

**WORKPLAN FOR SUBSURFACE INVESTIGATION AND
REMEDICATION OF CONTAMINATED SOIL**

FOR:

Dynagroup Development, Inc.
100 First Plaza, Suite 2040
San Francisco, CA 94105

SITE LOCATION:

800 Franklin Street
Oakland, CA

8/24/89

PREPARED BY:

**MILLER ENVIRONMENTAL COMPANY
631 Marina Way South
Richmond, CA 94804
Tel: (415) 233-9000
Fax: (415) 233-9000**

INTRODUCTION

The site is located at the eastern corner of Franklin Street and Eighth Street in Oakland, CA. It is a rectangularly shaped lot of approximately 0.1 acre, bound by commercial properties to the northeast and southeast. It is located in a highly congested area of downtown Oakland with emphasis on commercial use.

This workplan addresses the steps necessary for bringing the site into compliance with local and regional environmental laws and regulations. Miller Environmental Company (MEC) has been retained by the property owner to investigate the subsurface contamination and the possible impact to the groundwater at the site. In addition, MEC shall excavate additional highly contaminated soil from the pits and properly handle and dispose of all excavated soil.

The property has been owned by Alex Shaw and Associates since March, 1989. The mailing address for this site is: Dynagroup Development, Inc., 100 First Plaza, Suite 2040, San Francisco, CA, 94105. Correspondence can be addressed to Mr. Tai-Ling Tsou.

BACKGROUND

Prior to 1989 the site was operated as a service station. Five underground tanks are known to have existed at the site. At some time prior to August, 1988, one of the underground storage tanks was removed.

In June, 1989, the Robert J. Miller Co. removed and disposed of two (2) 6000 gallon tanks formerly used for gasoline, one (1) 550 gallon waste oil tank, and one (1) 1000 gallon solvent tank. These tanks had been installed in approximately 1970.

On site to observe the tank removal operations and collect samples was a representative of the Traverse Group, Inc. (TGI), an environmental consulting firm. TGI collected soil samples from beneath each tank following removal. Sample locations are indicated on the attached site plan.

Each tank was inspected by TGI upon removal. No holes or pitting was reported for any of the tanks.

As soil was excavated qualitative observations were made by TGI as to the contamination status of the soil. Soil which appeared clean or slightly contaminated was stockpiled separately from soil appearing discolored or having strong fuel hydrocarbon odors. Approximately ten (10) cubic yards of soil removed from the east end of the gasoline tank pit and from the south end of the waste oil tank pit was

stockpiled separately as "contaminated" soil.

Composite samples were collected by TGI from the two spoils piles. The locations of the spoils piles are indicated on the attached site plan. Sample SP1 is representative of the "contaminated" soil (approx. 10 cubic yards) while samples SP2 and SP3 are representative on the "clean" soil (approx. 100 cubic yards).

All samples were delivered to a state certified laboratory, where they were analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline, TPH Diesel, and TPH Waste Oil. At the request of the Alameda County Health Services representative assigned to this site the samples were also analyzed for purgeable and semi-volatile organics (EPA methods 8240 and 8270). This organic chemical scan was requested due to the unknown nature of products and waste products which may have been stored over the years in the solvent and waste oil tanks.

A preliminary review of subsurface investigations on record at the San Francisco Bay Area office of the Regional Water Quality Control Board has revealed that a major soil and groundwater contamination problem (fuel hydrocarbons) exists approximately one city block from this site in the presumed upgradient direction. The extent of contamination and groundwater flow direction have been well documented through installation of monitoring wells and collection of soil samples. A large scale bioremediation effort to treat this contamination is currently in operation at the corner of 9th and Webster Streets.

Another soil and groundwater contamination site exists in the near vicinity at 7th Street and Broadway. This is the site of a service station having a record of subsurface contamination dating back to 1979. A groundwater monitoring and recovery system was installed in 1982. Groundwater was measured at approximately 18 feet below grade. Floating product has been reported at various times since well installation. The latest sampling results reported in January, 1989, indicate concentrations of TPH Gasoline ranging from 0.0038 to 29.0 parts per million (ppm) in the groundwater.

LABORATORY ANALYSIS RESULTS

The analysis results for petroleum hydrocarbons plus Benzene, Toluene, Ethylbenzene, and Xylene are summarized in the attached Table 1. These results verify petroleum hydrocarbon contamination in the northwest corner of the gasoline tank pit (sample T4) and in the waste oil tank pit (samples W1 and W2A). It was from these locations that soil was stockpiled separately as "contaminated". The analysis results from this

soil (sample SP1) verify it as contaminated.

At other sampling locations the contamination was slight or not detected. As can be seen from the complete laboratory results (attached to this workplan) naphthalene and a form of phthalate were detected at low concentration in several samples. These results have been discussed by MEC with the Alameda County Health Services Agency. The agency has indicated that these concentrations are not a matter of concern at this site.

SCOPE OF FUNCTIONS - MILLER ENVIRONMENTAL COMPANY

In accordance with guidelines set by the RWQCB for investigation of subsurface contamination related to underground storage tank releases, MEC shall provide geologic and engineering services for subsurface investigation of this site. In addition MEC shall further excavate the contaminated soil in the gasoline tank and the waste oil tank pits, and dispose of all excavated soil, contaminated and non-contaminated, following proper hauling and manifesting procedures.

MEC shall prepare closure plans, plans of correction or abatement, permit applications, necessary reports and certifications, site condition reports, and recommendations for any remedial action required. TGI shall maintain communication with all government agencies having jurisdiction.

SUBSURFACE INVESTIGATION

Three monitoring wells shall be installed at the site under the direction of a California Registered Geologist. Proposed well locations are indicated on the attached site plan. These wells shall be located so as to establish background contamination levels and the possible impact of on-site product release to the groundwater. Because of our client's plans for construction at the site we shall locate two wells in the sidewalk to ensure possibilities for future monitoring, if required. These two wells shall be located in close proximity to the tank pits, in the presumed downgradient direction.

In order to establish groundwater flow direction and background contamination levels, a third monitoring well will be installed in the presumed upgradient direction from the tank pits. Because our client wishes to construct a new building at this site this well will have to be abandoned and destroyed at a later date. However, MEC believes that the data collected from this well is essential in assessing the

environmental impact of contamination at this site. In particular, this well is necessary in calculating groundwater flow direction and will indicate whether contamination is migrating to this property from off site.

According to an earlier investigation at the site, the depth to groundwater is approximately 28 feet below grade. MEC shall install monitoring wells to an approximate depth of 40 feet below grade, with a screened section of approximately 15 feet.

During installation of the wells soil samples shall be collected using a split spoon sampler at five (5) foot intervals until groundwater is encountered. Standard penetration test results and geologic observations shall be recorded in well logs.

The monitoring wells will be constructed using four-inch diameter, threaded PVC casing. The well will be screened with .02 inch slotted casing from ten feet below the water table to approximately five feet above the water table. The appropriate filter pack will be placed to approximately two feet above the water table and a minimum three foot bentonite seal will be used above the filter pack. The well annulus will then be filled to the surface with cement grout. The casing will be capped at both ends and a Christy Box installed. The well head will be provided with a locking cap and seal.

Spoils from drilling shall be drummed or stockpiled on site until a determination is made as to whether they are hazardous material. If hazardous, the material will be properly manifested and disposed of by a licensed waste hauler.

The wells will be properly developed and sampled with the purged water being collected and properly disposed of. The monitoring wells shall be surveyed based on mean sea level datum so that groundwater gradient and flow direction can be established.

Soil and groundwater samples shall be handled in accordance with the Standard Sampling Method as described in the LUFT manual. All samples will be delivered to certified laboratory and analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH/Gas), Total Petroleum Hydrocarbons as Diesel (TPH/Diesel), Waste Oil and Grease (EPA Method 503D&E) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX).

HANDLING AND DISPOSAL OF EXCAVATED SOIL

Prior to additional excavation of contaminated soil, MEC shall haul and dispose of the existing stockpiled soil at the

site which has been shown to contain low-level contamination. It is estimated that approximately 100 cubic yards will be disposed of at a CLASS III landfill. This soil has been aerating per Bay Area Air Quality Management District guidelines since tank removal. MEC collected an additional composite sample from the pile on 8/22/89. This sample is currently being analyzed for petroleum hydrocarbons to verify that the soil will be accepted by a Class III landfill.

MEC estimates that the additional excavation of approximately thirty (30) cubic yards of soil from the pits shall be sufficient to bring the site into compliance with requirements set forth by the Alameda County Health Services Agency. Additional excavation in the sidewalk area (waste oil tank pit) shall require shoring along 8th street and possibly along the side of the adjacent building.

Following additional excavation soil samples shall be collected from the sidewalls and/or pit bottom, and analyzed for petroleum hydrocarbons to determine whether levels of contamination remain in the subsurface soil.

The excavated soil shall be stockpiled together with the approximately ten cubic yards of material already on site. This soil shall be properly manifested, hauled, and disposed of at a CLASS I landfill by a licensed hazardous waste hauler.

REPORTING

MEC shall submit a technical report following this work to include all results, interpretation of data, site plan, hazardous waste manifests, boring logs, chain-of-custody forms, groundwater flow data, and appropriate recommendations regarding site closure and/or additional investigation. This report shall be submitted to all appropriate agencies, including Alameda County Health Services and the RWQCB.

TIMETABLE

Barring unforeseen circumstances and/or unusual site conditions, MEC expects to complete the work described herein within two months of the date of this workplan.

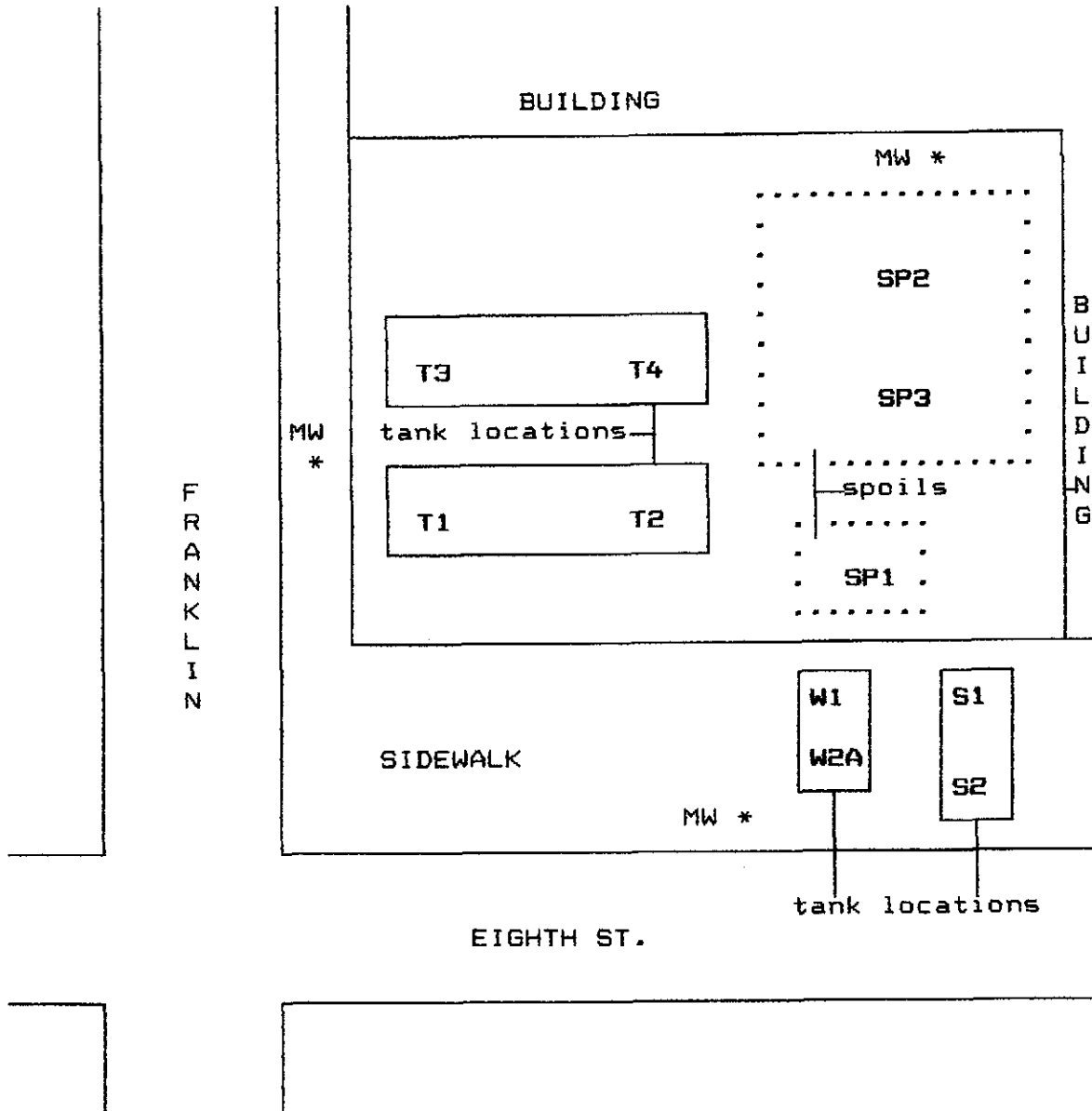
Submitted by:
MILLER ENVIRONMENTAL CO.

Jeffrey R. Cator

Date: 8/25/89



SITE PLAN
800 FRANKLIN ST, OAKLAND, CA



MW * = proposed monitoring well location

Sample Locations in Boldface

not to scale

Table 1 - Summary of Laboratory Results

888 Franklin St, Oakland, CA

Sample I.D.	Location	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	
		Gasoline TPH	Diesel TPH	Waste Oil TPH	Benzene	Toluene	Ethyl Benzene	Xylene	
T1	Gasoline Tank	ND	ND	ND	11.0	3.6	ND	6.1	*
T2	Gasoline Tank	5.0	ND	30.0	50.0	44.0	3.6	23.0	*
T3	Gasoline Tank	ND	ND	ND	4.6	ND	ND	ND	*
T4	Gasoline Tank	3100.0	420.0	1350.0	7500.0	27000.0	59000.0	290000.0	*
W1	Waste Oil Tank	270.0	430.0	4000.0	ND	ND	ND	14000.0	*
W2A	Waste Oil Tank	2300.0	170.0	50.0	ND	2900.0	ND	12000.0	*
S1	Solvent Tank	1.8	ND	ND	ND	ND	ND	ND	*
S2	Solvent Tank	62.0	106.0	ND	ND	ND	ND	ND	*
SP1	Spoils Pile "contaminated"	184.0	240.0	900.0	ND	17000.0	19000.0	110000.0	*
SP2	Spoils Pile "clean"	ND	ND	ND	ND	ND	ND	ND	
SP3	Spoils Pile "clean"	120.0	ND	150.0	ND	ND	ND	2100.0	*

8270
8240 w/672X

40

* low hits 8270

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Reinhard Ruhmke
 Traverse Group West
 1620 Grant Avenue, Suite 2
 Novato, CA 94947

Client Code: TRAG6
 Survey # 89-106

Max Shaw

LABORATORY RESULTS

Page 1

Date Extracted: 06/20/89
 Date Analyzed: 06/30/89

Laboratory Job No.: 892729
 Date Received: 06/19/89
 Date Reported: 07/06/89

SEMIVOLATILES BY GC/MS(EPA 8270)

COMPOUNDS:	LAB# SMP# dil.	39305 DET.		39306 DET.		39307 DET.	
		S1	LIM.	S2	LIM.	W1	LIM.
		1		1		1	
		mg/kg		mg/kg		mg/kg	
BNA							
4-CHLORO-3-METHYLPHENOL		ND	0.2	ND	0.2	ND	0.2
2-CHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DICHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DIMETHYLPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DINITROPHENOL		ND	1.0	ND	1.0	ND	1.0
2-METHYL-4,6-DINITROPHENOL		ND	1.0	ND	1.0	ND	1.0
2-NITROPHENOL		ND	0.2	ND	0.2	ND	0.2
4-NITROPHENOL		ND	1.0	ND	1.0	ND	1.0
PENTACHLOROPHENOL		ND	1.0	ND	1.0	ND	1.0
PHENOL		ND	0.2	ND	0.2	ND	0.2
2,4,6-TRICHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
ACENAPHTHENE		ND	0.2	ND	0.2	ND	0.2
ACENAPHTHYLENE		ND	0.2	ND	0.2	ND	0.2
ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
BENZO(a)ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
BENZO(b)FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
BENZO(k)FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
BENZO(a)PYRENE		ND	0.2	ND	0.2	ND	0.2
BENZO(g,h,i)PERYLENE		ND	0.2	ND	0.2	ND	0.2
BENZIDINE		ND	1.0	ND	1.0	ND	1.0
BIS(2-CHLOROETHYL)ETHER		ND	0.2	ND	0.2	ND	0.2
BIS(2-CHLOROETHOXY)METHANE		ND	0.2	ND	0.2	ND	0.2

THIS REPORT HAS BEEN REVIEWED
 AND APPROVED FOR RELEASE.

ESD



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39305	DET.	39306	DET.	39307	DET.
	SMP#	S1	LIM.	S2	LIM.	W1	LIM.
	dil.	1		1		1	
		mg/kg		mg/kg		mg/kg	
BNA		0.37	0.2	0.50	0.2	ND	0.2
BIS(2-ETHYLHEXYL) PHTHALATE		ND	0.2	ND	0.2	ND	0.2
BIS(2-CHLOROISOPROPYL) ETHER		ND	0.2	ND	0.2	ND	0.2
4-BROMOPHENYL PHENYL ETHER		ND	0.2	ND	0.2	ND	0.2
BUTYL BENZYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
2-CHLORONAPHTHALENE		ND	0.2	ND	0.2	ND	0.2
4-CHLOROPHENYL PHENYL ETHER		ND	0.2	ND	0.2	ND	0.2
CHRYSENE		ND	0.2	ND	0.2	ND	0.2
DIBENZO(a,h) ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
DI-n-BUTYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
1,2-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
1,3-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
1,4-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
3,3'-DICHLOROBENZIDINE		ND	0.5	ND	0.5	ND	0.5
DIETHYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
DIMETHYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
2,4-DINITROTOLUENE		ND	0.2	ND	0.2	ND	0.2
2,6-DINITROTOLUENE		ND	0.2	ND	0.2	ND	0.2
DIOCTYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
FLUORENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROBUTADIENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROETHANE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROCYCLOPENTADIENE		ND	0.2	ND	0.2	ND	0.2
INDENO(1,2,3-c,d) PYRENE		ND	1.0	ND	1.0	ND	1.0
ISOPHORONE		ND	0.2	ND	0.2	ND	0.2
NAPHTHALENE		ND	0.2	ND	0.2	ND	0.2
NITROBENZENE		ND	0.2	ND	0.2	2.4	0.2
N-NITROSODIMETHYLAMINE		ND	0.2	ND	0.2	ND	0.2
N-NITROSODI-n-PROPYLAMINE		ND	0.2	ND	0.2	ND	0.2
N-NITROSODIPHENYLAMINE		ND	0.2	ND	0.2	ND	0.2
PHENANTHRENE		ND	0.2	ND	0.2	ND	0.2
PYRENE		ND	0.2	ND	0.2	ND	0.2
1,2,4-TRICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
ANILINE		ND	0.2	ND	0.2	ND	0.2
BENZOIC ACID		ND	0.2	ND	0.2	ND	0.2
BENZYL ALCOHOL		ND	1.0	ND	1.0	ND	1.0
4-CHLOROANILINE		ND	0.2	ND	0.2	ND	0.2
		ND	0.2	ND	0.2	ND	0.2



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L A B O R A T O R Y R E S U L T S

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Laboratory Job No.: 892729

DIBENZOFURAN	ND	0.2	ND	0.2	ND	0.2
2-METHYL-NAPHTHALENE	ND	0.2	ND	0.2	1.9	0.2
2-METHYL-PHENOL	ND	1.0	ND	1.0	ND	1.0
4-METHYL-PHENOL	ND	1.0	ND	1.0	ND	1.0
2-NITROANILINE	ND	0.2	ND	0.2	ND	0.2
3-NITROANILINE	ND	0.2	ND	0.2	ND	0.2
4-NITROANILINE	ND	1.0	ND	1.0	ND	1.0
2,4,5-TRICHLOROPHENOL	ND	0.2	ND	0.2	ND	0.2

SURROGATE RECOVERIES (PERCENT)

-----	-	-	-	-	-
PHENOL-D5	42		31		37
2-FLUOROPHENOL	32		22		25
NITROBENZENE-D5	58		60		53
2-FLUOROBIPHENYL	63		71		66
2,4,6-TRIBROMOPHENOL	33		20		42
TERPHENYL-D14	87		84		88



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LABORATORY RESULTS

Page 4

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39308	DET.	39309	DET.	39310	DET.
	SMP#	W2A	LIM.	SP1	LIM.	SP2	LIM.
	dil.	1		4		1	
		mg/kg		mg/kg		mg/kg	
BNA							
4-CHLORO-3-METHYLPHENOL		ND	0.2	ND	0.8	ND	0.2
2-CHLOROPHENOL		ND	0.2	ND	0.8	ND	0.2
2,4-DICHLOROPHENOL		ND	0.2	ND	0.8	ND	0.2
2,4-DIMETHYLPHENOL		ND	0.2	ND	0.8	ND	0.2
2,4-DINITROPHENOL		ND	1.0	ND	4.0	ND	1.0
2-METHYL-4,6-DINITROPHENOL		ND	1.0	ND	4.0	ND	1.0
2-NITROPHENOL		ND	0.2	ND	0.8	ND	0.2
4-NITROPHENOL		ND	1.0	ND	4.0	ND	1.0
PENTACHLOROPHENOL		ND	1.0	ND	4.0	ND	1.0
PHENOL		ND	0.2	ND	0.8	ND	0.2
2,4,6-TRICHLOROPHENOL		ND	0.2	ND	0.8	ND	0.2
ACENAPHTHENE		ND	0.2	ND	0.8	ND	0.2
ACENAPHTHYLENE		ND	0.2	ND	0.8	ND	0.2
ANTHRACENE		ND	0.2	ND	0.8	ND	0.2
BENZO(a)ANTHRACENE		ND	0.2	ND	0.8	ND	0.2
BENZO(b)FLUORANTHENE		ND	0.2	ND	0.8	ND	0.2
BENZO(k)FLUORANTHENE		ND	0.2	ND	0.8	ND	0.2
BENZO(a)PYRENE		ND	0.2	ND	0.8	ND	0.2
BENZO(g,h,i)PERYLENE		ND	0.2	ND	0.8	ND	0.2
BENZIDINE		ND	1.0	ND	4.0	ND	1.0
BIS(2-CHLOROETHYL)ETHER		ND	0.2	ND	0.8	ND	0.2
BIS(2-CHLOROETHOXY)METHANE		ND	0.2	ND	0.8	ND	0.2
BIS(2-ETHYLHEXYL)PHTHALATE		ND	0.2	0.90	0.8	ND	0.2
BIS(2-CHLOROISOPROPYL)ETHER		ND	0.2	ND	0.8	ND	0.2
4-BROMOPHENYL PHENYL ETHER		ND	0.2	ND	0.8	ND	0.2
BUTYL BENZYL PHTHALATE		ND	0.2	ND	0.8	ND	0.2
2-CHLORONAPHTHALENE		ND	0.2	ND	0.8	ND	0.2
4-CHLOROPHENYL PHENYL ETHER		ND	0.2	ND	0.8	ND	0.2
CHRYSENE		ND	0.2	ND	0.8	ND	0.2
DIBENZO(a,h)ANTHRACENE		ND	0.2	ND	0.8	ND	0.2
DI-n-BUTYL PHTHALATE		ND	0.2	ND	0.8	ND	0.2
1,2-DICHLOROBENZENE		ND	0.2	ND	0.8	ND	0.2
1,3-DICHLOROBENZENE		ND	0.2	ND	0.8	ND	0.2



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LABORATORY RESULTS

Page 5

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39308	DET.	39309	DET.	39310	DET.
	SMP#	W2A	LIM.	SP1	LIM.	SP2	LIM.
BNA	dil.	1		4		1	
		mg/kg		mg/kg		mg/kg	
1,4-DICHLOROBENZENE		ND	0.2	ND	0.8	ND	0.2
3,3'-DICHLOROBENZIDINE		ND	0.5	ND	2.0	ND	0.5
DIETHYL PHTHALATE		ND	0.2	ND	0.8	ND	0.2
DIMETHYL PHTHALATE		ND	0.2	ND	0.8	ND	0.2
2,4-DINITROTOLUENE		ND	0.2	ND	0.8	ND	0.2
2,6-DINITROTOLUENE		ND	0.2	ND	0.8	ND	0.2
DIOCTYL PHTHALATE		ND	0.2	ND	0.8	ND	0.2
FLUORANTHENE		ND	0.2	ND	0.8	ND	0.2
FLUORENE		ND	0.2	ND	0.8	ND	0.2
HEXACHLOROBENZENE		ND	0.2	ND	0.8	ND	0.2
HEXACHLOROBUTADIENE		ND	0.2	ND	0.8	ND	0.2
HEXACHLOROETHANE		ND	0.2	ND	0.8	ND	0.2
HEXACHLOROCYCLOPENTADIENE		ND	0.2	ND	0.8	ND	0.2
INDENO(1,2,3-c,d)PYRENE		ND	1.0	ND	4.0	ND	1.0
ISOPHORONE		ND	0.2	ND	0.8	ND	0.2
NAPHTHALENE		ND	0.2	ND	0.8	ND	0.2
NITROBENZENE	6.4	0.2		27	0.8	ND	0.2
N-NITROSODIMETHYLAMINE	ND	0.2		ND	0.8	ND	0.2
N-NITROSODI-n-PROPYLAMINE	ND	0.2		ND	0.8	ND	0.2
N-NITROSODIPHENYLAMINE	ND	0.2		ND	0.8	ND	0.2
PHENANTHRENE	ND	0.2		ND	0.8	ND	0.2
PYRENE	ND	0.2		ND	0.8	ND	0.2
1,2,4-TRICHLOROBENZENE	ND	0.2		ND	0.8	ND	0.2
ANILINE	ND	0.2		ND	0.8	ND	0.2
BENZOIC ACID	ND	0.2		ND	0.8	ND	0.2
BENZYL ALCOHOL	ND	1.0		ND	4.0	ND	1.0
4-CHLOROANILINE	ND	0.2		ND	0.8	ND	0.2
DIBENZOFURAN	ND	0.2		ND	0.8	ND	0.2
2-METHYL-NAPHTHALENE	ND	0.2		ND	0.8	ND	0.2
2-METHYL-PHENOL	4.1	0.2		13	0.8	ND	0.2
4-METHYL-PHENOL	ND	1.0		ND	4.0	ND	1.0
2-NITROANILINE	ND	1.0		ND	4.0	ND	1.0
3-NITROANILINE	ND	0.2		ND	0.8	ND	0.2
4-NITROANILINE	ND	0.2		ND	0.8	ND	0.2
2,4,5-TRICHLOROPHENOL	ND	1.0		ND	4.0	ND	1.0
	ND	0.2		ND	0.8	ND	0.2



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LABORATORY RESULTS

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Laboratory Job No.: 892729

SURROGATE RECOVERIES (PERCENT)

PHENOL-D5	-	-	-	-	-
2-FLUOROPHENOL	56		49		35
NITROBENZENE-D5	36		40		25
2-FLUOROBIPHENYL	65		67		72
2,4,6-TRIBROMOPHENOL	77		79		75
TERPHENYL-D14	47		30		19
	95		89		81



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB# SMP# dil.	39311 DET. T1 LIM.		39312 DET. T2 LIM.		39313 DET. T3 LIM.	
		1 mg/kg		1 mg/kg		1 mg/kg	
4-CHLORO-3-METHYLPHENOL		ND	0.2	ND	0.2	ND	0.2
2-CHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DICHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DIMETHYLPHENOL		ND	0.2	ND	0.2	ND	0.2
2,4-DINITROPHENOL		ND	1.0	ND	1.0	ND	1.0
2-METHYL-4,6-DINITROPHENOL		ND	1.0	ND	1.0	ND	1.0
2-NITROPHENOL		ND	0.2	ND	0.2	ND	0.2
4-NITROPHENOL		ND	1.0	ND	1.0	ND	1.0
PENTACHLOROPHENOL		ND	1.0	ND	1.0	ND	1.0
PHENOL		ND	0.2	ND	0.2	ND	0.2
2,4,6-TRICHLOROPHENOL		ND	0.2	ND	0.2	ND	0.2
ACENAPHTHENE		ND	0.2	ND	0.2	ND	0.2
ACENAPHTHYLENE		ND	0.2	ND	0.2	ND	0.2
ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
BENZO(a)ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
BENZO(b)FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
BENZO(k)FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
BENZO(a)PYRENE		ND	0.2	ND	0.2	ND	0.2
BENZO(g,h,i)PERYLENE		ND	0.2	ND	0.2	ND	0.2
BENZIDINE		ND	1.0	ND	1.0	ND	1.0
BIS(2-CHLOROETHYL)ETHER		ND	0.2	ND	0.2	ND	0.2
BIS(2-CHLOROETHOXY)METHANE		ND	0.2	ND	0.2	ND	0.2
BIS(2-ETHYLHEXYL)PHTHALATE		0.20	0.2	0.24	0.2	0.42	0.2
BIS(2-CHLOROISOPROPYL)ETHER		ND	0.2	ND	0.2	ND	0.2
4-BROMOPHENYL PHENYL ETHER		ND	0.2	ND	0.2	ND	0.2
BUTYL BENZYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
2-CHLORONAPHTHALENE		ND	0.2	ND	0.2	ND	0.2
4-CHLOROPHENYL PHENYL ETHER		ND	0.2	ND	0.2	ND	0.2
CHRYSENE		ND	0.2	ND	0.2	ND	0.2
DIBENZO(a,h)ANTHRACENE		ND	0.2	ND	0.2	ND	0.2
DI-n-BUTYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
1,2-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
1,3-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB# SMP# dil.	39311 DET.		39312 DET.		39313 DET.	
		T1 LIM.	1 mg/kg	T2 LIM.	1 mg/kg	T3 LIM.	1 mg/kg
BNA							
1,4-DICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
3,3'-DICHLOROBENZIDINE		ND	0.5	ND	0.5	ND	0.5
DIETHYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
DIMETHYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
2,4-DINITROTOLUENE		ND	0.2	ND	0.2	ND	0.2
2,6-DINITROTOLUENE		ND	0.2	ND	0.2	ND	0.2
DIOCTYL PHTHALATE		ND	0.2	ND	0.2	ND	0.2
FLUORANTHENE		ND	0.2	ND	0.2	ND	0.2
FLUORENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROBUTADIENE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROETHANE		ND	0.2	ND	0.2	ND	0.2
HEXACHLOROCYCLOPENTADIENE		ND	0.2	ND	0.2	ND	0.2
INDENO(1,2,3-c,d)PYRENE		ND	1.0	ND	1.0	ND	1.0
ISOPHORONE		ND	0.2	ND	0.2	ND	0.2
NAPHTHALENE		ND	0.2	ND	0.2	ND	0.2
NITROBENZENE		ND	0.2	ND	0.2	ND	0.2
N-NITROSODIMETHYLAMINE		ND	0.2	ND	0.2	ND	0.2
N-NITROSODI-n-PROPYLAMINE		ND	0.2	ND	0.2	ND	0.2
N-NITROSODIPHENYLAMINE		ND	0.2	ND	0.2	ND	0.2
PHENANTHRENE		ND	0.2	ND	0.2	ND	0.2
PYRENE		ND	0.2	ND	0.2	ND	0.2
1,2,4-TRICHLOROBENZENE		ND	0.2	ND	0.2	ND	0.2
ANILINE		ND	0.2	ND	0.2	ND	0.2
BENZOIC ACID		ND	0.2	ND	0.2	ND	0.2
BENZYL ALCOHOL		ND	1.0	ND	1.0	ND	1.0
4-CHLOROANILINE		ND	0.2	ND	0.2	ND	0.2
DIBENZOFURAN		ND	0.2	ND	0.2	ND	0.2
2-METHYL-NAPHTHALENE		ND	0.2	ND	0.2	ND	0.2
2-METHYL-PHENOL		ND	0.2	ND	0.2	ND	0.2
4-METHYL-PHENOL		ND	1.0	ND	1.0	ND	1.0
2-NITROANILINE		ND	1.0	ND	1.0	ND	1.0
3-NITROANILINE		ND	0.2	ND	0.2	ND	0.2
4-NITROANILINE		ND	0.2	ND	0.2	ND	0.2
2,4,5-TRICHLOROPHENOL		ND	1.0	ND	1.0	ND	1.0
		ND	0.2	ND	0.2	ND	0.2



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LABORATORY RESULTS

Laboratory Job No.: 892729

SURROGATE RECOVERIES (PERCENT)

PHENOL-D5	47	47	44
2-FLUOROPHENOL	33	30	33
NITROBENZENE-D5	65	70	61
2-FLUOROBIPHENYL	70	70	62
2,4,6-TRIBROMOPHENOL	49	21	41
TERPHENYL-D14	86	84	77



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39314	DET.	39315	DET.
	SMP#	T4	LIM.	SP3	LIM.
	dil.	4		1	
		mg/kg		mg/kg	
BNA					
4-CHLORO-3-METHYLPHENOL		ND	0.8	ND	0.2
2-CHLOROPHENOL		ND	0.8	ND	0.2
2,4-DICHLOROPHENOL		ND	0.8	ND	0.2
2,4-DIMETHYLPHENOL		ND	0.8	ND	0.2
2,4-DINITROPHENOL		ND	4.0	ND	1.0
2-METHYL-4,6-DINITROPHENOL		ND	4.0	ND	1.0
2-NITROPHENOL		ND	0.8	ND	0.2
4-NITROPHENOL		ND	4.0	ND	1.0
PENTACHLOROPHENOL		ND	4.0	ND	1.0
PHENOL		ND	0.8	ND	0.2
2,4,6-TRICHLOROPHENOL		ND	0.8	ND	0.2
ACENAPHTHENE		ND	0.8	ND	0.2
ACENAPHTHYLENE		ND	0.8	ND	0.2
ANTHRACENE		ND	0.8	ND	0.2
BENZO(a)ANTHRACENE		ND	0.8	ND	0.2
BENZO(b)FLUORANTHENE		ND	0.8	ND	0.2
BENZO(k)FLUORANTHENE		ND	0.8	ND	0.2
BENZO(a)PYRENE		ND	0.8	ND	0.2
BENZO(g,h,i)PERYLENE		ND	0.8	ND	0.2
BENZIDINE		ND	4.0	ND	1.0
BIS(2-CHLOROETHYL)ETHER		ND	0.8	ND	0.2
BIS(2-CHLOROETHOXY)METHANE		ND	0.8	ND	0.2
BIS(2-ETHYLHEXYL)PHTHALATE		ND	0.8	0.52	0.2
BIS(2-CHLOROISOPROPYL)ETHER		ND	0.8	ND	0.2
4-BROMOPHENYL PHENYL ETHER		ND	0.8	ND	0.2
BUTYL BENZYL PHTHALATE		ND	0.8	ND	0.2
2-CHLORONAPHTHALENE		ND	0.8	ND	0.2
4-CHLOROPHENYL PHENYL ETHER		ND	0.8	ND	0.2
CHRYSENE		ND	0.8	ND	0.2
DIBENZO(a,h)ANTHRACENE		ND	0.8	ND	0.2
DI-n-BUTYL PHTHALATE		ND	0.8	ND	0.2
1,2-DICHLOROBENZENE		ND	0.8	ND	0.2
1,3-DICHLOROBENZENE		ND	0.8	ND	0.2



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39314	DET.	39315	DET.
	SMP#	T4	LIM.	SP3	LIM.
	dil.	4		1	
BNA		mg/kg		mg/kg	
1,4-DICHLOROBENZENE		ND	0.8	ND	0.2
3,3'-DICHLOROBENZIDINE		ND	2.0	ND	0.5
DIETHYL PHTHALATE		ND	0.8	ND	0.2
DIMETHYL PHTHALATE		ND	0.8	ND	0.2
2,4-DINITROTOLUENE		ND	0.8	ND	0.2
2,6-DINITROTOLUENE		ND	0.8	ND	0.2
DIOCTYL PHTHALATE		ND	0.8	ND	0.2
FLUORANTHENE		ND	0.8	ND	0.2
FLUORENE		ND	0.8	ND	0.2
HEXACHLOROBENZENE		ND	0.8	ND	0.2
HEXACHLOROBUTADIENE		ND	0.8	ND	0.2
HEXACHLOROETHANE		ND	0.8	ND	0.2
HEXACHLOROCYCLOPENTADIENE		ND	4.0	ND	1.0
INDENO(1,2,3-c,d)PYRENE		ND	0.8	ND	0.2
ISOPHORONE		ND	0.8	ND	0.2
NAPHTHALENE	28	0.8		1.6	0.2
NITROBENZENE		ND	0.8	ND	0.2
N-NITROSODIMETHYLAMINE		ND	0.8	ND	0.2
N-NITROSODI-n-PROPYLAMINE		ND	0.8	ND	0.2
N-NITROSODIPHENYLAMINE		ND	0.8	ND	0.2
PHENANTHRENE		ND	0.8	ND	0.2
PYRENE		ND	0.8	ND	0.2
1,2,4-TRICHLOROBENZENE		ND	0.8	ND	0.2
ANILINE		ND	0.8	ND	0.2
BENZOIC ACID		ND	4.0	ND	1.0
BENZYL ALCOHOL		ND	0.8	ND	0.2
4-CHLOROANILINE		ND	0.8	ND	0.2
DIBENZOFURAN		ND	0.8	ND	0.2
2-METHYL-NAPHTHALENE	23	0.8		2.0	0.2
2-METHYL-PHENOL		ND	4.0	ND	1.0
4-METHYL-PHENOL		ND	4.0	ND	1.0
2-NITROANILINE		ND	0.8	ND	0.2
3-NITROANILINE		ND	0.8	ND	0.2
4-NITROANILINE		ND	4.0	ND	1.0
2,4,5-TRICHLOROPHENOL		ND	0.8	ND	0.2



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

SURROGATE RECOVERIES (PERCENT)

PHENOL-D5	56	71
2-FLUOROPHENOL	45	58
NITROBENZENE-D5	55	67
2-FLUOROBIPHENYL	73	73
2,4,6-TRIBROMOPHENOL	34	97
TERPHENYL-D14	108	72

ND = NO PEAKS DETECTED

ANALYST: CAROLYN STUDENY



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LABORATORY RESULTS

Date Extracted: 06/26/89
 Date Analyzed: 06/26/89

Laboratory Job No.: 892729
 Date Received: 06/19/89
 Date Reported: 07/06/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	39305	DET.	39306	DET.	39307	DET.
	SMP#	S1	LIM.	S2	LIM.	W1	LIM.
	dil.	1		400		2000	
PURGEABLES		UG/KG		UG/KG		UG/KG	
BENZENE		ND	2.5	ND	1000.0	ND	5000.0
BROMODICHLOROMETHANE		ND	2.5	ND	1000.0	ND	5000.0
BROMOFORM		ND	2.5	ND	1000.0	ND	5000.0
BROMOMETHANE		ND	2.5	ND	1000.0	ND	5000.0
CARBON TETRACHLORIDE		ND	2.5	ND	1000.0	ND	5000.0
CHLOROBENZENE		ND	2.5	ND	1000.0	ND	5000.0
CHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0
2-CHLOROETHYL VINYL ETHER		ND	5.0	ND	2000.0	ND	10000.0
CHLOROFORM		ND	2.5	ND	1000.0	ND	5000.0
CHLOROMETHANE		ND	2.5	ND	1000.0	ND	5000.0
DIBROMOCHLOROMETHANE		ND	2.5	ND	1000.0	ND	5000.0
1,2-DICHLOROBENZENE		ND	2.5	ND	1000.0	ND	5000.0
1,3-DICHLOROBENZENE		ND	2.5	ND	1000.0	ND	5000.0
1,4-DICHLOROBENZENE		ND	2.5	ND	1000.0	ND	5000.0
1,1-DICHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0
1,2-DICHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0
1,1-DICHLOROETHENE		ND	2.5	ND	1000.0	ND	5000.0
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	1000.0	ND	5000.0
1,2-DICHLOROPROPANE		ND	2.5	ND	1000.0	ND	5000.0
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	1000.0	ND	5000.0
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	1000.0	ND	5000.0
ETHYL BENZENE		ND	2.5	ND	1000.0	ND	5000.0
METHYLENE CHLORIDE		ND	2.5	ND	1000.0	ND	5000.0
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0
TETRACHLOROETHENE		ND	2.5	ND	1000.0	ND	5000.0
TOLUENE		ND	2.5	ND	1000.0	ND	5000.0
1,1,1-TRICHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0
1,1,2-TRICHLOROETHANE		ND	2.5	ND	1000.0	ND	5000.0



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LABORATORY RESULTS

Laboratory Job No.: 892729

TRICHLOROETHENE	ND	2.5	ND	1000.0	ND	5000.0
TRICHLOROFLUOROMETHANE	ND	2.5	ND	1000.0	ND	5000.0
VINYL CHLORIDE	ND	5.0	ND	2000.0	ND	10000.0
XYLENES	ND	2.5	ND	1000.0	14000	5000.0
ACETONE	ND	50.0	ND	20000.0	ND	100000.0
2-BUTANONE	ND	5.0	ND	2000.0	ND	10000.0
CARBON DISULFIDE	ND	5.0	ND	2000.0	ND	10000.0
2-HEXANONE	ND	5.0	ND	2000.0	ND	10000.0
4-METHYL-2-PENTANONE	ND	5.0	ND	2000.0	ND	10000.0
STYRENE	ND	5.0	ND	2000.0	ND	10000.0
VINYL ACETATE	ND	5.0	ND	2000.0	ND	10000.0

SURROGATE RECOVERIES-QC

1,2-DICHLOROETHANE-D4	116%	88%	63%
TOLUENE-D8	104%	110%	102%
4-BROMOFLUOROBENZENE	94%	86%	90%



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39308	DET.	39309	DET.	39310	DET.
	SMP#	W2A	LIM.	SP1	LIM.	SP2	LIM.
	dil.	1000		2000		1	
PURGEABLES		UG/KG		UG/KG		UG/KG	
BENZENE		ND	2500.0	ND	5000.0	ND	2.5
BROMODICHLOROMETHANE		ND	2500.0	ND	5000.0	ND	2.5
BROMOFORM		ND	2500.0	ND	5000.0	ND	2.5
BROMOMETHANE		ND	2500.0	ND	5000.0	ND	2.5
CARBON TETRACHLORIDE		ND	2500.0	ND	5000.0	ND	2.5
CHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
2-CHLOROETHYL VINYL ETHER		ND	5000.0	ND	10000.0	ND	5.0
CHLOROFORM		ND	2500.0	ND	5000.0	ND	2.5
CHLOROMETHANE		ND	2500.0	ND	5000.0	ND	2.5
DIBROMOCHLOROMETHANE		ND	2500.0	ND	5000.0	ND	2.5
1,2-DICHLOROBENZENE		ND	2500.0	ND	5000.0	ND	2.5
1,3-DICHLOROBENZENE		ND	2500.0	ND	5000.0	ND	2.5
1,4-DICHLOROBENZENE		ND	2500.0	ND	5000.0	ND	2.5
1,1-DICHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
1,2-DICHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
1,1-DICHLOROETHENE		ND	2500.0	ND	5000.0	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2500.0	ND	5000.0	ND	2.5
1,2-DICHLOROPROPANE		ND	2500.0	ND	5000.0	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2500.0	ND	5000.0	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2500.0	ND	5000.0	ND	2.5
ETHYL BENZENE		ND	2500.0	19000	5000.0	ND	2.5
METHYLENE CHLORIDE		ND	2500.0	ND	5000.0	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
TETRACHLOROETHENE		ND	2500.0	ND	5000.0	ND	2.5
TOLUENE		2900	2500.0	17000	5000.0	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2500.0	ND	5000.0	ND	2.5
TRICHLOROETHENE		ND	2500.0	ND	5000.0	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2500.0	ND	5000.0	ND	2.5
VINYL CHLORIDE		ND	5000.0	ND	10000.0	ND	5.0
XYLENES		12000	2500.0	110000	5000.0	ND	2.5
ACETONE		ND	50000.0	ND	100000.0	ND	50.0



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LABORATORY RESULTS

Laboratory Job No.: 892729

2-BUTANONE	ND	5000.0	ND	10000.0	ND	5.0
CARBON DISULFIDE	ND	5000.0	ND	10000.0	ND	5.0
2-HEXANONE	ND	5000.0	ND	10000.0	ND	5.0
4-METHYL-2-PENTANONE	ND	5000.0	ND	10000.0	ND	5.0
STYRENE	ND	5000.0	ND	10000.0	ND	5.0
VINYL ACETATE	ND	5000.0	ND	10000.0	ND	5.0

SURROGATE RECOVERIES-QC

1,2-DICHLOROETHANE-D4	63%	63%	90%
TOLUENE-D8	109%	105%	103%
4-BROMOFLUOROBENZENE	87%	72%	120%



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39311	DET.	39312	DET.	39313	DET.
	SMP#	T1	LIM.	T2	LIM.	T3	LIM.
	dil.	1		1		1	
PURGEABLES		UG/KG		UG/KG		UG/KG	
BENZENE		11	2.5	50	2.5	4.6	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5	ND	2.5
CHLORO BENZENE		ND	2.5	ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5	ND	2.5
2-CHLOROETHYL VINYL ETHER		ND	5.0	ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5	ND	2.5
1,2-DICHLORO BENZENE		ND	2.5	ND	2.5	ND	2.5
1,3-DICHLORO BENZENE		ND	2.5	ND	2.5	ND	2.5
1,4-DICHLORO BENZENE		ND	2.5	ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	41	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	3.6	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5	ND	2.5
TOLUENE		3.6	2.5	44	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0	ND	5.0
XYLENES		6.1	2.5	23	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0	ND	50.0



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

2-BUTANONE	ND	5.0	ND	5.0	ND	5.0
CARBON DISULFIDE	ND	5.0	ND	5.0	ND	5.0
2-HEXANONE	ND	5.0	ND	5.0	ND	5.0
4-METHYL-2-PENTANONE	ND	5.0	ND	5.0	ND	5.0
STYRENE	ND	5.0	ND	5.0	ND	5.0
VINYL ACETATE	ND	5.0	ND	5.0	ND	5.0

SURROGATE RECOVERIES-QC

1,2-DICHLOROETHANE-D4	120%	97%	92%
TOLUENE-D8	108%	107%	119%
4-BROMOFLUOROBENZENE	102%	99%	116%



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LABORATORY RESULTS

Laboratory Job No.: 892729

COMPOUNDS:	LAB#	39314	DET.	39315	DET.
	SMP#	T4	LIM.	SP3	LIM.
	dil.	2000		400	
PURGEABLES		UG/KG		UG/KG	
BENZENE		7500	5000.0	ND	1000.0
BROMODICHLOROMETHANE		ND	5000.0	ND	1000.0
BROMOFORM		ND	5000.0	ND	1000.0
BROMOMETHANE		ND	5000.0	ND	1000.0
CARBON TETRACHLORIDE		ND	5000.0	ND	1000.0
CHLOROBENZENE		ND	5000.0	ND	1000.0
CHLOROETHANE		ND	5000.0	ND	1000.0
2-CHLOROETHYL VINYL ETHER		ND	10000.0	ND	2000.0
CHLOROFORM		ND	5000.0	ND	1000.0
CHLOROMETHANE		ND	5000.0	ND	1000.0
DIBROMOCHLOROMETHANE		ND	5000.0	ND	1000.0
1,2-DICHLOROBENZENE		ND	5000.0	ND	1000.0
1,3-DICHLOROBENZENE		ND	5000.0	ND	1000.0
1,4-DICHLOROBENZENE		ND	5000.0	ND	1000.0
1,1-DICHLOROETHANE		ND	5000.0	ND	1000.0
1,2-DICHLOROETHANE		ND	5000.0	ND	1000.0
1,1-DICHLOROETHENE		ND	5000.0	ND	1000.0
TRANS-1,2-DICHLOROETHENE		ND	5000.0	ND	1000.0
1,2-DICHLOROPROPANE		ND	5000.0	ND	1000.0
CIS-1,3-DICHLOROPROPENE		ND	5000.0	ND	1000.0
TRANS-1,3-DICHLOROPROPENE		ND	5000.0	ND	1000.0
ETHYL BENZENE		59000	5000.0	ND	1000.0
METHYLENE CHLORIDE		ND	5000.0	ND	1000.0
1,1,2,2-TETRACHLOROETHANE		ND	5000.0	ND	1000.0
TETRACHLOROETHENE		ND	5000.0	ND	1000.0
TOLUENE		87000	5000.0	ND	1000.0
1,1,1-TRICHLOROETHANE		ND	5000.0	ND	1000.0
1,1,2-TRICHLOROETHANE		ND	5000.0	ND	1000.0
TRICHLOROETHENE		ND	5000.0	ND	1000.0
TRICHLOROFLUOROMETHANE		ND	5000.0	ND	1000.0
VINYL CHLORIDE		ND	10000.0	ND	2000.0
XYLENES		290000	5000.0	2100	1000.0
ACETONE		ND	100000.0	ND	20000.0



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

2-BUTANONE	ND	10000.0	ND	2000.0
CARBON DISULFIDE	ND	10000.0	ND	2000.0
2-HEXANONE	ND	10000.0	ND	2000.0
4-METHYL-2-PENTANONE	ND	10000.0	ND	2000.0
STYRENE	ND	10000.0	ND	2000.0
VINYL ACETATE	ND	10000.0	ND	2000.0

SURROGATE RECOVERIES-QC

1,2-DICHLOROETHANE-D4	69%	67%
TOLUENE-D8	101%	109%
4-BROMOFLUOROBENZENE	87%	98%

ND: NOT DETECTED.

SAMPLES S2, SP2, T2, AND T3 WERE RE-ANALYZED ON 07/06/89 AND 07/07/89
DUE TO SURROGATES OUT OF ACCEPTABLE RANGES DURING THE INITIAL ANALYSES.
SURROGATE AMOUNTS FROM THE RE-ANALYSES ARE REPORTED.

ANALYST: PAUL MILLS



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LABORATORY RESULTS

Date Extracted: 06/21/89
Date Analyzed: 06/23/89

Laboratory Job No.: 892729
Date Received: 06/19/89
Date Reported: 07/06/89

ASSAY: WASTE OIL EPA 3550/SM503E
MATRIX: SOIL

LABNO	SMPLNO-ID	WASTE OIL mg/kg	DETECTION LIMIT mg/kg
39305	S1	ND	30
39306	S2	ND	30
39307	W1	4,000	30
39308	W2A	50	30
39309	SP1	900	30
39310	SP2	ND	30
39311	T1	ND	30
39312	T2	30	30
39313	T3	ND	30
39314	T4	1,350	30
39315	SP3	150	30

ANALYST: ROBERT REMLINGER



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L A B O R A T O R Y R E S U L T S

Date Extracted: 06/21/8
Date Analyzed: 06/23/89

Laboratory Job No.: 892729
Date Received: 06/19/89
Date Reported: 07/06/89

ASSAY: TPH/DIESEL (EPA 3550/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
39305 S1 DIESEL	ND	6.0 mg/kg
39306 S2 DIESEL	106 mg/kg	6.0 mg/kg
39307 W1 DIESEL	430 mg/kg	6.7 mg/kg
39308 W2A DIESEL	170 mg/kg	6.0 mg/kg
39309 SP1 DIESEL	240 mg/kg	6.0 mg/kg
39310 SP2 DIESEL	ND	6.7 mg/kg
39311 T1 DIESEL	ND	6.3 mg/kg
39312 T2 DIESEL	ND	6.7 mg/kg
39313 T3 DIESEL	ND	7.0 mg/kg
39314 T4 DIESEL	420 mg/kg	6.3 mg/kg



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

LABNO SMPLNO-ID

RESULTS

DET.LIM

39315 SP3
DIESEL

40 mg/kg

6.0 mg/kg

ANALYST:ROBERT REMLINGER



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L A B O R A T O R Y R E S U L T S

Date Extracted: 06/22/89
Date Analyzed: 06/22/89

Laboratory Job No.: 892729
Date Received: 06/19/89
Date Reported: 07/06/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
39305 S1 GASOLINE	1.8 mg/kg	1.0 mg/kg
39306 S2 GASOLINE	62 mg/kg	1.0 mg/kg
39307 W1 GASOLINE	270 mg/kg	5.7 mg/kg
39308 W2A GASOLINE	2,300 mg/kg	120.0 mg/kg
39309 SP1 GASOLINE	184 mg/kg	30.0 mg/kg
39310 SP2 GASOLINE	ND	1.0 mg/kg
39311 T1 GASOLINE	ND	1.0 mg/kg
39312 T2 GASOLINE	5.0 mg/kg	1.7 mg/kg
39313 T3 GASOLINE	ND	1.0 mg/kg
39314 T4 GASOLINE	3,100 mg/kg	60.0 mg/kg



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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 892729

LABNO SMPLNO-ID

RESULTS

DET.LIM

39315 SP3
GASOLINE

120 mg/kg

1.0 mg/kg

ANALYST:ROBERT REMLINGER