

PHASE II
HYDROGEOLOGICAL
INVESTIGATION
PARCEL A

April, 1988

Prepared for

CHEMICAL PROCESSORS, INC.
TACOMA FACILITY
TACOMA, WASHINGTON

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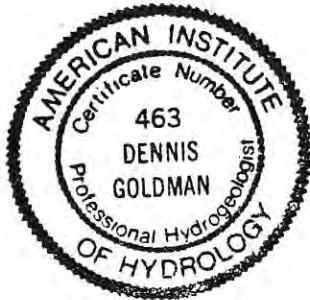
Project No. S94-03.02

TACOMA FACILITY

CHEMICAL PROCESSORS, INC.

PHASE II
HYDROGEOLOGICAL CHARACTERIZATION
PARCEL A

The technical material and data contained in this report were prepared under the supervision and direction of the undersigned professional hydrogeologist.



A handwritten signature in cursive script that reads "Dennis Goldman". The signature is written over a horizontal line.

Dennis Goldman, Project Manager
Senior Hydrogeologist
Sweet-Edwards/EMCON, Inc.

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CHEMPRO TACOMA
PHASE II PARCEL A
HYDROLOGICAL INVESTIGATION

1.0 INTRODUCTION

1.1 PURPOSE

A Phase II study of the environmental quality of soils at Parcel A, 1701 Alexander Avenue, Tacoma, Washington (Figure 1-1), was conducted in September, 1987. Parcel A is owned by the Solidus Corporation and was leased and operated by Chemical Processors, Inc. (Chempro) from mid 1981 to mid 1987. The Phase II study follows an initial (Phase I) study at Parcel A conducted by Sweet, Edwards and Associates, Inc. during May and June, 1987. The findings of the Phase I study were summarized in a report submitted to Chempro in October, 1987. The purpose of the Phase II study was to obtain depth discrete soil chemistry data in the area of an acid/ base treatment facility in Parcel A.

1.2 SITE DESCRIPTION

Parcel A is about 1 acre in size and is located in the industrial section of the Port of Tacoma, Washington, in the northwest quarter of Section 35, T21N, R2E, W.M. The site lies between the Hylebos and Blair Waterways to the southeast of Commencement Bay on fill materials placed on the former Puyallup River Delta tide flat zone. The site area is generally flat with a slight grade toward the south.

The site is generally covered by gravel road base, concrete pads or asphalt. Materials underlying the site to a depth of about 10-feet consist of sandy fill with scattered zones of solid waste (auto debris/ fluff) and lime waste. The Phase I investigation found that the fill is underlain by 1- to 3-feet of silt (tidal

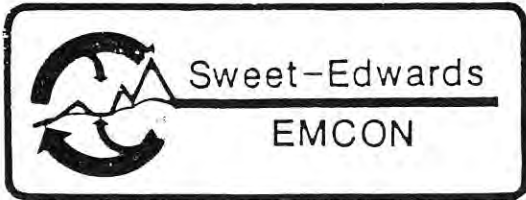
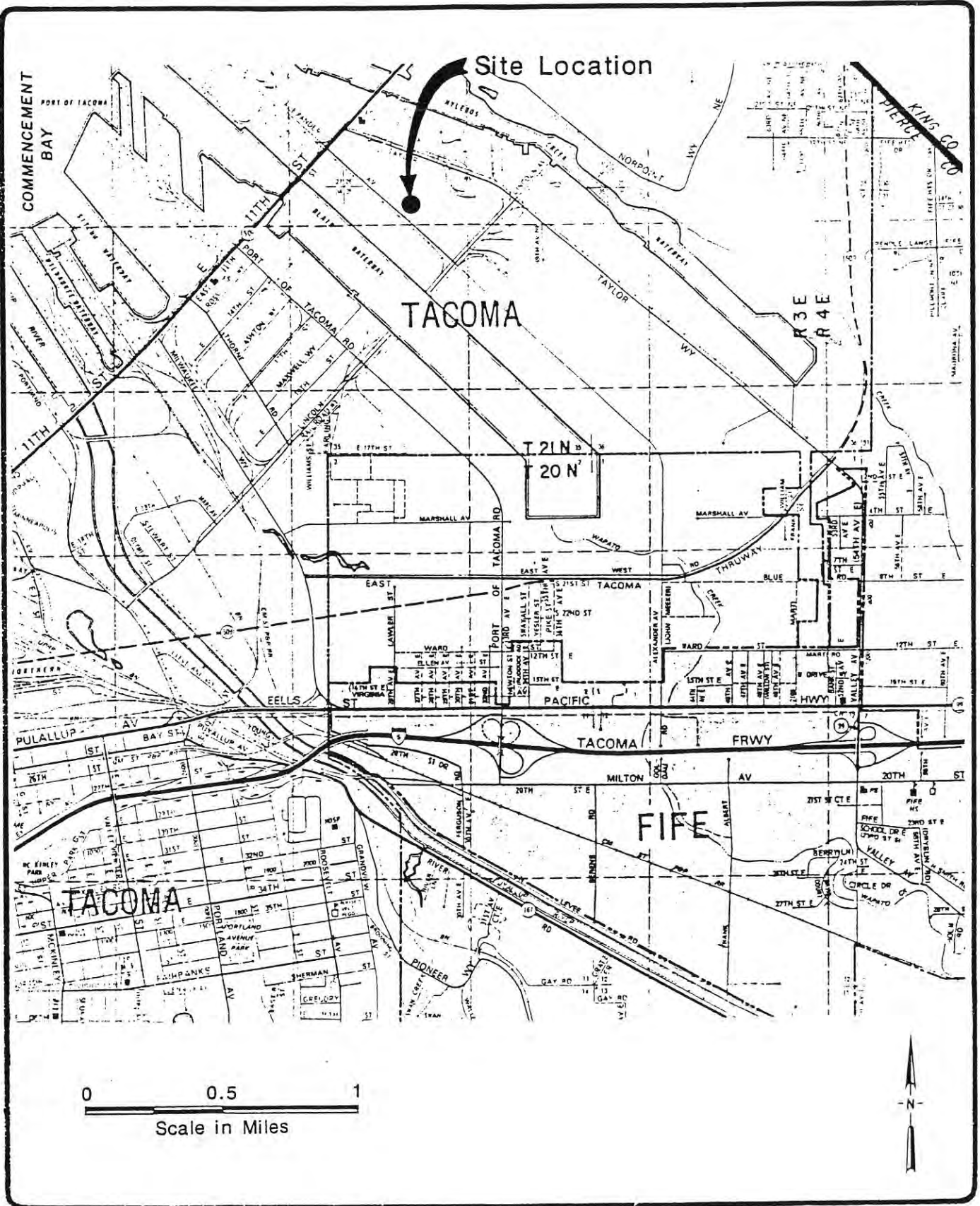


Figure 1-1
CHEMPRO, INC., TACOMA, WA
SITE LOCATION MAP

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2-83
DWN./APPR.
1/1/83
PROJECT NO
S9403.02

marsh/tideflat deposit, and an undetermined thickness of interbedded silty sand (deltaic deposits).

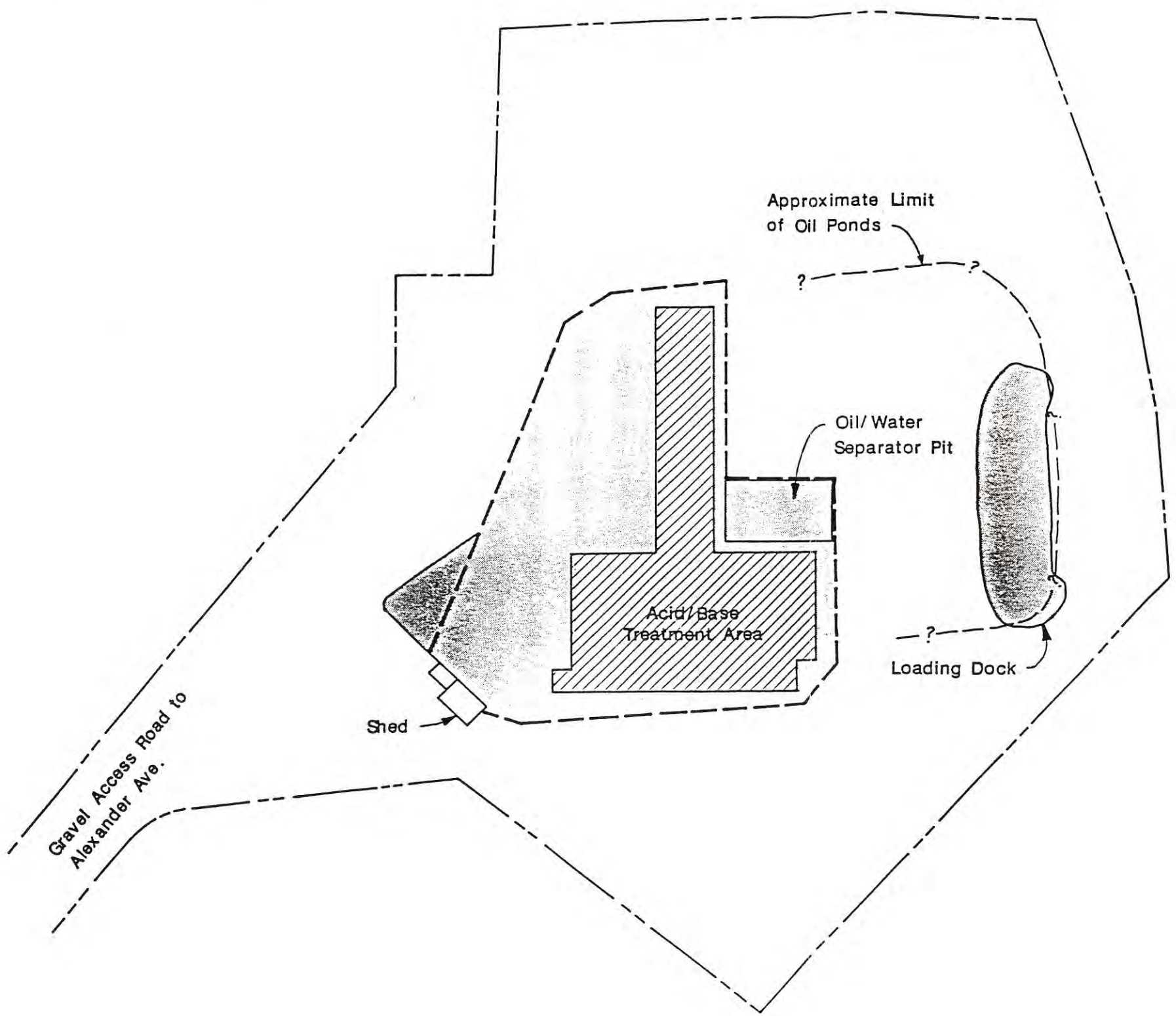
1.3 BACKGROUND





Previous geologic investigations suggest that prior to the placement of fill materials, the area of Parcel A was part of the channeled marshlands of the Puyallup River Delta (Hart-Crowser, 1975). Prior to 1924, much of the Puyallup River Delta was dredged and filled to create navigable waterways and usable land for industry. Continued filling in the 1960's and 1970's at and around the site is reported to have included lime sludges, petroleum tank-cleaning scales and sludges, and auto debris/fluff (RETEC presentation, 1987).

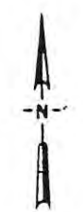
Two physically and operationally distinct treatment practices are reported to have occurred at Parcel A: 1) a waste oil reclaiming area that included petroleum tanks and unlined waste oil ponds; and 2) a chemical treatment and storage area for hazardous waste that consisted of a series of tanks referred to as the acid/base treatment facility. The predominant contaminants handled at the acid/base treatment facility were heavy metals. Figure 1-2 presents a schematic diagram of Parcel A and includes known and inferred areas of activity.

1.4 SCOPE OF WORK


The Phase II soils investigation at Parcel A consisted of drilling and sampling 31 hollow stem auger borings at 15 locations to a maximum depth of 8.2-feet below ground surface, and decommissioning monitoring well AGI-2. The work plan is attached as Appendix A. A total of 45 soil samples, including 4 duplicate samples, were submitted to four analytical laboratories for chemical analysis. Figure 1-3 presents the locations of the fifteen drilling locations and the decommissioned monitoring well.



- LEGEND**
-  Concrete Paving
 -  Asphalt Paving
 -  Parcel A Boundary
 -  Phase II Study Area Boundary



0 40
Scale in Feet



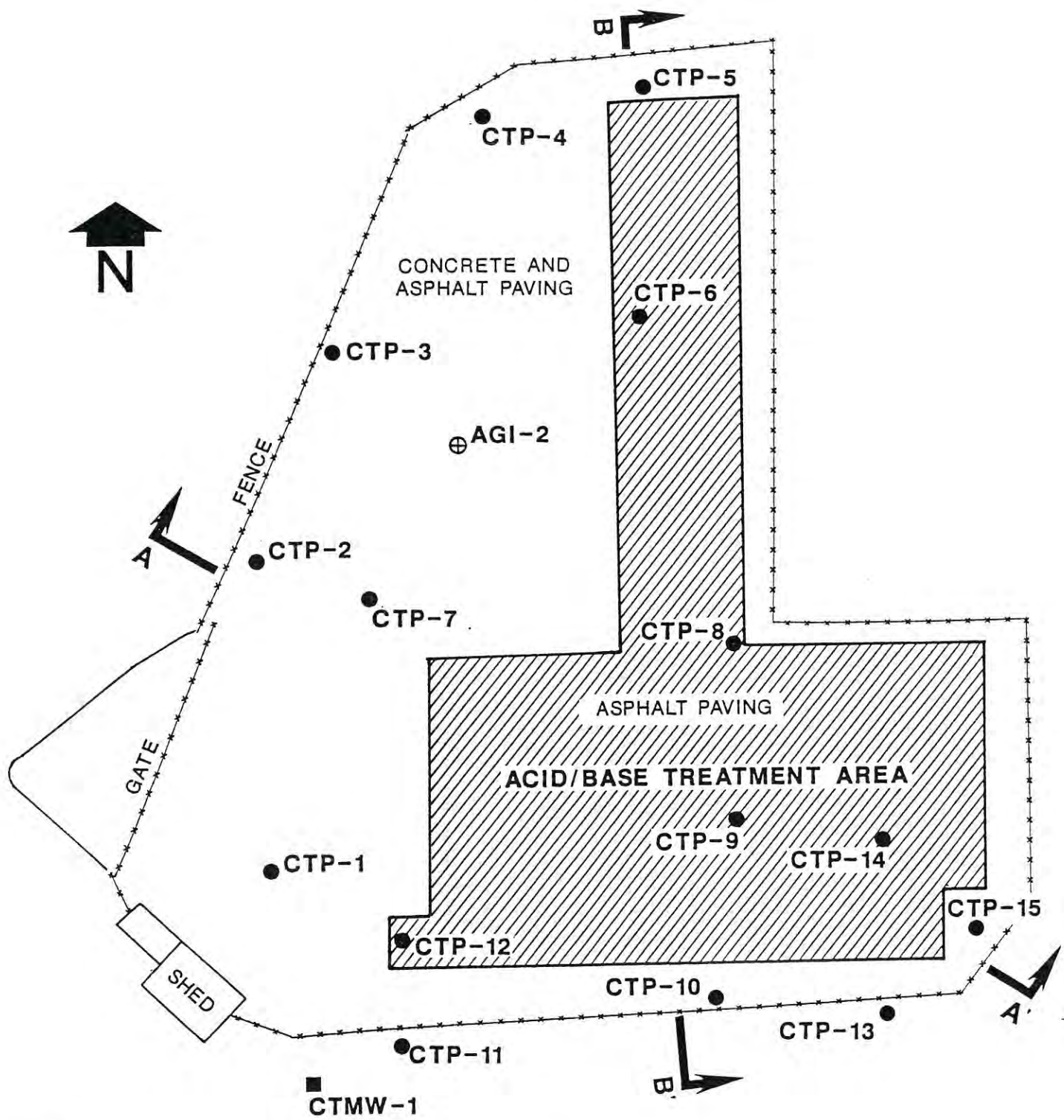
Sweet-Edwards
EMCON

KUKER-RANKEN INC./108857

Figure 1-2
CHEMPRO, INC., TACOMA, WA

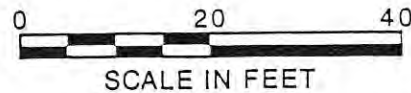
SITE PLAN - PARCEL A

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LEGEND

- CTP-1 Approximate location of Sweet-Edwards boring
- CTMW-1 Existing Sweet-Edwards Monitoring Well
- ⊕ Decommissioned Monitoring Well
- A ↕ A' Geologic Cross-Section Location



Chempro, Inc., Tacoma, WA
Figure 1-3
BORING LOCATIONS - PARCEL A

Sweet, Edwards & Associates



INITIALS	DATE
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CHECKED BY <u>[Signature]</u>	<u>[Signature]</u>
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S94-03.02

2.0 FIELD INVESTIGATION METHODS

During the period of September 22 through September 30, 1987, monitoring well AGI-2 was decommissioned and 31 hollow stem auger borings were drilled and sampled at 15 locations to a maximum depth of 8.2-feet. The boring locations were sited by a Chempro representative based on past practices and findings of the Phase I investigation. The borings are designated CTP-1A and 1B through CTP-15A and 15B (Figure 1-3). One additional boring, CTP-4C, was drilled and sampled due to refusal of a drive sampler in CTP-4B.

2.1 DRILLING PRACTICES

Tacoma Pump and Drilling, Inc., Graham, Washington, performed the drilling using a Mobile B-56 hollow stem auger drill rig. All borings were advanced using 5-foot long auger flights with a 4.25-inch inner diameter and a 7.5-inch outer diameter. All drill cuttings were placed into tub skids and disposed of by Chempro.

Prior to drilling at each of the 15 locations, a 2-foot by 2-foot section of a concrete and/or asphalt pad was broken and excavated to an average depth of about 0.6-feet. Each boring was advanced until ground water was encountered. Following completion, the borings were abandoned by simultaneously pulling the hollow stem auger and backfilling with 1/4-inch bentonite pellets. The borings were backfilled with bentonite pellets to the base of the concrete pad and hydrated with tap water. The Washington Department of Ecology was given written notification by Sweet, Edwards/EMCON that the borings would be abandoned.

Continuous logs of subsurface conditions were prepared for each boring and are presented in Appendix B. The boring logs include soil classification based on the Unified Soil Classification

System (USCS) and color designation based on Munsell soil color charts.

2.2 SOIL SAMPLING

At each drilling location, two borings were advanced. The first boring (lithologic boring) was continuously sampled and used to delineate the presence of three general types of fill materials: (1) visibly "clean" sandy fill materials with no visible oil product; (2) solid waste deposits of auto debris and/or lime sludge; and (3) visibly "dirty" fill materials with oil product. The second boring (chemical boring) was used to obtain soil samples for chemical analysis from both visibly "clean" and "dirty" zones. Samples for soil identification were photographed and logged by a SE/E geologist (Appendices B and G) at each location.

Two-inch O.D. and 2.5-inch O.D. split spoon samplers and 3-inch O.D. split barrel samplers were used to collect soil samples. All samplers were decontaminated as outlined in Section 2.4 prior to use. Multiple samplers were used to expedite soil sampling.

Based on field observations from the initial boring at a given location, soil samples for chemical analysis were obtained from the following three depth discrete zones:

- o Depth Zone 1: 0.5-to 2.4-feet below ground surface (b.g.s.)
- o Depth Zone 2: 2.2-to 3.5-feet b.g.s.
- o Depth Zone 3: 3.5-to 8.2-feet b.g.s.

Soil samples were not retrieved from each depth zone in each boring due to sampler refusal or poor sample recovery. A minimum

of two and a maximum of four soil samples were obtained for chemical analysis at each chemical boring location.

Once a soil sample was obtained, sample containers designated for Volatile Organics (VOA) testing were filled first with a minimum of agitation from the central portion of the sample using decontaminated stainless steel spoons. The VOA sample containers were filled as much as possible to minimize head space, sealed with teflon lids, labeled, and placed in a cooler with ice for delivery to a laboratory. After the VOA containers were completed, the remaining sample containers were filled using stainless steel spoons, labeled, and placed in a cooler with ice for delivery to a laboratory.

Soil samples for chemical analysis were labeled with a coded number, date, time, footage interval and sampler's initials. Sample labeling, preservation and transport was documented on Chain-of-Custody/Laboratory Analysis Request forms (Appendix C).

Soil samples were delivered to 4 different analytical laboratories for chemical testing:

- o Columbia Analytical Services, Inc., Longview WA
- Samples analyzed for Total and EP Tox Metals

- o Analytical Resources, Inc., Seattle, WA
- Samples analyzed for Volatile Organics,
Base/Neutral/Acids, and PCBs

- o AMTEST, Redmond, WA
- Samples analyzed for PNAs

- o Chempro, Seattle, WA
- Samples analyzed for cyanide

2.3 WELL DECOMMISSIONING

Monitoring well AGI-2 was decommissioned by Tacoma Pump and Drilling, Inc., using the following procedure. The PVC well casing and screen were pulled a few inches upward using a hydraulic winch and cable from the Mobile B-56 drill rig. The PVC end cap on the bottom of the screen was knocked off using a 1-inch diameter galvanized steel pipe. A viscous bentonite slurry mixed from bentonite powder and water was injected into the base of the well with a 1-inch diameter tremie pipe while simultaneously pulling the well casing and screen out of the borehole. Ground water displaced by pumping the slurry was collected in buckets at ground level and placed in containers for disposal by Chempro.

2.4 DECONTAMINATION PROCEDURES

The drill rig and all downhole drilling equipment were steam cleaned or high pressure-hot water washed and rinsed prior to arrival at and departure from the site, and between boreholes to minimize the potential for any cross-contamination.

All soil sampling equipment was decontaminated between samples using the following sequence:

- o steam cleaning
- o non-phosphate detergent wash
- o distilled water rinse
- o dilute HCl solution rinse (pH < 2)
- o methanol rinse
- o steam cleaning
- o final distilled water rinse

3.0 QUALITY ASSURANCE

In general, the analytical data produced for this study are of good quality. The available quality control data do not indicate any major deficiencies. A few of the quality control data results lead to the EPA recommendations that the level of analyte detected in that sample should be considered suspect.

3.1 FIELD PROCEDURES

Field procedures for borehole drilling, soil identification, soil sampling and equipment decontamination, and general procedures associated with sample labeling, preservation, custody, and shipping followed guidelines outlined in the Phase II work plan (Appendix A).

3.2 FIELD DUPLICATES

Field Quality Assurance (QA) data were obtained by submitting one duplicate soil sample to each of the four analytical laboratories (Section 2.2). Duplicate samples were obtained by filling two sample containers (or container sets, as appropriate) with alternating scoops of soil using a stainless steel spoon. Duplicate sample containers were labelled with individual sample numbers and submitted as "blind" duplicates to the analytical laboratories.

Test results of duplicate samples for volatile organics, BNAs, PCBs, total and EP Tox metals, and PNAs were within target limits of ± 50 -percent, recommended by EPA Region X (R. Farlow, personal communication, 1988). Test results for cyanide were outside the target limits of the ± 50 -percent. However, one of the samples submitted in duplicate (CTP-10B#2) was noted by the laboratory technician to be non-homogeneous. Sample CTP-10B#2 was reanalyzed by the laboratory three times with reported cyanide

concentrations ranging from 1.9 to 11.8 ppm. The variability of the cyanide duplicate samples is assumed to be the result of sample heterogeneity and not sample collection, preservation or analysis.

3.3 LABORATORY PROCEDURES

Polycyclic Aromatic Hydrocarbon (PAH) analyses performed at AmTest Analytical Laboratory followed guidelines stated in the Washington State Department of Ecology Hazardous Waste Extraction Procedure (WAC 173.303).

Quality control procedures followed by the AmTest laboratory included analysis of spikes, duplicates and method blanks at a frequency of about 10-percent of samples analyzed.

Cyanide (totals) analysis at the Chempro analytical laboratory followed the methods for cyanide determination in Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985. Specific methods used were 412 B - Total Cyanide after Distillation, and 412 D - Colormetric Method. These methods were followed with the following modification to 412 D. Fifteen milliliters of the phosphate buffer solution was used in the color development phase instead of the recommended four milliliters. The buffering capacity of the solution was greatly enhanced with the extra buffer volume, thus preventing any pH variations from occurring which could adversely affect the color development.

Columbia Analytical Services, Inc. and Analytical Resources, Inc. are member laboratories of the EPA Contract Laboratory Program (CLP). As members of the CLP, these laboratories follow established quality assurance procedural guidelines which include:

- o Instrument calibration
- o Standard reference material analysis
- o Instrument detection limits
- o Sample holding times
- o Blank analysis
- o Surrogate recovery analysis
- o Spiked sample analysis
- o Duplicate sample analysis

The paperwork required to document laboratory activities involved in following CLP guidelines is extensive, costly, and typically not generated for studies other than investigations at superfund sites. However, the laboratories' quality assurance practices associated with instrument calibration, standard reference material analysis, and instrument detection limits meet the requirements of the CLP.

3.3.1 Sample Holding Times

A sample holding time is the period from sample collection to preparation, and/or sample analysis, as appropriate. Sample holding times are suggested by EPA for use as guidelines in evaluating quantitative laboratory analysis. Exceeding the suggested holding time for a sample is generally considered to affect a loss of the analyte(s). Therefore, from a usability standpoint, when holding time violations occur, the results which are most severely called into question are those which fall below or close to the detection limit (EPA, 1985).

The EPA has not established guidelines for soil sample holding times (EPA, 1988). Therefore, the quantitative soils data for the Phase II study could not be assessed relative to sample holding time.

3.3.2 Blank Analysis

Laboratory method blanks were analyzed by ARI for volatile organics on each day samples were tested except October 15, 1987. Six soil samples were analyzed for volatiles on October 15, 1987: CTP-2B#2, CTP-5B#2, CTP-5B#3, CTP-6B#3, CTP-11B#3 and CTP-13B#3.

Laboratory method blanks were analyzed by ARI for PCBs on each day samples were tested except for October 8, 1987. One soil sample was analyzed for PCBs on October 8, 1987: CTP-10B#3. Laboratory extraction blanks were prepared for analysis each day sample extractions were prepared.

Methylene chloride was reported above the detection limit in a method blank on September 25, 1987. Methylene chloride was also reported present, but below the established detection limit on October 5, 1987, October 7, 1987, and October 21, 1987. Total xylenes were reported above the detection limit in method blanks on September 25, 1987 and October 21, 1987.

3.3.3 Surrogate Recovery

All samples to be analyzed for volatile and semi-volatile organics were spiked with surrogate compounds prior to sample preparation. Surrogate compounds are substances that are not expected to be present in the environment and are currently considered by the EPA to react chemically in a manner that is representative of organic compounds that may be present. The results of surrogate spike recoveries are often influenced by unique factors that are outside the control of the laboratory, such as effects of the sample matrix, and the presence of other analytes. The evaluation of surrogate recoveries is, therefore, frequently subjective, particularly in soils where a heterogeneous medium is often present.

All surrogate recoveries for laboratory method blanks were within EPA specified ranges. The surrogate recoveries for several matrix soil samples were outside the EPA specified ranges (Table 3.1).

Five samples had volatile surrogate recoveries out of specification: CTP-5B#2, CTP-8B#3, CTP-9B#2, CTP-10B#2 and CTP-15B#2. Two of the samples were considerably out of specification and were re-analyzed by the laboratory (CTP-8B#3 re-run and CTP-10B#2 re-run). The remaining soil samples that had volatile surrogate recoveries slightly out of specification (Table 3.1) are deemed to have analytical results of acceptable quality.

At least 15 samples had BNA surrogate recoveries out of specification. Several additional samples were either spiked at too low a concentration or were diluted to a level that the BNA surrogate recovery was less than the detection limit (DL). Soil samples CTP-10B#2 and CTP-11B#4 had surrogate recoveries for BNAs that are out of specification to the extent that the soil sample analytical results should be suspect. The samples that had a BNA recovery labeled less than the detection limit (DL) cannot be assessed. These soil sample analytical results have no effective quality assurance with respect to BNA. The remaining soil samples that had BNAs surrogate recoveries slightly out of specification (Table 3.1) are deemed to have analytical results of acceptable quality.

3.3.4 Matrix Spike Recovery

Samples to be analyzed for total metals and EP toxicity had matrix spikes added at the frequency defined by EPA. Matrix spike recoveries were generally within the specified range of 75 to 125-percent.

Matrix spike recoveries for total metals analyses were slightly

All surrogate recoveries for laboratory method blanks were within EPA specified ranges. The surrogate recoveries for several matrix soil samples were outside the EPA specified ranges (Table 3.1).

Five samples had volatile surrogate recoveries out of specification: CTP-5B#2, CTP-8B#3, CTP-9B#2, CTP-10B#2 and CTP-15B#2. Two of the samples were considerably out of specification and were re-analyzed by the laboratory (CTP-8B#3 re-run and CTP-10B#2 re-run). The remaining soil samples that had volatile surrogate recoveries slightly out of specification (Table 3.1) are deemed to have analytical results of acceptable quality.

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3.3.4 Matrix Spike Recovery

Samples to be analyzed for total metals and EP toxicity had matrix spikes added at the frequency defined by EPA. Matrix spike recoveries were generally within the specified range of 75 to 125-percent.

Matrix spike recoveries for total metals analyses were slightly

Table 3.1 Summary of Surrogate Recoveries Out of Specification
 Volatiles, Base/Neutrals & Acids
 Parcel A, Phase II Study

FILE NAME: SURROG.wrl
 Rev./Update: 4/23/88 DG

Surrogate Compound	Upper & Lower Recovery Limits (%)	CTP-5B #2	CTP-9B #2	CTP-10B #2 Rerun	CTP-15B #2															
Volatiles																				
d8-Toluene	81 - 117	*	*	120	*															
Bromofluorobenzene	74 - 121	129	123	*	136															
d4-1,2-Dichloroethane	70 - 121	*	*	*	*															
						CTP-3B #3	CTP-4B #1	CTP-4C #1	CTP-6B #1	CTP-7B #3	CTP-9B #1	CTP-10B #1	CTP-10B #2	CTP-10B #3	CTP-11B #2	CTP-11B #3	CTP-11B #4	CTP-13B #3	CTP-14B #2	CTP-15B #2
Base/Neutrals																				
d5-Nitrobenzene	23 - 120	17.8	*	13.1	*	DL	*	*	DL	*	152	DL	DL	*	DL	21.3				
2-Fluorobiphenyl	30 - 115	*	*	*	*	*	*	*	215	126	152	DL	5.2	*	121	141				
d14-p-Terphenyl	18 - 137	*	*	*	176	*	147	164	200	*	143	DL	6.9	*	217	*				
Acids																				
d5-Phenol	24 - 113	*	*	21.9	*	*	*	*	DL	*	151	*	20.6	126	*	*				
2-Fluorophenol	25 - 121	*	21.5	19.3	139	130	*	*	129	*	170	148	DL	*	*	*				
2,4,6-Tribromophenol	19 - 122	*	*	18.7	124	DL	*	*	DL	*	*	DL	DL	*	*	*				

COMMENTS:

1. Surrogate Recovery limits from EPA CLP Statement of Work for Organic Analysis, 1987
2. All values presented as percent recovery.
3. (*) Surrogate recovery within specified limits.
4. (DL) Less than detection limit: Spiked at to low a concentration or diluted.
5. CTP-1B Boring designation
 #1 Soil sample number

low for arsenic (samples CTP-3B#2 and CTP-12B#2), selenium (samples CTP-6B#1 and CTP-2B#1) and silver (sample CTP-2B#1). The matrix spike recovery for copper (sample CTP-3B#1) was slightly high. The matrix spike recovery for chromium (sample CTP-3B#1) was considerably out of specification. However, the matrix spike results for copper and copper on sample CTP-3B#1 are not considered representative because the sample concentrations were greater than four times the spike concentrations (EPA, 1985). The soil samples that had total metals analysis matrix spike recoveries out of specification are deemed to have analytical results of acceptable quality.

Matrix spike recoveries for EP toxicity analyses were low for selenium (samples CTP-2B#32 and CTP-11B#2) and high for mercury (sample CTP-4B#2). The analytical results for EP Toxicities analysis of selenium (samples CTP-2B#32 and CTP-11B#2) and mercury (sample CTP-4B#2) should only be considered an estimate.

3.3.5 Laboratory Duplicates

Laboratory duplicate analyses are performed as an indicator of the precision of the sample results. Duplicate sample results for total metals and EP toxicity were within EPA specified limits of ± 35 -percent. Duplicate sample results were not reported for volatiles, BNAs, PCBs, PAHs or cyanide.

4.0 INTERPRETATION OF FIELD STUDIES

4.1 FILL MATERIALS

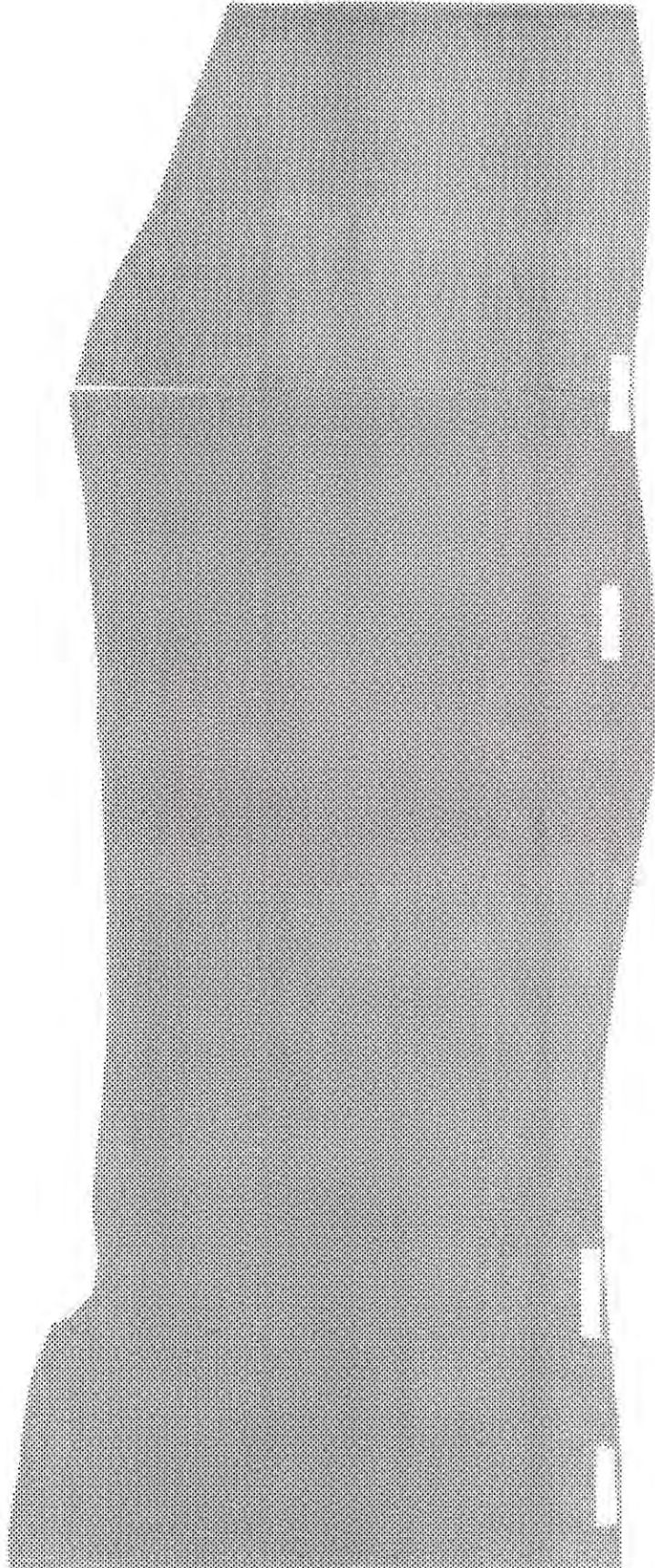
Subsurface conditions were explored at 15 drilling locations to a maximum depth of 8.2-feet in the area of the acid/base treatment facility in Parcel A. Each boring was advanced through unconsolidated fill materials of sand, gravel, clay, lime refuse and/or auto debris to the water table. Geologic cross-sections showing the variability of fill materials are presented in Figures 4-1 and 4-2.

In general, soils beneath the asphalt and concrete pad to a depth of about 2.4-feet below ground surface were visibly "clean" of oil product. Fill materials in the uppermost 2.4-feet consist of gravelly sands, clayey gravels and sands with an olive to olive brown color.

Fill materials below 2.4-feet generally consist of auto debris, auto debris intermixed with lime sludge, oily auto debris and oily sands. Auto debris was encountered in all drilling locations except CTP-4, CTP-5, CTP-6, CTP-13 and CTP-15. Oily product was encountered at all drilling locations except CTP-4 and CTP-6.

4.2 WATER LEVELS

Ground water was encountered at each drilling location. Accurate static ground water levels were difficult to obtain due to the typically short time interval the borings were open and in several borings the presence of free oil product that interfered with the operation of the water level probe. Ground water and/or oil saturation was determined by examining soil samples and drill cuttings for water and oil content. Confirmation of the depth to ground water below grade was attempted with an electric probe.



NOTE: Oil-contaminated soil
depicted as dark-shaded zones

A

NORTHWEST

CTP-2

CTP-7

CTP-9

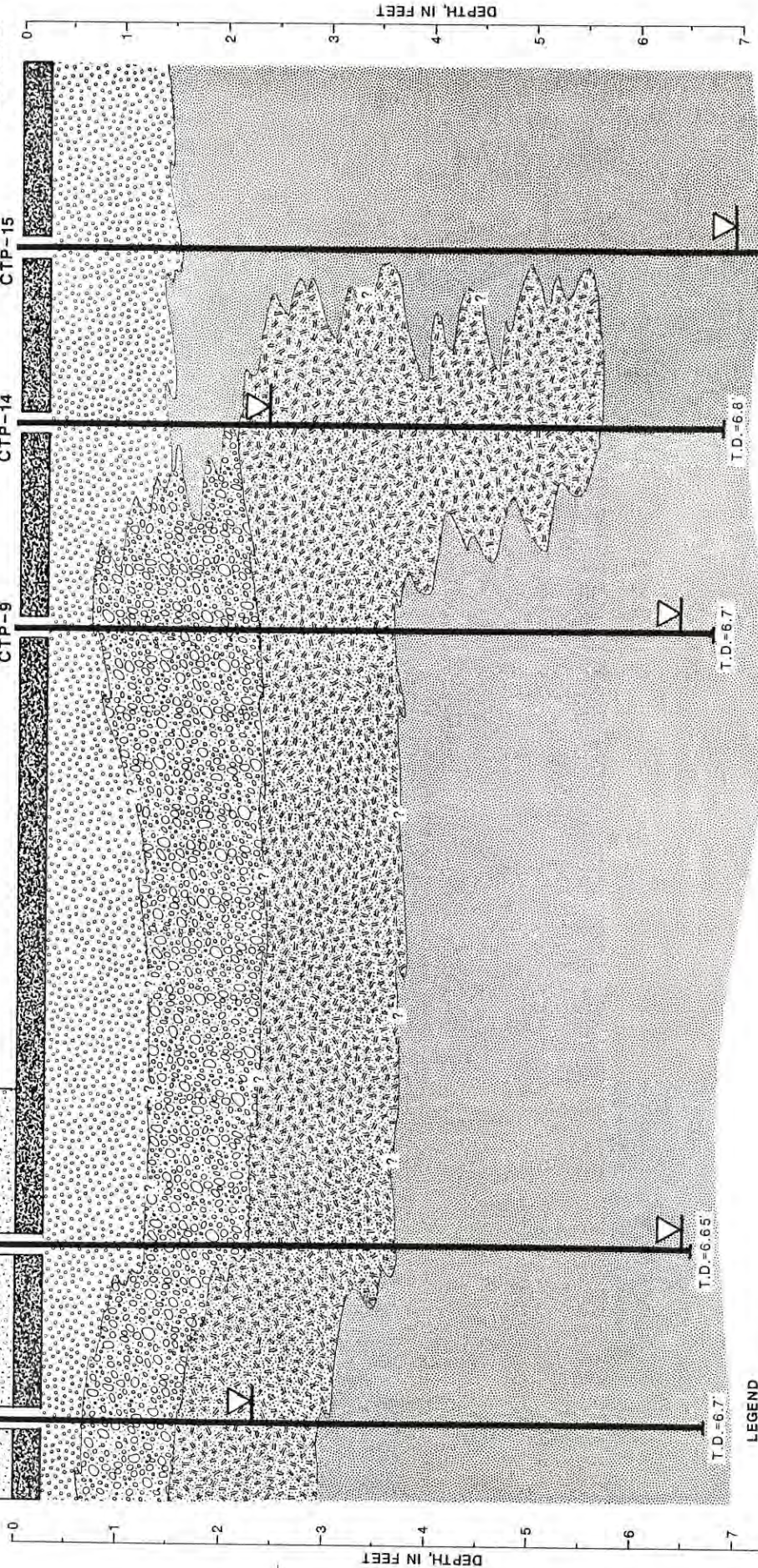
CTP-14

CTP-15

CTP-15

CTP-15

SOUTHEAST



DEPTH, IN FEET

DEPTH, IN FEET

LEGEND

- CONCRETE
- ASPHALT
- GRAVELLY SAND (FILL): Olive brown, fine to medium, trace to some fine gravel, trace silt, moist
- CLAYEY GRAVEL (FILL): Olive gray, fine to coarse sand, moist
- AUTO DEBRIS AND SAND (FILL): Gray-brown to black, medium sand intermixed with rubber, glass, wire, plastic debris; moist to saturated with oil and water
- SAND (FILL): Black, fine to medium, moist to saturated with oil and water

- CTP-5 Soil boring designation
- Static depth to water
- Total depth of boring
- Inferred contact

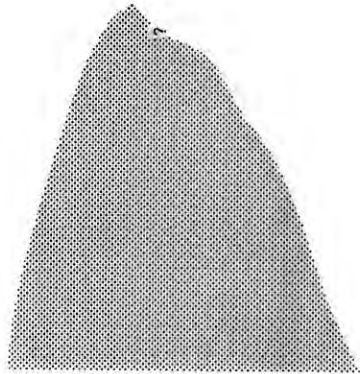
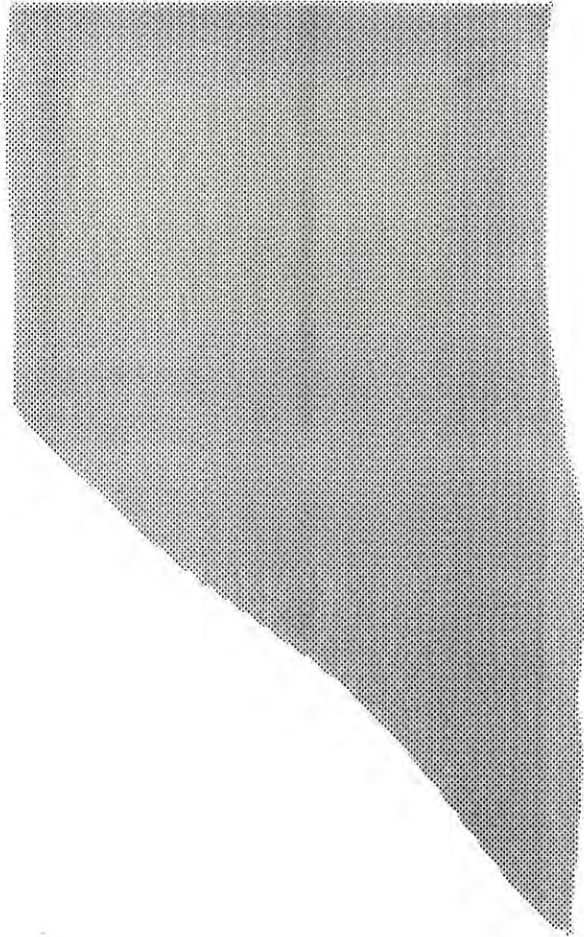
Horizontal Scale in Feet
Vertical Exaggeration: 10x

Chempro, Inc., Tacoma, WA
Figure 4-1
GEOLOGIC CROSS-SECTION A-A'
PARCEL A

Sweet, Edwards & Associates

DRAWN BY: *JK* DATE: 11/20/87
CHECKED BY: *JK*
REVISED: *JK*

S94-03.02



NOTE: Oil-contaminated soil
depicted as dark-shaded zones

Zones of perched ground water were indicated at borings CTP-2 and CTP-14. Inferred depths to water are shown on the geologic cross-sections (Figures 4-1 and 4-2) and on the boring logs (Appendix B).

3.3 SOIL CHEMISTRY

Forty-five soil samples for chemical analysis were obtained from the three depth discrete zones previously described (Section 2.2). The following nine (9) tables have been prepared which summarize the soil testing results:

<u>Table Number</u>	<u>Description</u>
4.1	Organic Analyses - Depth Zone 1
4.2	Organic Analyses - Depth Zone 2
4.3	Organic Analyses - Depth Zone 3
4.4	Total Metals - Depth Zone 1
4.5	Total Metals - Depth Zone 2
4.6	Total Metals - Depth Zone 3
4.7	EP Toxicity - Depth Zone 1
4.8	EP Toxicity - Depth Zone 2
4.9	EP Toxicity - Depth Zone 3

Test results are presented by Depth Zone for comparison purposes. Analytes not shown on the tables were not detected at any of the sampling points. Reported organic compound concentration values were adjusted by Sweet-Edwards or the laboratory when the compound was detected in the laboratory method blank. See Appendix D for the analytical results of the laboratory testing. See Appendix F for a description of the blank adjustment method.

Table 4.1 Summary of Soil Testing Results - Organic Analyses
 Depth Zone 1
 Parcel A, Phase II Study

FILE NAME: ORG#1.WR1
 Rev./Update: 4/23/88 DG

	CTP-1B #1	CTP-2B #1	CTP-3B #1	CTP-4C #1	CTP-5B #1	CTP-6B #1	CTP-7B #1	CTP-8B #1	CTP-9B #1	CTP-10B #1	CTP-11B #1	CTP-13B #1	CTP-14B #1	CTP-15B #1
Volatiles (ug/kg)														
Ethylbenzene	*	*	880	*	*	*	*	*	*	*	*	*	*	*
Methylene Chloride	22	3.8	*	*	*	*	11	5.5	4.2	3.9	*	14	46	4.4
Toluene	*	*	490	*	*	*	*	*	*	*	*	*	*	*
Xylenes, total	*	4.9	*	*	*	4.5	*	*	*	*	*	*	*	8
PCB (ug/kg)														
Aroclor 1016 & 1242	*	*	180	*	*	230	*	*	*	*	*	*	*	*
Aroclor 1254	*	*	240	*	*	675	*	*	*	*	*	*	*	*
Aroclor 1260	*	*	520	*	*	240	*	*	*	*	*	*	*	*
Miscellaneous														
Cyanide (ppm)	*	1.2	1.8	*	*	*	*	*	*	1.6	2.0	*	*	*
Base/Neutrals/Acids (ug/kg)														
2-Methylnaphthalene	*	290	*	*	*	*	*	*	*	*	*	*	*	*
Acenaphthene	*	*	*	*	*	800	*	*	*	*	*	*	*	*
Fluorene	*	*	*	*	*	250	*	*	*	*	*	*	*	*
Phenanthrene	*	170	*	*	*	600	*	*	*	*	*	*	*	*
Pyrene	*	*	*	*	*	1300	*	*	*	*	*	*	*	*
Benzo(a)anthracene	*	*	*	*	*	1100	*	*	*	*	*	*	*	*
Bis(2-ethylhexyl)phthalate	240	*	10000	2000	240	32000	260	120	180	150	140	710	*	500
Di-n-octyl Phthalate	*	*	1300	140	*	1400	*	*	*	*	*	*	*	*
1,2-Dichlorobenzene	*	74	*	*	*	*	*	*	*	*	*	*	*	*
Butylbenzylphthalate	*	*	*	900	*	6100	*	*	*	*	*	*	*	320
Di-n-butylphthalate	*	*	*	150	*	*	*	*	*	*	*	*	*	*

COMMENTS:

- Borings not sampled at Depth Zone 1: CTP-4B and CTP-12B.
- Analytes are not shown on summary table when not detected at any sampling points.
- All values reported are greater than minimum detection level.
- (*) Analyte not detected, or detected below minimum detection level.
- CTP-1B Boring Designation
 #1 Soil Sample Number
- Cyanide - Analyses suggests ferricyanide.
- Sampling Dates: 9/24/87 through 9/30/87.
- Laboratories/Analyses conducted:
 Analytical Resources Inc.: Volatiles, BNAs, PCBs, Oil & Grease.
 AM Test: PNAs.
 Chempro: Cyanide.

Table 4.2 Summary of Soil Testing Results - Organic Analyses
 Depth Zone 2
 Parcel A, Phase II Study

	CTP-3B #2	CTP-4B #1	CTP-5B #2	CTP-6B #2	CTP-7B #2	CTP-8B #2	CTP-10B #2	CTP-10B #2 Rerun	CTP-21B #2(a)	CTP-11B #2	CTP-12B #1	CTP-13B #2
Volatiles (ug/kg)												
Acetone	*	*	*	*	*	*	74	*	NR	*	*	*
Benzene	*	*	*	*	*	13	150	140	NR	*	*	*
Ethylbenzene	*	*	*	*	*	*	100	120	NR	*	*	*
Methylene Chloride	*	8.4	*	6.6	*	15	16	61	NR	16	6.2	15
Styrene	*	*	*	*	*	*	52	63	NR	*	*	*
Tetrachloroethene	*	*	*	*	*	4.2	*	*	NR	*	*	*
Toluene	*	*	*	2.1	9.2	*	500	460	NR	*	*	*
Xylenes, total	27	*	3100	38	57	23	330	380	NR	*	*	*
PCB (ug/kg)												
Aroclor 1016 & 1242	*	*	410	*	4900	260	1300	NR	NR	*	*	*
Aroclor 1254	*	*	630	*	9500	570	2200	NR	NR	450	*	*
Aroclor 1260	*	*	790	*	*	*	1500	NR	NR	*	*	*
Miscellaneous												
Cyanide (ppm)	*	*	NR	NR	NR	NR	11.6(b)	NR	*	3.1	*	NR
Base/Neutrals/Acids (ug/kg)												
Napthalene	20000	*	5100	*	11000	*	*	NR	NR	12000	*	*
2-Methylnapthalene	49000	*	14000	72	20000	3000	*	NR	NR	29000	190	*
Acenaphthene	2900	*	660	*	*	1700	*	NR	NR	1300	*	*
Fluorene	8700	*	1300	*	*	1900	*	NR	NR	4100	52	*
Phenanthrene	26000	*	7100	*	8500	4100	5600	NR	NR	8700	120	*
Anthracene	5100	*	*	*	*	*	*	NR	NR	5300	43	*
Fluoranthene	2300	*	*	*	*	*	*	NR	NR	*	*	*
Pyrene	4700	*	*	*	*	1900	*	NR	NR	1500	*	*
Benzo(a)anthracene	2100	*	*	*	*	*	*	NR	NR	1000	*	*
Bis(2-ethylhexyl)phthalate	*	*	4800	200	*	33000	340000	NR	NR	12000	510	*
Chrysene	3700	*	*	*	*	*	*	NR	NR	1400	*	*
Di-n-octyl Phthalate	*	*	*	*	140000	3200	26000	NR	NR	*	*	*
Benzo(a)pyrene	2300	*	*	*	*	*	*	NR	NR	*	*	*
Butylbenzylphthalate	*	*	*	*	120000	3200	94000	NR	NR	*	*	*
Di-n-butylphthalate	*	*	*	*	*	*	16000	NR	NR	*	*	*
Acenaphthylene	2600	*	310	*	*	900	*	NR	NR	850	*	*
Dibenzofuran	4100	*	*	*	*	*	*	NR	NR	3100	*	*

See Page 2 for comments

COMMENTS:

1. Borings not sampled at Depth Zone 2: CTP-1B, CTP-2B, CTP-4C, CTP-9B, CTP-14B, and CTP-15-B.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (a) Split Sample with CTP-10B #2.
5. (b) Non-homogeneous sample rerun three times at the Chempro laboratory, concentration shown is the largest reported value.
6. (*) Analyte not detected, or detected below minimum detection level.
7. (NR) Analyte Not Analyzed.
8. (Rerun) Sample analyzed a second time at laboratories' discretion.
9. CTP-1B Boring Designation
 #1 Soil Sample Number

10. Cyanide - Analyses suggests ferricyanide.
11. Sampling Dates: 9/24/87 through 9/30/87.
12. Laboratories/Analyses conducted:
 Analytical Resources Inc.: Volatiles, BNAs, PCBs, Oil and Grease.
 AM Test: PNAs.
 Chempro: Cyanide.

Table 4.3 Summary of Soil Testing Results - Organic Analyses
 Depth Zone 3
 Parcel A, Phase II Study

FILE NAME: ORG#3.WR1
 Rev./Update: 4/23/88 DG

Volatiles (ug/kg)	CTP-1B #2	CTP-2B #2	CTP-2B #2 Rerun	CTP-3B #3	CTP-4B #2	CTP-4B #3	CTP-5B #3	CTP-6B #3	CTP-7B #3	CTP-8B #3	CTP-8B #3 Rerun
Acetone	*	*	*	*	*	*	*	*	*	*	*
Benzene	1300	*	1000	*	*	*	*	*	950	77	*
1,1-Dichloroethane	*	*	*	*	*	*	*	*	*	*	*
Ethylbenzene	6400	*	1200	*	*	*	*	280	9500	120	*
Methylene Chloride	*	*	*	*	*	*	*	*	*	21	*
Tetrachloroethene	*	*	510	*	*	*	*	*	*	200	*
Toluene	9300	*	1000	*	*	*	180	170	17000	*	*
1,1,1-Trichloroethane	*	*	*	*	*	*	*	*	*	14	*
Trichloroethene	*	*	510	*	*	*	*	*	*	100	*
Xylenes, total	40000	13000	10000	*	*	*	1100	600	59000	4300	15000

PCB (ug/kg)											
Aroclor 1016 & 1242	*	775	*	*	*	*	*	*	770	85	NR
Aroclor 1254	*	930	*	*	*	*	*	*	*	190	NR
Aroclor 1260	*	930	*	*	*	*	*	*	*	*	NR

Miscellaneous											
PNA (% Residue)	*	*	*	*	*	*	*	*	1.0	*	*

Base/Neutrals/Acids (ug/kg)											
Napthalene	45000	22000	NR	1300	*	*	*	1400	30000	13000	NR
2-Methylnapthalene	140000	76000	NR	4700	*	*	*	3300	84000	52000	NR
Acenaphthene	5500	3600	NR	*	*	*	*	360	5100	1800	NR
Fluorene	14000	6100	NR	410	*	*	*	790	11000	3800	NR
Phenanthrene	44000	21000	NR	1900	*	*	*	1600	22000	12000	NR
Anthracene	9600	4300	NR	*	*	*	*	290	5800	2300	NR
Fluoranthene	*	1900	NR	*	*	*	*	170	*	1800	NR
Pyrene	8100	4200	NR	*	*	*	*	250	5500	2300	NR
Benzo(a)anthracene	4100	2500	NR	*	*	*	*	83	*	980	NR
Bis(2-ethylhexyl)phthalate	15000	18000	NR	*	*	*	*	280	22000	4300	NR
Chrysene	7100	3700	NR	*	*	*	*	120	*	1400	NR
Di-n-octyl Phthalate	*	4100	NR	*	*	*	*	*	*	*	NR
Benzo(b)fluoranthene	*	*	NR	*	*	*	*	*	*	*	NR
Benzo(a)pyrene	*	1200	NR	*	*	*	*	*	*	*	NR
Indeno(1,2,3-cd)pyrene	*	*	NR	*	*	*	*	*	*	*	NR
Benzo(ghi)perylene	*	*	NR	*	*	*	*	*	*	*	NR
Dibenz(a,h)anthracene	*	*	NR	*	*	*	*	*	*	*	NR
Butylbenzylphthalate	*	2800	NR	*	*	*	*	*	*	*	NR
Di-n-butylphthalate	*	*	NR	*	*	*	*	62	*	*	NR
Acenaphthylene	4700	2000	NR	*	*	*	*	300	2800	1600	NR
Dibenzofuran	6200	5600	NR	*	*	*	*	230	8700	3700	NR
Diethylphthalate	*	*	NR	*	*	*	*	160	*	*	NR
Dimethyl Phthalene	*	*	NR	*	*	*	*	*	*	*	*

See Page 3 for comments

Table 4.3 Summary of Soil Testing Results - Organic Analyses
 Depth Zone 3
 Parcel A, Phase II Study

FILE NAME: ORG#3.WR1
 Rev./Update: 4/23/88 DG

	CTP-1B #2	CTP-2B #2	CTP-2B #2 Rerun	CTP-3B #3	CTP-4B #2	CTP-4B #3	CTP-5B #3	CTP-6B #3	CTP-7B #3	CTP-8B #3	CTP-8B #3 Rerun
Volatiles (ug/kg)											
Acetone	*	*	*	*	*	*	*	*	*	*	*
Benzene	1300	*	1000	*	*	*	*	*	950	77	*
1,1-Dichloroethane	*	*	*	*	*	*	*	*	*	*	*
Ethylbenzene	6400	*	1200	*	*	*	*	280	9500	120	*
Methylene Chloride	*	*	*	*	*	*	*	*	*	21	*
Tetrachloroethene	*	*	510	*	*	*	*	*	*	200	*
Toluene	9300	*	1000	*	*	*	180	170	17000	*	*
1,1,1-Trichloroethane	*	*	*	*	*	*	*	*	*	14	*
Trichloroethene	*	*	510	*	*	*	*	*	*	100	*
Xylenes, total	40000	13000	10000	*	*	*	1100	600	59000	4300	15000
PCB (ug/kg)											
Aroclor 1016 & 1242	*	775	*	*	*	*	*	*	770	85	NR
Aroclor 1254	*	930	*	*	*	*	*	*	*	190	NR
Aroclor 1260	*	930	*	*	*	*	*	*	*	*	NR
Miscellaneous											
PNA (% Residue)	*	*	*	*	*	*	*	*	1.0	*	*
Base/Neutrals/Acids (ug/kg)											
Napthalene	45000	22000	NR	1300	*	*	*	1400	30000	13000	NR
2-Methylnapthalene	140000	76000	NR	4700	*	*	*	3300	84000	52000	NR
Acenaphthene	5500	3600	NR	*	*	*	*	360	5100	1800	NR
Fluorene	14000	6100	NR	410	*	*	*	790	11000	3800	NR
Phenanthrene	44000	21000	NR	1900	*	*	*	1600	22000	12000	NR
Anthracene	9600	4300	NR	*	*	*	*	290	5800	2300	NR
Fluoranthene	*	1900	NR	*	*	*	*	170	*	1800	NR
Pyrene	8100	4200	NR	*	*	*	*	250	5500	2300	NR
Benzo(a)anthracene	4100	2500	NR	*	*	*	*	83	*	980	NR
Bis(2-ethylhexyl)phthalate	15000	18000	NR	*	*	*	*	280	22000	4300	NR
Chrysene	7100	3700	NR	*	*	*	*	120	*	1400	NR
Di-n-octyl Phthalate	*	4100	NR	*	*	*	*	*	*	*	NR
Benzo(b)fluoranthene	*	*	NR	*	*	*	*	*	*	*	NR
Benzo(a)pyrene	*	1200	NR	*	*	*	*	*	*	*	NR
Indeno(1,2,3-cd)pyrene	*	*	NR	*	*	*	*	*	*	*	NR
Benzo(ghi)perylene	*	*	NR	*	*	*	*	*	*	*	NR
Dibenz(a,h)anthracene	*	*	NR	*	*	*	*	*	*	*	NR
Butylbenzylphthalate	*	2800	NR	*	*	*	*	*	*	*	NR
Di-n-butylphthalate	*	*	NR	*	*	*	*	62	*	*	NR
Acenaphthylene	4700	2000	NR	*	*	*	*	300	2800	1600	NR
Dibenzofuran	6200	5600	NR	*	*	*	*	230	8700	3700	NR
Diethylphthalate	*	*	NR	*	*	*	*	160	*	*	NR
Dimethyl Phthalene	*	*	NR	*	*	*	*	*	*	*	*

See Page 3 for comments

COMMENTS:

1. Borings not sampled at Depth Zone 3: CTP-4C
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (a) Split sample with CTP-10B #3.
5. (*) Analyte not detected, or detected below minimum detection level.
6. (NR) Analyte Not Analyzed.
7. (Rerun) Sample analyzed a second time at laboratories discretion.
8. CTP-1B Boring Designation
 #1 Soil Sample Number

9. Cyanide - Analyses suggests ferricyanide.
10. Sampling Dates: 9/24/87 through 9/30/87.
11. Laboratories/Analyses conducted:
 Analytical Resources Inc.: Volatiles, BNAs, PCBs, Oil & Grease.
 AM Test: PNAs.
 Chempro: Cyanide.

Table 4.4 Summary of Soil Testing Results - Total Metals Analysis (dry basis)
 Depth Zone 1
 Parcel A, Phase II Study

FILE: TOTMET.wrl
 Rev./Update: 4/23/88 DG

Total Metals (mg/Kg)	CTP-1B #1	CTP-2B #1	CTP-3B #1	CTP-4C #1	CTP-5B #1	CTP-6B #1	CTP-7B #1	CTP-8B #1	CTP-9B #1	CTP-10B #1	CTP-20B #1(a)	CTP-11B #1	CTP-13B #1	CTP-14B #1	CTP-15B #1
Arsenic	3.7	3.8	4.4	3.8	3.5	3.3	2.8	1	2.7	2.7	2.5	4.2	5.7	*	*
Barium	68	108	66	76	103	70	47	144	58	54	52	57	106	66	63
Cadmium	*	3.6	4.2	2.6	2.1	*	1.6	1.1	1.9	8.3	8.2	6.6	5.1	*	2.5
Chromium	24	51	386	213	360	30	268	38	26	1380	1515	275	156	27	28
Lead	14	30	120	42	214	32	37	493	21	15	14	22	48	15	*
Mercury	0.1	*	0.2	*	*	*	*	*	*	*	*	*	0.1	*	*
Copper	14	37	39	35	39	17	49	94	17	46	46	31	38	15	13
Nickel	30	51	38	26	46	15	36	49	46	43	39	46	50	25	43
Zinc	41	67	184	78	182	49	51	540	60	75	67	74	99	55	62
% Solids	89	89	92	89	87	90	87	87	88	88	89	90	91	91	93

COMMENTS:

1. Borings not sampled at Depth Zone 1: CTP-4B and CTP-12B.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (a) Split sample with CTP-10B #1
5. (*) Analyte not detected, or detected below minimum detection level.
6. CTP-1B Boring Designation
 #1 Soil Sample Number
7. Sampling Dates: 9/24/87 through 9/30/87.
8. Laboratory/Analyses conducted:
 Columbia Analytical: Total Metals.

Table 4.5 Summary of Soil Testing Results - Total Metals Analysis (dry basis)
 Depth Zone 2
 Parcel A, Phase II Study

FILE: TOTMET.wrl
 Rev./Update: 4/23/88 DG

Total Metals (mg/Kg)	CTP-3B #2	CTP-4B #1	CTP-5B #2	CTP-6B #2	CTP-7B #2	CTP-8B #2	CTP-10B #2	CTP-11B #2	CTP-12B #1	CTP-13B #2
Arsenic	2.7	6.1	2.7	1.5	14	37	16	5.9	3.9	2.2
Barium	16	12	9.4	15	1090	171	1440	104	95	19
Cadmium	*	*	*	*	22	1.8	43	*	*	4.1
Chromium	17	13	16	11	71	41	144	35	26	36
Lead	54	*	*	19	2250	569	3300	58	23	*
Mercury	*	*	*	*	1.4	*	2.8	0.1	*	*
Copper	13	10	10	12	179	123	2550	24	20	11
Nickel	28	8	15	*	111	55	237	32	38	20
Zinc	69	26	34	31	2120	648	3750	76	86	57
% Solids	91	88	93	90	82	82	82	90	88	95

COMMENTS:

1. Borings not sampled at Depth Zone 2: CTP-1B, CTP-2B, CTP-4C, CTP-9B, CTP-14B, and CTP-15B.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (*) Analyte not detected, or detected below minimum detection level.
5. CTP-1B Boring Designation
 #1 Soil Sample Number
6. Sampling Dates: 9/24/87 through 9/30/87.
7. Laboratory/Analyses conducted:
 Columbia Analytical: Total Metals.

Table 4.6 Summary of Soil Testing Results - Total Metals Analysis (dry basis)
 Depth Zone 3
 Parcel A, Phase II Study

FILE: TOTMET.wrl
 Rev./Update: 4/23/88 DG

Total Metals (mg/Kg)	CTP-1B #2	CTP-2B #2	CTP-3B #3	CTP-4B #2	CTP-4B #3	CTP-5B #3	CTP-6B #3	CTP-7B #3	CTP-8B #3	CTP-9B #2	CTP-10B #3	CTP-11B #3	CTP-11B #4	CTP-12B #2	CTP-13B #3	CTP-14B #2	CTP-15B #2
Arsenic	2.5	2.9	3.1	1.7	1	0.8	1.8	*	6.5	1	1.6	228	2.6	1.9	3.2	*	*
Barium	284	153	20	13	9.2	60	12	21	63	17	15	1260	16	31	31	17	35
Cadmium	3.6	1.8	*	*	*	*	*	*	*	*	*	37	*	*	*	*	*
Chromium	28	68	11	9	7.9	30	9.2	10	20	9.1	8.4	262	11	11	7.6	11	16
Lead	408	1110	136	*	*	13	13	41	129	18	33	9750	21	87	16	24	422
Mercury	0.1	0.2	*	*	*	*	*	0.1	*	*	*	6.4	0.1	*	*	*	*
Silver	*	*	*	*	*	*	*	*	*	*	*	22.6	*	*	*	*	*
Copper	41	53	14	11	10	14	8.6	9.8	61	9.6	9.6	1010	8.4	17	10	11	17
Nickel	24	21	12	9.2	10	47	*	*	25	*	8.6	409	6.1	6.7	5.4	*	15
Thallium	*	0.2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Zinc	491	484	68	19	18	42	18	22	295	23	49	6500	25	86	27	35	128
% Solids	87	86	89	93	95	90	92	94	92	98	92	56	93	90	94	95	86

COMMENTS:

- Borings not sampled at Depth Zone 3: CTP-4C.
- Analytes are not shown on summary table when not detected at any sampling points.
- All values reported are greater than minimum detection level.
- (*) Analyte not detected, or detected below minimum detection level.
- CTP-1B Boring Designation
#1 Soil Sample Number
- Sampling Dates: 9/24/87 through 9/30/87.
- Laboratory/Analyses conducted:
Columbia Analytical: Total Metals.

Table 4.7 Summary of Soil Testing Results - EP Toxicity Analyses
 Depth Zone 1
 Parcel A, Phase II Study

File: EPTOX.wri
 Rev./Update: 4/23/88 DG

EP TOX (mg/L)	CTP-1B #1	CTP-2B #1	CTP-3B #1	CTP-4C #1	CTP-5B #1	CTP-6B #1	CTP-7B #1	CTP-8B #1	CTP-9B #1	CTP-10B #1	CTP-20B #1(a)	CTP-11B #1	CTP-13B #1	CTP-14B #1	CTP-15B #1
Barium	0.03	0.19	0.07	0.04	0.06	0.03	0.02	0.02	0.03	*	*	0.38	0.13	*	*
Cadmium	*	*	0.028	0.04	*	*	0.012	*	0.011	*	*	0.19	0.038	*	*
Chromium	*	*	*	0.03	0.02	*	0.02	*	*	0.03	0.05	0.07	0.02	*	*
Lead	*	*	*	*	*	*	*	0.06	*	*	*	*	*	*	*
Copper	*	0.02	0.05	0.03	*	*	0.04	*	*	*	*	*	0.05	*	*
Nickel	*	0.06	*	*	*	*	0.05	*	*	*	*	0.06	0.11	*	*
Zinc	0.13	0.14	0.43	0.16	1.2	*	0.10	0.04	0.16	0.07	0.06	0.24	0.26	0.09	0.07

COMMENTS:

1. Borings not sampled at Depth Zone 1: CTP-4B and CTP-12B.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (a) Split sample with CTP-10B #1.
5. (*) Analyte not detected, or detected below minimum detection level.
6. CTP-1B Boring Designation
 #1 Soil Sample Number
7. Sampling dates: 9/24/87 through 9/30/87.
8. Laboratories/Analyses conducted:
 Columbia Analytical: EP Toxicity.

Table 4.8 Summary of Soil Testing Results - EP Toxicity Analyses
 Depth Zone 2
 Parcel A, Phase II Study

File: EPTOX.wrl
 Rev./Update: 4/23/88 DG

EP TOX (mg/L)	CTP-3B #2	CTP-4B #1	CTP-5B #2	CTP-6B #2	CTP-7B #2	CTP-8B #2	CTP-10B #2	CTP-11B #2	CTP-12B #1	CTP-13B #2
Barium	0.1	0.09	0.04	0.07	0.64	0.57	*	0.09	0.03	0.05
Cadmium	0.009	*	*	*	0.018	0.016	0.35	*	*	0.073
Chromium	0.01	*	*	*	*	0.01	*	*	*	*
Lead	*	*	*	*	0.73	0.34	0.32	*	*	*
Copper	*	*	*	*	*	0.02	0.03	*	*	*
Nickel	*	*	*	0.05	0.43	*	0.60	*	*	0.08
Zinc	0.15	0.32	0.21	0.15	8.9	0.72	15.3	0.09	0.16	0.29

COMMENTS:

1. Borings not sampled at Depth Zone 2: CTP-1B, CTP-2B, CTP-4C, CTP-9B, CTP-14B, and CTP-15B.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (*) Analyte not detected, or detected below minimum detection level.
5. CTP-1B Boring Designation
 #1 Soil Sample Number
6. Sampling dates: 9/24/87 through 9/30/87.
7. Laboratories/Analyses conducted:
 Columbia Analytical: EP Toxicity.

Table 4.9 Summary of Soil Testing Results - EP Toxicity Analyses
 Depth Zone 3
 Parcel A, Phase II Study

File: EPTOX.wrl
 Rev./Update: 4/23/88 DG

EP TOX (mg/L)	CTP-1B #2	CTP-2B #2	CTP-3B #3	CTP-4B #2	CTP-4B #3	CTP-5B #3	CTP-6B #3	CTP-7B #3	CTP-8B #3	CTP-9B #2	CTP-10B #3	CTP-11B #3	CTP-11B #4	CTP-12B #2	CTP-13B #3	CTP-14B #2	CTP-15B #2
Arsenic	*	*	*	*	*	*	*	*	*	*	*	0.01	*	*	*	0.023	*
Barium	0.04	0.45	*	0.09	*	*	0.03	0.02	0.53	0.02	0.07	2.3	0.09	0.15	0.15	0.03	0.24
Cadmium	*	0.01	*	*	*	*	*	*	0.011	*	*	0.016	*	*	*	*	*
Chromium	*	*	*	*	*	*	*	*	0.02	*	*	*	*	*	*	*	*
Lead	*	1.5	0.06	*	*	*	*	*	0.88	0.06	0.05	0.16	*	*	*	*	0.10
Silver	*	*	*	*	*	*	*	*	0.01	*	*	*	*	*	*	*	*
Copper	*	*	*	*	*	*	*	*	0.04	*	*	*	*	*	*	*	*
Nickel	*	0.2	*	*	*	*	*	*	*	*	*	0.37	0.06	*	*	*	0.06
Zinc	0.15	5.5	0.06	0.13	0.05	0.05	*	0.09	0.54	0.10	0.04	7.1	0.07	0.63	*	*	0.60

COMMENTS:

1. Borings not sampled at Depth Zone 3: CTP-4C.
2. Analytes are not shown on summary table when not detected at any sampling points.
3. All values reported are greater than minimum detection level.
4. (*) Analyte not detected, or detected below minimum detection level.
5. CTP-1B Boring Designation
 #1 Soil Sample Number
6. Sampling dates: 9/24/87 through 9/30/87.
7. Laboratories/Analyses conducted:
 Columbia Analytical: EP Toxicity.

To visually aid in assessing patterns of compound distribution versus depth, bar graphs were generated for representative constituents from the following general parameter groups: 1) Volatile Organic Compound (VOC) - benzene, ethylbenzene, toluene, total xylenes; 2) PCB - Aroclor 1254; 3) Base/Neutral/Acid (BNA) - anthracene, pyrene, chrysene; 4) Total Metals - chromium, lead, zinc; and 5) EP Toxicity - chromium, lead, zinc. For each given parameter, bar graphs were generated only for those borings where detections were reported above detection limits and where samples were obtained from each of the three depth zones. The bar graphs are presented in Appendix E.

Organic compound concentrations (VOC, PCB, and BNA) typically are low or non-detected at Depth Zone 1 and display an increase in concentration with depth (Tables 4.1 through 4.3 and Appendix E, Figures E-1 through E-12). In general, test results from Depth Zone 3 samples display the highest concentrations. These results agree well with visual observations during drilling of "clean" soil in Depth Zone 1 and oil product or "dirty" soil in Depth Zones 2 and 3 (see Core Photographs - Appendix G). An exception to this general trend is the result for methylene chloride, which shows low concentrations in testing Depth Zone 1 and a general decrease to non-detection with depth. The testing results for methylene chloride, however, may be attributed to laboratory error.

The organic compounds present are those that would be anticipated due to the presence of old waste oil ponds: BTX, PCBs and coal tar derivatives. Several phthalates were analyzed for and detected in each of the three depth zones. In general, these compounds display an increase in concentration with depth, which may be indicative of plastics in the auto fluff. However, the presence of phthalates has become ubiquitous in today's environment.

Total metals concentrations and EP Toxicity results do not display a clear pattern of concentration versus depth based on the sampling and analysis conducted in this study (Tables 4.4 through 4.9 and Appendix E, Figures E-13 through E-23). In general, chromium concentrations are greatest in Depth Zone 1 and decrease in Depth Zones 2 and 3. Lead and zinc concentrations tend to increase with depth. Other metals detected in all three depth zones, including arsenic, barium, cadmium, copper, mercury and nickel, do not display a general pattern of concentration versus depth.

Cyanide was analyzed for in each of the Depth Zone 1 samples and in selected samples from Depth Zones 2 and 3. Cyanide was detected at concentrations from 1.2 to 2 ppm in Depth Zone 1 samples from borings CTP-2B, 3B, 10B, and 11B, and at concentrations from 3.1 to 11.6 ppm in Depth Zone 2 samples from borings CTP-10B and 11B. However, laboratory analysis of Phase I and Phase II soil samples suggest the cyanide detected may largely represent ferricyanide.

5.0 SUMMARY

The Parcel A site is located in the industrial section of the Port of Tacoma. Activities at the site are reported to have included a waste oil reclaiming operation consisting of petroleum tanks and unlined waste ponds and an acid/base treatment facility consisting of a series of tanks that primarily dealt with heavy metals.

The site is founded on about 10-feet of fill materials placed on a tidal marsh/tide flat zone of the Puyallup River Delta. In general, fill materials underlying the site consist of about 2.4-feet of visually "clean" sands, gravelly sands and clayey sands underlain by visually "dirty" fill materials of auto debris, auto debris intermixed with lime sludge, oily auto debris and/or oily sands.

Laboratory analyses of soil samples collected in the fill deposits in September 1987, detected organic compounds including Volatile Organics (VOCs), PCBs, Base/Neutral/Acids (BNAs), oil and grease and heavy metals. In general, the analytical data produced for this study are of good quality: precise and accurate.

The test results for VOCs, PCBs and BNAs indicate low or non-detected concentrations within the upper 2.4-feet of soil, with an increase in concentration below 2.4-feet. In general, the deepest samples display the highest organic compound concentrations. These results agree well with the reported distribution of visually "clean" and "dirty" soils observed during drilling. The organic compounds present are those that would be anticipated due to the presence of old waste oil ponds and/or auto fluff: BETX, PCBs, coal tar derivatives and phtalates. Total metals concentrations and EP Toxicity results do not display a clear pattern of concentration versus depth,

except for chromium, lead and zinc. Chromium concentrations are greatest in the upper 2.4-feet of soil, with a decrease in concentrations below 2.4-feet. Lead and zinc concentrations tend to increase with depth.

REFERENCES

- Dangerous Waste Regulations Chapter 173-303 WAC 1986, State of Washington Department of Ecology, Olympic, Washington.
- Farlow, R., personal communication, 1988, Quality Assurance Director, U.S. EPA Region X.
- Hart-Crowser and Associates, Inc., 1975, Geology of the Port of Tacoma: 40 p.
- Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analysis, 1985, U.S. EPA.
- Laboratory Data Validation Functional Guidelines for Evaluating Organics Analysis, 1988, U.S. EPA.
- Sweet-Edwards/EMCON, Inc. 1987, Phase I Hydrogeological Investigation, Parcel A: Vol. 1 through Vol. 3.
- Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985.
- Statement of Work for Organics Analysis, 1987, U.S. EPA Contract Laboratory Program.

Appendix A

WORK PLAN

PHASE II
HYDROGEOLOGIC INVESTIGATION WORK PLAN
PARCEL A

Prepared for
CHEMICAL PROCESSORS, INC.
TACOMA, WASHINGTON

September, 1987

Prepared by
Sweet, Edwards & Associates, Inc.
14590 NE 95th, Redmond, Washington 98052

Project S94-03.02

Phase II - Hydrogeologic Investigation Work Plan

Parcel A

Chemical Processors, Inc.

Tacoma, Washington

INTRODUCTION

The goal of this investigation is to determine the possible presence and where found, the extent of soil contamination beneath the old acid/base treatment area, Parcel A, operated by Chemical Processors', Inc. (Chempro) in Tacoma, Washington. The investigation will involve collection of shallow soil samples at 15 locations for chemical analysis. The investigation will also include the abandonment of an old monitoring well to prevent possible ground water contamination during the excavation of the treatment area concrete and asphalt pad. The investigation will be completed according to the work tasks outlined below:

<u>Task No.</u>	<u>Description</u>
1.	Develop and implement a site work plan.
2.	Coordinate with Chempro to locate boring locations, check for underground utilities, and supervise site preparation for drilling.
3.	Drill 30 shallow soil borings using a 4-inch I.D. hollow stem auger drill and continuous split spoon sampler.
4.	Abandon monitoring well AGI-2.

5. Prepare report documenting the field investigation and data evaluation, including:
- o Boring logs
 - o Summary of completed borings
 - o Chain-of-Custody/Laboratory Request forms
 - o Laboratory analyses
 - o Notification letter of well abandonment.

6. Management and Meetings

SITE SAFETY

The field investigation will follow the Site Safety and Operations Plan attached to this Work Plan. This plan will be followed with regard to personnel safety and procedures as well as the handling and sampling of soils during the investigation. All drill cuttings from the boreholes will be disposed of on site by Sweet, Edwards & Associates, Inc. (Sweet-Edwards), as directed by Chempro.

SITE PREPARATION

Prior to drilling, a nominal 24 x 24-inch section of tank pad and underlying gravel fill material will be broken up at each borehole location by a pavement breaker (an air activated hammer) under direct contract to or owned and operated by Chempro. The material will be stockpiled on-site on plastic sheeting using hand shovels and covered with the same plastic sheeting to prevent possible runoff contamination. Stockpiled material will be removed and disposed of by Chempro. Each open hole will be covered with plastic sheeting. The ends of the plastic sheeting will be taped to the intact concrete or asphalt pad until

drilling commences at that location.

DRILLING EQUIPMENT AND SOIL SAMPLING PROTOCOL

1. Thirty shallow borings will be drilled at fifteen sites with a 4-inch I.D. hollow stem, continuous flight auger, supplied by Tacoma Pump and Drilling of Graham, Washington. At each drill site two (2) borings will be drilled. The first boring site will be sampled continuously for geologic evaluation and to define target zones for chemical sampling. The second boring will be sampled for chemical testing at discrete zones defined in the geologic boring. The hollow stem will allow a soil sampler to be lowered into the borehole while the auger is in place to prevent caving. The geologic borings will be advanced until ground water is encountered, approximately 6-feet below ground surface. The geochemical borings will be advanced to the required sample depth, not to exceed the depth of the geologic boring.

2. A 2-inch O.D. split spoon sampler will be used to collect the geologic soil samples. A 3-inch O.D. split barrel will be used to collect the chemical soil samples. Multiple samplers will be used on the job to expedite drilling and sampling and minimize decontamination time between samples in a boring.

3. All downhole drilling and sampling equipment and the drilling rig will be steamed cleaned and rinsed with distilled water between boreholes to avoid cross-contamination. The sampling equipment will be decontaminated between samples with the following sequence:
 - o steam cleaning or high pressure hot water wash (optional: at discretion of field geologist)
 - o non-phosphate detergent wash

- o distilled water rinse
 - o acid solution (HCl) wash
 - o distilled water rinse
 - o methanol or ethanol solution rinse
 - o steam cleaning or high pressure hot water wash
 - o and a final distilled water rinse
4. Each soil boring will be continuously sampled by driving the sampler ahead of the auger bit in 18-inch depth intervals.
5. As the soil samples for geologic logging are brought to the surface, the split barrel will be disassembled on a clean piece of plastic sheeting, the core split with a knife (if necessary) and photographed. All core samples will be field logged and described in terms of color, grain size, organic matter, moisture content, density, and other appropriate characteristics. These descriptions will be recorded on the boring log (SEA form 300-02-1).
6. Soil samples to be chemically analyzed will be collected at depth intervals selected in the field by observation of the geologic samples. The intent is to sample visibly "clean" and "dirty" zones at shallow depths (on the order of 6- and 18-inches). A minimum of two (2) and a maximum of three (3) samples will be collected from each geochemical boring. Soil samples designated for volatile organics testing will be collected first by removing the top, bottom and sides of the core using decontaminated stainless steel spoons. The mouth of the sample bottle will then be pushed directly into the soil, filling the bottle with a relatively undisturbed core from the specimen. The filled bottles will be sealed with minimum head space, and placed immediately in a cooler with ice for delivery to the laboratory.

The remaining portion of the sample for chemical testing

will be collected with stainless steel spoons, and placed in a cooler with ice for delivery to the laboratory. Samples will be delivered or shipped to the appropriate laboratory the same day they are collected. Once the samples from a boring are collected, the plastic sheeting and soil cuttings will be placed into barrels and disposed of by Chempro.

7. Labeling, preservation and transport of sediment samples will be documented on the appropriate Chain-of-Custody/Laboratory Analysis Request form (SEA-400-01).

All analysis samples will be labeled with a coded number, date, time, footage interval and sampler's initials. Samples collected from the shallow borings will be labeled with the following designation:

Code Number example: CTP - 1B #1

(Chempro Treatment Pad, Boring - 1B, 1st sample)

8. Soil samples will be delivered to 4 different analytical laboratories for chemical testing:
 - o Columbia Analytical Services, Inc., Longview, WA
 - Samples to be analyzed for Total and EP Tox Metals (300 ml jar, required minimum 1/2 full).
 - o Analytical Resources, Inc., Seattle, WA
 - Samples to be analyzed for Volatile Organics, Base/Acid/Neutrals, and PCBs (50 ml jar, required to fill; 500 ml jar, required minimum 1/4 full).
 - o AMTEST, Redmond, WA
 - Samples to be analyzed for PNAs (8 oz. jar, required minimum 1/4 full).

o Chempro, Seattle, WA

- Samples to be analyzed for cyanide (8 oz. jar, required minimum 1/4 full).

9. The thirty soil borings will be abandoned by simultaneously pulling the 4-inch I.D. hollow stem auger from the borehole while backfilling with bentonite chips to approximately ground surface. All drill cuttings will be collected and placed in plastic-lined containers and disposed of by Chempro. Sweet-Edwards will notify the Washington Department of Ecology via letter that the soil borings will be abandoned.

WELL ABANDONMENT

Monitoring well AGI-2 will be abandoned by Tacoma Pump and Drilling of Graham, Washington, using a MOBILE B-56 drill rig. All downhole equipment will be steam cleaned prior to use.

The shallow monitoring well will be abandoned using the following equipment and methods:

1. Initially, the PVC well casing & screen will be pulled 3-inches upward in the borehole using a hydraulic winch and cable system on the drill rig.
2. A 2.25-inch OD MOBILE drill rod, model AWNL, will be lowered by cable into the wells to knock off the bottom end cap. If the bottom end cap can not be knocked off, a 1-inch diameter galvanized pipe will be used to knock a hole in the end cap.
3. The well casing and screen will be simultaneously pulled out of the borehole while injecting a bentonite slurry

through a 1-inch diameter tremie pipe. Ground water will be displaced by pumping the slurry upward from the bottom of the borehole well.

a. The bentonite slurry will be mixed in a 120-gallon galvanized trough using a Berkley 5HP centrifugal pump, a "flex-hose" intake hose and a neoprene outlet hose (which will be attached to the tremie pipe when injecting slurry into the borehole).

b. A viscous bentonite slurry consisting of a mixture of bentonite powder ("Quik-Gel") and water will be pumped into the well.

4. Once all ground water is displaced upward out of the well, the water will be collected in buckets at ground level into containers and disposed of by Chempro.

5. No surface seal will be installed at the top of boring.

Sweet-Edwards will notify the Washington Department of Ecology via letter that monitoring well AGI-2 will be abandoned.

SITE SAFETY AND OPERATIONS PLAN

SITE: Chem Pro/Tacoma

DATE: 9-15-87

LOCATION: 1701 Alexander Avenue
Tacoma, WA. 98421

PREPARED BY: D. E. Mills
Sweet, Edwards & Associates

PROJECT OBJECTIVE(S): Soil sampling by hand augering, drilling and
construction of new monitoring wells, collection of ground water
samples.

SCHEDULED ACTIVITIES/TIME PERIOD: Sept 21- Sept 25. 1987

BACKGROUND REVIEW

	PRELIMINARY	COMPLETE
ACCESS, OVERHEAD/UNDERGROUND UTILITIES, ETC.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WASTE CHARACTERIZATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HAZARD/PRECAUTION DETERMINATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS: Utilities have been located by the local utility
companies in Tacoma, WA., and on site utilities check by
site operators. The waste was characterized by previous site
investigations. Hazard determination prepared based on site
history and past practices.

WASTE TYPE(S)/CHARACTERISTICS

LIQUID	<input checked="" type="checkbox"/>	SOLID	<input checked="" type="checkbox"/>	SLUDGE	<input checked="" type="checkbox"/>	GAS	<input type="checkbox"/>
CORROSIVE	<input checked="" type="checkbox"/>	IGNITABLE	<input type="checkbox"/>	REACTIVE	<input type="checkbox"/>	VOLATILE	<input checked="" type="checkbox"/>
TOXIC	<input checked="" type="checkbox"/>	RADIOACTIVE	<input type="checkbox"/>	UNKNOWN	<input type="checkbox"/>	OTHER	<input type="checkbox"/>

SPECIAL CONSIDERATIONS/COMMENTS: Wastes are predominantly oil and
grease possibly containing PCB's and PNA's, priority pollutant
metals, cyanides, volatile organics and corrosive substances.



Sweet, Edwards & Associates, Inc.

FACILITY DESCRIPTION

SIZE: about 180x2500 feet BUILDINGS/STRUCTURES: None

TOPOGRAPHY/ACCESS: _____

GENERAL GEOLOGIC/HYDROLOGIC SETTING: _____

STORAGE/DISPOSAL METHOD(S): Past practices including oil ponds, lime storage area, storage tanks.

STATUS (active; closed; unknown) : Closed

HISTORY (injury; illness; complaints, public or agency) : _____

SPECIAL CONDITIONS/COMMENTS: _____

HAZARD EVALUATION

There is potential risk from drilling into power lines or underground pipes, also potential risk for overhead lines.

Hazards associated with chemicals should be minimally associates with dermal contact. There is minimal risk of dermal exposure to caustics or acid, metal, or solvents.



Sweet, Edwards & Associates, Inc.

OPERATIONS PLAN

MAP/SITE SKETCH ATTACHED AS EXHIBIT No !

SITE CONTROL (for vehicles, workers, public, etc.) SHOWN ON EXHIBIT !

ZONES OF CONTAMINATION: Known Projected Unknown

COMMENTS: _____

EXCAVATION, DRILLING OR SAMPLING METHOD: Rotary auger with
split spoon samples.

SAFETY EQUIPMENT AND PROCEDURES

LEVEL OF PROTECTION: A B C D

ADDITIONS/MODIFICATIONS: Respirators required for soil sampling
between tanks.

SPECIAL SURVEILLANCE EQUIPMENT AND MATERIALS: _____

DECONTAMINATION PROCEDURES: Standard wash for personnel. All
equipment will be soap washed, steam cleaned, solvent rinsed,
and water rinsed. Disposable clothing to be disposed of in a
drum on site.

P.D.S. STATION(S): Eye wash station at Sweet-Edwards vehicle.
Washing station available near steam clean area.

P.D.S. EQUIPMENT, MATERIALS AND SPECIAL FACILITIES: Eye rinse
station, skin rinse and wash-inhalation exposure will be
treated by removal from immediate area.



Sweet, Edwards & Associates, Inc.

SITE ENTRY PROCEDURES

SITE TEAM (No.): 2-3 Sweet-Edwards 3 Client 0-1 Agency 3 Other

ENTRY BRIEFING DATE: 5/13/87 LOCATION: At site

- SITE WORK TEAM (name/responsibility)
1. Dennis Stefani (Chempro)
 2. Mel Miller (Chempro) 3. Kelly Price (Chempro)
 4. Pat Dunn (SEA)-Hydrogeologist 5. Dennis Goldman (SEA) Project Mgr.
 6. Barb Butler (SEA) Geologist 7. Driller & helper

SPECIAL CONDITIONS (e.g., work schedule or limitations): _____
If weather is warm, frequent breaks should be taken in a shaded area and fluids drunk to prevent heat exhaustion and dehydration.

EMERGENCY PROCEDURES

ACUTE EXPOSURE SYMPTOM(S):

FIRST AID

- | | |
|---------------------------------------|---------------------------------------|
| 1. <u>Skin irritation from acids,</u> | <u>Gloves, wash with water, rinse</u> |
| 2. <u>caustics and metals</u> | _____ |
| 3. _____ | _____ |
| 4. <u>Respirators to be kept</u> | <u>Fresh air, rest</u> |
| 5. <u>available at all times</u> | _____ |
| 6. _____ | _____ |

HOSPITALS/POISON CONTROL CENTERS (address/telephone number) :

1. Fife Medical Center, 502 54th Avenue E., Fife (206) 922-6466
2. for lacerations, skin and eye exposure, x-ray, inhalation
3. Tacoma General Hospital at 'K' St. and 4th South (206) 594-1100
4. St. Joseph's Hospital, 1718 So. 'I' St., Tacoma (206) 627-4101

(Burn Center) Dr. Billingsly

EMERGENCY TRANSPORTATION (fire, ambulance, police):

1. Dial 911 for assistance
2. _____
3. _____
4. _____



Sweet, Edwards & Associates, Inc.

EMERGENCY ROUTES:

1. Left on Alexander Avenue to East-West road, turn left, right on
2. Taylor Way Center on right about 1/2 mile.
3. Tacoma General Hospital)
4. St. Joseph's Hospital) See attached map

SAFETY/HEALTH EQUIPMENT CHECKOUT LIST

GENERAL SAFETY:

- | | | | |
|--------------------------------------|-------------------------------------|------------------------|--------------------------|
| First Aid Kit _____ | <input checked="" type="checkbox"/> | Eye Wash Station _____ | <input type="checkbox"/> |
| Safety Glasses/Face Shield _____ | <input checked="" type="checkbox"/> | Drinking Water _____ | <input type="checkbox"/> |
| Safety Shoes/Gloves _____ | <input checked="" type="checkbox"/> | _____ | <input type="checkbox"/> |
| Personal Clothing Change _____ | <input checked="" type="checkbox"/> | _____ | <input type="checkbox"/> |
| Wash/Decontamination Materials _____ | <input checked="" type="checkbox"/> | _____ | <input type="checkbox"/> |

SITE SPECIFIC:

- Respirator:
Type (dust, cartridge, SCBA, etc.) Organic Vapor
- Explosimeter
- Oxygen Indicator
- Dosimeter Badge(s)
- Radiation Survey Meter
- _____
- _____

SPECIAL CONDITIONS/COMMENTS: Poly coat Tyvek or comparable
Vinyl inner glove and Solvex outer glove.

Note: All Sweet-Edwards personnel are to understand and comply with specific practices and guidelines as described in the QA/QC Manual regarding field safety and health hazards.



Sweet, Edwards & Associates, Inc.

Appendix B

BORING LOGS



PROJECT NAME Chempro - Phase II Tacoma, WA
 PROJECT NUMBER S9403.02 BORING NUMBER CTP 1A & 1B
 DATE OF BORING 9/30/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA					SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY	SAMPLE #			
0 - 1										0-.45' <u>CONCRETE</u>	
1 - 2	9	18	2½"	11	17	3"	← VOA	1B-1	80 SW	.45-2.95' <u>GRAVELLY SAND (Fill)</u> Light olive gray to olive brown, moist, odorless. Medium sand, trace fines, trace to some gravel decreasing with depth.	
2 - 3	15	55		39	23						
3 - 4	13	7	2½"	23	20	3"				2.95-3.5 <u>AUTO DEBRIS/SAND (Fill)</u> Dark gray brown, oily, dense. Fine sand intermixed with rubber, wire, glass, cloth.	
4 - 5	3	4	2"	7	7	3"			SP	3.5-6.95' <u>SAND (Fill)</u> Dark gray brown, fine to medium, trace silt, loose. Some auto debris. Very oily, increasing with depth. Strong odor.	
5 - 6	5	5		17	5						
6 - 7	6	6	2"	9	5	2½"	← VOA	1B-2			
7	5	7		7	7						▽
										B.O.H. = 6.95'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP 2A & 2B
 DATE OF BORING 9/25/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0										0-.15' CONCRETE	
										.15-.45' ASPHALT	
									GP	.45-.65' GRAVEL FILL	
1		13			10					.65-1.6' CLAYEY GRAVEL (Fill) Olive, moist, trace odor. Some clay, fine to coarse gravel.	
		16	2 1/2"		12	3"		2B-1	GC		
2		13			17					1.6-3' AUTO DEBRIS/SAND (Fill) Dark gray brown, some fine to medium sand, intermixed with rubber, glass, wire and cloth. Very oily. Strong odor. Perched water at 2.2'.	▽
		1			10						
3		2	2"		12	3"					
		3			12						
4		3			NA	3"			SP	3-5.2' SAND (Fill) Black, fine to medium, loose. Trace silt. Saturated with oil. Some auto debris throughout.	
		2	2"		NA	3"					
5		6									
		5						2B-2			
		9	2 1/2"							5.2-6.7' NO RECOVERY	
		10									
7										B.O.H. = 6.7'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-3A & 3B
 DATE OF BORING 9/29/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0-1										0-.3 ASPHALT	
1-1.1		11			12				SW	.3-1.1' GRAVELLY SAND (Fill) Olive brown, fine to medium, some medium gravel, trace silt. Dry.	
1.1-1.7		13	2 1/2"		50	3"	VOA	3B-1		1.1-1.7' AUTO DEBRIS/SAND (Fill) Dark gray brown, fine sand intermixed with glass, wire foam rubber, plastic. Moist.	
1.7-2.6		19			28				SM	1.7-2.6' SILTY SAND (Fill) Dark gray brown, fine, some silt. Odorless. Moist.	
2.6-6.75		12			15	3"	VOA	3B-2		2.6-6.75' SAND (Fill) Dark gray brown, fine to medium, trace silt. Slight oil odor and color, increasing with depth. Sporadic silty sand lenses.	
6.75-7		18	2 1/2"		19						
		27			20						
		15			14	3"	VOA	3B-3			
		6	2"		12						
		5			8				SP		
		4									
		6	2"								
		7									
										B.O.H. = 6.75'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-4A, 4B & 4C
 DATE OF BORING 9/29/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY			
0-0.8'									0-.8' <u>CONCRETE</u>	
0.8-1.1'									.8-1.1' <u>ASPHALT</u>	
1.1-1.3'								GP	1.1-1.3' <u>GRAVEL</u> (Fill)	
1.3-2.45'	7			4				SW	1.3-2.45' <u>GRAVELLY SAND</u> (Fill) Light olive brown, fine to medium, some coarse gravels, trace silt. Moderately dense, moist.	
2.45-2.8'	30		2½"	9		3"	VOA	4C-1	2.45-2.8' <u>SILTY SAND</u> (Fill) Dark gray brown, fine, trace to some silt. Moist. Slight odor.	
2.8-4.3'	20		2½"	13		3"	VOA	4B-1	2.8-4.3' <u>LIME CEMENT</u> (Fill) Light gray, very fine grained, powdery to granular. Soft, dense, dry.	
4.3-7.3'	50			20			VOA	4B-2	4.3-7.3' <u>SAND</u> (Fill) Dark gray brown, fine to medium, trace silt. Trace scattered shell fragments. Loose, odorless, moist to wet.	
	6			12			VOA	4B-3		
	7			8			VOA			
	3			NA		3"	VOA			
	2		2"					SP		
	2									
	3		2"							
	9									
	12									

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP 5A & 5B
 DATE OF BORING 9/29/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0-1										0-.25' <u>ASPHALT</u>	
1-2	7			8			← VOA	5B-1	SP	.25-1.75' <u>SAND</u> (Fill) Olive brown, fine to medium, trace silt. Moderately dense, odorless, moist.	
		11	2½"	9		3"					
2-3	20			31				5B-2	SM	1.75-3.9' <u>SILT SAND</u> (Fill) Dark gray brown, fine. Oily from 2.35-4.9'. Strong odor.	
	18			14			← VOA				
3-4	22		2½"	22		3"					
	21			28							
4-5	5			39			← VOA	5B-3	SP	3.9-6.75' <u>SAND</u> (Fill) Dark gray brown, fine to medium, trace silt. Scattered sandy silt lenses. Trace shell fragments throughout. Odorless. Moist to wet.	
	6	2"		8		3"					
5-6	7			11							
	3										
6-7	7	2"									
	10										
7											▽
										B.O.H. = 6.75'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-6A & 6B
 DATE OF BORING 9/25/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0-0.3										0-.3' ASPHALT	
1		5			7				6B	.3-1.25' GRAVELLY SAND (Fill) Light olive brown, fine to medium, some medium gravel, trace fines. Loose. Moist	
		16	2½"		12	3"	← VOA		GP	1.25-2.15' SANDY GRAVEL (Fill) Gray, some fine - medium sand, coarse gravel. Dense. Moist.	
2		25			15				6B	2.15-2.40' GRAVELLY SAND (Fill) Light olive brown, fine - medium, some silt. Moderately dense. Slight odor.	
		12	2½"		18	3"	← VOA		SM	2.4-3.7' SILTY SAND (Fill) Dark gray brown, fine-medium, some silt. Moderately dense. slight odor.	
3		24			18						
4		7	2"		8	3"			6B-	3.7-6.8' SAND (Fill) Dark gray brown, fine to medium, trace silt. Loose slight odor, moist to wet.	
		11			13		← VOA		3		
5		15			18				SP		
		8	2"								
6		9									
		12									
7											

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-7A & 7B
 DATE OF BORING 9/29/87 & 9/30/87
 DRILLING CONTRACTOR/ GEOLOGISTS _____

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0										0-.25' <u>CONCRETE</u>	
0.25										.25-.5' <u>ASPHALT</u>	
0.5										.5-1.4' <u>GRAVELLY SAND (Fill)</u> Light olive brown, fine to medium, trace fine gravels. Moderately dense. Moist.	
1	9			9			VOA	7B-1			
1.2											
1.5	12			24		3"				1.4-2.3' <u>CLAYEY GRAVEL (Fill)</u> Dark gray brown, fine, rounded gravel; trace to some fine sand. Odorless. Moist.	
2	15			21							
2.3										2.3-3.75' <u>AUTO DEBRIS/SAND (Fill)</u> Dark gray black, fine to medium sand intermixed with glass, rubber, plastic, wire, cloth. Very oily. Strong odor.	
3	8			11		3"	VOA	7B-2			
3.1											
3.2	10			12			VOA				
3.5	50/4"			13							
4	3			1		3"	VOA	7B-3		3.75-6.6' <u>SAND (Fill)</u> Black, fine to medium, trace silt. Very oily, increasing with depth. Strong odor.	
4.2											
4.5	5			6							
5	7			8							
5.2											
5.5	4										
6	5										
6.2											
6.5	9										
7											
										B.O.H. = 6.65'	▽

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-8A & CTP 8B
 DATE OF BORING 9/28/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
8		9							SP	<u>Sand</u> - Continued	
			2"								
		19									
9										B.O.H. = 8.2'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-9A & 9B
 DATE OF BORING 9/28/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling BAB/PFD

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
1		5			7					0-.25' ASPHALT	
								SW	.25-.7' GRAVELLY SAND (Fill) Olive brown, fine to medium, trace to some gravel, trace silt. Odorless. Moist.		
2		11	2½"		14	3"				.7-2.3' CLAYEY GRAVEL (Fill) Olive brown, trace to some fine sand. Moderately dense. Moist.	
		19			16			9B-1	GC		
3		10			6					2.3-3.55' AUTO DEBRIS/SAND (Fill) Dark gray black, trace medium sand intermixed with wire, plastic, foam rubber. Very oily. Wet.	
		9	2½"		6						
4		10			13						
		7			3				SP	3.55-6.7' SAND (Fill) Black, fine to medium. Saturated with oil, increasing with depth. Strong odor.	
5		12	2"		6						
		13			12						
6		6			11						
		8	2"		13	3"		9B-2			
7		13			5						
											▽
										B.O.H. = 6.7'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-10A & 10B
 DATE OF BORING 9/28/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY			
0									0-.3' ASPHALT	
1	6			5					.3-2.2' GRAVELLY SAND (Fill) Olive brown, fine to medium, trace to some fine to medium gravel, trace silt. CLAYEY GRAVEL lens 1.7-1.9'. Moderately dense. Moist	
	12	2 1/2"		12	3"	VOA	10B-1			
2	12			15					2.2-3.1' AUTO DEBRIS/SAND (Fill) Black, medium sand intermixed with glass, plastic, foam rubber, wire. Medium dense, wet, oily. Strong odor.	
	8	2 1/2"		16	3"	VOA	10B-2			
3	10			17					3.1-6.7' SAND (Fill) Black, fine to medium, moderately dense. Wet with oil. Saturated with water and oil @ 6.6'.	
	18			16			21B-2			
4	8			5					B.O.H. = 6.7'	
	8	2"		10	3"	VOA	10B-3			
5	10			11						
	5	2"					22B-3			
6	6									
	8									
7										▽

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-11A & 11B
 DATE OF BORING 9/30/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA					SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY	SAMPLE #			
0-0.3										0-.3' <u>CONCRETE</u>	
0.3-0.7									SW	.3-.7' <u>GRAVELLY SAND</u> (Fill) Gray, fine to medium, trace to some gravel, trace silt. Dry to moist.	
0.7-2.3									L1B-1	.7-2.3' <u>LIME/SAND</u> (Fill) Light gray, lime silt, trace to some fine to medium sand. Stiff. Moist.	
2.3-4.9									L1B-2	2.3-4.9' <u>AUTO DEBRIS/SAND</u> (Fill) Black, some medium sand intermixed with glass, plastic, wire, foam rubber. Moist to wet with oil. moderate odor.	
4.9-6.6									L1B-3		
4.9-6.6									L1B-4		
4.9-6.6									SP	4.9-6.6' <u>SAND</u> (Fill) Dark gray brown, fine to medium, trace silt. Wet to saturated with oil, increasing towards bottom.	
6.6-7									ML	6.6-7' <u>CLAYEY SILT</u> (Fill) Olive brown, soft. Slight product odor. Saturated.	▽
6.6-7									SP		

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-11A & 11B
 DATE OF BORING 9/30/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY			
8		15							SP 7-7.5' SAND (Fill) Black, fine to medium, moderately dense. Scattered shell fragments. Saturated with oil and H ₂ O.	
		20							CL 7.5-8.05' CLAY (Fill) Olive brown, stiff. Moderate odor. Wet.	
9									B.O.H. = 8.05'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-12A CTP-12B
 DATE OF BORING 9/25/87 & 9/28/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0										0-.3' ASPHALT	
1		11			8					.3-2.2' GRAVELLY SAND (Fill) Light olive brown, fine to medium, fine to medium gravels, trace silt. Moderately dense. Dry to moist.	
		13	2½"		23	3"			SW		
2		25			24					2.2-2.7' SAND (Fill) Light olive brown, fine to medium. Moist.	
		11			8				SP		
3		10	2½"		31	3"				2.7-3.4' AUTO DEBRIS/SAND (Fill) Dark gray brown, some medium sand intermixed with glass, plastic, wire, foam rubber. Oily.	
		11			13				12B-1		
4		6			1					3.4-6.7' SAND (Fill) Black, fine to medium, loose. Wet to saturated with oil, increasing with depth, strong odor.	
		9	2'		1	3"			SP		
5		10			10					B.O.H. = 6.7'	
		5							12B-2		
6		7	2"								
		9									
7											

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-13A & 13B
 DATE OF BORING 9/30/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SAMPLE #	SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY				
0 - .6'										0-.6' <u>ASPHALT</u>	
1		3			13					.6-2.2' <u>GRAVELLY SAND</u> (Fill) Light yellow brown to olive brown @ 1.2', fine to medium, some medium gravel, trace coarse sand. Dense. Dry to moist. Odorless.	
		8	2½"		14	3"	← VOA	13 B-1	SW		
2		24			20					2.2-6.5' <u>SAND</u> (Fill) Dark gray brown, fine to medium, trace silt, moderately dense from 2.2 - 3.3. Scattered shell fragments. Moderate oil increasing to saturated at depth. Strong odor.	
		14	2½"		20	3"	← VOA	13 B-2			
3		19			23						
		21			20	3"	← VOA	13 B-3	SP		
4		7	2"		10						
		8			11	3"	← VOA				
5		9			15						
		5	2"								
6		7									
		7									
7											▽
										B.O.H. = 6.5'	

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-14A & 14B
 DATE OF BORING 9/24/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA					SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY	SAMPLE #			
0										0-.35' <u>ASPHALT</u>	
1		3			9					GP .35-.6' <u>SANDY GRAVEL</u> (Fill) Light olive brown, fine gravel, some medium sand. Loose. Dry to moist.	
2		11	2½"		3	3"	VOA	14B-1	SW .6-2.1' <u>GRAVELLY SAND</u> (Fill) Olive brown, fine to medium, trace to some fine gravel, trace fines. Dense. Slight odor. Moist.	▽	
3		35			12					2.1-5.7' <u>AUTO-DEBRIS/SAND</u> (Fill) Dark gray brown, medium sand intermixed with glass, foam rubber, plastic, wire. Wet to saturated with oil, increasing with depth. Perched H2O at 2.1'.	
4		23			13						
5		11	2½"		13	3"					
6		15			26						
7		5			4						
8		3	2'		4	3"					
9		4			4						
10		1			1						
11		1	2"		1	2½"		14B-2	SP 5.7-6.8' <u>SAND</u> (Fill) Black, fine to medium, loose. Saturated with oil and H2O.		
12		12			12		VOA				
13											
14											
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Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA
 PROJECT NUMBER S9403.02 BORING NUMBER CTP 15A & 15B
 DATE OF BORING 9/23/87 - 9/24/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA				SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY			
0-1		6			5			15B-1	0-.3 ASPHALT	
1-2		25	2 1/2"		14	3"	VOA	1	.3-2.8' GRAVELLY SAND (Fill) Olive brown, fine to medium, trace to some medium gravels, decreasing with depth; trace fines. Scattered shell fragments. Dense. Dry to moist.	
2-3		50			26					
3-4		25			8					
4-5		24	2 1/2"		10	2"			2.8-3.4' SAND (Fill) Reddish brown, fine to medium, trace fine gravels, dense. Slightly oily. Strong odor. Moist.	
5-6		32			10					
6-7		6					VOA	15B-2	3.4-8.1' SAND (Fill) Dark gray brown to black, fine to medium, coarsens with depth, trace silt. Loose. Strong odor. Saturated with oil, increasing with depth. Moist to wet with water.	
		9	2"		NA	3"		2		
		11								
		2								
		3	2"							
		5								
		4								

Ø = DIAMETER OF SPLIT-BARREL



PROJECT NAME Chempro - Phase II Tacoma, WA.
 PROJECT NUMBER S9403.02 BORING NUMBER CTP-15A & 15B
 DATE OF BORING 9/23/87 - 9/24/87
 DRILLING CONTRACTOR/ GEOLOGISTS Tacoma Pump and Drilling PFD/BAB

DEPTH (FEET)	BORING A SAMPLE DATA			BORING B SAMPLE DATA					SYMBOL	SOIL AND ROCK DESCRIPTION AND COMMENTS	WATER TABLE
	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	SAMPLE INTERVAL	BLOW COUNT	SPLIT BARREL Ø	INTERVAL SAMPLED FOR GEOCHEMISTRY	SAMPLE #			
8		8	2"						SP	3.4-8.1' Continued	
8.1		13								B.O.H. = 8.1'	

Ø = DIAMETER OF SPLIT-BARREL

Appendix C
CHAIN OF CUSTODY



Sweet, Edwards & Associates, Inc.
 Kelso, WA (206) 423-3580
 Redmond, WA (206) 881-0415

Chain of Custody / Laboratory Analysis Request

SFP 29

DATE _____ PAGE _____ OF _____

ARI

PROJECT		GENERAL CHEMISTRY (Specify)		OTHER (Specify)		NUMBER OF CONTAINERS																																																																																																																																			
CLIENT INFO.	CONTACT	ANALYSIS REQUESTED	GENERAL CHEMISTRY (Specify)	OTHER (Specify)																																																																																																																																					
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PROJECT <u>CHEM PRO</u> # <u>S9403.01</u> TELEPHONE# _____ ADDRESS _____ CONTACT <u>MEL MILLER</u> TELEPHONE# _____ SAMPLERS NAME <u>PATRICK F. DUNN</u> PHONE# <u>881-0415</u> SAMPLERS SIGNATURE <u>Patrick Fallon</u>		<table border="1"> <thead> <tr> <th>GC/MS/625/8270</th> <th>VOLATILE ORGANICS</th> <th>GC/MS/624/8248</th> <th>HALOGENATED VOLATILE</th> <th>ORGANICS 601/8010</th> <th>PHENOLICS</th> <th>POLYNUCLEAR</th> <th>TOTAL ORGANIC CARBON</th> <th>(TOC) 415/9060</th> <th>TOTAL ORGANIC HALIDE</th> <th>(TOX) 9020</th> <th>PHENOL METALS</th> <th>METALS (TOTAL)</th> <th>(See Special Inst.)</th> <th>TCLP ORGANICS</th> <th>PH. COND</th> <th>ALK</th> <th>NO₃/NO₂, Cl</th> <th>SO₄</th> <th>Ca, Mg, Na, K</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8248	HALOGENATED VOLATILE	ORGANICS 601/8010	PHENOLICS	POLYNUCLEAR	TOTAL ORGANIC CARBON	(TOC) 415/9060	TOTAL ORGANIC HALIDE	(TOX) 9020	PHENOL METALS	METALS (TOTAL)	(See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	<table border="1"> <thead> <tr> <th>Relinquished By</th> <th>Signature</th> <th>Printed Name</th> <th>Firm</th> <th>Date/Time</th> </tr> </thead> <tbody> <tr> <td>Relinquished By</td> <td><u>Patrick Fallon</u></td> <td><u>PATRICK F. DUNN</u></td> <td><u>Sweet-Ed.</u></td> <td><u>9/24 6:10pm</u></td> </tr> <tr> <td>Received By</td> <td><u>Patrick Fallon</u></td> <td><u>Patrick Fallon</u></td> <td><u>Sweet-Ed.</u></td> <td><u>9/24 4:45</u></td> </tr> </tbody> </table>	Relinquished By	Signature	Printed Name	Firm	Date/Time	Relinquished By	<u>Patrick Fallon</u>	<u>PATRICK F. DUNN</u>	<u>Sweet-Ed.</u>	<u>9/24 6:10pm</u>	Received By	<u>Patrick Fallon</u>	<u>Patrick Fallon</u>	<u>Sweet-Ed.</u>	<u>9/24 4:45</u>	<table border="1"> <thead> <tr> <th>Relinquished By</th> <th>Signature</th> <th>Printed Name</th> <th>Firm</th> <th>Date/Time</th> </tr> </thead> <tbody> <tr> <td>Relinquished By</td> <td><u>Patrick Fallon</u></td> <td><u>PATRICK F. DUNN</u></td> <td><u>Sweet-Ed.</u></td> <td><u>9/24 6:10pm</u></td> </tr> <tr> <td>Received By</td> <td><u>Patrick Fallon</u></td> <td><u>Patrick Fallon</u></td> <td><u>Sweet-Ed.</u></td> <td><u>9/24 4:45</u></td> </tr> </tbody> </table>	Relinquished By	Signature	Printed Name	Firm	Date/Time	Relinquished By	<u>Patrick Fallon</u>	<u>PATRICK F. DUNN</u>	<u>Sweet-Ed.</u>	<u>9/24 6:10pm</u>	Received By	<u>Patrick Fallon</u>	<u>Patrick Fallon</u>	<u>Sweet-Ed.</u>	<u>9/24 4:45</u>	<table border="1"> <thead> <tr> <th>Shipping I.D. No.</th> <th>VIA</th> <th>Project</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Shipping I.D. No.	VIA	Project				<table border="1"> <thead> <tr> <th>Total No. of Containers</th> <th>Chain of Custody Seals</th> <th>Received in good condition</th> <th>LAB NO.</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Total No. of Containers	Chain of Custody Seals	Received in good condition	LAB NO.																																																		
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SPECIAL INSTRUCTIONS/COMMENTS
 IF questions call Dennis Holden



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DATE 9/24 PAGE 1 OF

PROJECT	ANALYSIS REQUESTED				GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS												
	CLIENT INFO.	CONTACT	ADDRESS	TELEPHONE#	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS	604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020			EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K				
PROJECT <u>CHEMPRO</u> # <u>SP103.01</u>																												
SAMPLERS NAME <u>Garrick F. Dwyer</u> PHONE# <u>881-0415</u>																												
SAMPLERS SIGNATURE <u>[Signature]</u>																												
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE																								
1. CTP-15B #1	9/24	10:00		SOIL											X	X											1	
2. CTP-15B #2	9/24	10:00		"											X	X											1	
3. CTP-14B #1	9/24	13:00		"											X	X											1	
4. CTP-14B #2	9/24	13:00		"											X	X											1	
5.																												
6.																												
7.																												
8.																												
Relinquished By Sweet, Edwards & Assoc.					Relinquished By					PROJECT INFORMATION					SAMPLE RECEIPT													
Signature <u>Barbara A Butler</u>	Signature																											
Printed Name <u>BARR BUTLER</u>	Printed Name																											
Firm <u>Sweet - Edwards</u>	Firm																											
Date/Time <u>9.24.87 19:30</u>	Date/Time																											
Received By <u>[Signature]</u>	Received By																											
Signature <u>[Signature]</u>	Signature																											
Printed Name <u>FRAN ADARE</u>	Printed Name																											
Firm <u>CAS</u>	Firm																											
Date/Time <u>9/25/87 4:50</u>	Date/Time																											
SPECIAL INSTRUCTIONS/COMMENTS																												
Shipping I.D. No. <u>Guyhound</u>																												
VIA <u>Chempco</u>																												
Project																												
Total No. of Containers																												
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LAB NO.																												



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Chain of Custody / Laboratory Analysis Request

DATE 4/24/87 PAGE 1 OF 01

PROJECT <u>Urban Pl # 94030</u>		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS						
CLIENT INFO.	CONTACT	ADDRESS	TELEPHONE#	SAMPLERS NAME	SAMPLERS SIGNATURE	DATE	TIME	LAB I.D.	TYPE	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K			
						4/29	9:00		Soil							X												1	
						4/29	9:35		Soil							X												1	
						4/29	10:00		Soil							X												1	
						4/29	10:00		Soil							X												1	
Relinquished By Sweet, Edwards & Assoc.		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By		Relinquished By	
Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By		Received By	
Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS	



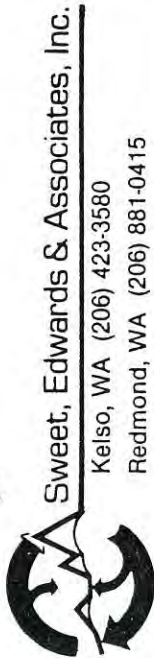
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 Redmond, WA (206) 881-0415

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DATE 9.25.87 PAGE 1 OF 1

Columbia Analytical

PROJECT	ANALYSIS REQUESTED		GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS		
	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	(EP TOX) (TCLP METALS) (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS			PH. COND ALK	NO ₃ /NO ₂ . Cl SO ₄
PROJECT <u>Chempco</u> # <u>59403.01</u>																
CLIENT INFO. CONTACT <u>Mel Miller</u>																
ADDRESS <u>767-0350</u>																
TELEPHONE# <u>767-0350</u>																
SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>																
SAMPLERS SIGNATURE <u>Barbara A Butler</u>																
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE												
1. CTP-6B #1	9/25	10:00		SOIL	X	X										1
2. CTP-6B #2	"	"		"	X	X										1
3. CTP-6B #3	"	"		"	X	X										1
4. CTP-2B #1	"	14:00		"	X	X										1
5. CTP-2B #2	"	14:00		"	X	X										1
6.																
7.																
8.																
Relinquished By <u>Sweet, Edwards & Assoc.</u>	PROJECT INFORMATION										SAMPLE RECEIPT					
Signature <u>Barbara A Butler</u>	Shipping I.D. No. <u>Carexhound</u>										Total No. of Containers					
Printed Name <u>BARB BUTLER</u>	VIA <u>Chempco</u>										Chain of Custody Seals					
Firm <u>SEA</u>	Project										Received in good condition					
Date/Time <u>9.25.87 16:30</u>											LAB NO.					
Relinquished By	SPECIAL INSTRUCTIONS/COMMENTS															
Signature	Call Dennis Goldman if there are questions. 881-0415															
Printed Name																
Firm																
Date/Time																
Received By																
Signature <u>Fran Adair</u>																
Printed Name <u>Fran Adair</u>																
Firm <u>CAS</u>																
Date/Time <u>9/28/87 9:00AM</u>																



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Chain of Custody / Laboratory Analysis Request

DATE 9-28-87 PAGE 2 OF 2

ARI LAB

PROJECT <u>CHEMPRO</u> # <u>59403.01</u>				GENERAL CHEMISTRY <u>OC1</u> (Specify)												OTHER (Specify)												
CLIENT INFO. CONTACT <u>Mel Milke</u>				ANALYSIS REQUESTED												NUMBER OF CONTAINERS												
ADDRESS				PHENOLICS																								
TELEPHONE# <u>767-0350</u>				ORGANICS 601/8010																								
SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>				HALOGENATED VOLATILE																								
SAMPLERS SIGNATURE <u>Barbara Butler</u>				GC/MS/624/8240																								
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/625/8270	GC/MS/624/8240	ORGANICS 601/8010	PHENOLICS	604/8040	POLYNUCLEAR	AROMATIC 610/8310	TOTAL ORGANIC CARBON	(TOC) 415/9060	TOTAL ORGANIC HALIDE	(TOX) 9020	EP TOX/TCLP METALS	(Circle One)	METALS (TOTAL)	(See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ . Cl	SO ₄	Ca, Mg, Na, K	OTHER	NUMBER OF CONTAINERS	
1. CTB-9B #2	9/28	11:00			X	X	X	X																				2
2. CTB-10B #1	"	13:30			X	X	X	X																				2
3. CTB-10B #2	"	"			X	X	X	X																				2
4. CTB-10B #3	"	"			X	X	X	X																				2
5. CTB-22B #3	"	14:30			X	X	X	X																				2
6. CTB-8B #1	"	15:00			X	X	X	X																				2
7. CTB-8B #2	"	4			X	X	X	X																				2
8. CTP-8B #3	"	"			X	X	X	X																				2

omit 9/28

PROJECT INFORMATION

SAMPLE RECEIPT

Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	
Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	
Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	
Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	

Shipping I.D. No.
 Hand Delivered
 VIA
 Champre
 Project

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Chain of Custody / Laboratory Analysis Request

DATE 9.28.87 PAGE 1 OF 2

Columbia Analytical

PROJECT <u>CHEMPRO</u> # <u>S9403.01</u>		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)					OTHER (Specify)	NUMBER OF CONTAINERS								
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE	ORGANICS 601/8010	PHENOLICS	604/8040	POLYNUCLEAR	AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/CLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K		
1. CTP-12B #1	9/28	9:00															X	X								
2. CTP-12B #2	"	"															X	X								
3. CTP-9B #1	"	11:00															X	X								
4. CTP-9B #2	"	"															X	X								
5. CTP-10B #1	"	13:30															X	X								
6. CTP-10B #2	"	13:30															X	X								
7. CTP-10B #3	"	"															X	X								
8. CTP-20B #1	"	14:30															X	X								
Relinquished By Sweet, Edwards & Assoc. <i>Barbara A Butler</i>					Relinquished By					Relinquished By					PROJECT INFORMATION					SAMPLE RECEIPT						
Signature					Signature					Signature					Shipping I.D. No.					Total No. of Containers						
Printed Name					Printed Name					Printed Name					Via <i>Express</i>					Chain of Custody Seals						
Firm					Firm					Firm					Project <i>Chempro</i>					Received in good condition						
Date/Time					Date/Time					Date/Time					LAB NO.											
Received By <i>Frank Adams</i>					Received By					Received By					SPECIAL INSTRUCTIONS/COMMENTS											
Signature					Signature					Signature																
Printed Name					Printed Name					Printed Name																
Firm					Firm					Firm																
Date/Time					Date/Time					Date/Time																



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DATE 9.28.87 PAGE 1 OF 2

CHEMPRO

PROJECT <u>Chemprow</u> # <u>SP403.01</u>		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)										OTHER (Specify)																	
CLIENT INFO.		ADDRESS		TELEPHONE#		SAMPLERS NAME		SAMPLERS SIGNATURE		SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ . CI	SO ₄	Ca, Mg, Na, K	CYANIDE	NUMBER OF CONTAINERS						
				767-0350		BARB BUTLER		Barbara A Butler		1.CTP-12B #1	9/28	9:00	14866-1	SOIL																									
										2.CTP-12B #2	"	"	14866-2	X																									
										3.CTP-9B #1	"	11:00	14866-3	X																									
										4.CTP-9B #2	"	"	14866-4	X																									
										5.CTP-10B #1	"	13:30	14866-5	X																									
										6.CTP-10B #2	"	"	14866-6	X																									
										7.CTP-10B #3	"	"	14866-7	X																									
										8.CTP-21B #2	"	14:00	14866-8	X																									
Relinquished By <u>Sweet, Edwards & Assoc.</u>		Signature <u>Barbara A Butler</u>		Printed Name <u>BARB BUTLER</u>		Firm <u>SEA</u>		Date/Time <u>9.28.87 16:15</u>		Relinquished By <u>David S. Velez</u>		Signature <u>DAVID S. VELEZ</u>		Printed Name <u>CHEMICAL PROCESSORS</u>		Firm <u>9/29/87</u>		Date/Time <u>9.15</u>		Relinquished By <u>Barbara A Butler</u>		Signature <u>Barbara A Butler</u>		Printed Name <u>BARB BUTLER</u>		Firm <u>SEA</u>		Date/Time <u>9.28.87 16:15</u>		Relinquished By <u>Kathy Fize</u>		Signature <u>Kathy Fize</u>		Printed Name <u>Chemical Processors</u>		Firm <u>9/28/87</u>		Date/Time <u>16:15</u>	
Received By <u>Kathy Fize</u>		Signature <u>Kathy Fize</u>		Printed Name <u>Chemical Processors</u>		Firm <u>9/29/87</u>		Date/Time <u>10:15am</u>		Received By <u>Kathy Fize</u>		Signature <u>KATHY FIZE</u>		Printed Name <u>CHEM PRO</u>		Firm <u>9/29/87 10:15am</u>		Date/Time <u>10:15am</u>		Received By <u>Kathy Fize</u>		Signature <u>KATHY FIZE</u>		Printed Name <u>CHEM PRO</u>		Firm <u>9/29/87 10:15am</u>		Date/Time <u>10:15am</u>		Received By <u>Kathy Fize</u>		Signature <u>KATHY FIZE</u>		Printed Name <u>CHEM PRO</u>		Firm <u>9/29/87 10:15am</u>		Date/Time <u>10:15am</u>	



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Chain of Custody / Laboratory Analysis Request

DATE 9-29-87 PAGE 1 OF 2

ARI

PROJECT <u>CHEMPRO</u> # <u>S9403-01</u>		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS																
CLIENT INFO. CONTACT <u>McL Milk</u>		TELEPHONE# <u>767-0350</u>		SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>		SAMPLERS SIGNATURE <u>Barbara A Butler</u>		SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/NEU/ACID ORGAN.	GC/MS/625/8270	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	Ca, Mg, Na, K	SO ₄											
Relinquished By <u>Patrick F. Dunaway</u>		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time		Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	
Signature <u>Patrick F. Dunaway</u>		Printed Name <u>PATRIEK F. DUNAWAY</u>		Firm <u>Sweet-Edwards</u>		Date/Time <u>9/29 17:54</u>		Received By <u>Brian N. Beber</u>		Signature <u>Brian N. Beber</u>		Printed Name <u>Brian N. Beber</u>		Firm		Date/Time <u>9/29 17:54</u>		Relinquished By <u>Patrick F. Dunaway</u>		Signature <u>Patrick F. Dunaway</u>		Printed Name <u>PATRIEK F. DUNAWAY</u>		Firm <u>Sweet-Edwards</u>		Date/Time <u>9/29 17:54</u>		Received By <u>Brian N. Beber</u>		Signature <u>Brian N. Beber</u>		Printed Name <u>Brian N. Beber</u>		Firm		Date/Time <u>9/29 17:54</u>			
1.CTP-SB #1		9/29		10:00		1108 U		SOIL		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
2.CTP-SB #2		"		"		1108 V		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
3.CTP-SB #3		"		"		1108 W		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
4.CTP-4B #1		"		11:00		1108 Y		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
5.CTP-4B #2		"		11:00		1108 Y		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
6.CTP-4B #3		"		11:00		1108 Z		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
7.CTP-4C #1		"		14:00		1108 AA		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
8.CTP-3B #1		"		15:00		1108 AB		"		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	



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Chain of Custody / Laboratory Analysis Request

DATE 9-29-87 PAGE 2 OF 2

ART

PROJECT <u>CHEMPRO</u> # <u>S940301</u>				ANALYSIS REQUESTED												GENERAL CHEMISTRY (Specify)				OTHER (Specify)	NUMBER OF CONTAINERS							
CLIENT INFO. CONTACT <u>McJ Miller</u> ADDRESS _____ TELEPHONE# _____				SAMPLERS NAME <u>BARB BURER</u> PHONE# <u>881-0415</u> SAMPLERS SIGNATURE <u>Barbara A Butch</u>												PHENOLICS 604/8040 POLYNUCLEAR AROMATIC 610/8310 TOTAL ORGANIC CARBON (TOC) 415/9060 TOTAL ORGANIC HALIDE (TOX) 9020 EP TOX/TCLP METALS (Circle One) METALS (TOTAL) (See Special Inst.) TCLP ORGANICS PH, COND ALK NO ₃ /NO ₂ , Cl SO ₄ Ca, Mg, Na, K												
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/625/8270	VOLATILE ORGANICS GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH, COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K	PCB'S								
1. CTP-3B # 2	9/29	15:00	1108 AC	SOIL	X	X														X							2	
2. CTP-3B # 3	9/29	"	1108 AD	"	X	X														X							2	
3.																												
4.																												
5.																												
6.																												
7.																												
8.																												
Relinquished By Sweet, Edwards & Assoc. <u>Patrick Flynn</u> Signature <u>PATRICK F. DUNN</u> Printed Name <u>Sweet - Ed.</u> Firm <u>9/29 17:54</u> Date/Time				Relinquished By <u>William T. Bebee</u> Signature <u>Brian N. Bebee</u> Printed Name <u>Analytical Resources</u> Firm <u>9/29/87 17:55</u> Date/Time				Relinquished By <u>William T. Bebee</u> Signature <u>Brian N. Bebee</u> Printed Name <u>Analytical Resources</u> Firm <u>9/29/87 17:55</u> Date/Time				Relinquished By <u>William T. Bebee</u> Signature <u>Brian N. Bebee</u> Printed Name <u>Analytical Resources</u> Firm <u>9/29/87 17:55</u> Date/Time				PROJECT INFORMATION Shipping I.D. No. <u>Hand Delivered</u> VIA <u>Chempco</u> Project SPECIAL INSTRUCTIONS/COMMENTS				SAMPLE RECEIPT Total No. of Containers Chain of Custody Seals Received in good condition LAB NO.								



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Chain of Custody / Laboratory Analysis Request

DATE 9/29/87 PAGE 1 OF 2

Columbia Analytical

PROJECT CHEMPRO # S9403.01		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)					OTHER (Specify)	NUMBER OF CONTAINERS													
CLIENT INFO.		SAMPLE I.D.		DATE	TIME	LAB I.D.	TYPE	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/CLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ . Cl	SO ₄	Ca, Mg, Na, K							
CONTACT <u>Mel Miller</u>		ADDRESS _____		TELEPHONE# _____		SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>		SAMPLERS SIGNATURE <u>Barbara Butler</u>		1. CTP-SB #1		9/29	10:00					X	X							1					
						2. CTP-SB #2												X	X							1					
						3. CTP-SB #3												X	X							1					
						4. CTP-4B #1												X	X							1					
						5. CTP-4B #2												X	X							1					
						6. CTP-4B #3												X	X							1					
						7. CTP-4C #1												X	X							1					
						8. CTP-3B #1												X	X							1					
Relinquished By Sweet, Edwards & Assoc.		Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time	
<u>Barbara Butler</u>		<u>Barbara Butler</u>		<u>SEA</u>		<u>BARBARA BUTLER</u>		<u>SEA</u>		<u>9.29.87</u>		<u>16:30</u>		<u>Jan Adair</u>		<u>Jan Adair</u>		<u>CHS</u>		<u>9/30/87</u>		<u>1:30</u>		<u>Jan Adair</u>		<u>CHS</u>		<u>9/30/87</u>			
PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		Total No. of Containers		Chain of Custody Seals		Received in good condition		LAB NO.		SAMPLE RECEIPT		Total No. of Containers		Chain of Custody Seals		Received in good condition		LAB NO.							
SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS	
Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16		Reid 2 CTP-5B #2 and did not receive CTP-4B #2 Assumed sample CTP-5B #2 3.75-4.3 was missing sample due to time collected. For verified by Pat Palma 10/16	



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Chain of Custody / Laboratory Analysis Request

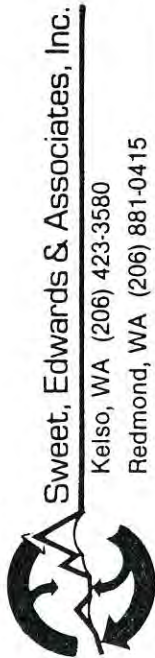
DATE 9-29-87 PAGE 2 OF 2

Columbia

PROJECT <u>CEMPRO</u> # <u>89A03.01</u>				ANALYSIS REQUESTED												GENERAL CHEMISTRY (Specify)				OTHER (Specify)	NUMBER OF CONTAINERS	
CLIENT INFO. <u>Med Miller</u>				GC/MS/NEU/ACID ORGAN.												pH, COND						
ADDRESS				GC/MS/625/8270												ALK						
TELEPHONE#				GC/MS/624/8240												TCLP ORGANICS						
SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>				TOTAL ORGANIC CARBON (TOC) 415/9060												(See special inst.)						
SAMPLERS SIGNATURE <u>Barbara Butler</u>				TOTAL ORGANIC HALIDE (TOX) 9020												METALS (TOTAL)						
SAMPLE I.D.				POLYNUCLEAR AROMATIC 610/8310												EP TOX/CLP METALS (Circle One)						
DATE				PHENOLICS 604/8040												X						
TIME				ORGANICS 601/8010												X						
LAB I.D.				HALOGENATED VOLATILE ORGANICS 601/8010																		
TYPE				BASE/NEU/ACID ORGAN.																		
1. CTP-3B #2																					1	
2. CTP-3B #3																						1
3.																						
4.																						
5.																						
6.																						
7.																						
8.																						

Relinquished By		Relinquished By	
Signature	<u>Barbara Butler</u>	Signature	<u>Barbara Butler</u>
Printed Name	<u>BARBARA BUTLER</u>	Printed Name	<u>BARBARA BUTLER</u>
Firm	<u>SEA</u>	Firm	<u>SEA</u>
Date/Time	<u>9-29-87 16:30</u>	Date/Time	<u>9-29-87 16:30</u>
Received By		Received By	
Signature	<u>[Signature]</u>	Signature	<u>[Signature]</u>
Printed Name	<u>FRAN ADRIK</u>	Printed Name	<u>FRAN ADRIK</u>
Firm	<u>CAS</u>	Firm	<u>CAS</u>
Date/Time	<u>9/30/87 1:30</u>	Date/Time	<u>9/30/87 1:30</u>

PROJECT INFORMATION		SAMPLE RECEIPT	
Shipping I.D. No.		Total No. of Containers	
VIA		Chain of Custody Seats	
Project		Received in good condition	
SPECIAL INSTRUCTIONS/COMMENTS		LAB NO.	



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Chain of Custody / Laboratory Analysis Request

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CHEMPRO

PROJECT <u>CHEMPRO</u> # <u>59403.01</u>		ANALYSIS REQUESTED												GENERAL CHEMISTRY (Specify)												OTHER (Specify)
CLIENT INFO.		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
CONTACT		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
ADDRESS		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
TELEPHONE#		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
SAMPLERS NAME		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
SAMPLERS SIGNATURE		DATE		TIME		LAB I.D.		TYPE		GENERAL CHEMISTRY (Specify)												OTHER (Specify)				
BARB BUTLER		9/29		10:00		14887-1		SOIL		ANALYSIS REQUESTED: BASE/NEU/ACID ORGAN. GC/MS/625/8270 VOLATILE ORGANICS GC/MS/624/8240 HALOGENATED VOLATILE ORGANICS 601/8010 PHENOLICS 604/8040 POLYNUCLEAR AROMATIC 610/8310 TOTAL ORGANIC CARBON (TOC) 415/9060 TOTAL ORGANIC HALIDE (TOX) 9020 EP TOX/TCLP METALS (Circle One) METALS (TOTAL) (See Special Inst.) TCLP ORGANICS PH. COND ALK NO ₃ /NO ₂ . Cl SO ₄ Ca, Mg, Na, K CRANIK																
BARBARA BUTLER		"		"		14887-2		"																		
BARBARA BUTLER		"		"		14887-3		"																		
BARBARA BUTLER		"		12:00		14887-4		"																		
BARBARA BUTLER		"		"		14887-5		"																		
BARBARA BUTLER		"		"		14887-6		"																		
BARBARA BUTLER		"		14:00		14887-7		"																		
BARBARA BUTLER		"		15:00		14887-8		"																		
Relinquished By Sweet, Edwards & Assoc.		Relinquished By		Date/Time		LAB I.D.		TYPE		PROJECT INFORMATION												SAMPLE RECEIPT				
Signature: Barbara A Butler		Signature: Kelly D. Price		Date/Time: 9/30/87 12:05		LAB I.D.		TYPE		Shipping I.D. No.												Total No. of Containers				
Printed Name: BARB BUTLER		Printed Name: Kelly D. Price		Date/Time: 9/30/87 12:05		LAB I.D.		TYPE		VIA												Chain of Custody Seals				
Firm: SEA		Firm: Chempro		Date/Time: 9/30/87 12:05		LAB I.D.		TYPE		Project												Received in good condition				
Date/Time: 9.29.87 16:30		Date/Time: 9/30/87 12:30		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE		SPECIAL INSTRUCTIONS/COMMENTS												LAB NO.				
Received By: Kelly Price		Received By: Kathy Kreps		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE		Call Dennis Goldman @ 881-0415 if you have questions																
Signature: Kelly Price		Signature: Kathy Kreps		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE																		
Printed Name: Kelly Price		Printed Name: Kathy Kreps		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE																		
Firm: Chemical Processors		Firm: Chempro		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE																		
Date/Time: 9/29/87 16:35		Date/Time: 9/30/87 12:30		Date/Time: 9/30/87 12:30		LAB I.D.		TYPE																		



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Chain of Custody / Laboratory Analysis Request

DATE 9/29/87 PAGE 1 OF 2

AMTEST

PROJECT CHEMPRO # S9403.01				ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)					OTHER (Specify)	NUMBER OF CONTAINERS									
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/625/8270 BASE/NEU/ACID ORGAN.	VOLATILE ORGANICS GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND ALK	NO ₃ /NO ₂ , Cl SO ₄	Ca, Mg, Na, K												
1.CTP-SB #1	9/29	10:00		SOIL					X																				1
2.CTP-SB #2	"	"		"					X																				1
3.CTP-SB #3	"	"		"					X																				1
4.CTP-4B #1	"	12:00		"					X																				1
5.CTP-4B #2	"	"		"					X																				1
6.CTP-4B #3	"	"		"					X																				1
7.CTP-4C #1	"	14:00		"					X																				1
8.CTP-3B #1	"	15:00		"					X																				1
Relinquished By Sweet, Edwards & Assoc. Signature: Barbara A. Butler					Relinquished By Signature: Lisa B. Adolfson					PROJECT INFORMATION					SAMPLE RECEIPT														
Signature: BARBARA BUTLER					Printed Name: Lisa B. Adolfson					Shipping I.D. No.					Total No. of Containers														
Firm: SEA					Firm: Sweet, Edwards & Assoc.					VIA					Chain of Custody Seals														
Date/Time: 9.29.87 8:15					Date/Time: 9/30/87 8:30					Project					Received in good condition														
Relinquished By Signature: Lisa B. Adolfson					Received By Signature: John A. Hicks					SPECIAL INSTRUCTIONS/COMMENTS					LAB NO.														
Printed Name: Sweet, Edwards & Assoc.					Printed Name: Ann Test																								
Firm: Sweet, Edwards & Assoc.					Firm: Ann Test																								
Date/Time: 9/29/87 8:15					Date/Time: 9/29/87 9:30AM																								

Chain of Custody / Laboratory Analysis Request

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DATE 9.29.87 PAGE 2 OF 2

AMTREST

PROJECT CHEMPRO # 59403.01		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS		
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	GC/MS/625/8270	BASE/NEU/ACID ORGAN.	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE	PHENOLICS	604/8040	POLYNUCLEAR	AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH, COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K		
1. CTP-3B #2	9/29	15:00		SOIL								X													1
2. CTP-3B #3	"	"		"								X													1
3.																									
4.																									
5.																									
6.																									
7.																									
8.																									

Relinquished By Sweet, Edwards & Assoc.		Relinquished By Lisa B. Hildjian		Relinquished By Lisa B. Hildjian	
Signature	<i>Barbara A. Butler</i>	Signature	<i>Lisa B. Hildjian</i>	Signature	<i>Lisa B. Hildjian</i>
Printed Name	BARBARA BUTLER	Printed Name	LISA B. HILDJIAN	Printed Name	LISA B. HILDJIAN
Firm	SEA	Firm	Sweet, Edwards & Assoc.	Firm	Sweet, Edwards & Assoc.
Date/Time	9.29.87 8:15	Date/Time	9/30/87 8:30	Date/Time	9/30/87 8:30
Received By		Received By		Received By	At

PROJECT INFORMATION		SAMPLE RECEIPT	
Shipping I.D. No.		Total No. of Containers	
VIA		Chain of Custody Seals	
Project		Received in good condition	
SPECIAL INSTRUCTIONS/COMMENTS		LAB NO.	



Sweet, Edwards & Associates, Inc.
 Kelso, WA (206) 423-3580
 Redmond, WA (206) 881-0415

Chain of Custody / Laboratory Analysis Request

DATE 9.30.87 PAGE 1 OF 2

ART

PROJECT <u>Chempco</u> # <u>S1403.01</u>		ANALYSIS REQUESTED												GENERAL CHEMISTRY (Specify)												OTHER (Specify)																											
CLIENT INFO.		CONTACT <u>Mel Miller</u>		ADDRESS		TELEPHONE#		SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>		SAMPLERS SIGNATURE <u>Barbara A Butler</u>		SAMPLE I.D.		DATE		TIME		LAB I.D.		TYPE		GC/MS/NEU/ACID ORGAN.		VOLATILE ORGANICS		GC/MS/624/8240		HALOGENATED VOLATILE ORGANICS 601/8010		PHENOLICS 604/8040		POLYNUCLEAR AROMATIC 610/8310		TOTAL ORGANIC CARBON (TOC) 415/9060		TOTAL ORGANIC HALIDE (TOX) 9020		EP TOX/TCLP METALS (Circle One)		METALS (TOTAL) (See Special Inst.)		TCLP ORGANICS		PH. COND ALK		NO ₃ /NO ₂ . Cl SO ₄		Ca, Mg, Na, K		PCB'S		NUMBER OF CONTAINERS	
												1. CTP-7B #1		9/30		9:00						SOIL		X		X		X		X		X		X		X		X		X		X		X		X		X		2			
												2. CTP-7B #2		"		"						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												3. CTP-7B #3		"		"						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												4. CTP-13B #1		"		11:00						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												5. CTP-13B #2		"		"						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												6. CTP-13B #3		"		"						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												7. CTP-1B #1		"		14:00						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
												8. CTP-1B #2		"		"						"		X		X		X		X		X		X		X		X		X		X		X		X		2					
Relinquished By Sweet, Edwards & Assoc.		Signature <u>Patrick Fallon</u>		Printed Name <u>PATRICK F. DUNN</u>		Firm <u>Sweet Ed</u>		Date/Time <u>9/01 7:54</u>		Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature <u>Rocky Welk</u>		Printed Name <u>Rocky Welk</u>		Firm <u>ART</u>		Date/Time <u>10/1 7:54</u>		Relinquished By		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time					
PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		SPECIAL INSTRUCTIONS/COMMENTS		PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		SPECIAL INSTRUCTIONS/COMMENTS		PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		SPECIAL INSTRUCTIONS/COMMENTS		PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		SPECIAL INSTRUCTIONS/COMMENTS		PROJECT INFORMATION		Shipping I.D. No.		VIA		Project		SPECIAL INSTRUCTIONS/COMMENTS					



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Chain of Custody / Laboratory Analysis Request

Columbia Analytical
 DATE 9/30/87 PAGE 2 OF 2

PROJECT <u>CHEMPRO</u> # <u>S9403.01</u>				ANALYSIS REQUESTED												GENERAL CHEMISTRY (Specify)				OTHER (Specify)											
CLIENT INFO.				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
CONTACT <u>Mel Miller</u>				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
ADDRESS				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
TELEPHONE#				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
SAMPLERS NAME <u>BARB BUTLER</u> PHONE# <u>881-0415</u>				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
SAMPLERS SIGNATURE <u>Barbara A Butler</u>				GENERAL CHEMISTRY (Specify)												OTHER (Specify)															
SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE	ORGANICS 601/8010	PHENOLICS	604/8040	POLYNUCLEAR	AROMATIC 610/8310	TOTAL ORGANIC CARBON	(TOC) 415/9060	TOTAL ORGANIC HALIDE	(TOX) 9020	EP TOX TCLP METALS	(Circle One)	METALS (TOTAL)	(See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , CI	SO ₄	Ca, Mg, Na, K	NUMBER OF CONTAINERS		
1. CTP-11B #1	9/30	17:00		soil																X		X								1	
2. CTP-11B #2	9/30	17:00		"																X		X								1	
3. CTP-11B #3	9/30	17:00		"																X		X								1	
4. CTP-11B #4	9/30	17:00		"																X		X								1	
5.																															
6.																															
7.																															
8.																															
Relinquished By <u>Sweet, Edwards & Assoc.</u>				Relinquished By												PROJECT INFORMATION				SAMPLE RECEIPT											
Signature <u>Barbara A Butler</u>				Signature												Shipping I.D. No.				Total No. of Containers											
Printed Name <u>BARBARA BUTLER</u>				Printed Name												VIA				Chain of Custody Seals											
Firm <u>SEA</u>				Firm												Project				Received in good condition											
Date/Time <u>9/30/87 17:45</u>				Date/Time												SPECIAL INSTRUCTIONS/COMMENTS				LAB NO.											
Received By <u>Fran Adams</u>				Received By												Signature															
Signature <u>Fran Adams</u>				Signature												Printed Name															
Printed Name <u>FRAN ADAMS</u>				Printed Name												Firm															
Firm <u>SEA</u>				Firm												Date/Time															
Date/Time <u>10/1 1:30pm</u>				Date/Time																											



Sweet, Edwards & Associates, Inc.
 Kelso, WA (206) 423-3580
 Redmond, WA (206) 881-0415

Chain of Custody / Laboratory Analysis Request

DATE 9/30/87 PAGE 1 OF 2

AM TEST

PROJECT	CHEMPRO # 59403.01		ANALYSIS REQUESTED													GENERAL CHEMISTRY (Specify)		OTHER (Specify)		NUMBER OF CONTAINERS							
	CLIENT INFO. CONTACT	ADDRESS	SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)	METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND ALK		NO ₃ /NO ₂ , Cl SO ₄	Ca, Mg, Na, K					
	MJ Miller		CTP-7B #1	9/30	9:00		SOIL					X															1
			CTP-7B #2	"	"		"					X															1
			CTP-7B #3	"	"		"					X															1
			CTP-13B #1	"	11:00		"					X															1
			CTP-13B #2	"	"		"					X															1
			CTP-13B #3	"	"		"					X															1
			CTP-1B #1	14:00	14:00		"					X															1
			CTP-1B #2	"	"		"					X															1

Relinquished By		Relinquished By		Relinquished By		Relinquished By	
Signature	Barbara A Butler	Signature	Barbara A Butler	Signature	Barbara A Butler	Signature	Barbara A Butler
Printed Name	BARBARA BUTLER	Printed Name	BARBARA BUTLER	Printed Name	SEA	Printed Name	SEA
Firm	SEA	Firm	SEA	Firm	SEA	Firm	SEA
Date/Time	9/30/87 9:30	Date/Time	9/30/87 9:30	Date/Time	9/30/87 9:30	Date/Time	9/30/87 9:30
Received By	[Signature]	Received By	[Signature]	Received By	[Signature]	Received By	[Signature]

PROJECT INFORMATION		SAMPLE RECEIPT	
Shipping I.D. No.	Hand Delivered	Total No. of Containers	
VIA	CHEMPRO	Chain of Custody Seals	
Project		Received in good condition	
		LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS	
[Blank]	

Appendix D

LABORATORY TESTING RESULTS



**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTP-4B #3

Analytical
Chemists &
Consultants

Lab Sample ID: 1108Z
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

333 Ninth Ave. North
Seattle, Wa 98109-516
(206) 621-6490

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/06/87

Amount analyzed: 1.62 gms (Dry Weight)
Percent Moisture: 6.6%
pH: 8.9

CAS Number		µg/Kg
74-87-3	Chloromethane	9.9 U
74-83-9	Bromomethane	13 U
75-01-4	Vinyl Chloride	11 U
75-00-3	Chloroethane	14 U
75-09-2	Methylene Chloride	10 U
67-64-1	Acetone	36 U
75-15-0	Carbon Disulfide	6.2 U
75-35-4	1,1-Dichloroethene	14 U
75-34-3	1,1-Dichloroethane	6.2 U
156-60-5	Trans-1,2-Dichloroethene	8.3 U
67-66-3	Chloroform	7.7 U
107-06-2	1,2-Dichloroethane	7.1 U
78-93-3	2-Butanone	19 U
71-55-6	1,1,1-Trichloroethane	4.9 U
56-23-5	Carbon Tetrachloride	5.2 U
108-05-4	Vinyl Acetate	18 U
75-27-4	Bromodichloromethane	4.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	4.9 U
10061-02-6	Trans-1,3-Dichloropropene	5.2 U
79-01-6	Trichloroethene	4.3 U
124-48-1	Dibromochloromethane	4.9 U
79-00-5	1,1,2-Trichloroethane	4.9 U
71-43-2	Benzene	5.2 U
10061-01-5	cis-1,3-Dichloropropene	5.2 U
110-75-8	2-Chloroethylvinylether	8.0 U
75-25-2	Bromoform	5.9 U
108-10-1	4-Methyl-2-Pentanone	11 U
591-78-6	2-Hexanone	5.9 U
127-18-4	Tetrachloroethene	3.7 U
79-34-5	1,1,2,2-Tetrachloroethane	6.5 U
108-88-3	Toluene	4.6 U
108-90-7	Chlorobenzene	4.0 U
100-41-4	Ethylbenzene	6.5 U
100-42-5	Styrene	8.3 U
	Total Xylenes	7.4 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/9/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
Dibutylchloroendate %Recovery		82%

Volatile Surrogate Recoveries

d8-Toluene	97.5%
Bromofluorobenzene	105%
d4-1,2-Dichloroethene	81.0%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



**ANALYTICAL
RESOURCES
INCORPORATED**

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108Z
Sample Matrix: Soils/Sediments

Date Release Authorized: DR Mitchell 10/29/87

Date extracted: 10/02/87
Date Analyzed: 10/08/87
GPC Clean-up: YES (2 of 4)

Sample No: CTP-4B #3

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Wet weight extracted (gm): 38.9
Percent Moisture: 6.6%
pH: 8.8
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	22 U
111-44-4	bis(2-Chloroethyl)Ether	24 U
95-57-8	2-Chlorophenol	27 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	25 U
100-51-6	Benzyl Alcohol	29 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	32 U
39638-32-9	bis(2-chloroisopropyl)Ether	71 U
106-44-5	4-Methylphenol	16 U
621-64-7	N-Nitroso-Di-n-Propylamine	43 U
67-72-1	Hexachloroethane	43 U
98-95-3	Nitrobenzene	29 U
78-59-1	Isophorone	65 U
88-75-5	2-Nitrophenol	87 U
105-67-9	2,4-Dimethylphenol	77 U
65-85-0	Benzoic Acid	91 U
111-91-1	bis(2-Chloroethoxy)Methane	65 U
120-83-2	2,4-Dichlorophenol	92 U
120-82-1	1,2,4-Trichlorobenzene	50 U
91-20-3	Naphthalene	88 U
106-47-8	4-Chloroaniline	47 U
87-68-3	Hexachlorobutadiene	49 U
59-50-7	4-Chloro-3-Methylphenol	51 U
91-57-6	2-Methylnaphthalene	48 U
77-47-4	Hexachlorocyclopentadiene	47 U
88-06-2	2,4,6-Trichlorophenol	17 U
95-95-4	2,4,5-Trichlorophenol	20 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	87 U
131-11-3	Dimethyl Phthalate	26 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	51 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	31 U
51-28-5	2,4-Dinitrophenol	170 U
100-02-7	4-Nitrophenol	55 U
132-64-9	Dibenzofuran	45 U
121-14-2	2,4-Dinitrotoluene	27 U
606-20-2	2,6-Dinitrotoluene	74 U
84-66-2	Diethylphthalate	22 U
7005-72-3	4-Chlorophenyl-phenylether	39 U
86-73-7	Fluorene	32 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	180 U
86-30-6	N-Nitrosodiphenylamine(1)	90 U
101-55-3	4-Bromophenyl-phenylether	35 U
118-74-1	Hexachlorobenzene	47 U
87-86-5	Pentachlorophenol	35 U
85-01-8	Phenanthrene	46 U
120-12-7	Anthracene	25 U
84-74-2	Di-n-Butylphthalate	42 U
206-44-0	Fluoranthene	97 U
129-00-0	Pyrene	89 U
85-68-7	Butylbenzylphthalate	110 U
91-94-1	3,3'-Dichlorobenzidine	44 U
56-55-3	Benzo(a)Anthracene	69 U
117-81-7	bis(2-Ethylhexyl)Phthalate	110 U
218-01-9	Chrysene	17 U
117-84-0	Di-n-Octyl Phthalate	90 U
205-99-2	Benzo(b)Fluoranthene	28 U
207-08-9	Benzo(k)Fluoranthene	110 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	48 U
53-70-3	Dibenz(a,h)Anthracene	56 U
191-24-2	Benzo(ghi)Perylene	50 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	33.4%
2-Fluorobiphenyl	73.7%
d14-p-Terphenyl	109%

***Acid surrogate recoveries**

d5-Phenol	49.8%
2-Fluorophenol	43.7%
2,4,6-Tribromophenol	74.3%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1108AA
Sample Matrix: Soils/Sediments

Sample No: CTP-4C #1

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Data Release Authorized: *EB Mitchell 10/20/87*

Conc Level: Low
Date Analyzed: 10/06/87

Amount analyzed: 3.19 gms (Dry Weight)
Percent Moisture: 10.8%
pH: 6.8

CAS Number		µg/Kg
74-87-3	Chloromethane	5.0 U
74-83-9	Bromomethane	6.6 U
75-01-4	Vinyl Chloride	5.8 U
75-00-3	Chloroethane	6.9 U
75-09-2	Methylene Chloride	5.2 U
67-64-1	Acetone	18 U
75-15-0	Carbon Disulfide	3.1 U
75-35-4	1,1-Dichloroethene	7.1 U
75-34-3	1,1-Dichloroethane	3.1 U
156-60-5	Trans-1,2-Dichloroethene	4.2 U
67-66-3	Chloroform	3.9 U
107-06-2	1,2-Dichloroethane	3.6 U
78-93-3	2-Butanone	10 U
71-55-6	1,1,1-Trichloroethane	2.5 U
56-23-5	Carbon Tetrachloride	2.7 U
108-05-4	Vinyl Acetate	9.1 U
75-27-4	Bromodichloromethane	2.0 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.5 U
10061-02-6	Trans-1,3-Dichloropropene	2.7 U
79-01-6	Trichloroethene	2.2 U
124-48-1	Dibromochloromethane	2.5 U
79-00-5	1,1,2-Trichloroethane	2.5 U
71-43-2	Benzene	2.7 U
10061-01-5	cis-1,3-Dichloropropene	2.7 U
110-75-8	2-Chloroethylvinylether	4.1 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	5.6 U
591-78-6	2-Hexanone	3.0 U
127-18-4	Tetrachloroethene	1.9 U
79-34-5	1,1,2,2-Tetrachloroethane	3.3 U
108-88-3	Toluene	2.4 U
108-90-7	Chlorobenzene	2.0 U
100-41-4	Ethylbenzene	3.3 U
100-42-5	Styrene	4.2 U
	Total Xylenes	3.8 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/9/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	120 U*
11096-82-5	Aroclor 1260	150 U
Dibutylchloroendate %Recovery		59%

Volatile Surrogate Recoveries

d8-Toluene	99.2%
Bromofluorobenzene	102%
d4-1,2-Dichloroethane	79.9%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



**ANALYTICAL
RESOURCES
INCORPORATED**

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108AA
Sample Matrix: Soils/Sediments

Date Release Authorized: DR Mitchell 10/28/87

Date extracted: 10/02/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (2 of 4)

Sample No: CTP-4C # 1

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Wet weight extracted (gm): 34.3
Percent Moisture: 10.8%
pH: 6.8
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	26 U
111-44-4	bis(2-Chloroethyl)Ether	28 U
95-57-8	2-Chlorophenol	31 U
541-73-1	1,3-Dichlorobenzene	11 U
106-46-7	1,4-Dichlorobenzene	29 U
100-51-6	Benzyl Alcohol	34 U
95-50-1	1,2-Dichlorobenzene	8 U
95-48-7	2-Methylphenol	39 U
39638-32-9	bis(2-chloroisopropyl)Ether	84 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-n-Propylamine	51 U
67-72-1	Hexachloroethane	51 U
98-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	77 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	92 U
65-85-0	Benzoic Acid	110 U
111-91-1	bis(2-Chloroethoxy)Methane	78 U
120-83-2	2,4-Dichlorophenol	110 U
120-82-1	1,2,4-Trichlorobenzene	60 U
91-20-3	Naphthalene	100 U
106-47-8	4-Chloroaniline	56 U
87-68-3	Hexachlorobutadiene	59 U
59-50-7	4-Chloro-3-Methylphenol	60 U
91-57-6	2-Methylnaphthalene	57 U
77-47-4	Hexachlorocyclopentadiene	55 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,5-Trichlorophenol	24 U
91-58-7	2-Chloronaphthalene	5 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	31 U
208-96-8	Acenaphthylene	7 U
99-09-2	3-Nitroaniline	60 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	37 U
51-28-5	2,4-Dinitrophenol	210 U
100-02-7	4-Nitrophenol	65 U
132-64-9	Dibenzofuran	54 U
121-14-2	2,4-Dinitrotoluene	32 U
606-20-2	2,6-Dinitrotoluene	87 U
84-66-2	Diethylphthalate	26 U
7005-72-3	4-Chlorophenyl-phenylether	46 U
86-73-7	Fluorene	38 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	210 U
86-30-6	N-Nitrosodiphenylamine(1)	100 U
101-55-3	4-Bromophenyl-phenylether	42 U
118-74-1	Hexachlorobenzene	56 U
87-86-5	Pentachlorophenol	41 U
85-01-8	Phenanthrene	54 U
120-12-7	Anthracene	30 U
84-74-2	Di-n-Butylphthalate	150
206-44-0	Fluoranthene	120 U
129-00-0	Pyrene	110 U
85-68-7	Butylbenzylphthalate	900
91-94-1	3,3'-Dichlorobenzidine	53 U
56-55-3	Benzo(a)Anthracene	82 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2000
218-01-9	Chrysene	21 U
117-84-0	Di-n-Octyl Phthalate	140
205-99-2	Benzo(b)Fluoranthene	33 U
207-08-9	Benzo(k)Fluoranthene	140 U
50-32-8	Benzo(a)Pyrene	14 U
193-39-5	Indeno(1,2,3-cd)Pyrene	56 U
53-70-3	Dibenz(a,h)Anthracene	66 U
191-24-2	Benzo(ghi)Perylene	60 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	13.1%
2-Fluorobiphenyl	35.3%
d14-p-Terphenyl	53.2%

***Acid surrogate recoveries**

d5-Phenol	21.9%
2-Fluorophenol	19.3%
2,4,6-Tribromophenol	18.7%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-5B #1

Lab Sample ID: 1108U
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Data Release Authorized: *DR Mitchell 10/29/87*

Conc Level: Low
Date Analyzed: 10/06/87

Amount analyzed: 3.68 gms (Dry Weight)
Percent Moisture: 12.7%
pH: 6.0

CAS Number		µg/Kg
74-87-3	Chloromethane	4.3 U
74-83-9	Bromomethane	5.7 U
75-01-4	Vinyl Chloride	5.0 U
75-00-3	Chloroethane	6.0 U
75-09-2	Methylene Chloride	1.7 J
67-64-1	Acetone	16 U
75-15-0	Carbon Disulfide	2.7 U
75-35-4	1,1-Dichloroethene	6.1 U
75-34-3	1,1-Dichloroethane	2.7 U
156-60-5	Trans-1,2-Dichloroethene	3.7 U
67-66-3	Chloroform	3.4 U
107-06-2	1,2-Dichloroethane	3.1 U
78-93-3	2-Butanone	8.6 U
71-55-6	1,1,1-Trichloroethane	2.2 U
56-23-5	Carbon Tetrachloride	2.3 U
108-05-4	Vinyl Acetate	7.9 U
75-27-4	Bromodichloromethane	1.8 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.2 U
10061-02-6	Trans-1,3-Dichloropropene	2.3 U
79-01-6	Trichloroethene	1.9 U
124-48-1	Dibromochloromethane	2.2 U
79-00-5	1,1,2-Trichloroethane	2.2 U
71-43-2	Benzene	2.3 U
10061-01-5	cis-1,3-Dichloropropene	2.3 U
110-75-8	2-Chloroethylvinylether	3.5 U
75-25-2	Bromoform	2.6 U
108-10-1	4-Methyl-2-Pentanone	4.9 U
591-78-6	2-Hexanone	2.6 U
127-18-4	Tetrachloroethene	1.6 U
79-34-5	1,1,2,2-Tetrachloroethane	2.9 U
108-88-3	Toluene	2.0 U
108-90-7	Chlorobenzene	1.8 U
100-41-4	Ethylbenzene	2.9 U
100-42-5	Styrene	3.7 U
	Total Xylenes	3.3 U

Analysis of PCBs

Date of Analysis: 10/09/87		µg/Kg
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	96%

Volatile Surrogate Recoveries

d8-Toluene	103%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	99.0%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



**ANALYTICAL
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Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5118
(206) 621-6490

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-5B #1

Lab Sample ID: 1108U
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Date Release Authorized: DR Mitchell 10/28/87

Date extracted: 10/02/87
Date Analyzed: 10/08/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 39.7
Percent Moisture: 12.7%
pH: 6.0
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	23 U
111-44-4	bis(2-Chloroethyl)Ether	25 U
95-57-8	2-Chlorophenol	28 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	26 U
100-51-6	Benzyl Alcohol	30 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	34 U
39638-32-9	bis(2-chloroisopropyl)Ether	74 U
106-44-5	4-Methylphenol	17 U
621-64-7	N-Nitroso-Di-n-Propylamine	45 U
67-72-1	Hexachloroethane	45 U
98-95-3	Nitrobenzene	31 U
78-59-1	Isophorone	68 U
88-75-5	2-Nitrophenol	91 U
105-67-9	2,4-Dimethylphenol	81 U
65-85-0	Benzoic Acid	96 U
111-91-1	bis(2-Chloroethoxy)Methane	69 U
120-83-2	2,4-Dichlorophenol	96 U
120-82-1	1,2,4-Trichlorobenzene	53 U
91-20-3	Naphthalene	93 U
106-47-8	4-Chloroaniline	50 U
87-68-3	Hexachlorobutadiene	52 U
59-50-7	4-Chloro-3-Methylphenol	53 U
91-57-6	2-Methylnaphthalene	50 U
77-47-4	Hexachlorocyclopentadiene	49 U
88-06-2	2,4,6-Trichlorophenol	17 U
95-95-4	2,4,5-Trichlorophenol	21 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	91 U
131-11-3	Dimethyl Phthalate	28 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	53 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	33 U
51-28-5	2,4-Dinitrophenol	180 U
100-02-7	4-Nitrophenol	58 U
132-64-9	Dibenzofuran	48 U
121-14-2	2,4-Dinitrotoluene	28 U
606-20-2	2,6-Dinitrotoluene	77 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	41 U
86-73-7	Fluorene	33 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine(1)	92 U
101-55-3	4-Bromophenyl-phenylether	37 U
118-74-1	Hexachlorobenzene	50 U
87-86-5	Pentachlorophenol	37 U
85-01-8	Phenanthrene	48 U
120-12-7	Anthracene	26 U
84-74-2	Di-n-Butylphthalate	44 U
206-44-0	Fluoranthene	100 U
129-00-0	Pyrene	93 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	47 U
56-55-3	Benzo(a)Anthracene	73 U
117-81-7	bis(2-Ethylhexyl)Phthalate	240
218-01-9	Chrysene	18 U
117-84-0	Di-n-Octyl Phthalate	94 U
205-99-2	Benzo(b)Fluoranthene	29 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	50 U
53-70-3	Dibenz(a,h)Anthracene	58 U
191-24-2	Benzo(ghi)Perylene	53 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	68.9%
2-Fluorobiphenyl	89.6%
d14-p-Terphenyl	84.1%

***Acid surrogate recoveries**

d5-Phenol	78.3%
2-Fluorophenol	79.5%
2,4,6-Tribromophenol	74.5%



**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles**

Sample No: CTP-5 B#2

Lab Sample ID: 1108V
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Data Release Authorized: *R. Mitchell 12/28/86*

Conc Level: Medium
Date Analyzed: 10/15/87

Amount analyzed: 0.021 gms (Dry Weight Equiv)
Percent Moisture: 7.5%
pH: 7.5

CAS Number		µg/Kg
74-87-3	Chloromethane	770 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	890 U
75-00-3	Chloroethane	1100 U
75-09-2	Methylene Chloride	790 U
67-64-1	Acetone	2800 U
75-15-0	Carbon Disulfide	480 U
75-35-4	1,1-Dichloroethene	1100 U
75-34-3	1,1-Dichloroethane	480 U
156-60-5	Trans-1,2-Dichloroethene	650 U
67-66-3	Chloroform	600 U
107-06-2	1,2-Dichloroethane	550 U
78-93-3	2-Butanone	1500 U
71-55-6	1,1,1-Trichloroethane	380 U
56-23-5	Carbon Tetrachloride	410 U
108-05-4	Vinyl Acetate	1400 U
75-27-4	Bromodichloromethane	310 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	380 U
10061-02-6	Trans-1,3-Dichloropropene	410 U
79-01-6	Trichloroethene	330 U
124-48-1	Dibromochloromethane	380 U
79-00-5	1,1,2-Trichloroethane	380 U
71-43-2	Benzene	410 U
10061-01-5	cis-1,3-Dichloropropene	410 U
110-75-8	2-Chloroethylvinylether	620 U
75-25-2	Bromoform	450 U
108-10-1	4-Methyl-2-Pentanone	860 U
591-78-6	2-Hexanone	450 U
127-18-4	Tetrachloroethene	290 U*
79-34-5	1,1,2,2-Tetrachloroethane	500 U
108-88-3	Toluene	360 U
108-90-7	Chlorobenzene	310 U
100-41-4	Ethylbenzene	500 U*
100-42-5	Styrene	650 U
	Total Xylenes	3100

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	410
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	630
11096-82-5	Aroclor 1260	790
Dibutylchloroendate %Recovery		122%

Volatile Surrogate Recoveries

d8-Toluene	94.9%
Bromofluorobenzene	129%
d4-1,2-Dichloroethane	92.1%

GC/MS Data Reporting Qualifiers

- | | | | |
|-------|--|----|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | B | This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination. |
| U | Indicates compound was analyzed for but not detected at the given detection limit. | K | This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run. |
| J | Indicates analyte found and confirmed but is less than specified detection limit. | NR | Analysis not required |



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108YR
Sample Matrix: Soils/Sediments

Date Release Authorized: DR Mitchell 10/29/87

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (1 of 2)

Sample No: CTP-5B #2

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5116
(206) 621-6490

Wet weight extracted (gm): 22.3
Percent Moisture: 16.5%
pH: 7.5
Conc/Dilution: 1 to 10 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	420 U
111-44-4	bis(2-Chloroethyl)Ether	470 U
95-57-8	2-Chlorophenol	520 U
541-73-1	1,3-Dichlorobenzene	190 U
106-46-7	1,4-Dichlorobenzene	480 U
100-51-6	Benzyl Alcohol	560 U
95-50-1	1,2-Dichlorobenzene	130 U
95-48-7	2-Methylphenol	630 U
39638-32-9	bis(2-chloroisopropyl)Ether	1400 U
106-44-5	4-Methylphenol	320 U
621-64-7	N-Nitroso-Di-n-Propylamine	840 U
67-72-1	Hexachloroethane	840 U
98-95-3	Nitrobenzene	570 U
78-59-1	Isophorone	1300 U
88-75-5	2-Nitrophenol	1700 U
105-67-9	2,4-Dimethylphenol	1500 U
65-85-0	Benzoic Acid	1800 U
111-91-1	bis(2-Chloroethoxy)Methane	1300 U
120-83-2	2,4-Dichlorophenol	1800 U
120-82-1	1,2,4-Trichlorobenzene	980 U
91-20-3	Naphthalene	5100
106-47-8	4-Chloroaniline	920 U
87-68-3	Hexachlorobutadiene	960 U
59-50-7	4-Chloro-3-Methylphenol	980 U
91-57-6	2-Methylnaphthalene	14000
77-47-4	Hexachlorocyclopentadiene	910 U
88-06-2	2,4,6-Trichlorophenol	320 U
95-95-4	2,4,5-Trichlorophenol	390 U
91-58-7	2-Chloronaphthalene	77 U
88-74-4	2-Nitroaniline	1700 U
131-11-3	Dimethyl Phthalate	510 U
208-96-8	Acenaphthylene	310
99-09-2	3-Nitroaniline	990 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	660
51-28-5	2,4-Dinitrophenol	3400 U
100-02-7	4-Nitrophenol	1100 U
132-64-9	Dibenzofuran	880 U
121-14-2	2,4-Dinitrotoluene	520 U
606-20-2	2,6-Dinitrotoluene	1400 U
84-66-2	Diethylphthalate	420 U
7005-72-3	4-Chlorophenyl-phenylether	760 U
86-73-7	Fluorene	1300
100-01-6	4-Nitroaniline	2000 U
534-52-1	4,6-Dinitro-2-Methylphenol	3500 U
86-30-6	N-Nitrosodiphenylamine(1)	1700 U
101-55-3	4-Bromophenyl-phenylether	690 U
118-74-1	Hexachlorobenzene	920 U
87-86-5	Pentachlorophenol	680 U
85-01-8	Phenanthrene	7100
120-12-7	Anthracene	480 U
84-74-2	Di-n-Butylphthalate	820 U
206-44-0	Fluoranthene	1900 U
129-00-0	Pyrene	1700 U
85-68-7	Butylbenzylphthalate	2100 U
91-94-1	3,3'-Dichlorobenzidine	870 U
56-55-3	Benzo(a)Anthracene	1300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	4800
218-01-9	Chrysene	340 U
117-84-0	Di-n-Octyl Phthalate	1700 U
205-99-2	Benzo(b)Fluoranthene	540 U
207-08-9	Benzo(k)Fluoranthene	2200 U
50-32-8	Benzo(a)Pyrene	230 U
193-39-5	Indeno(1,2,3-cd)Pyrene	930 U
53-70-3	Dibenz(a,h)Anthracene	1100 U
191-24-2	Benzo(ghi)Perylene	980 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	80.4%
d14-p-Terphenyl	69.6%

***Acid surrogate recoveries**

d5-Phenol	77.6%
2-Fluorophenol	77.5%
2,4,6-Tribromophenol	DL



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-5B #3

Lab Sample ID: 1108W
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Medium
Date Analyzed: 10/15/87

Amount analyzed: 0.044 gms (Dry Weight Equiv)
Percent Moisture: 11.5%
pH: 6.9

CAS Number		µg/Kg
74-87-3	Chloromethane	360 U
74-83-9	Bromomethane	470 U
75-01-4	Vinyl Chloride	420 U
75-00-3	Chloroethane	500 U
75-09-2	Methylene Chloride	370 U
67-64-1	Acetone	1300 U
75-15-0	Carbon Disulfide	230 U
75-35-4	1,1-Dichloroethene	510 U
75-34-3	1,1-Dichloroethane	230 U
156-60-5	Trans-1,2-Dichloroethene	310 U
67-66-3	Chloroform	280 U
107-06-2	1,2-Dichloroethane	260 U
78-93-3	2-Butanone	710 U
71-55-6	1,1,1-Trichloroethane	180 U
56-23-5	Carbon Tetrachloride	190 U
108-05-4	Vinyl Acetate	660 U
75-27-4	Bromodichloromethane	150 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	180 U
10061-02-6	Trans-1,3-Dichloropropene	190 U
79-01-6	Trichloroethene	160 U
124-48-1	Dibromochloromethane	180 U
79-00-5	1,1,2-Trichloroethane	180 U
71-43-2	Benzene	190 U
10061-01-5	cis-1,3-Dichloropropene	190 U
110-75-8	2-Chloroethylvinylether	290 U
75-25-2	Bromoform	210 U
108-10-1	4-Methyl-2-Pentanone	410 U
591-78-6	2-Hexanone	210 U
127-18-4	Tetrachloroethene	140 U
79-34-5	1,1,2,2-Tetrachloroethane	240 U
108-88-3	Toluene	180
108-90-7	Chlorobenzene	150 U
100-41-4	Ethylbenzene	240 U*
100-42-5	Styrene	310 U
	Total Xylenes	1100

Analysis of PCBs

Date of Analysis: 10/9/87

		µg/Kg
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
Dibutylchloroendate % Recovery		95%

Volatile Surrogate Recoveries

d8-Toluene	94.9%
Bromofluorobenzene	107%
d4-1,2-Dichloroethane	92.3%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108W
Sample Matrix: Soils/Sediments

Date Release Authorized: PR Modified 10/25/87

Date extracted: 10/02/87
Date Analyzed: 10/08/87
GPC Clean-up: YES (1 of 2)

Sample No: CTP-5B #3

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5
(206) 621-6490

Wet weight extracted (gm): 42.3
Percent Moisture: 11.5%
pH: 6.9
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	21 U
111-44-4	bis(2-Chloroethyl)Ether	23 U
95-57-8	2-Chlorophenol	26 U
541-73-1	1,3-Dichlorobenzene	9 U
106-46-7	1,4-Dichlorobenzene	24 U
100-51-6	Benzyl Alcohol	28 U
95-50-1	1,2-Dichlorobenzene	6 U
95-48-7	2-Methylphenol	32 U
39638-32-9	bis(2-chloroisopropyl)Ether	69 U
106-44-5	4-Methylphenol	16 U
621-64-7	N-Nitroso-Di-n-Propylamine	42 U
67-72-1	Hexachloroethane	42 U
98-95-3	Nitrobenzene	28 U
78-59-1	Isophorone	63 U
88-75-5	2-Nitrophenol	84 U
105-67-9	2,4-Dimethylphenol	75 U
65-85-0	Benzoic Acid	89 U
111-91-1	bis(2-Chloroethoxy)Methane	64 U
120-83-2	2,4-Dichlorophenol	89 U
120-82-1	1,2,4-Trichlorobenzene	49 U
91-20-3	Naphthalene	86 U
106-47-8	4-Chloroaniline	46 U
87-68-3	Hexachlorobutadiene	48 U
59-50-7	4-Chloro-3-Methylphenol	49 U
91-57-6	2-Methylnaphthalene	46 U
77-47-4	Hexachlorocyclopentadiene	45 U
88-06-2	2,4,6-Trichlorophenol	16 U
95-95-4	2,4,5-Trichlorophenol	19 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	84 U
131-11-3	Dimethyl Phthalate	26 U
208-96-8	Acenaphthylene	5 U
99-09-2	3-Nitroaniline	49 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	30 U
51-28-5	2,4-Dinitrophenol	170 U
100-02-7	4-Nitrophenol	54 U
132-64-9	Dibenzofuran	44 U
121-14-2	2,4-Dinitrotoluene	26 U
606-20-2	2,6-Dinitrotoluene	72 U
84-66-2	Diethylphthalate	21 U
7005-72-3	4-Chlorophenyl-phenylether	38 U
86-73-7	Fluorene	31 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	180 U
86-30-6	N-Nitrosodiphenylamine(1)	85 U
101-55-3	4-Bromophenyl-phenylether	34 U
118-74-1	Hexachlorobenzene	46 U
87-86-5	Pentachlorophenol	34 U
85-01-8	Phenanthrene	45 U
120-12-7	Anthracene	24 U
84-74-2	Di-n-Butylphthalate	41 U
206-44-0	Fluoranthene	95 U
129-00-0	Pyrene	86 U
85-68-7	Butylbenzylphthalate	110 U
91-94-1	3,3'-Dichlorobenzidine	43 U
56-55-3	Benzo(a)Anthracene	67 U
117-81-7	bis(2-Ethylhexyl)Phthalate	100 U
218-01-9	Chrysene	17 U
117-84-0	Di-n-Octyl Phthalate	87 U
205-99-2	Benzo(b)Fluoranthene	27 U
207-08-9	Benzo(k)Fluoranthene	110 U
50-32-8	Benzo(a)Pyrene	11 U
193-39-5	Indeno(1,2,3-cd)Pyrene	46 U
53-70-3	Dibenz(a,h)Anthracene	54 U
191-24-2	Benzo(ghi)Perylene	49 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	26.0%
2-Fluorobiphenyl	92.4%
d14-p-Terphenyl	109%

***Acid surrogate recoveries**

d5-Phenol	46.1%
2-Fluorophenol	37.6%
2,4,6-Tribromophenol	85.4%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1108E
Sample Matrix: Soils/Sediments

Sample No: CTB-6B *1

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 4.06 gms (Dry Weight)
Percent Moisture: 10.9%
pH: 7.3

CAS Number		µg/Kg
74-87-3	Chloromethane	3.9 U
74-83-9	Bromomethane	5.2 U
75-01-4	Vinyl Chloride	4.6 U
75-00-3	Chloroethane	5.4 U
75-09-2	Methylene Chloride	4.1 BU*
67-64-1	Acetone	14 U
75-15-0	Carbon Disulfide	2.5 U
75-35-4	1,1-Dichloroethene	5.5 U
75-34-3	1,1-Dichloroethane	2.5 U
156-60-5	Trans-1,2-Dichloroethene	3.3 U
67-66-3	Chloroform	3.1 U
107-06-2	1,2-Dichloroethane	2.8 U
78-93-3	2-Butanone	7.8 U
71-55-6	1,1,1-Trichloroethane	2.0 U
56-23-5	Carbon Tetrachloride	2.1 U
108-05-4	Vinyl Acetate	7.1 U
75-27-4	Bromodichloromethane	1.6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.1 U
79-01-6	Trichloroethene	1.7 U
124-48-1	Dibromochloromethane	2.0 U
79-00-5	1,1,2-Trichloroethane	2.0 U
71-43-2	Benzene	2.1 U
10061-01-5	cis-1,3-Dichloropropene	2.1 U
110-75-8	2-Chloroethylvinylether	3.2 U
75-25-2	Bromoform	2.3 U
108-10-1	4-Methyl-2-Pentanone	4.4 U
591-78-6	2-Hexanone	2.3 U
127-18-4	Tetrachloroethene	1.5 U
79-34-5	1,1,2,2-Tetrachloroethane	2.6 U
108-88-3	Toluene	1.8 U
108-90-7	Chlorobenzene	1.6 U
100-41-4	Ethylbenzene	2.6 U
100-42-5	Styrene	3.3 U
	Total Xylenes	4.5

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	230
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	675
11096-82-5	Aroclor 1260	240
	Dibutylchloroendate % Recovery	137%

Volatile Surrogate Recoveries

d8-Toluene	104%
Bromofluorobenzene	95.8%
d4-1,2-Dichloroethane	92.1%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-6B #1

Lab Sample ID: 1108E
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *DR Mitchell 10/27/87*

Date extracted: 09/29/87
Date Analyzed: 10/02/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 39.6
Percent Moisture: 10.9%
pH: 7.3
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	110 U
111-44-4	bis(2-Chloroethyl)Ether	120 U
95-57-8	2-Chlorophenol	140 U
541-73-1	1,3-Dichlorobenzene	49 U
106-46-7	1,4-Dichlorobenzene	130 U
100-51-6	Benzyl Alcohol	150 U
95-50-1	1,2-Dichlorobenzene	34 U
95-48-7	2-Methylphenol	170 U
39638-32-9	bis(2-chloroisopropyl)Ether	370 U
106-44-5	4-Methylphenol	84 U
621-64-7	N-Nitroso-Di-n-Propylamine	220 U
67-72-1	Hexachloroethane	220 U
98-95-3	Nitrobenzene	150 U
78-59-1	Isophorone	340 U
88-75-5	2-Nitrophenol	450 U
105-67-9	2,4-Dimethylphenol	400 U
65-85-0	Benzoic Acid	470 U
111-91-1	bis(2-Chloroethoxy)Methane	340 U
120-83-2	2,4-Dichlorophenol	470 U
120-82-1	1,2,4-Trichlorobenzene	260 U
91-20-3	Naphthalene	450 U
106-47-8	4-Chloroaniline	240 U
87-68-3	Hexachlorobutadiene	250 U
59-50-7	4-Chloro-3-Methylphenol	260 U
91-57-6	2-Methylnaphthalene	250 U
77-47-4	Hexachlorocyclopentadiene	240 U
88-06-2	2,4,6-Trichlorophenol	86 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	450 U
131-11-3	Dimethyl Phthalate	140 U
208-96-8	Acenaphthylene	28 U
99-09-2	3-Nitroaniline	260 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	800
51-28-5	2,4-Dinitrophenol	900 U
100-02-7	4-Nitrophenol	280 U
132-64-9	Dibenzofuran	230 U
121-14-2	2,4-Dinitrotoluene	140 U
606-20-2	2,6-Dinitrotoluene	380 U
84-66-2	Diethylphthalate	110 U
7005-72-3	4-Chlorophenyl-phenylether	200 U
86-73-7	Fluorene	250
100-01-6	4-Nitroaniline	520 U
534-52-1	4,6-Dinitro-2-Methylphenol	930 U
86-30-6	N-Nitrosodiphenylamine(1)	450 U
101-55-3	4-Bromophenyl-phenylether	180 U
118-74-1	Hexachlorobenzene	240 U
87-86-5	Pentachlorophenol	180 U
85-01-8	Phenanthrene	600
120-12-7	Anthracene	130 U
84-74-2	Di-n-Butylphthalate	220 U
206-44-0	Fluoranthene	500 U*
129-00-0	Pyrene	1300
85-68-7	Butylbenzylphthalate	6100
91-94-1	3,3'-Dichlorobenzidine	230 U
56-55-3	Benzo(a)Anthracene	1100
117-81-7	bis(2-Ethylhexyl)Phthalate	32000
218-01-9	Chrysene	89 U
117-84-0	Di-n-Octyl Phthalate	1400
205-99-2	Benzo(b)Fluoranthene	360 U
207-08-9	Benzo(k)Fluoranthene	590 U
50-32-8	Benzo(a)Pyrene	61 U
143-39-5	Indeno(1,2,3-cd)Pyrene	250 U
	z(a,h)Anthracene	290 U
	o(ghi)Perylene	410 U

ated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	79.7%
2-Fluorobiphenyl	95.9%
d14-p-Terphenyl	176%

Id surrogate recoveries

Phenol	104%
Iuorophenol	139%
,6-Tribromophenol	124%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-6B #2

Lab Sample ID: 1108F
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/27/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 3.82 gms (Dry Weight)
Percent Moisture: 10.3%
pH: 7.5

CAS Number		µg/Kg
74-87-3	Chloromethane	4.2 U
74-83-9	Bromomethane	5.5 U
75-01-4	Vinyl Chloride	4.8 U
75-00-3	Chloroethane	5.8 U
75-09-2	Methylene Chloride	6.6 B
67-64-1	Acetone	15 U
75-15-0	Carbon Disulfide	2.6 U
75-35-4	1,1-Dichloroethene	5.9 U
75-34-3	1,1-Dichloroethane	2.6 U
156-60-5	Trans-1,2-Dichloroethene	3.5 U
67-66-3	Chloroform	3.3 U
107-06-2	1,2-Dichloroethane	3.0 U
78-93-3	2-Butanone	8.3 U
71-55-6	1,1,1-Trichloroethane	2.1 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	7.6 U
75-27-4	Bromodichloromethane	1.7 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.1 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.8 U
124-48-1	Dibromochloromethane	2.1 U
79-00-5	1,1,2-Trichloroethane	2.1 U
71-43-2	Benzene	2.2 U
10061-01-5	cis-1,3-Dichloropropene	2.2 U
110-75-8	2-Chloroethylvinylether	3.4 U
75-25-2	Bromoform	2.5 U
108-10-1	4-Methyl-2-Pentanone	4.7 U
591-78-6	2-Hexanone	2.5 U
127-18-4	Tetrachloroethene	1.6 U
79-34-5	1,1,2,2-Tetrachloroethane	2.7 U
108-88-3	Toluene	2.1
108-90-7	Chlorobenzene	1.7 U
100-41-4	Ethylbenzene	2.7 U
100-42-5	Styrene	3.5 U
	Total Xylenes	38

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	120%

Volatile Surrogate Recoveries

d8-Toluene	111%
Bromofluorobenzene	86.0%
d4-1,2-Dichloroethane	91.8%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required

ORGANICS ANALYSIS DATA SHEET - METHOD 625



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Lab Sample ID: 1108FR
Sample Matrix: Soils/Sediments

Sample No: CTB-6 B*2

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

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Date Release Authorized: *DR [Signature] 10/2/87*

Date extracted: 09/29/87
Date Analyzed: 10/02/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 40.2
Percent Moisture: 10.3%
pH: 7.5
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	22 U
111-44-4	bis(2-Chloroethyl)Ether	24 U
95-57-8	2-Chlorophenol	27 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	25 U
100-51-6	Benzyl Alcohol	29 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	33 U
39638-32-9	bis(2-chloroisopropyl)Ether	72 U
106-44-5	4-Methylphenol	17 U
621-64-7	N-Nitroso-Di-n-Propylamine	43 U
67-72-1	Hexachloroethane	43 U
98-95-3	Nitrobenzene	30 U
78-59-1	Isophorone	66 U
88-75-5	2-Nitrophenol	87 U
105-67-9	2,4-Dimethylphenol	78 U
65-85-0	Benzoic Acid	92 U
111-91-1	bis(2-Chloroethoxy)Methane	66 U
120-83-2	2,4-Dichlorophenol	92 U
120-82-1	1,2,4-Trichlorobenzene	51 U
91-20-3	Naphthalene	89 U*
106-47-8	4-Chloroaniline	48 U
87-68-3	Hexachlorobutadiene	50 U
59-50-7	4-Chloro-3-Methylphenol	51 U
91-57-6	2-Methylnaphthalene	72
77-47-4	Hexachlorocyclopentadiene	47 U
88-06-2	2,4,6-Trichlorophenol	17 U
95-95-4	2,4,5-Trichlorophenol	20 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	88 U
131-11-3	Dimethyl Phthalate	27 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	51 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	31 U
51-28-5	2,4-Dinitrophenol	180 U
100-02-7	4-Nitrophenol	56 U
132-64-9	Dibenzofuran	46 U
121-14-2	2,4-Dinitrotoluene	27 U
606-20-2	2,6-Dinitrotoluene	74 U
84-66-2	Diethylphthalate	22 U
7005-72-3	4-Chlorophenyl-phenylether	39 U
86-73-7	Fluorene	32 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	180 U
86-30-6	N-Nitrosodiphenylamine(1)	88 U
101-55-3	4-Bromophenyl-phenylether	36 U
118-74-1	Hexachlorobenzene	48 U
87-86-5	Pentachlorophenol	35 U
85-01-8	Phenanthrene	46 U*
120-12-7	Anthracene	25 U
84-74-2	Di-n-Butylphthalate	42 U
206-44-0	Fluoranthene	98 U
129-00-0	Pyrene	90 U
85-68-7	Butylbenzylphthalate	110 U
91-94-1	3,3'-Dichlorobenzidine	45 U
56-55-3	Benzo(a)Anthracene	70 U
117-81-7	bis(2-Ethylhexyl)Phthalate	200
218-01-9	Chrysene	17 U
117-84-0	Di-n-Octyl Phthalate	90 U
205-99-2	Benzo(b)Fluoranthene	28 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	48 U
53-70-3	Dibenz(a,h)Anthracene	56 U
191-24-2	Benzo(ghi)Perylene	51 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	56.2%
2-Fluorobiphenyl	83.5%
d14-p-Terphenyl	102%

*Acid surrogate recoveries

d5-Phenol	67.9%
2-Fluorophenol	81.0%
2,4,6-Tribromophenol	72.2%



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**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTB-6B #3

Lab Sample ID: 1108GR
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *Susan D. Huse*

Conc Level: Medium
Date Analyzed: 10/15/87

Amount analyzed: 0.047 gms (Dry Weight Equiv)
Percent Moisture: 6.4%
pH: 7.7

CAS Number		µg/Kg
74-87-3	Chloromethane	340 U
74-83-9	Bromomethane	450 U
75-01-4	Vinyl Chloride	400 U
75-00-3	Chloroethane	470 U
75-09-2	Methylene Chloride	350 U
67-64-1	Acetone	1200 U
75-15-0	Carbon Disulfide	210 U
75-35-4	1,1-Dichloroethene	480 U
75-34-3	1,1-Dichloroethane	210 U
156-60-5	Trans-1,2-Dichloroethene	290 U
67-66-3	Chloroform	270 U
107-06-2	1,2-Dichloroethane	250 U
78-93-3	2-Butanone	670 U
71-55-6	1,1,1-Trichloroethane	170 U
56-23-5	Carbon Tetrachloride	180 U
108-05-4	Vinyl Acetate	620 U
75-27-4	Bromodichloromethane	140 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	170 U
10061-02-6	Trans-1,3-Dichloropropene	180 U
79-01-6	Trichloroethene	150 U
124-48-1	Dibromochloromethane	170 U
79-00-5	1,1,2-Trichloroethane	170 U
71-43-2	Benzene	180 U
10061-01-5	cis-1,3-Dichloropropene	180 U
110-75-8	2-Chloroethylvinylether	280 U
75-25-2	Bromoform	200 U
108-10-1	4-Methyl-2-Pentanone	380 U
591-78-6	2-Hexanone	200 U
127-18-4	Tetrachloroethene	130 U
79-34-5	1,1,2,2-Tetrachloroethane	220 U
108-88-3	Toluene	170
108-90-7	Chlorobenzene	140 U
100-41-4	Ethylbenzene	280
100-42-5	Styrene	290 U
	Total Xylenes	600

Analysis of PCBs

Date of Analysis:		µg/Kg
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate %Recovery	113%

Volatile Surrogate Recoveries

d8-Toluene	96.7%
Bromofluorobenzene	106%
d4-1,2-Dichloroethane	73.4%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-6 B#3

Lab Sample ID: 1108G
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *DR Mitchell 10/27/87*

Date extracted: 09/29/87
Date Analyzed: 10/01/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 40.3
Percent Moisture: 6.4%
pH: 7.7
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	21 U
111-44-4	bis(2-Chloroethyl)Ether	23 U
95-57-8	2-Chlorophenol	26 U
541-73-1	1,3-Dichlorobenzene	9 U
106-46-7	1,4-Dichlorobenzene	24 U
100-51-6	Benzyl Alcohol	28 U
95-50-1	1,2-Dichlorobenzene	6 U
95-48-7	2-Methylphenol	31 U
39638-32-9	bis(2-chloroisopropyl)Ether	68 U
106-44-5	4-Methylphenol	16 U
621-64-7	N-Nitroso-Di-n-Propylamine	41 U
67-72-1	Hexachloroethane	41 U
98-95-3	Nitrobenzene	28 U
78-59-1	Isophorone	63 U
88-75-5	2-Nitrophenol	83 U
105-67-9	2,4-Dimethylphenol	74 U
65-85-0	Benzoic Acid	88 U
111-91-1	bis(2-Chloroethoxy)Methane	63 U
120-83-2	2,4-Dichlorophenol	88 U
120-82-1	1,2,4-Trichlorobenzene	48 U
91-20-3	Naphthalene	1400
106-47-8	4-Chloroaniline	46 U
87-68-3	Hexachlorobutadiene	47 U
59-50-7	4-Chloro-3-Methylphenol	49 U
91-57-6	2-Methylnaphthalene	3300
77-47-4	Hexachlorocyclopentadiene	45 U
88-06-2	2,4,6-Trichlorophenol	16 U
95-95-4	2,4,5-Trichlorophenol	19 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	84 U
131-11-3	Dimethyl Phthalate	25 U
208-96-8	Acenaphthylene	300
99-09-2	3-Nitroaniline	49 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	360
51-28-5	2,4-Dinitrophenol	170 U
100-02-7	4-Nitrophenol	53 U
132-64-9	Dibenzofuran	230
121-14-2	2,4-Dinitrotoluene	26 U
606-20-2	2,6-Dinitrotoluene	71 U
84-66-2	Diethylphthalate	160
7005-72-3	4-Chlorophenyl-phenylether	38 U
86-73-7	Fluorene	790
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	170 U
86-30-6	N-Nitrosodiphenylamine(1)	84 U
101-55-3	4-Bromophenyl-phenylether	34 U
118-74-1	Hexachlorobenzene	46 U
87-86-5	Pentachlorophenol	34 U
85-01-8	Phenanthrene	1600
120-12-7	Anthracene	290
84-74-2	Di-n-Butylphthalate	62
206-44-0	Fluoranthene	170
129-00-0	Pyrene	250
85-68-7	Butylbenzylphthalate	110 U
91-94-1	3,3'-Dichlorobenzidine	43 U
56-55-3	Benzo(a)Anthracene	83
117-81-7	bis(2-Ethylhexyl)Phthalate	280
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl Phthalate	86 U
205-99-2	Benzo(b)Fluoranthene	26 U
207-08-9	Benzo(k)Fluoranthene	110 U
50-32-8	Benzo(a)Pyrene	41 U
193-39-5	Indeno(1,2,3-cd)Pyrene	46 U
53-70-3	Dibenz(a,h)Anthracene	53 U
191-24-2	Benzo(ghi)Perylene	49 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	86.0%
2-Fluorobiphenyl	98.2%
d14-p-Terphenyl	113%

***Acid surrogate recoveries**

d5-Phenol	101%
2-Fluorophenol	101%
2,4,6-Tribromophenol	105%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-7B #1

Lab Sample ID: 1108AER
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *R. Mitchell*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 4.07 gms (Dry Weight)
Percent Moisture: 13.4%
pH: 8.3

CAS Number		µg/Kg
74-87-3	Chloromethane	3.9 U
74-83-9	Bromomethane	5.2 U
75-01-4	Vinyl Chloride	4.5 U
75-00-3	Chloroethane	5.4 U
75-09-2	Methylene Chloride	11 B
67-64-1	Acetone	14 U
75-15-0	Carbon Disulfide	2.5 U
75-35-4	1,1-Dichloroethene	5.5 U
75-34-3	1,1-Dichloroethane	2.5 U
156-60-5	Trans-1,2-Dichloroethene	3.3 U
67-66-3	Chloroform	3.1 U
107-06-2	1,2-Dichloroethane	2.8 U
78-93-3	2-Butanone	7.7 U
71-55-6	1,1,1-Trichloroethane	2.0 U
56-23-5	Carbon Tetrachloride	2.1 U
108-05-4	Vinyl Acetate	7.1 U
75-27-4	Bromodichloromethane	1.6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.1 U
79-01-6	Trichloroethene	1.7 U
124-48-1	Dibromochloromethane	2.0 U
79-00-5	1,1,2-Trichloroethane	2.0 U
71-43-2	Benzene	2.1 U
10061-01-5	cis-1,3-Dichloropropene	2.1 U
110-75-8	2-Chloroethylvinylether	3.2 U
75-25-2	Bromoform	2.3 U
108-10-1	4-Methyl-2-Pentanone	4.4 U
591-78-6	2-Hexanone	2.3 U
127-18-4	Tetrachloroethene	1.5 U
79-34-5	1,1,2,2-Tetrachloroethane	2.6 U
108-88-3	Toluene	1.8 U
108-90-7	Chlorobenzene	1.6 U
100-41-4	Ethylbenzene	2.6 U
100-42-5	Styrene	3.3 U
	Total Xylenes	2.9 U

Analysis of PCBs

Date of Analysis: 10/09/87		µg/Kg
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
Dibutylchloroendate % Recovery		61%

Volatile Surrogate Recoveries

d8-Toluene	100%
Bromofluorobenzene	97.2%
d4-1,2-Dichloroethane	94.2%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required

**ANALYTICAL
RESOURCES
INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 625****Sample No: CTP-7B # 1**Lab Sample ID: 1108AE
Sample Matrix: Soils/SedimentsQC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987Date Release Authorized: *DR Mitchell 10/29/87*Date extracted: 10/02/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (2 of 4)Wet weight extracted (gm): 39.3
Percent Moisture: 13.4%
pH: 8.3
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	23 U
111-44-4	bis(2-Chloroethyl)Ether	26 U
95-57-8	2-Chlorophenol	28 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	26 U
100-51-6	Benzyl Alcohol	31 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	35 U
39638-32-9	bis(2-chloroisopropyl)Ether	76 U
106-44-5	4-Methylphenol	18 U
621-64-7	N-Nitroso-Di-n-Propylamine	46 U
67-72-1	Hexachloroethane	46 U
98-95-3	Nitrobenzene	31 U
78-59-1	Isophorone	70 U
88-75-5	2-Nitrophenol	92 U
105-67-9	2,4-Dimethylphenol	82 U
65-85-0	Benzoic Acid	98 U
111-91-1	bis(2-Chloroethoxy)Methane	70 U
120-83-2	2,4-Dichlorophenol	98 U
120-82-1	1,2,4-Trichlorobenzene	54 U
91-20-3	Naphthalene	94 U
106-47-8	4-Chloroaniline	51 U
87-68-3	Hexachlorobutadiene	53 U
59-50-7	4-Chloro-3-Methylphenol	54 U
91-57-6	2-Methylnaphthalene	51 U
77-47-4	Hexachlorocyclopentadiene	50 U
88-06-2	2,4,6-Trichlorophenol	18 U
95-95-4	2,4,5-Trichlorophenol	21 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	93 U
131-11-3	Dimethyl Phthalate	28 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	54 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	33 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	59 U
132-64-9	Dibenzofuran	48 U
121-14-2	2,4-Dinitrotoluene	28 U
606-20-2	2,6-Dinitrotoluene	79 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	42 U
86-73-7	Fluorene	34 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine(1)	93 U
101-55-3	4-Bromophenyl-phenylether	38 U
118-74-1	Hexachlorobenzene	51 U
87-86-5	Pentachlorophenol	37 U
85-01-8	Phenanthrene	49 U
120-12-7	Anthracene	27 U
84-74-2	Di-n-Butylphthalate	45 U
206-44-0	Fluoranthene	100 U
129-00-0	Pyrene	95 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	47 U
56-55-3	Benzo(a)Anthracene	74 U
117-81-7	bis(2-Ethylhexyl)Phthalate	260
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl Phthalate	96 U
205-99-2	Benzo(b)Fluoranthene	29 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	51 U
53-70-3	Dibenz(a,h)Anthracene	59 U
191-24-2	Benzo(ghi)Perylene	54 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	41.2%
2-Fluorobiphenyl	80.3%
d14-p-Terphenyl	112%

***Acid surrogate recoveries**

d5-Phenol	57.3%
2-Fluorophenol	42.8%
2,4,6-Tribromophenol	76.0%



**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTP-7B #2

Lab Sample ID: 1108AF
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *BR Mitchell 10/29/87*

Conc Level: Low
Date Analyzed: 10/06/87

Amount analyzed: 0.87 gms (Dry Weight)
Percent Moisture: 23.1%
pH: 5.3

CAS Number		µg/Kg
74-87-3	Chloromethane	18 U
74-83-9	Bromomethane	24 U
75-01-4	Vinyl Chloride	21 U
75-00-3	Chloroethane	25 U
75-09-2	Methylene Chloride	6.0 BU*
67-64-1	Acetone	67 U
75-15-0	Carbon Disulfide	12 U
75-35-4	1,1-Dichloroethene	26 U
75-34-3	1,1-Dichloroethane	12 U
156-60-5	Trans-1,2-Dichloroethene	16 U
67-66-3	Chloroform	14 U
107-06-2	1,2-Dichloroethane	13 U
78-93-3	2-Butanone	36 U
71-55-6	1,1,1-Trichloroethane	9.2 U
56-23-5	Carbon Tetrachloride	9.8 U
108-05-4	Vinyl Acetate	33 U
75-27-4	Bromodichloromethane	7.5 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	9.2 U
10061-02-6	Trans-1,3-Dichloropropene	9.8 U
79-01-6	Trichloroethene	8.1 U
124-48-1	Dibromochloromethane	9.2 U
79-00-5	1,1,2-Trichloroethane	9.2 U
71-43-2	Benzene	9.8 U
10061-01-5	cis-1,3-Dichloropropene	9.8 U
110-75-8	2-Chloroethylvinylether	15 U
75-25-2	Bromoform	11 U
108-10-1	4-Methyl-2-Pentanone	21 U
591-78-6	2-Hexanone	11 U
127-18-4	Tetrachloroethene	6.9 U
79-34-5	1,1,2,2-Tetrachloroethane	12 U
108-88-3	Toluene	9.2
108-90-7	Chlorobenzene	7.5 U
100-41-4	Ethylbenzene	12 U*
100-42-5	Styrene	16 U
	Total Xylenes	57

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	4900
12672-29-6	Aroclor 1248	1000 U
10097-69-1	Aroclor 1254	9500
11096-82-5	Aroclor 1260	1000 U
	Dibutylchloroendate % Recovery	NA

Volatile Surrogate Recoveries

d8-Toluene	97.9%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	79.5%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-7B #2

Lab Sample ID: 1108AF
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5116
(206) 621-6490

Date Release Authorized: _____

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (2 of 20)

Wet weight extracted (gm): 23.9
Percent Moisture: 6.2%
pH: 8.1
Conc/Dilution: 1 to 10 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	1700 U
111-44-4	bis(2-Chloroethyl)Ether	1800 U
95-57-8	2-Chlorophenol	2000 U
541-73-1	1,3-Dichlorobenzene	730 U
106-46-7	1,4-Dichlorobenzene	1900 U
100-51-6	Benzyl Alcohol	2200 U
95-50-1	1,2-Dichlorobenzene	490 U
95-48-7	2-Methylphenol	2500 U
39638-32-9	bis(2-chloroisopropyl)Ether	5400 U
106-44-5	4-Methylphenol	1200 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	2200 U
78-59-1	Isophorone	5000 U
88-75-5	2-Nitrophenol	6600 U
105-67-9	2,4-Dimethylphenol	5900 U
65-85-0	Benzoic Acid	7000 U
111-91-1	bis(2-Chloroethoxy)Methane	5000 U
120-83-2	2,4-Dichlorophenol	7000 U
120-82-1	1,2,4-Trichlorobenzene	3800 U
91-20-3	Naphthalene	11000
106-47-8	4-Chloroaniline	3600 U
87-68-3	Hexachlorobutadiene	3800 U
59-50-7	4-Chloro-3-Methylphenol	3800 U
91-57-6	2-Methylnaphthalene	20000
77-47-4	Hexachlorocyclopentadiene	3500 U
88-06-2	2,4,6-Trichlorophenol	1300 U
95-95-4	2,4,5-Trichlorophenol	1500 U
91-58-7	2-Chloronaphthalene	300 U
88-74-4	2-Nitroaniline	6600 U
131-11-3	Dimethyl Phthalate	2000 U
208-96-8	Acenaphthylene	410 U
99-09-2	3-Nitroaniline	3900 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	2400 U
51-28-5	2,4-Dinitrophenol	13000 U
100-02-7	4-Nitrophenol	4200 U
132-64-9	Dibenzofuran	3500 U
121-14-2	2,4-Dinitrotoluene	2000 U
606-20-2	2,6-Dinitrotoluene	5600 U
84-66-2	Diethylphthalate	1600 U
7005-72-3	4-Chlorophenyl-phenylether	3000 U
86-73-7	Fluorene	2400 U
100-01-6	4-Nitroaniline	7700 U
534-52-1	4,6-Dinitro-2-Methylphenol	14000 U
86-30-6	N-Nitrosodiphenylamine(1)	6700 U
101-55-3	4-Bromophenyl-phenylether	2700 U
118-74-1	Hexachlorobenzene	3600 U
87-86-5	Pentachlorophenol	2600 U
85-01-8	Phenanthrene	8500
120-12-7	Anthracene	1900 U
84-74-2	Di-n-Butylphthalate	3200 U
206-44-0	Fluoranthene	7400 U
129-00-0	Pyrene	6800 U
85-68-7	Butylbenzylphthalate	120000
91-94-1	3,3'-Dichlorobenzidine	3400 U
56-55-3	Benzo(a)Anthracene	5300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	8100 U
218-01-9	Chrysene	1300 U
117-84-0	Di-n-Octyl Phthalate	140000
205-99-2	Benzo(b)Fluoranthene	2100 U
207-08-9	Benzo(k)Fluoranthene	8700 U
50-32-8	Benzo(a)Pyrene	890 U
193-39-5	Indeno(1,2,3-cd)Pyrene	3600 U
53-70-3	Dibenz(a,h)Anthracene	4200 U
191-24-2	Benzo(ghi)Perylene	3800 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	81%
d14-p-Terphenyl	95%

***Acid surrogate recoveries**

d5-Phenol	63%
2-Fluorophenol	94%
2,4,6-Tribromophenol	DL



**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Lab Sample ID: 1108AG
Sample Matrix: Soils/Sediments

Sample No: CTP-7B #3

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: DK Mitchell/10/25/87

Conc Level: Medium
Date Analyzed: 10/21/87

Amount analyzed: 0.023 gms (Dry Weight Equiv)
Percent Moisture: 6.9%
pH: 9.0

CAS Number		µg/Kg
74-87-3	Chloromethane	690 U
74-83-9	Bromomethane	900 U
75-01-4	Vinyl Chloride	790 U
75-00-3	Chloroethane	950 U
75-09-2	Methylene Chloride	710 BU*
67-64-1	Acetone	2500 U
75-15-0	Carbon Disulfide	430 U
75-35-4	1,1-Dichloroethene	970 U
75-34-3	1,1-Dichloroethane	430 U
156-60-5	Trans-1,2-Dichloroethene	580 U
67-66-3	Chloroform	540 U
107-06-2	1,2-Dichloroethane	490 U
78-93-3	2-Butanone	1400 U
71-55-6	1,1,1-Trichloroethane	340 U
56-23-5	Carbon Tetrachloride	370 U
108-05-4	Vinyl Acetate	1200 U
75-27-4	Bromodichloromethane	280 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	340 U
10061-02-6	Trans-1,3-Dichloropropene	370 U
79-01-6	Trichloroethene	300 U
124-48-1	Dibromochloromethane	340 U
79-00-5	1,1,2-Trichloroethane	340 U
71-43-2	Benzene	950
10061-01-5	cis-1,3-Dichloropropene	370 U
110-75-8	2-Chloroethylvinylether	560 U
75-25-2	Bromoform	410 U
108-10-1	4-Methyl-2-Pentanone	770 U
591-78-6	2-Hexanone	410 U
127-18-4	Tetrachloroethene	260 U
79-34-5	1,1,2,2-Tetrachloroethane	450 U
108-88-3	Toluene	17000
108-90-7	Chlorobenzene	280 U
100-41-4	Ethylbenzene	9500 U
100-42-5	Styrene	580 U
	Total Xylenes	60000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	770
12672-29-6	Aroclor 1248	700 U
10097-69-1	Aroclor 1254	700 U
11096-82-5	Aroclor 1260	700 U
	Dibutylchloroendate % Recovery	NA

Volatile Surrogate Recoveries

d8-Toluene	97.8%
Bromofluorobenzene	116%
d4-1,2-Dichloroethane	101%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



**ANALYTICAL
RESOURCES
INCORPORATED**

ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-7B #3

Analytical
Chemists &
Consultants

Lab Sample ID: 1108AG
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

333 Ninth Ave. North
Seattle, Wa 98109-518
(206) 621-6490

Date Release Authorized: *CR Mitchell 10/29/87*

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (2 of 8)

Wet weight extracted (gm). 22.9
Percent Moisture: 6.9%
pH: 9.0
Conc/Dilution: 1 to 10 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	740 U
111-44-4	bis(2-Chloroethyl)Ether	810 U
95-57-8	2-Chlorophenol	900 U
541-73-1	1,3-Dichlorobenzene	320 U
106-46-7	1,4-Dichlorobenzene	840 U
100-51-6	Benzyl Alcohol	980 U
95-50-1	1,2-Dichlorobenzene	220 U
95-48-7	2-Methylphenol	1100 U
39638-32-9	bis(2-chloroisopropyl)Ether	2400 U
106-44-5	4-Methylphenol	560 U
621-64-7	N-Nitroso-Di-n-Propylamine	1500 U
67-72-1	Hexachloroethane	1500 U
98-95-3	Nitrobenzene	1000 U
78-59-1	Isophorone	2200 U
88-75-5	2-Nitrophenol	2900 U
105-67-9	2,4-Dimethylphenol	2600 U
65-85-0	Benzoic Acid	3100 U
111-91-1	bis(2-Chloroethoxy)Methane	2200 U
120-83-2	2,4-Dichlorophenol	3100 U
120-82-1	1,2,4-Trichlorobenzene	1700 U
91-20-3	Naphthalene	30000
106-47-8	4-Chloroaniline	1600 U
87-68-3	Hexachlorobutadiene	1700 U
59-50-7	4-Chloro-3-Methylphenol	1700 U
91-57-6	2-Methylnaphthalene	84000
77-47-4	Hexachlorocyclopentadiene	1600 U
88-06-2	2,4,6-Trichlorophenol	560 U
95-95-4	2,4,5-Trichlorophenol	680 U
91-58-7	2-Chloronaphthalene	140 U
88-74-4	2-Nitroaniline	3000 U
131-11-3	Dimethyl Phthalate	900 U
208-96-8	Acenaphthylene	2800
99-09-2	3-Nitroaniline	1700 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	5100
51-28-5	2,4-Dinitrophenol	5900 U
100-02-7	4-Nitrophenol	1900 U
132-64-9	Dibenzofuran	8700
121-14-2	2,4-Dinitrotoluene	910 U
606-20-2	2,6-Dinitrotoluene	2500 U
84-66-2	Diethylphthalate	740 U
7005-72-3	4-Chlorophenyl-phenylether	1300 U
86-73-7	Fluorene	11000
100-01-6	4-Nitroaniline	3500 U
534-52-1	4,6-Dinitro-2-Methylphenol	6200 U
86-30-6	N-Nitrosodiphenylamine(1)	3000 U
101-55-3	4-Bromophenyl-phenylether	1200 U
118-74-1	Hexachlorobenzene	1600 U
87-86-5	Pentachlorophenol	1200 U
85-01-8	Phenanthrene	22000
120-12-7	Anthracene	5800
84-74-2	Di-n-Butylphthalate	1400 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	5500
85-68-7	Butylbenzylphthalate	3800 U
91-94-1	3,3'-Dichlorobenzidine	1500 U
56-55-3	Benzo(a)Anthracene	2400 U
117-81-7	bis(2-Ethylhexyl)Phthalate	22000
218-01-9	Chrysene	590 U
117-84-0	Di-n-Octyl Phthalate	3100 U
205-99-2	Benzo(b)Fluoranthene	940 U
207-08-9	Benzo(k)Fluoranthene	3900 U
50-32-8	Benzo(a)Pyrene	400 U
193-39-5	Indeno(1,2,3-cd)Pyrene	1600 U
53-70-3	Dibenz(a,h)Anthracene	1900 U
191-24-2	Benzo(ghi)Perylene	1700 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	105%
d14-p-Terphenyl	92%

***Acid surrogate recoveries**

d5-Phenol	78%
2-Fluorophenol	130%
2,4,6-Tribromophenol	DL



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1108R
Sample Matrix: Soils/Sediments

Data Release Authorized DR Mitchell 10/28/87

Conc Level: Low
Date Analyzed: 10/05/87

Sample No: CTB-8B #1

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Amount analyzed: 5.17 gms (Dry Weight)
Percent Moisture: 7.0%
pH: 8.5

CAS Number		µg/Kg
74-87-3	Chloromethane	3.1 U
74-83-9	Bromomethane	4.1 U
75-01-4	Vinyl Chloride	3.6 U
75-00-3	Chloroethane	4.3 U
75-09-2	Methylene Chloride	5.5 B
67-64-1	Acetone	11 U
75-15-0	Carbon Disulfide	1.9 U
75-35-4	1,1-Dichloroethene	4.4 U
75-34-3	1,1-Dichloroethane	1.9 U
156-60-5	Trans-1,2-Dichloroethene	2.6 U
67-66-3	Chloroform	2.4 U
107-06-2	1,2-Dichloroethane	2.2 U
78-93-3	2-Butanone	6.1 U
71-55-6	1,1,1-Trichloroethane	1.5 U
56-23-5	Carbon Tetrachloride	1.6 U
108-05-4	Vinyl Acetate	5.6 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.5 U
10061-02-6	Trans-1,3-Dichloropropene	1.6 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.5 U
79-00-5	1,1,2-Trichloroethane	1.5 U
71-43-2	Benzene	1.6 U
10061-01-5	cis-1,3-Dichloropropene	1.6 U
110-75-8	2-Chloroethylvinylether	2.5 U
75-25-2	Bromoform	1.8 U
108-10-1	4-Methyl-2-Pentanone	3.5 U
591-78-6	2-Hexanone	1.8 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.0 U
100-42-5	Styrene	2.6 U
	Total Xylenes	2.3 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	91%

Volatile Surrogate Recoveries

d8-Toluene	102%
Bromofluorobenzene	106%
d4-1,2-Dichloroethane	109%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-8 B#1

Lab Sample ID: 1108R
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *PR Mitchell 10/28/87*

Date extracted: 09/29/87
Date Analyzed: 10/01/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 38.8
Percent Moisture: 7.0%
pH: 8.5
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	22 U
11-44-4	bis(2-Chloroethyl)Ether	24 U
95-57-8	2-Chlorophenol	27 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	25 U
100-51-6	Benzyl Alcohol	29 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	33 U
39638-32-9	bis(2-chloroisopropyl)Ether	72 U
106-44-5	4-Methylphenol	17 U
621-64-7	N-Nitroso-Di-n-Propylamine	43 U
67-72-1	Hexachloroethane	43 U
98-95-3	Nitrobenzene	30 U
78-59-1	Isophorone	66 U
88-75-5	2-Nitrophenol	87 U
105-67-9	2,4-Dimethylphenol	78 U
65-85-0	Benzoic Acid	92 U
111-91-1	bis(2-Chloroethoxy)Methane	66 U
120-83-2	2,4-Dichlorophenol	92 U
120-82-1	1,2,4-Trichlorobenzene	51 U
91-20-3	Naphthalene	89 U
106-47-8	4-Chloroaniline	48 U
87-68-3	Hexachlorobutadiene	50 U
59-50-7	4-Chloro-3-Methylphenol	51 U
91-57-6	2-Methylnaphthalene	48 U
77-47-4	Hexachlorocyclopentadiene	47 U
88-06-2	2,4,6-Trichlorophenol	17 U
95-95-4	2,4,5-Trichlorophenol	20 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	88 U
131-11-3	Dimethyl Phthalate	27 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	51 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	31 U
51-28-5	2,4-Dinitrophenol	180 U
100-02-7	4-Nitrophenol	56 U
132-64-9	Dibenzofuran	46 U
121-14-2	2,4-Dinitrotoluene	27 U
606-20-2	2,6-Dinitrotoluene	74 U
84-66-2	Diethylphthalate	22 U
7005-72-3	4-Chlorophenyl-phenylether	39 U
86-73-7	Fluorene	32 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	180 U
86-30-6	N-Nitrosodiphenylamine (1)	88 U
101-55-3	4-Bromophenyl-phenylether	36 U
118-74-1	Hexachlorobenzene	48 U
87-86-5	Pentachlorophenol	35 U
85-01-8	Phenanthrene	46 U
120-12-7	Anthracene	25 U
84-74-2	Di-n-Butylphthalate	42 U
206-44-0	Fluoranthene	98 U
129-00-0	Pyrene	90 U
85-68-7	Butylbenzylphthalate	110 U
91-94-1	3,3'-Dichlorobenzidine	45 U
56-55-3	Benzo(a)Anthracene	70 U
117-81-7	bis(2-Ethylhexyl)Phthalate	120
218-01-9	Chrysene	17 U
117-84-0	Di-n-Octyl Phthalate	90 U
205-99-2	Benzo(b)Fluoranthene	28 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	48 U
53-70-3	Dibenz(a,h)Anthracene	56 U
191-24-2	Benzo(ghi)Perylene	51 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	51.2%
2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	88.7%

***Acid surrogate recoveries**

d5-Phenol	65.6%
2-Fluorophenol	76.7%
2,4,6-Tribromophenol	69.0%



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**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTB-8B #2

Lab Sample ID: 1108S
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *PR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 1.53 gms (Dry Weight)
Percent Moisture: 14.7%
pH: 8.3

CAS Number		µg/Kg
74-87-3	Chloromethane	11 U
74-83-9	Bromomethane	14 U
75-01-4	Vinyl Chloride	12 U
75-00-3	Chloroethane	14 U
75-09-2	Methylene Chloride	15 B
67-64-1	Acetone	38 U
75-15-0	Carbon Disulfide	6.5 U
75-35-4	1,1-Dichloroethene	15 U
75-34-3	1,1-Dichloroethane	6.5 U
156-60-5	Trans-1,2-Dichloroethene	8.8 U
67-66-3	Chloroform	8.2 U
107-06-2	1,2-Dichloroethane	7.5 U
78-93-3	2-Butanone	21 U
71-55-6	1,1,1-Trichloroethane	5.2 U
56-23-5	Carbon Tetrachloride	5.6 U
108-05-4	Vinyl Acetate	19 U
75-27-4	Bromodichloromethane	4.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	5.2 U
10061-02-6	Trans-1,3-Dichloropropene	5.6 U
79-01-6	Trichloroethene	4.6 U*
124-48-1	Dibromochloromethane	5.2 U
79-00-5	1,1,2-Trichloroethane	5.2 U
71-43-2	Benzene	13
10061-01-5	cis-1,3-Dichloropropene	5.6 U
110-75-8	2-Chloroethylvinylether	8.5 U
75-25-2	Bromoform	6.2 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	6.2 U
127-18-4	Tetrachloroethene	4.2
79-34-5	1,1,2,2-Tetrachloroethane	6.9 U
108-88-3	Toluene	4.9 U
108-90-7	Chlorobenzene	4.2 U
100-41-4	Ethylbenzene	6.9 U*
100-42-5	Styrene	8.8 U
	Total Xylenes	23

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	260
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	570
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	47%

Volatile Surrogate Recoveries

d8-Toluene	106%
Bromofluorobenzene	94.5%
d4-1,2-Dichloroethane	93.2%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-8 B#2

Lab Sample ID: 1108S
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: DR Mitchell 10/28/87

Date extracted: 09/29/87
Date Analyzed: 10/05/87
GPC Clean-up: YES (1 of 5)

Wet weight extracted (gm): 38.6
Percent Moisture: 14.7%
pH: 8.3
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	300 U
111-44-4	bis(2-Chloroethyl)Ether	330 U
35-57-8	2-Chlorophenol	370 U
541-73-1	1,3-Dichlorobenzene	130 U
106-46-7	1,4-Dichlorobenzene	340 U
100-51-6	Benzyl Alcohol	400 U
95-50-1	1,2-Dichlorobenzene	90 U
95-48-7	2-Methylphenol	450 U
39638-32-9	bis(2-chloroisopropyl)Ether	980 U
106-44-5	4-Methylphenol	230 U
621-64-7	N-Nitroso-Di-n-Propylamine	590 U
67-72-1	Hexachloroethane	590 U
98-95-3	Nitrobenzene	400 U
78-59-1	Isophorone	900 U
88-75-5	2-Nitrophenol	1200 U
105-67-9	2,4-Dimethylphenol	1100 U
65-85-0	Benzoic Acid	1300 U
111-91-1	bis(2-Chloroethoxy)Methane	900 U
120-83-2	2,4-Dichlorophenol	1300 U
120-82-1	1,2,4-Trichlorobenzene	690 U
91-20-3	Naphthalene	1200 U
106-47-8	4-Chloroaniline	650 U
87-68-3	Hexachlorobutadiene	680 U
59-50-7	4-Chloro-3-Methylphenol	700 U
91-57-6	2-Methylnaphthalene	3000
77-47-4	Hexachlorocyclopentadiene	640 U
88-06-2	2,4,6-Trichlorophenol	230 U
95-95-4	2,4,5-Trichlorophenol	280 U
91-58-7	2-Chloronaphthalene	55 U
88-74-4	2-Nitroaniline	1200 U
131-11-3	Dimethyl Phthalate	370 U
208-96-8	Acenaphthylene	900
99-09-2	3-Nitroaniline	700 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1700
51-28-5	2,4-Dinitrophenol	2400 U
100-02-7	4-Nitrophenol	760 U
132-64-9	Dibenzofuran	630 U
121-14-2	2,4-Dinitrotoluene	370 U
606-20-2	2,6-Dinitrotoluene	1000 U
84-66-2	Diethylphthalate	300 U
7005-72-3	4-Chlorophenyl-phenylether	540 U
86-73-7	Fluorene	1900
100-01-6	4-Nitroaniline	1400 U
534-52-1	4,6-Dinitro-2-Methylphenol	2500 U
86-30-6	N-Nitrosodiphenylamine(1)	1200 U
101-55-3	4-Bromophenyl-phenylether	490 U
118-74-1	Hexachlorobenzene	650 U
87-86-5	Pentachlorophenol	480 U
85-01-8	Phenanthrene	4100
120-12-7	Anthracene	340 U
84-74-2	Di-n-Butylphthalate	580 U
206-44-0	Fluoranthene	1300 U
129-00-0	Pyrene	1900
85-68-7	Butylbenzylphthalate	3200
91-94-1	3,3'-Dichlorobenzidine	610 U
56-55-3	Benzo(a)Anthracene	950 U
117-81-7	bis(2-Ethylhexyl)Phthalate	33000
218-01-9	Chrysene	240 U
117-84-0	Di-n-Octyl Phthalate	3200
205-99-2	Benzo(b)Fluoranthene	380 U
207-08-9	Benzo(k)Fluoranthene	1600 U
50-32-8	Benzo(a)Pyrene	160 U
193-39-5	Indeno(1,2,3-cd)Pyrene	660 U
53-70-3	Dibenz(a,h)Anthracene	770 U
191-24-2	Benzo(ghi)Perylene	700 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	86.3%
2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	70.7%

***Acid surrogate recoveries**

d5-Phenol	61.8%
2-Fluorophenol	94.7%
2,4,6-Tribromophenol	32.7%

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Analysis of Volatiles - Method 624**Lab Sample ID: 1108T
Sample Matrix: Soils/Sediments

Sample No: CTB-8B #3

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987Data Release Authorized: *PR Mitchell 10/25/87*Conc Level: Low
Date Analyzed: 10/05/87Amount analyzed: 0.96 gms (Dry Weight)
Percent Moisture: 12.9%
pH: 9.5

CAS Number		µg/Kg
74-87-3	Chloromethane	17 U
74-83-9	Bromomethane	22 U
75-01-4	Vinyl Chloride	19 U
75-00-3	Chloroethane	23 U
75-09-2	Methylene Chloride	21 B
67-64-1	Acetone	60 U
75-15-0	Carbon Disulfide	10 U
75-35-4	1,1-Dichloroethene	24 U
75-34-3	1,1-Dichloroethane	10 U
156-60-5	Trans-1,2-Dichloroethene	14 U
67-66-3	Chloroform	13 U
107-06-2	1,2-Dichloroethane	12 U
78-93-3	2-Butanone	33 U
71-55-6	1,1,1-Trichloroethane	14
56-23-5	Carbon Tetrachloride	8.9 U
108-05-4	Vinyl Acetate	30 U
75-27-4	Bromodichloromethane	6.8 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	8.3 U
10061-02-6	Trans-1,3-Dichloropropane	8.9 U
79-01-6	Trichloroethene	100
124-48-1	Dibromochloromethane	8.3 U
79-00-5	1,1,2-Trichloroethane	8.3 U
71-43-2	Benzene	77
10061-01-5	cis-1,3-Dichloropropane	8.9 U
110-75-8	2-Chloroethylvinylether	14 U
75-25-2	Bromoform	9.9 U
108-10-1	4-Methyl-2-Pentanone	19 U
591-78-6	2-Hexanone	9.9 U
127-18-4	Tetrachloroethene	200
79-34-5	1,1,2,2-Tetrachloroethane	11 U
108-88-3	Toluene	7.8 U
108-90-7	Chlorobenzene	6.8 U
100-41-4	Ethylbenzene	120
100-42-5	Styrene	14 U
	Total Xylenes	4300

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	
53469-21-9	Aroclor 1242	85
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	190
11096-82-5	Aroclor 1260	70 U
Dibutylchloroendate	% Recovery	93%

Volatile Surrogate Recoveries

d8-Toluene	128%
Bromofluorobenzene	350%
d4-1,2-Dichloroethane	90.5%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-8B #3 Rerun

Lab Sample ID: 1108TM
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/13/87*

Conc Level: Medium
Date Analyzed: 10/13/87

Amount analyzed: 0.0022 gms (Dry Weight Equiv)
Percent Moisture: 12.9%
pH: 9.5

CAS Number		µg/Kg
74-87-3	Chloromethane	7300 U
74-83-9	Bromomethane	9600 U
75-01-4	Vinyl Chloride	8500 U
75-00-3	Chloroethane	10000 U
75-09-2	Methylene Chloride	7600 U
67-64-1	Acetone	27000 U
75-15-0	Carbon Disulfide	4600 U
75-35-4	1,1-Dichloroethene	10000 U
75-34-3	1,1-Dichloroethane	4600 U
156-60-5	Trans-1,2-Dichloroethene	6200 U
67-66-3	Chloroform	5700 U
107-06-2	1,2-Dichloroethane	5300 U
78-93-3	2-Butanone	14000 U
71-55-6	1,1,1-Trichloroethane	3700 U
56-23-5	Carbon Tetrachloride	3900 U
108-05-4	Vinyl Acetate	13000 U
75-27-4	Bromodichloromethane	3000 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	3700 U
10061-02-6	Trans-1,3-Dichloropropene	3900 U
79-01-6	Trichloroethene	3200 U
124-48-1	Dibromochloromethane	3700 U
79-00-5	1,1,2-Trichloroethane	3700 U
71-43-2	Benzene	3900 U
10061-01-5	cis-1,3-Dichloropropene	3900 U
110-75-8	2-Chloroethylvinylether	6000 U
75-25-2	Bromoform	4400 U
108-10-1	4-Methyl-2-Pentanone	8300 U
591-78-6	2-Hexanone	4400 U
127-18-4	Tetrachloroethene	2800 U
79-34-5	1,1,2,2-Tetrachloroethane	4800 U
108-88-3	Toluene	3400 U
108-90-7	Chlorobenzene	3000 U
100-41-4	Ethylbenzene	4800 U
100-42-5	Styrene	6200 U
	Total Xylenes	15000

Analysis of PCBs

Date of Analysis:		µg/Kg
12674-11-2	Aroclor 1016	NR
53469-21-9	Aroclor 1242	NR
12672-29-6	Aroclor 1248	NR
10097-69-1	Aroclor 1254	NR
11096-82-5	Aroclor 1260	NR
	Dibutylchloroendate % Recovery	NR

Volatile Surrogate Recoveries

d8-Toluene	103%
Bromofluorobenzene	111%
d4-1,2-Dichloroethane	107%

GC/MS Data Reporting Qualifiers

- | | | | |
|-------|--|----|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | B | This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination. |
| U | Indicates compound was analyzed for but not detected at the given detection limit. | K | This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run. |
| U* | Indicates analyte found and confirmed but is less than specified detection limit. | NR | Analysis not required |



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-8 B#3

Analytical
Chemists &
Consultants

Lab Sample ID: 1108T
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Date Release Authorized: RB Mitchell 10/28/87

Date extracted: 09/29/87
Date Analyzed: 10/05/87
GPC Clean-up: YES (1 of 3)

Wet weight extracted (gm): 38.6
Percent Moisture: 12.9%
pH: 9.5
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	180 U
111-44-4	bis(2-Chloroethyl)Ether	190 U
95-57-8	2-Chlorophenol	210 U
541-73-1	1,3-Dichlorobenzene	77 U
106-46-7	1,4-Dichlorobenzene	200 U
100-51-6	Benzyl Alcohol	230 U
95-50-1	1,2-Dichlorobenzene	53 U
95-48-7	2-Methylphenol	260 U
39638-32-9	bis(2-chloroisopropyl)Ether	580 U
106-44-5	4-Methylphenol	130 U
621-64-7	N-Nitroso-Di-n-Propylamine	350 U
67-72-1	Hexachloroethane	350 U
98-95-3	Nitrobenzene	240 U
78-59-1	Isophorone	530 U
88-75-5	2-Nitrophenol	700 U
105-67-9	2,4-Dimethylphenol	630 U
65-85-0	Benzoic Acid	740 U
111-91-1	bis(2-Chloroethoxy)Methane	530 U
120-83-2	2,4-Dichlorophenol	740 U
120-82-1	1,2,4-Trichlorobenzene	410 U
91-20-3	Naphthalene	13000
106-47-8	4-Chloroaniline	380 U
87-68-3	Hexachlorobutadiene	400 U
59-50-7	4-Chloro-3-Methylphenol	410 U
91-57-6	2-Methylnaphthalene	52000
77-47-4	Hexachlorocyclopentadiene	380 U
88-06-2	2,4,6-Trichlorophenol	130 U
95-95-4	2,4,5-Trichlorophenol	160 U
91-58-7	2-Chloronaphthalene	32 U
88-74-4	2-Nitroaniline	700 U
131-11-3	Dimethyl Phthalate	210 U
208-96-8	Acenaphthylene	1600
99-09-2	3-Nitroaniline	410 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1800
51-28-5	2,4-Dinitrophenol	1400 U
100-02-7	4-Nitrophenol	450 U
132-64-9	Dibenzofuran	3700
121-14-2	2,4-Dinitrotoluene	220 U
606-20-2	2,6-Dinitrotoluene	600 U
84-66-2	Diethylphthalate	170 U
7005-72-3	4-Chlorophenyl-phenylether	320 U
86-73-7	Fluorene	3800
100-01-6	4-Nitroaniline	820 U
534-52-1	4,6-Dinitro-2-Methylphenol	1500 U
86-30-6	N-Nitrosodiphenylamine(1)	710 U
101-55-3	4-Bromophenyl-phenylether	290 U
118-74-1	Hexachlorobenzene	380 U
87-86-5	Pentachlorophenol	280 U
85-01-8	Phenanthrene	12000
120-12-7	Anthracene	2300
84-74-2	Di-n-Butylphthalate	340 U
206-44-0	Fluoranthene	1800
129-00-0	Pyrene	2300
85-68-7	Butylbenzylphthalate	900 U
91-94-1	3,3'-Dichlorobenzidine	360 U
56-55-3	Benzo(a)Anthracene	980
117-81-7	bis(2-Ethylhexyl)Phthalate	4300
218-01-9	Chrysene	1400
117-84-0	Di-n-Octyl Phthalate	730 U
205-99-2	Benzo(b)Fluoranthene	220 U
207-08-9	Benzo(k)Fluoranthene	930 U
50-32-8	Benzo(a)Pyrene	95 U
193-39-5	Indeno(1,2,3-cd)Pyrene	390 U
53-70-3	Dibenz(a,h)Anthracene	450 U
191-24-2	Benzo(ghi)Perylene	410 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	77.4%
2-Fluorobiphenyl	91.0%
d14-p-Terphenyl	92.8%

***Acid surrogate recoveries**

d5-Phenol	63.2%
2-Fluorophenol	77.2%
2,4,6-Tribromophenol	44.7%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-9B #1

Lab Sample ID: 1108L
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Amount analyzed: 4.53 gms (Dry Weight)
Percent Moisture: 12.4%
pH: 5.9

Conc Level: Low
Date Analyzed: 10/05/87

CAS Number		µg/Kg
74-87-3	Chloromethane	3.5 U
74-83-9	Bromomethane	4.6 U
75-01-4	Vinyl Chloride	4.1 U
75-00-3	Chloroethane	4.9 U
75-09-2	Methylene Chloride	4.2 B
67-64-1	Acetone	13 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	5.0 U
75-34-3	1,1-Dichloroethane	2.2 U
156-60-5	Trans-1,2-Dichloroethene	3.0 U
67-66-3	Chloroform	2.8 U
107-06-2	1,2-Dichloroethane	2.5 U
78-93-3	2-Butanone	7.0 U
71-55-6	1,1,1-Trichloroethane	1.8 U
56-23-5	Carbon Tetrachloride	1.9 U
108-05-4	Vinyl Acetate	6.4 U
75-27-4	Bromodichloromethane	1.4 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.8 U
10061-02-6	Trans-1,3-Dichloropropene	1.9 U
79-01-6	Trichloroethene	1.5 U
124-48-1	Dibromochloromethane	1.8 U
79-00-5	1,1,2-Trichloroethane	1.8 U
71-43-2	Benzene	1.9 U
10061-01-5	cis-1,3-Dichloropropene	1.9 U
110-75-8	2-Chloroethylvinylether	2.9 U
75-25-2	Bromoform	2.1 U
108-10-1	4-Methyl-2-Pentanone	4.0 U
591-78-6	2-Hexanone	2.1 U
127-18-4	Tetrachloroethene	1.3 U
79-34-5	1,1,2,2-Tetrachloroethane	2.3 U
108-88-3	Toluene	1.7 U
108-90-7	Chlorobenzene	1.4 U
100-41-4	Ethylbenzene	2.3 U
100-42-5	Styrene	3.0 U
	Total Xylenes	2.6 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate %Recovery	95%

Volatile Surrogate Recoveries

d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	91.9%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-9 B#1

Sample ID: 1108L
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

State Release Authorized: *DR Mitchell 10/2/87*

Date extracted: 09/29/87
Date Analyzed: 10/01/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 36.9
Percent Moisture: 12.4%
pH: 5.9
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	25 U
11-44-4	bis(2-Chloroethyl)Ether	27 U
5-57-8	2-Chlorophenol	30 U
541-73-1	1,3-Dichlorobenzene	11 U
106-46-7	1,4-Dichlorobenzene	28 U
100-51-6	Benzyl Alcohol	32 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	37 U
19638-32-9	bis(2-chloroisopropyl)Ether	80 U
106-44-5	4-Methylphenol	18 U
621-64-7	N-Nitroso-Di-n-Propylamine	48 U
57-72-1	Hexachloroethane	48 U
98-95-3	Nitrobenzene	33 U
78-59-1	Isophorone	73 U
38-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	87 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(2-Chloroethoxy)Methane	74 U
120-83-2	2,4-Dichlorophenol	100 U
120-82-1	1,2,4-Trichlorobenzene	57 U
91-20-3	Naphthalene	99 U
106-47-8	4-Chloroaniline	53 U
87-68-3	Hexachlorobutadiene	55 U
59-50-7	4-Chloro-3-Methylphenol	57 U
91-57-6	2-Methylnaphthalene	54 U
77-47-4	Hexachlorocyclopentadiene	52 U
88-06-2	2,4,6-Trichlorophenol	19 U
95-95-4	2,4,5-Trichlorophenol	22 U
91-58-7	2-Chloronaphthalene	5 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethyl Phthalate	30 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	57 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	35 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	62 U
132-64-9	Dibenzofuran	51 U
121-14-2	2,4-Dinitrotoluene	30 U
606-20-2	2,6-Dinitrotoluene	83 U
84-66-2	Diethylphthalate	24 U
7005-72-3	4-Chlorophenyl-phenylether	44 U
86-73-7	Fluorene	36 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine(1)	98 U
101-55-3	4-Bromophenyl-phenylether	40 U
118-74-1	Hexachlorobenzene	53 U
87-86-5	Pentachlorophenol	39 U
85-01-8	Phenanthrene	52 U
120-12-7	Anthracene	28 U
84-74-2	Di-n-Butylphthalate	47 U
206-44-0	Fluoranthene	110 U
129-00-0	Pyrene	100 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	50 U
56-55-3	Benzo(a)Anthracene	78 U
117-81-7	bis(2-Ethylhexyl)Phthalate	180
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl Phthalate	100 U
205-99-2	Benzo(b)Fluoranthene	31 U
207-08-9	Benzo(k)Fluoranthene	130 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	53 U
53-70-3	Dibenz(a,h)Anthracene	62 U
191-24-2	Benzo(ghi)Perylene	57 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	72.2%
2-Fluorobiphenyl	100%
d14-p-Terphenyl	147%

***Acid surrogate recoveries**

d5-Phenol	89.2%
2-Fluorophenol	96.2%
2,4,6-Tribromophenol	113%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-9B #2

Lab Sample ID: 1108M
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *Dr. Mitchell 10/28/87*

Conc Level: Medium
Date Analyzed: 10/13/87

Amount analyzed: 0.0092 gms (Dry Weight Equiv)
Percent Moisture: 8.7%
pH: 7.1

CAS Number		µg/Kg
74-87-3	Chloromethane	1700 U
74-83-9	Bromomethane	2300 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2000 U
75-09-2	Methylene Chloride	1800 U
67-64-1	Acetone	6000 U
75-15-0	Carbon Disulfide	1100 U
75-35-4	1,1-Dichloroethene	2000 U
75-34-3	1,1-Dichloroethane	1100 U
156-60-5	Trans-1,2-Dichloroethene	1500 U
67-66-3	Chloroform	1400 U
107-06-2	1,2-Dichloroethane	1300 U
78-93-3	2-Butanone	3000 U
71-55-6	1,1,1-Trichloroethane	870 U
56-23-5	Carbon Tetrachloride	930 U
108-05-4	Vinyl Acetate	3000 U
75-27-4	Bromodichloromethane	710 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	870 U
10061-02-6	Trans-1,3-Dichloropropene	930 U
79-01-6	Trichloroethene	760 U
124-48-1	Dibromochloromethane	870 U
79-00-5	1,1,2-Trichloroethane	870 U
71-43-2	Benzene	3300
10061-01-5	cis-1,3-Dichloropropene	930 U
110-75-8	2-Chloroethylvinylether	1400 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	2000 U
591-78-6	2-Hexanone	1000 U
127-18-4	Tetrachloroethene	660 U
79-34-5	1,1,2,2-Tetrachloroethane	1100 U
108-88-3	Toluene	46000
108-90-7	Chlorobenzene	710 U
100-41-4	Ethylbenzene	21000
100-42-5	Styrene	1500 U
	Total Xylenes	160000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	
53469-21-9	Aroclor 1242	225
12672-29-6	Aroclor 1248	100 U
10097-69-1	Aroclor 1254	100 U
11096-82-5	Aroclor 1260	100 U
	Dibutylchloroendate % Recovery	130%

Volatile Surrogate Recoveries

d8-Toluene	98.9%
Bromofluorobenzene	123%
d4-1,2-Dichloroethane	92.4%

GC/MS Data Reporting Qualifiers

- | | | | |
|-------|--|----|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | B | This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination. |
| U | Indicates compound was analyzed for but not detected at the given detection limit. | K | This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run. |
| U* | Indicates analyte found and confirmed but is less than specified detection limit. | NR | Analysis not required |



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-9B #2

Lab Sample ID: 1108M
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *DR Mitchell 10/28/87*

Date extracted: 09/29/87
Date Analyzed: 10/05/87
GPC Clean-up: YES (1 of 4)

Wet weight extracted (gm): 26.5
Percent Moisture: 8.7%
pH: 7.1
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	330 U
111-44-4	bis(2-Chloroethyl)Ether	360 U
95-57-8	2-Chlorophenol	400 U
541-73-1	1,3-Dichlorobenzene	140 U
106-46-7	1,4-Dichlorobenzene	370 U
100-51-6	Benzyl Alcohol	430 U
95-50-1	1,2-Dichlorobenzene	97 U
95-48-7	2-Methylphenol	490 U
39638-32-9	bis(2-chloroisopropyl)Ether	1100 U
106-44-5	4-Methylphenol	240 U
621-64-7	N-Nitroso-Di-n-Propylamine	640 U
67-72-1	Hexachloroethane	640 U
98-95-3	Nitrobenzene	440 U
78-59-1	Isophorone	980 U
88-75-5	2-Nitrophenol	1300 U
105-67-9	2,4-Dimethylphenol	1200 U
65-85-0	Benzoic Acid	1400 U
111-91-1	bis(2-Chloroethoxy)Methane	980 U
120-83-2	2,4-Dichlorophenol	1400 U
120-82-1	1,2,4-Trichlorobenzene	750 U
91-20-3	Naphthalene	47000
106-47-8	4-Chloroaniline	710 U
87-68-3	Hexachlorobutadiene	740 U
59-50-7	4-Chloro-3-Methylphenol	760 U
91-57-6	2-Methylnaphthalene	140000
77-47-4	Hexachlorocyclopentadiene	700 U
88-06-2	2,4,6-Trichlorophenol	250 U
95-95-4	2,4,5-Trichlorophenol	300 U
91-58-7	2-Chloronaphthalene	59 U
88-74-4	2-Nitroaniline	1300 U
131-11-3	Dimethyl Phthalate	400 U
208-96-8	Acenaphthylene	15000
99-09-2	3-Nitroaniline	760 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	6200
51-28-5	2,4-Dinitrophenol	2600 U
100-02-7	4-Nitrophenol	820 U
132-64-9	Dibenzofuran	6500
121-14-2	2,4-Dinitrotoluene	400 U
606-20-2	2,6-Dinitrotoluene	1100 U
84-66-2	Diethylphthalate	3000
7005-72-3	4-Chlorophenyl-phenylether	580 U
86-73-7	Fluorene	21000
100-01-6	4-Nitroaniline	1500 U
534-52-1	4,6-Dinitro-2-Methylphenol	2700 U
86-30-6	N-Nitrosodiphenylamine(1)	1300 U
101-55-3	4-Bromophenyl-phenylether	530 U
118-74-1	Hexachlorobenzene	710 U
87-86-5	Pentachlorophenol	520 U
85-01-8	Phenanthrene	47000
120-12-7	Anthracene	15000
84-74-2	Di-n-Butylphthalate	900
206-44-0	Fluoranthene	4900
129-00-0	Pyrene	7200
85-68-7	Butylbenzylphthalate	1700 U
91-94-1	3,3'-Dichlorobenzidine	670 U
56-55-3	Benzo(a)Anthracene	5600
117-81-7	bis(2-Ethylhexyl)Phthalate	3500
218-01-9	Chrysene	5500
117-84-0	Di-n-Octyl Phthalate	1300 U
205-99-2	Benzo(b)Fluoranthene	1500
207-08-9	Benzo(k)Fluoranthene	1700 U*
50-32-8	Benzo(a)Pyrene	2300
193-39-5	Indeno(1,2,3-cd)Pyrene	6900
53-70-3	Dibenz(a,h)Anthracene	1700
191-24-2	Benzo(ghi)Perylene	6000

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	106%
d14-p-Terphenyl	125%

***Acid surrogate recoveries**

d5-Phenol	70.8%
2-Fluorophenol	56.4%
2,4,6-Tribromophenol	34.1%



Analytical
Chemists &
Consultants

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(206) 621-6490

**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTB-10B #1

Lab Sample ID: 1108N
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *R. Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 4.78 gms (Dry Weight)
Percent Moisture: 11.4%
pH: 6.7

CAS Number		µg/Kg
74-87-3	Chloromethane	3.3 U
74-83-9	Bromomethane	4.4 U
75-01-4	Vinyl Chloride	3.9 U
75-00-3	Chloroethane	4.6 U
75-09-2	Methylene Chloride	3.9 B
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.1 U
75-35-4	1,1-Dichloroethene	4.7 U
75-34-3	1,1-Dichloroethane	2.1 U
156-60-5	Trans-1,2-Dichloroethene	2.8 U
67-66-3	Chloroform	2.6 U
107-06-2	1,2-Dichloroethane	2.4 U
78-93-3	2-Butanone	6.6 U
71-55-6	1,1,1-Trichloroethane	1.7 U
56-23-5	Carbon Tetrachloride	1.8 U
108-05-4	Vinyl Acetate	6.1 U
75-27-4	Bromodichloromethane	1.4 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.7 U
10061-02-6	Trans-1,3-Dichloropropene	1.8 U
79-01-6	Trichloroethene	1.5 U
124-48-1	Dibromochloromethane	1.7 U
79-00-5	1,1,2-Trichloroethane	1.7 U
71-43-2	Benzene	1.8 U
10061-01-5	cis-1,3-Dichloropropene	1.8 U
110-75-8	2-Chloroethylvinylether	2.7 U
75-25-2	Bromoform	2.0 U
108-10-1	4-Methyl-2-Pentanone	3.8 U
591-78-6	2-Hexanone	2.0 U
127-18-4	Tetrachloroethene	1.3 U
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U
108-88-3	Toluene	1.6 U
108-90-7	Chlorobenzene	1.4 U
100-41-4	Ethylbenzene	2.2 U
100-42-5	Styrene	2.8 U
	Total Xylenes	2.5 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	101%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	96.1%
d4-1,2-Dichloroethane	90.0%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-10 B#1

Lab Sample ID: 1108N
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: DR Mitchell 10/28/87

Date extracted: 09/29/87
Date Analyzed: 10/01/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 37.8
Percent Moisture: 11.4%
pH: 6.7
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	24 U
111-44-4	bis(2-Chloroethyl)Ether	26 U
95-57-8	2-Chlorophenol	29 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	27 U
100-51-6	Benzyl Alcohol	31 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	35 U
39638-32-9	bis(2-chloroisopropyl)Ether	77 U
106-44-5	4-Methylphenol	18 U
621-64-7	N-Nitroso-Di-n-Propylamine	47 U
67-72-1	Hexachloroethane	47 U
98-95-3	Nitrobenzene	32 U
78-59-1	Isophorone	71 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	84 U
65-85-0	Benzoic Acid	99 U
111-91-1	bis(2-Chloroethoxy)Methane	71 U
120-83-2	2,4-Dichlorophenol	99 U
120-82-1	1,2,4-Trichlorobenzene	54 U
91-20-3	Naphthalene	96 U
106-47-8	4-Chloroaniline	51 U
87-68-3	Hexachlorobutadiene	53 U
59-50-7	4-Chloro-3-Methylphenol	55 U
91-57-6	2-Methylnaphthalene	52 U
77-47-4	Hexachlorocyclopentadiene	50 U
88-06-2	2,4,6-Trichlorophenol	18 U
95-95-4	2,4,5-Trichlorophenol	22 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethyl Phthalate	29 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	55 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	34 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	60 U
132-64-9	Dibenzofuran	49 U
121-14-2	2,4-Dinitrotoluene	29 U
606-20-2	2,6-Dinitrotoluene	80 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	42 U
86-73-7	Fluorene	34 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine(1)	95 U
101-55-3	4-Bromophenyl-phenylether	38 U
118-74-1	Hexachlorobenzene	51 U
87-86-5	Pentachlorophenol	38 U
85-01-8	Phenanthrene	50 U
120-12-7	Anthracene	27 U
84-74-2	Di-n-Butylphthalate	45 U
206-44-0	Fluoranthene	110 U
129-00-0	Pyrene	96 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	48 U
56-55-3	Benzo(a)Anthracene	75 U
117-81-7	bis(2-Ethylhexyl)Phthalate	150
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl Phthalate	97 U
205-99-2	Benzo(b)Fluoranthene	30 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	52 U
	z(a,h)Anthracene	60 U
	(ghi)Perylene	55 U

led from diphenylamine

1 surrogate recoveries

*Base/neutral surrogate recoveries	
d5-Nitrobenzene	83.1%
2-Fluorobiphenyl	109%
d14-p-Terphenyl	164%

phenol	102%
chlorophenol	116%
2-Tribromophenol	108%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-10B #2

Lab Sample ID: 11080
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 3.62 gms (Dry Weight)
Percent Moisture: 18.1%
pH: 7.6

CAS Number		µg/Kg
74-87-3	Chloromethane	4.4 U
74-83-9	Bromomethane	5.8 U
75-01-4	Vinyl Chloride	5.1 U
75-00-3	Chloroethane	6.1 U
75-09-2	Methylene Chloride	16 B
67-64-1	Acetone	74
75-15-0	Carbon Disulfide	2.8 U
75-35-4	1,1-Dichloroethene	6.2 U
75-34-3	1,1-Dichloroethane	2.8 U
156-60-5	Trans-1,2-Dichloroethene	3.7 U
67-66-3	Chloroform	3.5 U
107-06-2	1,2-Dichloroethane	3.2 U
78-93-3	2-Butanone	8.7 U
71-55-6	1,1,1-Trichloroethane	2.2 U
56-23-5	Carbon Tetrachloride	2.3 U
108-05-4	Vinyl Acetate	8.0 U
75-27-4	Bromodichloromethane	1.8 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.2 U
10061-02-6	Trans-1,3-Dichloropropene	2.3 U
79-01-6	Trichloroethene	1.9 U
124-48-1	Dibromochloromethane	2.2 U
79-00-5	1,1,2-Trichloroethane	2.2 U
71-43-2	Benzene	150
10061-01-5	cis-1,3-Dichloropropene	2.3 U
110-75-8	2-Chloroethylvinylether	3.6 U
75-25-2	Bromoform	2.6 U
108-10-1	4-Methyl-2-Pentanone	5.0 U
591-78-6	2-Hexanone	2.6 U
127-18-4	Tetrachloroethene	1.7 U
79-34-5	1,1,2,2-Tetrachloroethane	2.9 U
108-88-3	Toluene	500 K
108-90-7	Chlorobenzene	1.8 U
100-41-4	Ethylbenzene	100
100-42-5	Styrene	52
	Total Xylenes	330

Analysis of PCBs

Date of Analysis: 10/08/87		µg/Kg
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	1300
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	2200
11096-82-5	Aroclor 1260	1500
Dibutylchloroendate % Recovery		NA

Volatile Surrogate Recoveries

d8-Toluene	141%
Bromofluorobenzene	74.4%
d4-1,2-Dichloroethane	89.6%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-10B #2 Rerun

Lab Sample ID: 11080R
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 1.06 gms (Dry Weight)
Percent Moisture: 18.1%
pH: 7.6

CAS Number		µg/Kg
74-87-3	Chloromethane	15 U
74-83-9	Bromomethane	20 U
75-01-4	Vinyl Chloride	18 U
75-00-3	Chloroethane	21 U
75-09-2	Methylene Chloride	61 B
67-64-1	Acetone	55 U*
75-15-0	Carbon Disulfide	9 U
75-35-4	1,1-Dichloroethene	21 U
75-34-3	1,1-Dichloroethane	9 U
156-60-5	Trans-1,2-Dichloroethene	13 U
67-66-3	Chloroform	12 U
107-06-2	1,2-Dichloroethane	11 U
78-93-3	2-Butanone	30 U
71-55-6	1,1,1-Trichloroethane	8 U
56-23-5	Carbon Tetrachloride	8 U
108-05-4	Vinyl Acetate	27 U
75-27-4	Bromodichloromethane	6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	8 U
10061-02-6	Trans-1,3-Dichloropropene	8 U
79-01-6	Trichloroethene	7 U
124-48-1	Dibromochloromethane	8 U
79-00-5	1,1,2-Trichloroethane	8 U
71-43-2	Benzene	140
10061-01-5	cis-1,3-Dichloropropene	8 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	9 U
108-10-1	4-Methyl-2-Pentanone	17 U
591-78-6	2-Hexanone	9 U
127-18-4	Tetrachloroethene	6 U
79-34-5	1,1,2,2-Tetrachloroethane	10 U
108-88-3	Toluene	460
108-90-7	Chlorobenzene	6 U
100-41-4	Ethylbenzene	120
100-42-5	Styrene	63
	Total Xylenes	380

Analysis of PCBs

Date of Analysis:	NA	µg/Kg
12674-11-2	Aroclor 1016	NR
53469-21-9	Aroclor 1242	NR
12672-29-6	Aroclor 1248	NR
10097-69-1	Aroclor 1254	NR
11096-82-5	Aroclor 1260	NR
	Dibutylchloroendate % Recovery	NR

Volatile Surrogate Recoveries

d8-Toluene	120%
Bromofluorobenzene	79.1%
d4-1,2-Dichloroethane	94.3%

GC/MS Data Reporting Qualifiers

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected at the given detection limit.
- U*** Indicates analyte found and confirmed but is less than specified detection limit.
- B** This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
- K** This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
- NR** Analysis not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 11080
Sample Matrix: Soils/Sediments

Sample No: CTB-10B #2

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *R. Mitchell 10/29/87*

Date extracted: 09/29/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (1 of 16)

Wet weight extracted (gm): 38.2
Percent Moisture: 18.1%
pH: 7.6
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	1000 U
111-44-4	bis(2-Chloroethyl)Ether	1100 U
95-57-8	2-Chlorophenol	1200 U
541-73-1	1,3-Dichlorobenzene	440 U
106-46-7	1,4-Dichlorobenzene	1100 U
100-51-6	Benzyl Alcohol	1300 U
95-50-1	1,2-Dichlorobenzene	300 U
95-48-7	2-Methylphenol	1500 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	760 U
621-64-7	N-Nitroso-Di-n-Propylamine	2000 U
67-72-1	Hexachloroethane	2000 U
98-95-3	Nitrobenzene	1400 U
78-59-1	Isophorone	3000 U
88-75-5	2-Nitrophenol	4000 U
105-67-9	2,4-Dimethylphenol	3600 U
65-85-0	Benzoic Acid	4200 U
111-91-1	bis(2-Chloroethoxy)Methane	3000 U
120-83-2	2,4-Dichlorophenol	4300 U
120-82-1	1,2,4-Trichlorobenzene	2300 U
91-20-3	Naphthalene	4100 U
106-47-8	4-Chloroaniline	2200 U
87-68-3	Hexachlorobutadiene	2300 U
59-50-7	4-Chloro-3-Methylphenol	2300 U
91-57-6	2-Methylnaphthalene	2200 U
77-47-4	Hexachlorocyclopentadiene	2200 U
88-06-2	2,4,6-Trichlorophenol	770 U
95-95-4	2,4,5-Trichlorophenol	930 U
91-58-7	2-Chloronaphthalene	180 U
88-74-4	2-Nitroaniline	4000 U
131-11-3	Dimethyl Phthalate	1200 U
208-96-8	Acenaphthylene	250 U
99-09-2	3-Nitroaniline	2400 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1400 U
51-28-5	2,4-Dinitrophenol	8100 U
100-02-7	4-Nitrophenol	2600 U
132-64-9	Dibenzofuran	2100 U
121-14-2	2,4-Dinitrotoluene	1200 U
606-20-2	2,6-Dinitrotoluene	3400 U
84-66-2	Diethylphthalate	1000 U
7005-72-3	4-Chlorophenyl-phenylether	1800 U
86-73-7	Fluorene	1500 U
100-01-6	4-Nitroaniline	4700 U
534-52-1	4,6-Dinitro-2-Methylphenol	8400 U
86-30-6	N-Nitrosodiphenylamine(1)	4100 U
101-55-3	4-Bromophenyl-phenylether	1600 U
118-74-1	Hexachlorobenzene	2200 U
87-86-5	Pentachlorophenol	1600 U
85-01-8	Phenanthrene	5600
120-12-7	Anthracene	1200 U
84-74-2	Di-n-Butylphthalate	16000
206-44-0	Fluoranthene	4500 U
129-00-0	Pyrene	4100 U
85-68-7	Butylbenzylphthalate	94000
91-94-1	3,3'-Dichlorobenzidine	2100 U
56-55-3	Benzo(a)Anthracene	3200 U
117-81-7	bis(2-Ethylhexyl)Phthalate	34000
218-01-9	Chrysene	800 U
117-84-0	Di-n-Octyl Phthalate	26000
205-99-2	Benzo(b)Fluoranthene	1300 U
207-08-9	Benzo(k)Fluoranthene	5300 U
50-32-8	Benzo(a)Pyrene	550 U
193-39-5	Indeno(1,2,3-cd)Pyrene	2200 U
	benz(a,h)Anthracene	2600 U
	benzo(ghi)Perylene	2300 U

ated from diphenylamine

***Base/neutral surrogate recoveries**

	DL
d5-Nitrobenzene	215%
2-Fluorobiphenyl	220%
d14-p-Terphenyl	

acid surrogate recoveries

	DL
Phenol	129%
fluorophenol	
6-Tribromophenol	DL



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: **CTB-10B #3**

Lab Sample ID: 1108P
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *JR Mitchell 10/26/87*

Conc Level: Medium
Date Analyzed: 10/13/87

Amount analyzed: 0.0047 gms (Dry Weight Equiv)
Percent Moisture: 6.5%
pH: 8.6

CAS Number		µg/Kg
74-87-3	Chloromethane	3400 U
74-83-9	Bromomethane	4500 U
75-01-4	Vinyl Chloride	4000 U
75-00-3	Chloroethane	4700 U
75-09-2	Methylene Chloride	3500 U
67-64-1	Acetone	12000 U
75-15-0	Carbon Disulfide	2100 U
75-35-4	1,1-Dichloroethene	4800 U
75-34-3	1,1-Dichloroethane	2100 U
156-60-5	Trans-1,2-Dichloroethene	2900 U
67-66-3	Chloroform	2700 U
107-06-2	1,2-Dichloroethane	2500 U
78-93-3	2-Butanone	6700 U
71-55-6	1,1,1-Trichloroethane	1700 U
56-23-5	Carbon Tetrachloride	1800 U
108-05-4	Vinyl Acetate	6200 U
75-27-4	Bromodichloromethane	1400 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1700 U
10061-02-6	Trans-1,3-Dichloropropene	1800 U
79-01-6	Trichloroethene	1500 U
124-48-1	Dibromochloromethane	1700 U
79-00-5	1,1,2-Trichloroethane	1700 U
71-43-2	Benzene	1800 U
10061-01-5	cis-1,3-Dichloropropene	1800 U
110-75-8	2-Chloroethylvinylether	2800 U
75-25-2	Bromoform	2000 U
108-10-1	4-Methyl-2-Pentanone	3900 U
591-78-6	2-Hexanone	2000 U
127-18-4	Tetrachloroethene	1300 U
79-34-5	1,1,2,2-Tetrachloroethane	2200 U
108-88-3	Toluene	6100
108-90-7	Chlorobenzene	1400 U
100-41-4	Ethylbenzene	4800
100-42-5	Styrene	2900 U
	Total Xylenes	73000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	
53469-21-9	Aroclor 1242	115
12672-29-6	Aroclor 1248	100 U
10097-69-1	Aroclor 1254	100 U
11096-82-5	Aroclor 1260	100 U
	Dibutylchloroendate %Recovery	103%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	107%
d4-1,2-Dichloroethane	108%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-10 B#3

Lab Sample ID: 1108P
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 26 September 1987

Date Release Authorized: *OK McEull 10/29/87*

Date extracted: 09/29/87
Date Analyzed: 10/05/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 24.8
Percent Moisture: 6.5%
pH: 8.6
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	170 U
111-44-4	bis(2-Chloroethyl)Ether	190 U
95-57-8	2-Chlorophenol	210 U
541-73-1	1,3-Dichlorobenzene	75 U
106-46-7	1,4-Dichlorobenzene	190 U
100-51-6	Benzyl Alcohol	220 U
95-50-1	1,2-Dichlorobenzene	51 U
95-48-7	2-Methylphenol	250 U
39638-32-9	bis(2-chloroisopropyl)Ether	560 U
106-44-5	4-Methylphenol	130 U
621-64-7	N-Nitroso-Di-n-Propylamine	340 U
67-72-1	Hexachloroethane	340 U
98-95-3	Nitrobenzene	230 U
78-59-1	Isophorone	510 U
88-75-5	2-Nitrophenol	680 U
105-67-9	2,4-Dimethylphenol	600 U
65-85-0	Benzoic Acid	710 U
111-91-1	bis(2-Chloroethoxy)Methane	510 U
120-83-2	2,4-Dichlorophenol	720 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	16000
106-47-8	4-Chloroaniline	370 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-Methylphenol	390 U
91-57-6	2-Methylnaphthalene	58000
77-47-4	Hexachlorocyclopentadiene	360 U
88-06-2	2,4,6-Trichlorophenol	130 U
95-95-4	2,4,5-Trichlorophenol	160 U
91-58-7	2-Chloronaphthalene	31 U
88-74-4	2-Nitroaniline	680 U
131-11-3	Dimethyl Phthalate	210 U
208-96-8	Acenaphthylene	6500
99-09-2	3-Nitroaniline	400 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	2300
51-28-5	2,4-Dinitrophenol	1400 U
100-02-7	4-Nitrophenol	430 U
132-64-9	Dibenzofuran	2800
121-14-2	2,4-Dinitrotoluene	210 U
606-20-2	2,6-Dinitrotoluene	580 U
84-66-2	Diethylphthalate	170 U
7005-72-3	4-Chlorophenyl-phenylether	310 U
86-73-7	Fluorene	6900
100-01-6	4-Nitroaniline	790 U
534-52-1	4,6-Dinitro-2-Methylphenol	1400 U
86-30-6	N-Nitrosodiphenylamine(1)	680 U
101-55-3	4-Bromophenyl-phenylether	280 U
118-74-1	Hexachlorobenzene	370 U
87-86-5	Pentachlorophenol	270 U
85-01-8	Phenanthrene	16000
120-12-7	Anthracene	7000
84-74-2	Di-n-Butylphthalate	330 U
206-44-0	Fluoranthene	1600
129-00-0	Pyrene	2800
85-68-7	Butylbenzylphthalate	860 U
91-94-1	3,3'-Dichlorobenzidine	350 U
56-55-3	Benzo(a)Anthracene	1700
117-81-7	bis(2-Ethylhexyl)Phthalate	1700
218-01-9	Chrysene	1700
117-84-0	Di-n-Octyl Phthalate	830 U
205-99-2	Benzo(b)Fluoranthene	550 U
207-08-9	Benzo(k)Fluoranthene	890 U
50-32-8	Benzo(a)Pyrene	92 U
	o(1,2,3-cd)Pyrene	370 U
	z(a,h)Anthracene	430 U
	(ghi)Perylene	620 U

ted from diphenylamine

1 surrogate recoveries

*Base/neutral surrogate recoveries	
d5-Nitrobenzene	54.5%
2-Fluorobiphenyl	126%
d14-p-Terphenyl	110%

enol	85.9%
rophenol	81.3%
-Tribromophenol	73.0%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-11B #1

Lab Sample ID: 1108AM
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *DR Mitchell 10/2/87*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 2.59 gms (Dry Weight)
Percent Moisture: 11.7%
pH: 8.5

CAS Number		µg/Kg
74-87-3	Chloromethane	6.2 U
74-83-9	Bromomethane	8.1 U
75-01-4	Vinyl Chloride	7.2 U
75-00-3	Chloroethane	8.5 U
75-09-2	Methylene Chloride	6.4 BU*
67-64-1	Acetone	22 U
75-15-0	Carbon Disulfide	3.9 U
75-35-4	1,1-Dichloroethene	8.7 U
75-34-3	1,1-Dichloroethane	3.9 U
156-60-5	Trans-1,2-Dichloroethene	5.2 U
67-66-3	Chloroform	4.8 U
107-06-2	1,2-Dichloroethane	4.4 U
78-93-3	2-Butanone	12 U
71-55-6	1,1,1-Trichloroethane	3.1 U
56-23-5	Carbon Tetrachloride	3.3 U
108-05-4	Vinyl Acetate	11.2 U
75-27-4	Bromodichloromethane	2.5 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	3.1 U
10061-02-6	Trans-1,3-Dichloropropene	3.3 U
79-01-6	Trichloroethene	2.7 U
124-48-1	Dibromochloromethane	3.1 U
79-00-5	1,1,2-Trichloroethane	3.1 U
71-43-2	Benzene	3.3 U
10061-01-5	cis-1,3-Dichloropropene	3.3 U
110-75-8	2-Chloroethylvinylether	5.0 U
75-25-2	Bromoform	3.7 U
108-10-1	4-Methyl-2-Pentanone	7.0 U
591-78-6	2-Hexanone	3.7 U
127-18-4	Tetrachloroethene	2.3 U
79-34-5	1,1,2,2-Tetrachloroethane	4.1 U
108-88-3	Toluene	2.9 U
108-90-7	Chlorobenzene	2.5 U
100-41-4	Ethylbenzene	4.1 U
100-42-5	Styrene	5.2 U
	Total Xylenes	4.6 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	64%

Volatile Surrogate Recoveries

d8-Toluene	99.1%
Bromofluorobenzene	97.9%
d4-1,2-Dichloroethane	97.2%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysts not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-11B #1

Lab Sample ID: 1108AM
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Date Release Authorized: *DR Mitchell 10/21/87*

Date extracted: 10/02/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (2 of 4)

Wet weight extracted (gm): 38.5
Percent Moisture: 11.7%
pH: 8.5
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	23 U
111-44-4	bis(2-Chloroethyl)Ether	26 U
95-57-8	2-Chlorophenol	28 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	26 U
100-51-6	Benzyl Alcohol	31 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	35 U
39638-32-9	bis(2-chloroisopropyl)Ether	76 U
106-44-5	4-Methylphenol	18 U
621-64-7	N-Nitroso-Di-n-Propylamine	46 U
67-72-1	Hexachloroethane	46 U
98-95-3	Nitrobenzene	31 U
78-59-1	Isophorone	70 U
88-75-5	2-Nitrophenol	92 U
105-67-9	2,4-Dimethylphenol	82 U
65-85-0	Benzoic Acid	98 U
111-91-1	bis(2-Chloroethoxy)Methane	70 U
120-83-2	2,4-Dichlorophenol	98 U
120-82-1	1,2,4-Trichlorobenzene	54 U
91-20-3	Naphthalene	94 U
106-47-8	4-Chloroaniline	51 U
87-68-3	Hexachlorobutadiene	53 U
59-50-7	4-Chloro-3-Methylphenol	54 U
91-57-6	2-Methylnaphthalene	51 U
77-47-4	Hexachlorocyclopentadiene	50 U
88-06-2	2,4,6-Trichlorophenol	18 U
95-95-4	2,4,5-Trichlorophenol	21 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	93 U
131-11-3	Dimethyl Phthalate	28 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	54 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	33 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	59 U
132-64-9	Dibenzofuran	49 U
121-14-2	2,4-Dinitrotoluene	28 U
606-20-2	2,6-Dinitrotoluene	79 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	42 U
86-73-7	Fluorene	34 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine(1)	93 U
101-55-3	4-Bromophenyl-phenylether	38 U
118-74-1	Hexachlorobenzene	51 U
87-86-5	Pentachlorophenol	37 U
85-01-8	Phenanthrene	49 U
120-12-7	Anthracene	27 U
84-74-2	Di-n-Butylphthalate	45 U
206-44-0	Fluoranthene	100 U
129-00-0	Pyrene	95 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	48 U
56-55-3	Benzo(a)Anthracene	74 U
117-81-7	bis(2-Ethylhexyl)Phthalate	140
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl Phthalate	96 U
205-99-2	Benzo(b)Fluoranthene	29 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	51 U
53-70-3	Dibenz(a,h)Anthracene	59 U
191-24-2	Benzo(ghi)Perylene	54 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	75.3%
2-Fluorobiphenyl	90.6%
d14-p-Terphenyl	118%

***Acid surrogate recoveries**

d5-Phenol	83.7%
2-Fluorophenol	78.8%
2,4,6-Tribromophenol	78.5%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-11B #2

Lab Sample ID: 1108AN
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *PRM [Signature] 10/29/87*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 3.13 gms (Dry Weight)
Percent Moisture: 15.2%
pH: 8.4

CAS Number		µg/Kg
74-87-3	Chloromethane	5.1 U
74-83-9	Bromomethane	6.7 U
75-01-4	Vinyl Chloride	5.9 U
75-00-3	Chloroethane	7.0 U
75-09-2	Methylene Chloride	16 B
67-64-1	Acetone	19 U
75-15-0	Carbon Disulfide	3.2 U
75-35-4	1,1-Dichloroethene	7.2 U
75-34-3	1,1-Dichloroethane	3.2 U
156-60-5	Trans-1,2-Dichloroethene	4.3 U
67-66-3	Chloroform	4.0 U
107-06-2	1,2-Dichloroethane	3.7 U
78-93-3	2-Butanone	10 U
71-55-6	1,1,1-Trichloroethane	2.6 U
56-23-5	Carbon Tetrachloride	2.7 U
108-05-4	Vinyl Acetate	9.3 U
75-27-4	Bromodichloromethane	2.1 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.6 U
10061-02-6	Trans-1,3-Dichloropropene	2.7 U
79-01-6	Trichloroethene	2.2 U
124-48-1	Dibromochloromethane	2.6 U
79-00-5	1,1,2-Trichloroethane	2.6 U
71-43-2	Benzene	2.7 U
10061-01-5	cis-1,3-Dichloropropene	2.7 U
110-75-8	2-Chloroethylvinylether	4.2 U
75-25-2	Bromoform	3.0 U
108-10-1	4-Methyl-2-Pentanone	5.8 U
591-78-6	2-Hexanone	3.0 U
127-18-4	Tetrachloroethene	1.9 U
79-34-5	1,1,2,2-Tetrachloroethane	3.4 U
108-88-3	Toluene	2.4 U
108-90-7	Chlorobenzene	2.1 U
100-41-4	Ethylbenzene	3.4 U
100-42-5	Styrene	4.3 U
	Total Xylenes	3.8 U

Analysis of PCBs

Date of Analysis:		µg/Kg
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	450
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	101%

Volatile Surrogate Recoveries

d8-Toluene	99.1%
Bromofluorobenzene	100%
d4-1,2-Dichloroethane	97.2%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108AN
Sample Matrix: Soils/Sediments

Date Release Authorized: *DR Mitchell 10/29/87*

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (2 of 4)

Sample No: CTP-11B #2

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

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Wet weight extracted (gm): 37.9
Percent Moisture: 15.2%
pH: 8.4
Conc/Dilution: 1 to 10 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	250 U
111-44-4	bis(2-Chloroethyl)Ether	270 U
95-57-8	2-Chlorophenol	300 U
541-73-1	1,3-Dichlorobenzene	110 U
106-46-7	1,4-Dichlorobenzene	280 U
100-51-6	Benzyl Alcohol	320 U
95-50-1	1,2-Dichlorobenzene	73 U
95-48-7	2-Methylphenol	370 U
39638-32-9	bis(2-chloroisopropyl)Ether	800 U
106-44-5	4-Methylphenol	180 U
621-64-7	N-Nitroso-Di-n-Propylamine	490 U
67-72-1	Hexachloroethane	490 U
98-95-3	Nitrobenzene	330 U
78-59-1	Isophorone	740 U
88-75-5	2-Nitrophenol	1000 U
105-67-9	2,4-Dimethylphenol	870 U
65-85-0	Benzoic Acid	1000 U
111-91-1	bis(2-Chloroethoxy)Methane	740 U
120-83-2	2,4-Dichlorophenol	1000 U
120-82-1	1,2,4-Trichlorobenzene	570 U
91-20-3	Naphthalene	12000
106-47-8	4-Chloroaniline	540 U
87-68-3	Hexachlorobutadiene	560 U
59-50-7	4-Chloro-3-Methylphenol	570 U
91-57-6	2-Methylnaphthalene	29000
77-47-4	Hexachlorocyclopentadiene	530 U
88-06-2	2,4,6-Trichlorophenol	190 U
95-95-4	2,4,5-Trichlorophenol	230 U
91-58-7	2-Chloronaphthalene	45 U
88-74-4	2-Nitroaniline	980 U
131-11-3	Dimethyl Phthalate	300 U
208-96-8	Acenaphthylene	850
99-09-2	3-Nitroaniline	580 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1300
51-28-5	2,4-Dinitrophenol	2000 U
100-02-7	4-Nitrophenol	620 U
132-64-9	Dibenzofuran	3100
121-14-2	2,4-Dinitrotoluene	300 U
606-20-2	2,6-Dinitrotoluene	830 U
84-66-2	Diethylphthalate	240 U
7005-72-3	4-Chlorophenyl-phenylether	440 U
86-73-7	Fluorene	4100
100-01-6	4-Nitroaniline	1100 U
534-52-1	4,6-Dinitro-2-Methylphenol	2000 U
86-30-6	N-Nitrosodiphenylamine(1)	990 U
101-55-3	4-Bromophenyl-phenylether	400 U
118-74-1	Hexachlorobenzene	530 U
87-86-5	Pentachlorophenol	390 U
85-01-8	Phenanthrene	8700
120-12-7	Anthracene	5300
84-74-2	Di-n-Butylphthalate	470 U
206-44-0	Fluoranthene	1100 U
129-00-0	Pyrene	1500
85-68-7	Butylbenzylphthalate	1200 U
91-94-1	3,3'-Dichlorobenzidine	500 U
56-55-3	Benzo(a)Anthracene	1000
117-81-7	bis(2-Ethylhexyl)Phthalate	12000
218-01-9	Chrysene	1400
117-84-0	Di-n-Octyl Phthalate	1000 U
205-99-2	Benzo(b)Fluoranthene	310 U
207-08-9	Benzo(k)Fluoranthene	1300 U
50-32-8	Benzo(a)Pyrene	130 U
193-39-5	Indeno(1,2,3-cd)Pyrene	540 U
53-70-3	Dibenz(a,h)Anthracene	630 U
191-24-2	Benzo(ghi)Perylene	570 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	152%
2-Fluorobiphenyl	152%
d14-p-Terphenyl	143%

***Acid surrogate recoveries**

d5-Phenol	151%
2-Fluorophenol	170%
2,4,6-Tribromophenol	85.7%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-11B #3

Lab Sample ID: 1108A0
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *DR Mitchell 10/31/87*

Conc Level: Medium
Date Analyzed: 10/15/87

Amount analyzed: 0.013 gms (Dry Weight Equiv)
Percent Moisture: 48.4%
pH: 8.3

CAS Number		µg/Kg
74-87-3	Chloromethane	1200 U
74-83-9	Bromomethane	1600 U
75-01-4	Vinyl Chloride	1400 U
75-00-3	Chloroethane	1700 U
75-09-2	Methylene Chloride	1300 U
67-64-1	Acetone	56000
75-15-0	Carbon Disulfide	780 U
75-35-4	1,1-Dichloroethene	1700 U
75-34-3	1,1-Dichloroethane	1300
156-60-5	Trans-1,2-Dichloroethene	1000 U
67-66-3	Chloroform	970 U
107-06-2	1,2-Dichloroethane	890 U
78-93-3	2-Butanone	2400 U
71-55-6	1,1,1-Trichloroethane	620 U
56-23-5	Carbon Tetrachloride	660 U
108-05-4	Vinyl Acetate	2200 U
75-27-4	Bromodichloromethane	500 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	620 U
10061-02-6	Trans-1,3-Dichloropropene	660 U
79-01-6	Trichloroethene	1300
124-48-1	Dibromochloromethane	620 U
79-00-5	1,1,2-Trichloroethane	620 U
71-43-2	Benzene	16000
10061-01-5	cis-1,3-Dichloropropene	660 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	740 U
108-10-1	4-Methyl-2-Pentanone	1400 U
591-78-6	2-Hexanone	740 U
127-18-4	Tetrachloroethene	580
79-34-5	1,1,2,2-Tetrachloroethane	810 U
108-88-3	Toluene	94000
108-90-7	Chlorobenzene	500 U
100-41-4	Ethylbenzene	32000
100-42-5	Styrene	1000 U
	Total Xylenes	200000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016 &	
53469-21-9	Aroclor 1242	1100 U*
12672-29-6	Aroclor 1248	1500 U
10097-69-1	Aroclor 1254	5600
11096-82-5	Aroclor 1260	1500 U
	Dibutylchloroendate % Recovery	80%

Volatile Surrogate Recoveries

d8-Toluene	97.0%
Bromofluorobenzene	117%
d4-1,2-Dichloroethane	88.4%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: **CTP-11B #3**

Lab Sample ID: 1108A0
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Date Release Authorized: *ER Mitchell 10/30/87*

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (2 of 20)

Wet weight extracted (gm): 15.8
Percent Moisture: 56.4%
pH: 8.3
Conc/Dilution: 1 to 10 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	4800 U
111-44-4	bis(2-Chloroethyl)Ether	5300 U
95-57-8	2-Chlorophenol	5900 U
541-73-1	1,3-Dichlorobenzene	2100 U
106-46-7	1,4-Dichlorobenzene	5500 U
100-51-6	Benzyl Alcohol	6400 U
95-50-1	1,2-Dichlorobenzene	1400 U
95-48-7	2-Methylphenol	7200 U
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U
106-44-5	4-Methylphenol	3600 U
621-64-7	N-Nitroso-Di-n-Propylamine	9500 U
67-72-1	Hexachloroethane	9500 U
98-95-3	Nitrobenzene	6500 U
78-59-1	Isophorone	14000 U
88-75-5	2-Nitrophenol	19000 U
105-67-9	2,4-Dimethylphenol	17000 U
65-85-0	Benzoic Acid	20000 U
111-91-1	bis(2-Chloroethoxy)Methane	15000 U
120-83-2	2,4-Dichlorophenol	20000 U
120-82-1	1,2,4-Trichlorobenzene	11000 U
91-20-3	Naphthalene	310000
106-47-8	4-Chloroaniline	11000 U
87-68-3	Hexachlorobutadiene	11000 U
59-50-7	4-Chloro-3-Methylphenol	11000 U
91-57-6	2-Methylnaphthalene	620000
77-47-4	Hexachlorocyclopentadiene	10000 U
88-06-2	2,4,6-Trichlorophenol	3700 U
95-95-4	2,4,5-Trichlorophenol	4400 U
91-58-7	2-Chloronaphthalene	880 U
88-74-4	2-Nitroaniline	19000 U
131-11-3	Dimethyl Phthalate	120000
208-96-8	Acenaphthylene	26000
99-09-2	3-Nitroaniline	11000 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	35000
51-28-5	2,4-Dinitrophenol	39000 U
100-02-7	4-Nitrophenol	12000 U
132-64-9	Dibenzofuran	10000 U
121-14-2	2,4-Dinitrotoluene	5900 U
606-20-2	2,6-Dinitrotoluene	16000 U
84-66-2	Diethylphthalate	4800 U
7005-72-3	4-Chlorophenyl-phenylether	8700 U
86-73-7	Fluorene	100000
100-01-6	4-Nitroaniline	22000 U
534-52-1	4,6-Dinitro-2-Methylphenol	40000 U
86-30-6	N-Nitrosodiphenylamine (1)	19000 U
101-55-3	4-Bromophenyl-phenylether	7800 U
118-74-1	Hexachlorobenzene	11000 U
87-86-5	Pentachlorophenol	7700 U
85-01-8	Phenanthrene	220000
120-12-7	Anthracene	52000
84-74-2	Di-n-Butylphthalate	9300 U
206-44-0	Fluoranthene	22000 U
129-00-0	Pyrene	53000
85-68-7	Butylbenzylphthalate	24000 U
91-94-1	3,3'-Dichlorobenzidine	9900 U
56-55-3	Benzo(a)Anthracene	15000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	110000
218-01-9	Chrysene	3800 U
117-84-0	Di-n-Octyl Phthalate	20000 U
205-99-2	Benzo(b)Fluoranthene	6100 U
207-08-9	Benzo(k)Fluoranthene	25000 U
50-32-8	Benzo(a)Pyrene	2600 U
193-39-5	Indeno(1,2,3-cd)Pyrene	11000 U
53-70-3	Dibenz(a,h)Anthracene	12000 U
191-24-2	Benzo(ghi)Perylene	11000 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	DL
d14-p-Terphenyl	DL

***Acid surrogate recoveries**

d5-Phenol	87%
2-Fluorophenol	148%
2,4,6-Tribromophenol	DL



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1108AP
Sample Matrix: Soils/Sediments

Sample No: CTP-11B #4

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *DR Mitchell 10/30/87*

Conc Level: Medium
Date Analyzed: 10/21/87

Amount analyzed: 0.023 gms (Dry Weight Equiv)
Percent Moisture: 7.7%
pH: 9.1

CAS Number		µg/Kg
74-87-3	Chloromethane	690 U
74-83-9	Bromomethane	910 U
75-01-4	Vinyl Chloride	800 U
75-00-3	Chloroethane	950 U
75-09-2	Methylene Chloride	720 U
67-64-1	Acetone	2500 U
75-15-0	Carbon Disulfide	430 U
75-35-4	1,1-Dichloroethene	980 U
75-34-3	1,1-Dichloroethane	430 U
156-60-5	Trans-1,2-Dichloroethene	590 U
67-66-3	Chloroform	540 U
107-06-2	1,2-Dichloroethane	500 U
78-93-3	2-Butanone	1400 U
71-55-6	1,1,1-Trichloroethane	350 U
56-23-5	Carbon Tetrachloride	370 U
108-05-4	Vinyl Acetate	1300 U
75-27-4	Bromodichloromethane	280 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	350 U
10061-02-6	Trans-1,3-Dichloropropene	370 U
79-01-6	Trichloroethene	300 U
124-48-1	Dibromochloromethane	350 U
79-00-5	1,1,2-Trichloroethane	350 U
71-43-2	Benzene	820
10061-01-5	cis-1,3-Dichloropropene	370 U
110-75-8	2-Chloroethylvinylether	560 U
75-25-2	Bromoform	410 U
108-10-1	4-Methyl-2-Pentanone	780 U
591-78-6	2-Hexanone	410 U
127-18-4	Tetrachloroethene	260 U
79-34-5	1,1,2,2-Tetrachloroethane	460 U
108-88-3	Toluene	1300 E
108-90-7	Chlorobenzene	280 U
100-41-4	Ethylbenzene	1900 E
100-42-5	Styrene	590 U
	Total Xylenes	13000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016	500 U
53469-21-9	Aroclor 1242	500 U
12672-29-6	Aroclor 1248	500 U
10097-69-1	Aroclor 1254	500 U
11096-82-5	Aroclor 1260	500 U
	Dibutylchloroendate % Recovery	DL

Volatile Surrogate Recoveries

d8-Toluene	103%
Bromofluorobenzene	117%
d4-1,2-Dichloroethane	101%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108AP
Sample Matrix: Soils/Sediments

Date Release Authorized: *DR Mitchell 10/29/87*

Date extracted: 10/02/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (2 of 10)

Sample No: CTP-11B #4

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-518
(206) 621-6490

Wet weight extracted (gm): 24.4
Percent Moisture: 7.7%
pH: 9.1
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	88 U
111-44-4	bis(2-Chloroethyl)Ether	96 U
95-57-8	2-Chlorophenol	110 U
541-73-1	1,3-Dichlorobenzene	38 U
106-46-7	1,4-Dichlorobenzene	99 U
100-51-6	Benzyl Alcohol	120 U
95-50-1	1,2-Dichlorobenzene	26 U
95-48-7	2-Methylphenol	130 U
39638-32-9	bis(2-chloroisopropyl)Ether	290 U
106-44-5	4-Methylphenol	66 U
621-64-7	N-Nitroso-Di-n-Propylamine	170 U
67-72-1	Hexachloroethane	170 U
98-95-3	Nitrobenzene	120 U
78-59-1	Isophorone	260 U
88-75-5	2-Nitrophenol	350 U
105-67-9	2,4-Dimethylphenol	310 U
65-85-0	Benzoic Acid	370 U
111-91-1	bis(2-Chloroethoxy)Methane	260 U
120-83-2	2,4-Dichlorophenol	370 U
120-82-1	1,2,4-Trichlorobenzene	200 U
91-20-3	Naphthalene	1600
106-47-8	4-Chloroaniline	190 U
87-68-3	Hexachlorobutadiene	200 U
59-50-7	4-Chloro-3-Methylphenol	200 U
91-57-6	2-Methylnaphthalene	3400
77-47-4	Hexachlorocyclopentadiene	190 U
88-06-2	2,4,6-Trichlorophenol	67 U
95-95-4	2,4,5-Trichlorophenol	80 U
91-58-7	2-Chloronaphthalene	16 U
88-74-4	2-Nitroaniline	350 U
131-11-3	Dimethyl Phthalate	110 U
208-96-8	Acenaphthylene	22 U
99-09-2	3-Nitroaniline	210 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	360
51-28-5	2,4-Dinitrophenol	700 U
100-02-7	4-Nitrophenol	220 U
132-64-9	Dibenzofuran	180 U
121-14-2	2,4-Dinitrotoluene	110 U
606-20-2	2,6-Dinitrotoluene	300 U
84-66-2	Diethylphthalate	87 U
7005-72-3	4-Chlorophenyl-phenylether	160 U
86-73-7	Fluorene	640
100-01-6	4-Nitroaniline	410 U
534-52-1	4,6-Dinitro-2-Methylphenol	730 U
86-30-6	N-Nitrosodiphenylamine(1)	350 U
101-55-3	4-Bromophenyl-phenylether	140 U
118-74-1	Hexachlorobenzene	190 U
87-86-5	Pentachlorophenol	140 U
85-01-8	Phenanthrene	2100
120-12-7	Anthracene	1800
84-74-2	Di-n-Butylphthalate	170 U
206-44-0	Fluoranthene	390 U
129-00-0	Pyrene	360 U
85-68-7	Butylbenzylphthalate	440 U
91-94-1	3,3'-Dichlorobenzidine	180 U
56-55-3	Benzo(a)Anthracene	280 U
117-81-7	bis(2-Ethylhexyl)Phthalate	430 U
218-01-9	Chrysene	70 U
117-84-0	Di-n-Octyl Phthalate	360 U
205-99-2	Benzo(b)Fluoranthene	110 U
207-08-9	Benzo(k)Fluoranthene	460 U
50-32-8	Benzo(a)Pyrene	47 U
193-39-5	Indeno(1,2,3-cd)Pyrene	190 U
53-70-3	Dibenz(a,h)Anthracene	220 U
191-24-2	Benzo(ghi)Perylene	200 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	5.2%
d14-p-Terphenyl	6.9%

***Acid surrogate recoveries**

d5-Phenol	20.6%
2-Fluorophenol	DL
2,4,6-Tribromophenol	DL



**ANALYTICAL
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Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTB-12B #1

Lab Sample ID: 1108J
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *BR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 3.91 gms (Dry Weight)
Percent Moisture: 12.2%
pH: 8.3

CAS Number		µg/Kg
74-87-3	Chloromethane	4.1 U
74-83-9	Bromomethane	5.4 U
75-01-4	Vinyl Chloride	4.7 U
75-00-3	Chloroethane	5.6 U
75-09-2	Methylene Chloride	6.2 B
67-64-1	Acetone	15 U
75-15-0	Carbon Disulfide	2.6 U
75-35-4	1,1-Dichloroethene	5.8 U
75-34-3	1,1-Dichloroethane	2.6 U
156-60-5	Trans-1,2-Dichloroethene	3.5 U
67-66-3	Chloroform	3.2 U
107-06-2	1,2-Dichloroethane	2.9 U
78-93-3	2-Butanone	8.1 U
71-55-6	1,1,1-Trichloroethane	2.0 U
56-23-5	Carbon Tetrachloride	2.2 U
108-05-4	Vinyl Acetate	7.4 U
75-27-4	Bromodichloromethane	1.7 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.0 U
10061-02-6	Trans-1,3-Dichloropropene	2.2 U
79-01-6	Trichloroethene	1.8 U
124-48-1	Dibromochloromethane	2.0 U
79-00-5	1,1,2-Trichloroethane	2.0 U
71-43-2	Benzene	2.2 U
10061-01-5	cis-1,3-Dichloropropene	2.2 U
110-75-8	2-Chloroethylvinylether	3.3 U
75-25-2	Bromoform	2.4 U
108-10-1	4-Methyl-2-Pentanone	4.6 U
591-78-6	2-Hexanone	2.4 U
127-18-4	Tetrachloroethene	1.5 U
79-34-5	1,1,2,2-Tetrachloroethane	2.7 U
108-88-3	Toluene	1.9 U
108-90-7	Chlorobenzene	1.7 U
100-41-4	Ethylbenzene	2.7 U
100-42-5	Styrene	3.5 U
	Total Xylenes	3.1 U*

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	90%

Volatile Surrogate Recoveries

d8-Toluene	103%
Bromofluorobenzene	93.1%
d4-1,2-Dichloroethane	92.2%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTB-12 B#1

Lab Sample ID: 1108J
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: *DR Mitchell 10/28/87*

Date extracted: 09/29/87
Date Analyzed: 10/01/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 37.2
Percent Moisture: 12.2%
pH: 8.3
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	24 U
111-44-4	bis(2-Chloroethyl)Ether	27 U
95-57-8	2-Chlorophenol	29 U
541-73-1	1,3-Dichlorobenzene	11 U
106-46-7	1,4-Dichlorobenzene	27 U
100-51-6	Benzyl Alcohol	32 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	36 U
39638-32-9	bis(2-chloroisopropyl)Ether	79 U
106-44-5	4-Methylphenol	18 U
621-64-7	N-Nitroso-Di-n-Propylamine	48 U
67-72-1	Hexachloroethane	48 U
98-95-3	Nitrobenzene	33 U
78-59-1	Isophorone	73 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	86 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(2-Chloroethoxy)Methane	73 U
120-83-2	2,4-Dichlorophenol	100 U
120-82-1	1,2,4-Trichlorobenzene	56 U
91-20-3	Naphthalene	98 U*
106-47-8	4-Chloroaniline	53 U
87-68-3	Hexachlorobutadiene	55 U
59-50-7	4-Chloro-3-Methylphenol	56 U
91-57-6	2-Methylnaphthalene	190
77-47-4	Hexachlorocyclopentadiene	52 U
88-06-2	2,4,6-Trichlorophenol	18 U
95-95-4	2,4,5-Trichlorophenol	22 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethyl Phthalate	29 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	57 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	34 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	61 U
132-64-9	Dibenzofuran	50 U
121-14-2	2,4-Dinitrotoluene	30 U
606-20-2	2,6-Dinitrotoluene	82 U
84-66-2	Diethylphthalate	24 U
7005-72-3	4-Chlorophenyl-phenylether	43 U
86-73-7	Fluorene	52
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine(1)	97 U
101-55-3	4-Bromophenyl-phenylether	39 U
118-74-1	Hexachlorobenzene	53 U
87-86-5	Pentachlorophenol	39 U
85-01-8	Phenanthrene	120
120-12-7	Anthracene	43
84-74-2	Di-n-Butylphthalate	47 U
206-44-0	Fluoranthene	110 U*
129-00-0	Pyrene	99 U*
85-68-7	Butylbenzylphthalate	120 U*
91-94-1	3,3'-Dichlorobenzidine	49 U
56-55-3	Benzo(a)Anthracene	77 U
117-81-7	bis(2-Ethylhexyl)Phthalate	510
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl Phthalate	100 U
205-99-2	Benzo(b)Fluoranthene	31 U
207-08-9	Benzo(k)Fluoranthene	130 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	53 U
53-70-3	Dibenz(a,h)Anthracene	62 U
191-24-2	Benzo(ghi)Perylene	56 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	74.0%
2-Fluorobiphenyl	99.7%
d14-p-Terphenyl	121%

***Acid surrogate recoveries**

d5-Phenol	87.9%
2-Fluorophenol	106%
2,4,6-Tribromophenol	91.9%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTB-12B #2

Lab Sample ID: 1108K
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: DR Mitchell 10/25/87

Conc Level: Medium
Date Analyzed: 10/13/87

Amount analyzed: 0.0022 gms (Dry Weight Equiv)
Percent Moisture: 11.8%
pH: 8.6

CAS Number		µg/Kg
74-87-3	Chloromethane	7300 U
74-83-9	Bromomethane	9600 U
75-01-4	Vinyl Chloride	8400 U
75-00-3	Chloroethane	10000 U
75-09-2	Methylene Chloride	7500 U
67-64-1	Acetone	26000 U
75-15-0	Carbon Disulfide	4600 U
75-35-4	1,1-Dichloroethene	10000 U
75-34-3	1,1-Dichloroethane	4600 U
156-60-5	Trans-1,2-Dichloroethene	6200 U
67-66-3	Chloroform	5700 U
107-06-2	1,2-Dichloroethane	5200 U
78-93-3	2-Butanone	14000 U
71-55-6	1,1,1-Trichloroethane	3600 U
56-23-5	Carbon Tetrachloride	3900 U
108-05-4	Vinyl Acetate	13000 U
75-27-4	Bromodichloromethane	3000 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	3600 U
10061-02-6	Trans-1,3-Dichloropropene	3900 U
79-01-6	Trichloroethene	3200 U
124-48-1	Dibromochloromethane	3600 U
79-00-5	1,1,2-Trichloroethane	3600 U
71-43-2	Benzene	3900 U
10061-01-5	cis-1,3-Dichloropropene	3900 U
110-75-8	2-Chloroethylvinylether	5900 U
75-25-2	Bromoform	4300 U
108-10-1	4-Methyl-2-Pentanone	8200 U
591-78-6	2-Hexanone	4300 U
127-18-4	Tetrachloroethene	2700 U
79-34-5	1,1,2,2-Tetrachloroethane	4800 U
108-88-3	Toluene	5300
108-90-7	Chlorobenzene	3000 U
100-41-4	Ethylbenzene	5600
100-42-5	Styrene	6200 U
	Total Xylenes	36000

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	
53469-21-9	Aroclor 1242	110
12672-29-6	Aroclor 1248	100 U
10097-69-1	Aroclor 1254	80 J
11096-82-5	Aroclor 1260	100 U
	Dibutylchloroendate %Recovery	99%

Volatile Surrogate Recoveries

d8-Toluene	99.8%
Bromofluorobenzene	98.3%
d4-1,2-Dichloroethane	94.0%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



**ANALYTICAL
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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: **CTB-12 B#2**

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Lab Sample ID: 1108K
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Date Release Authorized: *DR Mitchell 10/28/87*

Date extracted: 09/29/87
Date Analyzed: 09/30/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 27.1
Percent Moisture: 11.8%
pH: 8.6
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
08-95-2	Phenol	170 U
11-44-4	bis(2-Chloroethyl)Ether	180 U
95-57-8	2-Chlorophenol	200 U
541-73-1	1,3-Dichlorobenzene	72 U
106-46-7	1,4-Dichlorobenzene	190 U
100-51-6	Benzyl Alcohol	220 U
95-50-1	1,2-Dichlorobenzene	49 U
95-48-7	2-Methylphenol	250 U
39638-32-9	bis(2-chloroisopropyl)Ether	540 U
106-44-5	4-Methylphenol	120 U
521-64-7	N-Nitroso-Di-n-Propylamine	330 U
67-72-1	Hexachloroethane	330 U
98-95-3	Nitrobenzene	220 U
78-59-1	Isophorone	500 U
88-75-5	2-Nitrophenol	660 U
105-67-9	2,4-Dimethylphenol	590 U
65-85-0	Benzoic Acid	700 U
111-91-1	bis(2-Chloroethoxy)Methane	500 U
120-83-2	2,4-Dichlorophenol	700 U
120-82-1	1,2,4-Trichlorobenzene	380 U
91-20-3	Naphthalene	42000
106-47-8	4-Chloroaniline	360 U
87-68-3	Hexachlorobutadiene	370 U
59-50-7	4-Chloro-3-Methylphenol	380 U
91-57-6	2-Methylnaphthalene	91000
77-47-4	Hexachlorocyclopentadiene	350 U
88-06-2	2,4,6-Trichlorophenol	130 U
95-95-4	2,4,5-Trichlorophenol	150 U
91-58-7	2-Chloronaphthalene	30 U
88-74-4	2-Nitroaniline	660 U
131-11-3	Dimethyl Phthalate	200 U
208-96-8	Acenaphthylene	7500
99-09-2	3-Nitroaniline	390 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	4300
51-28-5	2,4-Dinitrophenol	1300 U
100-02-7	4-Nitrophenol	420 U
132-64-9	Dibenzofuran	4700
121-14-2	2,4-Dinitrotoluene	200 U
606-20-2	2,6-Dinitrotoluene	560 U
84-66-2	Diethylphthalate	160 U
7005-72-3	4-Chlorophenyl-phenylether	300 U
86-73-7	Fluorene	13000
100-01-6	4-Nitroaniline	770 U
534-52-1	4,6-Dinitro-2-Methylphenol	1400 U
86-30-6	N-Nitrosodiphenylamine (1)	670 U
101-55-3	4-Bromophenyl-phenylether	270 U
118-74-1	Hexachlorobenzene	360 U
87-86-5	Pentachlorophenol	260 U
85-01-8	Phenanthrene	28000
120-12-7	Anthracene	18000
84-74-2	Di-n-Butylphthalate	320 U
206-44-0	Fluoranthene	1900
129-00-0	Pyrene	4400
85-68-7	Butylbenzylphthalate	840 U*
91-94-1	3,3'-Dichlorobenzidine	340 U
56-55-3	Benzo(a)Anthracene	2100
117-81-7	bis(2-Ethylhexyl)Phthalate	3200
218-01-9	Chrysene	2200
117-84-0	Di-n-Octyl Phthalate	680 U
205-99-2	Benzo(b)Fluoranthene	620
207-08-9	Benzo(k)Fluoranthene	870 U*
50-32-8	Benzo(a)Pyrene	1000
193-39-5	Indeno(1,2,3-cd)Pyrene	360 U
53-70-3	Dibenz(a,h)Anthracene	420 U
191-24-2	Benzo(ghi)Perylene	380 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	53.2%
2-Fluorobiphenyl	111%
d14-p-Terphenyl	101%

***Acid surrogate recoveries**

d5-Phenol	70.9%
2-Fluorophenol	62.0%
2,4,6-Tribromophenol	64.1%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-13B #1

Analytical
Chemists &
Consultants

Lab Sample ID: 1108AH
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

333 Ninth Ave. North
Seattle, Wa 98109-51E
(206) 621-6490

Data Release Authorized: *CR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 3.02 gms (Dry Weight)
Percent Moisture: 11.3%
pH: 6.1

CAS Number		µg/Kg
74-87-3	Chloromethane	5.3 U
74-83-9	Bromomethane	7.0 U
75-01-4	Vinyl Chloride	6.1 U
75-00-3	Chloroethane	7.3 U
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	19 U
75-15-0	Carbon Disulfide	3.3 U
75-35-4	1,1-Dichloroethene	7.5 U
75-34-3	1,1-Dichloroethane	3.3 U
156-60-5	Trans-1,2-Dichloroethene	4.5 U
67-66-3	Chloroform	4.1 U
107-06-2	1,2-Dichloroethane	3.8 U
78-93-3	2-Butanone	10 U
71-55-6	1,1,1-Trichloroethane	2.6 U
56-23-5	Carbon Tetrachloride	2.8 U
108-05-4	Vinyl Acetate	9.6 U
75-27-4	Bromodichloromethane	2.2 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	2.6 U
10061-02-6	Trans-1,3-Dichloropropene	2.8 U
79-01-6	Trichloroethene	2.3 U
124-48-1	Dibromochloromethane	2.6 U
79-00-5	1,1,2-Trichloroethane	2.6 U
71-43-2	Benzene	2.8 U
10061-01-5	cis-1,3-Dichloropropene	2.8 U
110-75-8	2-Chloroethylvinylether	4.3 U
75-25-2	Bromoform	3.1 U
108-10-1	4-Methyl-2-Pentanone	6.0 U
591-78-6	2-Hexanone	3.1 U
127-18-4	Tetrachloroethene	2.0 U
79-34-5	1,1,2,2-Tetrachloroethane	3.5 U
108-88-3	Toluene	2.5 U
108-90-7	Chlorobenzene	2.2 U
100-41-4	Ethylbenzene	3.5 U
100-42-5	Styrene	4.5 U
	Total Xylenes	4.0 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	174%

Volatile Surrogate Recoveries

d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	96.7%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required

**ANALYTICAL
RESOURCES
INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5116
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 625**Lab Sample ID: 1108AH
Sample Matrix: Soils/SedimentsDate Release Authorized: *DR Mitchell 10/29/87*Date extracted: 10/02/87
Date Analyzed: 10/08/87
GPC Clean-up: YES (2 of 4)

Sample No: CTP-13B #1

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987Wet weight extracted (gm): 38.6
Percent Moisture: 11.3%
pH: 6.1
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	23 U
111-44-4	bis(2-Chloroethyl)Ether	25 U
95-57-8	2-Chlorophenol	28 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	26 U
100-51-6	Benzyl Alcohol	30 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	34 U
39638-32-9	bis(2-chloroisopropyl)Ether	75 U
106-44-5	4-Methylphenol	17 U
621-64-7	N-Nitroso-Di-n-Propylamine	46 U
67-72-1	Hexachloroethane	46 U
98-95-3	Nitrobenzene	31 U
78-59-1	Isophorone	69 U
88-75-5	2-Nitrophenol	92 U
105-67-9	2,4-Dimethylphenol	82 U
65-85-0	Benzoic Acid	97 U
111-91-1	bis(2-Chloroethoxy)Methane	69 U
120-83-2	2,4-Dichlorophenol	97 U
120-82-1	1,2,4-Trichlorobenzene	53 U
91-20-3	Naphthalene	94 U
106-47-8	4-Chloroaniline	50 U
87-68-3	Hexachlorobutadiene	52 U
59-50-7	4-Chloro-3-Methylphenol	54 U
91-57-6	2-Methylnaphthalene	51 U
77-47-4	Hexachlorocyclopentadiene	49 U
88-06-2	2,4,6-Trichlorophenol	18 U
95-95-4	2,4,5-Trichlorophenol	21 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	92 U
131-11-3	Dimethyl Phthalate	28 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	54 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	33 U
51-28-5	2,4-Dinitrophenol	180 U
100-02-7	4-Nitrophenol	59 U
132-64-9	Dibenzofuran	48 U
121-14-2	2,4-Dinitrotoluene	28 U
606-20-2	2,6-Dinitrotoluene	78 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	41 U
86-73-7	Fluorene	34 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine (1)	93 U
101-55-3	4-Bromophenyl-phenylether	38 U
118-74-1	Hexachlorobenzene	50 U
87-86-5	Pentachlorophenol	37 U
85-01-8	Phenanthrene	49 U
120-12-7	Anthracene	26 U
84-74-2	Di-n-Butylphthalate	44 U
206-44-0	Fluoranthene	100 U
129-00-0	Pyrene	94 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	47 U
56-55-3	Benzo(a)Anthracene	73 U
117-81-7	bis(2-Ethylhexyl)Phthalate	710
218-01-9	Chrysene	18 U
117-84-0	Di-n-Octyl Phthalate	95 U
205-99-2	Benzo(b)Fluoranthene	29 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	50 U
53-70-3	Dibenz(a,h)Anthracene	59 U
191-24-2	Benzo(ghi)Perylene	53 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	71.2%
2-Fluorobiphenyl	91.0%
d14-p-Terphenyl	108%

***Acid surrogate recoveries**

d5-Phenol	80.9%
2-Fluorophenol	78.3%
2,4,6-Tribromophenol	78.1%



**ANALYTICAL
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333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTP-13B #2

Lab Sample ID: 1108A1
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *DR Muttill 10/25/87*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 1.40 gms (Dry Weight)
Percent Moisture: 25.5%
pH: 7.2

CAS Number		µg/Kg
74-87-3	Chloromethane	11 U
74-83-9	Bromomethane	15 U
75-01-4	Vinyl Chloride	13 U
75-00-3	Chloroethane	16 U
75-09-2	Methylene Chloride	15 B
67-64-1	Acetone	41 U
75-15-0	Carbon Disulfide	7.1 U
75-35-4	1,1-Dichloroethene	16 U
75-34-3	1,1-Dichloroethane	7.1 U
156-60-5	Trans-1,2-Dichloroethene	9.6 U
67-66-3	Chloroform	8.9 U
107-06-2	1,2-Dichloroethane	8.2 U
78-93-3	2-Butanone	22 U
71-55-6	1,1,1-Trichloroethane	5.7 U
56-23-5	Carbon Tetrachloride	6.1 U
108-05-4	Vinyl Acetate	21 U
75-27-4	Bromodichloromethane	4.6 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	5.7 U
10061-02-6	Trans-1,3-Dichloropropene	6.1 U
79-01-6	Trichloroethene	5.0 U
124-48-1	Dibromochloromethane	5.7 U
79-00-5	1,1,2-Trichloroethane	5.7 U
71-43-2	Benzene	6.1 U
10061-01-5	cis-1,3-Dichloropropene	6.1 U
110-75-8	2-Chloroethylvinylether	9.3 U
75-25-2	Bromoform	6.8 U
108-10-1	4-Methyl-2-Pentanone	13 U
591-78-6	2-Hexanone	6.8 U
127-18-4	Tetrachloroethene	4.3 U
79-34-5	1,1,2,2-Tetrachloroethane	7.5 U
108-88-3	Toluene	5.4 U
108-90-7	Chlorobenzene	4.6 U
100-41-4	Ethylbenzene	7.5 U
100-42-5	Styrene	9.6 U
	Total Xylenes	8.6 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate %Recovery	60%

Volatile Surrogate Recoveries

d8-Toluene	99.0%
Bromofluorobenzene	100%
d4-1,2-Dichloroethane	96.7%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required

**ANALYTICAL
RESOURCES
INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 625****Sample No: CTP-13B #2**Lab Sample ID: 1108AI
Sample Matrix: Soils/SedimentsQC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987Date Release Authorized: *DR Mitchell 10/29/87*Date extracted: 10/02/87
Date Analyzed: 10/09/87
GPC Clean-up: YES (2 of 4)Wet weight extracted (gm): 40.5
Percent Moisture: 25.5%
pH: 7.2
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	26 U
111-44-4	bis(2-Chloroethyl)Ether	29 U
95-57-8	2-Chlorophenol	32 U
541-73-1	1,3-Dichlorobenzene	12 U
106-46-7	1,4-Dichlorobenzene	30 U
100-51-6	Benzyl Alcohol	35 U
95-50-1	1,2-Dichlorobenzene	8 U
95-48-7	2-Methylphenol	39 U
39638-32-9	bis(2-chloroisopropyl)Ether	85 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	52 U
67-72-1	Hexachloroethane	52 U
98-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	79 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	93 U
65-85-0	Benzoic Acid	110 U
111-91-1	bis(2-Chloroethoxy)Methane	79 U
120-83-2	2,4-Dichlorophenol	110 U
120-82-1	1,2,4-Trichlorobenzene	60 U
91-20-3	Naphthalene	110 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	59 U
59-50-7	4-Chloro-3-Methylphenol	61 U
91-57-6	2-Methylnaphthalene	57 U
77-47-4	Hexachlorocyclopentadiene	56 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,5-Trichlorophenol	24 U
91-58-7	2-Chloronaphthalene	5 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	32 U
208-96-8	Acenaphthylene	7 U
99-09-2	3-Nitroaniline	61 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	37 U
51-28-5	2,4-Dinitrophenol	210 U
100-02-7	4-Nitrophenol	66 U
132-64-9	Dibenzofuran	55 U
121-14-2	2,4-Dinitrotoluene	32 U
606-20-2	2,6-Dinitrotoluene	89 U
84-66-2	Diethylphthalate	26 U
7005-72-3	4-Chlorophenyl-phenylether	47 U
86-73-7	Fluorene	38 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	220 U
86-30-6	N-Nitrosodiphenylamine(1)	110 U
101-55-3	4-Bromophenyl-phenylether	43 U
118-74-1	Hexachlorobenzene	57 U
87-86-5	Pentachlorophenol	42 U
85-01-8	Phenanthrene	55 U
120-12-7	Anthracene	30 U
84-74-2	Di-n-Butylphthalate	50 U
206-44-0	Fluoranthene	120 U
129-00-0	Pyrene	110 U
85-68-7	Butylbenzylphthalate	130 U
91-94-1	3,3'-Dichlorobenzidine	54 U
56-55-3	Benzo(a)Anthracene	83 U
117-81-7	bis(2-Ethylhexyl)Phthalate	130 U
218-01-9	Chrysene	21 U
117-84-0	Di-n-Octyl Phthalate	110 U
205-99-2	Benzo(b)Fluoranthene	33 U
207-08-9	Benzo(k)Fluoranthene	140 U
50-32-8	Benzo(a)Pyrene	14 U
193-39-5	Indeno(1,2,3-cd)Pyrene	57 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	61 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	79.0%
2-Fluorobiphenyl	96.7%
d14-p-Terphenyl	114%

***Acid surrogate recoveries**

d5-Phenol	87.4%
2-Fluorophenol	85.2%
2,4,6-Tribromophenol	83.1%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-13B #3

Lab Sample ID: 1108AJ
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *DR Mitchell 10/30/87*

Conc Level: Medium
Date Analyzed: 10/15/87

Amount analyzed: 0.023 gms (Dry Weight Equiv)
Percent Moisture: 6.2%
pH: 8.1

CAS Number		µg/Kg
74-87-3	Chloromethane	680 U
74-83-9	Bromomethane	900 U
75-01-4	Vinyl Chloride	790 U
75-00-3	Chloroethane	940 U
75-09-2	Methylene Chloride	700 U
67-64-1	Acetone	2500 U
75-15-0	Carbon Disulfide	430 U
75-35-4	1,1-Dichloroethene	960 U
75-34-3	1,1-Dichloroethane	430 U
156-60-5	Trans-1,2-Dichloroethene	580 U
67-66-3	Chloroform	530 U
107-06-2	1,2-Dichloroethane	490 U
78-93-3	2-Butanone	1300 U
71-55-6	1,1,1-Trichloroethane	340 U
56-23-5	Carbon Tetrachloride	360 U
108-05-4	Vinyl Acetate	1200 U
75-27-4	Bromodichloromethane	280 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	340 U
10061-02-6	Trans-1,3-Dichloropropene	360 U
79-01-6	Trichloroethene	300 U
124-48-1	Dibromochloromethane	340 U
79-00-5	1,1,2-Trichloroethane	340 U
71-43-2	Benzene	370
10061-01-5	cis-1,3-Dichloropropene	360 U
110-75-8	2-Chloroethylvinylether	550 U
75-25-2	Bromoform	410 U
108-10-1	4-Methyl-2-Pentanone	770 U
591-78-6	2-Hexanone	410 U
127-18-4	Tetrachloroethene	260 U
79-34-5	1,1,2,2-Tetrachloroethane	450 U
108-88-3	Toluene	320 U
108-90-7	Chlorobenzene	280 U
100-41-4	Ethylbenzene	450 U
100-42-5	Styrene	580 U
	Total Xylenes	2000

Analysis of PCBs

Date of Analysis: 10/09/87		µg/Kg
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	52%

Volatile Surrogate Recoveries

d8-Toluene	100%
Bromofluorobenzene	120%
d4-1,2-Dichloroethane	89.6%

GC/MS Data Reporting Qualifiers

- | | | | |
|-------|--|----|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | B | This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination. |
| U | Indicates compound was analyzed for but not detected at the given detection limit. | K | This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run. |
| U* | Indicates analyte found and confirmed but is less than specified detection limit. | NR | Analysis not required |



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-13B #3

Lab Sample ID: 1108AJ
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Date Release Authorized: *DR Mitchell 10/29/87*

Date extracted: 10/02/87
Date Analyzed: 10/12/87
GPC Clean-up: YES (2 of 4)

Wet weight extracted (gm): 23.1
Percent Moisture: 6.2%
pH: 8.1
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	180 U
111-44-4	bis(2-Chloroethyl)Ether	200 U
95-57-8	2-Chlorophenol	220 U
541-73-1	1,3-Dichlorobenzene	80 U
106-46-7	1,4-Dichlorobenzene	210 U
100-51-6	Benzyl Alcohol	240 U
95-50-1	1,2-Dichlorobenzene	54 U
95-48-7	2-Methylphenol	270 U
39638-32-9	bis(2-chloroisopropyl)Ether	590 U
106-44-5	4-Methylphenol	140 U
621-64-7	N-Nitroso-Di-n-Propylamine	360 U
67-72-1	Hexachloroethane	360 U
98-95-3	Nitrobenzene	240 U
78-59-1	Isophorone	550 U
88-75-5	2-Nitrophenol	720 U
105-67-9	2,4-Dimethylphenol	650 U
65-85-0	Benzoic Acid	770 U
111-91-1	bis(2-Chloroethoxy)Methane	550 U
120-83-2	2,4-Dichlorophenol	770 U
120-82-1	1,2,4-Trichlorobenzene	420 U
91-20-3	Naphthalene	12000
106-47-8	4-Chloroaniline	400 U
87-68-3	Hexachlorobutadiene	410 U
59-50-7	4-Chloro-3-Methylphenol	420 U
91-57-6	2-Methylnaphthalene	34000
77-47-4	Hexachlorocyclopentadiene	390 U
88-06-2	2,4,6-Trichlorophenol	140 U
95-95-4	2,4,5-Trichlorophenol	170 U
91-58-7	2-Chloronaphthalene	33 U
88-74-4	2-Nitroaniline	730 U
131-11-3	Dimethyl Phthalate	220 U
208-96-8	Acenaphthylene	1400
99-09-2	3-Nitroaniline	430 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1500
51-28-5	2,4-Dinitrophenol	1500 U
100-02-7	4-Nitrophenol	460 U
132-64-9	Dibenzofuran	2200
121-14-2	2,4-Dinitrotoluene	220 U
606-20-2	2,6-Dinitrotoluene	620 U
84-66-2	Diethylphthalate	180 U
7005-72-3	4-Chlorophenyl-phenylether	330 U
86-73-7	Fluorene	4000
100-01-6	4-Nitroaniline	850 U
534-52-1	4,6-Dinitro-2-Methylphenol	1500 U
86-30-6	N-Nitrosodiphenylamine(1)	730 U
101-55-3	4-Bromophenyl-phenylether	300 U
118-74-1	Hexachlorobenzene	400 U
87-86-5	Pentachlorophenol	290 U
85-01-8	Phenanthrene	12000
120-12-7	Anthracene	1500
84-74-2	Di-n-Butylphthalate	350 U
206-44-0	Fluoranthene	820 U*
129-00-0	Pyrene	1200
85-68-7	Butylbenzylphthalate	920 U
91-94-1	3,3'-Dichlorobenzidine	370 U
56-55-3	Benzo(a)Anthracene	660
117-81-7	bis(2-Ethylhexyl)Phthalate	1800
218-01-9	Chrysene	1100
117-84-0	Di-n-Octyl Phthalate	750 U
205-99-2	Benzo(b)Fluoranthene	230 U
207-08-9	Benzo(k)Fluoranthene	960 U
50-32-8	Benzo(a)Pyrene	98 U
193-39-5	Indeno(1,2,3-cd)Pyrene	400 U
53-70-3	Dibenz(a,h)Anthracene	460 U
191-24-2	Benzo(ghi)Perylene	420 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	49.3%
2-Fluorobiphenyl	109%
d14-p-Terphenyl	100%

***Acid surrogate recoveries**

d5-Phenol	126%
2-Fluorophenol	72.7%
2,4,6-Tribromophenol	40.5%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-14 B#1

Lab Sample ID: 1108A
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Data Release Authorized: *BR Mitchell 10/23/87*

Conc Level: Low
Date Analyzed: 09/25/87

Amount analyzed: 4.62 gms (Dry Weight)
Percent Moisture: 11.2%
pH: 4.7

CAS Number		µg/Kg
74-87-3	Chloromethane	3.5 U
74-83-9	Bromomethane	4.5 U
75-01-4	Vinyl Chloride	4.0 U
75-00-3	Chloroethane	4.8 U
75-09-2	Methylene Chloride	46
67-64-1	Acetone	13 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	4.9 U
75-34-3	1,1-Dichloroethane	2.2 U
156-60-5	Trans-1,2-Dichloroethene	2.9 U
67-66-3	Chloroform	2.7 U
107-06-2	1,2-Dichloroethane	2.5 U
78-93-3	2-Butanone	6.8 U
71-55-6	1,1,1-Trichloroethane	1.7 U
56-23-5	Carbon Tetrachloride	1.8 U
108-05-4	Vinyl Acetate	6.3 U
75-27-4	Bromodichloromethane	1.4 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.7 U
10061-02-6	Trans-1,3-Dichloropropene	1.8 U
79-01-6	Trichloroethene	1.5 U
124-48-1	Dibromochloromethane	1.7 U
79-00-5	1,1,2-Trichloroethane	1.7 U
71-43-2	Benzene	1.8 U
10061-01-5	cis-1,3-Dichloropropene	1.8 U
110-75-8	2-Chloroethylvinylether	2.8 U
75-25-2	Bromoform	2.1 U
108-10-1	4-Methyl-2-Pentanone	3.9 U
591-78-6	2-Hexanone	2.1 U
127-18-4	Tetrachloroethene	1.3 U
79-34-5	1,1,2,2-Tetrachloroethane	2.3 U
108-88-3	Toluene	1.6 U
108-90-7	Chlorobenzene	1.4 U
100-41-4	Ethylbenzene	2.3 U
100-42-5	Styrene	2.9 U
	Total Xylenes	2.6 U

Analysis of PCBs

Date of Analysis: 10/1/87		µg/Kg
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
Dibutylchloroendate %Recovery		165%

Volatile Surrogate Recoveries

d8-Toluene	99.5%
Bromofluorobenzene	98.8%
d4-1,2-Dichloroethane	95.4%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysts not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108A
Sample Matrix: Soils/Sediments

Date Release Authorized: *DR Mitchell 10/27/87*

Date extracted: 09/25/87
Date Analyzed: 09/30/87
GPC Clean-up: YES (1 of 2)

Sample No: CTP-14 B*1

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

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Seattle, Wa 98109-5187
(206) 621-6490

Wet weight extracted (gm): 39.2
Percent Moisture: 11.2%
pH: 4.7
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	23 U
111-44-4	bis(2-Chloroethyl)Ether	25 U
95-57-8	2-Chlorophenol	28 U
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	26 U
100-51-6	Benzyl Alcohol	30 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	34 U
39638-32-9	bis(2-chloroisopropyl)Ether	74 U
106-44-5	4-Methylphenol	17 U
621-64-7	N-Nitroso-Di-n-Propylamine	45 U
67-72-1	Hexachloroethane	45 U
98-95-3	Nitrobenzene	31 U
78-59-1	Isophorone	68 U
88-75-5	2-Nitrophenol	90 U
105-67-9	2,4-Dimethylphenol	81 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(2-Chloroethoxy)Methane	68 U
120-83-2	2,4-Dichlorophenol	100 U
120-82-1	1,2,4-Trichlorobenzene	53 U
91-20-3	Naphthalene	90 U
106-47-8	4-Chloroaniline	50 U
87-68-3	Hexachlorobutadiene	52 U
59-50-7	4-Chloro-3-Methylphenol	53 U
91-57-6	2-Methylnaphthalene	50 U
77-47-4	Hexachlorocyclopentadiene	49 U
88-06-2	2,4,6-Trichlorophenol	17 U
95-95-4	2,4,5-Trichlorophenol	21 U
91-58-7	2-Chloronaphthalene	4 U
88-74-4	2-Nitroaniline	90 U
131-11-3	Dimethyl Phthalate	28 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	53 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	32 U
51-28-5	2,4-Dinitrophenol	180 U
100-02-7	4-Nitrophenol	58 U
132-64-9	Dibenzofuran	47 U
121-14-2	2,4-Dinitrotoluene	28 U
606-20-2	2,6-Dinitrotoluene	77 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	41 U
86-73-7	Fluorene	33 U
100-01-6	4-Nitroaniline	110 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine(1)	90 U
101-55-3	4-Bromophenyl-phenylether	37 U
118-74-1	Hexachlorobenzene	49 U
87-86-5	Pentachlorophenol	36 U
85-01-8	Phenanthrene	48 U
120-12-7	Anthracene	26 U
84-74-2	Di-n-Butylphthalate	44 U
206-44-0	Fluoranthene	100 U
129-00-0	Pyrene	90 U
85-68-7	Butylbenzylphthalate	120 U
91-94-1	3,3'-Dichlorobenzidine	46 U
56-55-3	Benzo(a)Anthracene	72 U
117-81-7	bis(2-Ethylhexyl)Phthalate	110 U*
218-01-9	Chrysene	18 U
117-84-0	Di-n-Octyl Phthalate	90 U
205-99-2	Benzo(b)Fluoranthene	29 U
207-08-9	Benzo(k)Fluoranthene	120 U
50-32-8	Benzo(a)Pyrene	12 U
193-39-5	Indeno(1,2,3-cd)Pyrene	50 U
53-70-3	Dibenz(a,h)Anthracene	58 U
191-24-2	Benzo(ghi)Perylene	53 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	80.8%
2-Fluorobiphenyl	92.0%
d14-p-Terphenyl	123%

***Acid surrogate recoveries**

d5-Phenol	92.2%
2-Fluorophenol	96.4%
2,4,6-Tribromophenol	82.7%



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-14 B#2

Lab Sample ID: 1108BM
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Data Release Authorized: *DR Mattell 10/27/87*

Conc Level: Medium
Date Analyzed: 09/25/87

Amount analyzed: 0.0042 gms (Dry Weight Equiv)
Percent Moisture: 16.0%
pH: 8.2

CAS Number		µg/Kg
74-87-3	Chloromethane	3800 U
74-83-9	Bromomethane	5000 U
75-01-4	Vinyl Chloride	4400 U
75-00-3	Chloroethane	5200 U
75-09-2	Methylene Chloride	3900 U*
67-64-1	Acetone	14000 U
75-15-0	Carbon Disulfide	2400 U
75-35-4	1,1-Dichloroethene	5400 U
75-34-3	1,1-Dichloroethane	2400 U
156-60-5	Trans-1,2-Dichloroethene	3200 U
67-66-3	Chloroform	3000 U
107-06-2	1,2-Dichloroethane	2700 U
78-93-3	2-Butanone	7500 U
71-55-6	1,1,1-Trichloroethane	1900 U
56-23-5	Carbon Tetrachloride	2000 U
108-05-4	Vinyl Acetate	6900 U
75-27-4	Bromodichloromethane	1500 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1900 U
10061-02-6	Trans-1,3-Dichloropropene	2000 U
79-01-6	Trichloroethene	1700 U
124-48-1	Dibromochloromethane	1900 U
79-00-5	1,1,2-Trichloroethane	1900 U
71-43-2	Benzene	11000
10061-01-5	cis-1,3-Dichloropropene	2000 U
110-75-8	2-Chloroethylvinylether	3100 U
75-25-2	Bromoform	2300 U
108-10-1	4-Methyl-2-Pentanone	4300 U
591-78-6	2-Hexanone	2300 U
127-18-4	Tetrachloroethene	1400 U
79-34-5	1,1,2,2-Tetrachloroethane	2500 U
108-88-3	Toluene	95000 B
108-90-7	Chlorobenzene	1500 U
100-41-4	Ethylbenzene	35000 B
100-42-5	Styrene	3200 U
	Total Xylenes	240000

Analysis of PCBs

Date of Analysis: 10/1/87		µg/Kg
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	57.0%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	120%
d4-1,2-Dichloroethane	103%

GC/MS Data Reporting Qualifiers

- | | | | |
|-------|--|----|--|
| Value | If the result is a value greater than or equal to the detection limit, report the value. | B | This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination. |
| U | Indicates compound was analyzed for but not detected at the given detection limit. | K | This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run. |
| U* | Indicates analyte found and confirmed but is less than specified detection limit. | NR | Analysis not required |



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-14 B#2

Lab Sample ID: 1108B
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Date Release Authorized: *PR Mitchell 10/27/87*

Date extracted: 09/25/87
Date Analyzed: 10/02/87
GPC Clean-up: YES (1 of 8)

Wet weight extracted (gm): 36.2
Percent Moisture: 16.0%
pH: 8.2
Conc/Dilution: 1 to 4 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	420 U
111-44-4	bis(2-Chloroethyl)Ether	460 U
95-57-8	2-Chlorophenol	510 U
541-73-1	1,3-Dichlorobenzene	180 U
106-46-7	1,4-Dichlorobenzene	470 U
100-51-6	Benzyl Alcohol	550 U
95-50-1	1,2-Dichlorobenzene	120 U
95-48-7	2-Methylphenol	620 U
39638-32-9	bis(2-chloroisopropyl)Ether	1400 U
106-44-5	4-Methylphenol	310 U
621-64-7	N-Nitroso-Di-n-Propylamine	820 U
67-72-1	Hexachloroethane	820 U
98-95-3	Nitrobenzene	560 U
78-59-1	Isophorone	1200 U
88-75-5	2-Nitrophenol	1700 U
105-67-9	2,4-Dimethylphenol	1500 U
65-85-0	Benzoic Acid	1700 U
111-91-1	bis(2-Chloroethoxy)Methane	1300 U
120-83-2	2,4-Dichlorophenol	1800 U
120-82-1	1,2,4-Trichlorobenzene	960 U
91-20-3	Naphthalene	90000
106-47-8	4-Chloroaniline	910 U
87-68-3	Hexachlorobutadiene	940 U
59-50-7	4-Chloro-3-Methylphenol	970 U
91-57-6	2-Methylnaphthalene	150000
77-47-4	Hexachlorocyclopentadiene	890 U
88-06-2	2,4,6-Trichlorophenol	320 U
95-95-4	2,4,5-Trichlorophenol	380 U
91-58-7	2-Chloronaphthalene	76 U
88-74-4	2-Nitroaniline	1700 U
131-11-3	Dimethyl Phthalate	510 U
208-96-8	Acenaphthylene	17000
99-09-2	3-Nitroaniline	970 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	9500
51-28-5	2,4-Dinitrophenol	3300 U
100-02-7	4-Nitrophenol	1100 U
132-64-9	Dibenzofuran	8100
121-14-2	2,4-Dinitrotoluene	510 U
606-20-2	2,6-Dinitrotoluene	1400 U
84-66-2	Diethylphthalate	9900
7005-72-3	4-Chlorophenyl-phenylether	750 U
86-73-7	Fluorene	27000
100-01-6	4-Nitroaniline	1900 U
534-52-1	4,6-Dinitro-2-Methylphenol	3500 U
86-30-6	N-Nitrosodiphenylamine(1)	1700 U
101-55-3	4-Bromophenyl-phenylether	680 U
118-74-1	Hexachlorobenzene	900 U
87-86-5	Pentachlorophenol	670 U
85-01-8	Phenanthrene	53000
120-12-7	Anthracene	10200
84-74-2	Di-n-Butylphthalate	2700
206-44-0	Fluoranthene	5900
129-00-0	Pyrene	13000
85-68-7	Butylbenzylphthalate	2100 U
91-94-1	3,3'-Dichlorobenzidine	850 U
56-55-3	Benzo(a)Anthracene	5300
117-81-7	bis(2-Ethylhexyl)Phthalate	16000
218-01-9	Chrysene	9200
117-84-0	Di-n-Octyl Phthalate	1700 U
205-99-2	Benzo(b)Fluoranthene	2000
207-08-9	Benzo(k)Fluoranthene	2200 U
50-32-8	Benzo(a)Pyrene	3300
193-39-5	Indeno(1,2,3-cd)Pyrene	2300
	(a,h)Anthracene	1600
	ghi)Perylene	3700

from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	DL
2-Fluorobiphenyl	121%
d14-p-Terphenyl	217%

surrogate recoveries

ol	84.3%
ophenol	104%
tribromophenol	109%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-15 B*1

Lab Sample ID: 1108C
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Data Release Authorized: DR Mitchell 10/26/87

Conc Level: Low
Date Analyzed: 09/25/87

Amount analyzed: 4.51 gms (Dry Weight)
Percent Moisture: 16.5%
pH: 8.0

CAS Number		µg/Kg
74-87-3	Chloromethane	3.5 U
74-83-9	Bromomethane	4.7 U
75-01-4	Vinyl Chloride	4.1 U
75-00-3	Chloroethane	4.9 U
75-09-2	Methylene Chloride	4.4
67-64-1	Acetone	13 U
75-15-0	Carbon Disulfide	2.2 U
75-35-4	1,1-Dichloroethene	5.0 U
75-34-3	1,1-Dichloroethane	2.2 U
156-60-5	Trans-1,2-Dichloroethene	3.0 U
67-66-3	Chloroform	2.8 U
107-06-2	1,2-Dichloroethane	2.5 U
78-93-3	2-Butanone	7.0 U
71-55-6	1,1,1-Trichloroethane	1.8 U
56-23-5	Carbon Tetrachloride	1.9 U
108-05-4	Vinyl Acetate	6.4 U
75-27-4	Bromodichloromethane	1.4 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.8 U
10061-02-6	Trans-1,3-Dichloropropene	1.9 U
79-01-6	Trichloroethene	1.6 U
124-48-1	Dibromochloromethane	1.8 U
79-00-5	1,1,2-Trichloroethane	1.8 U
71-43-2	Benzene	1.9 U
10061-01-5	cis-1,3-Dichloropropene	1.9 U
110-75-8	2-Chloroethylvinylether	2.9 U
75-25-2	Bromoform	2.1 U
108-10-1	4-Methyl-2-Pentanone	4.0 U
591-78-6	2-Hexanone	2.1 U
127-18-4	Tetrachloroethene	1.3 U
79-34-5	1,1,2,2-Tetrachloroethane	2.3 U
108-88-3	Toluene	1.7 U*
108-90-7	Chlorobenzene	1.4 U
100-41-4	Ethylbenzene	2.3 U
100-42-5	Styrene	3.0 U
	Total Xylenes	8

Analysis of PCBs

Date of Analysis: 10/1/87		µg/Kg
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	132%

Volatile Surrogate Recoveries

d8-Toluene	100%
Bromofluorobenzene	99.1%
d4-1,2-Dichloroethane	99.6%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: CTP-15 B*1

Lab Sample ID: 1108C
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Date Release Authorized: *DR Mitchell 10/27/87*

Date extracted: 09/25/87
Date Analyzed: 09/30/87
GPC Clean-up: YES (1 of 2)

Wet weight extracted (gm): 38.2
Percent Moisture: 16.5%
pH: 8.0
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	25 U
111-44-4	bis(2-Chloroethyl)Ether	27 U
95-57-8	2-Chlorophenol	30 U
541-73-1	1,3-Dichlorobenzene	11 U
106-46-7	1,4-Dichlorobenzene	28 U
100-51-6	Benzyl Alcohol	33 U
95-50-1	1,2-Dichlorobenzene	7 U
95-48-7	2-Methylphenol	37 U
39638-32-9	bis(2-chloroisopropyl)Ether	81 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-n-Propylamine	49 U
67-72-1	Hexachloroethane	49 U
98-95-3	Nitrobenzene	33 U
78-59-1	Isophorone	74 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	88 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(2-Chloroethoxy)Methane	74 U
120-83-2	2,4-Dichlorophenol	100 U
120-82-1	1,2,4-Trichlorobenzene	57 U
91-20-3	Naphthalene	100 U
106-47-8	4-Chloroaniline	54 U
87-68-3	Hexachlorobutadiene	56 U
59-50-7	4-Chloro-3-Methylphenol	57 U
91-57-6	2-Methylnaphthalene	54 U
77-47-4	Hexachlorocyclopentadiene	53 U
88-06-2	2,4,6-Trichlorophenol	19 U
95-95-4	2,4,5-Trichlorophenol	23 U
91-58-7	2-Chloronaphthalene	5 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	30 U
208-96-8	Acenaphthylene	6 U
99-09-2	3-Nitroaniline	58 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	35 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	63 U
132-64-9	Dibenzofuran	52 U
121-14-2	2,4-Dinitrotoluene	30 U
606-20-2	2,6-Dinitrotoluene	84 U
84-66-2	Diethylphthalate	25 U
7005-72-3	4-Chlorophenyl-phenylether	44 U
86-73-7	Fluorene	36 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	210 U
86-30-6	N-Nitrosodiphenylamine(1)	100 U
101-55-3	4-Bromophenyl-phenylether	40 U
118-74-1	Hexachlorobenzene	54 U
87-86-5	Pentachlorophenol	40 U
85-01-8	Phenanthrene	52 U
120-12-7	Anthracene	28 U
84-74-2	Di-n-Butylphthalate	48 U
206-44-0	Fluoranthene	110 U*
129-00-0	Pyrene	100 U*
85-68-7	Butylbenzylphthalate	320
91-94-1	3,3'-Dichlorobenzidine	51 U
56-55-3	Benzo(a)Anthracene	79 U
117-81-7	bis(2-Ethylhexyl)Phthalate	500
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	100 U
205-99-2	Benzo(b)Fluoranthene	31 U
207-08-9	Benzo(k)Fluoranthene	130 U
50-32-8	Benzo(a)Pyrene	13 U
193-39-5	Indeno(1,2,3-cd)Pyrene	54 U
53-70-3	Dibenz(a,h)Anthracene	63 U
191-24-2	Benzo(ghi)Perylene	57 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	94.6%
2-Fluorobiphenyl	115%
d14-p-Terphenyl	131%

***Acid surrogate recoveries**

d5-Phenol	108%
2-Fluorophenol	109%
2,4,6-Tribromophenol	119%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: CTP-15 B*2

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Sample ID: 1108DM
Sample Matrix: Soils/Sediments

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Medium
Date Analyzed: 09/25/87

Amount analyzed: 0.0092 gms (Dry Weight Equiv)
Percent Moisture 8.3%
pH: 8.0

CAS Number		µg/Kg
4-87-3	Chloromethane	1700 U
4-83-9	Bromomethane	2300 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2400 U
5-09-2	Methylene Chloride	1800 BU*
67-64-1	Acetone	6300 U
75-15-0	Carbon Disulfide	1100 U
5-35-4	1,1-Dichloroethene	2400 U
75-34-3	1,1-Dichloroethane	1100 U
156-60-5	Trans-1,2-Dichloroethene	1500 U
77-66-3	Chloroform	1400 U
107-06-2	1,2-Dichloroethane	1300 U
78-93-3	2-Butanone	3400 U
71-55-6	1,1,1-Trichloroethane	870 U
156-23-5	Carbon Tetrachloride	920 U
108-05-4	Vinyl Acetate	3200 U
75-27-4	Bromodichloromethane	710 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	870 U
10061-02-6	Trans-1,3-Dichloropropene	920 U
79-01-6	Trichloroethene	760 U
124-48-1	Dibromochloromethane	870 U
79-00-5	1,1,2-Trichloroethane	870 U
71-43-2	Benzene	1800
10061-01-5	cis-1,3-Dichloropropene	920 U
110-75-8	2-Chloroethylvinylether	1400 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	2000 U
591-78-6	2-Hexanone	1000 U
127-18-4	Tetrachloroethene	650 U
79-34-5	1,1,2,2-Tetrachloroethane	1100 U
108-88-3	Toluene	820 U
108-90-7	Chlorobenzene	710 U
100-41-4	Ethylbenzene	1100 BU*
100-42-5	Styrene	1500 U
	Total Xylenes	8400 BU*

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
Dibutylchloroendate %Recovery		107%

Volatile Surrogate Recoveries

d8-Toluene	104%
Bromofluorobenzene	136%
d4-1,2-Dichloroethane	97.2%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysts not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108D
Sample Matrix: Soils/Sediments

Date Release Authorized: *DR Mitchell 10/27/87*

Date extracted: 09/25/87
Date Analyzed: 10/02/87
GPC Clean-up: YES (1 of 2)

Sample No: CTP-15 B*Z

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Wet weight extracted (gm): 35.7
Percent Moisture: 8.3%
pH: 8.0
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	120 U
111-44-4	bis(2-Chloroethyl)Ether	130 U
95-57-8	2-Chlorophenol	150 U
541-73-1	1,3-Dichlorobenzene	53 U
106-46-7	1,4-Dichlorobenzene	140 U
100-51-6	Benzyl Alcohol	160 U
95-50-1	1,2-Dichlorobenzene	36 U
95-48-7	2-Methylphenol	180 U
39638-32-9	bis(2-chloroisopropyl)Ether	390 U
106-44-5	4-Methylphenol	91 U
621-64-7	N-Nitroso-Di-n-Propylamine	240 U
67-72-1	Hexachloroethane	240 U
98-95-3	Nitrobenzene	160 U
78-59-1	Isophorone	360 U
88-75-5	2-Nitrophenol	480 U
105-67-9	2,4-Dimethylphenol	430 U
65-85-0	Benzoic Acid	510 U
111-91-1	bis(2-Chloroethoxy)Methane	360 U
120-83-2	2,4-Dichlorophenol	510 U
120-82-1	1,2,4-Trichlorobenzene	280 U
91-20-3	Naphthalene	32000
106-47-8	4-Chloroaniline	260 U
87-68-3	Hexachlorobutadiene	270 U
59-50-7	4-Chloro-3-Methylphenol	280 U
91-57-6	2-Methylnaphthalene	51000
77-47-4	Hexachlorocyclopentadiene	260 U
88-06-2	2,4,6-Trichlorophenol	92 U
95-95-4	2,4,5-Trichlorophenol	110 U
91-58-7	2-Chloronaphthalene	22 U
88-74-4	2-Nitroaniline	480 U
131-11-3	Dimethyl Phthalate	150 U
208-96-8	Acenaphthylene	5500
99-09-2	3-Nitroaniline	280 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	3000
51-28-5	2,4-Dinitrophenol	970 U
100-02-7	4-Nitrophenol	310 U
132-64-9	Dibenzofuran	2500
121-14-2	2,4-Dinitrotoluene	150 U
606-20-2	2,6-Dinitrotoluene	410 U
84-66-2	Diethylphthalate	430
7005-72-3	4-Chlorophenyl-phenylether	220 U
86-73-7	Fluorene	8900
100-01-6	4-Nitroaniline	560 U
534-52-1	4,6-Dinitro-2-Methylphenol	1000 U
86-30-6	N-Nitrosodiphenylamine(1)	490 U
101-55-3	4-Bromophenyl-phenylether	200 U
118-74-1	Hexachlorobenzene	260 U
87-86-5	Pentachlorophenol	190 U
85-01-8	Phenanthrene	18000
120-12-7	Anthracene	2700
84-74-2	Di-n-Butylphthalate	260
206-44-0	Fluoranthene	1700
129-00-0	Pyrene	4000
85-68-7	Butylbenzylphthalate	610 U
91-94-1	3,3'-Dichlorobenzidine	250 U
56-55-3	Benzo(a)Anthracene	1600
117-81-7	bis(2-Ethylhexyl)Phthalate	1300
218-01-9	Chrysene	2100
117-84-0	Di-n-Octyl Phthalate	500 U
205-99-2	Benzo(b)Fluoranthene	150 U*
207-08-9	Benzo(k)Fluoranthene	630 U*
50-32-8	Benzo(a)Pyrene	870
193-39-5	Indeno(1,2,3-cd)Pyrene	260 U
53-70-3	Dibenz(a,h)Anthracene	310 U
191-24-2	Benzo(ghi)Perylene	410

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	21.3%
2-Fluorobiphenyl	141%
d14-p-Terphenyl	136%

***Acid surrogate recoveries**

d5-Phenol	92.9%
2-Fluorophenol	108%
2,4,6-Tribromophenol	72.9%



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**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: CTB-22B #3

Lab Sample ID: 1108Q
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *RB Mitchell 10/28/87*

Conc Level: NA
Date Analyzed: NA

Amount analyzed: NA
Percent Moisture: 6.3%
pH: 9.0

CAS Number		µg/Kg
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	NA
75-01-4	Vinyl Chloride	NA
75-00-3	Chloroethane	NA
75-09-2	Methylene Chloride	NA
67-64-1	Acetone	NA
75-15-0	Carbon Disulfide	NA
75-35-4	1,1-Dichloroethene	NA
75-34-3	1,1-Dichloroethane	NA
156-60-5	Trans-1,2-Dichloroethene	NA
67-66-3	Chloroform	NA
107-06-2	1,2-Dichloroethane	NA
78-93-3	2-Butanone	NA
71-55-6	1,1,1-Trichloroethane	NA
56-23-5	Carbon Tetrachloride	NA
108-05-4	Vinyl Acetate	NA
75-27-4	Bromodichloromethane	NA

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	NA
10061-02-6	Trans-1,3-Dichloropropene	NA
79-01-6	Trichloroethene	NA
124-48-1	Dibromochloromethane	NA
79-00-5	1,1,2-Trichloroethane	NA
71-43-2	Benzene	NA
10061-01-5	cis-1,3-Dichloropropene	NA
110-75-8	2-Chloroethylvinylether	NA
75-25-2	Bromoform	NA
108-10-1	4-Methyl-2-Pentanone	NA
591-78-6	2-Hexanone	NA
127-18-4	Tetrachloroethene	NA
79-34-5	1,1,2,2-Tetrachloroethane	NA
108-88-3	Toluene	NA
108-90-7	Chlorobenzene	NA
100-41-4	Ethylbenzene	NA
100-42-5	Styrene	NA
	Total Xylenes	NA

Analysis of PCBs

Date of Analysis:		µg/Kg
12674-11-2	Aroclor 1016	100 U
53469-21-9	Aroclor 1242	100 U
12672-29-6	Aroclor 1248	100 U
10097-69-1	Aroclor 1254	100 U
11096-82-5	Aroclor 1260	100 U
Dibutylchloroendate % Recovery		53%

Volatile Surrogate Recoveries

d8-Toluene	NR
Bromofluorobenzene	NR
d4-1,2-Dichloroethane	NR

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



102 # 3 dup
↓
Analyzed

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ORGANICS ANALYSIS DATA SHEET - METHOD 625

Sample No: **CTB-22 B#3**

Lab Sample ID: 11080
Sample Matrix: Soils/Sediments

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Date Release Authorized: DR Mitchell 10/28/87

Date extracted: 09/29/87
Date Analyzed: 10/05/87
GPC Clean-up: YES (1 of 4)

Wet weight extracted (gm): 24.4
Percent Moisture: 6.3%
pH: 9.0
Conc/Dilution: 1 to 5 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	350 U
111-44-4	bis(2-Chloroethyl)Ether	380 U
95-57-8	2-Chlorophenol	420 U
541-73-1	1,3-Dichlorobenzene	150 U
106-46-7	1,4-Dichlorobenzene	390 U
100-51-6	Benzyl Alcohol	460 U
95-50-1	1,2-Dichlorobenzene	100 U
95-48-7	2-Methylphenol	510 U
39638-32-9	bis(2-chloroisopropyl)Ether	1100 U
106-44-5	4-Methylphenol	260 U
621-64-7	N-Nitroso-Di-n-Propylamine	680 U
67-72-1	Hexachloroethane	680 U
98-95-3	Nitrobenzene	460 U
78-59-1	Isophorone	1000 U
88-75-5	2-Nitrophenol	1400 U
105-67-9	2,4-Dimethylphenol	1200 U
65-85-0	Benzoic Acid	1500 U
111-91-1	bis(2-Chloroethoxy)Methane	1000 U
120-83-2	2,4-Dichlorophenol	1500 U
120-82-1	1,2,4-Trichlorobenzene	800 U
91-20-3	Naphthalene	14000
106-47-8	4-Chloroaniline	750 U
87-68-3	Hexachlorobutadiene	780 U
59-50-7	4-Chloro-3-Methylphenol	800 U
91-57-6	2-Methylnaphthalene	36000
77-47-4	Hexachlorocyclopentadiene	740 U
88-06-2	2,4,6-Trichlorophenol	260 U
95-95-4	2,4,5-Trichlorophenol	320 U
91-58-7	2-Chloronaphthalene	63 U
88-74-4	2-Nitroaniline	1400 U
131-11-3	Dimethyl Phthalate	420 U
208-96-8	Acenaphthylene	1400
99-09-2	3-Nitroaniline	810 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	1700
51-28-5	2,4-Dinitrophenol	2800 U
100-02-7	4-Nitrophenol	880 U
132-64-9	Dibenzofuran	2400
121-14-2	2,4-Dinitrotoluene	420 U
606-20-2	2,6-Dinitrotoluene	1200 U
84-66-2	Diethylphthalate	340 U
7005-72-3	4-Chlorophenyl-phenylether	620 U
86-73-7	Fluorene	6100
100-01-6	4-Nitroaniline	1600 U
534-52-1	4,6-Dinitro-2-Methylphenol	2900 U
86-30-6	N-Nitrosodiphenylamine(1)	1400 U
101-55-3	4-Bromophenyl-phenylether	560 U
118-74-1	Hexachlorobenzene	750 U
87-86-5	Pentachlorophenol	550 U
85-01-8	Phenanthrene	13000
120-12-7	Anthracene	5900
84-74-2	Di-n-Butylphthalate	660 U
206-44-0	Fluoranthene	1500 U
129-00-0	Pyrene	2200
85-68-7	Butylbenzylphthalate	1800 U
91-94-1	3,3'-Dichlorobenzidine	710 U
56-55-3	Benzo(a)Anthracene	1100 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2600
218-01-9	Chrysene	270 U
117-84-0	Di-n-Octyl Phthalate	1400 U
205-99-2	Benzo(b)Fluoranthene	440 U
207-08-9	Benzo(k)Fluoranthene	1800 U
50-32-8	Benzo(a)Pyrene	190 U
193-39-5	Indeno(1,2,3-cd)Pyrene	750 U
53-70-3	Dibenz(a,h)Anthracene	880 U
191-24-2	Benzo(ghi)Perylene	800 U

(1) Cannot be separated from diphenylamine

*Base/neutral surrogate recoveries

d5-Nitrobenzene	48.3%
2-Fluorobiphenyl	81.4%
d14-p-Terphenyl	73.2%

*Acid surrogate recoveries

d5-Phenol	66.5%
2-Fluorophenol	76.1%
2,4,6-Tribromophenol	35.9%



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 0925MBS
Sample Matrix: Soils/Sediments

Sample No: Method Blank

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 09/25/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3.3 U
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
	Dibutylchloroendate % Recovery	122%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	100%
d4-1,2-Dichloroethane	99.8%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles – Method 624

Sample No: Method Blank

Lab Sample ID: 1108MBSM
Sample Matrix: Soils/Sediments

QC Report No: 1108 – Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Data Release Authorized: *CR Mitchell 10/27/87*

Conc Level: Medium
Date Analyzed: 09/25/87

Amount analyzed: 0.100 gms (Dry Weight Equiv)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	160 U
74-83-9	Bromomethane	210 U
75-01-4	Vinyl Chloride	190 U
75-00-3	Chloroethane	220 U
75-09-2	Methylene Chloride	180
67-64-1	Acetone	580 U
75-15-0	Carbon Disulfide	100 U
75-35-4	1,1-Dichloroethene	230 U
75-34-3	1,1-Dichloroethane	100 U
156-60-5	Trans-1,2-Dichloroethene	140 U
67-66-3	Chloroform	130 U
107-06-2	1,2-Dichloroethane	120 U
78-93-3	2-Butanone	320 U
71-55-6	1,1,1-Trichloroethane	80 U
56-23-5	Carbon Tetrachloride	85 U
108-05-4	Vinyl Acetate	290 U
75-27-4	Bromodichloromethane	65 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	80 U
10061-02-6	Trans-1,3-Dichloropropene	85 U
79-01-6	Trichloroethene	70 U
124-48-1	Dibromochloromethane	80 U
79-00-5	1,1,2-Trichloroethane	80 U
71-43-2	Benzene	85 U
10061-01-5	cis-1,3-Dichloropropene	85 U
110-75-8	2-Chloroethylvinylether	130 U
75-25-2	Bromoform	95 U
108-10-1	4-Methyl-2-Pentanone	180 U
591-78-6	2-Hexanone	95 U
127-18-4	Tetrachloroethene	60 U
79-34-5	1,1,2,2-Tetrachloroethane	110 U
108-88-3	Toluene	75 U*
108-90-7	Chlorobenzene	65 U
100-41-4	Ethylbenzene	110 U*
100-42-5	Styrene	140 U
	Total Xylenes	260

Analysis of PCBs

Date of Analysis: 10/1/87		µg/Kg
12674-11-2	Aroclor 1016	NR
53469-21-9	Aroclor 1242	NR
12672-29-6	Aroclor 1248	NR
10097-69-1	Aroclor 1254	NR
11096-82-5	Aroclor 1260	NR
	Dibutylchloroendate % Recovery	NR

Volatile Surrogate Recoveries

d8-Toluene	99.4%
Bromofluorobenzene	99.1%
d4-1,2-Dichloroethane	97.6%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



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ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Sample No: Method Blank

Lab Sample ID: 1005MB
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: ER Mitchell 10/28/87

Conc Level: Low
Date Analyzed: 10/05/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3.3 U*
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs

Date of Analysis:		µg/Kg
10/1/87		
12674-11-2	Aroclor 1016	70 U
53469-21-9	Aroclor 1242	70 U
12672-29-6	Aroclor 1248	70 U
10097-69-1	Aroclor 1254	70 U
11096-82-5	Aroclor 1260	70 U
Dibutylchloroendate % Recovery		0%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	99.0%
d4-1,2-Dichloroethane	92.8%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Lab Sample ID: 1006MB
Sample Matrix: Soils/Sediments

Sample No: Method Blank

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5118
(206) 621-6490

Data Release Authorized: *DR Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/06/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3.3 U
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs:

Date of Analysis:		µg/Kg
NA		
12674-11-2	Aroclor 1016	NR
53469-21-9	Aroclor 1242	NR
12672-29-6	Aroclor 1248	NR
10097-69-1	Aroclor 1254	NR
11096-82-5	Aroclor 1260	NR
	Dibutylchloroendate % Recovery	NR

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	102%
d4-1,2-Dichloroethane	97.1%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



Analytical
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Consultants

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**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Sample No: Method Blank

Lab Sample ID: 1007MBS
Sample Matrix: Soils/Sediments

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *ER Mitchell 10/29/87*

Conc Level: Low
Date Analyzed: 10/07/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3 U*
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs

Date of Analysis:		µg/Kg
12674-11-2	Aroclor 1016	NA
53469-21-9	Aroclor 1242	NA
12672-29-6	Aroclor 1248	NA
10097-69-1	Aroclor 1254	NA
11096-82-5	Aroclor 1260	NA
Dibutylchloroendate % Recovery		NA

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	98.5%
d4-1,2-Dichloroethane	95.6%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1108MB
Sample Matrix: Soils/Sediments

Sample No: Method Blank

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987

Data Release Authorized: *OK Mitchell 10/28/87*

Conc Level: Low
Date Analyzed: 10/13/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3.3 U
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs

Date of Analysis: NA		µg/Kg
12674-11-2	Aroclor 1016	NR
53469-21-9	Aroclor 1242	NR
12672-29-6	Aroclor 1248	NR
10097-69-1	Aroclor 1254	NR
11096-82-5	Aroclor 1260	NR
	Dibutylchloride % Recovery	NR

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	103%
d4-1,2-Dichloroethane	94.7%

GC/MS Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected at the given detection limit.

U* Indicates analyte found and confirmed but is less than specified detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.

K This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.

NR Analysis not required



Analytical
Chemists &
Consultants

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**ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624**

Lab Sample ID: 1021MBM
Sample Matrix: Soils/Sediments

Sample No: Method Blank

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 29 September 1987

Data Release Authorized: *R. Mitchell 10/29/87*

Conc Level: Medium
Date Analyzed: 10/21/87

Amount analyzed: 0.10 gms (Dry Weight Equiv)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	160 U
74-83-9	Bromomethane	210 U
75-01-4	Vinyl Chloride	190 U
75-00-3	Chloroethane	220 U
75-09-2	Methylene Chloride	170 U
67-64-1	Acetone	580 U
75-15-0	Carbon Disulfide	100 U
75-35-4	1,1-Dichloroethene	230 U
75-34-3	1,1-Dichloroethane	100 U
156-60-5	Trans-1,2-Dichloroethene	140 U
67-66-3	Chloroform	130 U
107-06-2	1,2-Dichloroethane	120 U
78-93-3	2-Butanone	320 U
71-55-6	1,1,1-Trichloroethane	80 U
56-23-5	Carbon Tetrachloride	85 U
108-05-4	Vinyl Acetate	290 U
75-27-4	Bromodichloromethane	65 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	80 U
10061-02-6	Trans-1,3-Dichloropropene	85 U
79-01-6	Trichloroethene	70 U
124-48-1	Dibromochloromethane	80 U
79-00-5	1,1,2-Trichloroethane	80 U
71-43-2	Benzene	85 U
10061-01-5	cis-1,3-Dichloropropene	85 U
110-75-8	2-Chloroethylvinylether	130 U
75-25-2	Bromoform	95 U
108-10-1	4-Methyl-2-Pentanone	180 U
591-78-6	2-Hexanone	95 U
127-18-4	Tetrachloroethene	60 U
79-34-5	1,1,2,2-Tetrachloroethane	110 U
108-88-3	Toluene	75 U*
108-90-7	Chlorobenzene	65 U
100-41-4	Ethylbenzene	110 U*
100-42-5	Styrene	140 U
	Total Xylenes	260

Analysis of PCBs

Date of Analysis:		µg/Kg
10/09/87		
12674-11-2	Aroclor 1016	150 U
53469-21-9	Aroclor 1242	150 U
12672-29-6	Aroclor 1248	150 U
10097-69-1	Aroclor 1254	150 U
11096-82-5	Aroclor 1260	150 U
	Dibutylchloroendate % Recovery	73%

Volatile Surrogate Recoveries

d8-Toluene	101%
Bromofluorobenzene	101%
d4-1,2-Dichloroethane	101%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET
Analysis of Volatiles - Method 624

Lab Sample ID: 1021MB
Sample Matrix: Soils/Sediments

Sample No: Method Blank

QC Report No: 1108 - Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 1 October 1987

Data Release Authorized: *PR Mitchell 10/29/87*

Conc Level: Low
Date Analyzed: 10/21/87

Amount analyzed: 5.0 gms (Dry Weight)
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	3 U*
67-64-1	Acetone	12 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

Analysis of PCBs

Date of Analysis:	NR	µg/Kg
12674-11-2	Aroclor 1016	NA
53469-21-9	Aroclor 1242	NA
12672-29-6	Aroclor 1248	NA
10097-69-1	Aroclor 1254	NA
11096-82-5	Aroclor 1260	NA
Dibutylchloroendate % Recovery		NA

Volatile Surrogate Recoveries

d8-Toluene	102%
Bromofluorobenzene	98.3%
d4-1,2-Dichloroethane	95.8%

GC/MS Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
U*	Indicates analyte found and confirmed but is less than specified detection limit.	NR	Analysis not required



ORGANICS ANALYSIS DATA SHEET - METHOD 625

Lab Sample ID: 1108MBS
Sample Matrix: Sediments

Date Release Authorized: *OR Mitchell 10/27/87*

Date extracted: 09/25/87
Date Analyzed: 09/30/87
GPC Clean-up: YES (1 of 2)

Sample No: Method Blank

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 24 September 1987

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

Wet weight extracted (gm): 30.0
Percent Moisture: NA
pH: NA
Conc/Dilution: 1 to 1 (After GPC)

CAS Number		µg/Kg
08-95-2	Phenol	26 U
111-44-4	bis(2-Chloroethyl)Ether	29 U
15-57-8	2-Chlorophenol	32 U
541-73-1	1,3-Dichlorobenzene	12 U
106-46-7	1,4-Dichlorobenzene	30 U
00-51-6	Benzyl Alcohol	35 U
95-50-1	1,2-Dichlorobenzene	8 U
95-48-7	2-Methylphenol	39 U
9638-32-9	bis(2-chloroisopropyl)Ether	86 U
06-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	52 U
7-72-1	Hexachloroethane	52 U
8-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	79 U
8-75-5	2-Nitrophenol	100 U
05-67-9	2,4-Dimethylphenol	94 U
65-85-0	Benzoic Acid	110 U
11-91-1	bis(2-Chloroethoxy)Methane	79 U
20-83-2	2,4-Dichlorophenol	110 U
120-82-1	1,2,4-Trichlorobenzene	61 U
11-20-3	Naphthalene	110 U
06-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	60 U
9-50-7	4-Chloro-3-Methylphenol	61 U
1-57-6	2-Methylnaphthalene	58 U
77-47-4	Hexachlorocyclopentadiene	56 U
8-06-2	2,4,6-Trichlorophenol	20 U
5-95-4	2,4,5-Trichlorophenol	24 U
91-58-7	2-Chloronaphthalene	5 U
8-74-4	2-Nitroaniline	110 U
31-11-3	Dimethyl Phthalate	32 U
208-96-8	Acenaphthylene	7 U
9-09-2	3-Nitroaniline	62 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	38 U
51-28-5	2,4-Dinitrophenol	210 U
100-02-7	4-Nitrophenol	67 U
132-64-9	Dibenzofuran	55 U
121-14-2	2,4-Dinitrotoluene	32 U
606-20-2	2,6-Dinitrotoluene	89 U
84-66-2	Diethylphthalate	26 U
7005-72-3	4-Chlorophenyl-phenylether	47 U
86-73-7	Fluorene	38 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	220 U
86-30-6	N-Nitrosodiphenylamine(1)	110 U
101-55-3	4-Bromophenyl-phenylether	43 U
118-74-1	Hexachlorobenzene	57 U
87-86-5	Pentachlorophenol	42 U
85-01-8	Phenanthrene	56 U
120-12-7	Anthracene	30 U
84-74-2	Di-n-Butylphthalate	51 U
206-44-0	Fluoranthene	120 U
129-00-0	Pyrene	110 U
85-68-7	Butylbenzylphthalate	130 U
91-94-1	3,3'-Dichlorobenzidine	54 U
56-55-3	Benzo(a)Anthracene	84 U
117-81-7	bis(2-Ethylhexyl)Phthalate	130 U
218-01-9	Chrysene	21 U
117-84-0	Di-n-Octyl Phthalate	110 U
205-99-2	Benzo(b)Fluoranthene	33 U
207-08-9	Benzo(k)Fluoranthene	140 U
50-32-8	Benzo(a)Pyrene	14 U
193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	61 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	80.7%
2-Fluorobiphenyl	86.3%
d14-p-Terphenyl	118%

***Acid surrogate recoveries**

d5-Phenol	89.2%
2-Fluorophenol	92.2%
2,4,6-Tribromophenol	73.7%

**ANALYTICAL
RESOURCES
INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 625**Lab Sample ID: 1108MB
Sample Matrix: Soils/Sediments**Sample No: Method Blank**QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987Date Release Authorized: *DR Mitchell 11/10/87*Date extracted: 09/29/87 -
Date Analyzed: 11/10/87
GPC Clean-up: YES (1 of 1)Wet weight extracted (gm): 30.0
Percent Moisture: NA
pH: NA
Conc/Dilution: 2 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	26 U
111-44-4	bis(2-Chloroethyl)Ether	29 U
95-57-8	2-Chlorophenol	32 U
541-73-1	1,3-Dichlorobenzene	12 U
106-46-7	1,4-Dichlorobenzene	30 U
100-51-6	Benzyl Alcohol	35 U
95-50-1	1,2-Dichlorobenzene	8 U
95-48-7	2-Methylphenol	39 U
39638-32-9	bis(2-chloroisopropyl)Ether	86 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	52 U
67-72-1	Hexachloroethane	52 U
98-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	79 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	94 U
65-85-0	Benzoic Acid	110 U
111-91-1	bis(2-Chloroethoxy)Methane	79 U
120-83-2	2,4-Dichlorophenol	110 U
120-82-1	1,2,4-Trichlorobenzene	61 U
91-20-3	Naphthalene	110 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	60 U
59-50-7	4-Chloro-3-Methylphenol	61 U
91-57-6	2-Methylnaphthalene	58 U
77-47-4	Hexachlorocyclopentadiene	56 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,5-Trichlorophenol	24 U
91-58-7	2-Chloronaphthalene	5 U
38-74-4	2-Nitroaniline	110 U
131-11-3	Dimethyl Phthalate	32 U
208-96-8	Acenaphthylene	7 U
99-09-2	3-Nitroaniline	62 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	38 U
51-28-5	2,4-Dinitrophenol	210 U
100-02-7	4-Nitrophenol	67 U
132-64-9	Dibenzofuran	55 U
121-14-2	2,4-Dinitrotoluene	32 U
606-20-2	2,6-Dinitrotoluene	89 U
84-66-2	Diethylphthalate	26 U
7005-72-3	4-Chlorophenyl-phenylether	47 U
86-73-7	Fluorene	38 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	220 U
86-30-6	N-Nitrosodiphenylamine(1)	110 U
101-55-3	4-Bromophenyl-phenylether	43 U
118-74-1	Hexachlorobenzene	57 U
87-86-5	Pentachlorophenol	42 U
85-01-8	Phenanthrene	56 U
120-12-7	Anthracene	30 U
84-74-2	Di-n-Butylphthalate	51 U
206-44-0	Fluoranthene	120 U
129-00-0	Pyrene	110 U
85-68-7	Butylbenzylphthalate	130 U
91-94-1	3,3'-Dichlorobenzidine	54 U
56-55-3	Benzo(a)Anthracene	84 U
117-81-7	bis(2-Ethylhexyl)Phthalate	130 U
218-01-9	Chrysene	21 U
117-84-0	Di-n-Octyl Phthalate	110 U
205-99-2	Benzo(b)Fluoranthene	33 U
207-08-9	Benzo(k)Fluoranthene	140 U
50-32-8	Benzo(a)Pyrene	14 U
193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	61 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	95.7%
2-Fluorobiphenyl	105%
d14-p-Terphenyl	113%

***Acid surrogate recoveries**

d5-Phenol	96.4%
2-Fluorophenol	98.4%
2,4,6-Tribromophenol	97.4%

**ANALYTICAL
RESOURCES
INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 625**Lab Sample ID: 1108MB2
Sample Matrix: Soils/SedimentsDate Release Authorized: *DR Mitchell 11/10/87*Date extracted: 10/02/87
Date Analyzed: 11/10/87
GPC Clean-up: YES (1 of 1)

Sample No: Method Blank

QC Report No: 1108-Sweet Edwards
Project No: Chempro #S9403.01
Date Received: 28 September 1987Wet weight extracted (gm): 30.0
Percent Moisture: NA
pH: NA
Conc/Dilution: 2 to 1 (After GPC)

CAS Number		µg/Kg
108-95-2	Phenol	26 U
111-44-4	bis(2-Chloroethyl)Ether	29 U
95-57-8	2-Chlorophenol	32 U
541-73-1	1,3-Dichlorobenzene	12 U
106-46-7	1,4-Dichlorobenzene	30 U
100-51-6	Benzyl Alcohol	35 U
95-50-1	1,2-Dichlorobenzene	8 U
95-48-7	2-Methylphenol	39 U
39638-32-9	bis(2-chloroisopropyl)Ether	86 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	52 U
67-72-1	Hexachloroethane	52 U
98-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	79 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	94 U
65-85-0	Benzoic Acid	110 U
111-91-1	bis(2-Chloroethoxy)Methane	79 U
120-83-2	2,4-Dichlorophenol	110 U
120-82-1	1,2,4-Trichlorobenzene	61 U
91-20-3	Naphthalene	110 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	60 U
59-50-7	4-Chloro-3-Methylphenol	61 U
91-57-6	2-Methylnaphthalene	58 U
77-47-4	Hexachlorocyclopentadiene	56 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,5-Trichlorophenol	24 U
91-58-7	2-Chloronaphthalene	5 U
88-74-4	2-Nitroaniline	110 U
131-11-3	Dimethyl Phthalate	32 U
208-96-8	Acenaphthylene	7 U
99-09-2	3-Nitroaniline	62 U

CAS Number		µg/Kg
83-32-9	Acenaphthene	38 U
51-28-5	2,4-Dinitrophenol	210 U
100-02-7	4-Nitrophenol	67 U
132-64-9	Dibenzofuran	55 U
121-14-2	2,4-Dinitrotoluene	32 U
606-20-2	2,6-Dinitrotoluene	89 U
84-66-2	Diethylphthalate	26 U
7005-72-3	4-Chlorophenyl-phenylether	47 U
86-73-7	Fluorene	38 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	220 U
86-30-6	N-Nitrosodiphenylamine(1)	110 U
101-55-3	4-Bromophenyl-phenylether	43 U
118-74-1	Hexachlorobenzene	57 U
87-86-5	Pentachlorophenol	42 U
85-01-8	Phenanthrene	56 U
120-12-7	Anthracene	30 U
84-74-2	Di-n-Butylphthalate	51 U
206-44-0	Fluoranthene	120 U
129-00-0	Pyrene	110 U
85-68-7	Butylbenzylphthalate	130 U
91-94-1	3,3'-Dichlorobenzidine	54 U
56-55-3	Benzo(a)Anthracene	84 U
117-81-7	bis(2-Ethylhexyl)Phthalate	130 U
218-01-9	Chrysene	21 U
117-84-0	Di-n-Octyl Phthalate	110 U
205-99-2	Benzo(b)Fluoranthene	33 U
207-08-9	Benzo(k)Fluoranthene	140 U
50-32-8	Benzo(a)Pyrene	14 U
193-39-5	Indeno(1,2,3-cd)Pyrene	58 U
53-70-3	Dibenz(a,h)Anthracene	67 U
191-24-2	Benzo(ghi)Perylene	61 U

(1) Cannot be separated from diphenylamine

***Base/neutral surrogate recoveries**

d5-Nitrobenzene	107%
2-Fluorobiphenyl	101%
d14-p-Terphenyl	118%

***Acid surrogate recoveries**

d5-Phenol	105%
2-Fluorophenol	104%
2,4,6-Tribromophenol	116%

CHEMICAL PROCESSORS, INC.
5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PARCEL A - HWMU
SOIL SAMPLES FOR CYANIDE ANALYSIS
SAMPLED SEPTEMBER 24 - 30, 1987

<u>SAMPLE#</u>	<u>IDENTIFICATION</u>	<u>CYANIDE</u>
14850-1	CTP-14B#1	<1.0
14850-3	CTP-15B#1	<1.0
14852-1	CTP-2B#1	1.2
14852-2	CTP-2B#2	<1.0
14852-3	CTP-6B#1	<1.0
14852-3(DUPE)	CTP-6B#1(DUPE)	<1.0
14866-1	CTP-12B#1	<1.0
14866-3	CTP-9B#1	<1.0
14866-5	CTP-10B#1	1.6
14866-6	CTP-10B#2**	11.8
14866-6(DUPE)	CTP-10B#2(DUPE)**	4.2
14866-6(DUPE)	CTP-10B#2(DUPE)**	1.9
14866-7	CTP-10B#3	<1.0
14866-8	CTP-21B#2*	<1.0
14866-9	CTP-8B#1	<1.0
14887-1	CTP-5B#1	<1.0
14887-4	CTP-4B#1	<1.0
14887-7	CTP-4C#1	<1.0
14887-8	CTP-3B#1	1.8
14887-9	CTP-3B#2	<1.0
14895-1	CTP-7B#1	<1.0
14895-1(DUPE)	CTP-7B#1(DUPE)	<1.0

CHEMICAL PROCESSORS, INC.

5501 AIRPORT WAY SO.

SEATTLE, WASHINGTON 98108

14895-4	CTP-13B#1	<1.0
14895-7	CTP-1B#1	<1.0
14895-9	CTP-11B#1	2.0
14895-10	CTP-11B#2	3.1
14895-11	CTP-11B#3	<1.0

* THERE WAS NO #1 SAMPLE FOR CTP-21B

** THIS SAMPLE WAS NON-HOMOGENEOUS, AS REFLECTED IN THE
WIDELY VARIED REPLICATE VALUES.

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87593

Analytical Report
Units
mg/kg (on dry basis)

Sample Name:	CTP-15B #1	CTP-15B #2	CTP-14B #1	CTP-14B #2
Lab Code:	593-1	593-2	593-3	593-4
Arsenic	<5	<5	<5	<5
Barium	63	35	66	17
Cadmium	2.5	<2	<2	<2
Chromium	28	16	27	11
Lead	<20	422	15	24
Mercury	<0.1	<0.1	<0.1	<0.1
Silver	<4	<4	<4	<4
Selenium	<2	<2	<2	<2
Copper	13	17	15	11
Nickel	43	15	25	<10
Thallium	<0.2	<0.2	<0.2	<0.2
Zinc	62	128	55	35
% Solids	93	86	91	95

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987
WORK ORDER #: 87593

Analytical Report
Units
mg/L in EP extract

Sample Name:	CTP-15B #1	CTP-15B #2	CTP-14B #1	CTP-14B #2
Lab Code:	593-1	593-2	593-3	593-4
Arsenic	<0.01	<0.01	<0.01	0.023
Barium	<0.02	0.24	<0.02	0.03
Cadmium	<0.005	<0.005	<0.005	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01
Lead	<0.05	0.10	<0.05	<0.05
Mercury	<0.001	<0.001	<0.001	<0.001
Silver	<0.01	<0.01	<0.01	<0.01
Selenium	<0.01	<0.01	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01
Nickel	<0.05	0.06	<0.05	<0.05
Zinc	0.07	0.60	0.09	<0.04

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87593

QA-QC Report
EPTOX
mg/L

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	593-1	<0.002	<0.002	<0.002	0.05	104
Barium	593-1	<0.02	<0.02	<0.02	1.0	96
Cadmium	593-1	<0.005	<0.005	<0.005	0.05	90
Chromium	593-1	<0.01	<0.01	<0.01	0.2	105
Lead	593-1	<0.05	<0.05	<0.05	0.5	88
Mercury	593-1	<0.01	<0.01	<0.01	0.001	113
Silver	593-1	<0.02	<0.02	<0.02	0.05	78
Selenium	593-1	<0.002	<0.002	<0.002	0.05	96
Copper	593-1	<0.01	<0.01	<0.01	0.25	105
Nickel	593-1	<0.05	<0.05	<0.05	0.5	104
Zinc	593-1	0.07	0.08	0.07	0.5	100

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soil

November 10, 1987

WORK ORDER #: 87593

QA-QC Report
mg/kg (on dry basis)

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	593-1	<4.0	-	<4.0	20	115
Barium	593-1	67	59	63	472	103
Cadmium	593-1	2.5	2.5	2.5	22	91
Chromium	593-1	34	23	28	88	102
Lead	593-1	<20	<20	<20	220	93
Mercury	593-1	<0.1	<0.1	<0.1	0.49	88
Silver	593-1	<4	<4	<4	44	98
Selenium	593-1	<2	<2	<2	25	87
Copper	593-1	12	13	13	110	92
Nickel	593-1	48	38	43	255	98
Thallium	593-1	<0.2	<0.2	<0.2	25	109
Zinc	593-1	57	68	62	220	83

Approved by: Mike Shelton Date: 11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987
WORK ORDER #: 87594

Analytical Report
Units
mg/kg (on dry basis)

Sample Name: Lab Code:	CTP-6B #1 594-1	CTP-6B #2 594-2	CTP-6B #3 594-3	CTP-2B #1 594-4	CTP-2B #2 594-5
Arsenic	3.3	1.5	1.8	3.8	2.9
Barium	70	15	12	108	153
Cadmium	<1	<1	<1	3.6	1.8
Chromium	30	11	9.2	51	68
Lead	32	19	13	30	1110
Mercury	<0.2	<0.1	<0.1	<0.1	0.2
Silver	<2	<2	<2	<2	<2
Selenium	<2	<2	<2	<2	<2
Copper	17	12	8.6	37	53
Nickel	15	<6	<5	51	21
Thallium	<0.1	<0.1	<0.1	<0.1	0.2
Zinc	49	31	18	67	484
% Solids	90	90	92	89	86

Approved by: Mike Shelton Date: 11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87594

Analytical Report
Units
mg/L in EP extract

Sample Name: Lab Code:	CTP-6B #1 594-1	CTP-6B #2 594-2	CTP-6B #3 594-3	CTP-2B #1 594-4	CTP-2B #2 594-5
Arsenic	<0.01	<0.01	<0.01	<0.01	<0.01
Barium	0.03	0.07	0.03	0.19	0.45
Cadmium	<0.005	<0.005	<0.005	<0.005	0.010
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	<0.05	<0.05	<0.05	<0.05	1.5
Mercury	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	<0.02	<0.02	<0.02	0.02	<0.02
Nickel	<0.05	0.05	<0.05	0.06	0.20
Zinc	<0.04	0.15	<0.07	0.14	5.5

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soil

November 10, 1987

WORK ORDER #: 87594

QA-QC Report
EPTOX
mg/L

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	594-5	<0.01	-	<0.01	0.01	88
Barium	594-3	0.029	0.028	0.028	0.95	92
Cadmium	594-3	<0.005	<0.005	<0.005	0.05	98
Chromium	594-3	<0.01	<0.01	<0.01	0.20	100
Lead	594-3	<0.05	<0.05	<0.05	0.50	106
Mercury	594-1	0.0004	0.0004	0.0004	0.001	105
Silver	594-3	<0.01	<0.01	<0.01	0.10	100
Selenium	594-5	<0.01	-	<0.01	0.01	27
Copper	594-3	<0.02	0.051	0.025	0.25	94
Nickel	594-3	0.056	<0.05	<0.05	0.5	94
Zinc	594-3	0.089	0.054	0.072	0.50	102

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87594

QA-QC Report
mg/kg (on dry basis)

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	594-2	1.7	1.3	1.5	4.8	88
Barium	594-1	78	63	70	194	115
Cadmium	594-1	<1	<1	<1	9.7	104
Chromium	594-1	31	29	30	39	108
Lead	594-1	33	31	32	97	105
Mercury	594-1	0.3	<0.1	<0.2	0.39	83
Silver	594-1	<2	<2	<2	19.4	89
Selenium	594-1	<2	<2	<2	10.8	61
Copper	594-1	18	16	17	49	98
Nickel	594-1	17	13	15	108	116
Thallium	594-1	<0.1	<0.1	<0.1	10.8	90
Zinc	594-1	54	45	49	97	98

Approved by:

Mike Schultz

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soil

November 10, 1987

WORK ORDER #: 87610

QA-QC Report
EPTOX
mg/L

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	610-20	<0.002	<0.002	<0.002	0.05	110
Barium	610-20	0.14	0.15	0.14	1.0	95
Cadmium	610-20	<0.005	<0.005	<0.005	0.05	106
Chromium	610-20	<0.01	0.01	<0.01	0.2	105
Lead	610-20	<0.05	<0.05	<0.05	0.5	94
Mercury	610-6	<0.002	<0.002	<0.002	0.001	140
Silver	610-20	<0.01	0.01	<0.01	0.1	97
Selenium	610-7	<0.01	-	<0.01	0.01	111
Copper	610-20	<0.02	<0.02	<0.02	0.25	100
Nickel	610-20	<0.05	<0.05	<0.05	0.5	99
Zinc	610-20	0.63	0.62	0.62	0.5	92

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987
WORK ORDER #: 87610

QA-QC Report
mg/kg (on dry basis)

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	610-2	2.8	2.5	2.7	9.9	41
Barium	610-1	62	70	66	96	100
Cadmium	610-1	4.6	3.9	4.2	4.8	95
Chromium	610-1	371	400	386	39	*402
Lead	610-1	124	117	120	48	111
Mercury	610-1	0.1	0.2	0.2	0.4	99
Silver	610-1	<2	<2	<2	9.6	87
Selenium	610-1	<1	<1	<1	10	96
Copper	610-1	38	41	39	24	132
Nickel	610-1	34	41	38	53	108
Thallium	610-1	<0.2	<0.2	<0.2	10.5	96
Zinc	610-1	157	210	187	48	98

* Spike level <10% of sample value.

Approved by: Mike Shelton Date: 11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87610

QA-QC Report
mg/kg (on dry basis)

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	610-20	2.1	1.7	1.9	9.8	64
Barium	610-21	47	56	52	99	101
Cadmium	610-21	8.1	8.2	8.2	5.0	101
Chromium	610-21	1460	1570	1515	40	128
Lead	610-21	12	16	14	48	88
Mercury	610-21	0.15	<0.09	<0.1	0.53	86
Silver	610-21	<10	<10	<10	9.6	*
Selenium	610-21	<1	<1	<1	10	70
Copper	610-21	45	48	46	24	104
Nickel	610-21	39.3	39.5	39	56	95
Thallium	610-21	<2	<2	<2	10.4	93
Zinc	610-21	65	69	67	48	98

* Cr interference on Ag at 0.05 mg/L level gave neg value.

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987
WORK ORDER #: 87614

Analytical Report
Units
mg/kg (on dry basis)

Sample Name:	CTP-1B #1	CTP-1B #2	CTP-7B #1	CTP-7B #2
Lab Code:	614-1	614-2	614-3	614-4
Arsenic	3.7	2.5	2.8	14
Barium	68	284	47	1090
Cadmium	<1	3.6	1.6	22
Chromium	24	28	268	71
Lead	14	408	37	2250
Mercury	0.1	0.1	<0.1	1.4
Silver	<2	<2	<2	<2
Selenium	<2	<2	<2	<2
Copper	14	41	49	179
Nickel	30	24	36	111
Thallium	<0.2	<0.1	<0.1	<0.1
Zinc	41	491	51	2120
% Solids	89	87	87	82

Approved by:

Mike Miller

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller

November 10, 1987

PROJECT: Soils

WORK ORDER #: 87614

Analytical Report
Units
mg/kg (on dry basis)

Sample Name: Lab Code:	CTP-7B #3 614-5	CTP-11B #1 614-6	CTP-11B #2 614-7	CTP-11B #3 614-8
Arsenic	<2	4.2	5.9	228
Barium	21	57	104	1260
Cadmium	<1	6.6	<1	37
Chromium	10	275	35	262
Lead	41	22	58	9750
Mercury	0.1	<0.1	0.1	6.4
Silver	<2	<2	<2	22.6
Selenium	<2	<2	<2	<2
Copper	9.8	31	24	1010
Nickel	<5	46	32	409
Thallium	<0.1	<0.1	<0.1	<0.1
Zinc	22	74	76	6500
% Solids	94	90	90	56

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller

November 10, 1987

PROJECT: Soils

WORK ORDER #: 87614

Analytical Report
Units
mg/kg (on dry basis)

Sample Name: Lab Code:	CTP-11B #4 614-9	CTP-13B #1 614-10	CTP-13B #2 614-11	CTP-13B #3 614-12
Arsenic	2.6	5.7	2.2	3.2
Barium	16	106	19	31
Cadmium	<1	5.1	4.1	<1
Chromium	11	156	36	7.6
Lead	21	48	<10	16
Mercury	0.1	0.1	<0.1	<0.1
Silver	<2	<2	<2	<2
Selenium	<2	<2	<2	<2
Copper	8.4	38	11	10
Nickel	6.1	50	20	5.4
Thallium	<0.1	<0.1	<0.1	<0.1
Zinc	25	99	57	27
% Solids	93	91	95	94

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller

November 10, 1987

PROJECT: Soils

WORK ORDER #: 87614

Analytical Report
Units
mg/L in EP extract

Sample Name:	CTP-1B #1	CTP-1B #2	CTP-7B #1	CTP-7B #2
Lab Code:	614-1	614-2	614-3	614-4
Arsenic	<0.01	<0.01	<0.01	<0.01
Barium	0.03	0.04	0.02	0.64
Cadmium	<0.005	<0.005	0.012	0.018
Chromium	<0.01	<0.01	0.02	<0.01
Lead	<0.05	<0.05	<0.05	0.73
Mercury	<0.001	<0.001	<0.001	<0.001
Silver	<0.01	<0.01	<0.01	<0.01
Selenium	<0.01	<0.01	<0.01	<0.01
Copper	<0.02	<0.02	0.04	<0.02
Nickel	<0.05	<0.05	0.05	0.43
Zinc	0.13	0.15	0.10	8.9

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87614

Analytical Report
Units
mg/L in EP extract

Sample Name:	CTP-7B #3	CTP-11B #1	CTP-11B #2	CTP-11B #3
Lab Code:	614-5	614-6	614-7	614-8
Arsenic	<0.01	<0.01	<0.01	0.01
Barium	0.02	0.38	0.09	2.3
Cadmium	<0.005	0.19	<0.005	0.016
Chromium	<0.01	0.07	<0.01	<0.01
Lead	<0.05	<0.05	<0.05	0.16
Mercury	<0.001	<0.001	<0.001	<0.001
Silver	<0.01	<0.02	<0.01	<0.01
Selenium	<0.01	<0.01	<0.01	<0.01
Copper	<0.02	<0.02	<0.02	<0.02
Nickel	<0.05	0.06	<0.05	0.37
Zinc	0.09	0.24	0.09	7.1

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soils

November 10, 1987

WORK ORDER #: 87614

Analytical Report
Units
mg/L in EP extract

Sample Name:	CTP-11B #4	CTP-13B #1	CTP-13B #2	CTP-13B #3
Lab Code:	614-9	614-10	614-11	614-12
Arsenic	<0.01	<0.01	<0.01	<0.01
Barium	0.09	0.13	0.05	0.15
Cadmium	<0.005	0.038	0.073	<0.005
Chromium	<0.01	0.02	<0.01	<0.01
Lead	<0.05	<0.05	<0.05	<0.05
Mercury	<0.001	<0.001	<0.001	<0.001
Silver	<0.01	<0.01	<0.01	<0.01
Selenium	<0.01	<0.01	<0.01	<0.01
Copper	<0.02	0.05	<0.02	<0.03
Nickel	0.06	0.11	0.08	<0.05
Zinc	0.07	0.26	0.29	<0.05

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soil

November 10, 1987
WORK ORDER #: 87614

QA-QC Report
EPTOX
mg/L

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	614-2	<0.01	-	<0.01	20	100
Barium	614-7	0.09	0.09	0.09	1.0	94
Cadmium	614-7	<0.005	0.0055	<0.005	0.05	104
Chromium	614-7	<0.01	<0.01	<0.01	0.2	95
Lead	614-7	<0.05	<0.05	<0.05	0.5	92
Mercury	614-10	0.001	<0.001	<0.001	0.001	92
Silver	614-7	<0.01	<0.01	<0.01	0.1	88
Selenium	614-7	<0.01	<0.01	<0.01	0.1	40
Copper	614-7	<0.02	<0.02	<0.02	0.24	96
Nickel	614-7	<0.05	<0.05	<0.05	0.5	94
Zinc	614-7	0.07	0.11	0.09	0.5	92

Approved by:

Mike Shelton

Date:

11/10/87

COLUMBIA ANALYTICAL SERVICES, INC.
1152 3RD AVE. LONGVIEW, WA 98632
(206) 577-7222

CLIENT: Chemical Processors
--Mel Miller
PROJECT: Soil

November 10, 1987

WORK ORDER #: 87614

QA-QC Report
mg/kg (on dry basis)

Element	Lab Code	A	B	Avg.	Spike Level	% Recovery
Arsenic	614-1	3.8	3.6	3.7	10	105
Barium	614-1	67	69	68	175	114
Cadmium	614-1	<1	<1	<1	4.4	96
Chromium	614-1	23.6	25	24	35	94
Lead	614-1	13	15	14	44	108
Mercury	614-1	0.1	0.1	0.1	0.4	96
Silver	614-1	<2	<2	<2	17.5	97
Selenium	614-1	<2	<2	<2	9.8	94
Copper	614-1	14	13	14	22	105
Nickel	614-1	32	29	31	49.5	114
Thallium	614-1	<1	<1	<1	20	100
Zinc	614-1	43	39	41	44	106

Approved by:

Mike Shelton

Date:

11/10/87



am test inc.

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14603 N.E. 87th St. • REDMOND, WASHINGTON 98052 • 206/885-1664

ANALYSIS REPORT

CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller
5501 Airport Way South
Seattle, WA 98108

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Table with 5 columns: Laboratory Sample Numbers, Client Identification, and four data columns. Rows include Fraction #1 (% Residue), Organically-bound Halogens* (ug/g as Chloride), Organically-bound Fluoride* (ug/g), Fraction #4 (% Residue), Fraction #6 (% Residue), and 4,5,6-PAH Ring (% Residue).

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	712983	712984	712985	712986
Client Identification	CTP-9B#2	CTP-10B#1	CTP-10B#2	CTP-10B#3
Fraction #1 (% Residue)	6.2	0.1	2.0	2.0
Organically-bound <25.logens* (ug/g as Chloride)	62.	<25.	62.	<25.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	5.2	-	2.0	2.0
Fraction #6 (% Residue)	1.24	-	0.2	0.8
4,5,6-PAH Ring (% Residue)	1.24	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	712987	712988	712989	712990
Client Identification	CTP-8B#1	CTP-8B#2	CTP-8B#3	CTP-23B#1
Fraction #1 (% Residue)	0.02	1.0	2.0	0.02
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<25.	<25.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	-	1.0	2.0	-
Fraction #6 (% Residue)	-	0.3	0.14	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	712991	712992	712993	712994
Client Identification	CTP-6B#1	CTP-6B#2	CTP-6B#3	CTP-2B#1
Fraction #1 (% Residue)	1.3	0.2	0.7	1.1
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<25.	87.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	<1.0	-	-	0.04
Fraction #6 (% Residue)	-	-	-	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	712995	712996	712997	712998
Client Identification	CTP-2B#2	CTP-12B#1	CTP-12B#2	CTP-9B#1
Fraction #1 (% Residue)	3.3	0.1	2.1	0.08
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<25.	<25.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	3.0	-	2.0	-
Fraction #6 (% Residue)	0.5	-	0.9	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713117	713118	713119	713120
Client Identification	CTP-5B#1	CTP-5B#2	CTP-5B#3	CTP-4B#1
Fraction #1 (% Residue)	<1.0	3.3	0.02	<1.0
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<25.	<25.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	-	3.3	-	-
Fraction #6 (% Residue)	-	0.9	-	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713121	713122	713123	713124
Client Identification	CTP-4B#2	CTP-4B#3	CTP-4C#1	CTP-3B#1
Fraction #1 (% Residue)	<1.0	<1.0	<1.0	0.3
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<25.	<25.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<2.0
Fraction #4 (% Residue)	-	-	-	-
Fraction #6 (% Residue)	-	-	-	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713125	713126	713229	713230
Client Identification	CTP-3B#2	CTP-3B#3	CTP-7B#1	CTP-7B#2
Fraction #1 (% Residue)	0.7	3.0	<1.0	<1.0
Organically-bound Halogens* (ug/g as Chloride)	<25.	<25.	<14.	<14.
Organically-bound Fluoride* (ug/g)	<2.0	<2.0	<2.0	<4.0
Fraction #4 (% Residue)	-	3.0	-	-
Fraction #6 (% Residue)	-	0.9	-	-
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713231	713232	713233	713234
Client Identification	CTP-7B#3	CTP-13B#2	CTP-13B#3	CTP-13B#1
Fraction #1 (% Residue)	3.0	0.02	0.2	2.0
Organically-bound Halogens* (ug/g as Chloride)	<14.	<14.	<14.	<14.
Organically-bound Fluoride* (ug/g)	<4.0	<4.0	<4.0	<2.0
Fraction #4 (% Residue)	2.2	-	-	2.1
Fraction #6 (% Residue)	1.0	-	-	0.3
4,5,6-PAH Ring (% Residue)	1.0	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

DATE REVISED: 2/8/88

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713235	713236	713237	713238
Client Identification	CTP-1B#1	CTP-1B#2	CTP-11B#1	CTP-11B#2
Fraction #1 (% Residue)	0.08	0.6	0.6	8.0
Organically-bound Halogens* (ug/g as Chloride)	<10.	<14.	<14.	<14.
Organically-bound Fluoride* (ug/g)	<4.0	<4.0	<4.0	<4.0
Fraction #4 (% Residue)	-	-	-	2.1
Fraction #6 (% Residue)	-	-	-	0.44
4,5,6-PAH Ring (% Residue)	-	-	-	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

Continued

FR 18



CLIENT: Chemical Processors

DATE REPORTED: 11/12/87

REPORT TO: Mel Miller

PROJECT NO.: 59403.0

WASHINGTON STATE D.O.E. HAZARDOUS WASTE EXTRACTION
FOR THE ANALYSIS OF HALOGENATED HYDROCARBONS &
POLYCYCLIC AROMATIC HYDROCARBONS - WAC 173-303

Laboratory Sample Numbers	713239	713240
Client Identification	CTP-11B#3	CTP-11B#4
<hr/>		
Fraction #1 (% Residue)	10.5	10.
Organically-bound Halogens* (ug/g as Chloride)	40.	<14.
Organically-bound Fluoride* (ug/g)	<4.0	<4.0
Fraction #4 (% Residue)	10.5	2.5
Fraction #6 (% Residue)	1.5	0.7
4,5,6-PAH Ring (% Residue)	1.5	-

*Halogenated Hydrocarbons data is based on 10.0 gram weight.

BDA/pb

REPORTED BY

Bryan D. Anderson
Bryan D. Anderson

Appendix E

COMPUTER GENERATED CHEMICAL PLOTS

APPENDIX E
SOIL CHEMISTRY VERTICAL PROFILE PLOTS

Soil samples for chemical analysis were obtained from the following three depth discrete zones:

- o Depth Zone 1: 0.5- to 2.4-feet b.g.s.
- o Depth Zone 2: 2.2- to 3.5-feet b.g.s.
- o Depth Zone 3: 3.5- to 8.2 feet b.g.s.

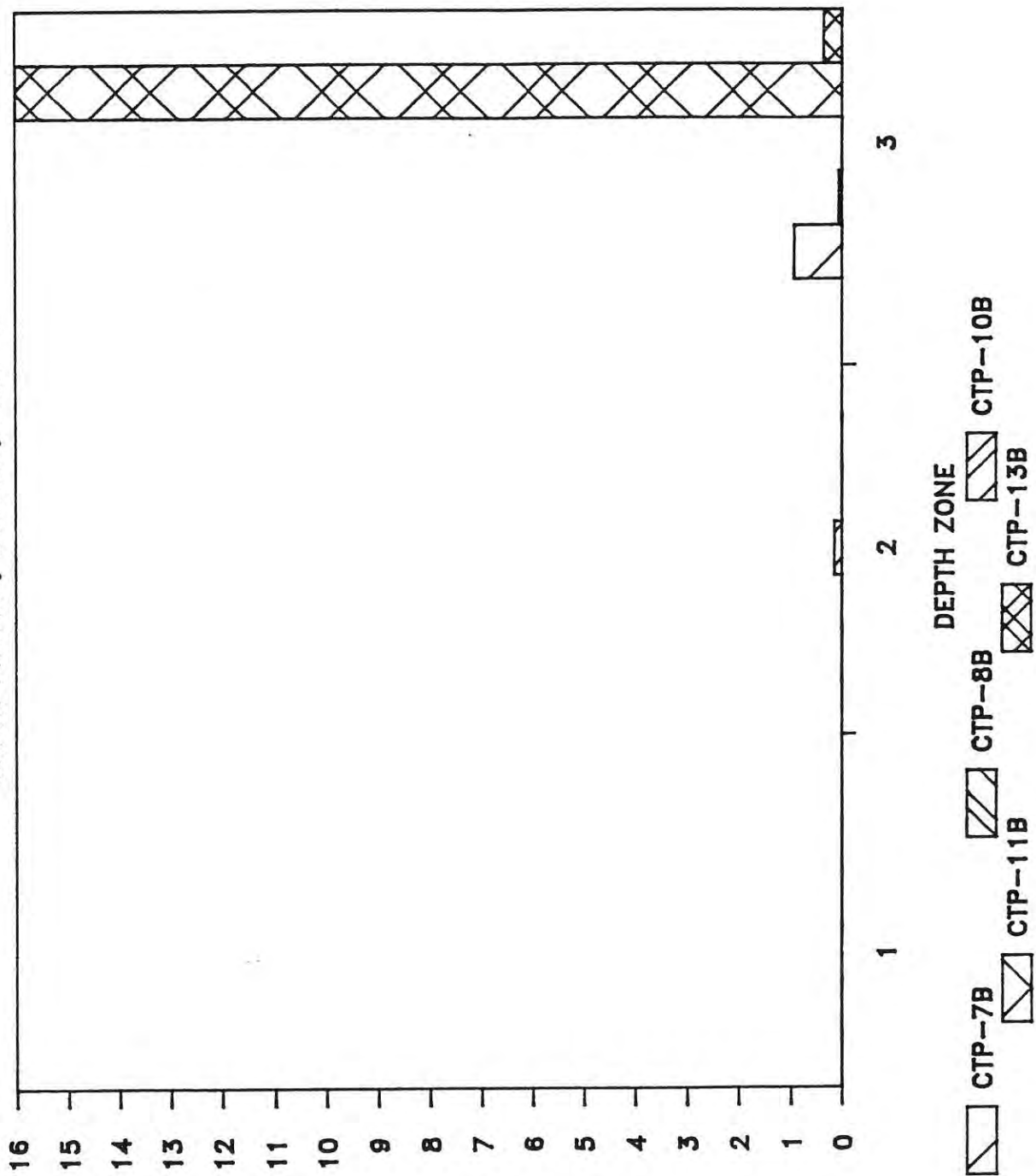
A total of 45 soil samples were submitted to four analytical laboratories for chemical analysis (Section 2.2). Results of the laboratory testing of soil samples are presented in Appendix D.

The analytical results for soil chemistry are plotted versus depth on the following bar graph figures. Figures were generated for representative analytes from each of the following general parameter groups: 1) Volatile Organic Compounds 2) PCB 3) Total Metals and 4) EP Toxicity. For each parameter, bar graphs were generated only for those analytes where detections were reported above the detection limit and where samples were obtained for each of the three depth zones.

One or two bar graphs are presented herein for each of the parameter groups based on the number of boring locations that had samples with detections. The test results for a maximum of six borings are plotted on each bar graph. Vertical scales and the width of the bars are generated by the computer plotting program (Symphony version 1.2). The analytical results from the borings indicated on the figures are plotted in numerical order for each of the three depth zones. No plot is shown for depth zones where parameters were not reported above the detection limit.

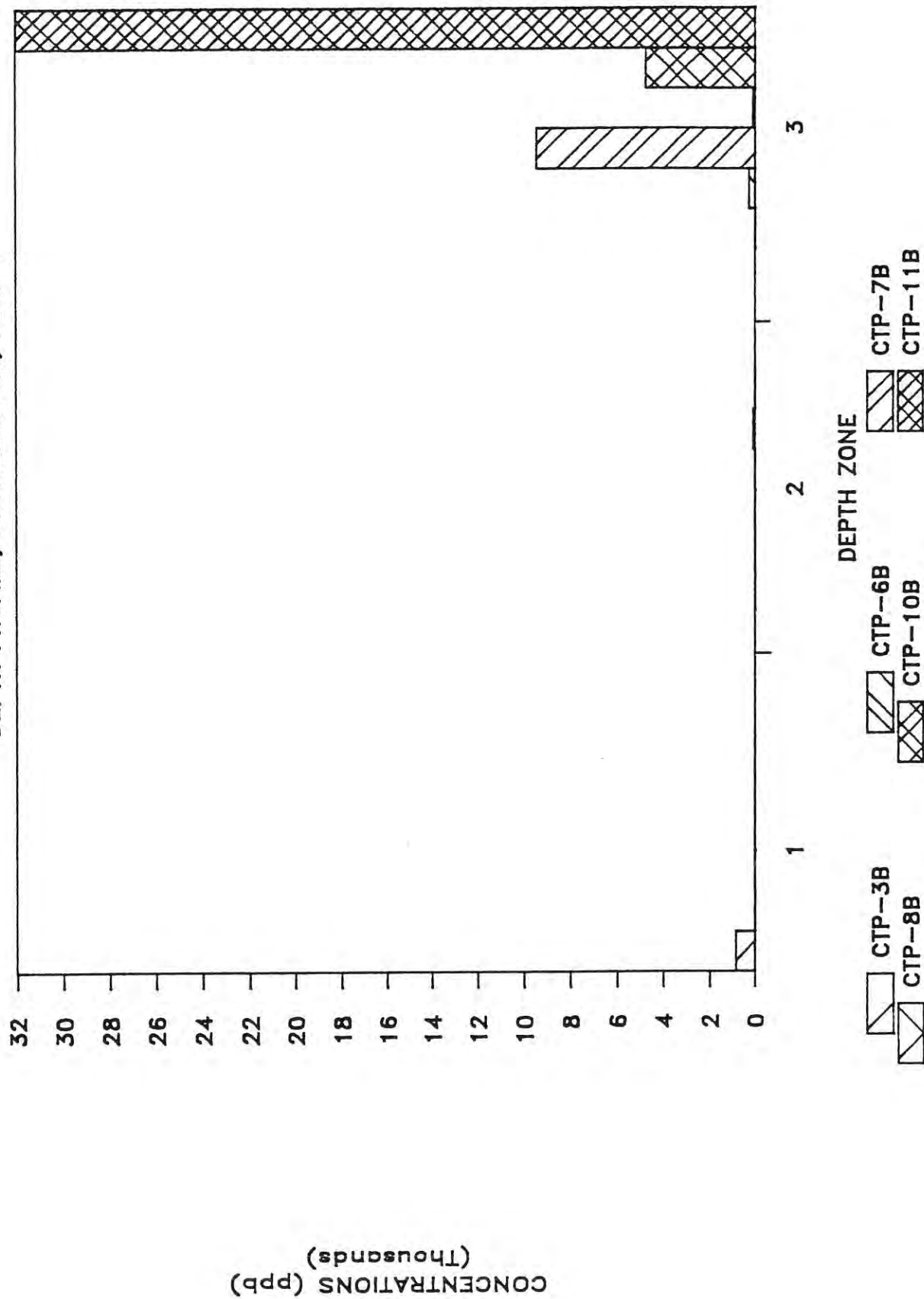
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, BENZINE, PLOT-1



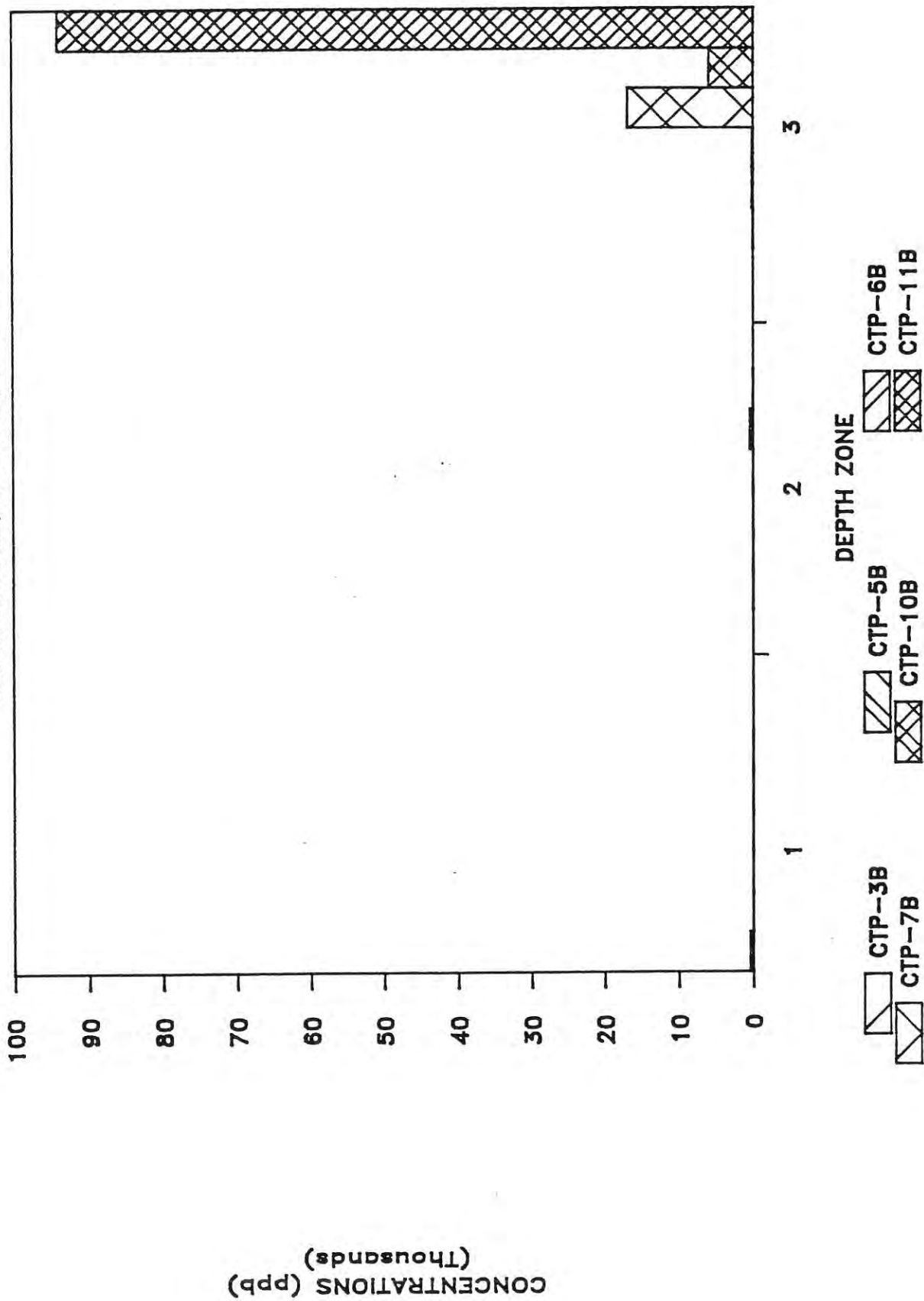
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, ETHYLBENZENE, PLOT-1



PARCEL A, PHASE II SOIL CHEMISTRY

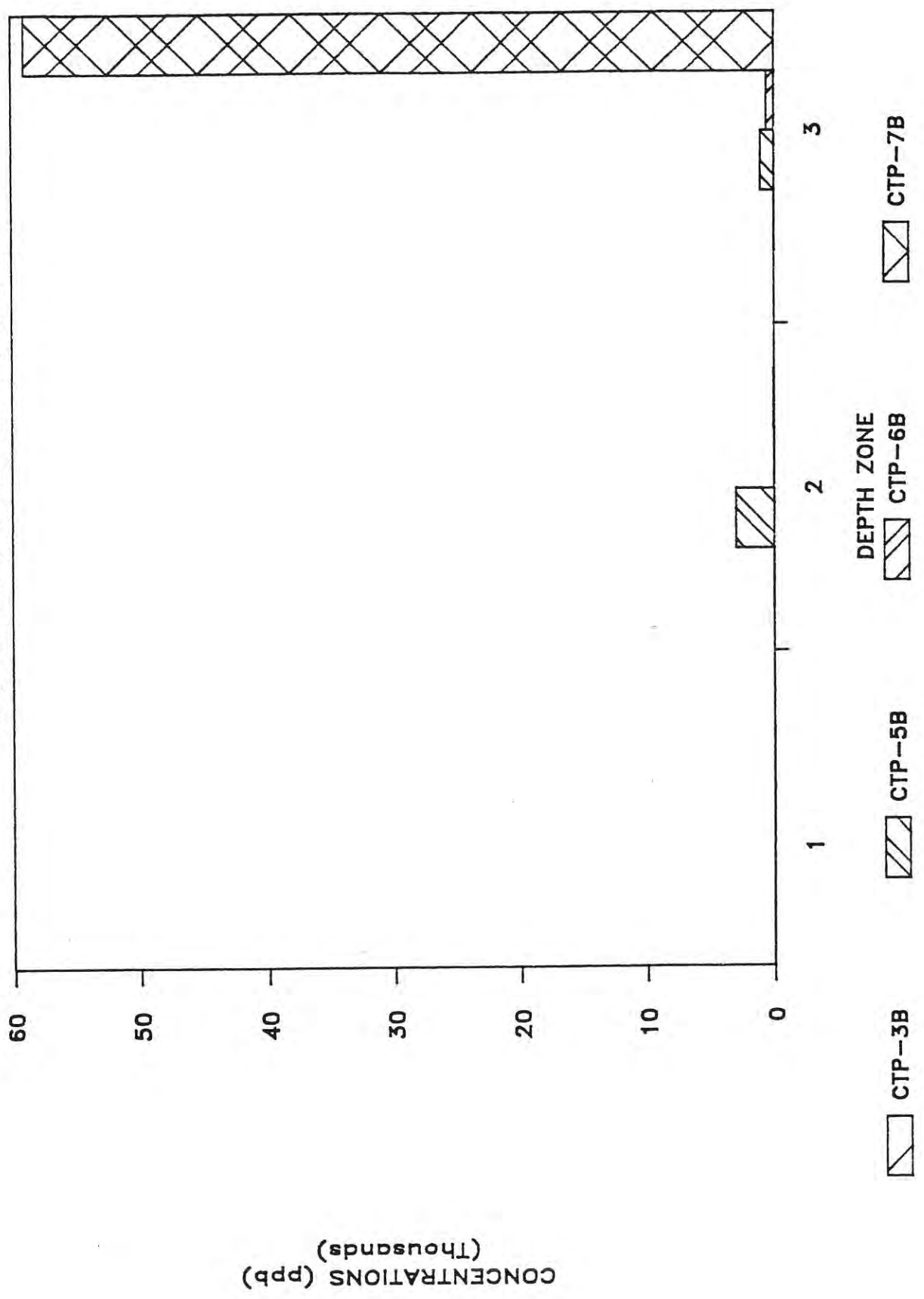
DEPTH PROFILE, TOLUENE, PLOT-1



CONCENTRATIONS (ppb)
(Thousands)

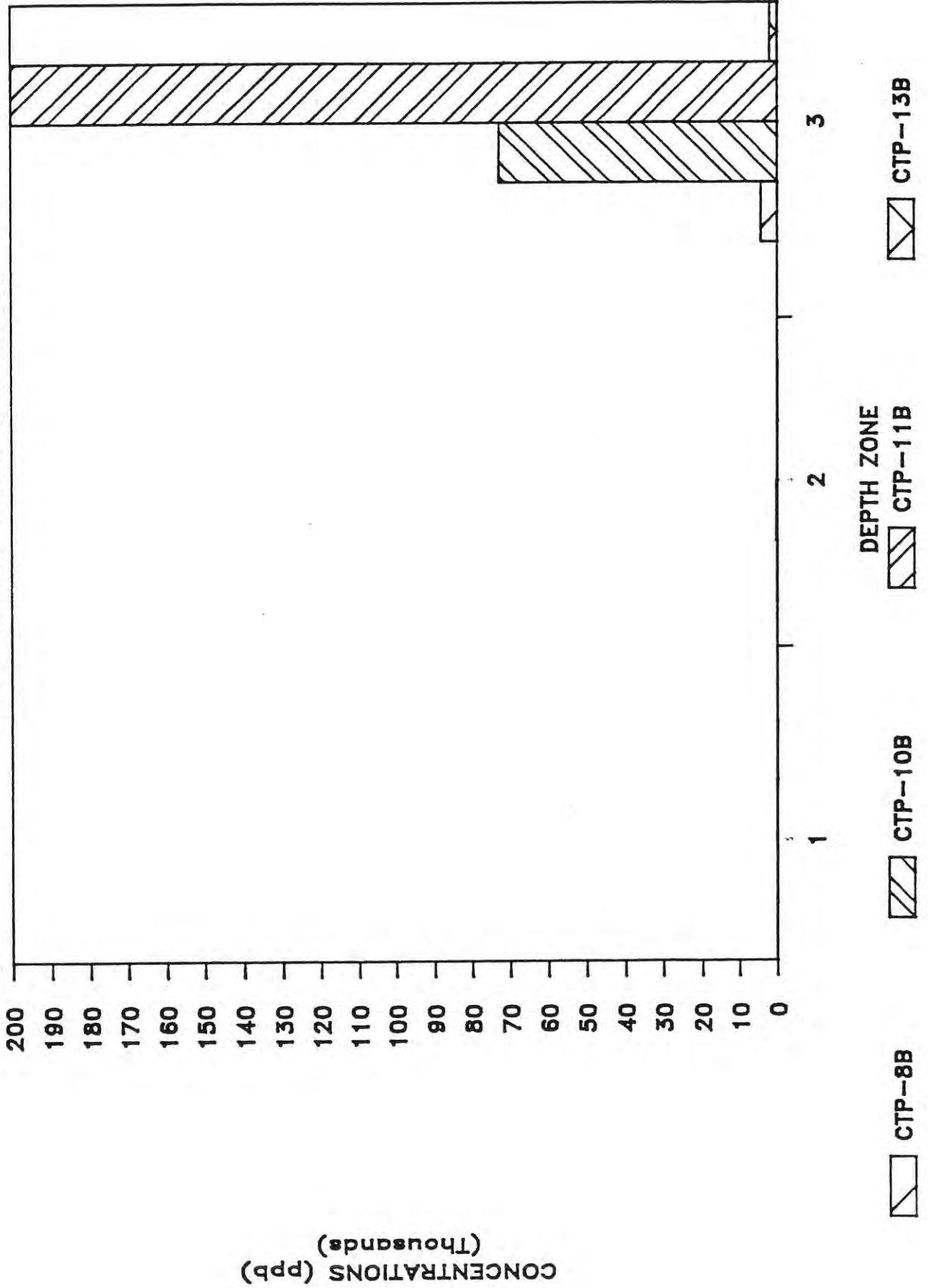
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, TOTAL XYLENES, PLOT-1



PARCEL A, PHASE II SOIL CHEMISTRY

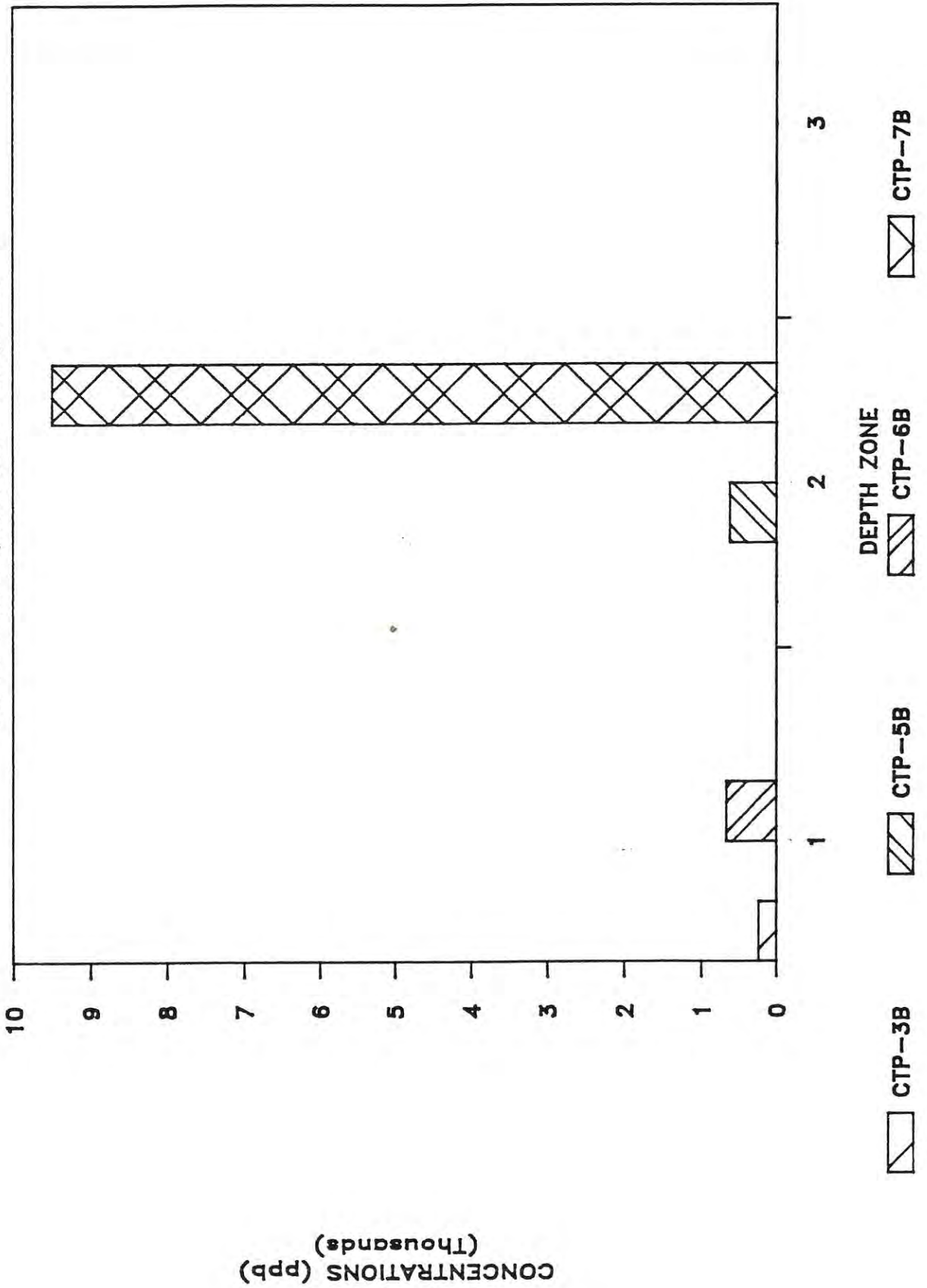
DEPTH PROFILE, TOTAL XYLENES, PLOT-2



CONCENTRATIONS (ppb)
(Thousands)

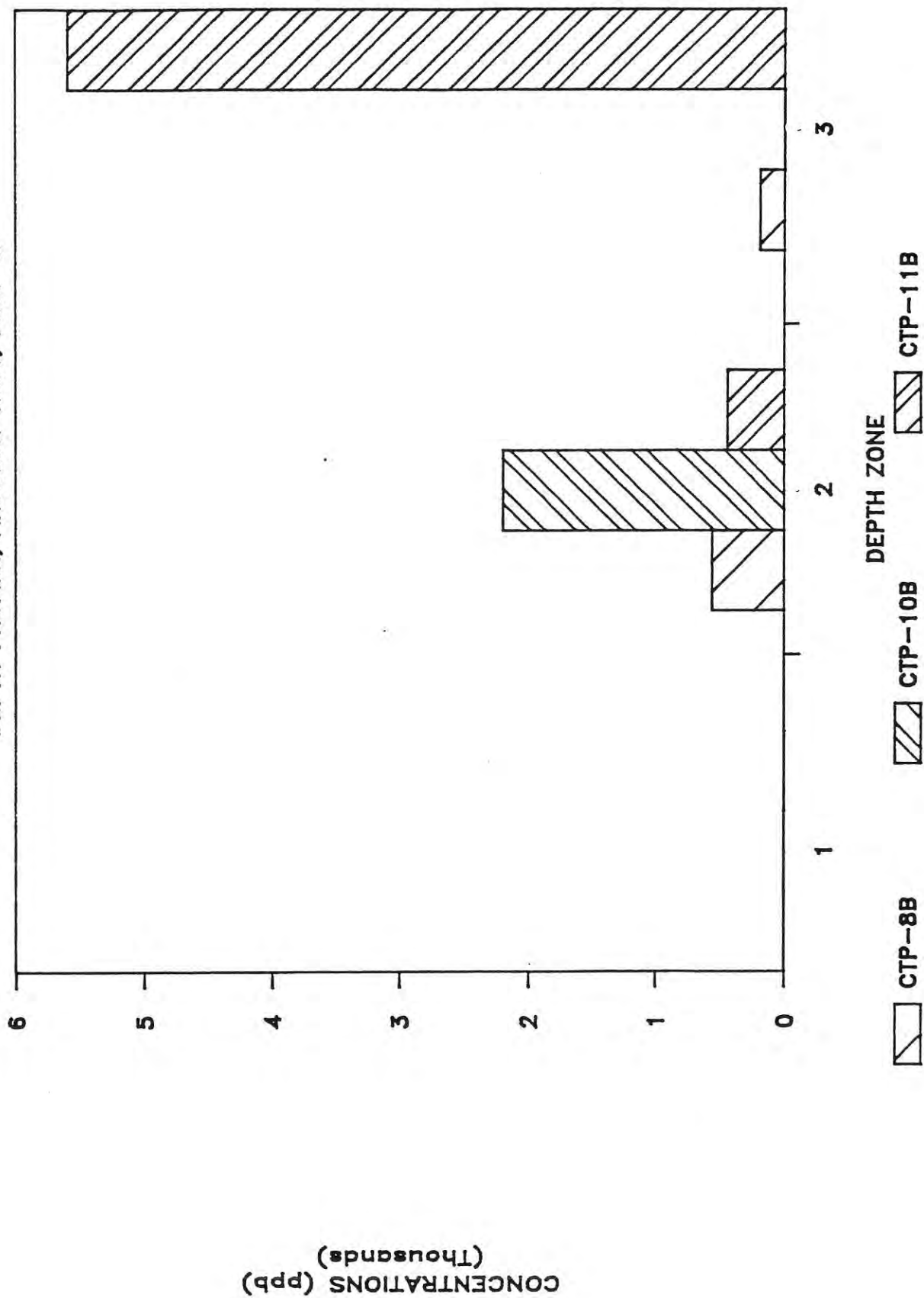
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, AROCLOR 1254, PLOT-1



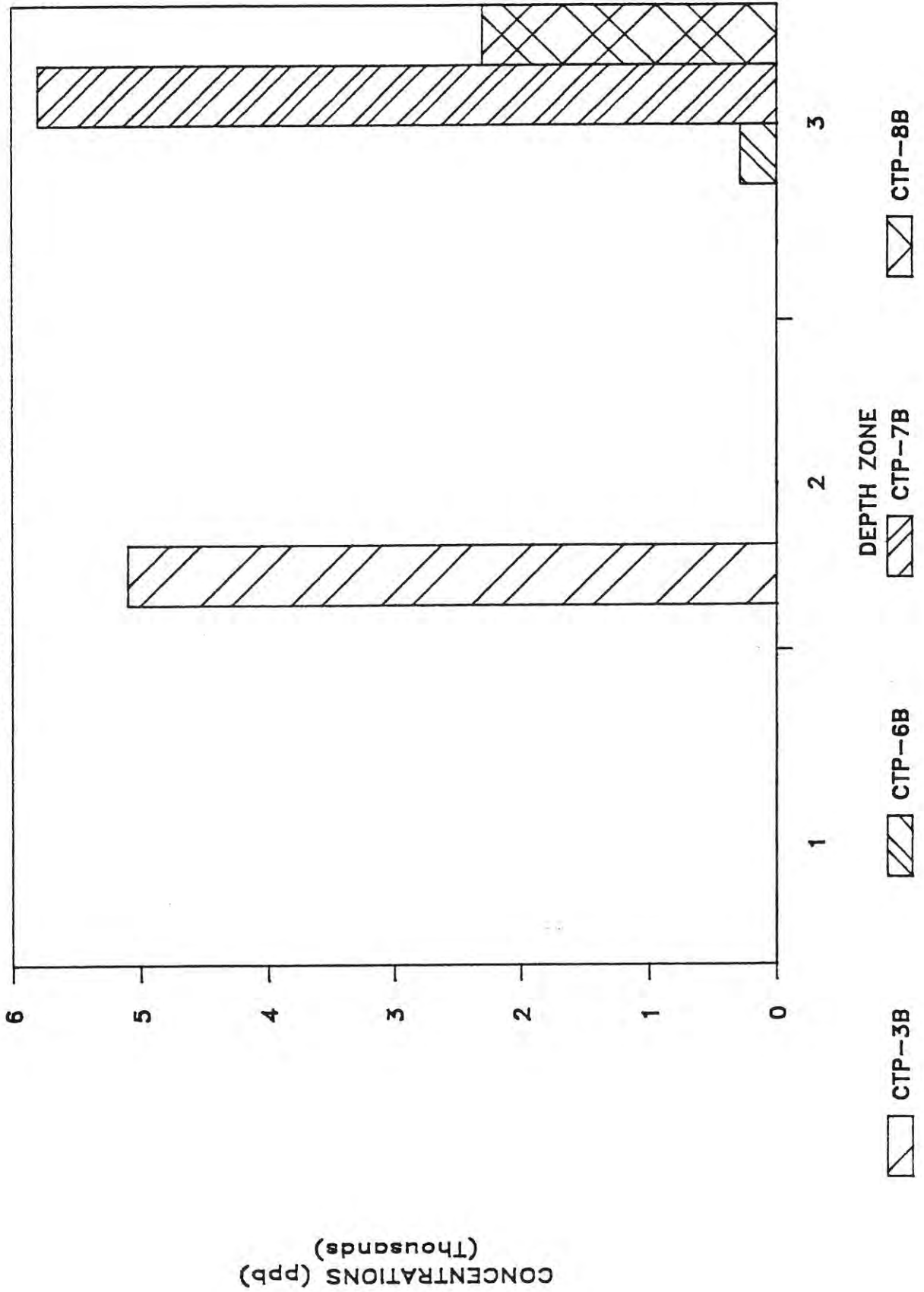
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, AROCLOR 1254, PLOT-2



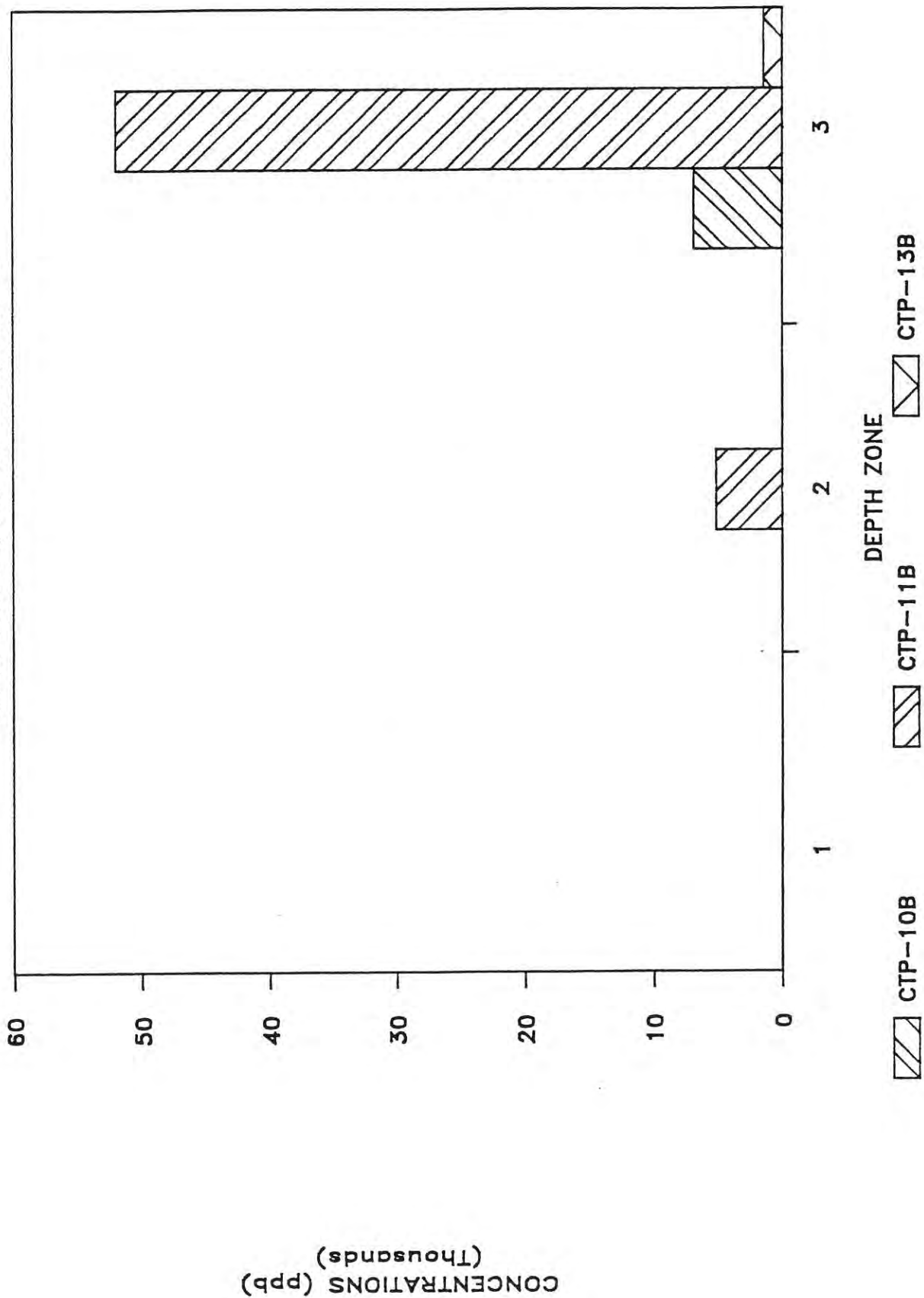
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, ANTHRACENE, PLOT-1



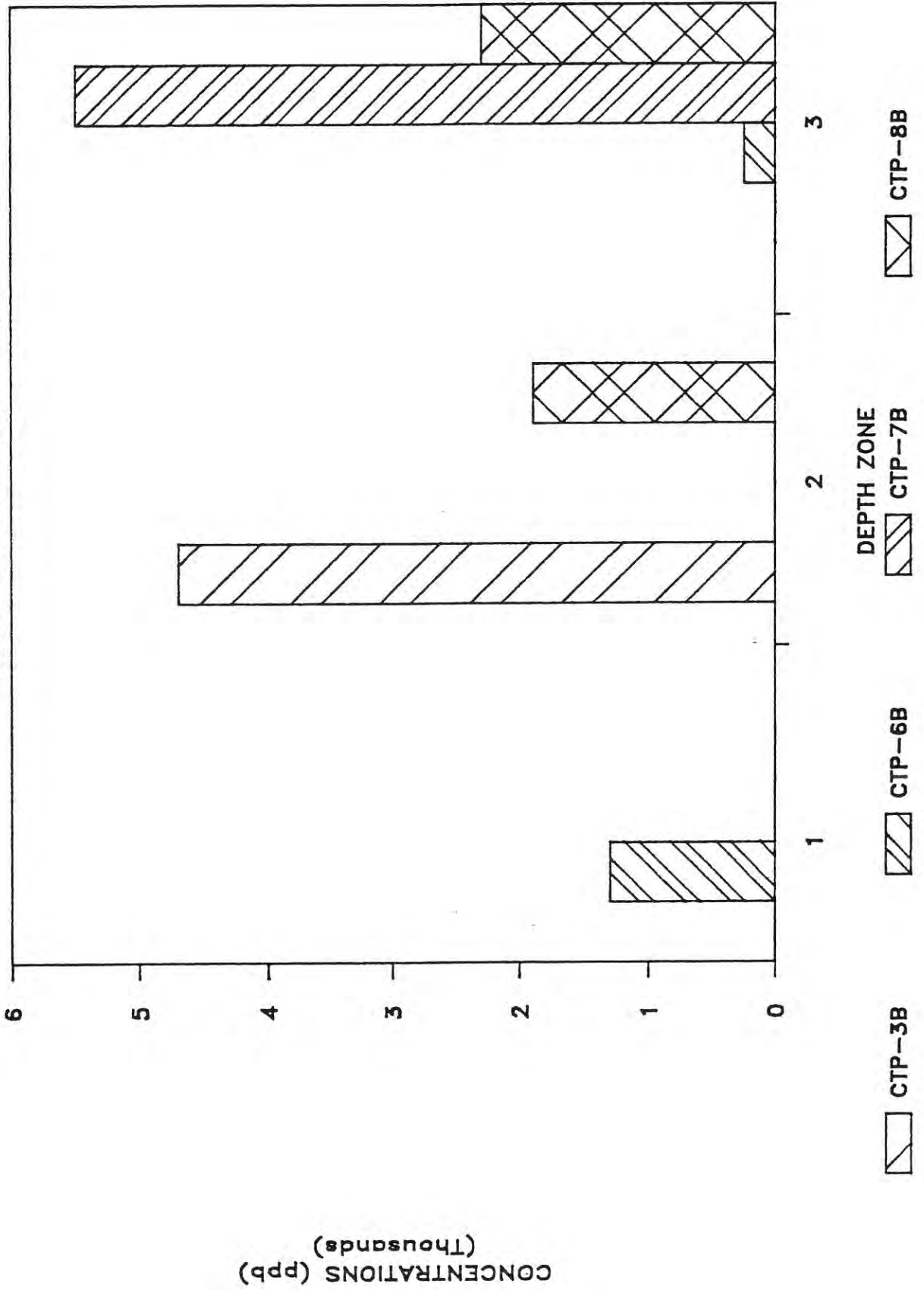
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, ANTHRACENE, PLOT--2



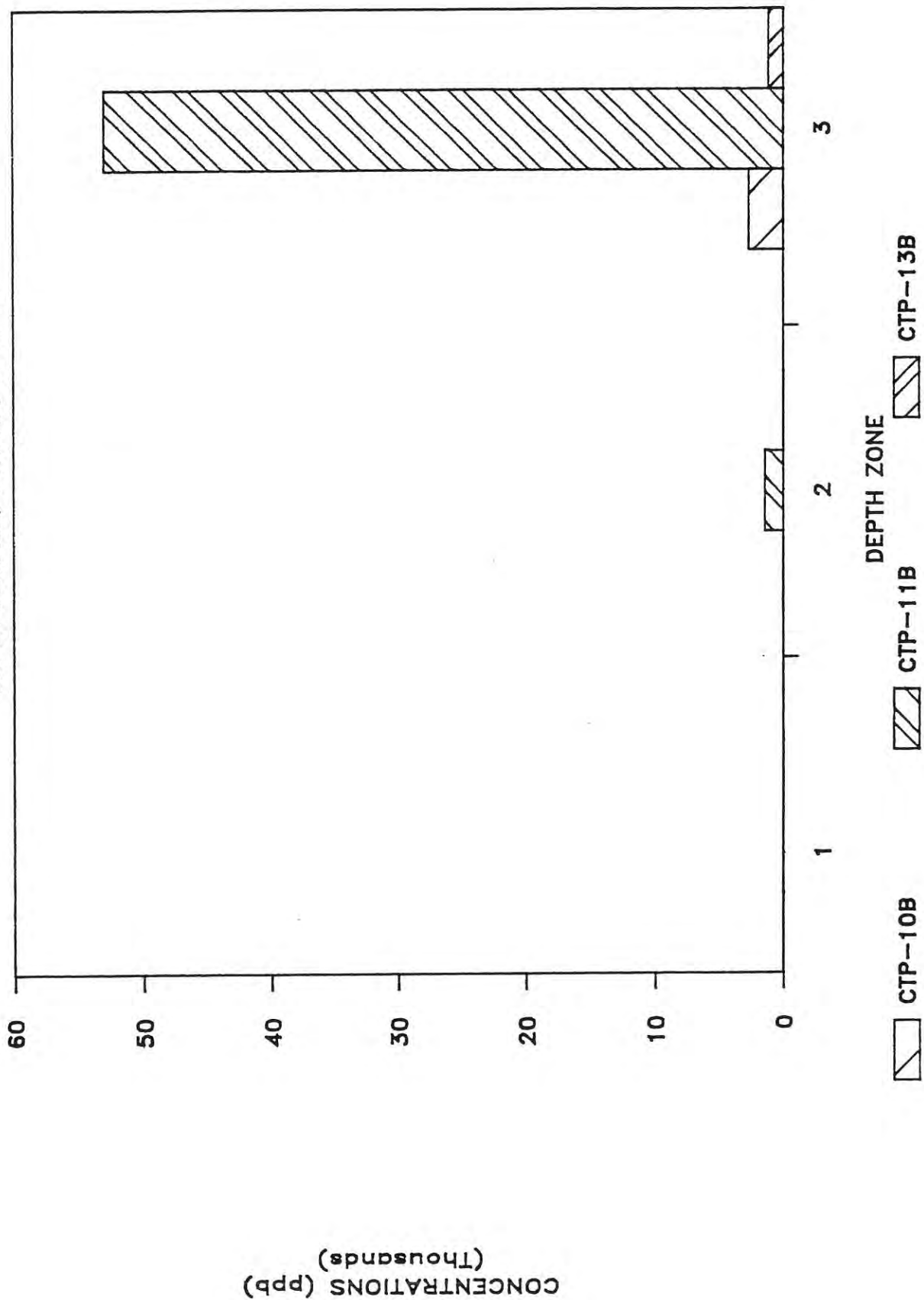
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, PYRENE, PLOT-1



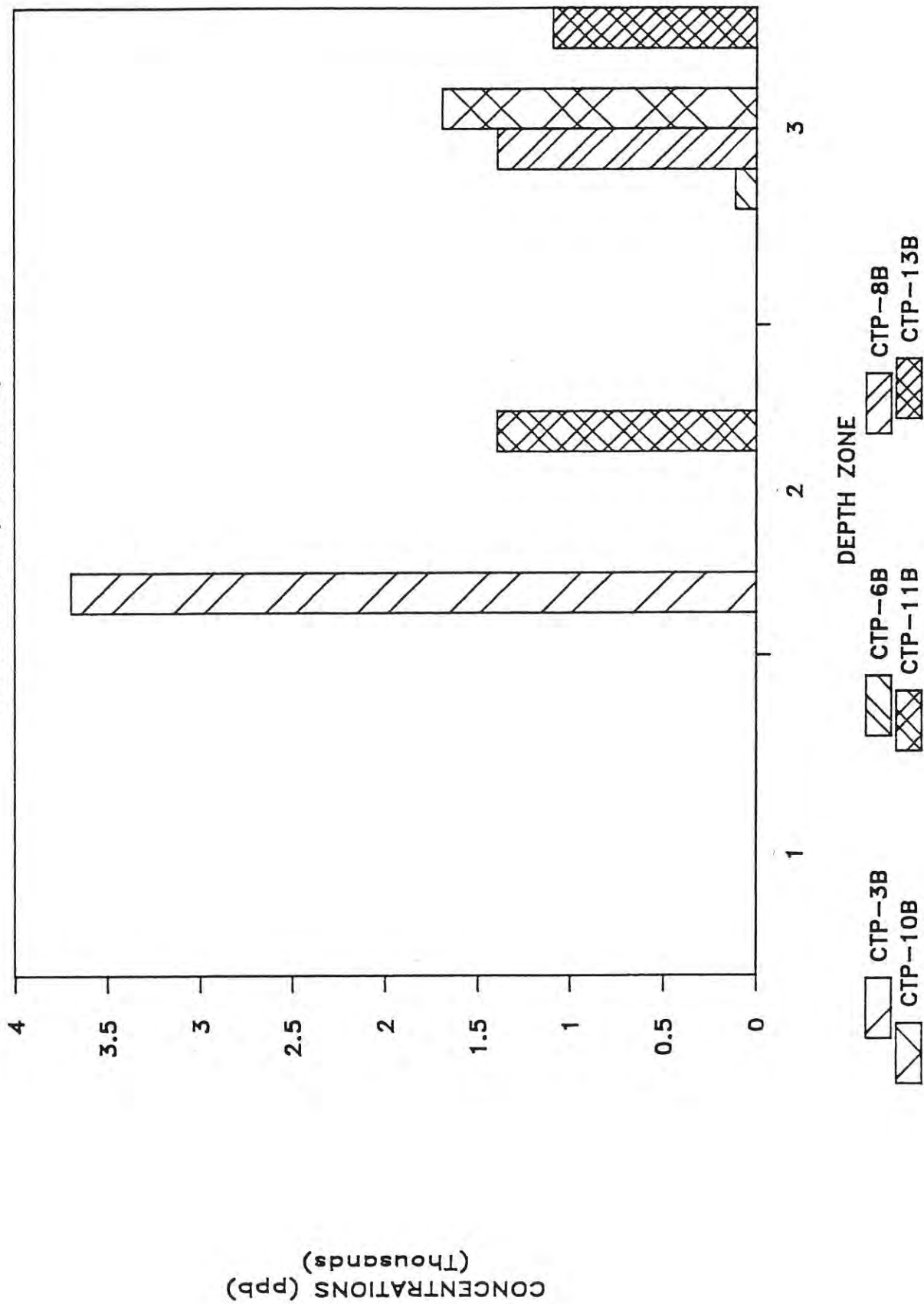
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, PYRENE, PLOT-2



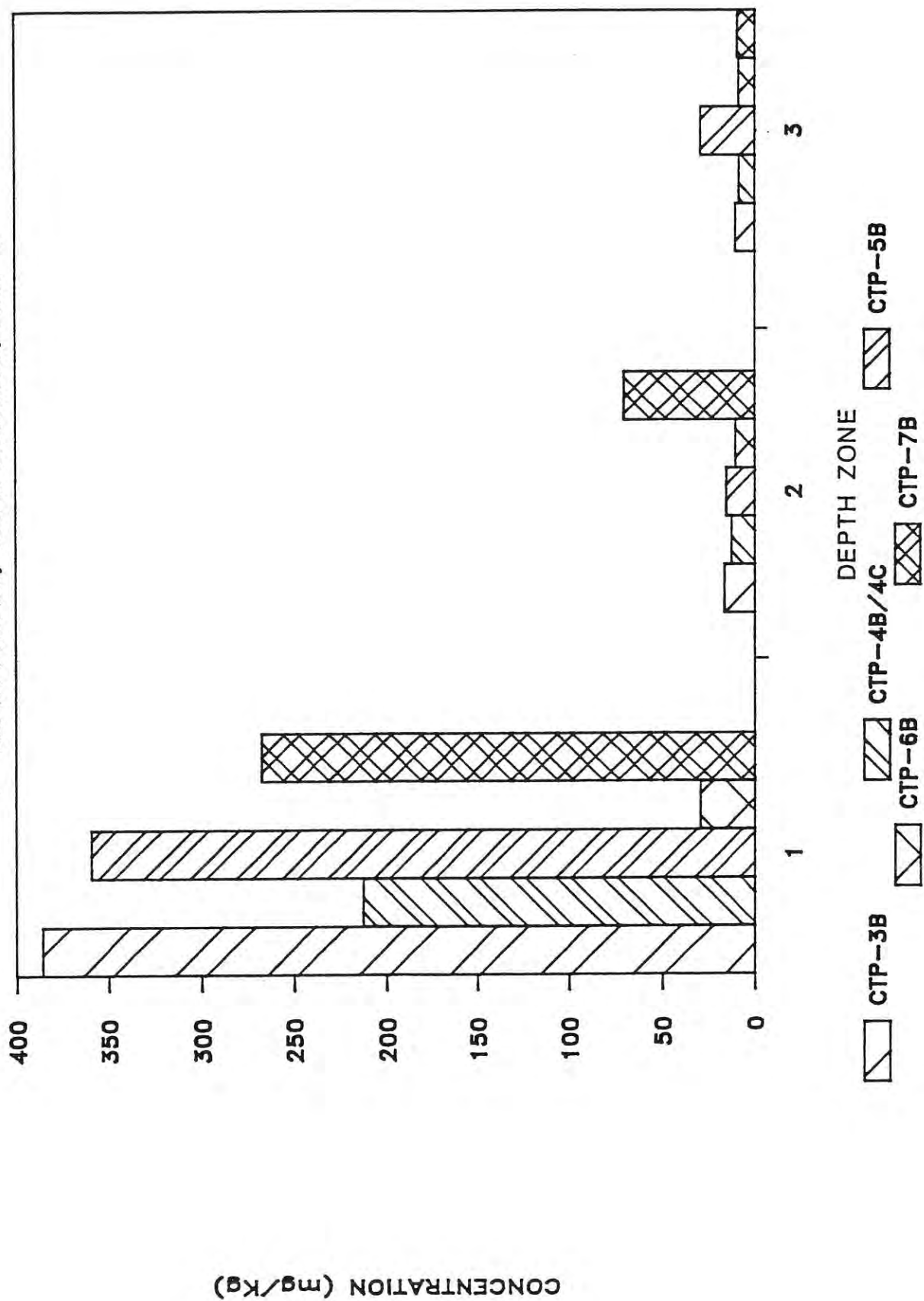
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, CHRYSENE, PLOT-1



PARCEL A, PHASE II SOIL CHEMISTRY

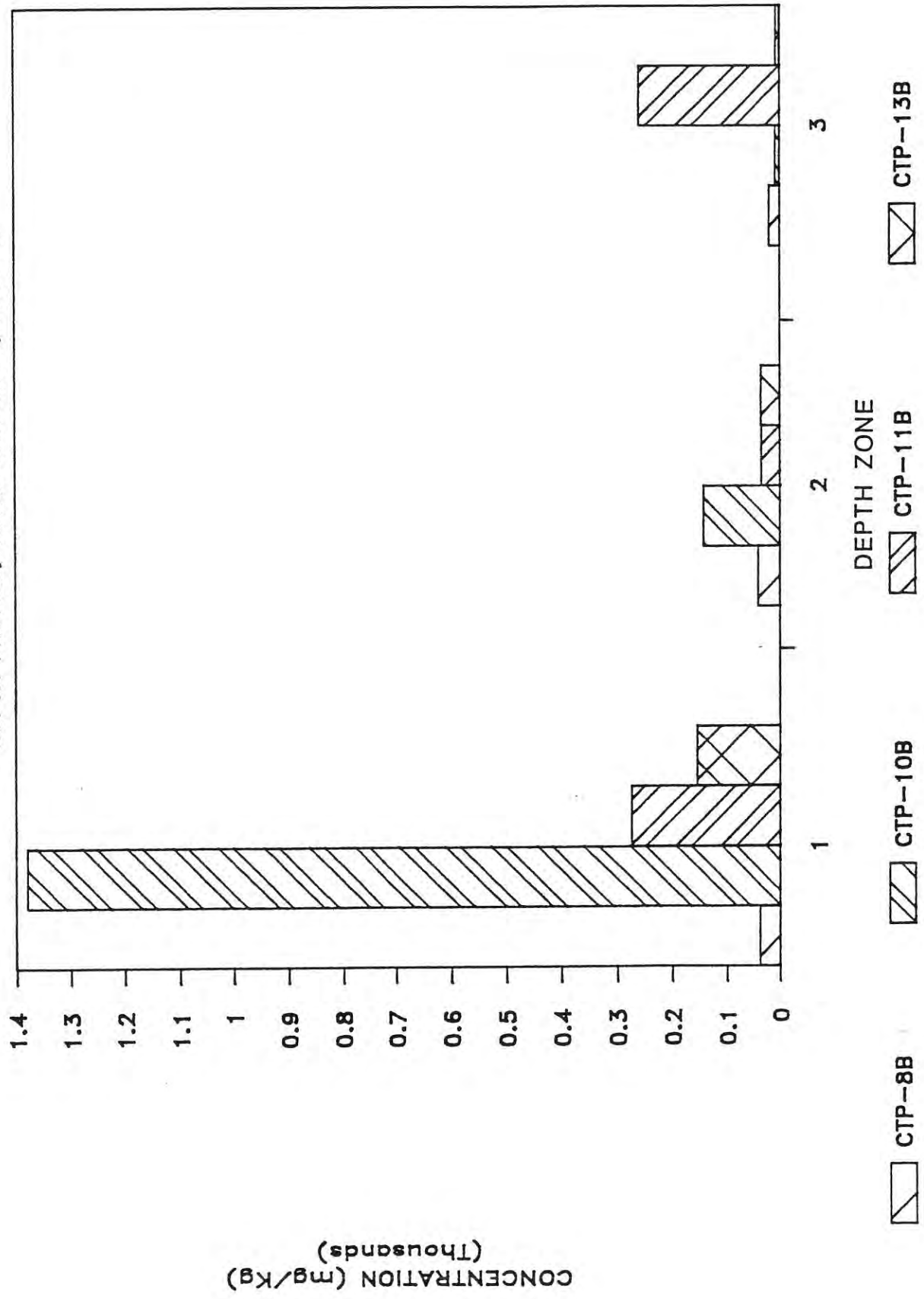
DEPTH PROFILE, TOTAL CHROMIUM, PLOT-1



CONCENTRATION (mg/kg)

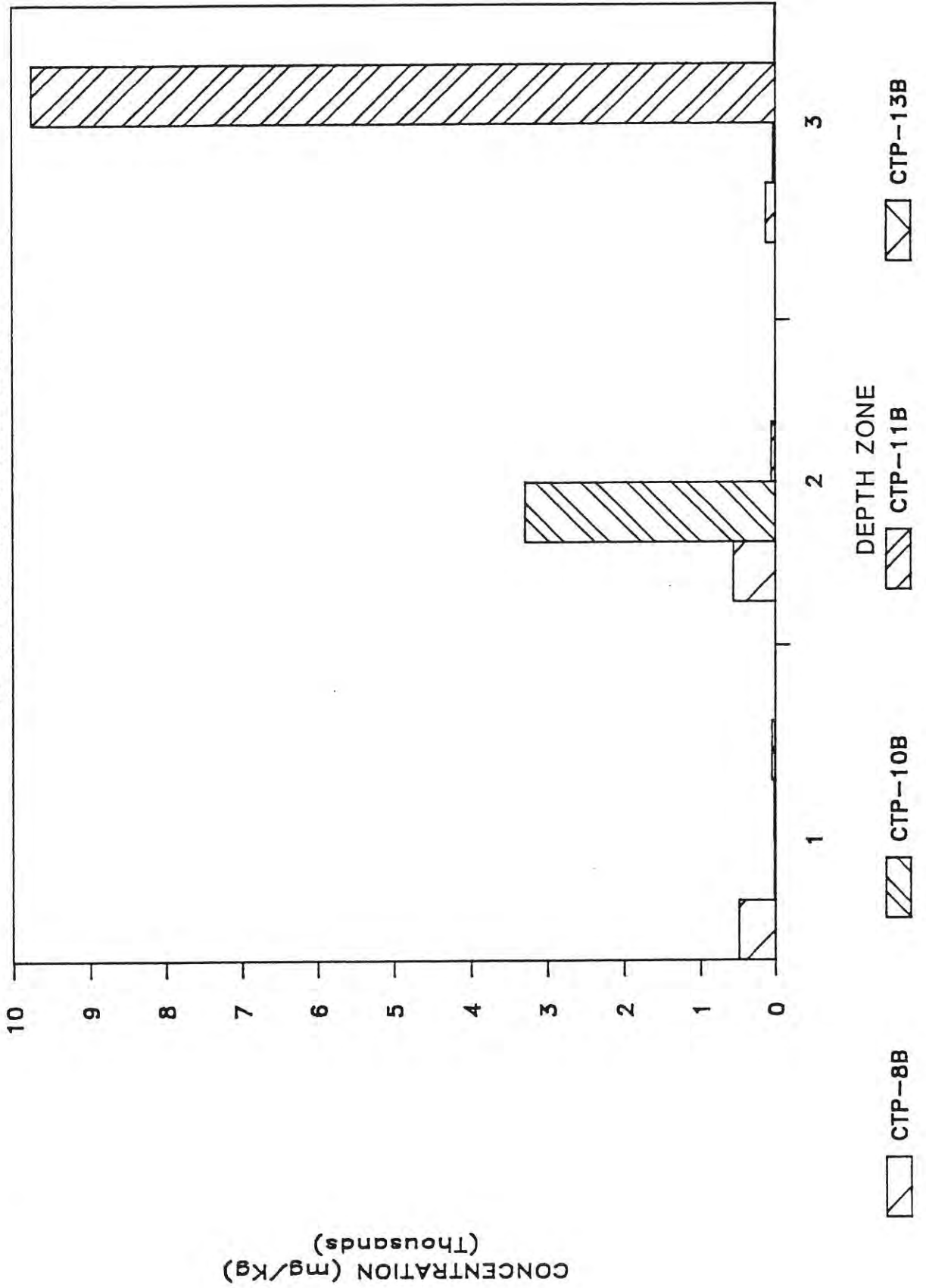
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, TOTAL CHROMIUM, PLOT-2



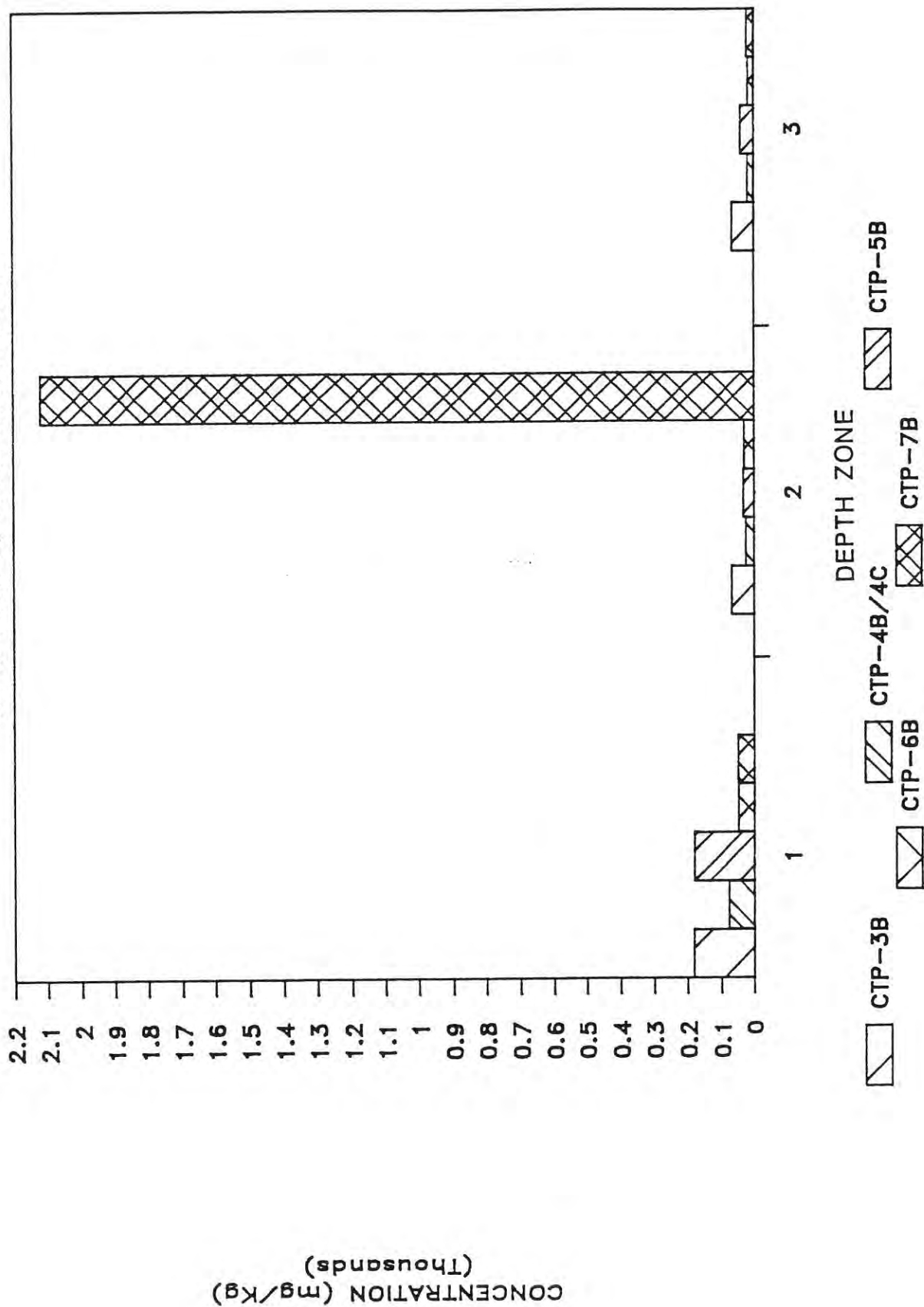
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, TOTAL LEAD, PLOT-2



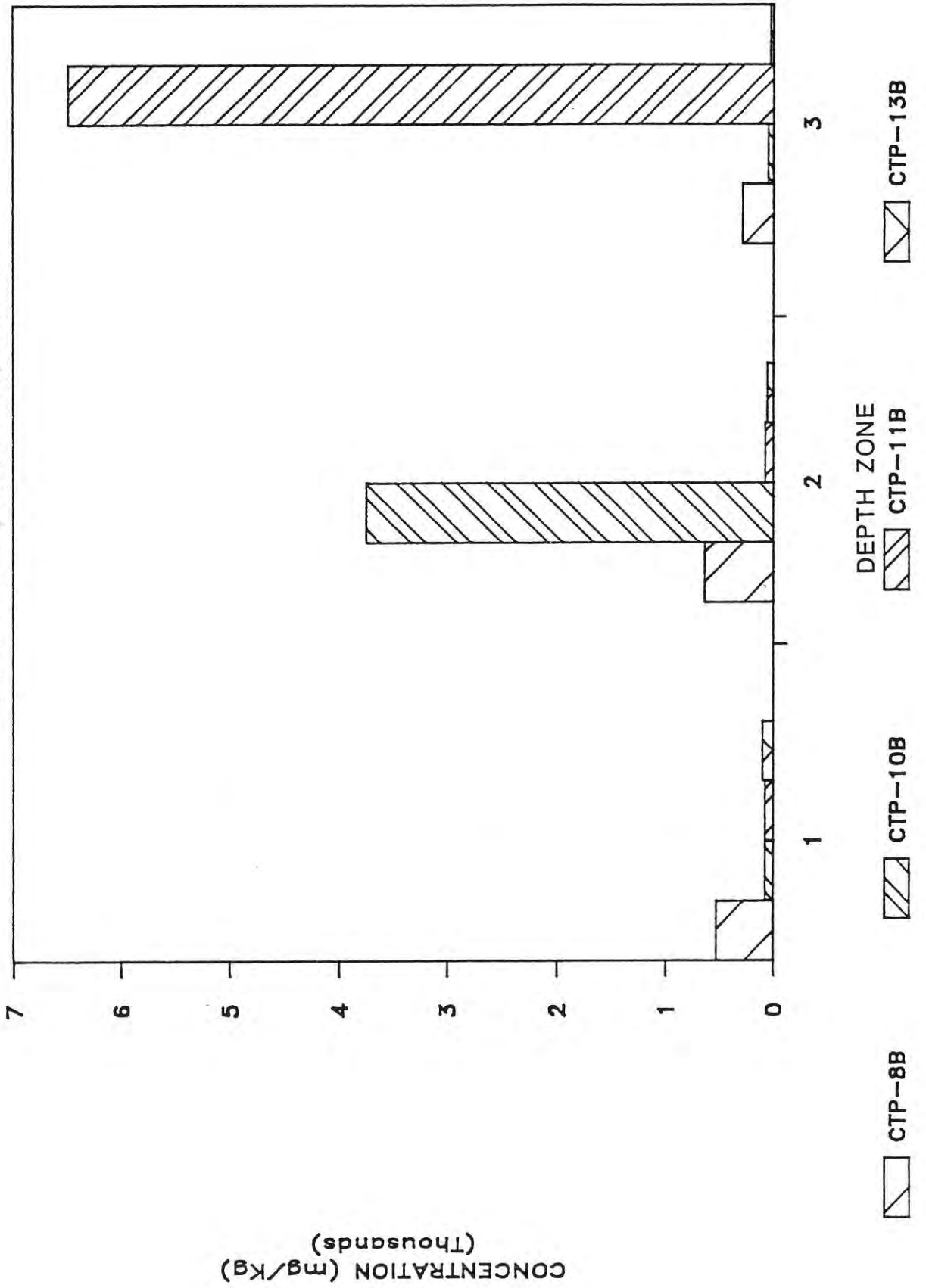
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, TOTAL ZINC, PLOT-1



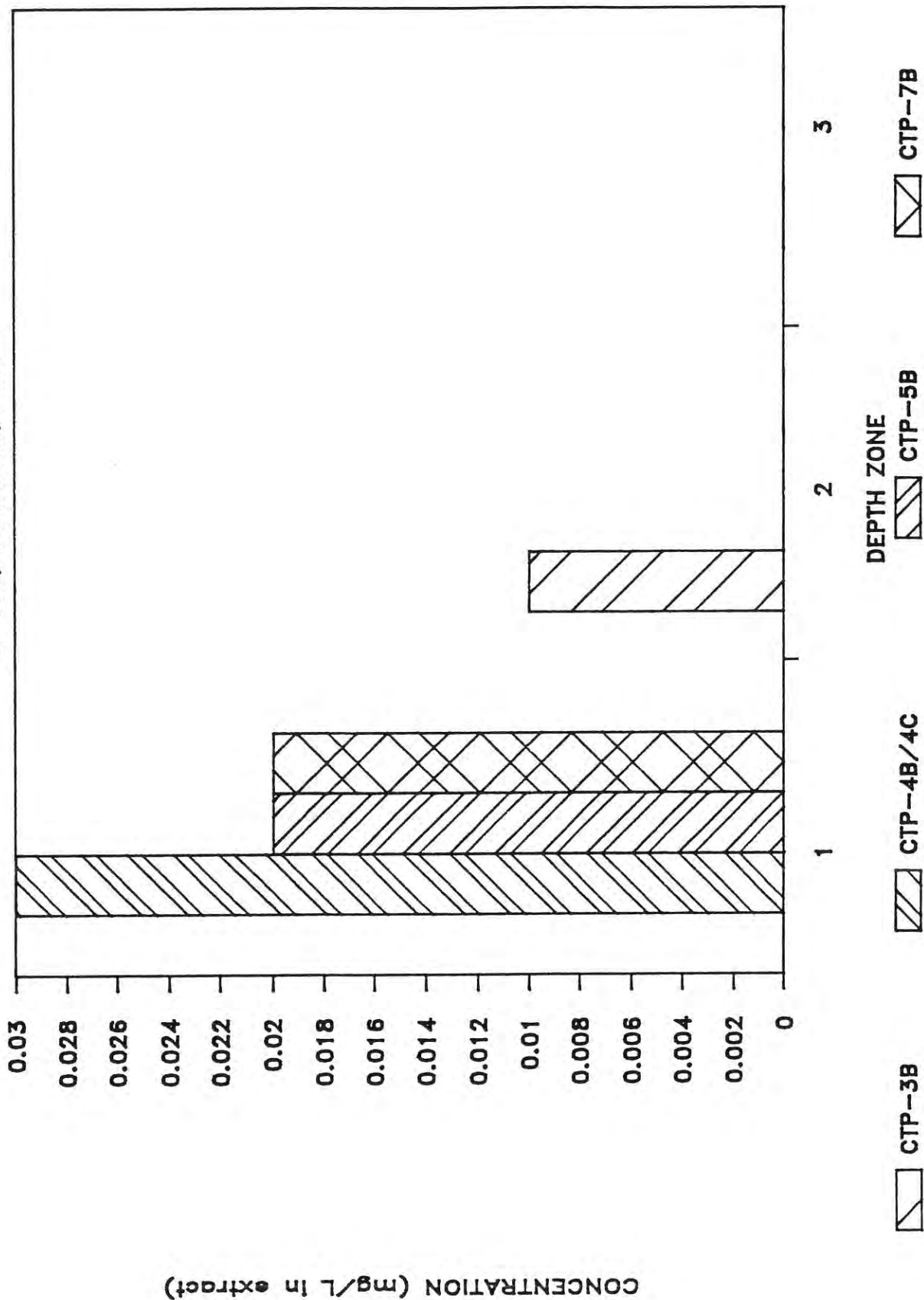
PARCEL A, PHASE II SOIL CHEMISTRY

DEPTH PROFILE, TOTAL ZINC, PLOT-2



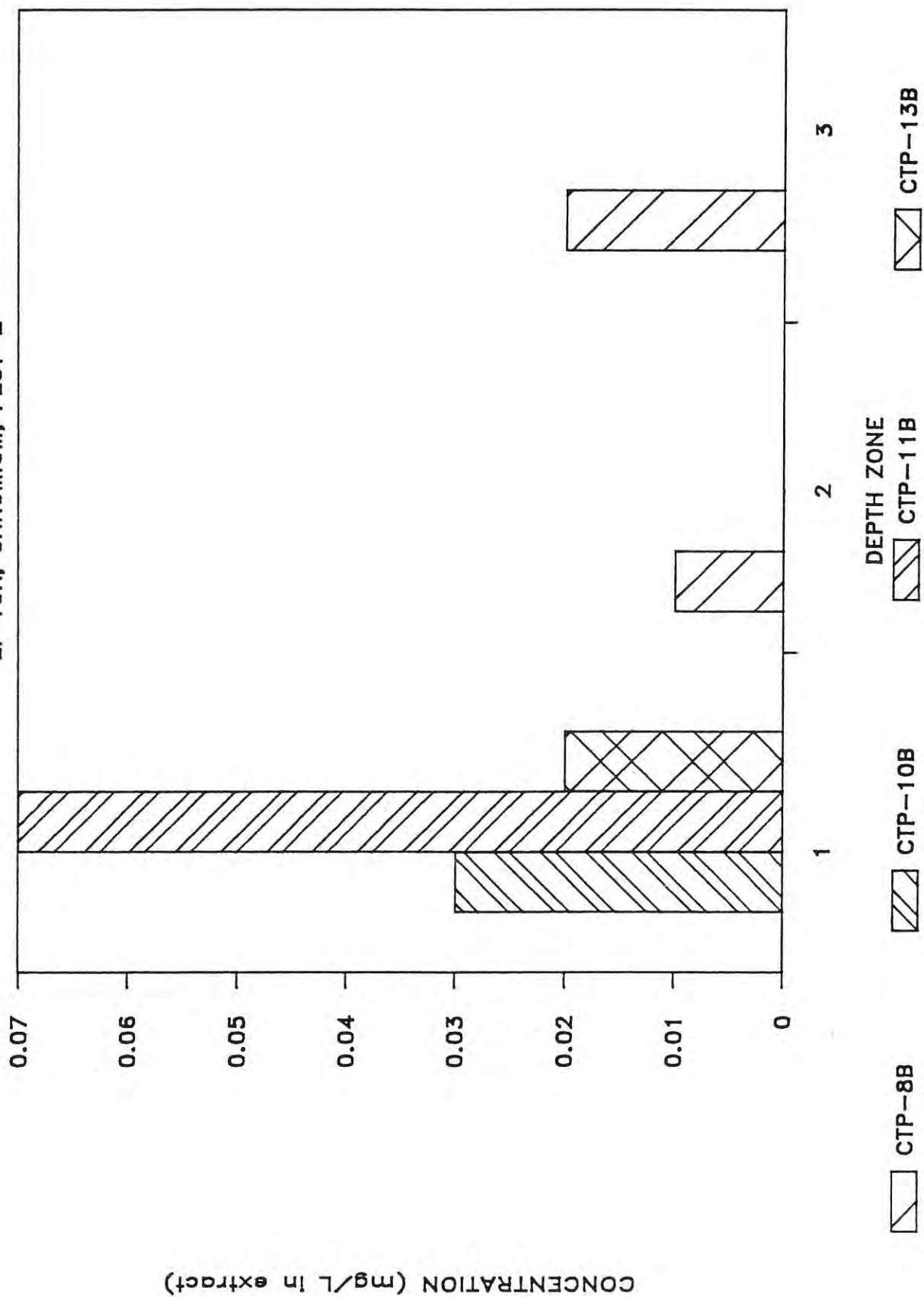
PARCEL A, PHASE II SOIL CHEMISTRY

EP TOX, CHROMIUM, PLOT 1



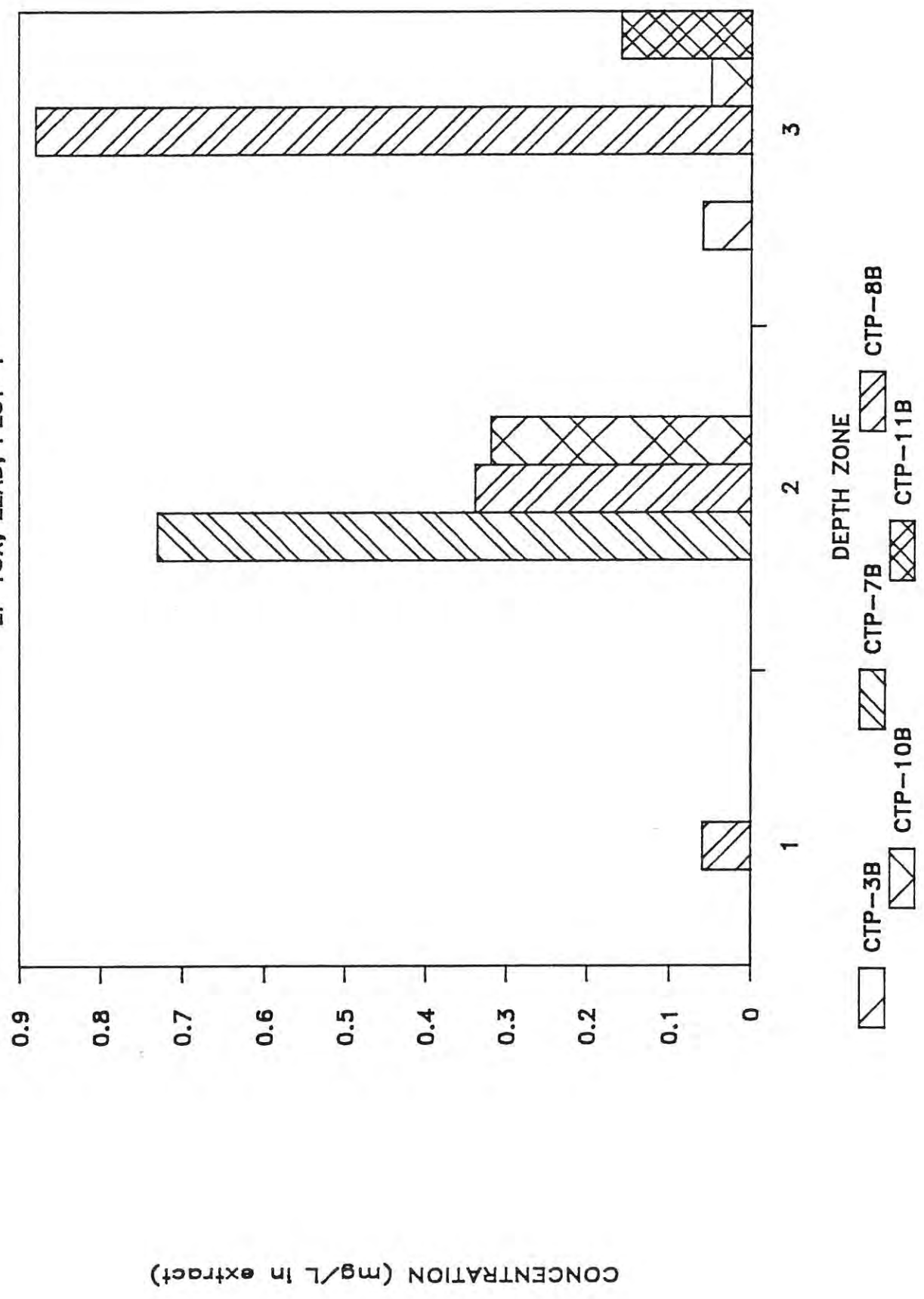
PARCEL A, PHASE II SOIL CHEMISTRY

EP TOX, CHROMIUM, PLOT-2



PARCEL A, PHASE II SOIL CHEMISTRY

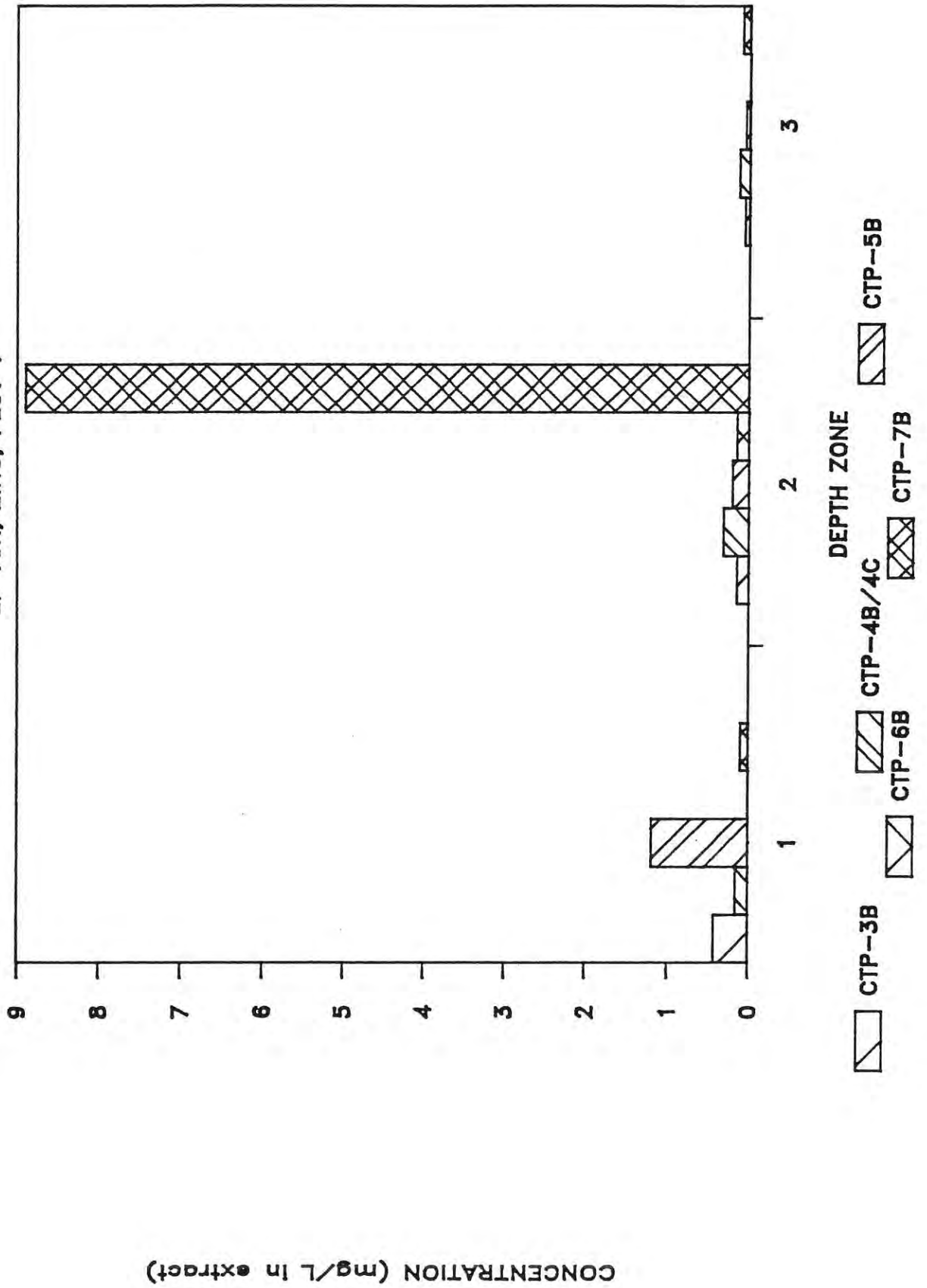
EP TOX, LEAD, PLOT--1



CONCENTRATION (mg/L in extract)

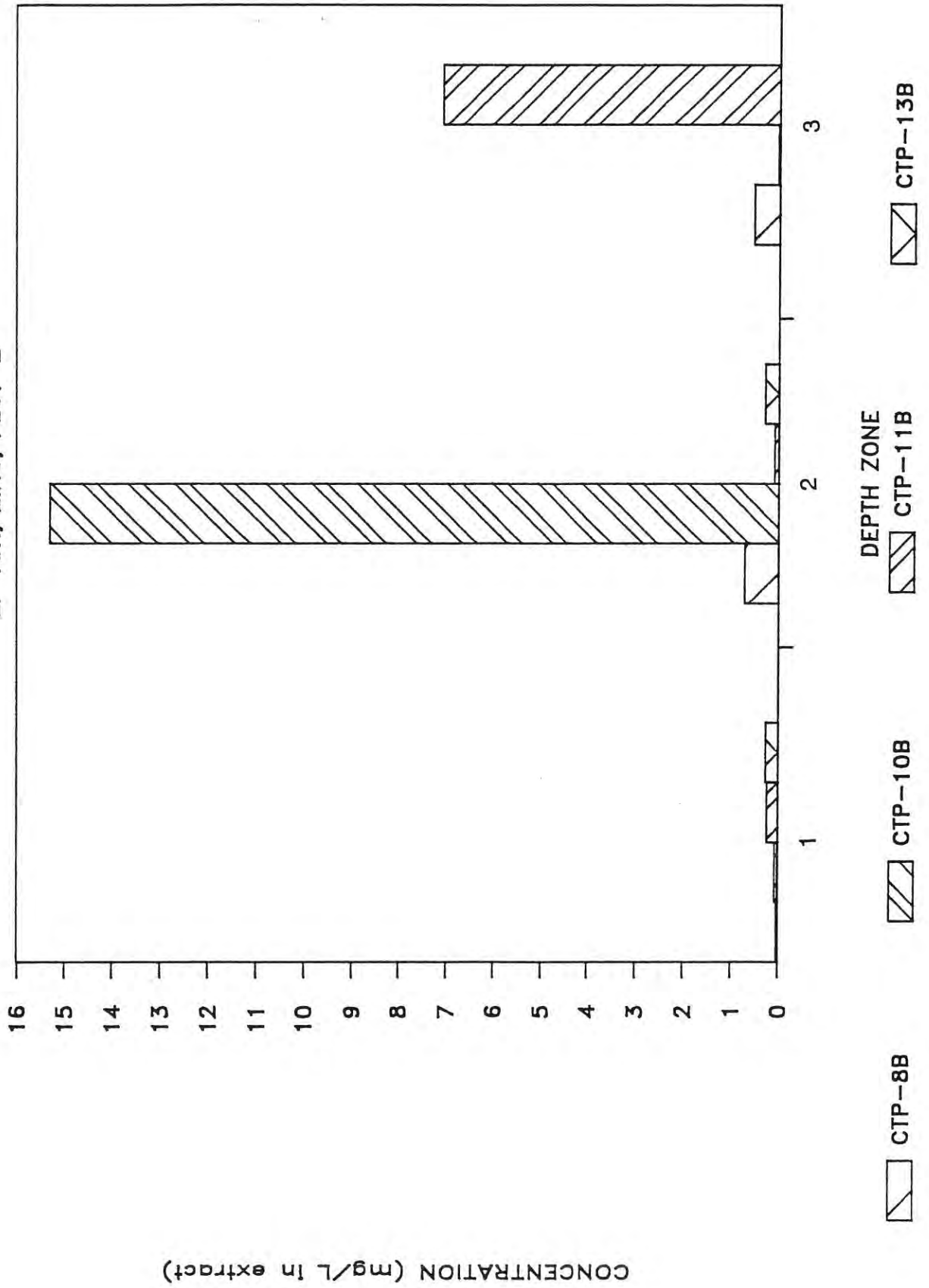
PARCEL A, PHASE II SOIL CHEMISTRY

EP TOX, ZINC, PLOT 1



PARCEL A, PHASE II SOIL CHEMISTRY

EP TOX, ZINC, PLOT-2



Appendix F

BLANK CONVERSION PROCEDURES

Appendix F

BLANK CONVERSION PROCEDURES

Laboratory testing indicated certain compounds were detected in laboratory method blanks for soils. These compound concentrations were assumed to be caused from contamination occurring in the media (methanol) used for extraction and therefore influencing the testing results for these compounds on all samples. Corrections were made when contamination occurred on the same day as VOC testing or BNA extractions.

To correct sample concentrations for compounds found in the method blank, the sample weight of the method blank and the sample must be equal. Reported laboratory sample weights are not equal. Therefore, direct subtraction of reported method blank concentrations from soil sample concentrations is not appropriate. In all cases, ARI re-calculated an equal weight sample concentration and informed Sweet-Edwards of the appropriate adjustments.

Appendix G
CORE PHOTOGRAPHS



Photo #1

CTP-5A
0.75-2.25'



Photo #2

CTP-5A
2.25-3.75'

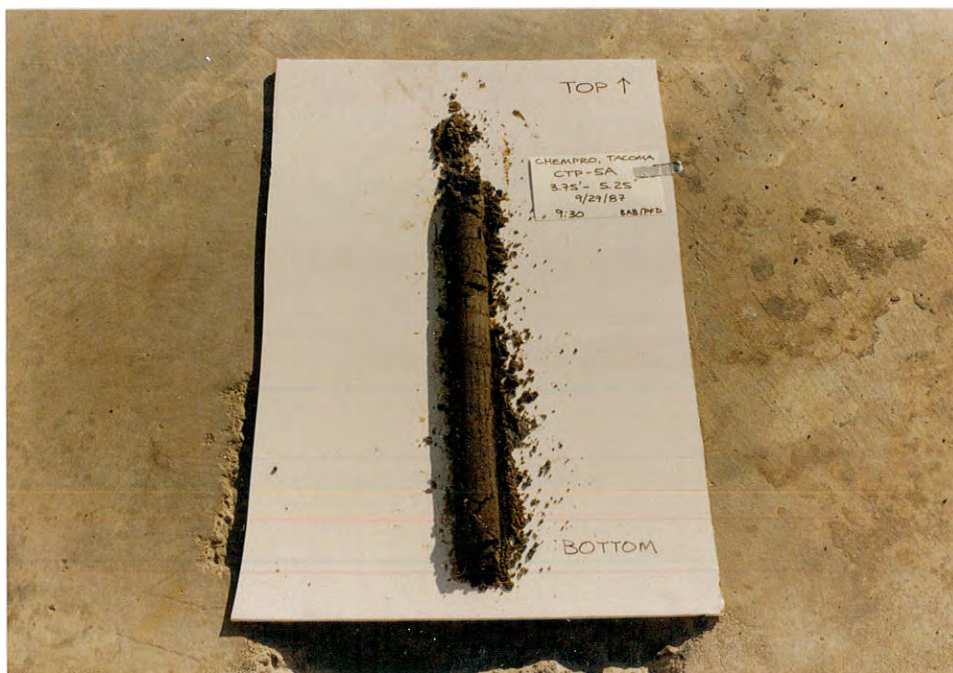


Photo #3

CTP-5A
3.75-5.25'



Photo #4

CTP-10A
0.7-2.2'



Photo #5

CTP-10A
2.2-3.7'



Photo #6

CTP-10A
5.2-6.7'