

February 7, 2000

ENVIRONMENTAL
PROTECTION

CO FEB -8 AM 9:35

Ms. Susan Hugo
Senior Hazardous Material Specialist
Alameda County Health Care Agency
Environmental Health Services
1131 Harbor Bay Parkway
Suite 250
Alameda, CA 94502-6577



2680 Bishop Drive, Suite 203, San Ramon, CA 94583
TEL (925) 244-6600 * FAX (925) 244-6601

SHIC 5560A

Subject: SOMA Environmental Report for Further On-site Investigation at Former Westinghouse Property Located at 5815 Peladeau Street, Emeryville, California

Dear Susan:

A copy of our report entitled "Results of Additional Soil Sampling at the Cistern Area, Former Westinghouse Electric Facility, 5815 Peladeau Street, Emeryville, California" for your review is enclosed. This report has been prepared on behalf of CBS Corporation, the former owner of the subject property.

We are planning to remove PCBs impacted soils from the cistern area as we have recommended in this report following your concurrence. Because of time constraints and interference of the PCBs impacted soils with the construction activities your prompt action and approval of this report is highly appreciated. Meanwhile, please do not hesitate to call me at (925) 244-6600, if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Serpehr", written over a horizontal line.

Mansour Serpehr, Ph.D., P.E.
Principal

cc: Gordon Taylor, CBS Corporation
Dan Nourse, Wareham Development

Enclosure:

**Results of Additional Soil Sampling
At the Cistern Area
Former Westinghouse Electric Facility
5815 Peladeau Street
Emeryville, California**

INTRODUCTION

The following is a brief description of field activities and results of laboratory analysis on soil samples collected at the former Westinghouse Electric Corporation facility located at 5815 Peladeau Street in Emeryville, California, (the "Site"). This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of CBS Corporation (CBS), the former owner of the subject property.

On November 19, 1999 SOMA was notified by Mr. Gordon Taylor of CBS Corporation (CBS) about a discovery of an abandoned cistern at the Site. Apparently, the cistern was discovered by WEBCOR Builders' construction crew during pile driving activities within the parking lot at the northern portion of the Site. Figure 1 shows the location of the discovered cistern.

Field Investigation

On November 23, a SOMA field crew visited the Site. At the time of our visit, the cistern had already been excavated and removed by the WEBCOR construction crew, see Figure 2. The excavated steel cistern was sitting at the corner of the Site along the Peladeau Street with the approximate dimensions of 5.5 by 6 by 2 feet. Based on a discussion with a WEBCOR construction crewmember, at the time of removal, the cistern was full of sand and was discovered about two feet below the grade. The use of the cistern has not been determined however, it was apparently abandoned in place by filling it with sand. Based on our observations, the soils at the bottom and sidewalls of the excavation pit were stained and an objectionable odor was present.

Based on our evaluation and discussion with the excavation crew, the bottom of the excavated cistern was at 4 feet below the grade. To evaluate the depth of potentially impacted soils, the bottom of the excavation pit was further excavated and two soil samples were collected at five and seven feet below the grade. Figures 3 and 4 show the excavation and sampling processes. Subsequently, after collecting soil samples, the excavated soils were returned into the excavation pit and leveled to the current grade. The excavated area and its immediate vicinity were secured by wired-fences to minimize the potential for human contact with the potentially impacted soils. To prevent infiltration of rainwater into the soils, a plastic tarp was used to cover the excavated area. During the excavation and sampling processes, an objectionable odor and soil

staining were observed. Figure 5 shows the soil discoloration and staining along the walls of the excavation pit. The collected soil samples at five and seven feet below the grade were placed in an ice chest and delivered to DELTA Environmental Laboratories (DELTA) for analysis. Based on the CBS request, the soil samples were analyzed for polychlorinated biphenyls (PCBs) using EPA Method 8080. Later on, based on the request of Wareham Development, the current owner of Site, the soil samples were also analyzed for heavy metals (EPA Method 7000/6010), volatile organic compounds (EPA Method 8260/8240) as well as semi-volatiles (EPA Method 8270).

On December 3, 1999 based on the CBS request, a SOMA field crew collected three soil samples associated with the cistern. The first sample was collected from the debris outside of the cistern. The second sample was collected from the sand inside the cistern, while the third sample was collected from the concrete material associated with the cistern during the excavation activities. The collected samples were placed in an ice chest and delivered to DELTA for laboratory analysis. The samples were analyzed for PCBs using EPA Method 8080.

Results of Laboratory Analysis

The results of laboratory analysis have been presented in Table-1. As Table-1 shows the only volatile organic compounds (VOCs) that were detected in soils were chlorobenzene (2.8 ppm at 5 feet and 3.6 ppm at 7 feet) and 1,4-dichlorobenzene (.33 ppm at 5 feet and .69 ppm at 7 feet depth). The presence of chlorobenzene and 1,4-dichlorobenzene in surface soils have already been addressed in the risk assessment document prepared by SOMA (1996). Based on SOMA (1996), three out of 61 soil samples collected from surface soils contained VOCs. The previous investigation conducted by EMCON and Associates (1995) have reported up to 15 ppm of 1,4-dichlorobenzene and 1.6 ppm of chlorobenzene in the near surface soils.

No semi-volatile organic compounds (SVOCs) were detected in the soil samples collected from 5 and 7 feet depth beneath the cistern excavation pit. The detected metals were either non-detect (ND) or below the soil background levels.

PCBs in the form of Arochlor 1260 at 5 and 7 foot depths were detected at 32.8 and 71.5 ppm, respectively. Results of laboratory analysis on samples collected from the debris outside of the cistern, the fine sand inside the cistern and the concrete material in contact with the cistern showed 715, 1.06 and 0.10 ppm PCBs, respectively.

Characterization and Disposal of PCBs-Impacted Soils

Based on SOMA's risk assessment document, removal action/remediation was

recommended only for PCBs in surface soils extending to a two foot depth at the Site (SOMA, 1996). According to the risk assessment document, a PCB soil cleanup level of 0.50 mg/kg for residential use, 2.85 mg/kg for industrial use and 59.3 mg/kg for utility worker use would result in an acceptable human health risk at the Site. Based on the groundwater monitoring reports, groundwater occurs at 2 to 6 feet below the grade. Therefore, in the risk assessment report the average depth of groundwater was assumed to be at a 4 foot depth. Due to the very slow rate of chemical transport in the saturated sediments, lack of exposure pathways of PCBs and that the groundwater is not a drinking water source (State Water Board Resolution 88-63) no groundwater remediation was recommended. The maximum depth of soil remediation for protection of utility workers working in utility trenches is 4 feet.

In order to further evaluate the extent of PCBs in the surface soils, additional soil samples from a grid pattern of 8 ft. by 8 ft. were collected from the cistern area. Figure 6 shows the location of soil sampling points. At each sampling location two soil samples between 0 and 2 foot and 2 and 4 foot depth intervals, were collected by using a hand auger. At soil sampling points SB-1, SB-3, SB-6 and SB-9 due to the presence of concrete /rock at the depth of 2.2 feet, only one soil sample was collected. The soil samples were placed in an ice chest and delivered to DELTA for laboratory analysis using EPA Method 8080.

Figure 6 shows the results of laboratory analysis on soil samples collected from the cistern area. As the results of laboratory analysis indicate, the PCB impacted soils are generally located at the center and northeastern end of the eastern area. Figure 7 shows the extent of PCB-impacted soils in the cistern area. Based on the risk assessment (SOMA, 1996), only the top two feet of the surficial soils need to be remediated. Below the 2 foot depth, due to the low PCB levels, no remediation is warranted. Based on our calculation, about 19 cubic yards of soil needs to be excavated for remediation purposes.

TABLES

Table-1
Analytical Results from Samples Collected at and below Cistern;
Former Westinghouse Facility, Emeryville, CA

ANALYTE	Sample at 5' depth	Sample at 7' depth	Cistern Walls	Cistern Sand	Cistern Concrete
PCB 1260	32.8	71.5	715	1.06	0.1
Volatiles:					
Chlorobenzene	2.8	3.6	NA	NA	NA
1,4-Dichlorobenzene	0.33	0.69	NA	NA	NA
Semivolatiles:	ND	ND	NA	NA	NA
Metals:					
Barium	120	110	NA	NA	NA
Cadmium	ND	1.1	NA	NA	NA
Cobalt	9.4	8.6	NA	NA	NA
Chromium (III)	38	36	NA	NA	NA
Copper	53	120	NA	NA	NA
Mercury	0.09	0.08	NA	NA	NA
Nickel	26	29	NA	NA	NA
Lead	62	39	NA	NA	NA
Vanadium	38	39	NA	NA	NA
Zinc	100	120	NA	NA	NA

units are mg/kg
 ND = not detected
 NA = not analyzed

Table-2
PCB Concentrations in Surface Soil Samples Within Cistern Site;
Former Westinghouse Facility, Emeryville, CA

Sample ID	Depth	PCB-1260 (mg/kg)
SB1	2'	6
	4'	NS
SB2	2'	18
	4'	29
SB3	2'	3
	4'	NS
SB4	2'	60
	4'	38
SB5	2'	24
	4'	0.6
SB6	2'	2.7
	4'	NS
SB7	2'	0.1
	4'	8
SB8	2'	2.6
	4'	2.2
SB9	2'	0.25
	4'	NS

NS = not sampled

FIGURES

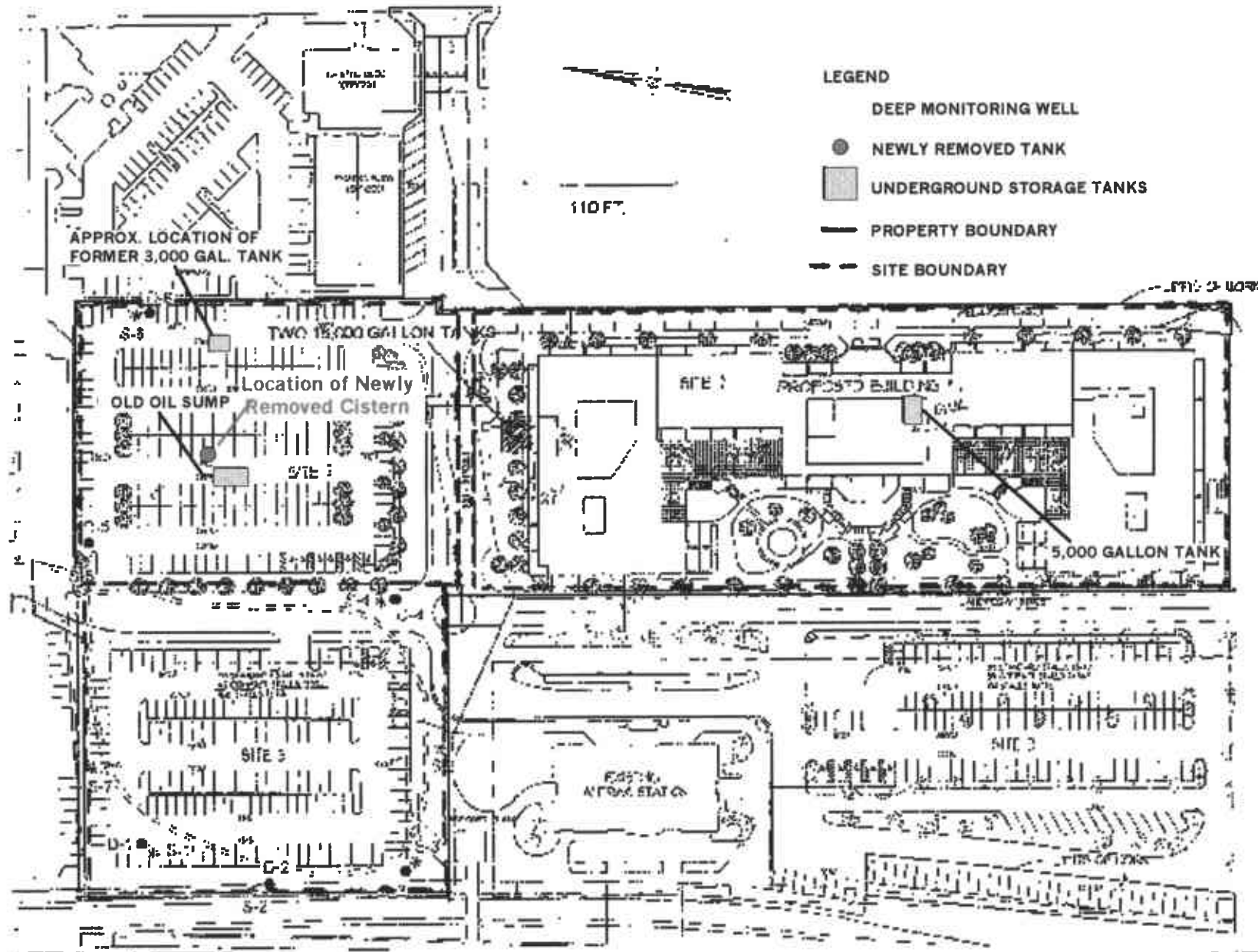


Figure 1: Former Site Map



Figure 2: Excavated Cistern



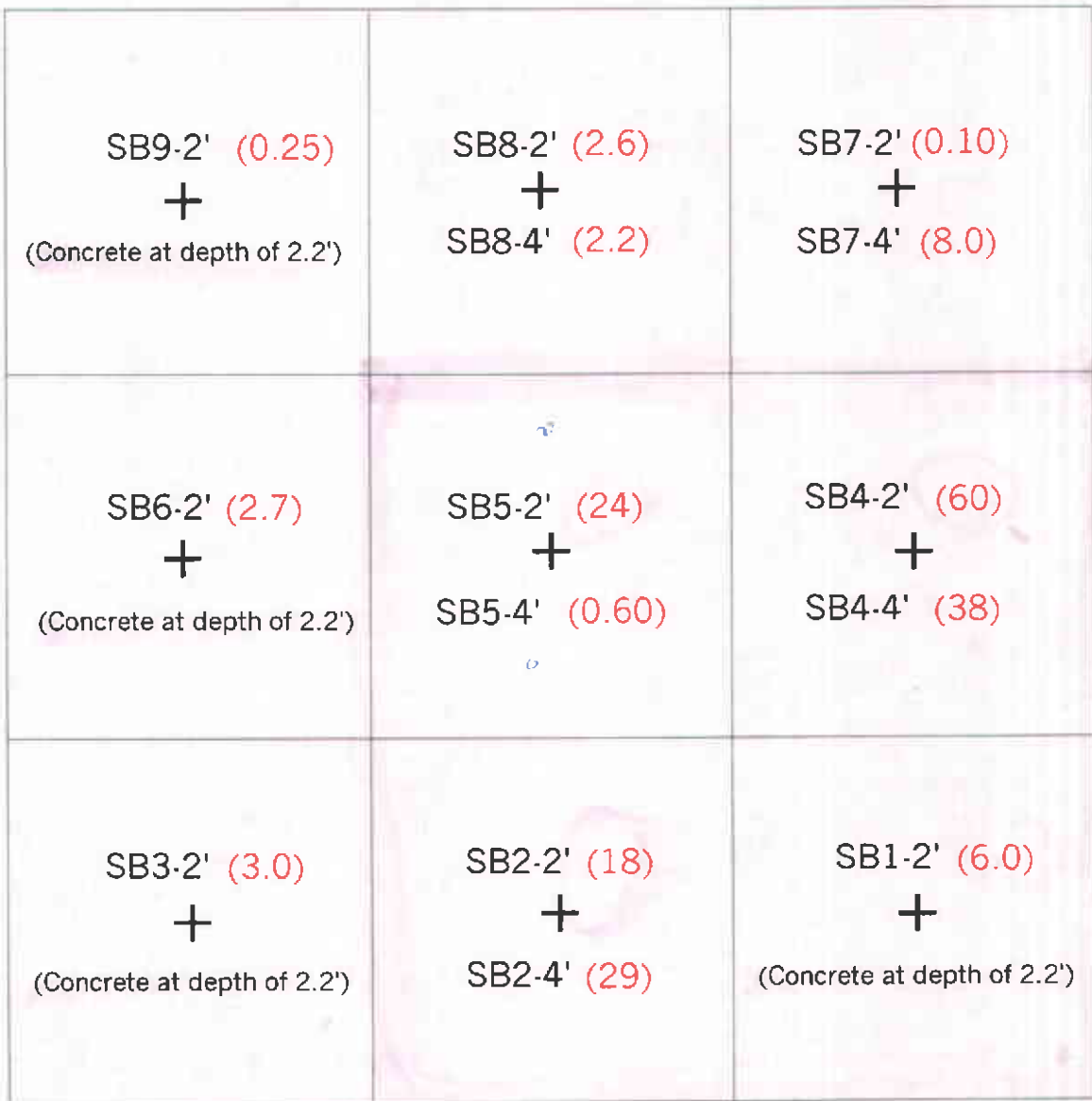
Figure 3: Excavating the Soil



Figure 4: Sampling the Excavated Soil



Figure 5: Close-up of Dark, Odorous Soil



+ Sample location
 (ppm of PCB as 1260)

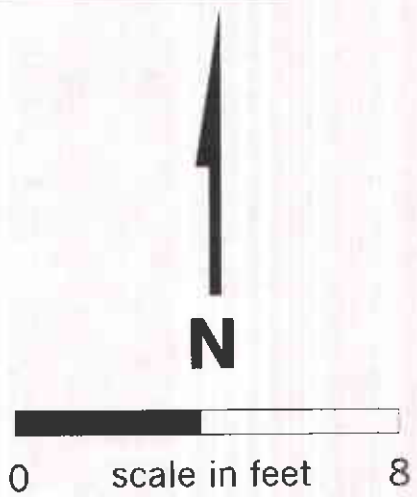
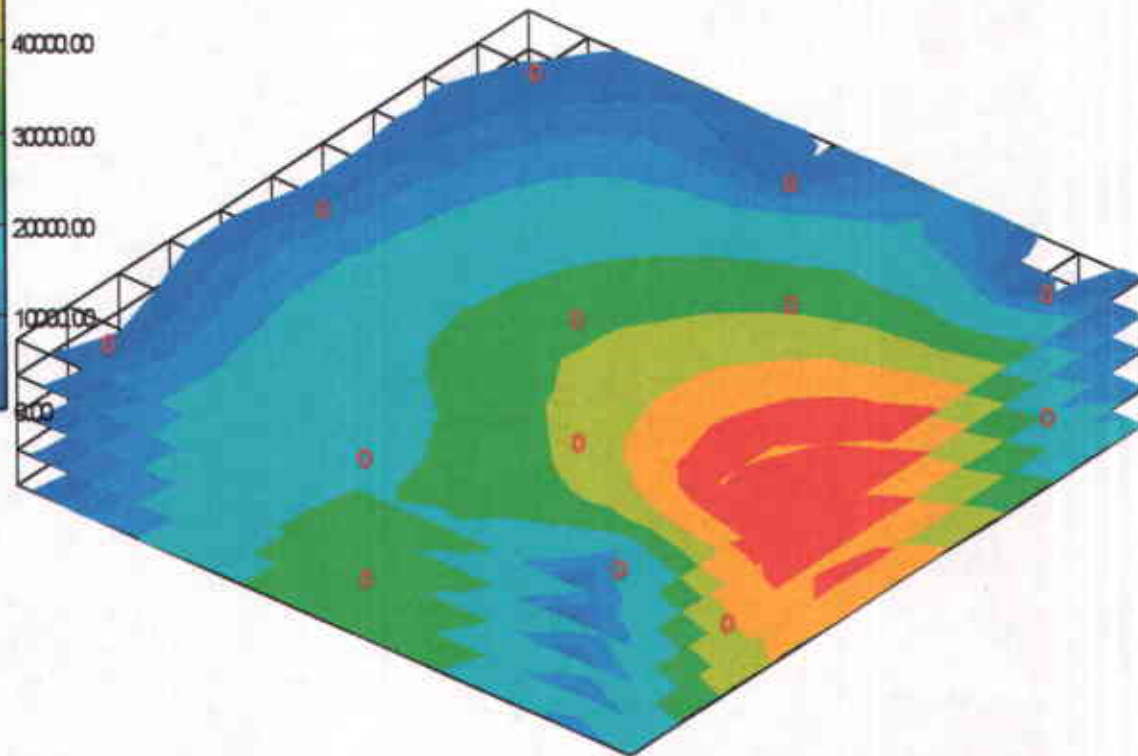
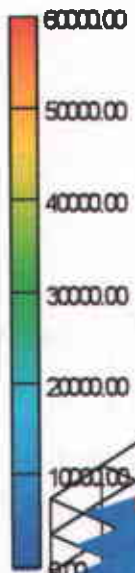


Figure 6: Soil Sampling from Site of Cistern Removal

PCB Concentrations in ppb



scale in feet



Figure 7: PCB Concentrations in Soil



APPENDIX 1

Laboratory Analytical Reports and Chain of Custody Forms

Client:

Soma
 Environmental Engineering
 2680 Bishop Dr. Suite # 203
 San Ramon, CA 94583

Client Project ID:

2174
 Emeryville
 C.B.S.


Ref.: R4603pcbs
 Method: 8080
 Sampled: 12/3/99
 Received: 12/3/99
 Matrix: Soil
 Analyzed: 12/9,10/99
 Reported: 12/13/99
 Units: mg/kg

Attention : Naser Pakrov

Analytical Results for PCBs				
Analyte	Detection Limit mg/kg	Results		
		Sample ID		
		Cister Walls	Cister Sand	Cister Concrete
PCBs				
PCB 1016	0.02	ND	ND	ND
PCB 1221	0.08	ND	ND	ND
PCB 1232	0.02	ND	ND	ND
PCB 1242	0.02	ND	ND	ND
PCB 1248	0.02	ND	ND	ND
PCB 1254	0.02	ND	ND	ND
PCB 1260	0.02	715	1.06	0.10

ND:Not Detected(<MDL)

Note: Samples were diluted 160 times



Delta Environmental Laboratories
 Hossein Khosh Khoo, Ph.D.

Quality Control Report

ENVIRONMENTAL LABORATORIES, Ltd

Client Project ID:
2174
Emeryville
C.B.S.


Ref: Q4603pcbs
Method: 8080
Sampled: 12/3/99
Received: 12/3/99
Matrix: Soil
Analyzed: 12/9,10/99
Reported: 12/13/99
Analyst: DAE
Units: mg/kg

Attention : Naser Pakrov

Quality Control Report for PCB's

Analyte	Detection Limit mg/kg	Spike Added mg/kg	% MS Recovery	% MSD Recovery	Relative % Difference RPD	Method
PCB 1260	0.02	40	106	114	7.3	8080

Delta Environmental Laboratories

H.Khosh Khoo, PhD. 
Laboratory Director/President

Delta Environmental Laboratories



Chain of Custody (COC) Form

685 Stone Road #11 & 12

Bericia, Ca. 94510

(707) 747-6081, 800-747-6082 FAX (707) 747-6082

Project Name

Results to: <u>NASER PAKROU</u>	
Client Name: <u>SOMA</u>	
Address:	
City:	
Telephone: <u>925 2446609</u>	Fax: <u>925 2446601</u>
SAMPLER (signature):	
Turnaround Time: <u>Standard</u>	

Proj 2174

LAE ID EmerVulle

Ref # C.B.S

4603

Analysis Requested	
No. of containers	pH
Temperature	PCBS

Special Instructions:

#	Sample ID	Date	Time	Matrix			Comments
1	cister - walls	12/3	1:0	Soil			✓
2	cister - sand	12/3	1:0	Soil			✓
3	cister - concrete	12/3	1:0	soil			✓

Relinquished by:	Date: <u>12/3/99</u>	1)
Received By:	Date: <u>12/3/99</u>	2)
Relinquished by:	Date:	3)
Received By:	Date:	4)

- 1) Have all samples received been stored on ice? _____
- 2) Did any VCA samples received have any head space? _____
- 3) Were samples in appropriate containers and packaged properly? _____
- 4) Were samples received in good condition? _____



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ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

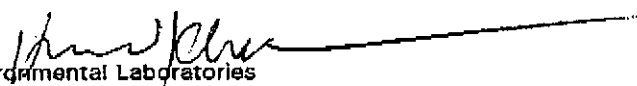
Ref.: R4574pcb
Method: 8080
Sampled: 11/23/99
Received: 11/23/99
Matrix: Soil
Analyzed: 11/24-26/99
Reported: 11/29/99
Units: mg/kg

Attention : Dr. M. Sapehr

Analytical Results for PCBs			
Analyte	Detection Limit mg/kg	Results	
		Sample ID	
		CBS	CBS
		NEW 5'	NEW 7'
PCBs			
PCB 1016	0.02	ND	ND
PCB 1221	0.08	ND	ND
PCB 1232	0.02	ND	ND
PCB 1242	0.02	ND	ND
PCB 1248	0.02	ND	ND
PCB 1254	0.02	ND	ND
PCB 1260	0.02	32.8	71.5

ND: Not Detected (< MDL)

Note: Samples were diluted 160 times


Delta Environmental Laboratories
Hossein Khosh Khoo, Ph.D.

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ENVIRONMENTAL LABORATORIES, Ltd

Client:Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583**Client Project ID:**
CBS 2174Ref. R4574200
CL1094
Method: 8270
Sampled 11/23/99
Receive 11/23/99
Matrix: soil
Analyze 11/24-29/99
Reporte 11/29/99
Units: mg/kg

Attention : Dr. M. Sepehr

Semi-volatile Organics
EPA 8270

Analyte	Detection Limit (mg/kg)	Results	
		Sample ID	
		C-B-S/New 5'	C-B-S/New 7'
Acenaphthene	0.10	ND	ND
Acenaphthylene	0.10	ND	ND
Anthracene	0.10	ND	ND
Benzidine	0.10	ND	ND
Benzoic Acid	0.50	ND	ND
Benzo (a) anthracene	0.10	ND	ND
Benzo (b) fluoranthene	0.10	ND	ND
Benzo (k) fluoranthene	0.20	ND	ND
Benzo (g,h,i) perylene	0.20	ND	ND
Benzo (a) pyrene	0.02	ND	ND
Benzyl Alcohol	0.20	ND	ND
Bis (2-chloroethoxy) methane	0.10	ND	ND
Bis (2-chloroethyl) Ether	0.10	ND	ND
Bis (2-Chloroisopropyl) Ether	0.10	ND	ND
Bis (2-ethylhexy) Phthalate	0.50	ND	ND
4-Bromophenyl Phenyl Ether	0.10	ND	ND
Butylbenzyl Phthalate	0.50	ND	ND
4-Chloroaniline	0.20	ND	ND
2-Chloronaphthalene	0.10	ND	ND
4-Chlorophenyl Phenyl Ether	0.10	ND	ND
Chrysene	0.10	ND	ND
Dibenzo (a,h) anthracene	0.20	ND	ND
Dibenzofuran	0.10	ND	ND
Di-n-butyl Phthalate	2.00	ND	ND
1,2-Dichlorobenzene	0.10	ND	ND
1,3-Dichlorobenzene	0.10	ND	ND
1,4-Dichlorobenzene	0.10	ND	ND
3,3'-Dichlorobenzidine	0.20	ND	ND
Diethyl Phthalate	0.50	ND	ND
Dimethyl Phthalate	0.50	ND	ND

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ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

Ref. R4574200
CL1094
Method: 8270
Sampled 11/23/99
Receive 11/23/99
Matrix: soil
Analyze 11/24-29/99
Reporte 11/29/99
Units: mg/kg

Attention : Dr. M. Sepehr

Semi-volatile Organics
EPA 8270

Analyte	Detection Limit (mg/kg)	Results	
		Sample ID	
		C-B-S/New 5'	C-B-S/New 7'
2,4-Dinitrotoluene	0.10	ND	ND
2,6-Dinitrotoluene	0.20	ND	ND
Di-n-octyl Phthalate	0.50	ND	ND
Fluoranthene	0.10	ND	ND
Fluorene	0.10	ND	ND
Hexachlorobenzene	0.10	ND	ND
Hexachlorobutadiene	0.10	ND	ND
Hexachlorocyclopentadiene	0.10	ND	ND
Hexachloroethane	0.10	ND	ND
Indeno (1.2.3-cd) pyrene	0.20	ND	ND
Isophorone	0.10	ND	ND
2-Methylnaphthalene	0.10	ND	ND
Naphthalene	0.10	ND	ND
2-Nitroaniline	0.50	ND	ND
3-Nitroaniline	0.10	ND	ND
4-Nitroaniline	0.50	ND	ND
Nitrobenzene	0.10	ND	ND
N-Nitrosodiphenylamine	0.10	ND	ND
N-Nitrosodi-n-propylamine	0.10	ND	ND
Phenanthrene	0.10	ND	ND
Pyrene	0.10	ND	ND
1,2,4-Trichlorobenzene	0.10	ND	ND
4-Chloro-3-methylphenol	0.20	ND	ND
Benzo(a)anthracene	0.10	ND	ND

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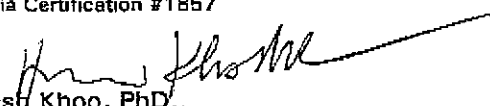
DELTA 

ENVIRONMENTAL LABORATORIES, Ltd

Client:Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583**Client Project ID:**
CBS 2174**Ref.** R4574200
CL1094**Method:** 8270
Sampled 11/23/99
Receive 11/23/99
Matrix: soil
Analyze 11/24-29/99
Reporte 11/29/99
Units: mg/kg**Attention :** Dr. M. Sepehr**Semi-volatile Organics**
EPA 8270

Analyte	Detection Limit (mg/kg)	Results	
		Sample ID	
		C-B-S/New 5'	C-B-S/New 7'
2-Chlorophenol	0.10	ND	ND
2,4-Dichlorophenol	0.50	ND	ND
2,4-Dimethylphenol	0.10	ND	ND
4,6-Dinitro-2-methylphenol	0.50	ND	ND
2,4-Dinitrophenol	0.10	ND	ND
2-Methylphenol	0.10	ND	ND
4-Methylphenol	0.20	ND	ND
2-Nitrophenol	0.10	ND	ND
4-Nitrophenol	0.50	ND	ND
Pentachlorophenol	0.50	ND	ND
Phenol	0.10	ND	ND
2,4,5-Trichlorophenol	0.10	ND	ND
2,4,6-Trichlorophenol	0.10	ND	ND

ND: Not Detected

DELTA Environmental Laboratories
California Certification #1857

 H. Khosro Khoo, PhD.,
 Laboratory Director/President

Rtmp_8270tclp

DELTA

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ENVIRONMENTAL LABORATORIES, Ltd

Client:

Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

Ref. R4574100
Method: 8260/8240
Sampled: 11/23/99
Received: 11/23/99
Matrix Solid
Analyzed: 11/26,27/99
Reported: 11/29/99
Analyst: DS
Unit mg/kg

Attention: Dr. M. Sepehr

48h

Purgeable Hydrocarbons

EPA 8260
VOC

Analyte	Detection Limit mg/kg	Results	
		Sample ID	
		CBS NEW 5'	CBS NEW 7'
Benzene	0.25	ND	ND
Bromobenzene	0.25	ND	ND
Bromochloromethane	0.25	ND	ND
Bromodichloromethane	0.50	ND	ND
Bromoform	0.25	ND	ND
Bromomethane	0.50	ND	ND
n-Butylbenzene	0.25	ND	ND
sec-Butylbenzene	0.25	ND	ND
tert-Butylbenzene	0.25	ND	ND
Carbon Tetrachloride	0.25	ND	ND
Chlorobenzene	0.25	2.8	3.6
Chloroethane	0.50	ND	ND
Chloroform	0.25	ND	ND
Chloromethane	0.50	ND	ND
2-Chlorotoluene	0.25	ND	ND
4-Chlorotoluene	0.25	ND	ND
Dibromochloromethane	0.25	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND
1,2-Dibromoethane	0.25	ND	ND
Dibromomethane	0.25	ND	ND
1,2-Dichlorobenzene	0.25	ND	ND
1,3-Dichlorobenzene	0.25	ND	ND
1,4-Dichlorobenzene	0.25	0.33	0.69
dichlorodifluoromethane	0.50	ND	ND
1,1-Dichloroethane	0.25	ND	ND
1,2-Dichloroethane	0.25	ND	ND
1,1-Dichloroethene	0.25	ND	ND
cis-1,2-Dichloroethene	0.25	ND	ND
trans-1,2-Dichloroethene	0.25	ND	ND
1,2-Dichloropropane	0.25	ND	ND
1,3-Dichloropropane	0.25	ND	ND

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ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

Ref: R4574100
Method: 8260/8240
Sampled: 11/23/99
Received: 11/23/99
Matrix: Solid
Analyzed: 11/26,27/99
Reported: 11/29/99
Analyst: DS
Unit: mg/kg

Attention: Dr. M. Sepehr

48h

Purgeable Hydrocarbons

EPA 8260
VOC

Analyte	Detection Limit mg/kg	Results	
		Sample ID	
		CBS NEW 5'	CBS NEW 7'
2,2-Dichloropropane	0.25	ND	ND
1,1-Dichloropropane	0.25	ND	ND
Ethylbenzene	0.25	ND	ND
Hexachlorobutadiene	0.25	ND	ND
Isopropylbenzene	0.25	ND	ND
p-Isopropyltoluene	0.25	ND	ND
Methylene Chloride	1.0	ND	ND
Naphthalene	0.25	ND	ND
n-Propylbenzene	0.25	ND	ND
Styrene	0.25	ND	ND
1,1,1,2-Tetrachloroethane	0.25	ND	ND
1,1,2,2-Tetrachloroethane	0.25	ND	ND
Tetrachloroethene	0.25	ND	ND
Toluene	0.25	ND	ND
1,2,3-Trichlorobenzene	0.25	ND	ND
1,2,4-Trichlorobenzene	0.25	ND	ND
1,1,1-Trichloroethane	0.25	ND	ND
1,1,2-Trichloroethane	0.25	ND	ND
Trichloroethene	0.25	ND	ND
Trichlorofluoromethane	0.25	ND	ND
1,2,3-Trichloropropane	0.25	ND	ND
1,2,4-Trimethylbenzene	0.25	ND	ND
1,3,5-Trimethylbenzene	0.25	ND	ND
Vinyl Chloride	0.50	ND	ND
Xylenes, Total	0.50	ND	ND
Acetone	5.0	ND	ND
2-Butanone	5.0	ND	ND
Carbon Disulfide	0.50	ND	ND
cis-1,3-Dichloropropene	0.25	ND	ND
trans-1,3-Dichloropropene	0.25	ND	ND

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DELTA

ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

Ref: R4574100
Method: 8260/8240
Sampled: 11/23/99
Received: 11/23/99
Matrix: Solid
Analyzed: 11/26,27/99
Reported: 11/29/99
Analyst: DS
Unit: mg/kg

Attention: Dr. M. Sepehr

48h


Purgeable Hydrocarbons

EPA 8260
VOC

Analyte	Detection Limit mg/kg	Results	
		Sample ID	
		CBS	CBS
		NEW 5'	NEW 7'
2-Hexanone	2.5	ND	ND
4-Methyl-2-pentanone	2.5	ND	ND
Vinyl Acetate	2.5	ND	ND
2-Chloroethyl Vinyl Ether	0.5	ND	ND

ND: Not Detected

DELTA Environmental Laboratories
California Certification #1857


H. Khosh Khoo, PhD.,
Laboratory Director/President

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ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
CBS 2174

Ref: R4574300s
Method: 7000/6010
Sampled: 11/23/99
Received: 11/23/99
Analyzed: 11/24,26/99
Reported: 11/26/99
Analyst: AD
Matrix: Solid
Units: mg/kg

Attention : Dr. M. Sepehr

Analytical Results for TTLC Analysis

Digestion :EPA 3050

Analyte	TTLC Max. Limit (mg/kg)	Detection Limit (mg/kg)	Results	
			Sample ID	
			CBS NEW 5'	CBS NEW 7'
Silver	500	1.0	ND	ND
Arsenic	500	5.0	ND	ND
Barium	10,000	1.0	120	110
Beryllium	75	1.0	ND	ND
Cadmium	100	1.0	ND	1.1
Cobalt	8,000	1.0	9.4	8.6
Chromium (III)	2,500	1.0	38	36
Copper	2,500	1.0	53	120
Mercury	20	0.06	0.09	0.08
Molybdenum	3,500	1.0	ND	ND
Nickel	2,000	2.0	26	29
Lead	1,000	5.0	62	39
Antimony	500	5.0	ND	ND
Selenium	100	5.0	ND	ND
Thallium	700	5.0	ND	ND
Vanadium	2,400	1.0	38	39
Zinc	5,000	1.0	100	120

ND: Not Detected

H.Khosh Khoo, PhD.,
Laboratory Director/President

Delta#1/general/RTMP_17_300s

Delta Environmental Laboratories

Chain of Custody (COC) Form

685 Stone Road #11 & 12

Benicia, Ca, 94510

(707) 747-6081, 800-747-6082 FAX (707) 747-6082

Project Name CBS 2174

To: Nader Pakrou

Name SOMA ENV. Eng.

Address _____

Phone 925 2446600 Fax: 925 2446601

Signature Nader Pakrou 

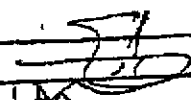
Lead Time 48 hrs.

Analysis Requested	
No. of containers	
pH	
Temperature	
PCBS	
8270 EPA Semi Metals	
8240 EPA	
CAM 17 Metals	

LAS ID 4574
Ref # _____

Special Instructions:

Sample ID	Date	Time	Matrix					Comments
CBS/New 5'	11/23	9:30	Soil					Analyze 48 hrs for PCBs then we will decide for further analyses. Keep the soils in cold room phase.
CBS/New 7'	11/23	9:40	Soil					

Received by:  Date 11/23/99 1)
 Received by: MS Date 11/23/99 2)
 Enclosed by: _____ Date _____ 3)
 Received by: _____ Date _____ 4)

Have all samples received been stored on ice? _____
 Did any VCA samples received have any head space? _____
 Were samples in appropriate containers and packaged properly? _____
 Were samples received in good condition? _____

FROM : SOMA ENVIRONMENTAL ENGINEERING

NOV. 23, 1999 5:30PM P 1
PHONE NO. : 510 244 6601

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ENVIRONMENTAL LABORATORIES, Ltd

Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
2177
CBS Onsite investigation
Emeryville, CA

Ref: R4705pcb
Method: 8080pcb
Sampled: 1/20/00
Received: 1/20/00
Matrix: Soil
Analyzed: 1/29/00
Reported: 1/31/00
Units: mg/kg

Attention: Dr. M. Sepehr

Analytical Results for PCBs
EPA 8080

Analyte	Detection Limit mg/kg	Results				
		Sample ID				
		SB1-2'	SB2-2'	SB2-4'	SB3-2'	SB4-2'
PCBs						
PCB 1016	0.02	ND	ND	ND	ND	ND
PCB 1221	0.08	ND	ND	ND	ND	ND
PCB 1232	0.02	ND	ND	ND	ND	ND
PCB 1242	0.02	ND	ND	ND	ND	ND
PCB 1248	0.02	ND	ND	ND	ND	ND
PCB 1254	0.02	ND	ND	ND	ND	ND
PCB 1260	0.02	6.0	18	29	3.0	60

ND:Not Detected(<MDL)


Hossein Khosh Khoo, Ph.D.
Laboratory Director/President

DELTA



ENVIRONMENTAL LABORATORIES, Ltd

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Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
2177
CBS Onsite Investigation
Emeryville, CA

Ref: R4705pcb2
Method: 8080pcb
Sampled: 1/20/00
Received: 1/20/00
Matrix: Soil
Analyzed: 1/29/00
Reported: 1/31/00
Units: mg/kg

Attention : Dr. M. Sepehr

**Analytical Results for PCBs
EPA 8080**

Analyte	Detection Limit mg/kg	Results				
		Sample ID				
		SB4-4'	SB5-2'	SB5-4'	SB6-2'	SB7-2'
PCBs						
PCB 1016	0.02	ND	ND	ND	ND	ND
PCB 1221	0.08	ND	ND	ND	ND	ND
PCB 1232	0.02	ND	ND	ND	ND	ND
PCB 1242	0.02	ND	ND	ND	ND	ND
PCB 1248	0.02	ND	ND	ND	ND	ND
PCB 1254	0.02	ND	ND	ND	ND	ND
PCB 1260	0.02	38	24	0.60	2.7	0.10

ND:Not Detected(<MDL)


Hossein Khosh Khoo, Ph.D.
Laboratory Director/President

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ENVIRONMENTAL LABORATORIES, Ltd

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Client:
Soma
2680 Bishop Dr., Ste 203
San Ramon, CA 94583

Client Project ID:
2177
CBS Onsite Investigation
Emeryville, CA

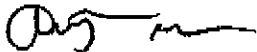
Ref: R4705pcb3
Method: 8080pcb
Sampled: 1/20/00
Received: 1/20/00
Matrix: Soil
Analyzed: 1/29/00
Reported: 1/31/00
Units: mg/kg

Attention : Dr. M. Sepehr

**Analytical Results for PCBs
EPA 8080**

Analyte	Detection Limit mg/kg	Results			
		Sample ID			
		SB7-4'	SB8-2'	SB8-4'	SB9-2'
PCBs					
PCB 1016	0.02	ND	ND	ND	ND
PCB 1221	0.08	ND	ND	ND	ND
PCB 1232	0.02	ND	ND	ND	ND
PCB 1242	0.02	ND	ND	ND	ND
PCB 1248	0.02	ND	ND	ND	ND
PCB 1254	0.02	ND	ND	ND	ND
PCB 1260	0.02	8.0	2.6	2.2	0.25

ND:Not Detected(<MDL)



Hossein Khosh Khoo, Ph.D.
Laboratory Director/President



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ENVIRONMENTAL LABORATORIES, Ltd

Quality Control Report

Client Project ID:
2174
Emeryville
C.B.S.

Ref: Q4603pcbs
Method: 8080
Sampled: 12/3/99
Received: 12/3/99
Matrix: Soil
Analyzed: 12/9,10/99
Reported: 12/13/99
Analyst: DAE
Units: mg/kg

Attention : Naser Pakrov

Quality Control Report for PCB's

Analyte	Detection Limit mg/kg	Spike Added mg/kg	% MS Recovery	% MSD Recovery	Relative % Difference RPD	Method
PCB 1260	0.02	40	106	114	7.3	8080

Delta Environmental Laboratories

H.Khosh Khoo, PhD.
Laboratory Director/President

Delta Environmental Laboratories

4705

Chain of Custody (COC) Form

665 Stone Road #11 & 12

Benicia, Ca. 94510

TEL (707) 747-6081, 800-747-6082 FAX (707) 747-6082

Results to: NASER YAKROV

Client Name: SOMA

Address:

City:

Telephone: 925 244 6600 Fax: 925 244 6601

SAMPLES (Signature): *[Signature]*

Turnaround Time: STANDARD

Analysis Requested

No. of containers	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp

Project Name: Prop 2177

LAB ID: CBS ON-SITE

Ref #: investigation
Emeryville

1/2

Special Instructions:

#	Sample ID	Date	Time	Matrix	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Comments
1	SB1-2'	1/20/00		Soil						X								EPA 8080/8082
2	SB2-2'	1/20		"						X								
3	SB2-4'	0		"						X								
4	SB3-2'	0		"						X								
5	SB4-2'	0		"						X								
6	SB4-4'	0		"						X								
7	SB5-2'	0		"						X								
8	SB5-4'	0		"						X								
9	SB6-2'	0		"						X								
10	SB7-2'	0		"						X								
	Relinquished by:	Date: <u>1/20/00</u>			1)													Have all samples received been stored on ice? <u>+</u>
	Received By:	Date: <u>1/20/00</u>			2)													Did any VOA samples received have any head space? <u>N/A</u>
		Date:			3)													Were samples in appropriate containers and packaged properly? <u>+</u>

D-E-L-T-A

02/01/00 TUE 10:22 FAX 17077476082

Delta Environmental Laboratories

4705

Chain of Custody (COC) Form

665 Stone Road #11 & 12

San Diego, Ca. 92110

(767) 747-6081, 800-747-6082 FAX (767) 747-6082

Results to: NASER YAKHOV
 Client Name: SOMA
 Address: _____
 City: _____
 Telephone: 925 2446600 Fax: 925 2446601
 SAMPLE Signature: [Signature]
 Turnaround Time: Standard

Project Name

Proj 2177

Analysis Requested

LAB ID

CBS on-site

Ref #

Investigation

Emeryville

No. of containers

pH
Temperature

PCBS

(2/2)

Special Instructions:

#	Sample ID	Date	Time	Matrix				Comments
11	SB7-4'	1/20/00		Soil			X	EPA 8080/8020
12	SB8-2'	"		"			X	
13	SB8-4'	"		"			X	
14	SB9-2'	"		"			X	
	SB8-4'							
Released by: <u>[Signature]</u>		Date:	<u>1/20/00</u>	1)	Have all samples received been stored on ice? <u>X</u>			
Received By: <u>[Signature]</u>		Date:	<u>1/20/00</u>	2)	Did any VOA samples received have any head space? <u>N/A</u>			
		Date:		3)	Were samples in appropriate containers and packaged properly? <u>+45</u>			