HARTCROWSER

353 Sacramento Street, Suite 1140
San Francisco, California 94111
FAX 415.391.2216
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Earth and Environmental Technologies

J-6077

January 14, 1994

Ms. Madhula Logan
Hazardous Materials Division
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, California 94621

Reference: Quarterly Status Report
Grand Auto Facility
4240 East 14th Street
Oakland, California J-6077

Dear Ms. Logan:

Hart Crowser, Inc. has prepared this Quarterly Status Report on behalf of PACCAR Automotive, Inc. for the above-referenced site. The following sections present summaries of environmental activities completed at the site prior to September 1993 (Previous Site Activities), during the period of October 1, 1993 to December 31, 1993 (Current Activities) and the activities planned for the next quarter, January 1994 to March 1994 (Proposed Activities).

PREVIOUS SITE ACTIVITIES

The Grand Auto retail facility is located on an approximate 1.2 acre site. The site is currently used as an auto service and retail merchandise facility. The site was previously used for retail gasoline sales, with underground fuel storage tanks and a car wash with an associated drainage sump. The underground fuel tanks were removed in 1986. In July 1992, Hart Crowser performed a site investigation as outlined in "Sampling and Analysis Plan, Grand Auto/Super Tire Facilities," July 6, 1992. The investigation included

drilling two borings (B-4 and B-5) in the vicinity of the former location of the underground fuel storage tanks (Figure 1). Analytical results of soil samples from these borings did not show significant petroleum hydrocarbon concentrations.

The car wash drainage sump was removed on August 7, 1992. A soil sample (S2C) was collected from beneath the sump at a depth of 8.5 feet below ground surface (BGS) (Figure 1). Analytical results indicated the presence of petroleum hydrocarbons, halogenated hydrocarbons, and some metals in the soil beneath the sump. A groundwater monitoring well (MW-1) was installed within ten feet southwest of the sump, which, according to regional information, is the downgradient direction. Despite some slightly wet conditions encountered at eight feet BGS, free groundwater was not encountered until approximately 36 feet BGS. There appears to be a discontinuous perching layer at the site at approximately 8 feet BGS. The results of this phase of the investigation were summarized in the report, "Preliminary Site Investigation Report," dated November 20, 1992.

During April 1993, we drilled five soil borings (B-8 to B-12) and converted three of them to groundwater monitoring wells (MW-2, MW-3, MW-4). Hart Crowser also installed an off-site groundwater monitoring well (HC-1) at the adjacent Super Tire facility. We have included the results from this well as part of the assessment for the Grand Auto site. The wells were developed and then sampled in April 1993. The results of this phase of the assessment were summarized in a report, "Supplemental Site Investigation", June 18, 1993.

CURRENT ACTIVITIES

On November 17, 1993, Hart Crowser measured groundwater elevations in, and collected groundwater samples from, all five groundwater monitoring wells onsite (MW-1, MW-2, MW-3, and MW-4) and from the offsite well (HC-1). Approximately three to four well volumes of water were purged from each monitoring well before the sample was collected. Field parameters including pH, conductivity and temperature were recorded to verify stabilization prior to sampling. Pre-cleaned disposable bailers (single-use) were used to obtain samples from each well. All sampling equipment was decontaminated before use and between wells to minimize the potential for cross-contamination.

Groundwater samples were contained in hydrochloric acid preserved, laboratory cleaned, 40 milliliter glass vials with Teflon lined septa. After labeling, they were promptly stored in a cold ice chest. Strict chain-of-custody procedures were followed throughout sample acquisition, storage, and transport.

Samples were submitted to Superior Precision Analytical, Inc. for analysis of TPH with benzene, toluene, ethylbenzene, and xylene (BTEX) distinction by EPA Methods 5030/8015/8020, halogenated volatile organics by EPA Methods 5030/8010, and total chromium, lead, nickel and zinc by EPA Method 6010. The laboratory results are summarized in Table 1. Certified Analytical Reports and a copy of the Chain-of-Custody record can be found in Appendix A.

An historic record of TPH and BTEX concentrations for individual wells is presented in Table 2. The analytical results from this sampling were generally consistent with previous results. TPH was detected only in MW-1, where previously it was detected in all wells. However, the laboratory reported that the chromatograph for this sample did not match a typical gasoline pattern.

The concentrations of halogenated compounds were relatively the same as measured during the previous round of sampling in August 1993.

Groundwater elevations measured on November 17, 1993 are presented in Table 3. The groundwater elevations for each well are shown on Figure 2 for this date. The measured groundwater elevations in all the wells decreased by 0.35 to 0.4 feet compared to the August 4, 1993 measurements. The measured groundwater gradient is again relatively flat, however, there does appear to be a slight southwesterly flow direction, as previously observed.

Also during this quarter, fuel conveyance piping associated with the former underground fuel storage tanks at the site was excavated and removed from the site. Verification soil samples were taken from the base of the excavation at the four locations shown on Figure 1. Each sample was analyzed for TPH as gasoline with BTEX distinction and all samples reported non-detectable concentrations of all compounds. The soil sample results are summarized in Table 4, and certified analytical reports are included in Appendix A.

PROPOSED ACTIVITIES

Future activities proposed for the site include the continuation of quarterly groundwater monitoring. The identification of potential off-site sources of the halogenated volatile organics found in groundwater at the site is continuing and should be completed during the first quarter.

If you have any questions regarding work at this site, please contact our office at your earliest convenience.

Sincerely,

HART CROWSER, INC.

Eric Schniewind
Project Hydrogeologist

Dharme Rathnayake, P.E.
Technical Manager

ETS/DR:pr

Attachments:

Figure 1 - Site Plan
Figure 2 - Groundwater Elevation Map 11/17/93

Table 1 - Results of Lab. Analysis of GW Samples
Table 2 - Historical GW Quality Data
Table 3 - Monitoring Well Data
Table 4 - Results of Soil Sample Analysis

Appendix A - Certified Analytical Reports

cc: Ms. Lisa Robbins, PACCAR, Inc.
Mr. Raymond Elliott, PACCAR, Inc.
Mr. Richard Hiett, Regional Water Quality Control Board

TABLES

TABLE 1

Summary of Groundwater Sample Results
Grand Auto Facility
Oakland, California
November 17, 1993
(in µg/L)

Analyte	Method	MW-1	MW-2	MW-3	MW-4	HC-1
TPH as Gasoline	8015 mod	99*	ND 50	ND 50	ND 50	ND 50
Benzene	8020	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Toluene	8020	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Ethyl Benzene	8020	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Xylenes	8020	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Chlorinated VOC's	8010					
cis 1,2 - Dichloroethene		15	8.7	12	6.6	16
Trichloroethene		28	32	29	20	27
Tetrachloroethene		230	6.1	170	87	130
Chloroform		1.8	ND 0.5	1.3	1.0	1.1
1,1,1-Trichloroethene		ND 0.5	ND 0.5	0.8	ND 0.5	0.7
Metals						
Chromium	6010	ND 50	ND 50	ND 50	ND 50	ND 50
Lead		ND 100	ND 100	ND 100	ND 100	ND 100
Nickel		ND 50	ND 50	ND 50	ND 50	ND 50
Zinc		ND 50	ND 50	ND 50	ND 50	ND 50

Note: * - does not match typical gasoline pattern. ND X - Denotes chemical not detected at a level of X.

TABLE 2
HISTORICAL GROUNDWATER QUALITY DATA
GRAND AUTO, OAKLAND

WELL	DATE	TPH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	XYLENES (ug/L)	DCE (ug/L)	TCE (ug/L)	PCE (ug/L)	CHROMIUM (ug/L)
MW-1	9/10/92	150*	ND 0.3	ND 0.3	ND 0.3	ND 0.3	11	26	310	NA
	1/19/93	160	ND 1	ND 3	ND 3	ND 3	14	28	220	ND 50
	4/26/93	57*	ND 0.3	ND 0.3	ND 0.3	ND 0.9	8.7	22	300	ND 50
	8/4/93	150*	ND 0.3	0.3	ND 0.3	ND 0.9	10	23	290	ND 50
	11/17/93	99*	ND 0.5	ND 0.5	ND 0.5	ND 0.5	15	28	230	ND 50
MW-2	4/26/93	70	0.8	1.1	ND 0.3	1.0	8.5	32	7.5	ND 50
	8/4/93	120*	ND 0.3	0.3	ND 0.3	ND 0.9	22	110	7.2	ND 50
	11/17/93	ND 50	ND 0.5	ND 0.5	ND 0.5	ND 0.5	8.7	32	6.1	ND 50
MW-3	4/26/93	ND 50	ND 0.3	ND 0.3	ND 0.3	ND 0.9	9.7	21	79	170
	8/4/93	170*	0.3	0.4	ND 0.3	ND 0.9	ND 5	28	170	ND 50
	11/17/93	ND 50	ND 0.5	ND 0.5	ND 0.5	ND 0.5	12	29	170	ND 50
MW-4	4/26/93	ND 50	ND 0.3	ND 0.3	ND 0.3	ND 0.9	3.9	17	78	60
	8/4/93	110*	ND 0.3	0.4	ND 0.3	ND 0.9	ND 5	16	110	ND 50
	11/17/93	ND 50	ND 0.5	ND 0.5	ND 0.5	ND 0.5	6.6	20	87	ND 50
HC-1	4/26/93	ND 50	ND 0.3	ND 0.3	ND 0.3	ND 0.9	13	22	46	ND 50
	8/4/93	100*	ND 0.3	ND 0.3	ND 0.3	ND 0.9	15	27	83	ND 50
	11/17/93	ND 50	ND 0.5	ND 0.5	ND 0.5	ND 0.5	16	27	130	ND 50

Notes: ND X - Not detected at detection limit X.
* - does not match typical gasoline pattern

Table 3
Monitoring Well Data
November 17, 1993
Grand Auto Supply
Oakland, California

WELL	TOTAL DEPTH (feet BGS)	SCREENED INTERVAL (feet BGS)	SURFACE ELEVATION (feet above msl)	TOP OF CASING ELEVATION (feet above msl)	DEPTH TO GROUNDWATER (feet BGS)	GROUNDWATER ELEVATION (feet above msl)
MW-1	43	33-43	30.8	30.53	35.30	-4.77
MW-2	45	31-45	30.7	30.41	35.18	-4.77
MW-3	45	30-45	30.7	30.31	35.13	-4.82
MW-4	45	30-45	29.5	29.08	33.90	-4.82
HC-1	42	30-42	28.7	28.33	33.16	-4.83

Notes:
1. See Figure 1 for well locations.
2. BGS = below ground surface.
3. MSL = mean seal level

TABLE 4

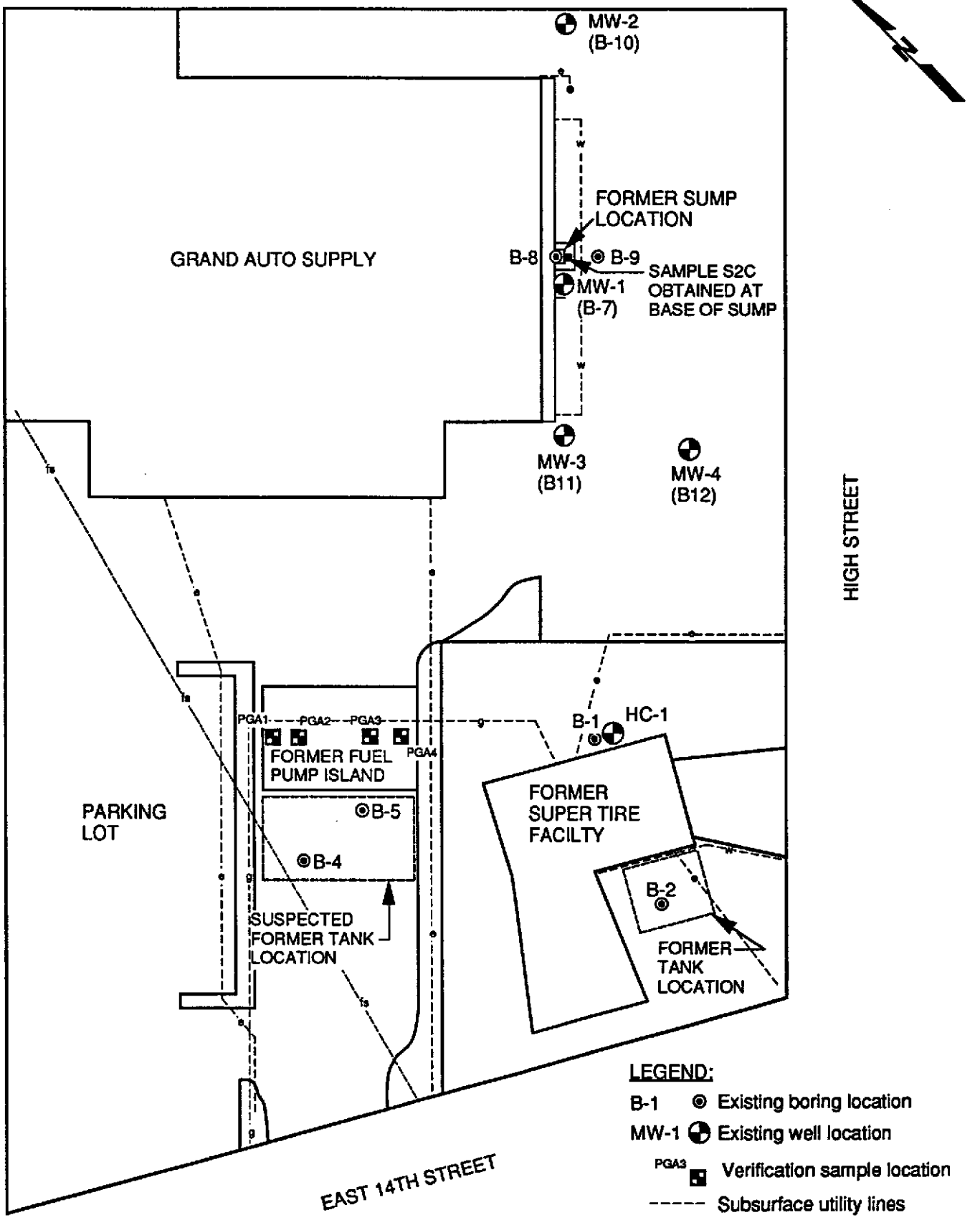
Summary of Verification Soil Sample Results
Grand Auto Facility
Oakland, California
October 18, 1993
(in µg/L)

Analyte	Method	PGA1	PGA2	PGA3	PGA4
TPH as Gasoline	8015 mod	ND 1000	ND 1000	ND 1000	ND 1000
Benzene	8020	ND 3	ND 3	ND 3	ND 3
Toluene	8020	ND 3	ND 3	ND 3	ND 3
Ethyl Benzene	8020	ND 3	ND 3	ND 3	ND 3
Xylenes	8020	ND 9	ND 9	ND 9	ND 9

Note: ND X - Denotes chemical not detected at a level of X.

FIGURES

MISSION AUTOMOTIVE



0 20 40 80

Scale, in Feet

SITE PLAN

GRAND AUTO RETAIL FACILITY
EAST 14TH & HIGH STREETS
OAKLAND, CALIFORNIA

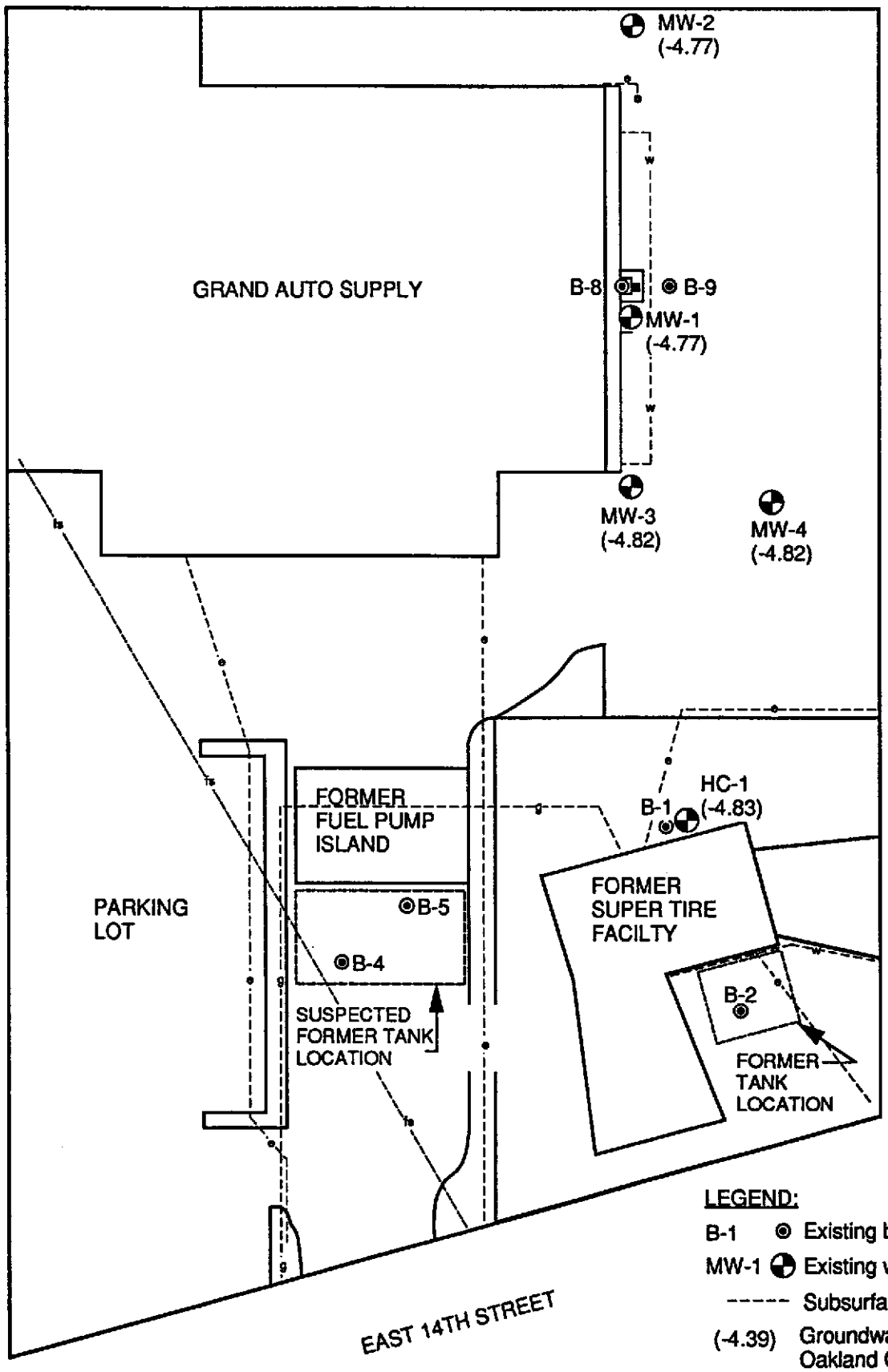
HARTCROWSER

J-6077 *1/94*

Figure 1

rad/pacmr oakland site v.1

MISSION AUTOMOTIVE



LEGEND:

B-1 ◉ Existing boring location

MW-1 ◓ Existing well location

----- Subsurface utility lines

(-4.39) Groundwater elevation in feet Oakland City Datum, on November 17, 1993.

0 20 40 80

Scale, in Feet

GROUNDWATER ELEVATIONS

SUPER TIRE FACILITY
4256 EAST 14 TH STREET
OAKLAND, CALIFORNIA

HARTCROWSER

J-6077 1/94

Figure 2

rad/pacmr oakland site v.1

APPENDIX A
Certified Analytical Reports

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 11/30/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
90607- 1	MW-1	11/17/93	11/30/93	Water
90607- 2	MW-2	11/17/93	11/30/93	Water
90607- 3	MW-3	11/17/93	11/30/93	Water
90607- 4	MW-4	11/17/93	11/30/93	Water
90607- 5	HC-1	11/17/93	11/30/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	90607- 1	90607- 2	90607- 3	90607- 4	90607- 5
Gasoline:	99*	ND<0.5	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

* Gasoline range concentration reported. The pattern of peaks observed in the chromatogram shows only single peak in the gasoline range.

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 90607

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	107/100	7%	70-130
Benzene:	111/105	6%	70-130
Toluene:	107/109	2%	70-130
Ethyl Benzene:	90/93	3%	70-130
Total Xylenes:	103/106	3%	70-130

12/2/93

Senior Chemist

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 01-December-1993

ANALYSIS FOR CHROMIUM, LEAD, NICKEL, ZINC
by EPA Method SW-846 6010 Series

Chronology

Laboratory Number 90607

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
MW-1	11/17/93	11/19/93	11/23/93	11/24/93		1
MW-2	11/17/93	11/19/93	11/23/93	11/24/93		2
MW-3	11/17/93	11/19/93	11/23/93	11/24/93		3
MW-4	11/17/93	11/19/93	11/23/93	11/24/93		4
HC-1	11/17/93	11/19/93	11/23/93	11/24/93		5

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 01-December-1993

ANALYSIS FOR CHROMIUM, LEAD, NICKEL, ZINC

Laboratory Number	Sample Identification	Matrix
90607- 1	MW-1	Water
90607- 2	MW-2	Water
90607- 3	MW-3	Water
90607- 4	MW-4	Water
90607- 5	HC-1	Water

RESULTS OF ANALYSIS

Laboratory Number:		90607- 1	90607- 2	90607- 3	90607- 4	90607- 5
Chromium	(Cr):	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Lead	(Pb):	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
Nickel	(Ni):	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Zinc	(Zn):	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Concentration:		mg/L	mg/L	mg/L	mg/L	mg/L

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

ANALYSIS FOR CHROMIUM, LEAD, NICKEL, ZINC
Quality Assurance and Control Data - Water

Laboratory Number 90607

Compound		Method Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Chromium	(Cr):	ND<0.05	0.05	99/97	75-125	2%
Lead	(Pb):	ND<0.1	0.1	104/101	75-125	3%
Nickel	(Ni):	ND<0.05	0.05	100/98	75-125	2%
Zinc	(Zn):	ND<0.05	0.05	109/106	75-125	3%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/L = Parts per million (ppm)
QC File No. 90607

12/2/93
Senior Chemist
Account Manager

RECEIVED DEC 1993

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 30-November-1993

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
90607- 1	MW-1	Water
90607- 2	MW-2	Water
90607- 3	MW-3	Water
90607- 4	MW-4	Water
90607- 5	HC-1	Water

RESULTS OF ANALYSIS

Laboratory Number:	90607- 1	90607- 2	90607- 3	90607- 4	90607- 5
Chloromethane/Vinyl Ch:	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Bromomethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Chloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Trichlorofluoromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Dichloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
t-1,2-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
c-1,2-Dichloroethene:	15	8.7	12	6.6	16
Chloroform:	1.8	ND<0.5	1.3	1.0	1.1
1,1,1-Trichloroethane:	ND<0.5	ND<0.5	0.8	ND<0.5	0.7
Carbon tetrachloride:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Trichloroethene:	28	32	29	20	27
c-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichloropropane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
t-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Bromodichloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1,2-Trichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Tetrachloroethene:	230	6.1	170	87	130
Dibromochloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Chlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Bromoform:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1,2,2-Tetrachloroeth:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,3-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,4-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 30-November-1993

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
90607- 6	TB	Water

RESULTS OF ANALYSIS

Laboratory Number: 90607- 6

Chloromethane/Vinyl Ch:	ND<1.0
Bromomethane:	ND<0.5
Chloroethane:	ND<0.5
Trichlorofluoromethane:	ND<0.5
1,1-Dichloroethene:	ND<0.5
Dichloromethane:	ND<0.5
t-1,2-Dichloroethene:	ND<0.5
1,1-Dichloroethane:	ND<0.5
c-1,2-Dichloroethene:	ND<0.5
Chloroform:	ND<0.5
1,1,1-Trichloroethane:	ND<0.5
Carbon tetrachloride:	ND<0.5
1,2-Dichloroethane:	ND<0.5
Trichloroethene:	ND<0.5
c-1,3-Dichloropropene:	ND<0.5
1,2-Dichloropropane:	ND<0.5
t-1,3-Dichloropropene:	ND<0.5
Bromodichloromethane:	ND<0.5
1,1,2-Trichloroethane:	ND<0.5
Tetrachloroethene:	ND<0.5
Dibromochloromethane:	ND<0.5
Chlorobenzene:	ND<0.5
Bromoform:	ND<0.5
1,1,2,2-Tetrachloroeth:	ND<0.5
1,3-Dichlorobenzene:	ND<0.5
1,2-Dichlorobenzene:	ND<0.5
1,4-Dichlorobenzene:	ND<0.5

Concentration: ug/L

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.
Quality Assurance and Control Data - Water

Laboratory Number 90607

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane/Vinyl Ch:	ND<1.0	1.0			
Bromomethane:	ND<0.5	0.5			
Chloroethane:	ND<0.5	0.5			
Trichlorofluoromethane:	ND<0.5	0.5			
1,1-Dichloroethene:	ND<0.5	0.5	105/83	71-163	23%
Dichloromethane:	ND<0.5	0.5			
t-1,2-Dichloroethene:	ND<0.5	0.5			
1,1-Dichloroethane:	ND<0.5	0.5			
c-1,2-Dichloroethene:	ND<0.5	0.5			
Chloroform:	ND<0.5	0.5			
1,1,1-Trichloroethane:	ND<0.5	0.5			
Carbon tetrachloride:	ND<0.5	0.5			
1,2-Dichloroethane:	ND<0.5	0.5			
Trichloroethene:	ND<0.5	0.5	105/97	82-131	8%
c-1,3-Dichloropropene:	ND<0.5	0.5			
1,2-Dichloropropane:	ND<0.5	0.5			
t-1,3-Dichloropropene:	ND<0.5	0.5			
Bromodichloromethane:	ND<0.5	0.5			
1,1,2-Trichloroethane:	ND<0.5	0.5			
Tetrachloroethene:	ND<0.5	0.5			
Dibromochloromethane:	ND<0.5	0.5			
Chlorobenzene:	ND<0.5	0.5	119/102	63-128	15%
Bromoform:	ND<0.5	0.5			
1,1,2,2-Tetrachloroeth:	ND<0.5	0.5			
1,3-Dichlorobenzene:	ND<0.5	0.5			
1,2-Dichlorobenzene:	ND<0.5	0.5			
1,4-Dichlorobenzene:	ND<0.5	0.5			

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
ug/L = Parts per billion (ppb)
QC File No. 90607

12/2/93
Senior Chemist
Account Manager

90607

Sample Custody Record

DATE 11/19/93 PAGE ____ OF ____

HARTCROWSER

Hart Crowser, Inc.
353 Sacramento Street, Suite 1140
San Francisco, California 94111

JOB NUMBER J6077 LAB NUMBER ____

PROJECT MANAGER PAT LYNCH

PROJECT NAME PACCAR OAKLAND

SAMPLED BY: ETS/PBH

LAB NO.	SAMPLE	TIME	STATION	MATRIX	TESTING: TPH-G BTEX	TESTING: 8010	TESTING: Cr Pb Zn Ni	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/COMPOSITING INSTRUCTIONS
1	MW-1	11/17/93		H_2O	X	X	X	5	
2	MW-2	↓		↓	X	X	X	5	
3	MW-3				X	X	X	5	
4	MW-4				X	X	X	5	
5	HC-1				X	X	X	5	
6	TB		TRIP BLANK		X			1	

Please initial:
Samples Stored in ice
Appropriate containers
Samples preserved
VOA's without headspace

Comments: Contacted Patrick Lynch about the extra sample labelled MW-1A received but not on the COC. Left a message on his voice mail.

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	11/19/93	SIGNATURE 778	11-19
PRINTED NAME Eric Schniewind	TIME 4:35	PRINTED NAME Tracy Babica	TIME 11 22 93 10:50
COMPANY HC		COMPANY BC	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE 778	11/19 93	SIGNATURE R. Romero	11/19/93
PRINTED NAME Lowell Davis	TIME	PRINTED NAME R. ROMERO	TIME
COMPANY BCAL		COMPANY Superior SF	1713 PM

TOTAL NUMBER OF CONTAINERS 26

METHOD OF SHIPMENT COURIER

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS

NORMAL TAT

DISTRIBUTION:

1. PROVIDE WHITE AND YELLOW COPIES TO LABORATORY
2. RETURN PINK COPY TO PROJECT MANAGER
3. LABORATORY TO FILL IN SAMPLE NUMBER AND SIGN FOR RECEIPT
4. LABORATORY TO RETURN WHITE COPY TO HART CROWSER

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

HARTCROWSER Inc.
Attn: PAT LYNCH

Project J6077
Reported 30-November-1993

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Chronology

Laboratory Number 90607

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
MW-1	11/17/93	11/19/93	/ /	11/23/93		1
MW-2	11/17/93	11/19/93	/ /	11/23/93		2
MW-3	11/17/93	11/19/93	/ /	11/23/93		3
MW-4	11/17/93	11/19/93	/ /	11/23/93		4
HC-1	11/17/93	11/19/93	/ /	11/23/93		5
TB	11/17/93	11/19/93	/ /	11/23/93		6

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

HARTCROWSER Inc
Attn: Eric Schniewind

Project J6077
Reported 22-October-1993

ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES
by EPA SW-846 Methods 5030/8015M/8020.

Chronology

Laboratory Number 57218

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
PGA-1	10/20/93	10/20/93	/ /	10/20/93		1
PGA-2	10/20/93	10/20/93	/ /	10/20/93		2
PGA-3	10/20/93	10/20/93	/ /	10/20/93		3
PGA-4	10/20/93	10/20/93	/ /	10/20/93		4

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

RECEIVED OCT 2 8 1993

HARTCROWSER Inc
Attn: Eric Schniewind

Project J6077
Reported 22-October-1993

ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

Laboratory Number	Sample Identification	Matrix
57218- 1	PGA-1	Soil
57218- 2	PGA-2	Soil
57218- 3	PGA-3	Soil
57218- 4	PGA-4	Soil

RESULTS OF ANALYSIS

Laboratory Number:	57218- 1	57218- 2	57218- 3	57218- 4
Gasoline:	ND<1	ND<1	ND<1	ND<1
Benzene:	ND<.003	ND<.003	ND<.003	ND<.003
Toluene:	ND<.003	ND<.003	ND<.003	ND<.003
Ethyl Benzene:	ND<.003	ND<.003	ND<.003	ND<.003
Xylenes:	ND<.009	ND<.009	ND<.009	ND<.009
Concentration:	mg/kg	mg/kg	mg/kg	mg/kg
-- Surrogate % Recoveries --				
Surrogate Recovery:	107	108	115	114

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

RECEIVED OCT 2 0 1999

ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES
Quality Assurance and Control Data - Soil

Laboratory Number 57218

Compound	Method Blank (mg/kg)	RL (mg/kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Gasoline:	ND<1	1	104/100	75-125	4%
Benzene:	ND<.003	.003	89/90	75-125	1%
Toluene:	ND<.003	.003	92/93	75-125	1%
Ethyl Benzene:	ND<.003	.003	93/94	75-125	1%
Xylenes:	ND<.009	.009	96/96	75-125	0%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/kg = Parts per million (ppm)
File No. 57218

Cecilia G. Joaquin
Senior Chemist
Account Manager

57218

Sample Custody Record

DATE 10/20/93 PAGE 1 OF 1

HARTCROWSER

Hart Crowser, Inc.
353 Sacramento Street, Suite 1140
San Francisco, California 94111

JOB NUMBER J6077 LAB NUMBER

PROJECT MANAGER: PAT LYNCH

PROJECT NAME PACCAR OAKLAND (GRAND AUTO)

SAMPLED BY: ERIC SCHNIEWIND

LAB NO.	SAMPLE	TIME	STATION	MATRIX	TESTING: TPH-GAS/BTEX	TESTING: TOTAL Pb	NO. OF CONTAINERS	OBSERVATIONS / COMMENTS / COMPOSITING INSTRUCTIONS
	PGA-1	PM		SOIL	X	X	1	IF Pb CONCENTRATION vs
	PGA-2	↓		↓	X	X	1	10 X STLC (OR >50 ppm)
	PGA-3	↓		↓	X	X	1	THEN RUN WET
	PGA-4	↓		↓	X	X	1	ANALYSIS

RUSH

RUSH

Please initial:
Samples stored in ice. ✓
Appropriate containers. ✓
Samples preserved. NA
VOA's without headspace. NA
Comments:

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: [signature]	10/20/93	SIGNATURE: [signature]	10/21/93
PRINTED NAME: ERIC SCHNIEWIND	TIME: 9:18	PRINTED NAME: Perritt	TIME: 920
COMPANY: HART CROWSER		COMPANY: Superior	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINTED NAME		PRINTED NAME	
COMPANY		COMPANY	

TOTAL NUMBER OF CONTAINERS: 4

METHOD OF SHIPMENT

SPECIAL SHIPMENT / HANDLING OR STORAGE REQUIREMENTS: 48-HOUR TAT

DISTRIBUTION:

1. PROVIDE WHITE AND YELLOW COPIES TO LABORATORY
2. RETURN PINK COPY TO PROJECT MANAGER
3. LABORATORY TO FILL IN SAMPLE NUMBER AND SIGN FOR RECEIPT
4. LABORATORY TO RETURN WHITE COPY TO HART CROWSER

90347

Sample Custody Record

DATE 10/20/93 PAGE 1 OF 1

HARTCROWSER

Hart Crowser, Inc.
353 Sacramento Street, Suite 1140
San Francisco, California 94111

JOB NUMBER J6077 LAB NUMBER

PROJECT MANAGER PAT LYNCH

PROJECT NAME PACCAR OAKLAND (SUPERTIRE)

SAMPLED BY: ERIC SCHNIEWIND

LAB NO.	SAMPLE	TIME	STATION	MATRIX	TESTING: TOTAL Cr										NO. OF CONTAINERS	OBSERVATIONS / COMMENTS / COMPOSITING INSTRUCTIONS
	HZA	AM		SOIL	X										1	IF Cr IS 10X STLC (IR > 50 ppm) THEN RUN WET ANALYSIS
							INV									
							C	4°								
							✓									
							NO									
							NO									

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: E. Schniewind	10/20/93	SIGNATURE: Bennett	10/20/93
PRINTED NAME: ERIC SCHNIEWIND	TIME	PRINTED NAME: BENNETT	TIME
COMPANY: HARTCROWSER	9:18	COMPANY: Superior	920
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: Cecilia G. Joaquin	10/20/93	SIGNATURE: Vanegas	10-21
PRINTED NAME: Cecilia G. Joaquin	TIME	PRINTED NAME: Vanegas	TIME
COMPANY: Superior	5:30 pm	COMPANY: Superior	12:00

TOTAL NUMBER OF CONTAINERS: 1

METHOD OF SHIPMENT:

SPECIAL SHIPMENT / HANDLING OR STORAGE REQUIREMENTS: NORMAL ~~[illegible]~~ TAT

DISTRIBUTION:

1. PROVIDE WHITE AND YELLOW COPIES TO LABORATORY
2. RETURN PINK COPY TO PROJECT MANAGER
3. LABORATORY TO FILL IN SAMPLE NUMBER AND SIGN FOR RECEIPT
4. LABORATORY TO RETURN WHITE COPY TO HART CROWSER

Sample Custody Record

DATE 10/18/93 PAGE 1 OF 1

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HARTCROWSER

Hart Crowser, Inc.
353 Sacramento Street, Suite 1140
San Francisco, California 94111

JOB NUMBER J6077 LAB NUMBER

PROJECT MANAGER PAT LYNCH

PROJECT NAME PACCAR - OAKLAND (SUPERTIRE)

SAMPLED BY: ERIC SCHNIEWIND

LAB NO.	SAMPLE	TIME	STATION	MATRIX	TESTING: TPH-GAS/BTEX	TESTING: TOTAL PB	TESTING: (IF TOTAL PB OVER SOLUBLE PB RUN STLC PB)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	P-1	AM		SOIL	X	X		1	
	P-2	↓		↓	X	X		1	
	P-3	↓		↓	X	X		1	
	P-4	↓		↓	X	X		1	

4°C

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	10/18/93	SIGNATURE	10/18/93
PRINTED NAME: ERIC SCHNIEWIND	TIME	PRINTED NAME	TIME
COMPANY: HART CROWSER	4:50	COMPANY: AERO	4:50
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: 790# Hunja	10/19	SIGNATURE: Onyi A Nwogu	
PRINTED NAME	TIME	PRINTED NAME: ONYI A NWOGU	TIME
COMPANY		COMPANY: SUPERIOR SF	

10/19/93

TOTAL NUMBER OF CONTAINERS: 4

METHOD OF SHIPMENT: COURIER

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS: NORMAL TAT

DISTRIBUTION:

1. PROVIDE WHITE AND YELLOW COPIES TO LABORATORY
2. RETURN PINK COPY TO PROJECT MANAGER
3. LABORATORY TO FILL IN SAMPLE NUMBER AND SIGN FOR RECEIPT
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