



**HARTCROWSER**

Earth and Environmental Technologies

ENVIRONMENTAL  
PROTECTION  
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October 6, 1995

Ms. Madhula Logan  
Hazardous Materials Division  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502

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 1995 (Previous Site Activities), during the month of September 1995 (Current Activities), and the activities planned for the next quarter, October 1995 to December 1995 (Proposed Activities).

### PREVIOUS SITE ACTIVITIES

The Grand Auto retail facility is located on an approximately 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 (ft 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 perched zone of groundwater 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," dated June 18, 1993.

During October 1993, fuel conveyance piping associated with the former underground fuel storage tanks 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 total petroleum hydrocarbons as gasoline (TPH-G) and benzene, toluene, ethylbenzene, and xylenes (BTEX); these analytes were not detected in any sample.

On January 31, 1995, Hart Crowser measured groundwater elevations in, and collected groundwater samples from, the four onsite groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) and from the offsite well (HC-1). The data collected were presented in a Quarterly Status Report dated April 18, 1995.

#### **CURRENT ACTIVITIES**

On September 15, 1995, Hart Crowser measured groundwater elevations in, and collected groundwater samples from, the four 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 laboratory cleaned, 40 milliliter glass vials with Teflon lined septa and preserved with hydrochloric acid. After labeling, the samples 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 Analytical Laboratory, Inc. for analysis of halogenated volatile organic compounds by EPA Method 8010. The laboratory results are summarized in Table 1. Certified Analytical Reports and a copy of the chain-of-custody record are included in Appendix A.

TPH-G and BTEX were not analyzed for during any 1995 sampling event because five previous quarters of sampling indicated that petroleum hydrocarbons were not present in groundwater at the site. The five metals (cadmium, chromium, lead, nickel, and zinc) were also dropped from the list of analyses in 1995, because five previous rounds of sampling indicated that the metals were not present in the groundwater.

The analytical data from this round of sampling were generally consistent with previous results. The concentrations of halogenated organic compounds in each sample were within the concentration ranges previously documented for each well. As in previous sampling events, tetrachloroethylene (PCE) was detected in all five monitoring wells, with the highest concentration (200 µg/L) found in MW-1. Reportable concentrations of trichloroethylene (TCE) and cis-1,2-dichloroethylene (cis-1,2-DCE) again were detected in all five monitoring wells. The highest concentrations of TCE and cis-1,2-DCE again were reported in the sample from MW-2 (69 µg/L and 17 µg/L, respectively). Vinyl chloride (VC) was detected at the site for the first time during this sampling round. Duplicate analyses of groundwater samples from MW-2 indicated VC concentrations of 0.8 µg/L and 0.9 µg/L, values close to the detection limit of 0.5 µg/L.

Groundwater elevations measured on September 15, 1995 are presented in Table 2. The measured groundwater gradient is again relatively flat.



**PROPOSED ACTIVITIES**

Future activities proposed for the site include preparing and submitting a Request for Site Closure to you by December 1, 1995.

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

Sincerely,

**HART CROWSER, INC.**

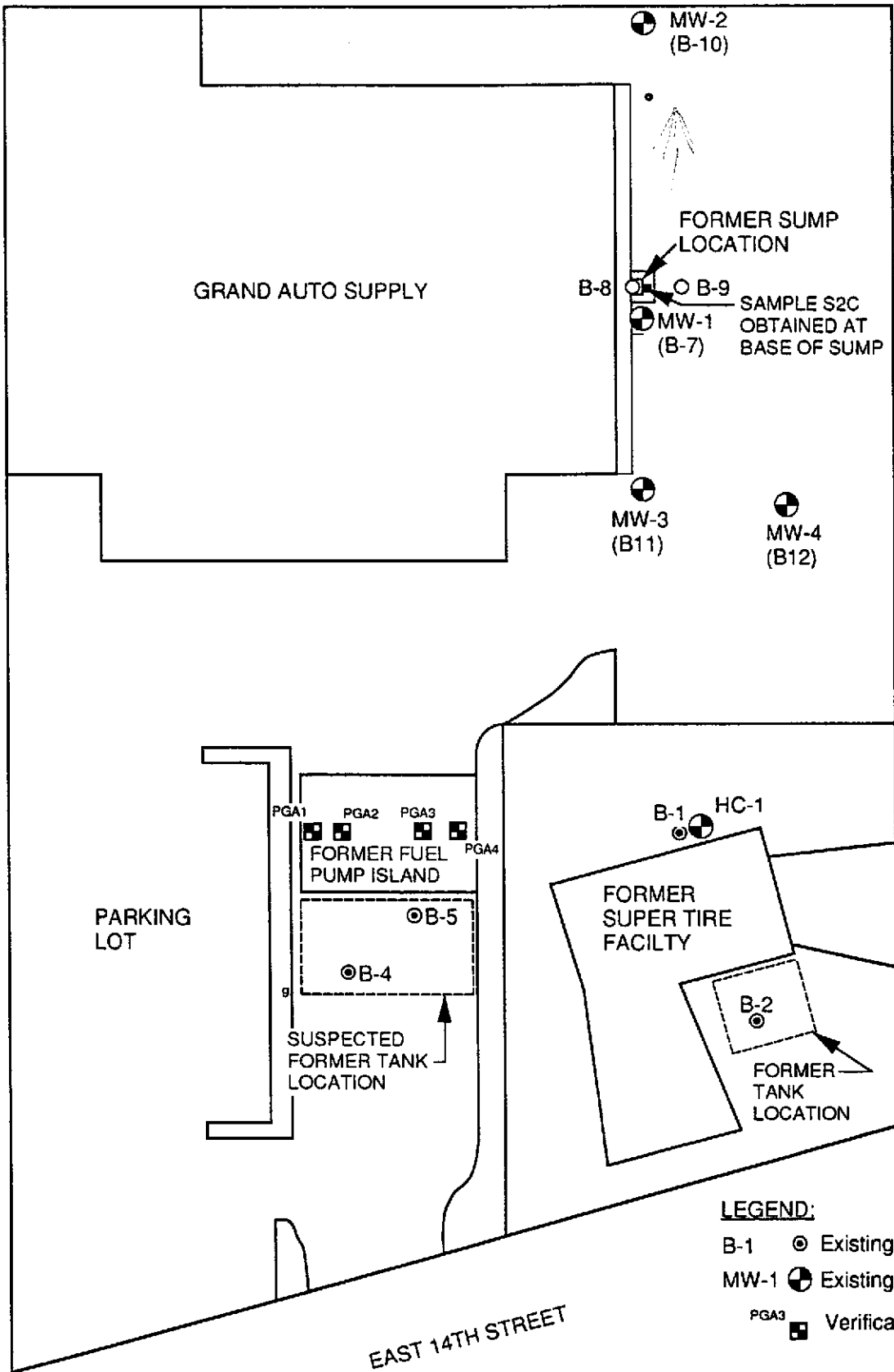
Jay A. Ach, R.G.  
Senior Project Hydrogeologist

Dharme Rathnayake, P.E.  
Sr. Technical Manager

JAA/DR:pr

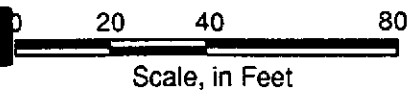
Attachments: Figure 1 - Site Plan  
Table 1 - Historical Groundwater Quality Data - Halogenated Hydrocarbons  
Table 2 - Monitoring Well Data  
Appendix A - Certified Analytical Reports

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



**LEGEND:**

- B-1    ⊙ Existing boring location
- MW-1   ⊕ Existing well location
- PGA3   ⊠ Verification sample location



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

red/peccar oakland site v.1

TABLE 1

HISTORICAL GROUNDWATER QUALITY DATA - HALOGENATED HYDROCARBONS  
GRAND AUTO SUPPLY, OAKLAND

WELL	DATE	Freon 12 ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	Chloroform ( $\mu\text{g/L}$ )	1,1,1-TCA ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	Vinyl Chloride	TCE ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )
MW-1	9/10/92	NR	11	1.1	ND 0.5	ND 0.5	--	26	310
GC/MS	1/19/93	NR	14	ND 3	ND 3	ND 1	--	28	220
	4/26/93	37	8.7	1	ND 0.5	ND 0.5	ND 1	22	300
(d)	4/26/93	110	8.7	1.1	0.6	ND 0.5	ND 1	22	300
	8/4/93	NR	10	ND 5	ND 5	ND 5	ND 10	23	290
	11/17/93	NR	15	1.8	ND 0.5	ND 0.5	ND 1	28	230
	2/18/94	NR	12	1	ND 0.5	ND 0.5	ND 0.5	25	200
	6/7/94	NR	25	1.6	ND 0.5	ND 0.5	ND 0.5	28	200
(d)	6/7/94	NR	22	1.5	ND 0.5	ND 0.5	ND 0.5	35	340
	9/20/94	NR	19	ND 5	ND 5	ND 5	ND 5	37	270
(d)	9/20/94	NR	18	ND 5	ND 5	ND 5	ND 5	36	270
	1/31/95	NR	9.7	ND 1	ND 1	ND 1	ND 2	13	54
(d)	1/31/95	NR	9.3	ND 1	ND 1	ND 1	ND 2	13	54
	9/15/95	NR	6.8	1.4	ND 0.5	ND 0.5	ND 0.5	25	200
MW-2	4/26/93	31	8.5	0.9	0.6	0.6	ND 1	32	7.5
	8/4/93	NR	22	ND 1.2	ND 1.2	ND 1.2	ND 2.4	110	7.2
	11/17/93	NR	8.7	ND 0.5	ND 0.5	ND 0.5	ND 1	32	6.1
	2/18/94	NR	25	ND 0.5	ND 0.5	1.5	ND 0.5	75	4.8
	6/7/94	NR	31	ND 0.5	ND 0.5	1.8	ND 0.5	120	6.9
	9/20/94	NR	36	ND 5	ND 5	ND 5	ND 5	130	6
	1/31/95	NR	17	ND 1	ND 1	ND 1	ND 2	60	3
	9/15/95	NR	17	ND 0.5	ND 0.5	1.1	0.8	52	6.3
(d)	9/15/95	NR	17	ND 0.5	ND 0.5	0.9	0.9	69	6.5
MW-3	4/26/93	35	9.7	ND 0.5	0.8	ND 0.5	ND 1	21	79
	8/4/93	NR	ND 5	ND 5	ND 5	ND 5	ND 10	28	170
	11/17/93	NR	12	1.3	0.8	ND 0.5	ND 1	29	170
	2/18/94	NR	5	0.7	ND 0.5	ND 0.5	ND 0.5	19	85
	6/7/94	NR	8.3	0.6	0.6	ND 0.5	ND 0.5	34	160
	9/20/94	NR	11	ND 5	ND 5	ND 5	ND 5	37	240
	1/31/95	NR	6.2	ND 1	ND 1	ND 1	ND 5	34	160
	9/15/95	NR	4.9	ND 0.5	ND 0.5	ND 0.5	ND 0.5	25	170

TABLE 1 (cont.)

**HISTORICAL GROUNDWATER QUALITY DATA - HALOGENATED HYDROCARBONS  
GRAND AUTO SUPPLY, OAKLAND**

<u>WELL</u>	<u>DATE</u>	<u>Freon 12 (<math>\mu\text{g/L}</math>)</u>	<u>cis-1,2-DCE (<math>\mu\text{g/L}</math>)</u>	<u>Chloroform (<math>\mu\text{g/L}</math>)</u>	<u>1,1,1-TCA (<math>\mu\text{g/L}</math>)</u>	<u>1,2-DCA (<math>\mu\text{g/L}</math>)</u>	<u>Vinyl Chloride</u>	<u>TCE (<math>\mu\text{g/L}</math>)</u>	<u>PCE (<math>\mu\text{g/L}</math>)</u>
MW-4	4/26/93	28	3.9	0.6	ND 0.5	ND 0.5	ND 1	17	78
	8/4/93	NR	ND 5	ND 5	ND 5	ND 5	ND 10	16	110
	11/17/93	NR	6.6	1	ND 0.5	ND 0.5	ND 1	20	87
	2/18/94	NR	6	1.9	0.7	ND 0.5	ND 0.5	31	120
	6/7/94	NR	7.1	0.9	0.9	ND 0.5	ND 0.5	28	140
	9/20/94	NR	5	ND 5	ND 5	ND 5	ND 5	32	220
	1/31/95	NR	4.7	ND 1	ND 1	ND 1	ND 5	20	140
	9/15/95	NR	4.4	ND 0.5	ND 0.5	ND 0.5	ND 0.5	24	160
	HC-1  (d)	4/26/93	47	13	ND 0.5	ND 0.5	ND 0.5	ND 1	22
8/4/93		NR	15	ND 0.5	ND 0.5	ND 0.5	ND 1	27	83
11/17/93		NR	16	1.1	0.7	ND 0.5	ND 1	27	130
2/18/94		NR	13	0.7	ND 0.5	ND 0.5	ND 0.5	30	140
2/18/94		NR	11	0.6	ND 0.5	ND 0.5	ND 0.5	22	150
6/7/94		NR	22	1	ND 0.5	ND 0.5	ND 0.5	42	180
9/20/94		NR	15	ND 5	ND 5	ND 5	ND 5	37	190
1/31/95		NR	11	ND 1	ND 1	ND 1	ND 5	27	120
9/15/95		NR	14	ND 0.5	ND 0.5	ND 0.5	ND 0.5	27	170

Notes: ND - Not detected at specified detection limit.

NR - Not reported.

GC/MS - Denotes that EPA Method 8240 was used, all other results for EPA Method 8010.

(d) - Denotes results are for a duplicate sample.

**TABLE 2**  
**MONITORING WELL AND WATER LEVEL DATA**  
 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)	DATE	DEPTH TO GROUNDWATER (feet BGS)	GROUNDWATER ELEVATION (feet above msl)
MW-1	43	33-43	30.8	30.53	1/31/95	30.83	-0.30
					9/15/95	29.34	1.19
MW-2	45	31-45	30.7	30.41	1/31/95	30.71	-0.30
					9/15/95	29.19	1.22
MW-3	45	30-45	30.7	30.31	1/31/95	30.62	-0.31
					9/15/95	29.11	1.20
MW-4	45	30-45	29.5	29.08	1/31/95	29.38	-0.30
					9/15/95	27.86	1.22
HC-1	42	30-42	28.7	28.33	1/31/95	28.65	-0.32
					9/15/95	27.16	1.17

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





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HART CROWSER, Inc.  
353 Sacramento St. Suite 1140  
San Francisco, CA 94111

Date: September 22, 1995

Attn: JAY ACH

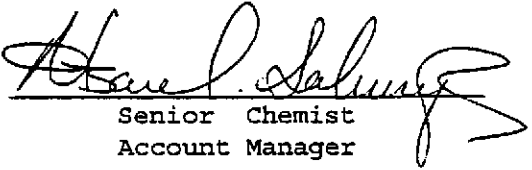
Laboratory Number : 20137

Project Number/Name : 6077

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This report has been reviewed and  
approved for release.

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Senior Chemist  
Account Manager

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Certified Laboratories

825 Arnold Dr., Suite 114  
Martinez, California 94553  
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# Superior Precision Analytical, Inc.

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HART CROWSER, Inc.  
Attn: JAY ACH

Project 6077  
Reported on September 22, 1995

## Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

### Chronology

Laboratory Number 20137

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-1	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	01
MW-2	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	02
MW-3	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	03
MW-4	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	04
HC-1	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	05
TRIP BLANK	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	06
DUP	09/15/95	09/18/95	09/18/95	09/18/95	BI181.08	07

### QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
BI181.08-02	Method Blank	MB	Water	09/18/95	09/18/95
BI181.08-03	Laboratory Spike	LS	Water	09/18/95	09/18/95
BI181.08-04	MW-1	MS 20137-01	Water	09/18/95	09/18/95
BI181.08-05	MW-1	MSD 20137-01	Water	09/18/95	09/18/95

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Project 6077

Attn: JAY ACH

Reported on September 22, 1995

## Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20137-01	MW-1	Water	1.0	-
20137-02	MW-2	Water	1.0	-
20137-03	MW-3	Water	1.0	-
20137-04	MW-4	Water	1.0	-

### RESULTS OF ANALYSIS

Compound	20137-01		20137-02		20137-03		20137-04	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L		ug/L	
Chloromethane	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Vinyl Chloride	ND	0.5	0.8	0.5	ND	0.5	ND	0.5
Bromomethane	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
Trichlorofluoromethane	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
Dichloromethane	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
1,1-Dichloroethane	ND	0.5	ND	0.5	ND	0.5	ND	0.5
c-1,2-Dichloroethene	6.8	0.5	17	0.5	4.9	0.5	4.4	0.5
Chloroform	1.4	0.5	ND	0.5	ND	0.5	ND	0.5
1,1,1-Trichloroethane	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Carbon tetrachloride	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-Dichloroethane	ND	0.5	1.1	0.5	ND	0.5	ND	0.5
Trichloroethene	25	0.5	52X	1.3	25	0.5	24	0.5
c-1,3-Dichloropropene	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
t-1,3-Dichloropropene	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
1,1,2-Trichloroethane	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Tetrachloroethene	200X	5	6.3	0.5	170X	5	160X	5
Dibromochloromethane	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
Bromoform	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,1,2,2-Tetrachloroethane	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
1,2-Dichlorobenzene	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
>> Surrogate Recoveries (%) <<								
4-Bromofluorobenzene	101		100		91		81	



# Superior Precision Analytical, Inc.

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Attn: JAY ACH

Project 6077  
Reported on September 22, 1995

## Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20137-05	HC-1	Water	1.0	-
20137-06	TRIP BLANK	Water	1.0	-
20137-07	DUP	Water	1.0	-

### RESULTS OF ANALYSIS

Compound	20137-05		20137-06		20137-07	
	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L	
Chloromethane	ND	0.5	ND	0.5	ND	0.5
Vinyl Chloride	ND	0.5	ND	0.5	0.9	0.5
Bromomethane	ND	0.5	ND	0.5	ND	0.5
Chloroethane	ND	0.5	ND	0.5	ND	0.5
Trichlorofluoromethane	ND	0.5	ND	0.5	ND	0.5
1,1-Dichloroethene	ND	0.5	ND	0.5	ND	0.5
Dichloromethane	ND	0.5	ND	0.5	ND	0.5
t-1,2-Dichloroethene	ND	0.5	ND	0.5	ND	0.5
1,1-Dichloroethane	ND	0.5	ND	0.5	ND	0.5
c-1,2-Dichloroethene	14	0.5	ND	0.5	17	0.5
Chloroform	ND	0.5	ND	0.5	ND	0.5
1,1,1-Trichloroethane	ND	0.5	ND	0.5	ND	0.5
Carbon tetrachloride	ND	0.5	ND	0.5	ND	0.5
1,2-Dichloroethane	ND	0.5	ND	0.5	0.9	0.5
Trichloroethene	27	0.5	ND	0.5	69X	1.3
c-1,3-Dichloropropene	ND	0.5	ND	0.5	ND	0.5
1,2-Dichloropropane	ND	0.5	ND	0.5	ND	0.5
t-1,3-Dichloropropene	ND	0.5	ND	0.5	ND	0.5
Bromodichloromethane	ND	0.5	ND	0.5	ND	0.5
1,1,2-Trichloroethane	ND	0.5	ND	0.5	ND	0.5
Tetrachloroethene	170X	5	ND	0.5	6.5	0.5
Dibromochloromethane	ND	0.5	ND	0.5	ND	0.5
Chlorobenzene	ND	0.5	ND	0.5	ND	0.5
Bromoform	ND	0.5	ND	0.5	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5	ND	0.5	ND	0.5
1,3-Dichlorobenzene	ND	0.5	ND	0.5	ND	0.5
1,2-Dichlorobenzene	ND	0.5	ND	0.5	ND	0.5
1,4-Dichlorobenzene	ND	0.5	ND	0.5	ND	0.5
> Surrogate Recoveries (%) <<						
4-Bromofluorobenzene	106		95		95	

#### Certified Laboratories

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# Superior Precision Analytical, Inc.

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Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 20137

Method Blank(s)

BI181.08-02

Conc. RL

ug/L

Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	0.5
c-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
c-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-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5

>> Surrogate Recoveries (%) <<

1-Bromofluorobenzene 92

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Certified Laboratories

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Seattle, Washington 98108  
(206) 763-2992 / fax (206) 763-8429



**Superior Precision Analytical, Inc.**

A member of ESSCON Environmental Support Service Consortium

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 20137

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Water Matrix (ug/L)  
 BI181.08 03 / - Laboratory Control Spikes

1,1-Dichloroethene		20	17	85	50-189	
Trichloroethene		20	19	95	53-161	
Chlorobenzene		20	22	110	57-171	

> Surrogate Recoveries (%) <<  
 4-Bromofluorobenzene 111 50-125

For Water Matrix (ug/L)  
 BI181.08 04 / 05 - Sample Spiked: 20137 - 01

1,1-Dichloroethene	ND	20	17/16	85/80	50-189	6
Trichloroethene	25	20	44/42	95/85	53-161	11
Chlorobenzene	ND	20	23/22	115/110	57-171	4

> Surrogate Recoveries (%) <<  
 4-Bromofluorobenzene 114/120 50-125

- Detection limit was raised due to high level of target analyte in the sample

Definitions:

ND = Not Detected  
 RL = Reporting Limit  
 NA = Not Analysed  
 RPD = Relative Percent Difference  
 ug/L = parts per billion (ppb)  
 mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)  
 mg/kg = parts per million (ppm)

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20137

# Sample Custody Record

DATE 9/15/95 PAGE 1 OF     



Hart Crowser, Inc.  
1910 Fairview Avenue East  
Seattle, Washington 98102-3600

JOB NUMBER 6077 LAB NUMBER       
 PROJECT MANAGER Jay Ach  
 PROJECT NAME Paccar, Grand Auto  
 SAMPLED BY: Stacey Callison

LAB NO.	SAMPLE	TIME	STATION	MATRIX
	MW-1	9/15/95		water
	MW-2	↓		↓
	MW-3	↓		↓
	MW-4	↓		↓
	HC-1	↓		↓
	TNP Blank	↓		↓
	Dup	↓		↓

TESTING										NO. OF CONTAINERS	
EPA 8010											W
X											W
X											W
X											W
X											W
X											W
X											W
X											W
X											W
X											W

San Francisco

OBSERVATIONS / COMMENTS /  
COMPOSITING INSTRUCTIONS

Please Initial:       
 Samples stored in ice  4°C  
 Appropriate containers   
 Samples preserved NO  
 VOC's without preservative   
 Comments:     

RELINQUISHED BY <u>Stacey W. Callison</u> SIGNATURE	DATE <u>9/15/95</u>	RECEIVED BY <u>R. BOUGALINZ</u> SIGNATURE	DATE <u>9/15/95</u>
PRINTED NAME <u>Stacey W. Callison</u>	TIME <u>310</u>	PRINTED NAME <u>R. BOUGALINZ</u>	TIME <u>1740</u>
COMPANY <u>HC</u>		COMPANY <u>SAL</u>	

TOTAL NUMBER OF CONTAINERS 21 METHOD OF SHIPMENT courier

SPECIAL SHIPMENT / HANDLING OR STORAGE REQUIREMENTS  
standard turnaround time

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINTED NAME	TIME	PRINTED NAME	TIME
COMPANY		COMPANY	

- 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