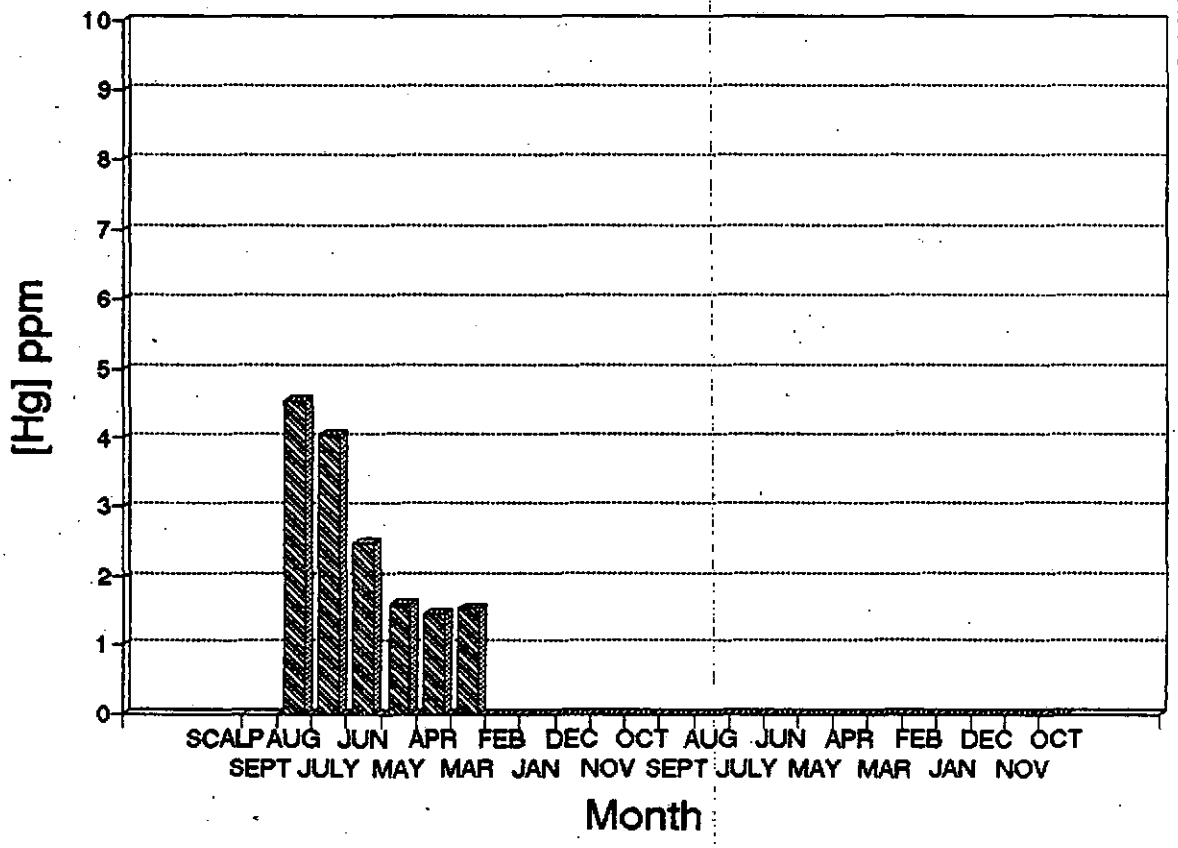
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE47

FILE #: NOMSEG47

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
47a	JULY	1889	13MAR91	0.0076	500	0.178	746	0.994	0.024	0.994
47b dup	JUN	1901,1890	13MAR91	0.0070	500	0.164	529	0.751	0.027	0.800
47c	MAY	1891	13MAR91	0.0072	500	0.168	678	0.949	0.026	0.949
47d	APR	1892	13MAR91	0.0058	500	0.136	615	1.064	0.032	1.064
47e	MAR	1895	13MAR91	0.0066	500	0.154	593	0.899	0.028	0.899
47f	FEB	1896	13MAR91	0.0059	500	0.138	726	1.244	0.032	1.244
47g	JAN	1897	13MAR91	0.0047	500	0.110	712	1.530	0.040	1.530
47h	DEC	1898	13MAR91	0.0036	500	0.084	583	1.620	0.052	1.620
47i	NOV	1899	13MAR91	0.0025	500	0.058	419	1.639	0.074	1.639
47j	OCT	1900	13MAR91	0.0021	500	0.049	390	1.806	0.089	1.806

[Hg] vs Month
Participant #48



PROJECT ID: NOME SEGMENTAL ANALYSIS

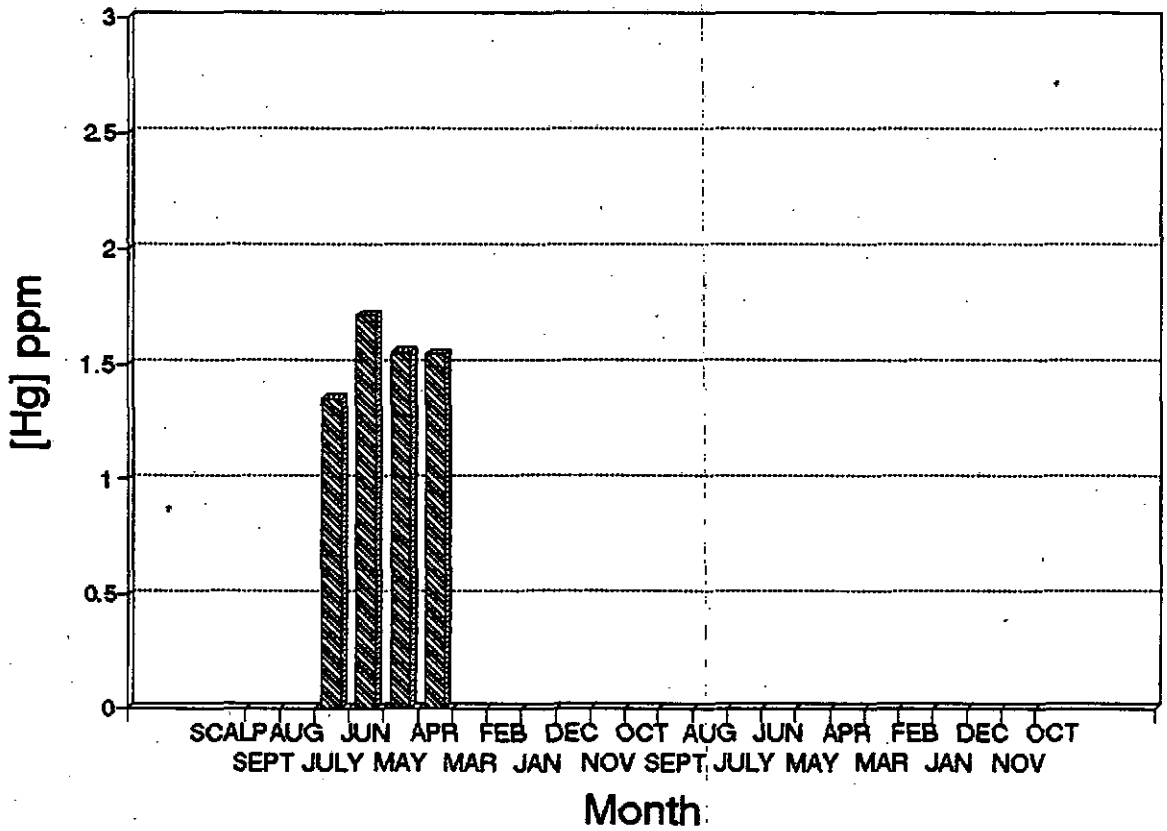
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 48

FILE #: NOMSEG48

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
48a	AUG	1922	21MAR91	0.0164	250	0.192	3263	4.532	0.023	4.532
48b dup	JULY	1940,1916	21MAR91	0.0147	250	0.172	2718	4.207	0.025	4.045
48c	JUN	1917	21MAR91	0.0141	500	0.330	3089	2.482	0.013	2.482
48d	MAY	1918	21MAR91	0.0134	500	0.313	1907	1.602	0.014	1.602
48e	APR	1919	21MAR91	0.0073	500	0.171	960	1.457	0.025	1.457
48f	MAR	1920	21MAR91	0.0040	500	0.094	573	1.552	0.047	1.552

[Hg] vs Month
Participant #49



PROJECT ID: NOME SEGMENTAL ANALYSIS

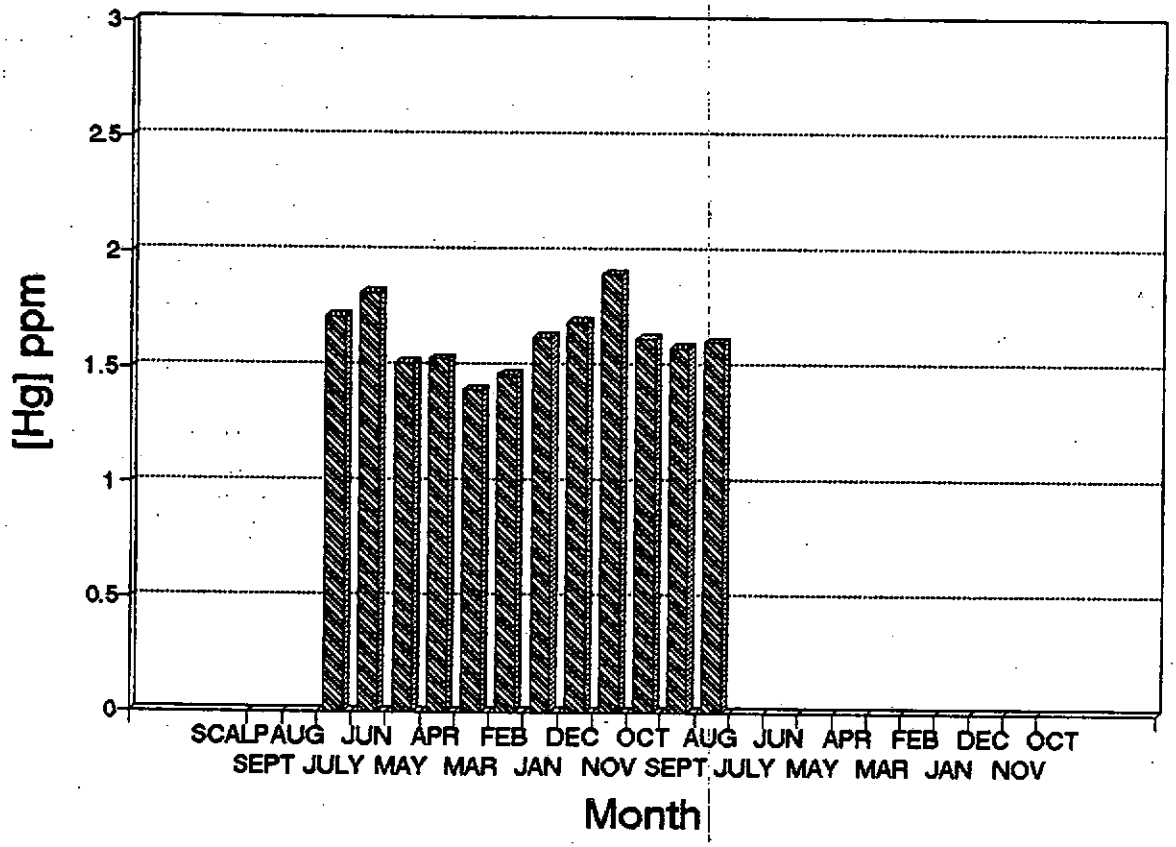
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 49

FILE #: NOMSEG49

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
49a dup	JULY	1926,1921	21MAR91	0.0125	500	0.292	1475	1.322	0.015	1.348
49b	JUN	1923	21MAR91	0.0108	500	0.253	1645	1.710	0.017	1.710
49c	MAY	1924	21MAR91	0.0107	500	0.250	1480	1.550	0.017	1.550
49d	APR	1925	21MAR91	0.0085	500	0.199	1180	1.547	0.022	1.547

[Hg] vs Month
Participant #50



PROJECT ID: NOME SEGMENTAL ANALYSIS

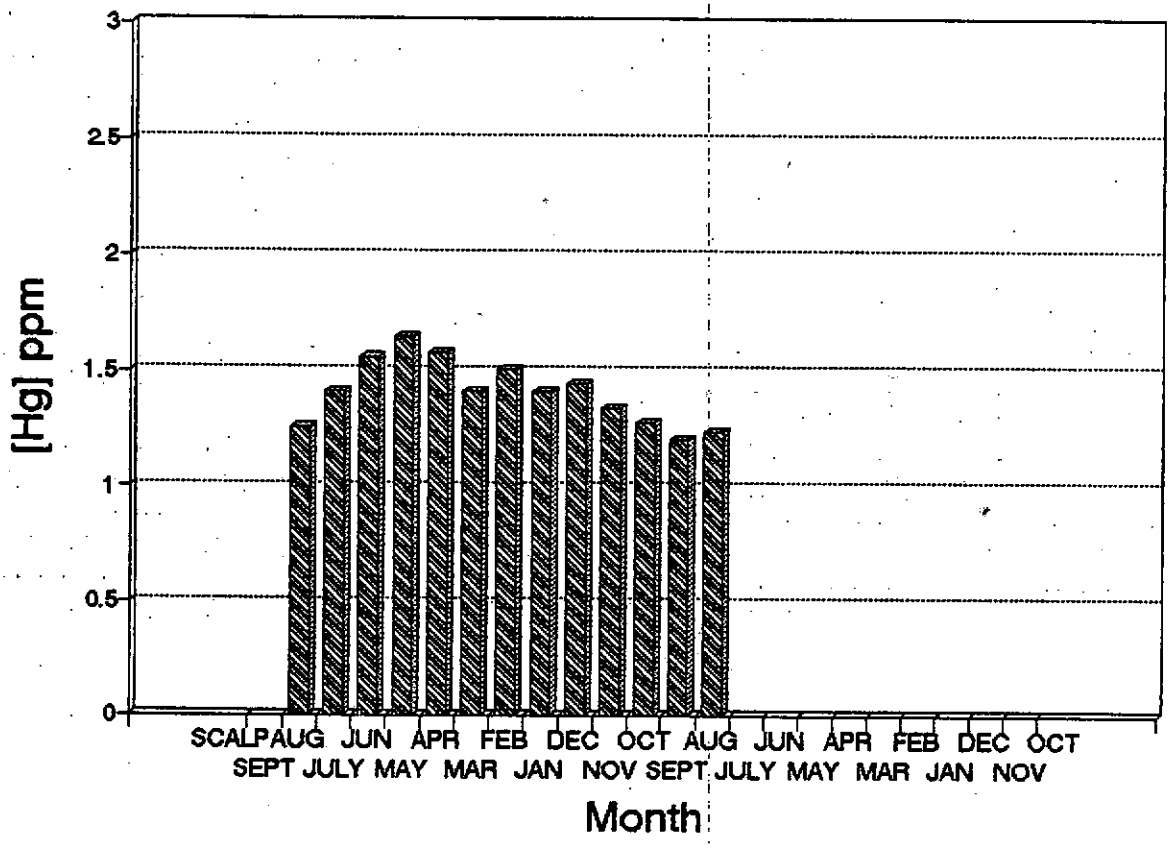
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 50

FILE #: NOMSEG50

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
50a	JULY	1927	21MAR91	0.0141	500	0.330	2146	1.717	0.013	1.717
50b dup	JUN	1941,1928	21MAR91	0.0122	500	0.285	1860	1.716	0.015	1.819
50c	MAY	1929	21MAR91	0.0124	500	0.290	1672	1.515	0.015	1.515
50d	APR	1931	21MAR91	0.0120	500	0.281	1645	1.539	0.016	1.539
50e	MAR	1932	21MAR91	0.0128	500	0.299	1599	1.402	0.015	1.402
50f	FEB	1933	21MAR91	0.0101	500	0.236	1327	1.469	0.018	1.469
50g	JAN	1934	21MAR91	0.0111	500	0.260	1614	1.632	0.017	1.632
50h	DEC	1935	21MAR91	0.0118	500	0.246	1590	1.698	0.018	1.698
50i	NOV	1936	21MAR91	0.0097	500	0.227	1643	1.902	0.019	1.902
50j dup	OCT	1956,1937	21MAR91	0.0095	500	0.222	1372	1.549	0.020	1.628
50k	SEPT	1938	21MAR91	0.0093	500	0.218	1319	1.585	0.020	1.585
50l	AUG	1939	21MAR91	0.0075	500	0.175	1086	1.610	0.025	1.610

[Hg] vs Month
Participant #51



PROJECT ID: NOME SEGMENTAL ANALYSIS

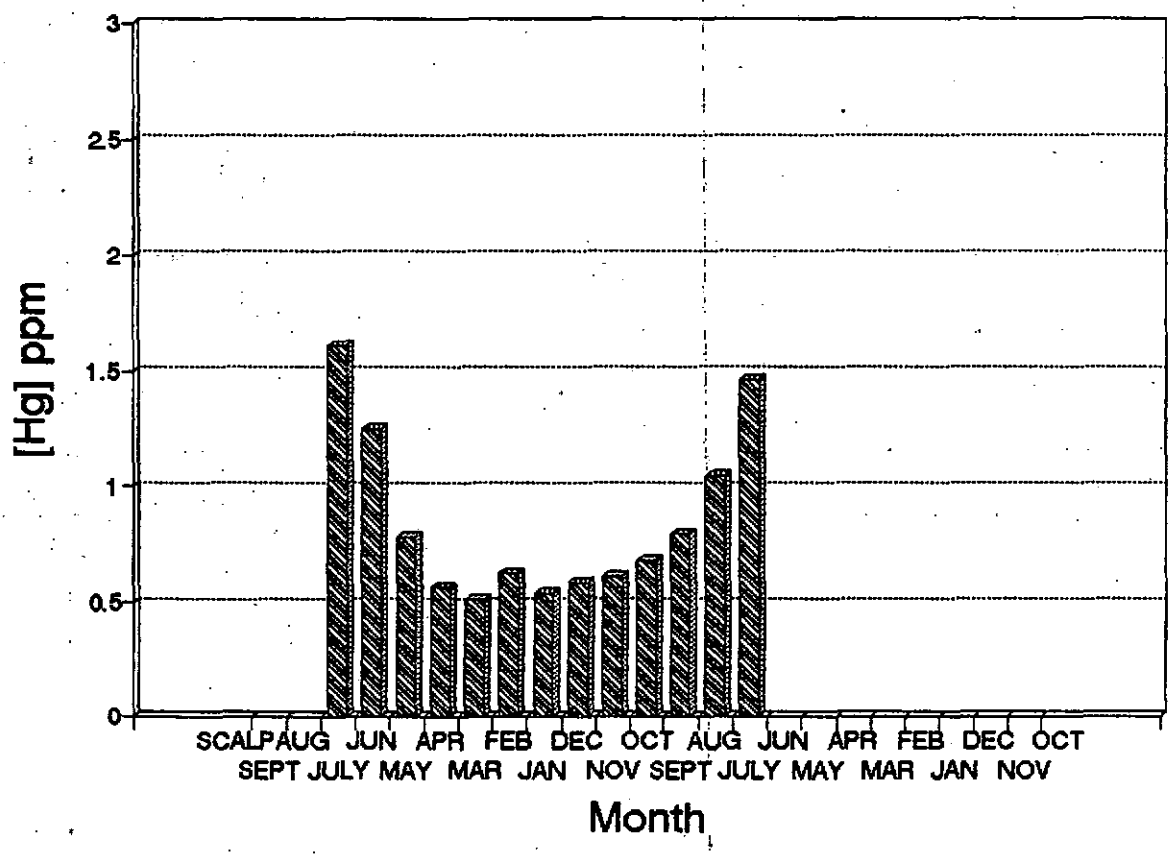
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 51

FILE #: NOMSEG51

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
51a	AUG	1974	22MAR91	0.0080	500	0.187	959	1.251	0.023	1.251
51b	JULY	1975	22MAR91	0.0075	500	0.175	1010	1.409	0.025	1.409
51c	JUN	1976	22MAR91	0.0072	500	0.168	1070	1.559	0.026	1.559
51d	MAY	1977	22MAR91	0.0065	500	0.152	1021	1.644	0.029	1.644
51e dup	APR	2001,1978	22MAR91	0.0067	500	0.157	1076	1.670	0.028	1.579
51f	MAR	1979	22MAR91	0.0059	500	0.138	803	1.408	0.032	1.408
51g	FEB	1982	22MAR91	0.0046	500	0.108	675	1.501	0.040	1.501
51h	JAN	1983	22MAR91	0.0047	500	0.110	648	1.406	0.040	1.406
51i	DEC	1984	22MAR91	0.0035	500	0.082	505	1.442	0.053	1.442
51j	NOV	1985	22MAR91	0.0038	500	0.089	508	1.337	0.049	1.337
51k	OCT	1998	22MAR91	0.0038	500	0.089	479	1.276	0.049	1.276
51l dup	SEPT	2002,1999	22MAR91	0.0033	500	0.077	383	1.160	0.056	1.197
51m	AUG	2000	22MAR91	0.0030	500	0.070	371	1.234	0.062	1.234

[Hg] vs Month
Participant #52



PROJECT ID: NOME SEGMENTAL ANALYSIS

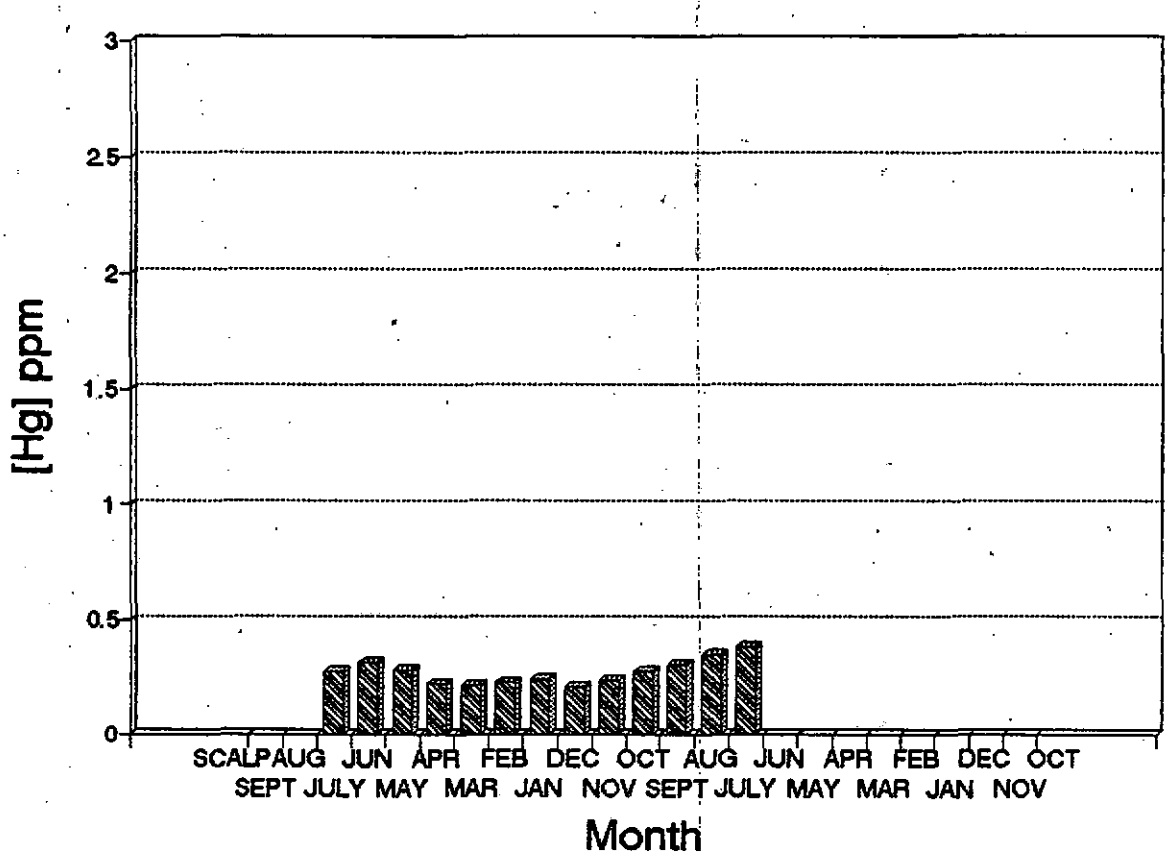
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 52

FILE #: NOMSEG52

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
52a	JULY	2004	22MAR91	0.0085	500	0.199	1313	1.613	0.022	1.613
52b	JUN	2005	22MAR91	0.0083	500	0.194	996	1.246	0.022	1.246
52c dup	MAY	2018,2006	22MAR91	0.0085	500	0.199	675	0.815	0.022	0.781
52d	APR	2007	22MAR91	0.0081	500	0.189	455	0.567	0.023	0.567
52e	MAR	2008	22MAR91	0.0079	500	0.185	400	0.508	0.024	0.508
52f	FEB	2009	22MAR91	0.0080	500	0.187	493	0.625	0.023	0.625
52g	JAN	2011	22MAR91	0.0084	500	0.196	446	0.536	0.022	0.536
52h	DEC	2012	22MAR91	0.0090	500	0.210	519	0.586	0.021	0.586
52i	NOV	2013	22MAR91	0.0081	500	0.189	490	0.613	0.023	0.613
52j	OCT	2014	22MAR91	0.0072	500	0.168	482	0.678	0.026	0.678
52k dup	SEPT	2019,2015	22MAR91	0.0068	500	0.159	584	0.877	0.027	0.793
52l	AUG	2016	22MAR91	0.0056	500	0.131	573	1.044	0.033	1.044
52m	JULY	2017	22MAR91	0.0036	500	0.084	519	1.465	0.052	1.465

[Hg] vs Month
Participant #53



PROJECT ID: NOME SEGMENTAL ANALYSIS

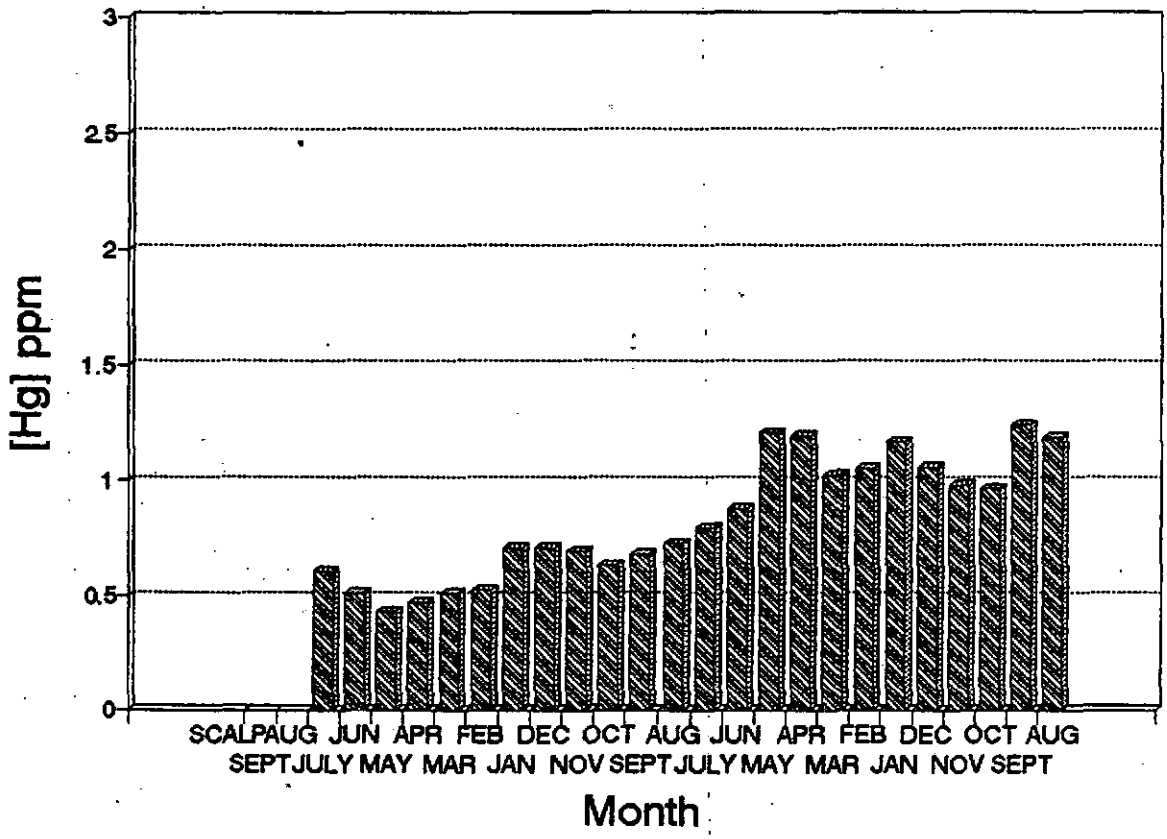
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 53

FILE #: NOMSEG53

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
53a	JULY	2024	25MAR91	0.0159	250	0.186	229	0.274	0.023	0.274
53b	JUN	2025	25MAR91	0.0159	250	0.186	259	0.314	0.023	0.314
53c dup	MAY	2052,2026	25MAR91	0.0154	500	0.360	497	0.289	0.012	0.281
53d	APR	2027	25MAR91	0.0129	250	0.151	157	0.219	0.029	0.219
53e	MAR	2029	25MAR91	0.0145	500	0.339	316	0.214	0.013	0.214
53f	FEB	2044	25MAR91	0.0169	500	0.395	435	0.228	0.011	0.228
53g	JAN	2031	25MAR91	0.0141	500	0.330	340	0.238	0.013	0.238
53h	DEC	2045	25MAR91	0.0158	500	0.370	377	0.209	0.012	0.209
53i	NOV	2051	25MAR91	0.0149	500	0.348	395	0.233	0.012	0.233
53j	OCT	2047	25MAR91	0.0159	500	0.372	487	0.274	0.012	0.274
53k dup	SEPT	2053,2048	25MAR91	0.0114	500	0.267	381	0.293	0.016	0.302
53l	AUG	2049	25MAR91	0.0110	500	0.257	434	0.350	0.017	0.350
53m	JULY	2050	25MAR91	0.0066	500	0.154	293	0.380	0.028	0.380

[Hg] vs Month
Participant #54



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 54

FILE #: NOMSEG54

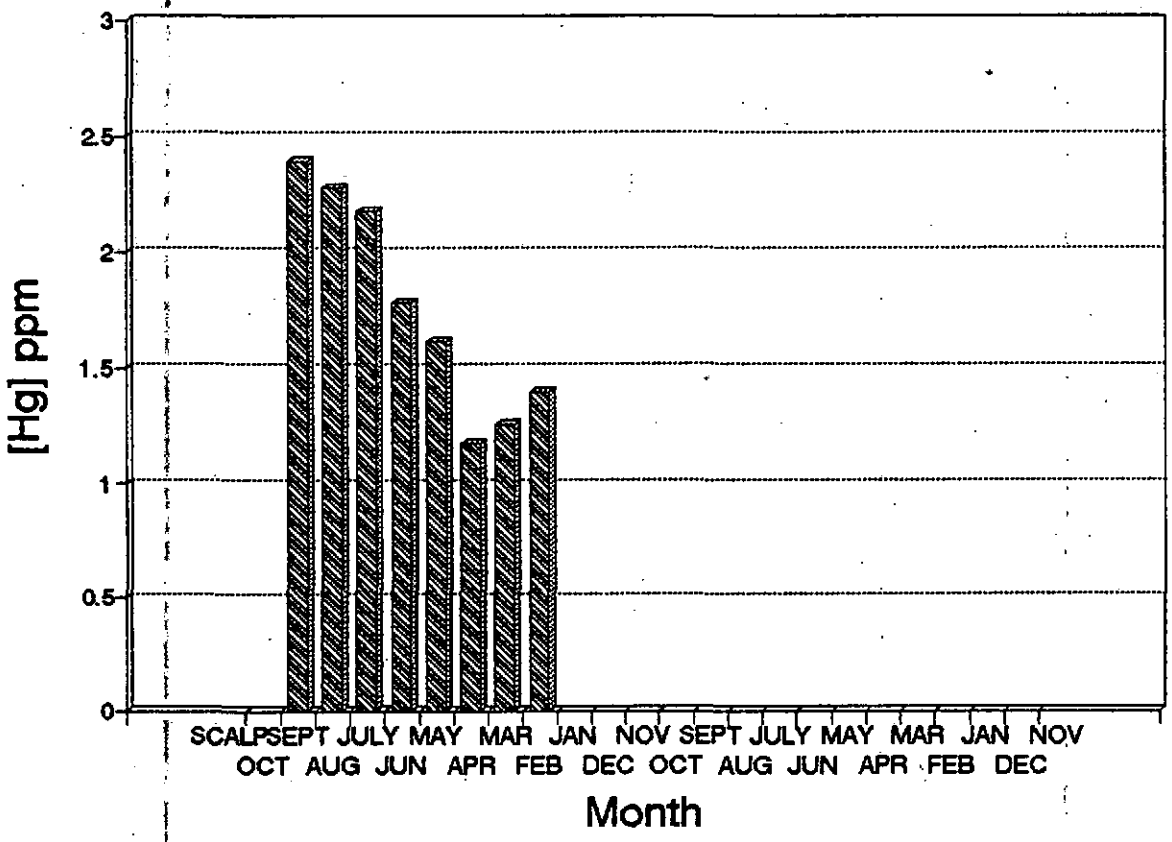
BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	SEPT									
	AUG									
54a	JULY	2054	25MAR91	0.0084	500	0.196	563	0.604	0.022	0.604
54b dup	JUN	2092,2055	25MAR91	0.0088	500	0.206	527	0.522	0.021	0.508
54c	MAY	2056	25MAR91	0.0087	500	0.203	422	0.429	0.021	0.429
54d	APR	2057	25MAR91	0.0083	500	0.194	442	0.473	0.022	0.473
54e	MAR	2058	25MAR91	0.0073	500	0.171	420	0.509	0.025	0.509
54f	FEB	2059	25MAR91	0.0077	500	0.180	452	0.522	0.024	0.522
54g	JAN	2062	25MAR91	0.0070	500	0.164	551	0.708	0.027	0.708
54h	DEC	2063	25MAR91	0.0075	500	0.175	587	0.707	0.025	0.707
54i	NOV	2064	25MAR91	0.0073	500	0.171	562	0.693	0.025	0.693
54j	OCT	2065	25MAR91	0.0071	500	0.166	501	0.631	0.026	0.631
54k dup	SEPT	2093,2066	25MAR91	0.0060	500	0.140	475	0.684	0.031	0.682
54l	AUG	2067	25MAR91	0.0065	500	0.152	524	0.723	0.029	0.723
54m	JULY	2068	25MAR91	0.0057	500	0.133	507	0.796	0.033	0.796
54n	JUN	2069	25MAR91	0.0054	500	0.126	526	0.874	0.034	0.874
54o	MAY	2070	25MAR91	0.0028	500	0.065	385	1.207	0.066	1.207
54p	APR	2071	25MAR91	0.0035	500	0.082	469	1.194	0.053	1.194
54q	MAR	2072	25MAR91	0.0032	500	0.067	337	1.026	0.065	1.026
54r	FEB	2073	25MAR91	0.0031	500	0.073	373	1.054	0.060	1.054

PROJECT ID: NOME SEGMENTAL ANALYSIS ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 54 FILE #: NOMSEG54

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
54s	JAN	2074	25MAR91	0.0030	500	0.070	397	1.165	0.062	1.165
54t dup	DEC	2096,2075	25MAR91	0.0035	500	0.082	443	1.085	0.053	1.054
54u	NOV	2076	25MAR91	0.0037	500	0.087	409	0.975	0.050	0.975
54v	OCT	2077	25MAR91	0.0033	500	0.077	363	0.961	0.056	0.961
54w	SEPT	2090	25MAR91	0.0027	500	0.063	396	1.242	0.069	1.242
54x	AUG	2091	25MAR91	0.0024	500	0.056	343	1.188	0.078	1.188

[Hg] vs Month
Participant #55



PROJECT ID: NOME SEGMENTAL ANALYSIS

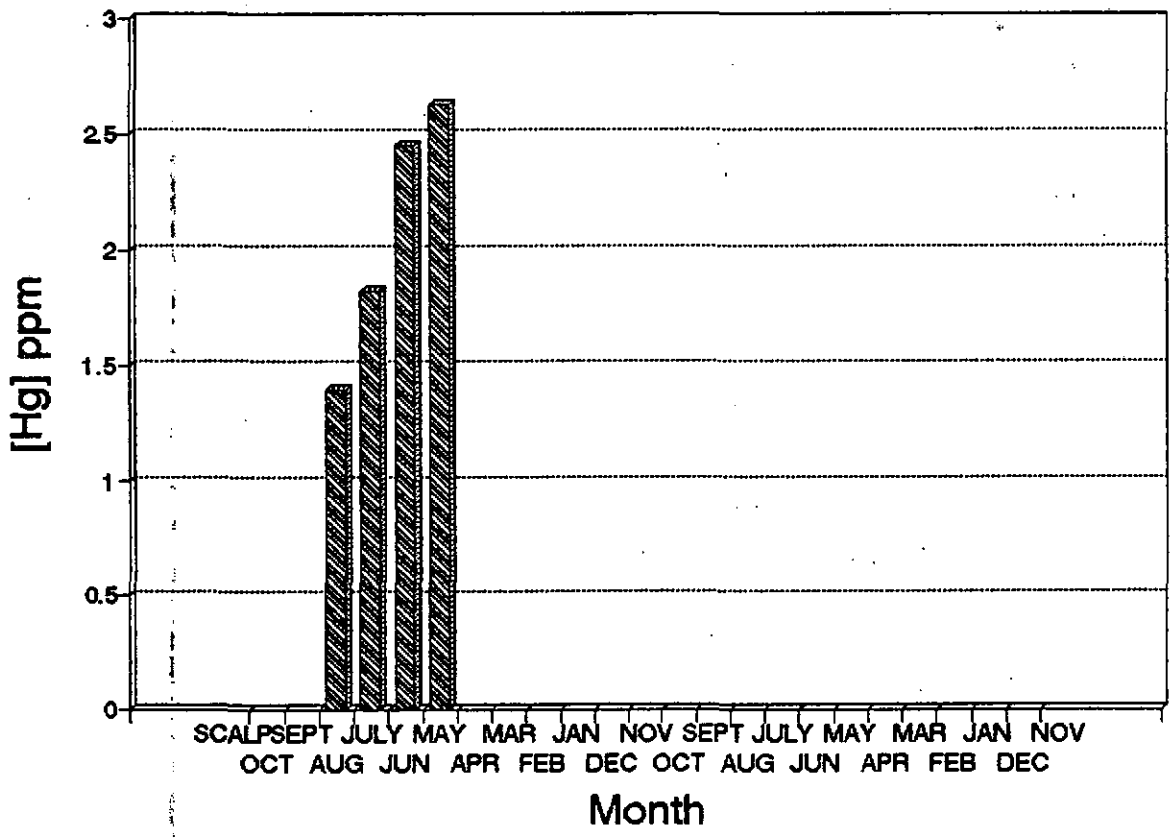
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 55

FILE #: NOMSEG55

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
55a	SEPT	2100	26MAR91	0.0062	500	0.145	1605	2.387	0.030	2.387
55b dup	AUG	2118,2101	26MAR91	0.0060	500	0.140	1475	2.261	0.031	2.272
55c	JULY	2102	26MAR91	0.0059	500	0.138	1395	2.171	0.032	2.171
55d	JUN	2103	26MAR91	0.0055	500	0.129	1075	1.778	0.034	1.778
55e	MAY	2104	26MAR91	0.0043	500	0.101	773	1.608	0.043	1.608
55f	APR	2105	26MAR91	0.0044	500	0.103	589	1.176	0.042	1.176
55g dup	MAR	2110,2106	26MAR91	0.0046	500	0.108	638	1.225	0.040	1.254
55h	FEB	2107	26MAR91	0.0048	500	0.112	749	1.393	0.039	1.393

[Hg] vs Month
Participant #56



PROJECT ID: NOME SEGMENTAL ANALYSIS

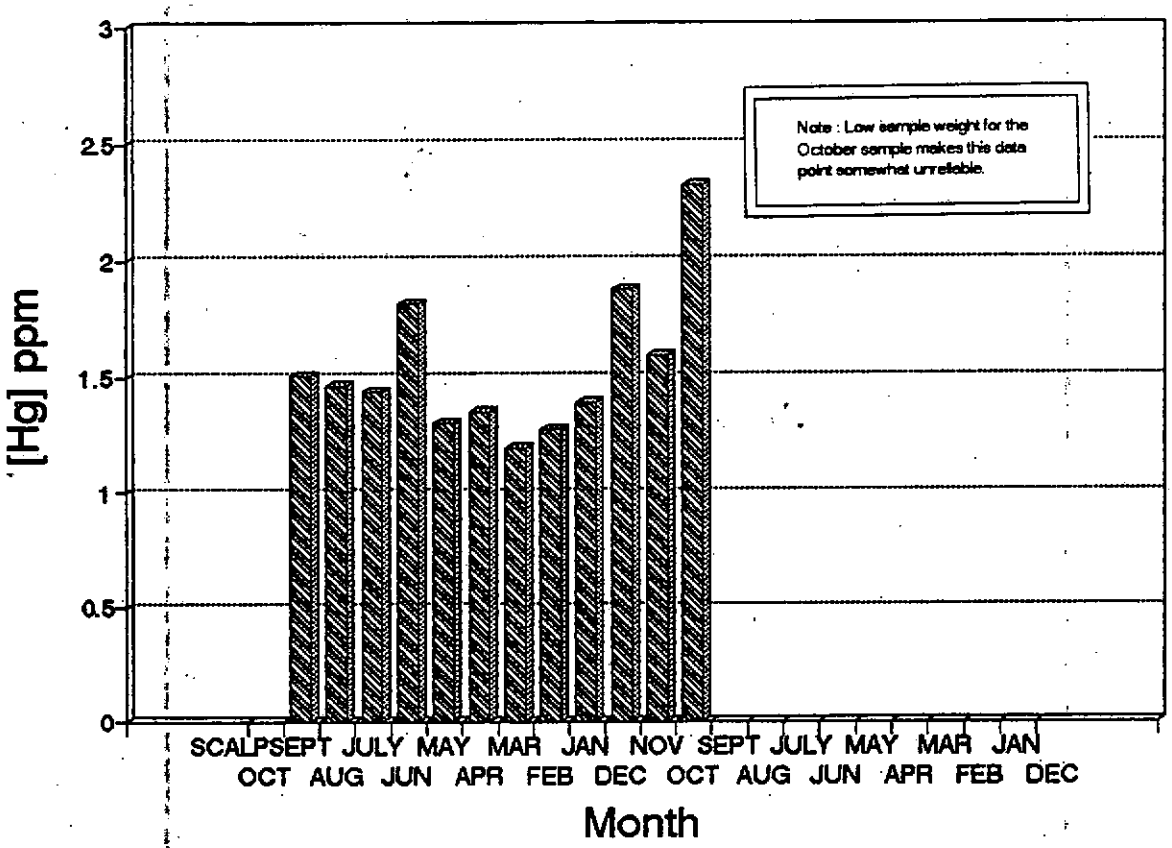
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 56

FILE #: NOMSEG56

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
56a	AUG	2111	26MAR91	0.0062	500	0.145	955	1.394	0.030	1.394
56b dup	JULY	2117,2112	26MAR91	0.0058	500	0.136	1203	1.895	0.032	1.820
56c	JUN	2115	26MAR91	0.0040	500	0.094	1077	2.449	0.047	2.449
56d	MAY	2116	26MAR91	0.0046	500	0.108	1319	2.628	0.040	2.628

[Hg] vs Month
Participant #57



PROJECT ID: NOME SEGMENTAL ANALYSIS

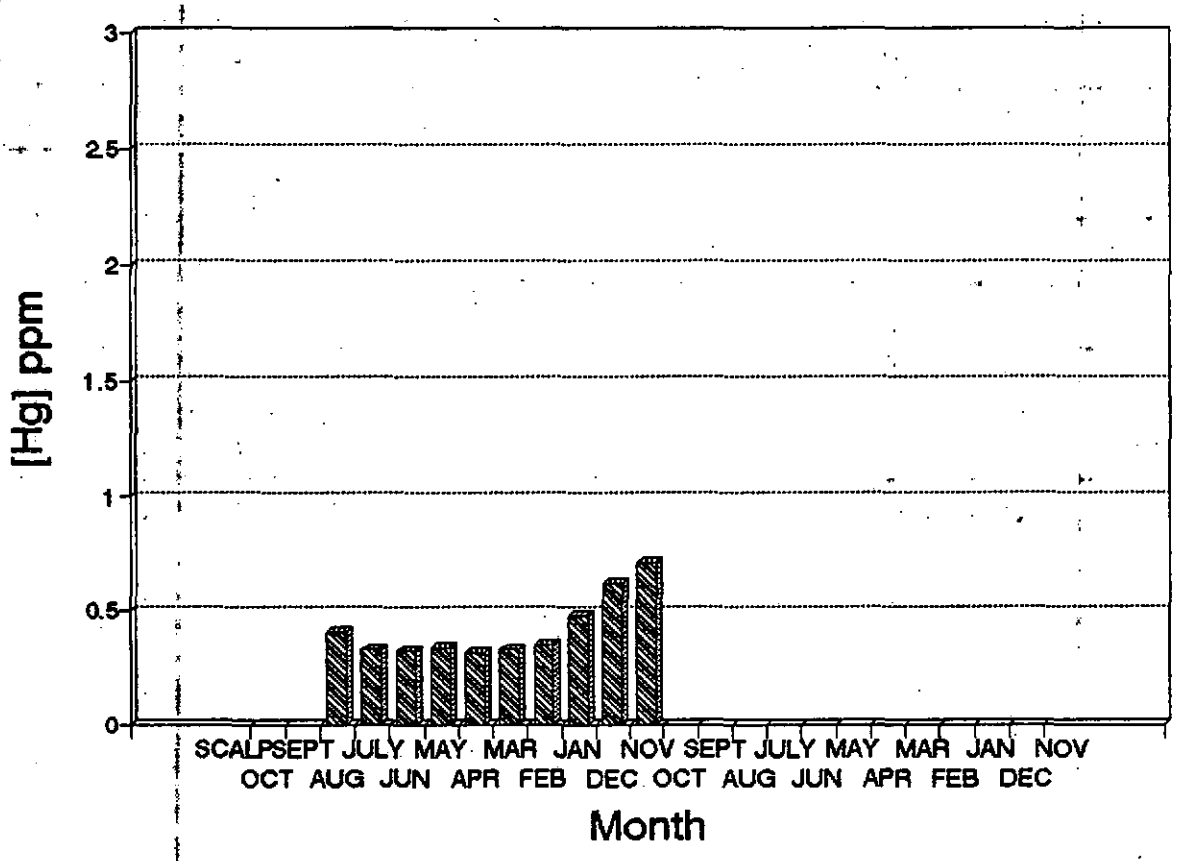
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 57

FILE #: NOMSEG57

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
57a	SEPT	2163	27MAR91	0.0079	500	0.185	1298	1.503	0.024	1.503
57b dup	AUG	2190,2166	27MAR91	0.0056	500	0.131	902	1.388	0.033	1.462
57c	JULY	2167	27MAR91	0.0059	500	0.138	936	1.439	0.032	1.439
57d	JUN	2168	27MAR91	0.0041	500	0.096	825	1.817	0.045	1.817
57e	MAY	2169	27MAR91	0.0049	500	0.115	710	1.301	0.038	1.301
57f	APR	2170	27MAR91	0.0037	500	0.087	562	1.349	0.050	1.349
57g	MAR	2172	27MAR91	0.0032	500	0.075	437	1.195	0.058	1.195
57h	FEB	2173	27MAR91	0.0025	500	0.058	368	1.271	0.074	1.271
57i	JAN	2174	27MAR91	0.0025	500	0.058	400	1.391	0.074	1.391
57j dup	DEC	2191,2175	27MAR91	0.0023	500	0.054	505	1.845	0.081	1.876
57k	NOV	2188	27MAR91	0.0024	500	0.056	458	1.594	0.078	1.594
57l	OCT	2189	27MAR91	0.0016	500	0.037	446	2.324	0.116	2.324

[Hg] vs Month
Participant #58



PROJECT ID: NOME SEGMENTAL ANALYSIS

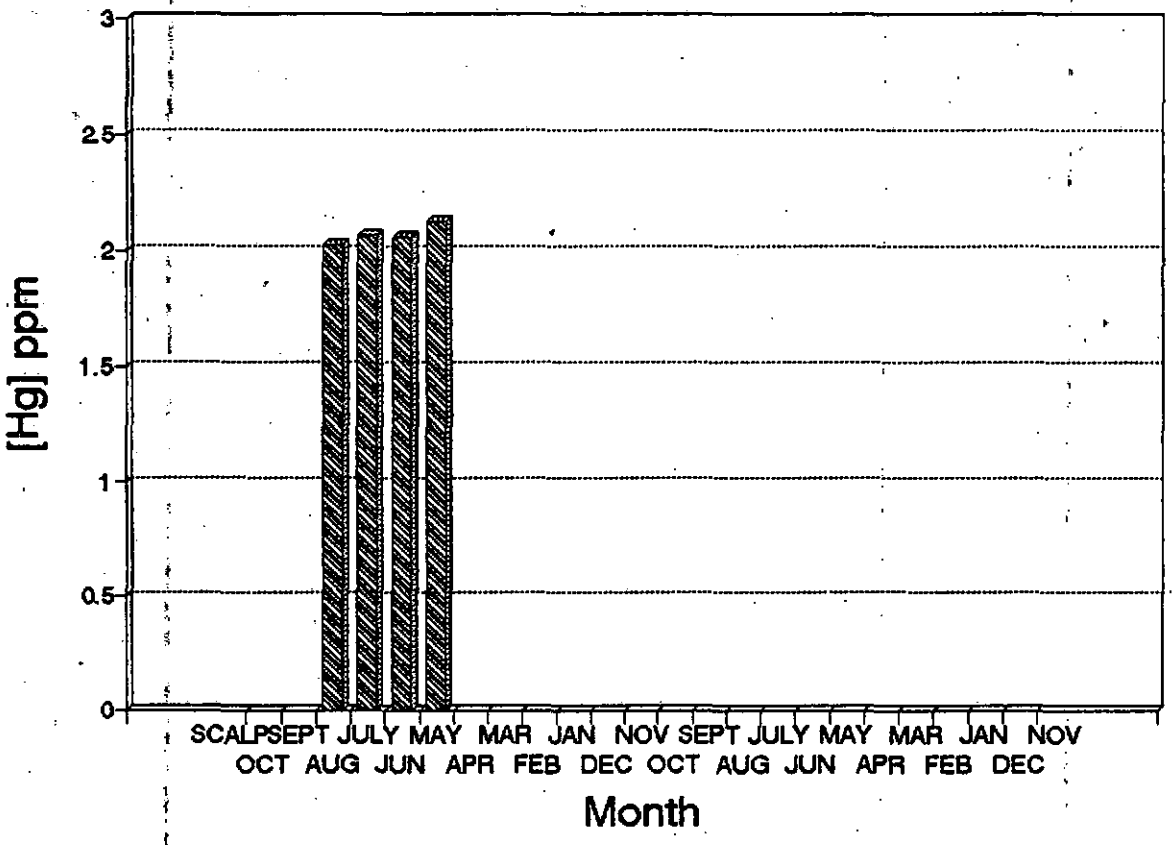
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 58

FILE #: NOMSEG58

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
58a	AUG	2208	29MAR91	0.0093	500	0.218	467	0.403	0.020	0.403
58b dup	JULY	2218,2209	29MAR91	0.0101	500	0.236	402	0.314	0.018	0.325
58c	JUN	2210	29MAR91	0.0097	500	0.227	392	0.318	0.019	0.318
58d	MAY	2211	29MAR91	0.0101	500	0.236	426	0.335	0.018	0.335
58e	APR	2212	29MAR91	0.0092	500	0.215	371	0.315	0.020	0.315
58f	MAR	2213	29MAR91	0.0094	500	0.220	392	0.328	0.020	0.328
58g	FEB	2214	29MAR91	0.0101	500	0.236	440	0.347	0.018	0.347
58h dup	JAN	2219,2215	29MAR91	0.0089	500	0.208	514	0.468	0.021	0.474
58i	DEC	2216	29MAR91	0.0061	500	0.143	471	0.621	0.030	0.621
58j	NOV	2217	29MAR91	0.0050	500	0.117	441	0.704	0.037	0.704

[Hg] vs Month
Participant #59



PROJECT ID: NOME SEGMENTAL ANALYSIS

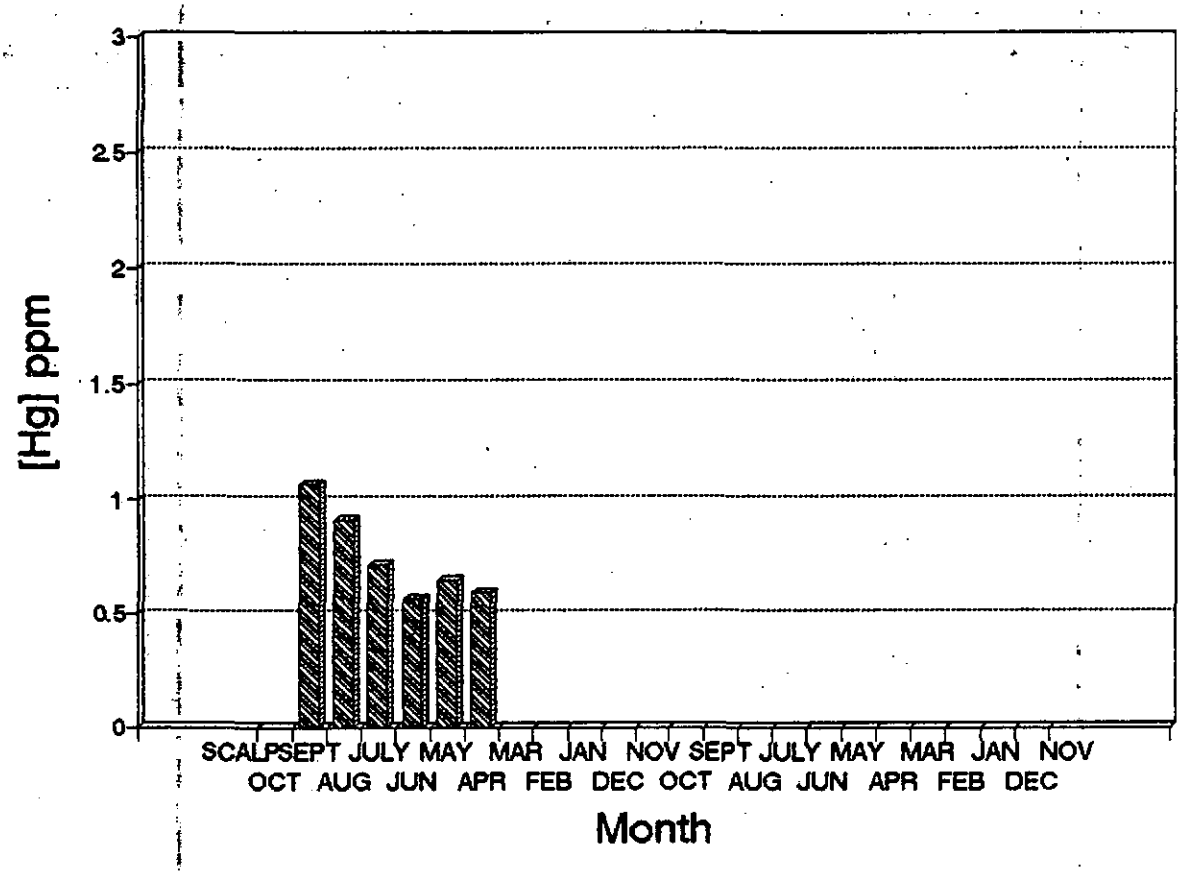
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 59

FILE #: NOMSEG59

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
59a	AUG	2220	29MAR91	0.0107	500	0.250	2481	2.025	0.017	2.025
59b	JULY	2221	29MAR91	0.0106	500	0.248	2505	2.064	0.018	2.064
59c dup	JUN	2248,2224	29MAR91	0.0063	500	0.147	1389	1.928	0.030	2.059
59d	MAY	2225	29MAR91	0.0026	500	0.061	666	2.123	0.072	2.123

[Hg] vs Month
Participant #60



PROJECT ID: NOME SEGMENTAL ANALYSIS

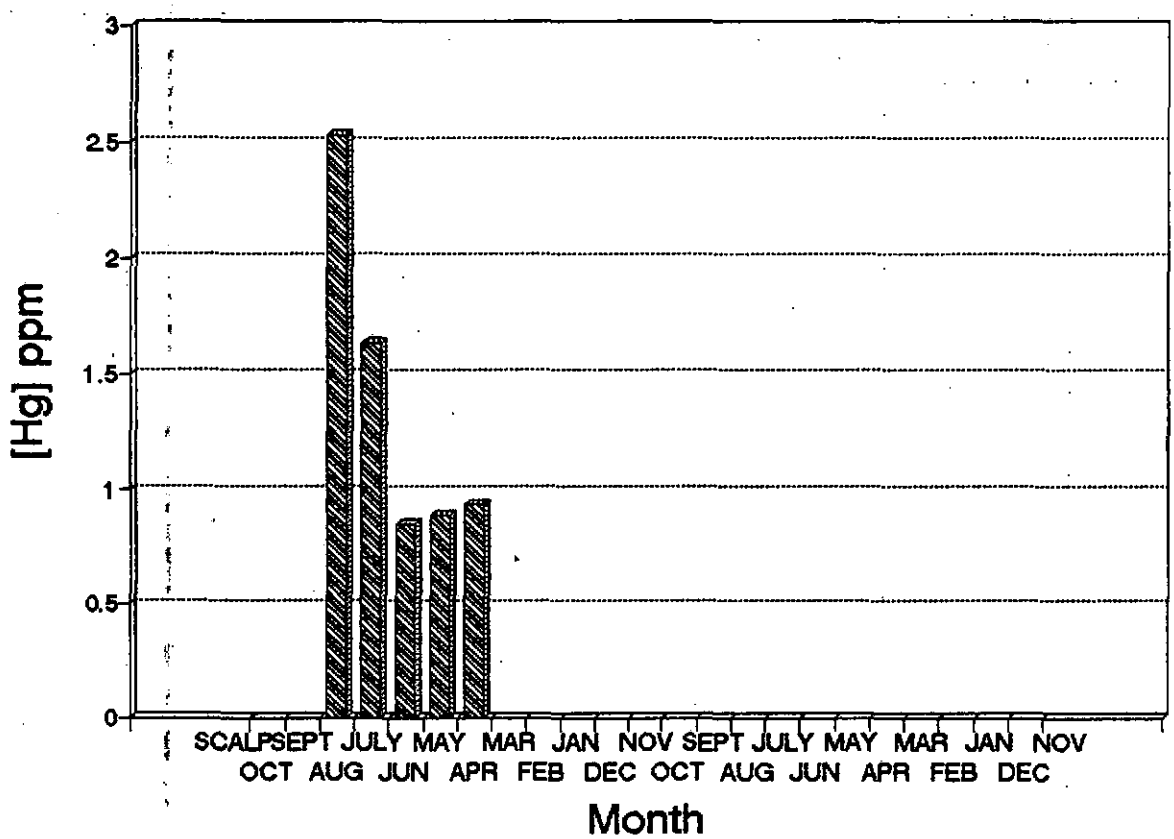
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 60

FILE #: NOMSEG60

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
60a	SEPT	2192	27MAR91	0.0110	500	0.257	1344	1.064	0.017	1.064
60b dup	AUG	2198,2193	27MAR91	0.0111	500	0.260	1185	0.927	0.017	0.912
60c	JULY	2194	27MAR91	0.0110	500	0.257	912	0.715	0.017	0.715
60d	JUN	2195	27MAR91	0.0110	500	0.257	725	0.564	0.017	0.564
60e	MAY	2196	27MAR91	0.0115	500	0.269	858	0.642	0.016	0.642
60f	APR	2197	27MAR91	0.0080	500	0.187	557	0.588	0.023	0.588

[Hg] vs Month
Participant #61



PROJECT ID: NOME SEGMENTAL ANALYSIS

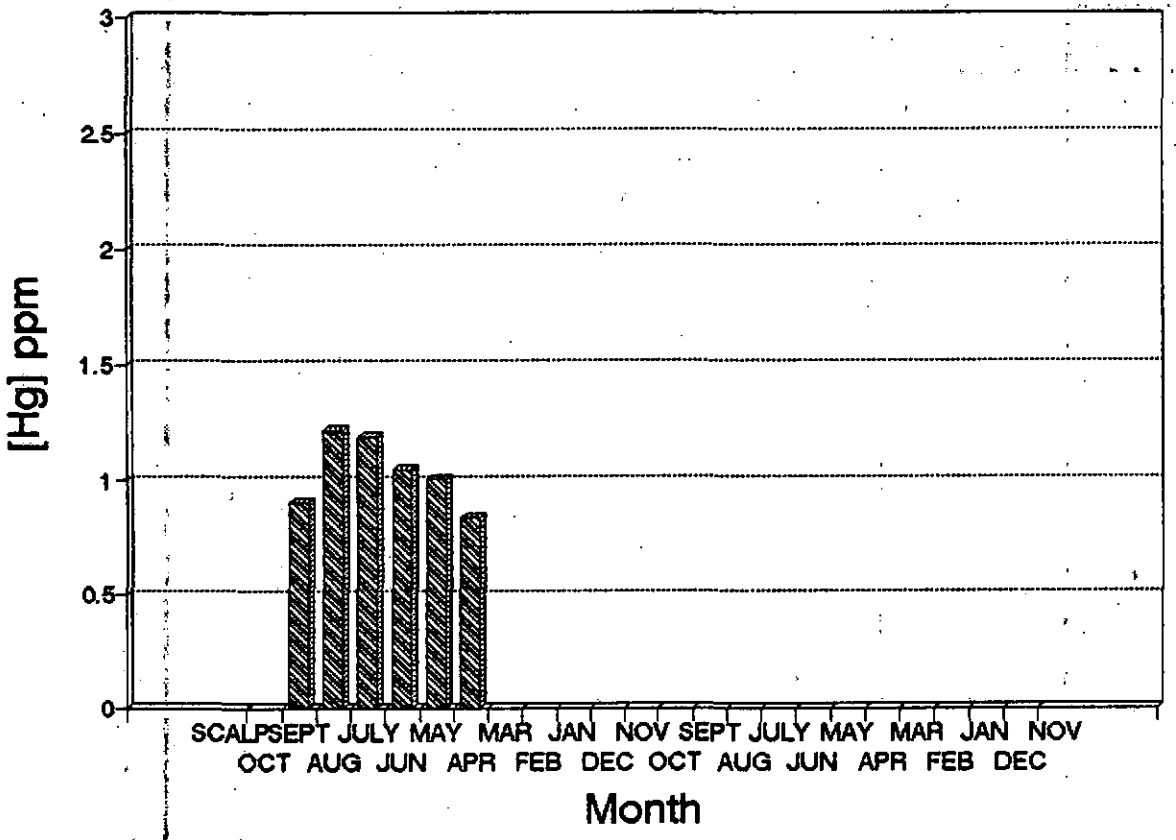
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 61

FILE #: NOMSEG61

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
61a	AUG	2249	29MAR91	0.0060	500	0.140	1729	2.533	0.031	2.533
61b dup	JULY	2254,2250	29MAR91	0.0060	500	0.140	1066	1.541	0.031	1.630
61c	JUN	2251	29MAR91	0.0054	500	0.126	545	0.847	0.034	0.847
61d	MAY	2252	29MAR91	0.0040	500	0.094	431	0.887	0.047	0.887
61e	APR	2253	29MAR91	0.0031	500	0.073	358	0.934	0.060	0.934

[Hg] vs Month
Participant #62



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

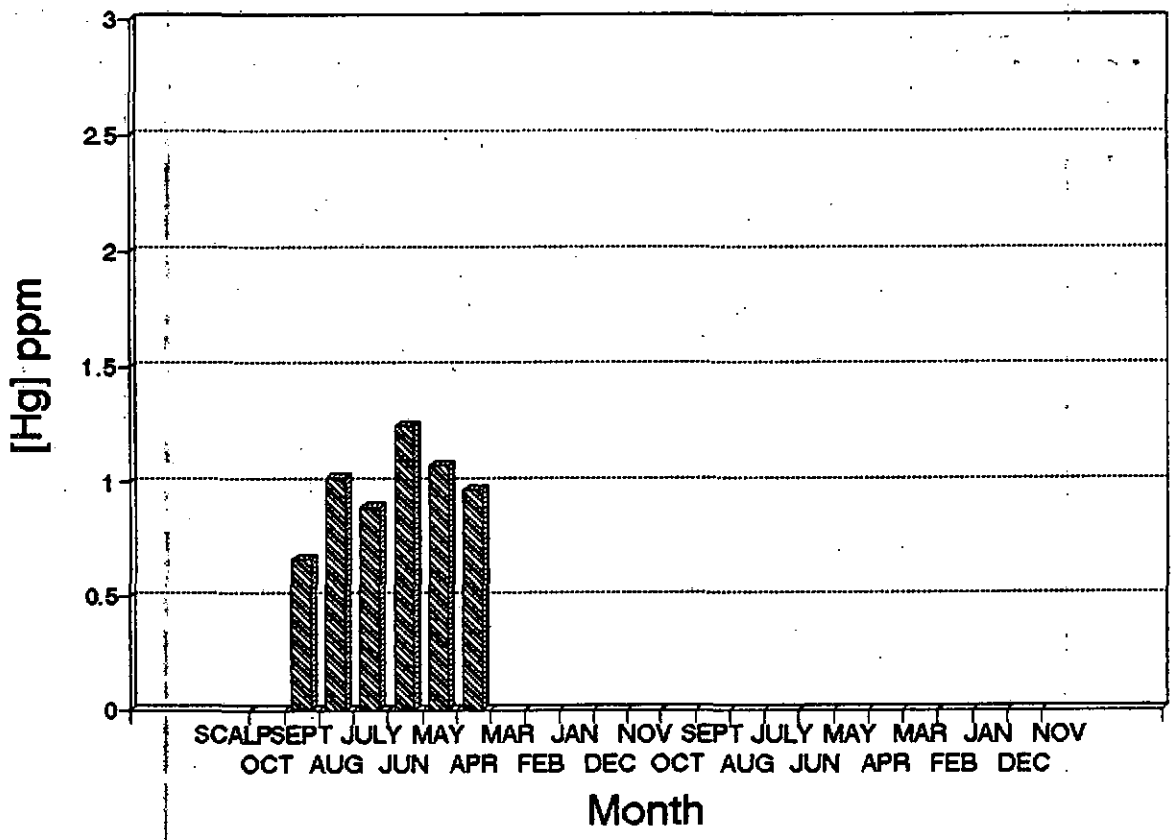
ANALYSIS: ΣHg/HAIR SAMPLE 62

FILE #: NOMSEG62

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
62a	SEPT	2619	9APR91	0.0070	500	0.164	1060	0.903	0.027	0.903
62b dup	AUG	2626,2620	9APR91	0.0066	500	0.154	1265	1.150	0.028	1.215
62c	JULY	2622	9APR91	0.0074	500	0.173	1460	1.189	0.025	1.189
62d	JUN	2623	9APR91	0.0056	500	0.131	981	1.042	0.033	1.042
62e	MAY	2624	9APR91	0.0068	500	0.159	1141	1.004	0.027	1.004
62f	APR	2625	9APR91	0.0050	500	0.117	713	0.836	0.037	0.836

[Hg] vs Month

Participant #62/BLOOM INTERCALIBRATION



PROJECT ID: NOME SEGMENTAL ANALYSIS

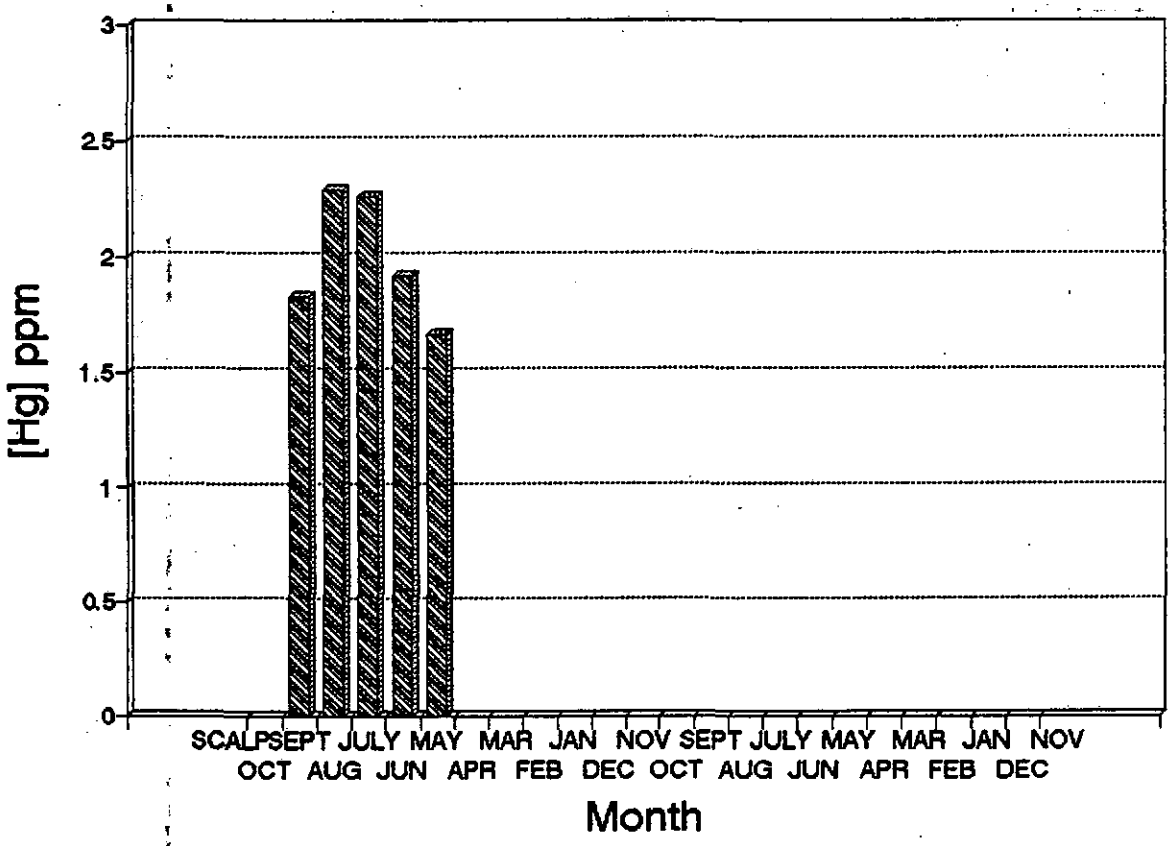
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 62/BLOOM

FILE #: BLOOM62

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g
	SCALP							
	OCT							
62a	SEPT			0.0073				0.66
62b	AUG			0.0068				1.015
62c	JULY			0.0071				0.890
62d	JUN			0.0050				1.240
62e	MAY			0.0057				1.070
62f	APR			0.0032				0.960

[Hg] vs Month
Participant #63



PROJECT ID: NOME SEGMENTAL ANALYSIS

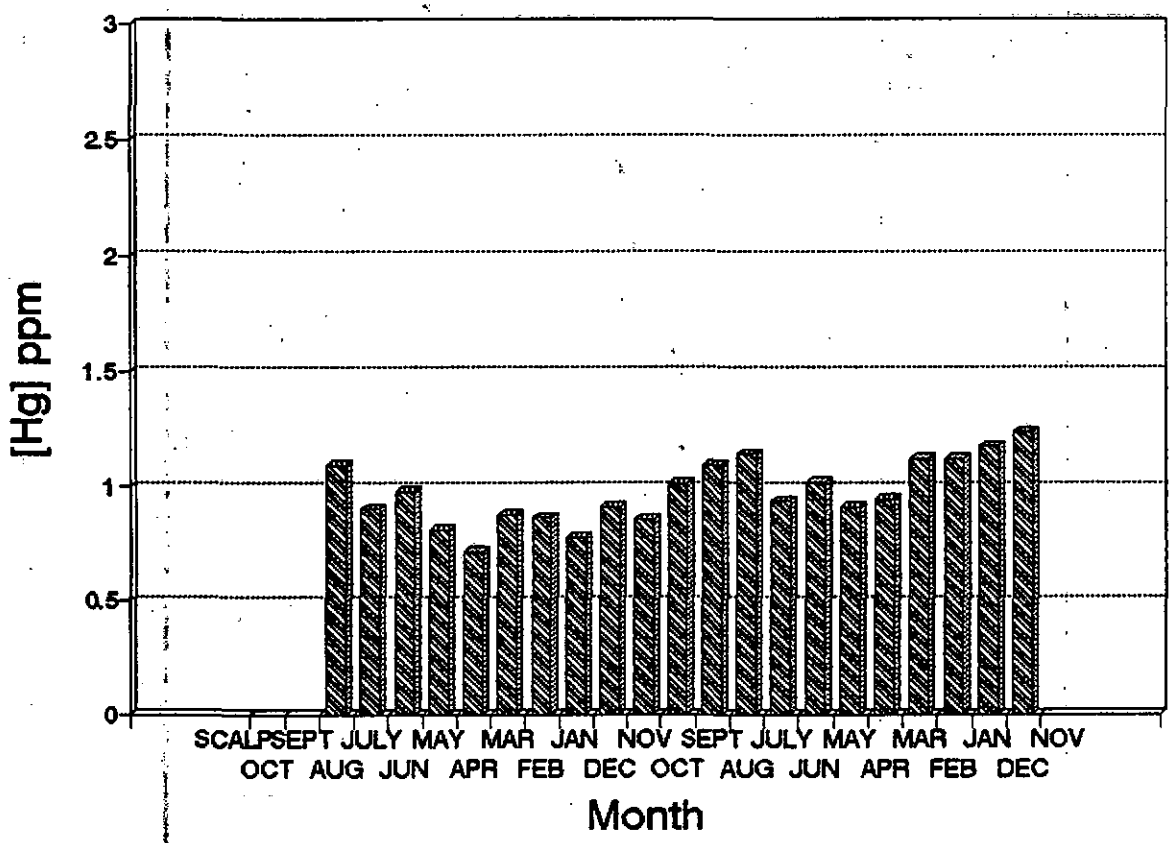
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 63

FILE #: NOMSEG63

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
63a	SEPT	2255	29MAR91	0.0123	500	0.288	2540	1.827	0.015	1.827
63b dup	AUG	2260,2256	29MAR91	0.0121	500	0.283	3107	2.278	0.015	2.284
63c	JULY	2257	29MAR91	0.0118	500	0.276	3005	2.258	0.016	2.258
63d	JUN	2258	29MAR91	0.0091	500	0.213	1976	1.914	0.020	1.914
63e	MAY	2259	29MAR91	0.0054	500	0.126	1037	1.664	0.034	1.664

[Hg] vs Month
Participant #64



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 64

FILE #: NOMSEG64

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
64a	AUG	2343	2APR91	0.0076	500	0.178	963	1.089	0.024	1.089
64b dup	JULY	2378,2344	2APR91	0.0071	500	0.166	733	0.873	0.026	0.905
64c	JUN	2345	2APR91	0.0056	500	0.131	644	0.975	0.033	0.975
64d	MAY	2346	2APR91	0.0063	500	0.147	604	0.810	0.030	0.810
64e	APR	2347	2APR91	0.0065	500	0.152	550	0.712	0.029	0.712
64f	MAR	2348	2APR91	0.0061	500	0.143	628	0.872	0.030	0.872
64g	FEB	2349	2APR91	0.0058	500	0.136	590	0.859	0.032	0.859
64h	JAN	2350	2APR91	0.0055	500	0.129	508	0.774	0.034	0.774
64i	DEC	2351	2APR91	0.0051	500	0.119	550	0.908	0.036	0.908
64j	NOV	2352	2APR91	0.0048	500	0.112	489	0.852	0.039	0.852
64k dup	OCT	2379,2353	2APR91	0.0044	500	0.103	508	0.960	0.042	1.007
64l	SEPT	2355	2APR91	0.0045	500	0.105	583	1.093	0.041	1.093
64m	AUG	2356	2APR91	0.0040	500	0.094	541	1.137	0.047	1.137
64n	JULY	2357	2APR91	0.0046	500	0.108	515	0.939	0.040	0.939
64o	JUN	2370	2APR91	0.0038	500	0.089	466	1.014	0.049	1.014
64p	MAY	2371	2APR91	0.0036	500	0.084	399	0.907	0.052	0.907
64q	APR	2372	2APR91	0.0040	500	0.094	457	0.944	0.047	0.944
64r	MAR	2373	2APR91	0.0029	500	0.068	397	1.120	0.064	1.120

PROJECT ID: NOME SEGMENTAL ANALYSIS

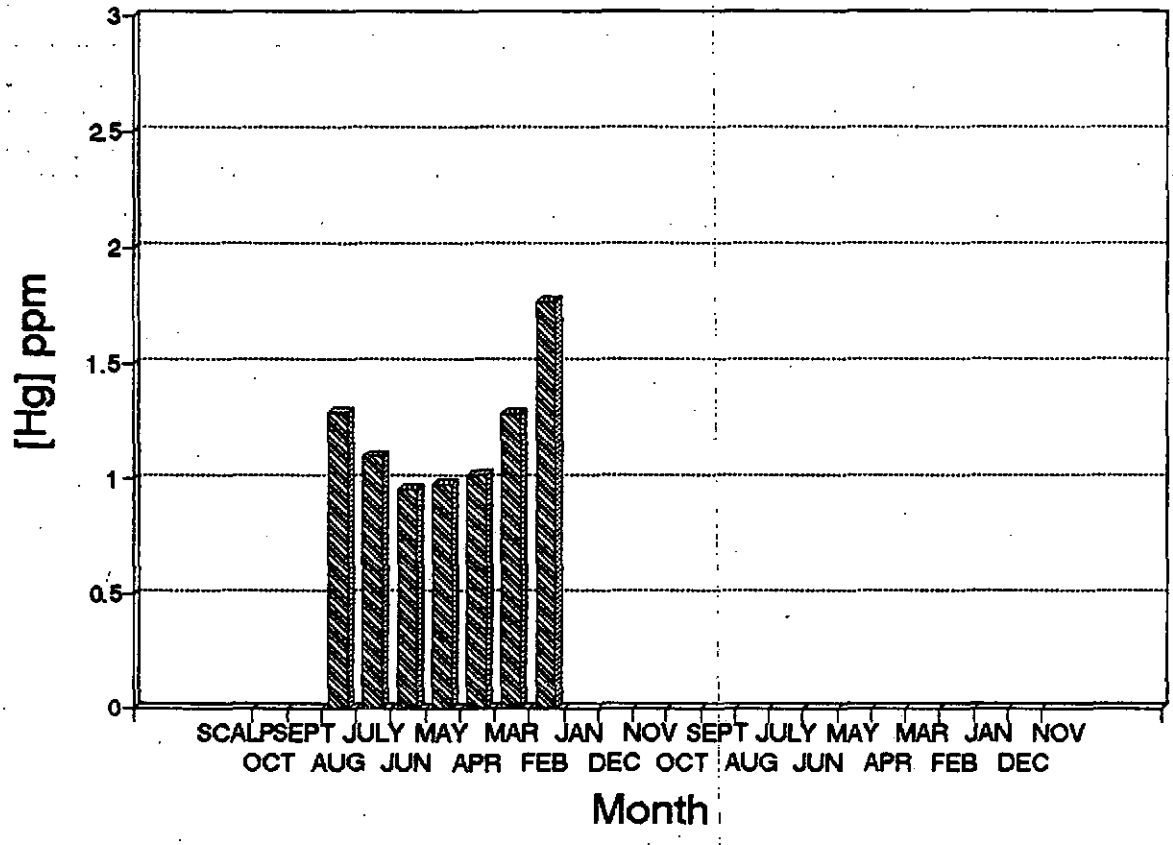
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 64

FILE #: NOMSEG64

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
64s	FEB	2375	2APR91	0.0030	500	0.070	408	1.115	0.062	1.115
64t dup	JAN	2380,2376	2APR91	0.0032	500	0.075	465	1.202	0.058	1.17281
64u	DEC	2377	2APR91	0.0028	500	0.065	420	1.232	0.066	1.23231

[Hg] vs Month
Participant #65



PROJECT ID: NOME SEGMENTAL ANALYSIS

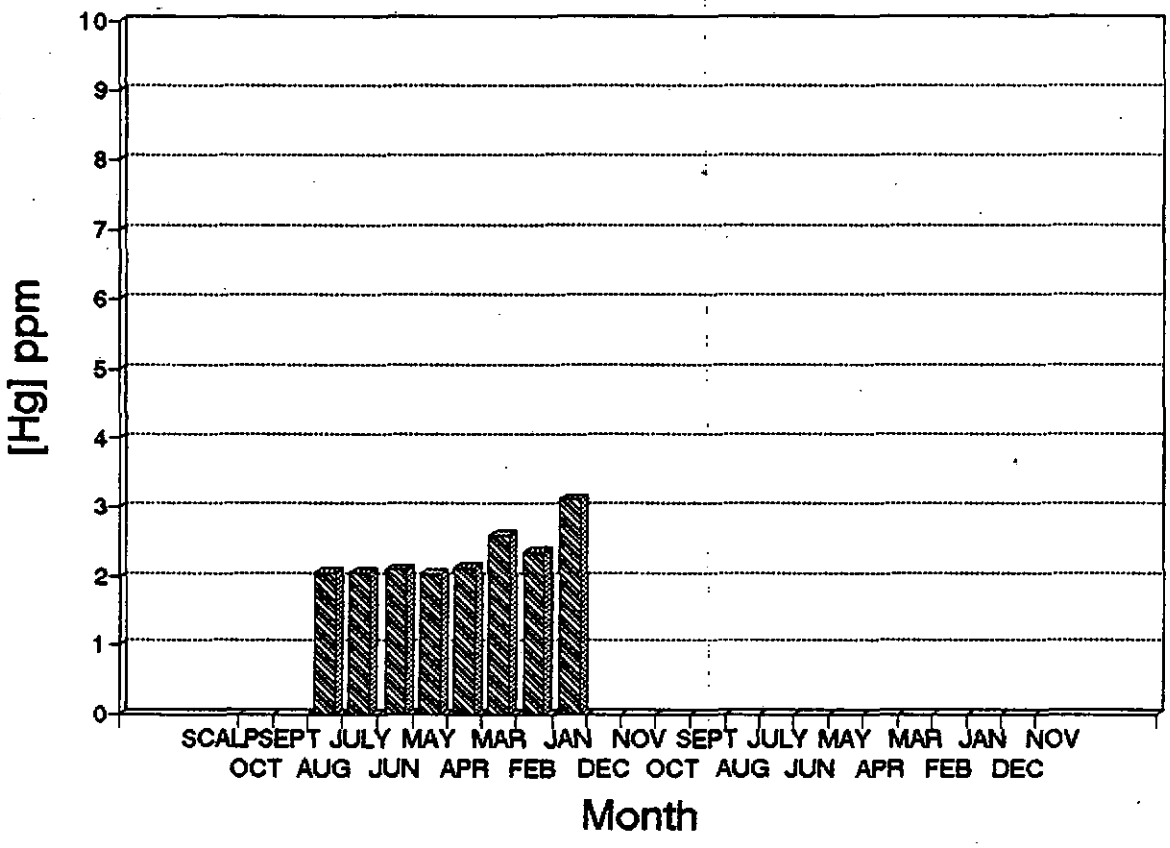
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 65

FILE #: NOMSEG65

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
65a	AUG	2392	2APR91	0.0070	500	0.164	1052	1.285	0.027	1.285
65b dup	JULY	2390,2382	2APR91	0.0071	500	0.166	902	1.081	0.026	1.097
65c	JUN	2383	2APR91	0.0074	500	0.173	832	0.954	0.025	0.954
65d	MAY	2384	2APR91	0.0080	500	0.187	916	0.975	0.023	0.975
65e	APR	2385	2APR91	0.0068	500	0.159	815	1.017	0.027	1.017
65f dup	MAR	2391,2388	2APR91	0.0064	500	0.150	964	1.284	0.029	1.280
65g	FEB	2389	2APR91	0.0056	500	0.131	1153	1.764	0.033	1.764

[Hg] vs Month
Participant #66



PROJECT ID: NOME SEGMENTAL ANALYSIS

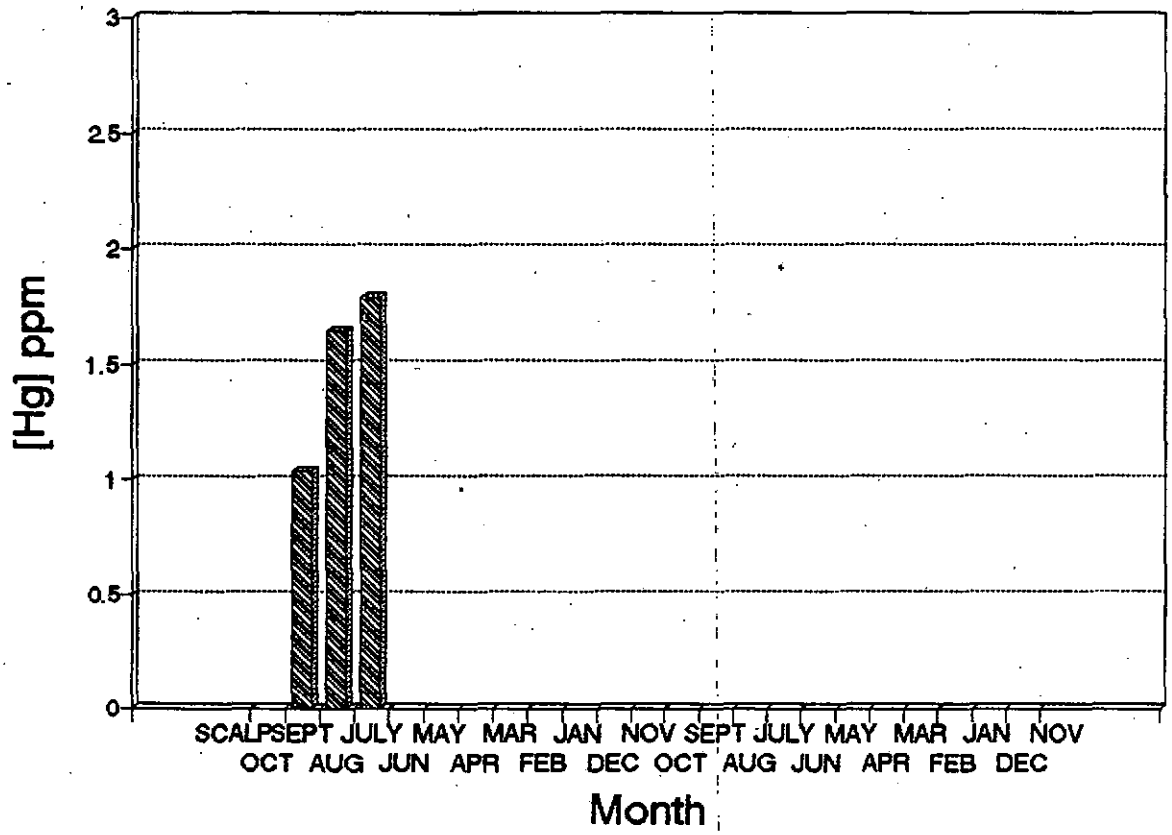
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 66

FILE #: NOMSEG66

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
66a	AUG	2393	2APR91	0.0136	500	0.318	3217	2.057	0.014	2.057
66b dup	JULY	2401,2394	2APR91	0.0141	500	0.330	3283	2.025	0.013	2.051
66c	JUN	2395	2APR91	0.0135	500	0.316	3255	2.097	0.014	2.097
66d	MAY	2396	2APR91	0.0129	500	0.302	3030	2.042	0.014	2.042
66e	APR	2397	2APR91	0.0115	500	0.269	2805	2.119	0.016	2.119
66f	MAR	2398	2APR91	0.0110	500	0.257	3297	2.607	0.017	2.607
66g	FEB	2399	2APR91	0.0088	500	0.206	2399	2.364	0.021	2.364
66h	JAN	2400	2APR91	0.0041	500	0.096	1482	3.113	0.045	3.113

[Hg] vs Month
Participant #67



PROJECT ID: NOME SEGMENTAL ANALYSIS

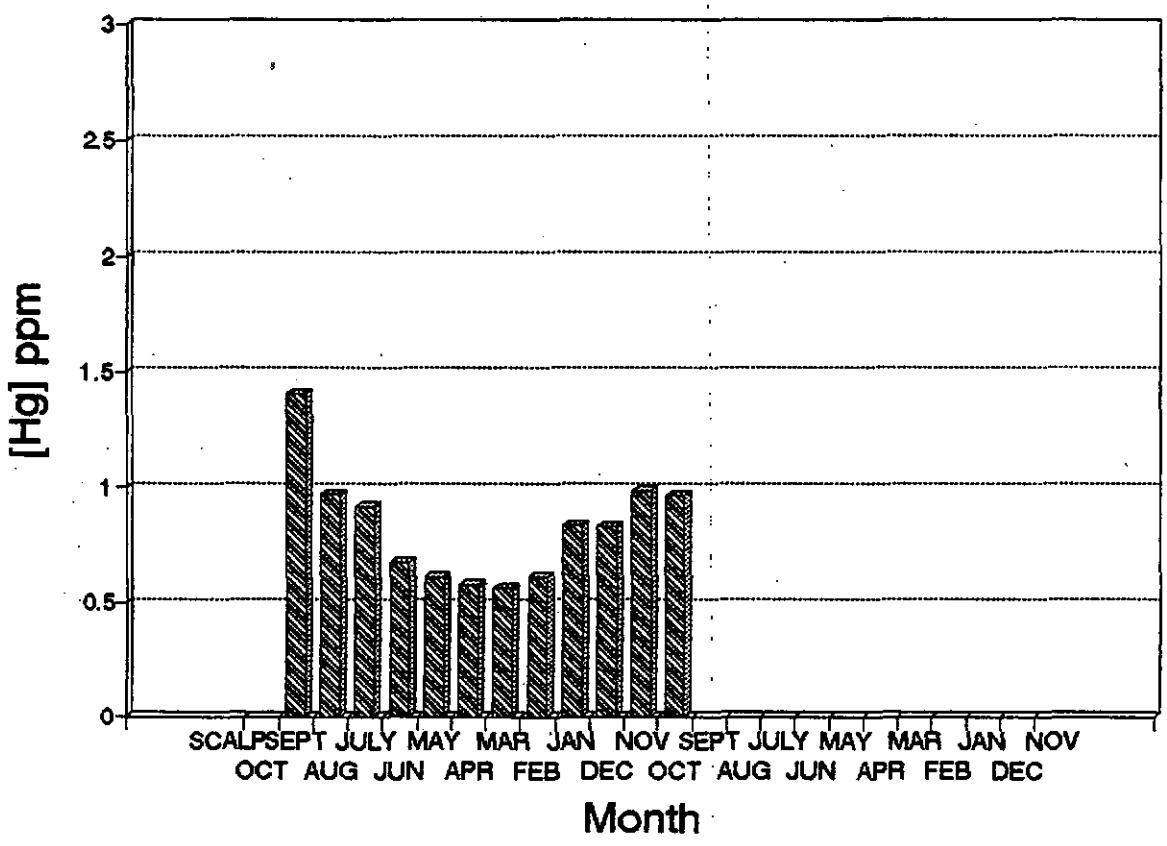
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 67

FILE #: NOMSEG67

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
67a	SEPT	2261	29MAR91	0.0085	500	0.199	1018	1.037	0.022	1.037
67b	AUG	2262	29MAR91	0.0075	500	0.175	1409	1.643	0.025	1.643
67c dup	JULY	2266,2263	29MAR91	0.0075	500	0.175	1508	1.762	0.025	1.790

[Hg] vs Month
Participant #68



PROJECT ID: NOME SEGMENTAL ANALYSIS

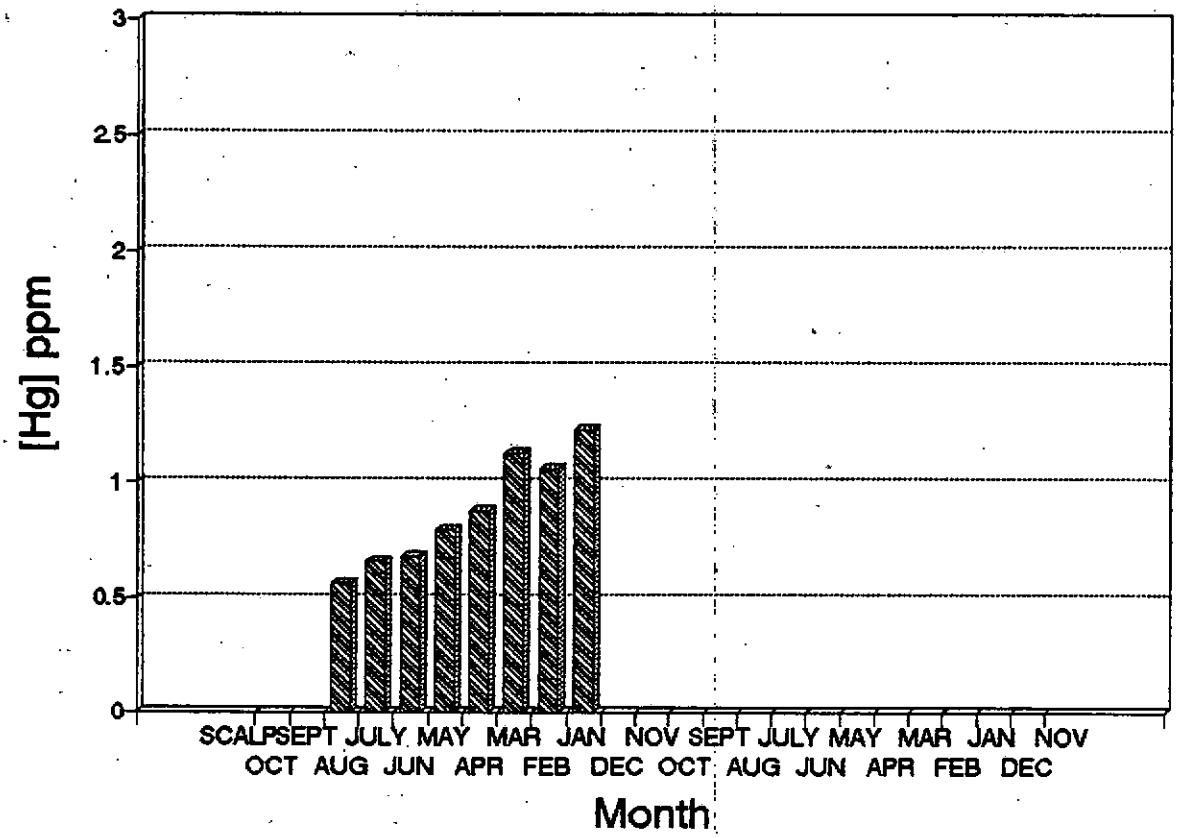
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 68

FILE #: NOMSEG68

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
68a	SEPT	2416	4APR91	0.0049	500	0.115	820	1.402	0.038	1.402
68b dup	AUG	2428,2417	4APR91	0.0057	500	0.133	657	0.957	0.033	0.972
68c	JULY	2418	4APR91	0.0044	500	0.103	494	0.917	0.042	0.917
68d	JUN	2419	4APR91	0.0045	500	0.105	376	0.669	0.041	0.669
68e	MAY	2420	4APR91	0.0040	500	0.094	311	0.612	0.047	0.612
68f	APR	2421	4APR91	0.0040	500	0.094	294	0.575	0.047	0.575
68g dup	MAR	2429,2422	4APR91	0.0044	500	0.103	328	0.590	0.042	0.565
68h	FEB	2423	4APR91	0.0045	500	0.105	346	0.611	0.041	0.611
68i	JAN	2424	4APR91	0.0033	500	0.077	346	0.833	0.056	0.833
68j	DEC	2425	4APR91	0.0039	500	0.091	402	0.830	0.048	0.830
68k	NOV	2426	4APR91	0.0031	500	0.073	379	0.980	0.060	0.980
68l	OCT	2427	4APR91	0.0032	500	0.075	385	0.965	0.058	0.965

[Hg] vs Month
Participant #69



PROJECT ID: NOME SEGMENTAL ANALYSIS

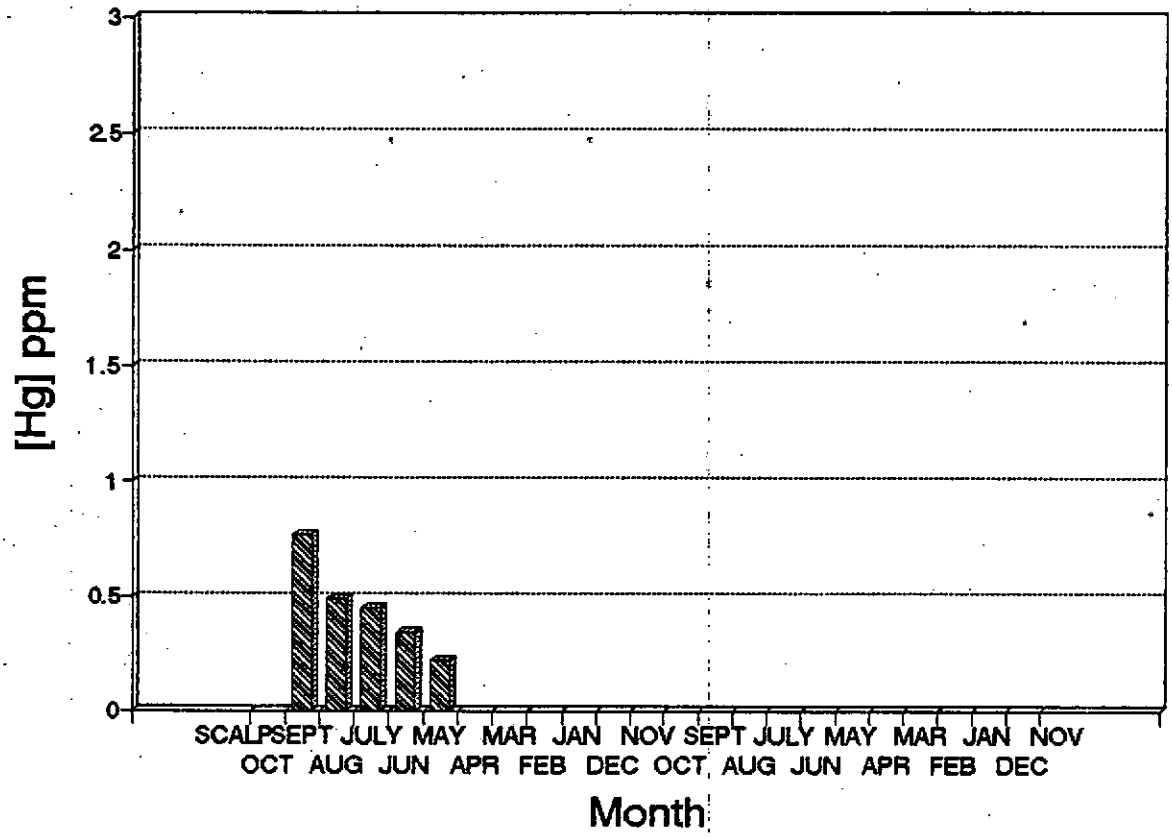
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 69

FILE #: NOMSEG69

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
69a	AUG	2432	4APR91	0.0064	500	0.150	444	0.563	0.029	0.563
69b dup	JULY	2440,2433	4APR91	0.0062	500	0.145	491	0.647	0.030	0.661
69c	JUN	2434	4APR91	0.0057	500	0.133	473	0.676	0.033	0.676
69d	MAY	2435	4APR91	0.0055	500	0.129	531	0.792	0.034	0.792
69e	APR	2436	4APR91	0.0050	500	0.117	533	0.875	0.037	0.875
69f	MAR	2437	4APR91	0.0049	500	0.115	662	1.122	0.038	1.122
69g dup	FEB	2447,2438	4APR91	0.0047	500	0.110	612	1.077	0.040	1.059
69h	JAN	2439	4APR91	0.0044	500	0.103	649	1.224	0.042	1.224

[Hg] vs Month
Participant #70



PROJECT ID: NOME SEGMENTAL ANALYSIS

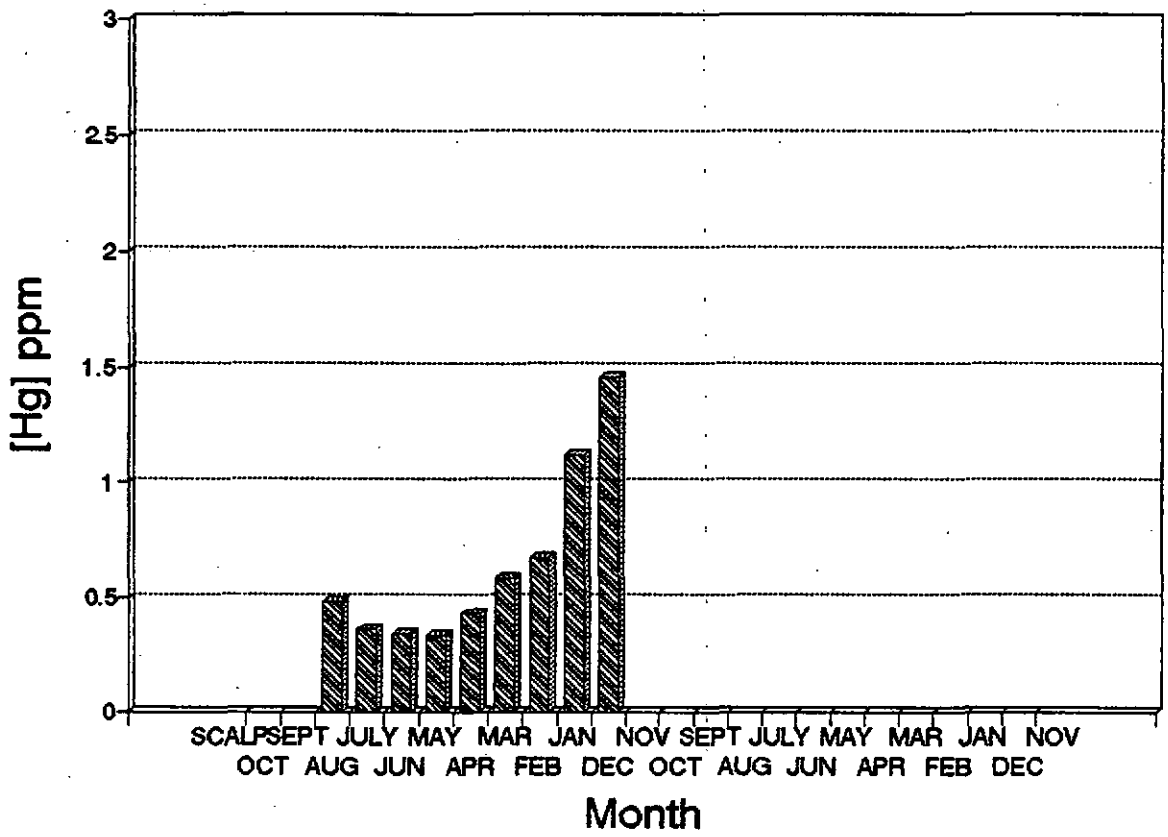
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 70

FILE #: NOMSEG70

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP	-								
	OCT									
70a dup	SEPT	2446,2441	4APR91	0.0098	500	0.229	902	0.774	0.019	0.770
70b	AUG	2442	4APR91	0.0079	500	0.185	476	0.491	0.024	0.491
70c	JULY	2443	4APR91	0.0085	500	0.199	467	0.447	0.022	0.447
70d	JUN	2444	4APR91	0.0090	500	0.210	385	0.343	0.021	0.343
70e	MAY	2445	4APR91	0.0074	500	0.173	218	0.221	0.025	0.221

[Hg] vs Month
Participant #71



PROJECT ID: NOME SEGMENTAL ANALYSIS

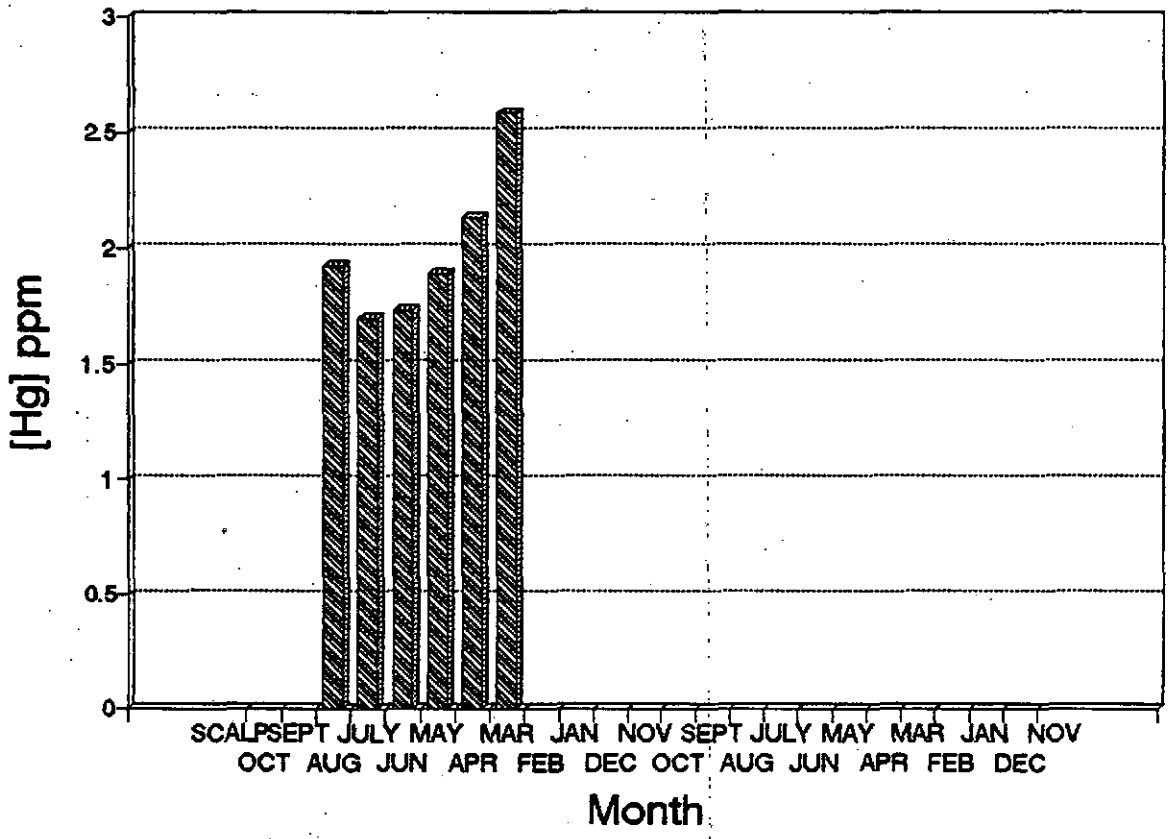
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 71

FILE #: NOMSEG71

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
71a	AUG	2627	9APR91	0.0113	500	0.264	921	0.484	0.016	0.484
71b	JULY	2628	9APR91	0.0111	500	0.260	684	0.360	0.017	0.360
71c	JUN	2629	9APR91	0.0096	500	0.225	562	0.338	0.019	0.338
71d dup	MAY	2637,2630	9APR91	0.0110	500	0.257	593	0.312	0.017	0.332
71e	APR	2631	9APR91	0.0100	500	0.234	732	0.430	0.019	0.430
71f	MAR	2632	9APR91	0.0093	500	0.218	916	0.584	0.020	0.584
71g	FEB	2634	9APR91	0.0067	500	0.157	767	0.673	0.028	0.673
71h	JAN	2635	9APR91	0.0055	500	0.129	1031	1.117	0.034	1.117
71i	DEC	2636	9APR91	0.0038	500	0.089	934	1.459	0.049	1.459

[Hg] vs Month
Participant #72



PROJECT ID: NOME SEGMENTAL ANALYSIS

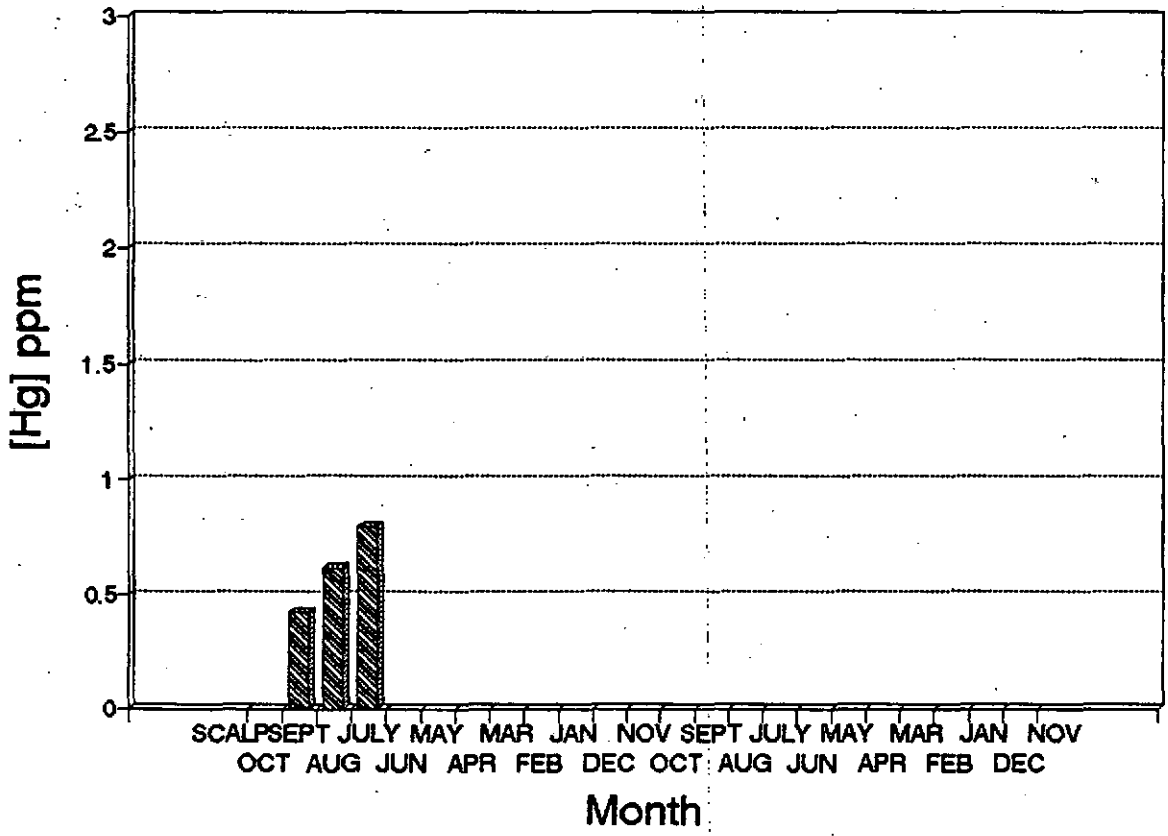
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 72

FILE #: NOMSEG72

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
72a	AUG	2639	9APR91	0.0103	500	0.241	3244	1.925	0.018	1.925
72b	JULY	2640	9APR91	0.0096	500	0.225	2677	1.700	0.019	1.700
72c dup	JUN	2645,2641	9APR91	0.0090	500	0.210	2618	1.773	0.021	1.735
72d	MAY	2642	9APR91	0.0079	500	0.185	2449	1.887	0.024	1.887
72e	APR	2643	9APR91	0.0089	500	0.208	3104	2.130	0.021	2.130
72f	MAR	2644	9APR91	0.0050	500	0.117	2126	2.583	0.037	2.583

[Hg] vs Month
Participant #73



PROJECT ID: NOME SEGMENTAL ANALYSIS

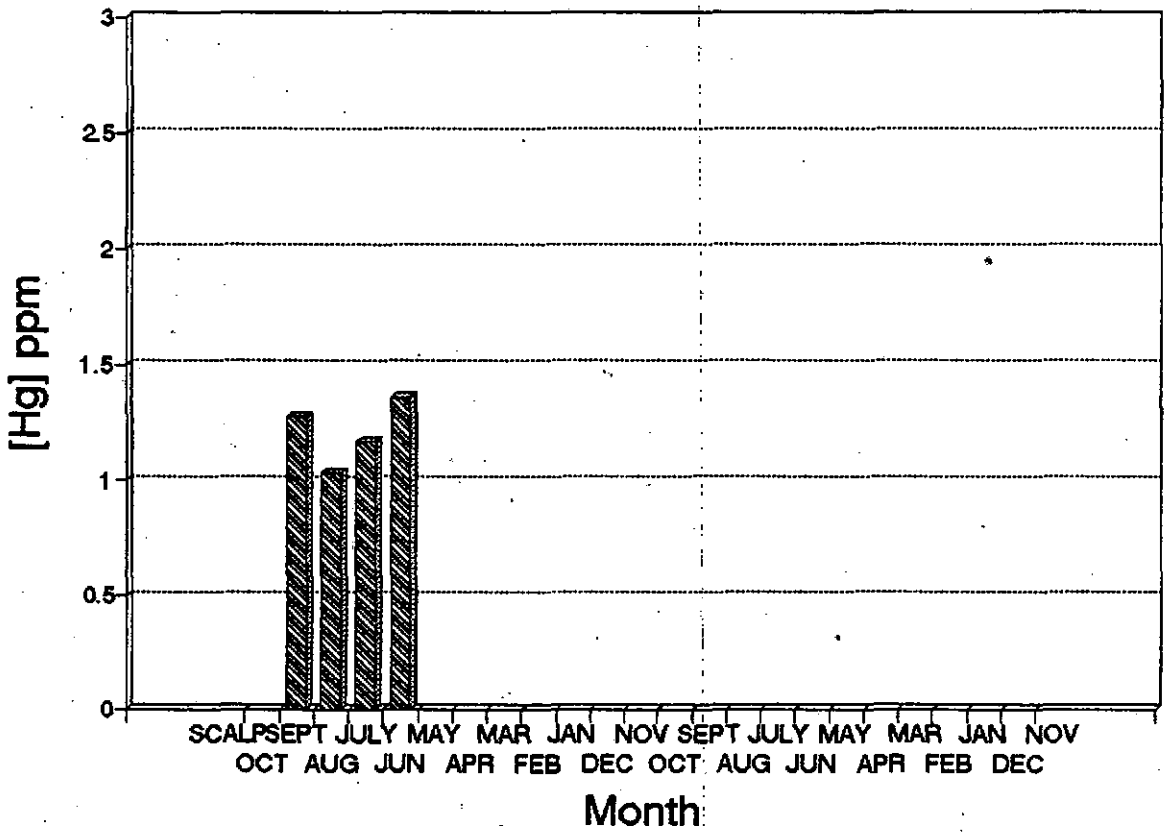
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 73

FILE #: NOMSEG73

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
73a	SEPT	2271	1APR91	0.0080	500	0.187	417	0.420	0.023	0.420
73b dup	AUG	2286,2284	1APR91	0.0098	500	0.229	746	0.628	0.019	0.621
73c	JULY	2285	1APR91	0.0071	500	0.166	686	0.794	0.026	0.794

[Hg] vs Month
Participant #74



PROJECT ID: NOME SEGMENTAL ANALYSIS

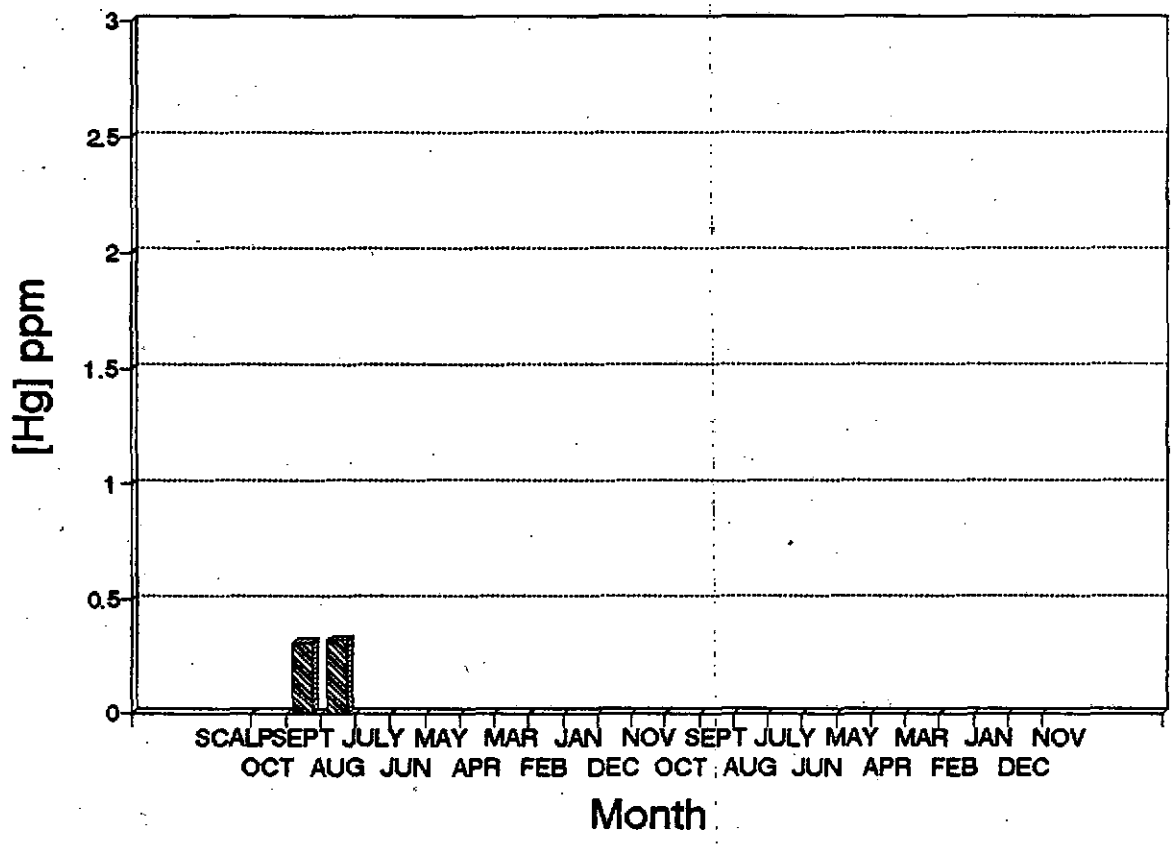
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 74

FILE #: NOMSEG74

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
74a	SEPT	2287	1APR91	0.0053	500	0.124	814	1.273	0.035	1.273
74b dup	AUG	2291,2288	1APR91	0.0051	500	0.119	633	1.016	0.036	1.028
74c	JULY	2289	1APR91	0.0036	500	0.084	520	1.167	0.052	1.167
74d	JUN	2290	1APR91	0.0034	500	0.080	568	1.358	0.055	1.358

[Hg] vs Month
Participant #75



PROJECT ID: NOME SEGMENTAL ANALYSIS

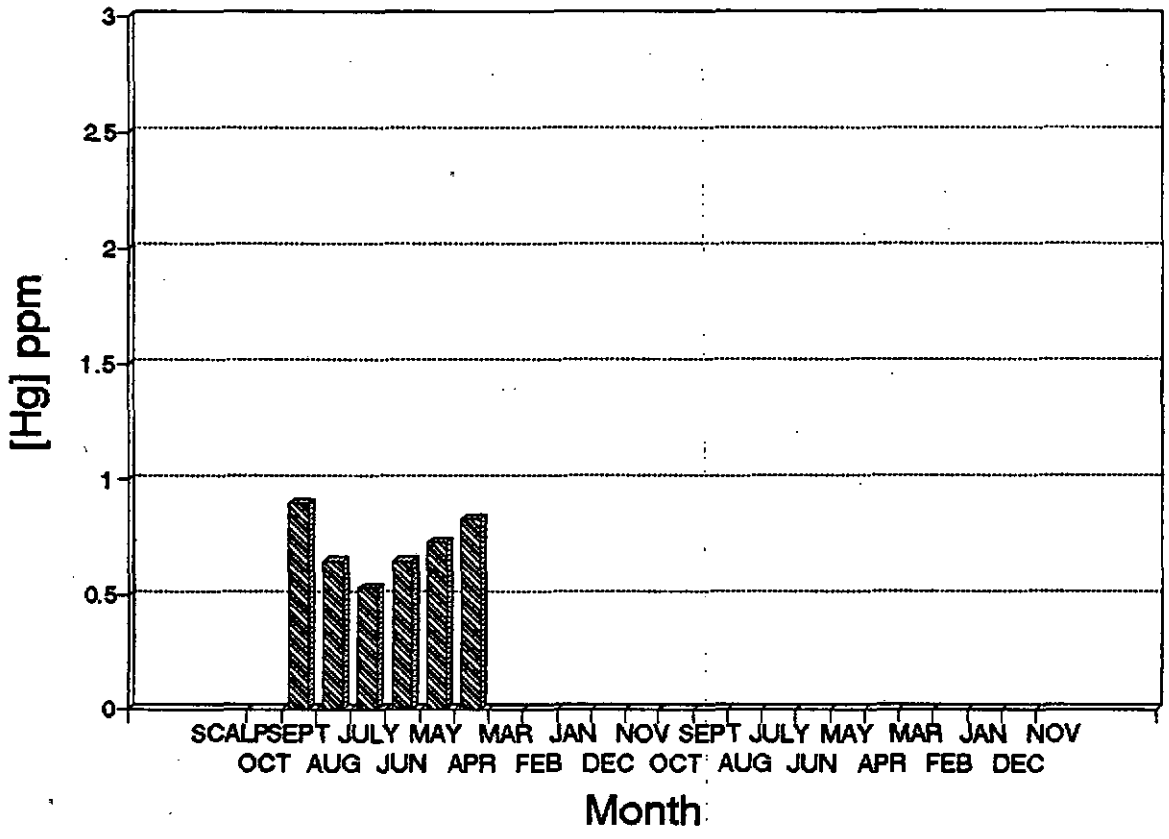
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 75

FILE #: NOMSEG75

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
75a dup	SEPT	2202,2200	27MAR91	0.0191	500	0.447	684	0.306	0.010	0.309
75b	AUG	2201	27MAR91	0.0144	500	0.337	550	0.322	0.013	0.322

[Hg] vs Month
Participant #76



PROJECT ID: NOME SEGMENTAL ANALYSIS

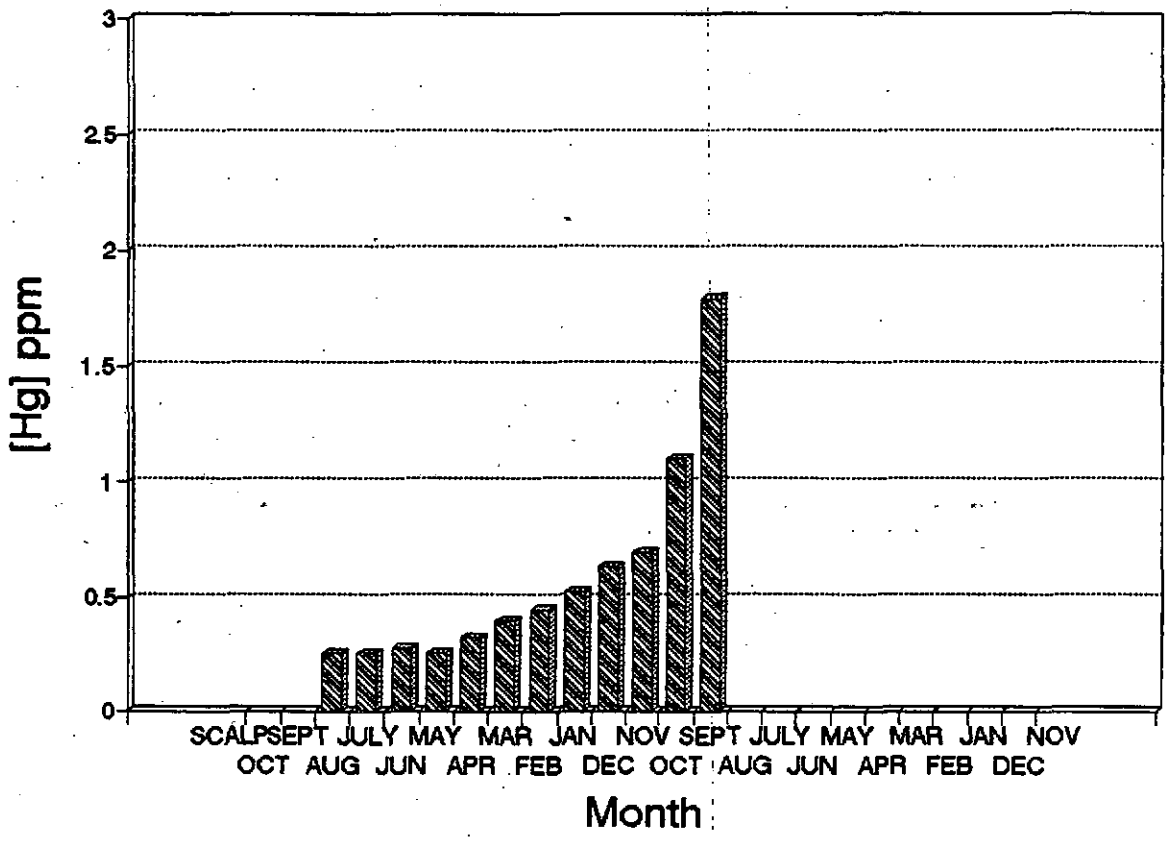
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 76

FILE #: NOMSEG76

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
76a	SEPT	2661	17APR91	0.0071	500	0.166	1109	0.895	0.026	0.895
76b	AUG	2662	17APR91	0.0062	500	0.145	715	0.647	0.030	0.647
76c dup	JULY	2667,2663	17APR91	0.0065	500	0.152	587	0.499	0.029	0.530
76d	JUN	2664	17APR91	0.0071	500	0.166	813	0.647	0.026	0.647
76e	MAY	2665	17APR91	0.0058	500	0.136	746	0.723	0.032	0.723
76f	APR	2666	17APR91	0.0063	500	0.147	918	0.828	0.030	0.828

[Hg] vs Month
Participant #77



PROJECT ID: NOME SEGMENTAL ANALYSIS

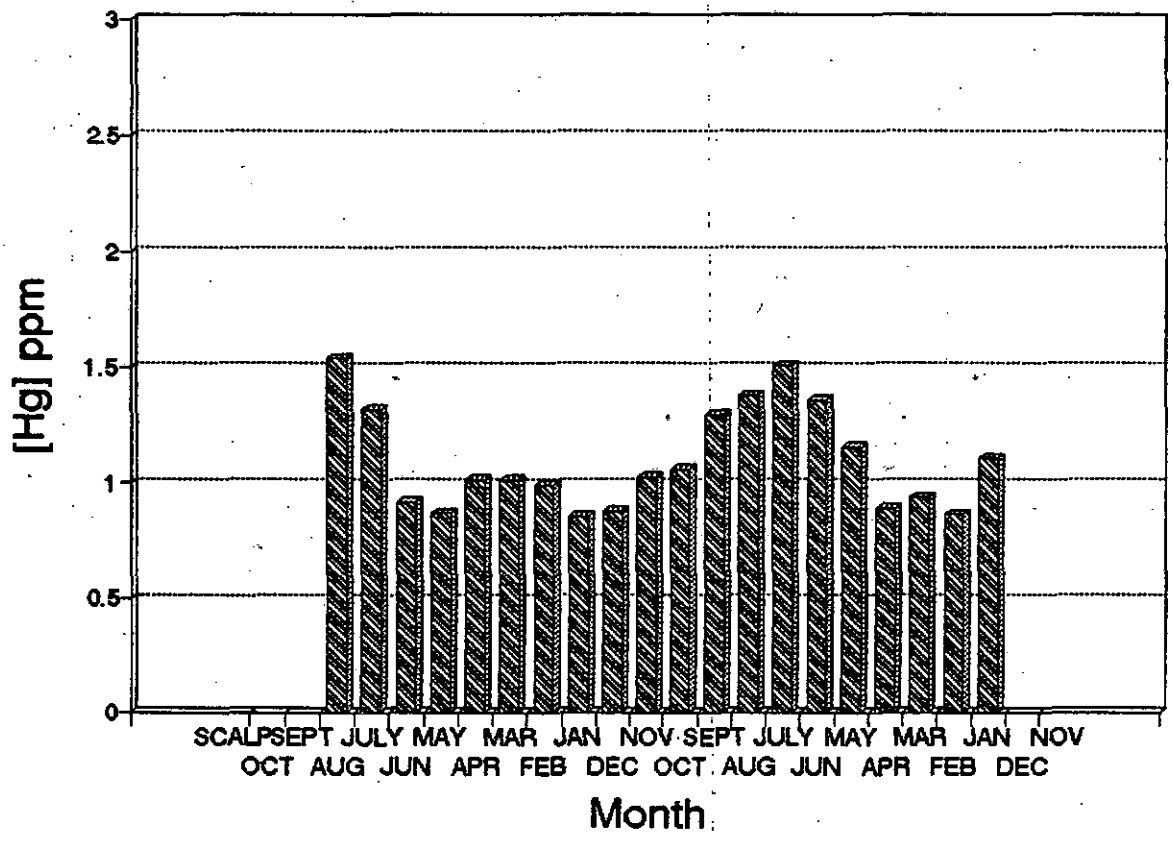
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 77

FILE #: NOMSEG77

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
77a	AUG	2709	18APR91	0.0086	500	0.201	470	0.254	0.022	0.254
77b dup	JULY	2723,2710	18APR91	0.0081	500	0.189	420	0.238	0.023	0.255
77c	JUN	2711	18APR91	0.0076	500	0.178	449	0.273	0.024	0.273
77d	MAY	2712	18APR91	0.0070	500	0.164	394	0.256	0.027	0.256
77e	APR	2713	18APR91	0.0069	500	0.161	474	0.320	0.027	0.320
77f	MAR	2714	18APR91	0.0066	500	0.154	549	0.394	0.028	0.394
77g	FEB	2715	18APR91	0.0071	500	0.166	650	0.441	0.026	0.441
77h	JAN	2716	18APR91	0.0060	500	0.140	653	0.525	0.031	0.525
77i	DEC	2724	18APR91	0.0057	500	0.133	736	0.629	0.033	0.629
77j	NOV	2718	18APR91	0.0059	500	0.138	829	0.690	0.032	0.690
77k	OCT	2721	18APR91	0.0052	500	0.122	1142	1.099	0.036	1.099
77l	SEPT	2722	18APR91	0.0035	500	0.082	1245	1.787	0.053	1.787

[Hg] vs Month
Participant #78



PROJECT ID:NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 78

FILE #: NOMSEG78

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
	SEPT									
78a	AUG	2668	17APR91	0.0078	500	0.182	2054	1.537	0.024	1.537
78b	JULY	2671	17APR91	0.0081	500	0.189	1825	1.312	0.023	1.312
78c	JUN	2672	17APR91	0.0072	500	0.168	1150	0.917	0.026	0.917
78d dup	MAY	2703,2673	17APR91	0.0078	500	0.182	1304	0.845	0.024	0.871
78e	APR	2674	17APR91	0.0075	500	0.175	1310	1.007	0.025	1.007
78f	MAR	2675	17APR91	0.0065	500	0.152	1141	1.007	0.029	1.007
78g	FEB	2676	17APR91	0.0071	500	0.166	1218	0.987	0.026	0.987
78h	JAN	2677	17APR91	0.0075	500	0.175	1115	0.852	0.025	0.852
78i	DEC	2678	17APR91	0.0064	500	0.150	980	0.873	0.029	0.873
78j	NOV	2680	17APR91	0.0056	500	0.131	1006	1.026	0.033	1.026
78k dup	OCT	2704,2681	17APR91	0.0058	500	0.136	1177	1.022	0.032	1.056
78l	SEPT	2682	17APR91	0.0062	500	0.145	1390	1.296	0.030	1.296
78m	AUG	2683	17APR91	0.0057	500	0.133	1356	1.374	0.033	1.374
78n	JULY	2684	17APR91	0.0044	500	0.103	1150	1.501	0.042	1.501
78o	JUN	2685	17APR91	0.0043	500	0.101	1021	1.357	0.043	1.357
78p	MAY	2686	17APR91	0.0040	500	0.094	815	1.151	0.047	1.151
78q	APR	2687	17APR91	0.0031	500	0.073	504	0.887	0.060	0.887
78r	MAR	2688	17APR91	0.0026	500	0.061	450	0.934	0.072	0.934

PROJECT ID: NOME SEGMENTAL ANALYSIS

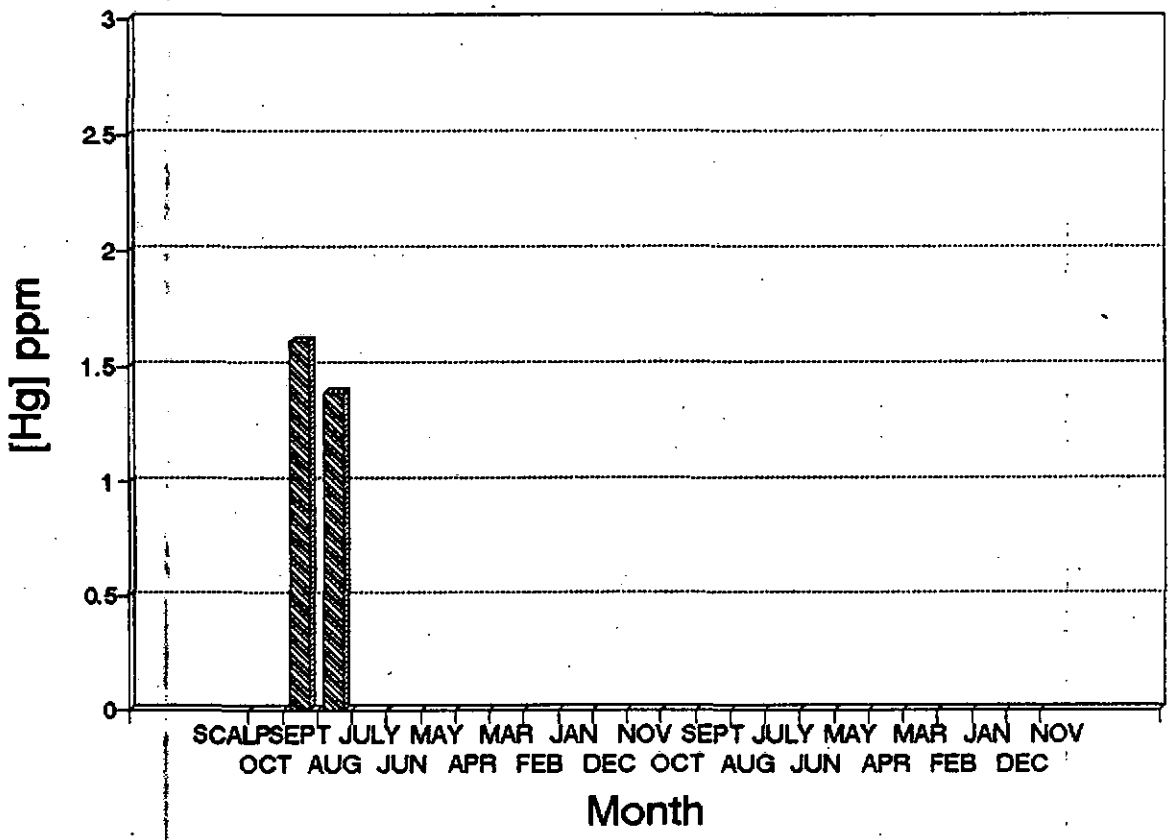
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 78

FILE #: NOMSEG78

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
78s	FEB	2689	17APR91	0.0027	500	0.063	433	0.862	0.069	0.862
78t	JAN	2690	17APR91	0.0021	500	0.049	432	1.106	0.089	1.106

[Hg] vs Month
Participant #79



PROJECT ID: NOME SEGMENTAL ANALYSIS

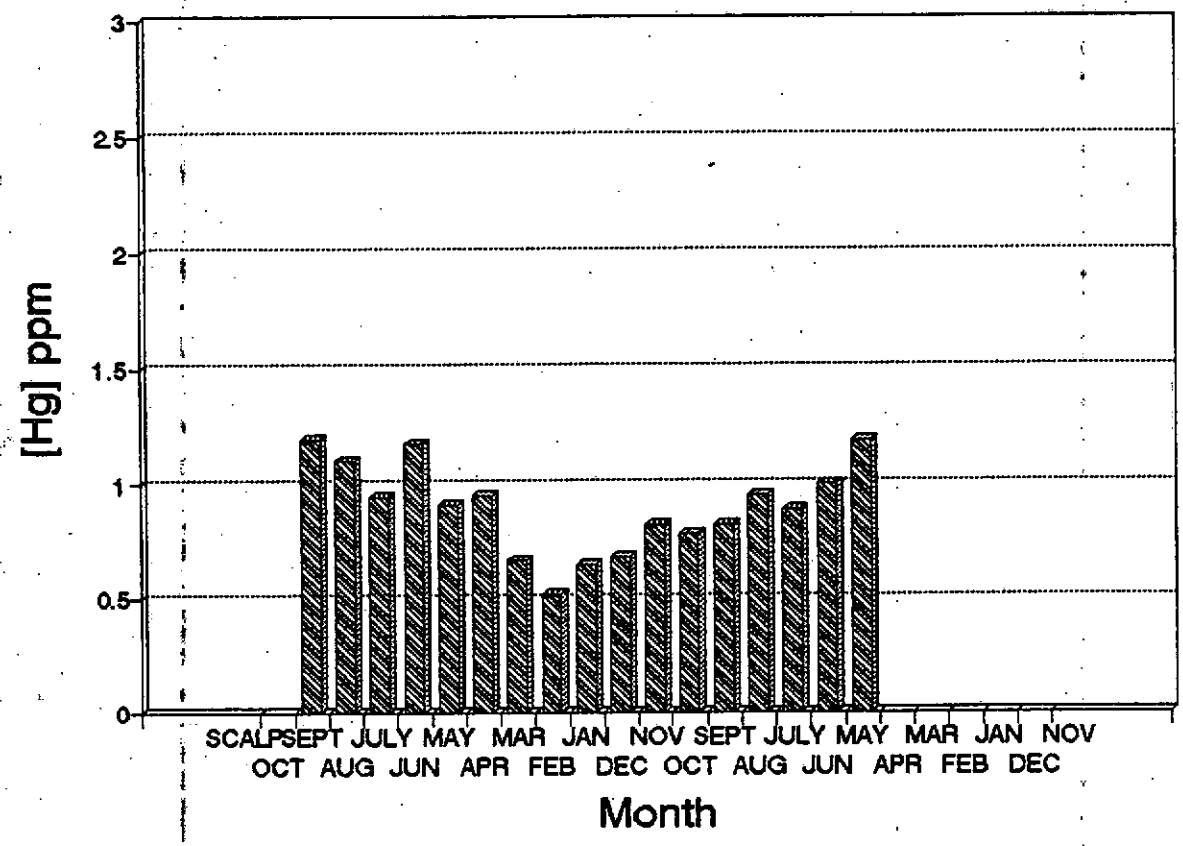
ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 79

FILE #: NOMSEG79

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
79a	SEPT	2725	18APR91	0.0079	500	0.185	2469	1.604	0.024	1.604
79b dup	AUG	2727,2726	18APR91	0.0067	500	0.157	1770	1.344	0.028	1.381

[Hg] vs Month
Participant #80



PROJECT ID: NOME SEGMENTAL ANALYSIS

ANALYST: CITTERMAN/LASORSA

ANALYSIS: ΣHg/HAIR SAMPLE 80

FILE #: NOMSEG80

BATTELLE ID	SEG MONTH	INTEGRATOR SEQ#	DIGESTION DATE	DIGESTION WT g	VOL (µl) ANALYZED	ANALYZED WT mg	AREA	ΣHg [Hg]µg/g	MDL [Hg]µg/g	MEAN [Hg]µg/g
	SCALP									
	OCT									
80a	SEPT	2728	18APR91	0.0051	500	0.119	1212	1.192	0.036	1.192
80b	AUG	2729	18APR91	0.0047	500	0.110	1039	1.101	0.040	1.101
80c dup	JULY	2757,2730	18APR91	0.0045	500	0.105	860	0.939	0.041	0.944
80d	JUN	2731	18APR91	0.0042	500	0.098	992	1.173	0.044	1.173
80e	MAY	2732	18APR91	0.0045	500	0.105	831	0.907	0.041	0.907
80f	APR	2745	18APR91	0.0037	500	0.087	722	0.948	0.050	0.948
80g	MAR	2746	18APR91	0.0044	500	0.103	612	0.667	0.042	0.667
80h	FEB	2747	18APR91	0.0045	500	0.105	494	0.516	0.041	0.516
80i	JAN	2748	18APR91	0.0044	500	0.103	591	0.643	0.042	0.643
80j dup	DEC	2758,2749	18APR91	0.0042	500	0.098	628	0.719	0.044	0.678
80k	NOV	2750	18APR91	0.0045	500	0.105	757	0.820	0.041	0.820
80l	OCT	2751	18APR91	0.0043	500	0.101	693	0.781	0.043	0.781
80m	SEPT	2752	18APR91	0.0040	500	0.094	681	0.824	0.047	0.824
80n	AUG	2753	18APR91	0.0035	500	0.082	686	0.949	0.053	0.949
80o	JULY	2754	18APR91	0.0035	500	0.082	647	0.891	0.053	0.891
80p dup	JUN	2759,2755	18APR91	0.0031	500	0.073	647	1.006	0.060	0.995
80q	MAY	2756	18APR91	0.0021	500	0.049	526	1.186	0.089	1.186

APPENDIX D

ANALYTICAL METHODS

TOTAL MERCURY IN SOLIDS
BY COLD VAPOR ATOMIC FLUORESCENCE

1.0 SCOPE AND APPLICATION

1.1 This is a peer-reviewed, published procedure for the determination of total mercury in a wide range of biological and geological matrices. All samples must be subjected to an appropriate dissolution or leaching step prior to analysis.

2.0 SUMMARY OF METHOD

2.1 The method is a cold vapor atomic fluorescence technique, based upon the emission of 254 nm radiation by excited Hg^{o} atoms in an inert gas stream. Mercuric ions in the oxidized sample are reduced to Hg^{o} with $SnCl_2$, and then purged onto gold-coated sand traps as a means of preconcentration and interference removal. Mercury vapor is thermally desorbed to a second "analytical" gold trap, and from that into the fluorescence cell. Fluorescence (peak area) is proportional to the quantity of mercury collected, which is quantified using a standard curve as a function of the quantity of sample purged.

Typical detection limit for the method is 0.001 $\mu g/g$ as Hg or 1 ppb.

3.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

3.1 Samples should be collected into acid-cleaned teflon or glass bottles with teflon lids. Under no circumstances should polyethylene, polypropylene, or vinyl containers be used.

3.2 Unless samples have been freeze-dried, they are to be frozen at <-10°C until use. A maximum holding time of 1 year at <-10°C is recommended.

3.3 All dissection, homogenization, and other handling of the samples should be done by clean-room gloved personnel in a clean station.

4.0 DEFINITIONS

4.1 Atomic Fluorescence - detection based on fluorescent emission from excited atoms of a particular element at a characteristic wavelength. The amount of fluorescence, quantified by integration of peak area, is proportional to the concentration of the atom of interest.

4.2 Acid-cleaned - cleaned in nitric acid of the highest concentration and temperature which can be withstood by the item being cleaned. Glass and teflon containers are boiled in concentrated nitric acid for 48 hours.

5.0 POTENTIAL INTERFERENCES

5.1 Due to the strong oxidation step, followed by dual gold amalgamation, there are no observed interferences with the method. The potential exists for destruction of the gold traps (and consequently low values) if free halogens are purged onto them or if they are overheated (>500°C). When these instructions are followed, neither of these problems is likely to occur.

5.2 Water vapor may collect on the gold traps, and be released on to the fluorescence cell where it condenses, giving a false peak due to scattering of the excitation radiation. This can be avoided by pre-drying the gold trap and by discarding traps which tend to absorb large quantities of water vapor.

5.3 As always with atomic fluorescence, the fluorescence intensity is strongly dependent upon the inertness of the carrier gas. The dual amalgamation technique eliminates quenching due to trace gases, but it still remains the analyst's responsibility to ensure high purity inert carrier gas and a leak free analytical system.

6.0 RESPONSIBLE STAFF

6.1 Researcher/Technician - sample prep, digestion, analysis, and calculations.

7.0 APPARATUS AND REAGENTS

7.1 Apparatus

7.1.1 Cold Vapor Atomic Fluorescence Spectrophotometer (CVAF): The components of this detector include a four-watt low pressure mercury vapor lamp, a far UV quartz flow-through fluorescence cell, (12 mm X 12 mm X 45 mm), with a 10 mm path length, and a UV-visible photomultiplier, sensitive to <230 nm isolated from outside light with a 254 nm interference filter. The carrier gas flow is controlled using a flowmeter with needle valve capable of keeping a constant flow of 25 ml/min.

7.1.2 Flowmeter/needle valve: Flowmeter capable of controlling and measuring gas flow to the purge vessel at 200-500 ml/min.

7.1.3 Teflon fittings: Connections between components and columns are made using 6.4 mm O.D. teflon FEP tubing, and teflon friction-fit or threaded tubing connectors. Connections between components requiring mobility are made with 3.2 mm O.D. teflon tubing due to its greater flexibility.

7.1.4 Acid fume pretrap: A 10 cm X 0.9 cm diameter teflon tube containing 2-3 g of reagent grade, non-indicating 8-14 mesh soda lime, packed between silanized glass wool plugs. This trap is purged of Hg by placing it on the output of a clean cold vapor generator, filled with 1% HCl, and purging overnight with N_2 at 100 ml/min.

7.1.5 Cold vapor generator: A 250 ml or 125 ml florence flask with standard taper 24/40 neck, fitted with a purging stopper having a coarse glass frit which extends to within 0.2 cm of the flask bottom.

7.1.6 Gold-coated sand column: Made from 10 cm lengths of 6.5 mm O.D. X 4 mm I.D. quartz tubing, with a coarse quartz frit or crimp 2.0 cm from one end. The tube is filled with 3.4 cm of gold-coated ashed (800°C for 6 hours) quartz sand (60/80 mesh). The end is then plugged with quartz wool. Gold is applied to the sand as a coating several atoms thick using an ion exchange gilding apparatus. The columns are heated to 450-500 C with a coil consisting of 24 ga nichrome wire at a potential of 10 VAC.

7.1.7 Refluxing digestion vials: Acid-cleaned, precalibrated, 23 ml glass scintillation vials with acid-cleaned 1 inch diameter glass spheres placed over the mouth. When the vials are placed on a hot plate at 300-350°C, the contents will reflux, with the spheres acting as pressure relief valves.

7.1.8 Pipetters: All plastic pneumatic fixed and variable volume pipetters in the range of 10 μl to 5 ml. (calibrated)

7.1.9 Recorder: Multi-range chart-recorder/integrator with 0.1-5.0 mV input and variable speed.

7.2 Reagents

7.2.1 Water: Deep well tap water which has been determined to be very low (<0.02 ng/l) in mercury. The water is continuously monitored for mercury.

7.2.2 Nitric/sulfuric acid: With constant stirring, carefully add 300 ml of preanalyzed low mercury (<10 ng/l Hg) concentrated sulfuric acid to 700 ml of preanalyzed low mercury (<10 ng/l Hg) concentrated nitric acid in a teflon bottle. Use caution... this mixture is exothermic and emits caustic fumes.

7.2.3 10% Stannous chloride ($SnCl_2$): A solution containing 200 grams of $SnCl_2$ $2H_2O$ and 100 ml of concentrated HCl, brought to a final volume of 1 liter with mercury free water. This solution is purged overnight with mercury-free nitrogen at 500 ml/min to remove all traces of mercury. Store tightly capped and in the dark.

7.2.4 5% Bromine monochloride (BrCl): 27 g of KBr are added to a 2 liter bottle of concentrated HCl (<5 ng/l Hg). A clean magnetic stir bar (teflon coated) is placed in the bottle and the solution is stirred for one hour, in a fume hood. Next, 38 g of pre-analyzed, low Hg KBr03 are slowly added to the acid as sitrring continues. CAUTION: This process should always be darried out in a fume hood. The fumes from this reagent are very corrosive and a strong irritant. When all of the KBr03 has been added, the solution should have gone yellow to red to orange. Loosely cap the bottle, and allow to stir another hour before tightening the lid.

7.2.5 Stock Mercury Standard: A commercially available 1000 mg Hg/l atomic absorption standard is used.

7.2.6 Secondary Standard Solution: 0.100 ml is diluted with Hg-free water containing 5 ml BrCl, to a final volume of 100 ml in a teflon bottle. This solution contains 1000 ng/liter and should be restandardized or replaced annually.

7.2.7 Working standard solution: Dilute 1.00 ml of the 2° mercury standard to 100 ml with Hg free water containing 1% (by volume) bromine monochloride, using a 100 ml class A volumetric flask. This solution has a [Hg] 10.0 ng/ml and should be replaced monthly.

7.2.8 Nitrogen: Grade 4.5 nitrogen which has been further purified by the removal of Hg using an in-line gold coated sand trap.

7.2.9 Helium or argon: Grade 5.0 inert gas which has been further purified by the removal of Hg using an in-line gold coated sand trap.

8.0 PROCEDURE

8.1 Sample preparation

8.1.1 A 10 gram (or more) aliquot is dissected and homogenized with acid-washed stainless steel tools. Approximately 1.0 g of the homogenized sample is weighed directly into the scintillation vial, recording the weight to the nearest mg on a mercury digestion data sheet (Exhibit 2). 5.0 ml of the HNO_3/H_2SO_4 solution is pipetted into the vial and swirled to mix. A sphere is placed over the mouth of the vial. Samples are then placed on a hot plate, and brought up to a refluxing boil in temperature increments. This is to avoid excessive foaming, which is especially common with tissue samples. The samples are refluxed (hot plate temperature about 300°C) for 2-3 hours, or until all organic matter has dissolved, the solution looks almost colorless or light yellow, and the brown gas above the liquid has almost disappeared. Sediment samples, especially sandy ones, may take less time for the organic matter to dissolve. The samples are allowed to cool on the hot plate. 0.500 ml 5% BrCl is pipetted into the sample. The samples are loosely capped and allowed to react with the BrCl overnight. Next, dilute the samples to the mark with low Hg deep well water. Undigested rock material or animal fat does not effect the accuracy of this digestion, because these fractions are both very low in initial Hg content, and are effectively leached by the boiling acid.

8.2 Analysis

8.2.1 About 20 ml of low Hg water is added to each bubbler, followed by 1 ml of conc. HCl and 0.500 ml of $SnCl_2$ solution. The bubbler is sparged with N_2 at 350 ml/min for 10 minutes, and then a gold-coated sand column is connected to the soda lime pretrap and purged for another 10 minutes. This value is the bubbler blank. To analyze samples, 0.5 ml of $SnCl_2$ and an aliquot of the digestate (usually 0.25-1.0 ml) are pipetted into each bubbler. THe bubbler caps are replaced, the vessel is gently swirled, gold-coated sand columns are placed onto the soda lime pretrap outlet, and the sample is sparged for 10 minutes. New samples may be sequentially added to the bubblers with additional $SnCl_2$, up to a maximum of 5 consecutive samples. After 5 samples, the bubbler blanks should be measured, and then the standards. The water

in the bubblers is then replaced with clean low Hg water, and the above sequence is repeated.

8.2.2 To analyze the mercury contained on the gold trap, the gold trap is placed inside a coil of nichrome wire and then inserted in-line with the mercury analyzer incoming Hg-free He and the second (analytical) gold-coated sand trap. The He flow rate should be about 30 ml/min. The system is purged for 2 minutes to dry off any condensed water vapor. 10 VAC is applied to the nichrome coil on the working gold-coated trap for 4 minutes, thermally desorbing the Hg as Hg^0 which is then resorbed by the analytical gold-coated sand column. The voltage to the working gold-coated sand trap is turned off, and a cooling stream of compressed air is directed towards the trap. 10 VAC is applied to the analytical gold-coated sand trap, and the integrator is activated. The analytical trap is heated for 3.0 minutes, or 1 minute beyond the point where the mercury peak returns to baseline.

8.2.3 Following the integration of the mercury peak, the voltage to the analytical trap is turned off. A stream of cooling compressed air is directed towards the analytical trap. The sample gold-coated sand trap is removed from the gas stream, and the teflon end plugs are replaced until it is needed to collect another sample. The next sample gold-coated sand trap is placed inside the nichrome wire coil, placed in-line with the mercury analyzer incoming Hg-free He and the procedure is repeated. Under no circumstances should a sample gold-coated sand trap be heated while the analytical column is still warm, or analyte may be lost by passing through the analytical column.

8.2.4 Peaks generated using this technique should be very sharp and almost symmetrical. The peak comes off at approximately 1 minute, and has a half-height width of about 5 seconds. Broad or asymmetrical peaks are indicative of an analytical problem possibly including: low gas flow, water vapor on the column, or an analytical column damaged by chemical fumes or overheating. If the analytical column has been damaged, replace the column and the tubing downstream, due to the possibility of gold migration on the downstream surfaces.

8.2.5 Cold vapor atomic fluorescence for mercury is linear over at least five orders of magnitude (Bloom and Fitzgerald, 1988). This method is virtually interference free, so the method of standard additions is not routinely applied. To run standards, an aliquot of working standard solution in the range of 1 ng Hg is pipetted into a purged bubbler containing 0.5 ml of $SnCl_2$ solution, and analyze as one would a sample.

8.2.6 Gold-coated sand traps should be kept track of by unique identifiers, so that any trap producing poor results can be quickly recognized and discarded. Occasionally due to inadvertent contact with halogen fumes, bubbler solution, organic fumes, or overheating, a sampling gold-coated sand trap may become damaged; giving low and irreproducible results. Suspect gold-coated sand traps should be checked with at least two consecutive standard runs before continued use.

8.2.7 The major cause of analytical problems with this method is from using the soda lime pretraps too long. These traps should be purged overnight as described and then used for only one day's analytical work. Longer use risks irreproducibility, as the traps may begin retarding the flow of Hg^{o}. Also, as the traps become very wet there is a risk of NaOH-saturated water drops coming off onto the gold-coated sand traps.

8.3 Standardization Calibration

8.3.1 Calibrate the analysis with a minimum of a 3-point calibration curve plus a system blank. The calibration concentrations should be <1 ng Hg.

9.0 QUALITY CONTROL

9.1 All quality control data should be maintained and available for easy reference or inspection.

9.2 Quality assurance data must be composed of a minimum of 2 blanks and 3 standards per day.

9.3 Samples containing high analyte concentrations may be run either following dilution, or on a separate run at a lower instrumental sensitivity.

9.4 Duplicate or triplicate analyses (depending upon client preference) should be run once every 10 samples or once per batch, whichever comes first.

9.5 NRCC or NBS certified standard materials for mercury in tissues and sediments should be analyzed at a frequency of once per 10 samples or once per batch, whichever comes first.

9.6 Procedural spike recoveries should be run once per 10 samples or once per batch, whichever comes first; in the absence of a suitable certified standard tissue, or at the request of the client.

9.7 Method Performance

9.7.1 The data shown below was obtained from the records of this laboratory, and indicate the performance of this technique compared to an entirely independent methodology.

SUMMARY OF TOTAL MERCURY ANALYSIS OF NRCC
(NATIONAL RESEARCH COUNCIL OF CANADA)
AND NBS STANDARD MARINE ANIMAL TISSUE

	NBS TUNA ALBACORE TUNA	DORM-1 DOGFISH MUSCLE	DOLT-1 DOGFISH LIVER
Measured			
x	0.93	0.806	0.240
SD	0.09	0.021	0.020
N	10	6	4
Certified or Expected			
x	0.95	0.798	0.225
SD	0.10	0.074	0.037

10.0 CALCULATIONS

10.1 Calculations may be made using either a best fit linear regression analysis of the standards and blanks or by using the average response factor method.

10.1.1 Average Response Factor Method:

$$\text{Ave Response Factor (RF)} = \frac{\Sigma((\text{std peak area} - \text{blk area})/[\text{Hg}]\ \text{ng})}{\#\ \text{std}}$$

$$[\text{Hg}]\ \text{ng/g} = \frac{(\text{sam peak area} - \text{blk area}) * V}{RF * v * \text{sam wt (g)}}$$

(Where std peak area is the standard peak area, blk area is the average blank area, [Hg] is the Hg concentration in ng, sam peak area is the sample peak area, V is the digestate volume in ml, v is the sample aliquot analyzed, sam wt is the sample weight digested in grams, and RF is the average response factor in area/ng.)

10.1.2 Linear Regression Method:

Using least squares best fit method, calculate the slope of the line for the standards, forcing the line through zero.

$$[Hg]\ ng/g = \frac{\text{sam area} * V}{\text{slope} * v * \text{sam wt (g)}}$$

(Where slope is the slope of the standard regression line in area/ng, for a explanation of the other variables refer to the average response method above.)

10.2 Method Detection Limit (MDL):

The MDL is calculated by recording the results of a standard analyzed seven times, whose concentration is within 10 times of the actual method detection limit.

$$MDL\ [Hg]\ ng = SD * t_{(0.01(1)(n-1))}$$

(Where SD is the standard deviation of the [Hg] ng of the standards analyzed multiplied by the student t value for 99% one tailed confidence interval with n-1 degrees of freedom.)

$$\text{Detection Limit } [Hg]\ ng/g = MDL/\text{sam wt (g)}$$

(Where MDL is the method detection limit [Hg] ng and sam wt is the weight of the sample analyzed in grams.)

11.0 REFERENCES

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BUREAU OF MERCURY DATA SHEET

DATE: _____ CALIBRATION: _____

TYPE: ER TOTAL METHYL CALIBRATION TYPE: _____

ANALYST: _____ (see over)

FILE NAME: _____ PROJECT NAME(S): _____

Report#	SAMPLE ID	#/BUBBLER	SAMPLE VOLUME	UNITS	[Hg] ( )	COMMENTS

MERCURY DIGESTION WORKSHEET

Project ID: _____ SPIKE: _____

Digestion Date: _____ SPIKE VOL: _____

BALANCE ID: _____

SEQ	SAMPLE ID	VIAL WT grams	VIAL+SAMPLE grams	SAMPLE WT grams	TISSUE mg/ml
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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