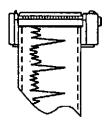
SECOND QUARTER 1996 ENVIRONMENTAL ACTIVITIES REPORT

GERMAN AUTOCRAFT 301 E. 14TH STREET, SAN LEANDRO, CALIFORNIA

Prepared by:



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Prepared For:

Mr. Seung Lee German Autocraft 301 E. 14th Street San Leandro, California

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EXP. 12/31/76

OF CALIFORNIA

Report issued August 8, 1996

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I. INTRODUCTION

In accordance with recommendations set forth in the Soil and Groundwater Investigation (SWI) Workplan, dated June 7, 1995, Environmental Testing & Management (ETM) continued the Quarterly Monitoring Program (QMP) and related environmental activities at German Autocraft located at 301 East 14th Street in the City of San Leandro, Alameda County, California (Figure 1). This Second Quarter, 1996 report is submitted to the Alameda County Department of Environmental Health (ACDEH) on behalf of Mr. Seung Lee, owner of German Autocraft.

The SWI consisted of an off-site soil and groundwater sampling program which defined the lateral limit of the German Autocraft fuel release at approximately 240 feet northwest of the former tank pit in the shallow aquifer. The results of the SWI were presented by ETM in a technical report, dated July 12, 1996. The project is entering the corrective action phase.

In conjunction with the SWI, the QMP has monitored the hydrocarbon impacts on the shallow aquifer groundwater in the area of six former underground fuel storage tanks (USTs) that were removed in 1990. Data accumulated from the QMP are used to observe seasonal groundwater level fluctuations, changing groundwater quality conditions, and provide data which supports the development of corrective action plans at the site.

The Second Quarter, 1996 of the QMP presents a description of the groundwater monitoring activities, a compilation of groundwater quality and gradient data, maintenance of the passive skimmer system in the former tank pit area, and a brief description of the development of corrective actions at the site between April and June 1996.

II. BACKGROUND

German Autocraft is located at 301 E. 14th Street in San Leandro (see Location Map, Figure 1). The approximate locations of buildings, property boundaries, and adjacent streets are presented on the Site Map, Figure 2. For detailed descriptions of prior environmental activities at the subject site, please refer to the following documents, all of which have been submitted to the ACDEH:

- Continued Soil and Water and Offsite Investigation at German Autocraft
 (Environmental Testing and Management, July 12, 1996)
- First Quarter 1996 Environmental Activities Report
 (Environmental Testing and Management, May 20, 1996)
- Fourth Quarter 1995 Environmental Activities Report
 (Environmental Testing and Management, February 26, 1996)
- Third Quarter 1995 Environmental Activities Report
 (Environmental Testing and Management, October 2, 1995)
- Soil and Water Investigation at German Autocraft (Chemist Enterprises, April 12, 1995);
- Preliminary Soil and Groundwater Contamination Assessment
 (The Environmental Construction Company, February 1991);
- Underground Storage Tank Removals
 (The Environmental Construction Company, November 1990)

III. WORK PERFORMED DURING SECOND OUARTER, 1996

Work included groundwater level monitoring and sampling, maintenance of the passive skimmer system installed in MW-4, data analysis, and report preparation. Activity highlights during this period are as follows:

- April 1, 1996 ETM replaced the well box at MW-1 which was not waterproof and in poor condition.
- April 13, 1996 ETM measured groundwater elevations and collected groundwater samples from monitoring wells MW-1, MW-2, and MW-3. ETM inspected each well including MW-4 for the presence of floating product or sheen. A hydrocarbon sheen on the water was observed in wells MW-1 and MW-2. MW-3 and MW-4 did not exhibit sheen, however, detectable hydrocarbon odors were apparent. The samples collected from MW-1, MW-2, and MW-3 were submitted to a Department of Health Services (DHS)-certified laboratory for analysis of Total Petroleum Hydrocarbons as Gasoline (TPHg), and Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX), and Methyl-tert-butyl-ether (MtBE).
- April 29, 1996 ETM collected a groundwater sample from MW-2 and submitted the sample for chemical analysis using gas chromatography/mass spectroscopy.
- May 14, 1996 ETM measured groundwater elevations in monitoring wells MW-1, MW-2, and MW-3. ETM inspected each well for the presence of floating product or sheen. A hydrocarbon sheen on the water was observed for wells MW-1 and MW-4. MW-2 and MW-3 did not exhibit sheen, however, detectable hydrocarbon odors were apparent. No floating product was recovered from the passive skimmer system in MW-4. The skimmer elevation was adjusted to account for the changing groundwater elevation.
- June 20, 1996 ETM measured groundwater elevations in monitoring wells MW-1, MW-2, and MW-3. ETM inspected each well for the presence of floating product or sheen. A hydrocarbon odor was observed in all of the Site wells, however, none of the wells had a sheen. No floating product was recovered from the passive skimmer system in MW-4. The passive skimmer elevation was adjusted again to account for the changing groundwater elevation.

IV. GROUNDWATER ELEVATION AND GRADIENT

The groundwater flow direction consistently flowed to the southwest as determined by gauging on site wells in April, May, and June 1996. **Table 1** presents the recent groundwater elevation data and **Figures 3a, 3b, and 3c** show estimated groundwater flow direction as interpreted from the elevation data.

Static groundwater level elevation data collected from on-site groundwater wells on April 13, 1996, indicated that the elevation of the shallow groundwater surface beneath the Site ranged from 29.25 to 29.43 feet above mean sea level. The estimated groundwater flow direction was to the southwest (approximate gradient =0.002 ft/ft) which is consistent with the estimated flow direction in March 1995.

Static groundwater level elevation data collected from on-site groundwater wells on May 14, 1996, indicated that the elevation of the shallow groundwater surface beneath the Site ranged from 27.68 to 27.89 feet above mean sea level. The estimated groundwater flow direction was to the southwest (approximate gradient = 0.002 ft/ft).

Static groundwater level elevation data collected on June 20, 1996, indicated that the elevation of the shallow groundwater surface beneath the Site ranged from 26.97 to 27.19 feet above mean sea level. The estimated groundwater flow direction was to the southwest (approximate gradient = 0.002 ft/ft).

The groundwater elevation at the site was observed to have lowered approximately four (4) feet during the Second Quarter 1996 monitoring period compared to the last gauging event of the First Quarter 1996 on March 12, 1996.

The observed hydraulic gradient is at the subject site is very low, nearly flat. The low gradient may in part be due to local groundwater recharge from rainfall and surface runoff entering the former UST excavation that is an uncapped and poorly compacted depression.

V. GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

On April 13, 1996, groundwater samples were collected from MW-1, MW-2, and MW-3 and generally followed the groundwater sampling procedures presented in the SWI work plan. Also, on April 29, 1996, one sample was collected from MW-2. Well sampling procedures are presented in **Appendix A.** The groundwater samples were analyzed for TPHg, BTEX, MtBE, and organic compounds using EPA Method 5030, 8020, and 8240 by Inchcape Testing Services of San Jose, California. The laboratory report and chain-of-custody documents are included in **Appendix B**. The field sampling data sheets are presented in **Appendix C**. The quality assurance/quality control description is included in **Appendix D**. Historic groundwater quality data is presented in **Table 4**.

Compared to the previous quarter, the results of the recent groundwater sampling effort showed a general decrease in TPHg and BTEX concentrations in MW-1, MW-2, and MW-3. All of the constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL) (Table 3).

The sample from MW-1, located upgradient of the former gasoline tank area, contained: TPHg at 53,000 micrograms per liter (μ g/L) (blind duplicate: 58,000 μ g/L); benzene at 1,300 μ g/L (blind duplicate: 820 μ g/L) which exceeds its MCL of 1 μ g/L; toluene at 2,900 μ g/L (blind duplicate: 3,600 μ g/L) which exceeds its MCL of 150 μ g/L; ethyl benzene at 2,100 μ g/L of (blind duplicate: 2,800 μ g/L)which exceeds its MCL of 700 μ g/L, and; total xylenes at 10,000 μ g/L (blind duplicate: 12,000 μ g/L)which exceeds its MCL of 1,750 μ g/L. Methyl-tert-butyl-ether (MtBE) was not

detected at above the reporting limit of $5,000 \,\mu\text{g/L}$ (blind duplicate: not detected above its reporting limit of $5,000 \,\mu\text{g/L}$).

The sample from MW-2, located down gradient of the former gasoline tank area, contained 30,000 µg/L of TPHg, 1,900 µg/L of benzene, 370 µg/L of toluene, 2,300 µg/L of ethyl benzene, and 2,400 µg/L of total xylenes. MtBE was reportedly detected at a concentration of 520 µg/L. The presence of MtBE at the German Autocraft property is unlikely for the following reasons: 1) the previous gasoline pumping operations of Arco gasoline at the site ceased in 1981 prior the Clean Air Act of 1990 which promulgated widespread use of MtBE in gasoline formulations. 2) In addition, according to Arco - Los Angeles (telephone interview with Maria Garcia of Customer Relations, May 1, 1996), MtBE was not used in Arco gasoline formulations prior to 1989. For this reason, an additional sample was collected at MW-2 on April 29, 1996 for the more sophisticated mass spectroscopy analysis by EPA Method 8240. MtBE was not detected in MW-2 for the second analysis. The reported concentration of MtBE in the sample collected on April 13, 1996 may be due to a fugitive peak on the chromatogram or an inaccurate reporting limit.

Monitoring well MW-3, also located down gradient of the former gasoline tank area, contained 48,000 μ g/L of TPHg, 7,600 μ g/L of benzene, 3,600 μ g/L of toluene, 2,800 μ g/L of ethyl benzene, and 9,400 μ g/L of total xylenes. MtBE was not detected above it's reporting limit of 2,500 μ g/L.

VI. CONCLUSIONS

Available data, including data from the Second Quarter of 1996 monitoring events, suggest that groundwater flow patterns beneath the site are generally consistent with previous monitoring events during 1995 and 1996. Groundwater flowed toward the southwest on the each gauging event of the second quarter 1996.

The recent groundwater sampling event showed a decrease in concentrations of TPHg and BTEX in MW-1 and MW-2 and decrease in MW-3 from those concentrations measured in the previous quarter. The concentrations of the constituents of concern in all of the wells sampled remain above their respective MCL.

VII. RECOMMENDATIONS

ETM recommends that groundwater levels continue to be monitored on a monthly basis and water quality in the monitoring wells continue to be monitored on a quarterly basis to comply with the ACDEH requirements and to assess trends in constituent concentrations over time. The data will be used to support risk-based analysis (RBCA) and development of corrective action plans at the site.

VIII. LIMITATIONS

The data, information, interpretations and recommendations contained in technical work or report are presented solely as beneficial in meeting minimum requirements for determining groundwater quality on the site and does not take into account omissions or errors on behalf of parties identified in this report.

The conclusions and professional opinions presented herein were developed by ETM in accordance with generally accepted environmental principles and practices. As with all work performed by ETM, the opinions expressed are subject to revisions in light of new information which may develop in the future; no warranties are expressed or implied.

This report has not been prepared for use by parties other than ACDEH and Mr. Seung Lee. It may not contain sufficient information for the purposes of other parties or other uses. If changes are made or new information is discovered, the conclusions and recommendations contained herein

IX. REFERENCES

- California Code of Regulations, Title 22, 66260.21, "Environmental Health Standards", 6/23/95.
- Code of Federal Regulations, 40 CFR 260, "Hazardous Waste Management System: General, 7/1/94.
- Chemist Enterprises, Soil and Water Investigation at German Autocraft, 301 East 14th Street, San Leandro, California, April 12, 1995
- The Environmental Construction Company, Preliminary Soil and Groundwater Contamination Assessment, German Autocraft, 301 East 14th Street, San Leandro, California, February 1991.
- The Environmental Construction Company, Underground Storage Tank Removals, German Autocraft, 301 East 14th Street, San Leandro, California, November 1990.
- Environmental Testing and Management, Continued Soil and Water and Offsite Investigation at German Autocraft, 301 East 14th Street, San Leandro, California, July 12, 1996.
- Environmental Testing and Management, First Quarter 1996 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, May 20, 1996.
- Environmental Testing and Management, Third Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, October, 1995.
- Environmental Testing and Management, Fourth Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California, February, 1995.
- Woodward-Clyde Consultants, Hydrogeology of Central San Leandro and Remedial Investigation of Regional Groundwater Contamination, San Leandro Plume, San Leandro, California, Volume I, December 23, 1993.

TABLE 1. SECOND QUARTER 1996 GROUNDWATER ELEVATION DATA

April 13, 1996		May 14, 1996		June 20, 1996			
WELL	CASING	Depth to	Groundwater	Depth to	Groundwater	Depth to	Groundwater
MW-1	49.61	Groundwater 20.18	Elevation 29.43	Circumdwater 21.72	Elevation 27.89	Groundwater 22.42	Elevation 27.19
MW-2	50.14	20.89	29.25	22.46	27.68	23.17	26.97
MW-3	49.44	20.18	29.26	21.73	27.71	22,44	27.00

¹Elevations in feet above mean sea level.

TABLE 2. HISTORIC GROUNDWATER ELEVATION DATA

	Groundwater	Surface Elevati	ion ¹
DATE	MW-1	MW-2	MW-3
12/31/90	19.15 ²	_	-
2/10/95	29.59	29.62	29.57
7/7/95	26.63	26.47	26.50
8/10/95	25.58	25.40	25.44
9/11/95	24.68	24.49	24.54
10/2/95	24.12	23.94	24.00
11/7/95	23.36	23.13	23.21
12/8/95	22.77	22.55	22.62
1/12/96	24.35	24.20	24.25
2/12/96	29.04	29.03	29.00
3/12/96	31.75	31.60	31.67
4/13/96	29.43	29.25	29.26
5/14/96	27.89	27.68	27.71
6/20/96	27.19	26.97	27.00

 $^{^{1}\}mathrm{Elevations}$ in feet above mean sea level.

²This elevation was determined by using the depth of 30.46' measured by The Environmental Construction Company shortly after installation of MW-1 on December 31, 1990 and the surveyed top of casing elevation of 49.61 at MW-1 on January 6, 1995.

TABLE 3. GROUNDWATER CHEMICAL TEST RESULTS

Locations: MW-1, MW-2, MW-3

Date Sampled: April 13, 1996 Units: µg/L

WELL	TPHg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	MtBE ³
MW-1	53,000	1,300	2,900	2,100	10,000	<5,000
MW-1 ⁴	58,000	820	3,600	2,800	12,000	<5,000
MW-2	30,000	1,900	370	2,300	2,400	520 ⁵
MW-3	48,000	7,600	3,600	2,800	9,400	<2,500
MCL/AL6	-	1	150	700	1,750	35

³MtBE = methyl-tert-butyl-ether. The California Regional Water Quality Control Board initiated the requirement of quantitation of MtBE as an additional analyte for EPA Method 8020 as of January 12, 1996.

This sample was labeled 'MW-5" and submitted to the lab as a blind duplicate.

⁵This value may be inaccurate. Please refer to the Groundwater Sampling and Analytical Results section of this report for an evaluation of MtBE.

⁶Maximum Contaminant Level or Action Level as established by the State of California, Division of Drinking Water and Environmental Management, Department of Health Services "Summary, Maximum Contaminant and Action Levels" November, 1994.

TABLE 4. HISTORIC GROUNDWATER QUALITY TEST RESULTS

Locations: MW-1, MW-2, MW-3

Units: µg/L

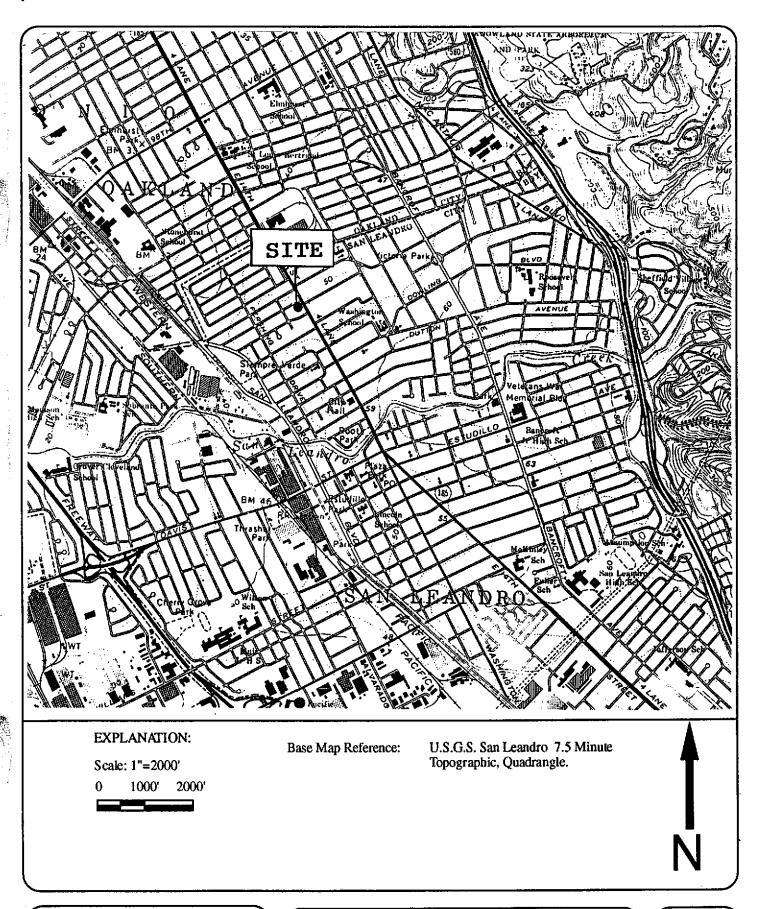
WELL	DATE	ТРН	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	MtBE
MW-1	12/31/90	51,000	2,200	1,200	<0.5	760	N/A ⁷
	1/6/95	110,000	13,000	15,000	4,800	13,000	N/A
	1/6/95	580,000	29,000	41,000	17,000	43,000	N/A
; =	7/6/95	49,000	8,000	17,000	1,900	9,700	N/A
	7/6/95	47,000	4,800	9,500	930	5,000	N/A
	10/2/95	120,000	16,000	36,000	3,300	17,000	N/A
	10/2/95	160,000	20,000	47,000	5,000	23,000	N/A
	1/12/96	1,100,000	11,000	18,000	15,000	51,000	18,0008
	1/12/96	98,000	2,100	4,600	2,500	10,000	<5,000
	4/13/96	53,000	1,300	2,900	2,100	10,000	<5,000
	4/13/96	58,000	820	3,600	2,800	12,000	<5,000
MW-2	1/6/95	980,000	9,400	5,600	19,000	42,000	N/A
	7/6/95	71,000	5,300	1,800	6,100	9,000	N/A
	10/2/95	40,000	2,900	200	2,800	3,600	N/A
	1/12/96	260,000	2,600	2,200	6,300	7,800	<12,500
	4/13/96	30,000	1,900	370	2,300	2,400	5209

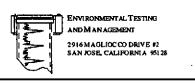
⁷N/A = Not Analyzed. The California Regional Water Quality Control Board initiated the requirement of quantitation of MtBE as an additional analyte for EPA Method 8020 as of January 12, 1996. The samples not analyzed for MtBE in this table pre-date the recent new requirement.

⁸This value may be inaccurate. Please refer to the Groundwater Sampling and Analytical Results section of this report for an evaluation of MtBE.

⁹This value may be inaccurate. Please refer to the Groundwater Sampling and Analytical Results section of this report for an evaluation of MtBE.

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	MtBE
MW-3	1/6/95	740,000	11,000	2,300	8,300	28,000	N/A
	7/6/95	86,000	12,000	8,600	4,900	19,000	N/A
	10/2/95	100,000	15,000	11,000	6,000	20,000	N/A
	1/12/96	84,000	6,500	4,100	3,200	12,000	<5,000
	4/13/96	48,000	7,600	3,600	2,800	9,400	<2,500

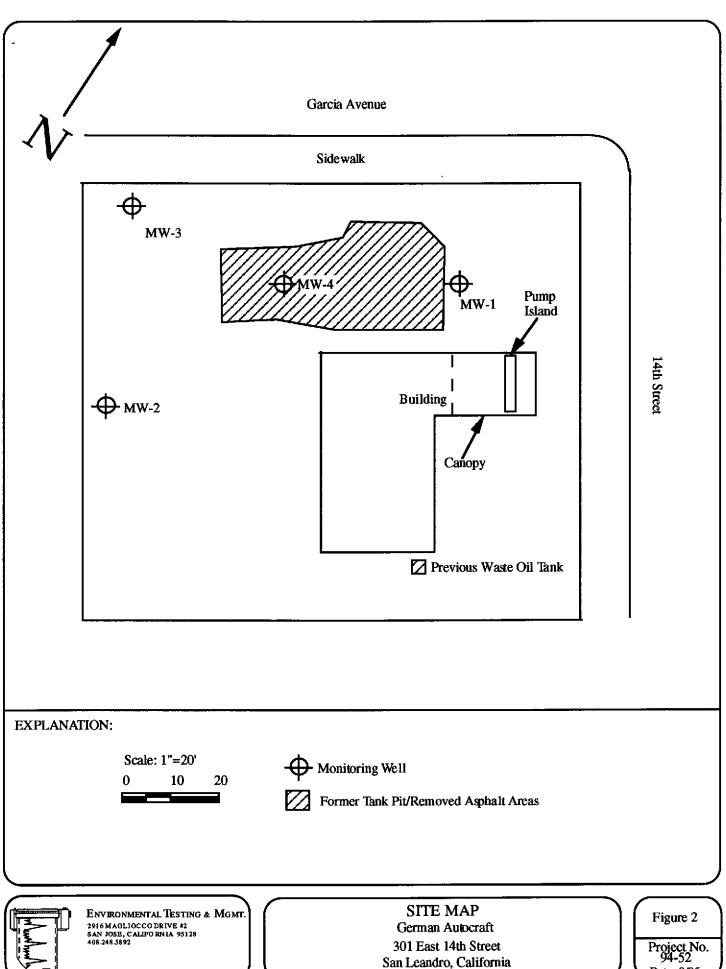




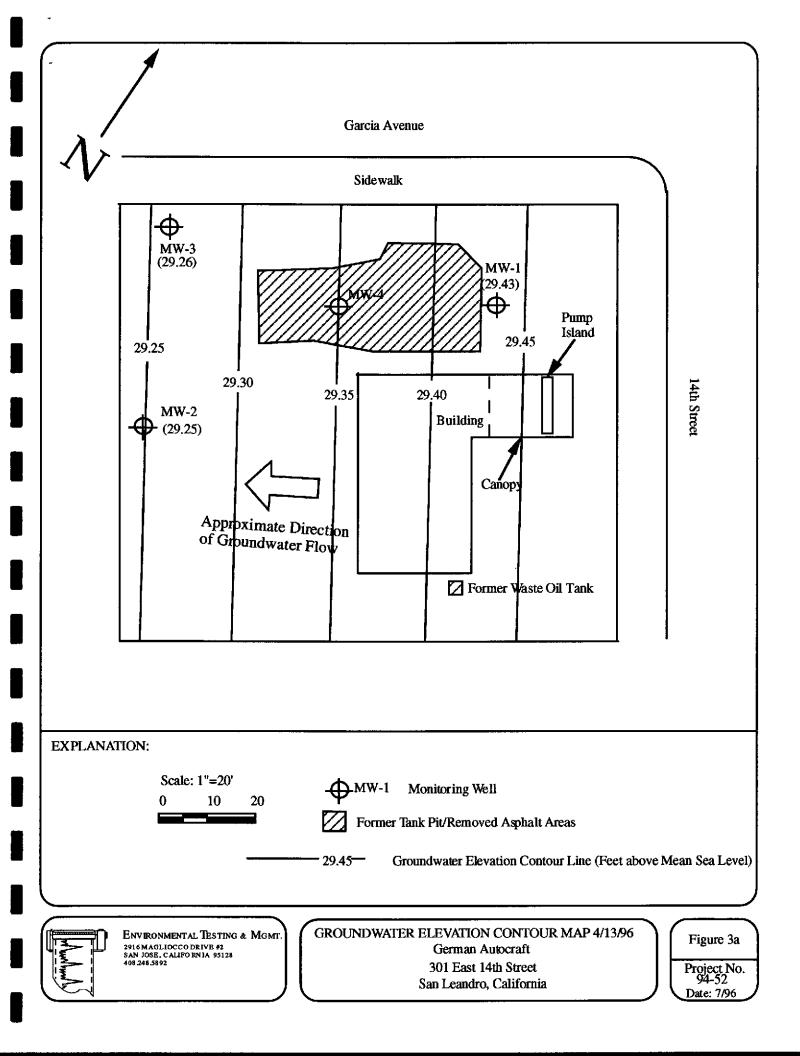
LOCATION MAP
German Autocraft
301 East 14th Street
San Leandro, California

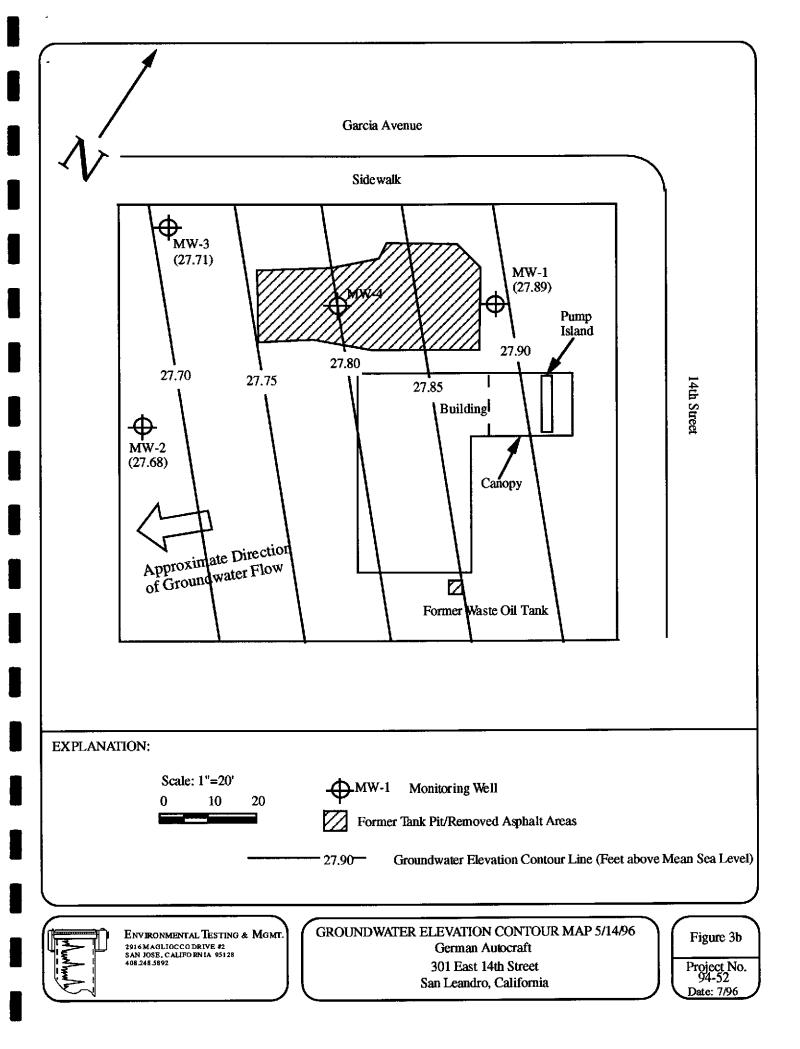
Figure 1

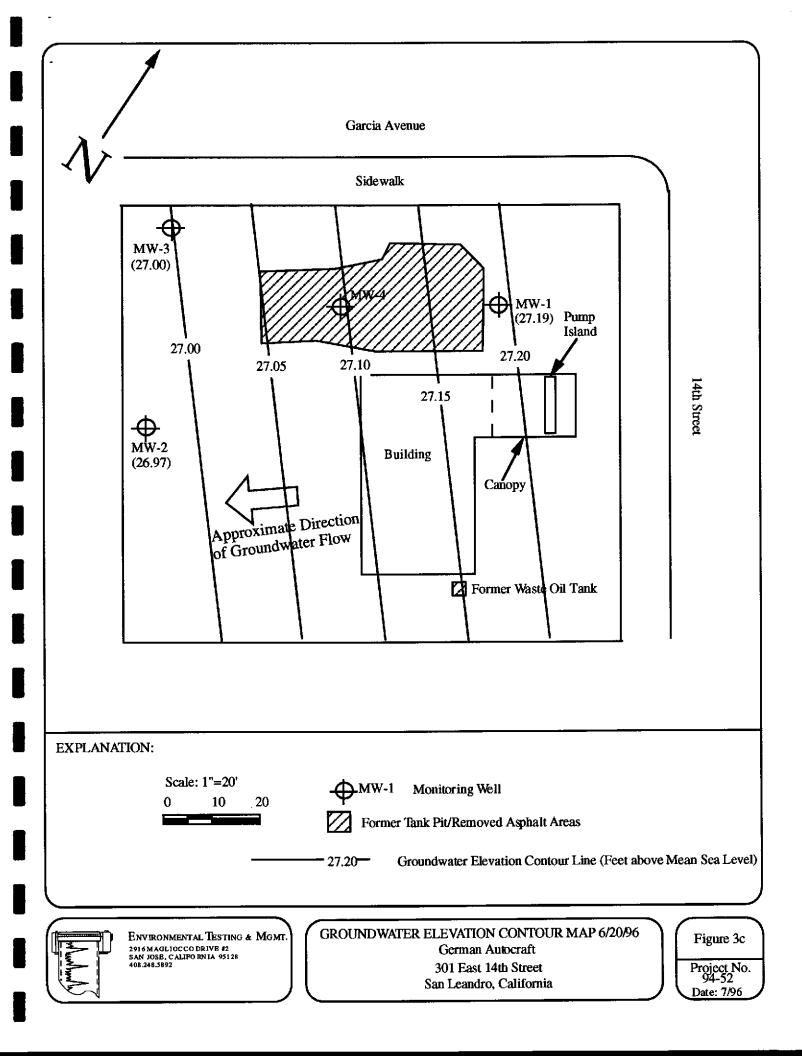
Project No. 94-52 Date: 8/95



Date: 9/95







APPENDIX A: FIELD SAMPLING AND GAUGING PROCEDURES

GROUNDWATER LEVEL MEASURING AND SAMPLING:

Sampling procedures commenced with measuring static water levels in monitoring wells using an electronic water level indicator accurate to 0.01 inch. Groundwater samples were collected using TeflonTM or stainless steel bailers. The bailers were cleaned prior to lowering into the groundwater by washing with Liquinox or laboratory grade detergent, rinsing with tap water, and followed by a distilled water rinse. Floating product thickness was measured by gently lowering a bailer or preferably an interface sampler into the well casing. The liquid level in the sampler was allowed to equilibrate with the liquid level in the well. After raising the sampler, the thickness of floating product, if present, was measured in the transparent sampler with a ruler or noting the presence of sheen and odor. The wells were then purged a minimum of four well volumes and/or until groundwater temperature, pH, and specific conductance stabilized. Groundwater sampling field data sheets are presented in **Appendix C**.

Groundwater samples were collected by gently pouring from the bailer into a 40-milliliter vial until a positive meniscus formed at the top of the vial, each vial was capped, and visually inspected to make sure no bubbles were present. Sample containers are labeled for sampling point reference and chilled on ice immediately after collection. Chain-of-custody documentation was maintained until the samples were received by the laboratory.

1961 Concourse Drive Suite E San Jose, CA 95131 Tel: 408-432-8192 Fax: 408-432-8198

MR. TOM PRICE

ENVIRONMENTAL TESTING & MGMT.

2916 MAGLIOCCO DR. SUITE 2

SAN JOSE, CA 95128

Workorder # : 9604163

Date Received: 04/15/96

Project ID : GERMAN AUTOCRAFT

Purchase Order: N/A

The following samples were received at Inchcape for analysis:

ANAMETRIX ID	CLIENT SAMPLE ID
9604163- 1	MW-1
9604163- 2	MW-2
9604163- 3	MW-3
9604163- 4	MW-4
9604163- 5	BLANK

This report is organized in sections according to the specific Inchcape laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Inchcape cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Inchcape is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Project Manager

This report consists of 20 pages.

REPORT SUMMARY INCHCAPE, INC. (408)432-8192

MR. TOM PRICE

ENVIRONMENTAL TESTING & MGMT.

2916 MAGLIOCCO DR. SUITE 2

SAN JOSE, CA 95128

Workorder # : 9604163 Date Received : 04/15/96

Project ID : GERMAN AUTOCRAFT

Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9604163- 1	MW-1	WATER	04/13/96	TPHgBTEX
9604163- 2	MW-2	WATER	04/13/96	TPHgBTEX
9604163- 3	MW-3	WATER	04/13/96	TPHGBTEX
9604163- 4	MW-4	WATER	04/13/96	TPHgBTEX
9604163- 5	BLANK	WATER	04/13/96	трндвтех

REPORT SUMMARY INCHCAPE, INC. (408)432-8192

MR. TOM PRICE ENVIRONMENTAL TESTING & MGMT. 2916 MAGLIOCCO DR. SUITE 2

SAN JOSE, CA 95128

Workorder # : 9604163 Date Received : 04/15/96

Project ID : GERMAN AUTOCRAFT

Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

- The relative percent difference between the primary and confirmation concentrations for total xylenes for sample BLANK is greater than the internal quality control limit of 25%. The lower of the two values is reported.

Department Supervisor Date

Chemist Schumacle 64-24-90
Date

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID: Matrix: Date Sampled: Date Analyzed: Date Released:	9604163-01 WATER 4/13/96 4/19/96 4/24/96		Client Project ID: Client Sample ID: Instrument ID: Surrogate Recovery: Concentration Units:	GERMAN AUTOCRAFT MW-1 HP12 109% ug/L
COMPOUND		Dilution Factor	Reporting Limit	Amount Found
		1000	5000	ND
MtBE			500	1300
Benzene		1000		
Toluene		1000	500	2900
Ethylbenzene		1000	500	2100
Total Xylenes		1000	500	10000
Gasoline		1000	50000	53000

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604163-02	Client Project ID:	GERMAN AUTOCRAFT
Matrix:	WATER	Client Sample ID:	MW-2
Date Sampled:	4/13/96	Instrument ID:	HP12
Date Analyzed:	4/20/96	Surrogate Recovery:	110%
Date Released:	4/24/96	Concentration Units:	ug/L

COMPOUND	Dilution <u>Factor</u>	Reporting <u>Limit</u>	Amount <u>Found</u>
MtBE	100	500	520
Benzene	100	50	1900
Toluene	100	50	370
Ethylbenzene	100	50	2300
Total Xylenes	100	50	2400
Gasoline	100	5000	30000

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID: Matrix: Date Sampled: Date Analyzed: Date Released:	9604163-03 WATER 4/13/96 4/19/96 4/24/96		Client Project ID: Client Sample ID: Instrument ID: Surrogate Recovery: Concentration Units:	GERMAN AUTOCRAFT MW-3 HP12 106% ug/L
		Dilution	Reporting	Amount
COMPOUND	•	<u>Factor</u>	<u>Limit</u>	<u>Found</u>
MtBE		500	2500	ND
Веплепе		500	250	7600
Toluene		500	250	3600
Ethylbenzene		500	250	2800
Total Xylenes		500	250	9400
Gasoline		500	25000	48000

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604163-04		Client Project ID:	GERMAN AUTOCRAFT
Matrix:	WATER		Client Sample ID:	MW-4
Date Sampled:	4/13/96		Instrument ID:	HP12
Date Analyzed:	4/22/96		Surrogate Recovery:	99%
Date Released:	4/24/96		Concentration Units:	ug/L
		Dilution	Reporting	Amount

	Dilution	Reporting	Amount
COMPOUND	<u>Factor</u>	<u>Limit</u>	<u>Found</u>
MtBE	1000	5000	ND
Benzene	1000	500	820
Toluene	1000	500	3600
Ethylbenzene	1000	500	2800
Total Xylenes	1000	500	12000
Gasoline	1000	50000	58000

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604163-05	Client Project ID:	GERMAN AUTOCRAFT
Matrix:	WATER	Client Sample ID:	BLANK
Date Sampled:	4/13/96	Instrument ID:	HP12
Date Analyzed:	4/19/96	Surrogate Recovery:	111%
Date Released:	4/24/96	Concentration Units:	ug/L

	Dilution	Reporting	Amount
COMPOUND	<u>Factor</u>	<u>Limit</u>	Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	0.7
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	0.8
Gasoline	1.	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID: Matrix: Date Sampled: Date Analyzed:	BA1802E1 WATER 4/18/96		Client Project ID: Client Sample ID: Instrument ID: Surrogate Recovery:	GERMAN AUTOCRAFT Method Blank HP12 102%
Date Released:	4/24/96		Concentration Units:	ug/L
COMPOUND		Dilution Factor	Reporting <u>Limit</u>	Amount Found
MtBE		1	5.0	ND
Benzene		1	0.5	ND
Toluene		1	0.5	ND
Ethylbenzene		1	0.5	ND
Total Xylenes		1	0.5	ND

ND: Not detected at or above the reporting limit for the method.

Gasoline

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

50

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

ND

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	BA2001E1	Client Project ID:	GERMAN AUTOCRAFT
Matrix:	WATER	Client Sample ID:	Method Blank
Date Sampled:		Instrument ID:	HP12
Date Analyzed:	4/20/96	Surrogate Recovery:	106%
Date Released:	4/24/96	Concentration Units:	ug/L

COMPOUND	Dilution <u>Factor</u>	Reporting <u>Limit</u>	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	. 1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	BA2201E1		Client Project ID:	GERMAN AUTOCRAFT
Matrix:	WATER		Client Sample ID:	Method Blank
Date Sampled:			Instrument ID:	HP12
Date Analyzed:	4/22/96		Surrogate Recovery:	108%
Date Released:	4/24/96		Concentration Units:	ug/L
		Dilution	Reporting	Amount

Dilution	Reporting	Amount
<u>Factor</u>	<u>Limit</u>	Found
1	5.0	ND
1	0.5	ND
1	50	ND
		Factor Limit 1 5.0 1 0.5 1 0.5 1 0.5 1 0.5 1 0.5 0.5 0.5

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID: GERMAN AUTOCRAFT

Anametrix ID:

9604163-04

Client Sample ID:

MW-4

Date Released:

4/24/96

Date Sampled:

4/13/96

Instrument ID:

HP12

Date Analyzed:

4/22/96

Matrix:

WATER

Concentration Units:

ug/L

COMPOUND <u>NAME</u>	SPIKE AMT	SAMPLE CONC	MS <u>CONC</u>	% REC <u>MS</u>	MSD CONC	%REC <u>MSD</u>	<u>RPD</u>
Gasoline	500000	58000	514000	91%	541000	97%	5%
p-Bromofluoroben	zene			101%		104%	

Quality control limits for MS/MSD recovery are 48-149%

Quality control limits for RPD(relative percent difference) are +/- 30%

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID: GERMAN AUTOCRAFT Anametrix ID:

Matrix: WATER Date Released:

Matrix: WATER Date Released: 4/24/96

Date Analyzed: 4/18/96 Instrument ID: HP12

Concentration Units: ug/L

COMPOUNDSPIKELCS%RECNAMEAMTCONCLCSGasoline500530106%

p-Bromofluorobenzene 109%

Quality control limits for LCS recovery are 67-127%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

MA1801E1

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	GERMAN AUTOCRAFT	Anametrix ID:	NA1801E3
Matrix:	WATER	Date Released:	4/24/96
Date Analyzed:	4/18/96	Instrument ID:	HP12
		Concentration Units:	ug/L
			•
	•	•	
COMPOUND	SPIKE	LCS	%REC
NAME	<u>AMT</u>	<u>CONC</u>	<u>LCS</u>
MtBE	10.0	12.2	122%
Benzene	10.0	13.4	134%
Toluene	10.0	13.6	136%
Ethylbenzene	10.0	13.7	137%
Total Xylenes	10.0	13.7	137%
p-Bromofluoroben	nzene		101%

Quality control limits for LCS recovery are 50-150% for MtBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID: GERMAN AUTOCRAFT Anametrix ID: MA2001E1 Matrix: Date Released: 4/24/96 WATER Date Analyzed: 4/20/96 HP12 Instrument ID: Concentration Units: ug/L %REC LCS COMPOUND SPIKE CONC <u>NAME</u> **LCS AMT** Gasoline 500 470 94%

Quality control limits for LCS recovery are 67-127%.

p-Bromofluorobenzene

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

112%

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID: Matrix: Date Analyzed:	GERMAN AUTOCRAFT WATER 4/20/96	Anametrix ID: Date Released: Instrument ID: Concentration Units:	NA2002E3 4/24/96 HP12 ug/L
COMPOUND	SPIKE	LCS	%REC
NAME	<u>AMT</u>	CONC	<u>LCS</u>
MtBE	10.0	10.1	101%
Benzene	10.0	10.3	103%
Toluene	10.0	10.4	104%
Ethylbenzene	10.0	10.6	106%
Total Xylenes	10.0	10.6	106%
p-Bromofluoroben	zene		107%

Quality control limits for LCS recovery are 50-150% for MtBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID: GERMAN AUTOCRAFT Anametrix ID: MA2201E1

Matrix: WATER Date Released: 4/24/96

Date Analyzed: 4/22/96 Instrument ID: HP12

Concentration Units: ug/L

COMPOUNDSPIKELCS%RECNAMEAMTCONCLCSGasoline50046092%

p-Bromofluorobenzene 104%

Quality control limits for LCS recovery are 67-127%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX (408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID: Matrix: Date Analyzed:	GERMAN AUTOCRAFT WATER 4/22/96	Anametrix ID: Date Released: Instrument ID: Concentration Units:	NA2202E3 4/24/96 HP12 ug/L
		·	
COMPOUND	SPIKE	LCS	%REC
NAME	AMT	CONC	<u>LCS</u>
MtBE	10.0	8.2	82%
Benzene	10.0	8.5	85%
Toluene	10.0	8.9	89%
Ethylbenzene	10.0	9.0	90%
Total Xylenes	10.0	9.1	91%
p-Bromofluoroben	zene		102%

Quality control limits for LCS recovery are 50-150% for MtBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.



San Jose, CA 95131 (408) 432-8192 • Fax (408) 432-8198

CHAIN-OF-CUSTODY RECORD

ſ	PROJECT NUMBER		PROJECT NA		,		· ·		τ.	ype o	f Ans	lysi	S								
	Send Report Att		Germa			Verbal Due	Number	Type of	X HPHO	£,,,,,,,,,,									di tib		Initial
	Sample Number	Date	Time	Comp	Matrix	Station Location		Containers	BTE			 						Sa	mpl æs	<u></u>	
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SAMPLE RECEIVING CHECKLIST

Workorder Number: 9684163	Client Project ID:	Gem	an Auto
Cooler			
Shipping documentation present?	YES	NO	(N/A)
If YES, enter Carrier and Airbill #:			
Custody Seal on the outside of cooler?	YES	NO	N/A)
Condition: Intact Broken			
Temperature of sample(s) within range?	(YES	NO	N/A
List temperatures of cooler(s):			
Note: If all samples taken within previous 4 hr, circle N/A and pla	œ in		
sample storage area as soon as possible.	- " " " 		
Samples			
Chain of custody seal present for each container?	YES	NO	N/A
Condition: Intact Broken			, —
Samples arrived within holding time?	(YES	NO	N/A
Samples in proper containers for methods requested?	(ES)	NO	
Condition of containers: Intact Broken	-		
If NO, were samples transferred to proper container(s)?			
Were VOA containers received with zero headspace?	YES	MO 2	N/A
If NO, was it noted on the chain of custody?	_		
Were container labels complete? (ID, date, time, preserv	ative) (ES)	NO	N/A
Were samples properly preserved?	(YES)	NO	N/A
If NO, was the preservative added at time of receipt?			
pH check of samples required at time of receipt?	YES	MO	
If YES, pH checked and recorded by:	`		
Sufficient amount of sample received for methods reque	sted? YES	NO	
If NO, has the client or PM been notified?			
Field blanks received with sample batch?	YES	NO	N/A
Trip blanks received with sample batch?	(YES)	NO	N/A
Chain of Custody			
Chain of custody form received with samples?	YES	NO	
Has it been filled out completely and in ink?	YEŞ	NO	
Sample IDs on chain of custody form agree with labels?	YES	NO	
Number of containers on chain agree with number receiv	ed? YES	NO.	
Analysis methods specified?	YES	NO	
Sampling date and time indicated?	(YES)	NO	
Proper signatures of sampler, courier and custodian in	YES	NO	
appropriate spaces? With time and date?			
Turnaround time? Standard Kush Rush			
Any NO responses and/or any BROKEN that was checked must be	detailed in a Correctiv	e Action Fo	oran.
Sample Custodian: Date: MISM Project N	Manager: K	Date:	146.



1961 Concourse Drive Suite E San Jose, CA 95151 Tel: 408-432-8192 Fax: 408-452-8198

MR. TOM PRICE ENVIRONMENTAL TESTING & MGMT. 2916 MAGLIOCCO DR. SUITE 2 SAN JOSE, CA 95128

Workorder # : 9604317 Date Received: 04/29/96

Project ID : GERMAN AUTOCRAFT

Purchase Order: N/A

The following samples were received at Inchcape for analysis:

ANAMETRIX ID	CLIENT SAMPLE ID
9604317- 1	MW-2
9604317- 2	EQUIP.B.

This report is organized in sections according to the specific Inchcape laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Inchcape cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Inchcape is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Project Manager

This report consists of pages.



GC/MS REPORT DESCRIPTION

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and within each method, organized sequentially in order of increasing Inchcape Testing Services ID Number.

Tentatively Identified Compounds (TICs)

TIC forms contain tabulated results for non-target compounds detected in GC/MS analyses. TICs must be requested at the time samples are submitted to Inchcape Testing Services. TIC forms immediately follow the OADS form for each sample. If TICs are requested but not found, then TIC forms will not be included with the report.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*" and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

Matrix Spike Recovery, Laboratory Control Sample Forms

These forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes, laboratory control samples and their duplicates. This information is a statement of accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*".

Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- Indicates that the compound was analyzed but not detected at or above the specified reporting limit.
- B Indicates that the compound was detected in the associated method blank.
- J Indicates that the compound was detected at an amount below the specified reporting limit.
 Consequently, the amount should be considered an estimated value.
- E Indicates that the amount reported exceeded the linear range of the instrument calibration.
- Indicates that the compound was detected in an analysis performed at a secondary dilution.
- A Indicates that the tentatively identified compound is a suspected aldol condensation product.

 This is common in EPA Method 8270 analyses.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report form. However, the report cover letter and report summary pages do display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY INCHCAPE, INC. (408)432-8192

MR. TOM PRICE ENVIRONMENTAL TESTING & MGMT.

2916 MAGLIOCCO DR. SUITE 2 SAN JOSE, CA 95128

Workorder # : 9604317
Date Received : 04/29/96
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : GCMS Sub-Department: GCMS

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9604317- 1	MW-2	WATER	04/29/96	8240
9604317- 2	EQUIP.B.	WATER	04/29/96	8240

REPORT SUMMARY INCHCAPE, INC. (408)432-8192

MR. TOM PRICE ENVIRONMENTAL TESTING & MGMT. 2916 MAGLIOCCO DR. SUITE 2

SAN JOSE, CA 95128

Workorder # : 9604317 Date Received: 04/29/96

Project ID : GERMAN AUTOCRAFT

Purchase Order: N/A
Department : GCMS Sub-Department: GCMS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

- Sample MW-2 was analyzed at a 5 fold dilution for the EPA Method 8240 based on screen results.

Department Supervisor

Chemist

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Anametrix ID : 9604317-01 Lab File ID : MPA31701 Project ID Sample ID : GERMAN AUTOCRAFT : MW-2

: WATER

Matrix Date Sampled Date Analyzed : 04/29/96 : 05/04/96 : msd6.i % Moisture Dilution Factor :

Conc. Units : ug/L Instrument ID

:				 .
CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	50	ND	ט ט
74-83-9	Bromomethane	50	ND	ן ט
75-01-4	Vinyl Chloride	50	ND	ا قا
75-00-3	Chloroethane	50	ND	ן ט
75-09-2	Methylene Chloride	25	ND	l ü
67-64-1	Acetone	100	ND	ü
75-15-0	Carbon Disulfide	25	ND	
75-35-4	1,1-Dichloroethene	25	ND	<u>ת</u>
75-34-3	1,1-Dichloroethane	25	ND .	Ū
156-59-2	Cis-1,2-Dichloroethene	25	` 25	
67-66-3	Chloroform	25		ਹ
107-06-2	1,2-Dichloroethane	25	ND	ש
78-93-3	2-Butanone	100	ND	<u>ט</u>
71-55-6	1,1,1-Trichloroethane	25	ND	<u>ט</u>
56-23-5	Carbon Tetrachloride	25	ND	ַ
75-27-4	Bromodichloromethane	25	ND	U
78-87-5	1,2-Dichloropropane	25		U
10061-01-5	cis-1,3-Dichloropropene	25	ND	Ū
79-01-6	Trichloroethene	25	ND	U
124-48-1	Dibromochloromethane	25	ND	บ
79-00-5	1,1,2-Trichloroethane	. 25	ND ·	U
71-43-2	Benzene	25	930	1
10061-02-6	trans-1,3-Dichloropropene	25	ND	Ū
75-25-2	Bromoform	25	ND	U
108-10-1	4-Methyl-2-Pentanone	50	ND	שׁ
591-78-6	2-Hexanone	50	ND	U
127-18-4	Tetrachloroethene	25	ND	שׁ
79-34-5	1,1,2,2-Tetrachloroethane	25	ND	שׁוֹ
108-88-3	Toluene	25	ND	บ
108-90-7	Chlorobenzene Ethylbenzene	25	ND	ប
100-41-4	Ethylbenzene	25	1200	1
100-42-5	Styrene	25	ND	U
1330-20-7	Xylene (Total)	25	1400	
108-05-4	Vinyl acetate	25	ND	<u> </u>
75-69-4	Trichlorofluoromethane	25	ND	lσ
76-13-1	Trichlorotrifluoroethane	25	ND	ไซ
1156-60-5	Trans-1,2-dichloroethene	25	ND	Ü
541-73-1	1,3-Dichlorobenzene	25	ND	ี <u>บ</u>
106-46-7	1,4-Dichlorobenzene	25	ND	Ιŭ
95-50-1	1,2-Dichlorobenzene	25	ND	Ιŭ
32-20-1	T'S-DIGHTOTOPEHSEHE	[""	1
l		1	1	.1

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408)432-8192

______ | TENTATIVELY IDENTIFIED COMPOUNDS |

roject ID ample ID Matrix Anametrix ID : 9604317-01 Lab File ID : MPA31701 : GERMAN AUTOCRAFT : MW-2

: WATER

Matrix : WATER
Date Sampled : 04/29/96
Date Analyzed : 05/04/96
Instrument ID : msd6.i % Moisture Dilution Factor :

CAS NUMBER	COMPOUND NAME	RET TIME	ESTIMATED CONC.	Q
1.103-65-1 2.611-14-3 3.95-36-3 4.611-14-3 5.95-36-3 6.637-50-3 7.141-93-5 8.933-98-2 9.933-98-2 10.824-22-6 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.	BENZENE, PROPYL- BENZENE, 1-ETHYL-2-METHYL- 1,2,4-TRIMETHYLBENZENE BENZENE, 1-ETHYL-2-METHYL- 1,2,4-TRIMETHYLBENZENE BENZENE, 1-PROPENYL- BENZENE, 1,3-DIETHYL- BENZENE, 1-ETHYL-2,3-DIMETHY BENZENE, 1-ETHYL-2,3-DIMETHY 1H-INDENE, 2,3-DIHYDRO-4-MET	20.80	120 130 81 80 370 240 120 84 130 100	N N N N N N N

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Project ID Sample ID : GERMAN AUTOCRAFT Anametrix ID : 9604317-02 Lab File ID : EQUIP.B. : MPA31702

Date Sampled : 04/29/96
Nate Analyzed : 05/04/96
Natrument ID : msd6.i % Moisture Dilution Factor :

·	·	.		
CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10	ND	<u> </u>
74-83-9	Bromomethane	10	ND	ΙŪ
75-01-4	Vinyl Chloride	10	ND	Ū
75-00-3	Chloroethane	10	ND	ΙŪ
75-09-2	Methylene Chloride	J 5	ND	Ū
67-64-1	Acetone	20	ND	שׁ
75-15-0	Carbon Disulfide	5	ND	שׁו
75-35-4	1,1-Dichloroethene		ND	ע
75-34-3	1,1-Dichloroethane	5	ND	ŀŪ
156-59-2	Cis-1,2-Dichloroethene	5	ND '	U
67-66-3	Chloroform	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5	
107-06-2	1,2-Dichloroethane	5	ND	U
78-93-3	2-Butanone	20	ND	ן ט
71-55-6	1,1,1-Trichloroethane	5	ND	ט
56-23-5	Carbon Tetrachloride	5	ND	U
75-27-4	Bromodichloromethane	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ND	שׁ
78-87-5	1,2-Dichloropropane	5	ND	שׁ
10061-01-5	cis-1,3-Dichloropropene	5	ND	U
79-01-6	Trichloroethene	5	ND	U
124-48-1	Dibromochloromethane	5 5 5 5 5	ND	שׁן
79-00-5	1,1,2-Trichloroethane	. 5	ND	שׁוֹ
71-43-2	Benzene	5	ND	U
10061-02-6	trans-1,3-Dichloropropene	5	ND	U
75-25-2	Bromoform	5	ND	U
108-10-1	4-Methyl-2-Pentanone	10	ND	ן ט
591-78-6	2-Hexanone	10	ND	ט
127-18-4	Tetrachloroethene	5	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5	ND	Ū
108-88-3	Toluene	5 5	ND	ע
108-90-7	Chlorobenzene	5	'ND	ן ט
100-41-4	Ethylbenzene	5	ND	U
100-42-5	Styrene	5	ND	U
1330-20-7	Xylene (Total)	5	ND	U
,108-05-4	Vinyl acetate	5	ND	ט
75-69-4	Trichlorofluoromethane	5	ND	ับ
76-13-1	Trichlorotrifluoroethane	5	ND	U
156-60-5	Trans-1,2-dichloroethene	55555555555	ND	U
541-73-1	1,3-Dichlorobenzene		ND	ש
106-46-7	1,4-Dichlorobenzene	5	ND	ַ
95-50-1	1,2-Dichlorobenzene	5	ND	ט
l		l	l	l

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408)432-8192

| TENTATIVELY IDENTIFIED COMPOUNDS |

Anametrix ID : 9604317-02 Lab File ID : MPA31702 : GERMAN AUTOCRAFT : EQUIP.B. Project ID Sample ID

Matrix : WATER
Date Sampled : 04/29/96
Date Analyzed : 05/04/96
Instrument ID : msd6.i % Moisture Dilution Factor: 1.0

CAS NUMBER	COMPOUND NAME	RET TIME	ESTIMATED CONC.	Q
1. 2. 3.				
5				
9. 10.				
12. 13. 14. 15. 16.				
17. 18. 19.				
21. 22. 23. 24.				
25. 26. 27. 28.				
29				

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Project ID : GERMAN AUTOCRAFT
Sample ID : VBLKCM Anametrix ID : BY0402A2 Lab File ID : BY0402A2

Matrix : WATER
Date Sampled :
Date Analyzed : 05/04/96
Instrument ID : msd6.i % Moisture Dilution Factor: 1.0

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432 - 8192

| TENTATIVELY IDENTIFIED COMPOUNDS |

Project ID : GERMAN AUTOCRAFT
Sample ID : VBLKCM
Matrix : WATER Anametrix ID : BY0402A2 Lab File ID : BY0402A2

Matrix

Date Sampled : 05/04/96
Instrument ID : msd6.i % Moisture Dilution Factor: 1.0

CAS NUMBER	COMPOUND NAME	RET TIME	ESTIMATED CONC.	Q
1. 2. 3. 4.				
6. 7. 8.				
10: 11. 12. 13.				
14. 15. 16. 17. 18.				
20. 21. 22.				
24. 25. 26.				
28. 29. 30.				

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408)432-8192

Project ID Matřix

: GERMAN AUTOCRAFT

: WATER

Anametrix ID : 9604317

	EPA	SMC1	SMC2	SMC3	OTHER	TOT
	SAMPLE NO.	(TOL)#	(BFB)#	(DCE)#		OUT
						===
0.1	VDI KOM	0.5	95	91		0
01	VBLKCM	95				
02	VLCSL3	93	94	89		0
03	VLCSDRR	93	93	90		0
04	EQUIP.B.	94	94	90		0
05	MW-2	91	93	89		ol
06	1 2		, ,			· I
00					<u> </u>	
07						
08 09	l					
09					_	l l
10						i — I
10 11 12		!				
1 2						
12						l —— i
13 14						l —— I
14	l					l —— I
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16			•		·	ll
17						1
17 18						l [
10						
19 20 21 22 23 24						l
20						ļ <u> </u>
21						ll
22						ll
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26						lI
25 26 27						ll
28				.		Il
29						
29 30	·					
75	·	I	·——	I	· 	''

QC LIMITS (70-130) (70-130) SMC2 (BFB) = Bromofluorobenzene (70-130)SMC3 (DCE) = 1,2-Dichloroethane-d4

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D System Monitoring Compound diluted out

SMC1 (TOL) = Toluene-d8

LAB CONTROL SAMPLE FORM -- EPA METHOD 8240 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408)432-8192

: GERMAN AUTOCRAFT

Lab File ID : MY0401A2/NY0401A2

Project ID Sample ID

: VBLKCM

Matrix

: WATER

Date Sampled

: msd06y04a2a

Prep. Batch ID Date Analyzed

: 05/04/96 : msd6.i

Instrument ID

COMPOUND	SPIKE	SAMPLE	LCS	LCS	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
	(ug/L)	(ug/L)	(ug/L)	REC #	REC.
1,1-Dichloroethene	50	0.0	50	100	72-145
Trichloroethene	50	0.0	50	100	61-140
Benzene	50	0.0	54	108	83-125
Toluene	50	0.0	52	104	82-123
Chlorobenzene	50	0.0	50	100	82-125

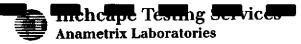
COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	A	MITS REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	46 46 50 48 46	92 92 92 100 96 92	8 8 8 8 8	25 25 25 25 25 25	72-145 61-140 83-125 82-123

- # Column to be used to flag recovery and RPD values with an asterisk
- * Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:	
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San Jose, CA 95131 (408) 432-8192 • Fax (408) 432-8198

CHAIN-OF-CUSTODY RECORD

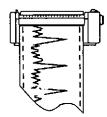
	PROJECT NUMBER	<u>:</u>	PROJECT NA		0.			ТУ	oe of A	nalysis					
	Send Report Atte		l Yern	nan Auto Report I Ng Cyn	ue Verbal Due	Number of	Type of	917						Condition	Initial
	Sample Number	Date	Time	Comp Matri	x Station Location	Cntnrs	Containers	B						Samples	
\mathcal{O}	mw-2	1/29/96	1502	W	2 Wic in bubbles	7	VOAS	X					_	\	
D)	Eg. Blank	1	1445	W	3 Wis a bubble	3		X					_	(Mchay)	
)	(' '														
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			<u> </u> 			ļ			.						<u> </u>
		1													
			0-0-17	Danston d	(Simplima)	to/15==	Remarks:								
,	Sampled by: (Sign		Date/Time 4/24/96 7:124	Received I		te/Time	Kendiks:								
	Relinquished by:					te/Time	COMPANY:	Ehv	irm	mer	447	esti L	ĵ 💃	-mgmt.	
	Relinquished by:	(Signature)	Date/Time	Received	1 4/2 Lab	29/96	DUONE .	17/6 5/100	My Tak	عوراً ا	ce pr	、 <i>シル</i> ケ		mymt.	



SAMPLE RECEIVING CHECKLIST

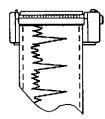
Workorder Number: 76043)7	Client Project ID:	Gem	an Autoe
Cooler			
Shipping documentation present?	YES	NO	N/A)
If YES, enter Carrier and Airbill #:			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: Intact Broken			
Temperature of sample(s) within range?	YES	NO	NA
List temperatures of cooler(s):			·
Note: If all samples taken within previous 4 hr, circle N/A and pla	œ in		1
sample storage area as soon as possible.			
Samples		NO	
Chain of custody seal present for each container?	YES	МО	N/AX
Condition: Intact Broken		N70	
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	KES	NO	
Condition of containers: Intact Broken			İ
If NO, were samples transferred to proper container(s)?		<u> </u>	
Were VOA containers received with zero headspace?	YES	NO	N/A
If NO, was it noted on the chain of custody?			>T/A
Were container labels complete? (ID, date, time, preserv		NO	N/A
Were samples properly preserved?	YES	NO	N/A
If NO, was the preservative added at time of receipt?		(32)	
pH check of samples required at time of receipt?	YES	(Np)	ļ
If YES, pH checked and recorded by:		210	
Sufficient amount of sample received for methods reque	ested? XES	NO	:
If NO, has the client or PM been notified?			74.8
Field blanks received with sample batch?	YES	NO	N/A/
Trip blanks received with sample batch?	YES_	NO	(N/A
Chain of Custody			
Chain of custody form received with samples?	YES	NO	<u> </u>
Has it been filled out completely and in ink?	YES	NO	
Sample IDs on chain of custody form agree with labels?		NO_	· .
Number of containers on chain agree with number recei		<u>NO</u>	
Analysis methods specified?	YES	NO	
Sampling date and time indicated?	YES-	NO	
Proper signatures of sampler, courier and custodian in	YES	NO	
appropriate spaces? With time and date?			
Turnaround time? Standard Rush			
Any NO responses and/or any BROKEN that was checked must be	e detailed in a Correct	ive Action F	orm.
Sample Custodian: Date: Date: Date:	Manager:	Date: 5	296

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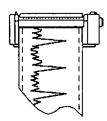
Environmental Testing & Mgmt. 2916 magliocco drive #2 san Jose, california 95128 408.248.5892

Date: 4/13/96	Project Name: German Autocraft
Project No.:	Well No./Description: mw-1
Depth of Well: 45-95	1 Well Volume: 4 gal
Depth to Water: 30.18	4 Well Volumes: 169 W
Casing Diameter: 2" 4"	Actual Volume Purged: 16 3 a/-
Calculations:	25. 116 = 14. 20 gal x 4 = 16 gal
2" - * 0.1632 4" - * 0.653	
Purge Method: BailerDis	placement PumpImpinger/Vacuum
Sample Method:Bailer_	Other Specify:
Sheen: No Yes, Descrit	be MINENED W Durging
Odor:NoYes, Descri	be Very Strong.
Field Measurements:	, ,
Time Volume	pH Temp. E.C. Color
3:15 4/9	7.42 12 6.76£3 tan
3:38 g	7.40 65 0:14 =3 dk tan
3:40 12g	7.40 65 0.16E3 11
Remarks:	
40.44	
$ \wedge$ \wedge	
Sampler: John Mcc	



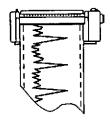
Environmental Testing & MGMT. 2916 magliocco drive #2 San Jose, California 95128 408.248.5892

Date: 4/13/96	Project Name: German Autreroft
Project No.:	Well No./Description: MW-2
Depth of Well: 34.16	1 Well Volume: 2.2gal.
Depth to Water: 20.89	4 Well Volumes: £ . & g a/~
Casing Diameter: 2" 4"	Actual Volume Purged:
Calculations:	15.16=2.2×4=8.8
2" - * 0.1632 4" - * 0.653	
Purge Method: BailerDis	placement PumpImpinger/Vacuum
Sample Method: 1 Bailer	Other Specify:
Sheen: No Yes, Describ	be Strongerthen MW-1
Odor:NoYes, Descri	be very strong HC
Field Measurements:	1
Time Volume	pll Temp. E.C. Color
4215	1.13 61 14E3 DK-gray
450 839.	7.07 (3) 1.0 £3
Remarks:	
Sampler: M Mi	ce



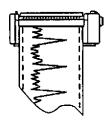
Environmental Testing & Mgmt. 2916 magliocco drive #2 san Jose, california 95128 408.248.5892

Date: 4/13	/96_	Project Name	German	Antocraf	 -	
Project No.:	/	Well No./De	scription:	W-3		
Depth of Well:	35.50		ne: <u>2.3</u>			
Depth to Water:	20.18	4 W	ell Volumes: <u>9</u>	,2		
Casing Diamete	er: 2" _ 4"	Actual Volur	me Purged:			
Calculations:		a // · /	(= ng	1.3x4 c	92	
2" - * 0.1632 4" - * 0.653		(J) (Jo 1	7 /		7.00	
Purge Method:	BailerD	Displacement Pun	ıplmpinger	r/Vacuum		
Sample Method	l; <u>//</u> Bailer	Other Sp	ecify:	···		
Sheen: No	Yes, Desc	rribe				
Odor:No	o Yes, Desc	eribe	ua-			
Field Measurem	nents:		•			
Time	Volume	pН	Temp.	E.C.	Color	
<u> 525</u>	4	1.1	66_	0.7E3	gray	
					<u> </u>	
				 		
		<u>,</u>				
Remarks:						
Sampler:	washan Radik Aris					



Environmental Testing & Mgmt. 2916 magliocco drive #2 san Jose, california 95128 408.248.5892

Date: 4/13/9L	Project Name: Gornige Authora ft.	
Project No.:	Well No./Description:m w-4	
Depth of Well:	1 Well Volume:	
Depth to Water: 20.42	4 Well Volumes:	
Casing Diameter: 1/2"4"	Actual Volume Purged:	
Calculations:		
2" - * 0.1632 4" - * 0.653		
Purge Method:BailerD	Displacement PumpImpinger/Vacuum	
Sample Method:Bailer	Other Specify: Interface Sompler	
Sheen: No Yes, Desc	cribe	
Odor:NoYes, Desc	cribe Slight HC	
Field Measurements:		
Time Volume	pH Temp. E.C. Color	
		-
		_
		_
		
Remarks: adjusted pa	ssive skimmer height.	
Jon de	nce	



ENVIRONMENTAL TESTING & MGMT. 2916 MAGLIOCCO DRIVE #2 SAN JOSE, CALIFORNIA 95128 408.248.5892

Date: 4/	7/96	Project Nam	ie: <u>German</u> A	wacraft_	
/ Project No.: _	/		escription: <u>M</u> V		<u> </u>
Depth of Well	1: 235		me: <u>2.25</u>		
Depth to Wate	er: <u>21.46</u>	4 V	Vell Volumes: 10	<u> </u>	
Casing Diame	eter: <u>1</u> 2" _4"	Actual Volu	me Purged: 10	_	
Calculations:		1-1	0.16-0 2		•
2" - * 0.1632 4" - * 0.653		1. 1	U.16- 0 P	>	
	l: Bailer	Displacement Pu	mpImpinger	/Vacuum	
Sample Metho	od: Bailer	Other S	pecify:		
Sheen: N	yes, Des	cribe <u>Obv</u>	WZ-ZNOi	irling	sheen
Odor:1	No Yes, Des	cribe <u>Stro</u>	ng #C		
Field Measure			V		
<u>Time</u>	<u>Volume</u>	Нq	Temp.	E.C.	<u>Color</u>
	-	~~~~~			
		 			
					
Remarks:	Sample	sulmito	ted for	8240	analysis.
	1		J	4	
		•			
	Im Suc	e			
Sampler: \subset	30.19		_		

APPENDIX D: QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

The quality assurance/quality control measures used for groundwater sampling conducted on April 13, 1996 included the following:

- Groundwater samples were collected in triplicate.
- One duplicate groundwater sample was collected from MW-1. This sample was labeled "MW-4" and submitted for TPHg and BTEX analysis with the other samples.
- One field blank was submitted for chemical analysis along with the other samples.

The quality assurance/quality control measures used for groundwater sampling conducted on April 29, 1996 included the following:

- Groundwater samples were collected in triplicate.
- One field blank was submitted for chemical analysis along with the other samples.