aqua science engineers inc.

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January 28, 1997

ENVIRONMENTAL PROTECTION
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QUARTERLY GROUNDWATER MONITORING REPORT JANUARY 7, 1997 SAMPLING

for

Custom Alloy Scrap Sales
2711 Union Street
Oakland, California

REGISTERED PROFESSIONAL ENGINEER
DAVID M. SCHULTZ
No. 38738
Exp. 4-97
CIVIL
STATE OF CALIFORNIA

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(510) 820-9391

1.0 INTRODUCTION

This report details the quarterly groundwater sampling for the subject site, as required by the Alameda County Health Care Services Agency (ACHCSA) and the Regional Water Quality Control Board (RWQCB). Aqua Science Engineers, Inc. (ASE) has prepared this report on behalf of Mr. Eugene Teasley of Gardiner Manufacturing.

2.0 SITE BACKGROUND

The site was previously occupied by Gardiner Manufacturing as a machining and press operation. Beginning in 1985, Custom Alloy Scrap Sales occupied the property as a metal scrap recycling operation. Custom Alloy Scrap Sales is currently the tenant on the property.

In August 1990, MacKinnon Environmental Consulting of Walnut Creek, California conducted a limited soil assessment at the site. Up to 4,000 parts per million (ppm) oil and grease (O&G) and 2,600 ppm total petroleum hydrocarbons as diesel (TPH-D) were detected in the soil samples collected during the assessment.

In March 1996, ASE drilled ten soil borings at the site. Up to 4,300 ppm TPH-D, 4,500 ppm O&G, 0.01 ppm toluene, 0.0092 ppm ethylbenzene, 0.011 ppm total xylenes, 0.055 ppm cis-1,2-dichloroethene (cis-1,2-DCE), 0.018 ppm trans-1,2-dichloroethene (trans-1,2-DCE) and 0.052 ppm trichloroethene (TCE) were detected in the soil samples collected during this assessment. None of these volatile organic compound (VOC) concentrations, nor any of the metal concentrations detected, exceeded US EPA Region IX Preliminary Remediation Goals (PRGs) for Industrial Soil. Up to 7,100 parts per billion (ppb) O&G, 43 ppb vinyl chloride, 2.1 ppb 1,1-dichloroethene, 22 ppb 1,1-dichloroethane, 78 ppb cis-1,2-DCE, 15 ppb trans-1,2-DCE, 100 ppb TCE, 1 ppb tetrachloroethene (PCE), 21 ppb chlorobenzene, and 39 ppb 1,2-dichlorobenzene were detected in groundwater samples collected from the site. Several of these VOC concentrations exceeded California Department of Toxic Substances Control (DTSC) maximum contaminant levels (MCLs) for drinking water.

In September 1996, ASE drilled four soil borings at the site and installed groundwater monitoring wells MW-1 through MW-4 in the borings. Up to 350 ppm TPH-D were detected in the soil samples collected from borings MW-2 and MW-4, although the chromatogram pattern on these samples did not resemble the diesel standard. Motor

oil range hydrocarbons were detected in the soil samples collected from boring MW-4. 0.048 ppm flourene was detected in the soil sample collected from 6.0-feetbgs in boring MW-4. Relatively high VOC concentrations were detected in groundwater samples collected from all four site monitoring wells. Up to 2,200 ppb TCE was detected in groundwater samples collected at the site. In addition, PCE, benzene, vinyl chloride, cis-1,2-DCE, trans-1,2-DCE and chlorobenzene were detected in groundwater samples collected at the site at concentrations exceeding DTSC MCLs, especially in groundwater samples collected from monitoring well MW-2.

3.0 GROUNDWATER GRADIENT AND DIRECTION

ASE surveyed the top of casing elevation of each well relative to a site datum on October 3, 1996. An assumed site datum elevation of 15-feet above mean sea level (msl) was interpolated from the USGS Oakland West, California 7.5 Minute Quadrangle (1980). The top of casing elevation of monitoring well MW-1 was set at 15-feet, and the top of casing elevations of monitoring wells MW-2, MW-3 and MW-4 were surveyed relative to monitoring well MW-1. The depth to groundwater was measured in each well prior to sampling on January 7, 1997 with an electric water level sounder. Depth to groundwater measurements are presented in Table One, and groundwater elevation contours are plotted on Figure 2. Groundwater appears to flow to the west beneath the site at a gradient of 0.017-feet/foot.

4.0 GROUND WATER SAMPLE COLLECTION AND CHEMICAL ANALYSIS

On January 7, 1997, ASE environmental specialist Scott Ferriman arrived on-site. After measuring and recording the depths to groundwater in monitoring wells MW-1, MW-2, MW-3, and MW-4, ASE purged four well casing volumes of groundwater from each well using pre-cleaned, dedicated polyethylene bailers. No free-floating hydrocarbons or sheen was encountered in any of the wells. The pH, temperature and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Groundwater samples were collected from the wells using dedicated polyethylene bailers. Groundwater samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials and 1-liter amber glass bottles. All samples were preserved with hydrochloric acid, labeled, placed in protective foam sleeves and placed

on ice for transport to Chromalab of Pleasanton, California (ELAP# 1094) under chain-of-custody. The analytical report and chain-of-custody are included in Appendix A. Well Sampling Field Logs are attached in Appendix B. Well purge water was placed in a 55-gallon steel DOT 17H drum and stored on-site pending analytical results.

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M, TPH-D by EPA Method 3510/8015M, benzene, toluene, ethylbenzene and xylenes (BTEX) and MTBE by EPA Method 8020, VOCs by EPA Method 8010 and polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8310. The results are tabulated below in Tables Two and Three. No PNAs were detected in any of the groundwater samples analyzed; therefore, PNAs were not included in the tables.

5.0 CONCLUSIONS

Relatively high VOC concentrations, above California Department of Toxic Substances Control (DTSC) maximum contaminant levels (MCLs) for drinking water, were detected in groundwater samples collected from all four monitoring wells. 1,700 ppb PCE was detected in groundwater samples collected from upgradient monitoring well MW-3, and may indicate an off-site source. TCE concentrations ranged from 18 ppb to 1,500 ppb. Benzene, vinyl chloride, 1,1-DCE, trans-1,2-DCE, cis-1,2-DCE, 1,1-DCA, chlorobenzene, 1,3-DCB, 1,4-DCB and 1,2-DCB were detected in groundwater samples collected at the site at concentrations exceeding DTSC MCLs.

6.0 RECOMMENDATIONS

ASE recommends that groundwater samples continue to be collected at the site on a quarterly basis. After two additional sampling periods, ASE recommends that a risk assessment be performed to determine whether the site is suitable for closure.

7.0 REPORT LIMITATIONS

The results of this assessment represent conditions at the time of the groundwater sampling for the specific parameters analyzed by the laboratory. It does not fully characterize the site for parameters not analyzed by the laboratory. All of the laboratory work cited in this

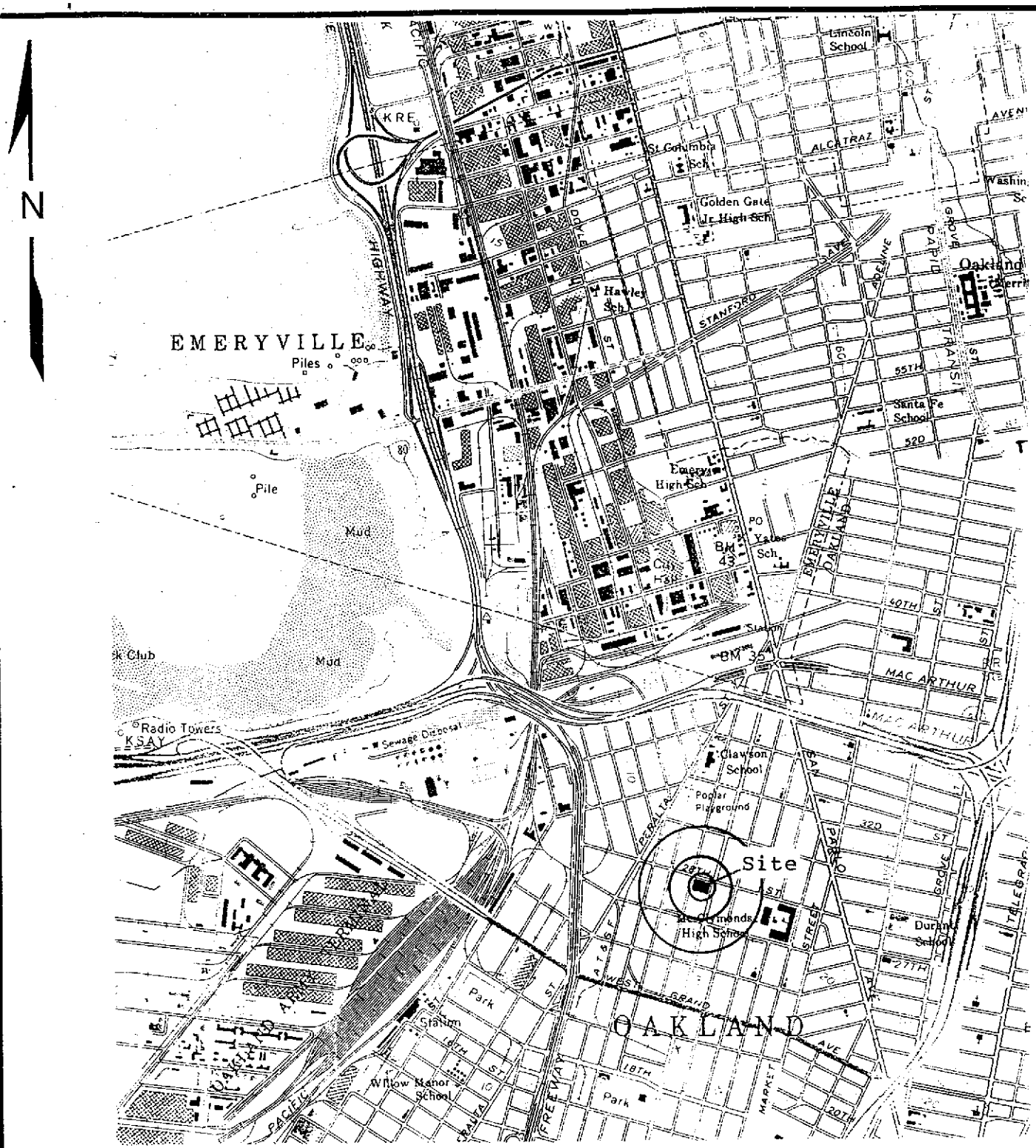
report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to continue providing environmental services for this project. Should you have any questions or comments, please feel free to call us at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Scott Ferriman
Environmental Specialist

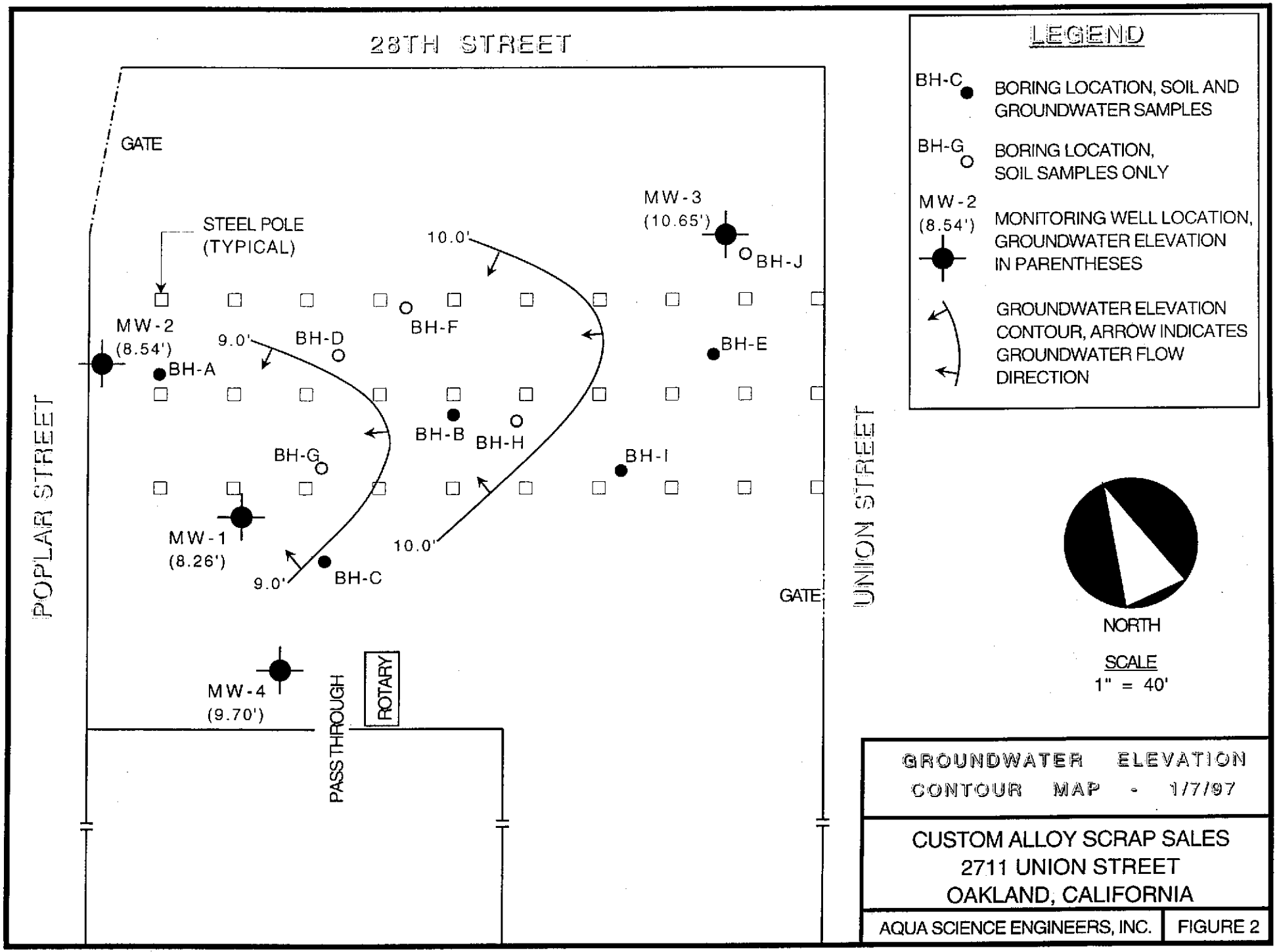


SITE LOCATION MAP

Custom Alloy Scrap Sales
Poplar and 28th Street
Oakland, California

Aqua Science Engineers, Inc. | Figure 1

BASE: USGS Oakland West 7.5 minute quadrangle topographic map, dated 1980, scale 1:24,000.



GROUNDWATER ELEVATION CONTOUR MAP - 1/7/97

CUSTOM ALLOY SCRAP SALES
2711 UNION STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2

TABLE ONE

Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10-03-96	15.00	9.52	5.48
	01-07-97		6.74	8.26
MW-2	10-03-96	15.44	9.75	5.69
	01-07-97		6.90	8.54
MW-3	10-03-96	14.92	7.75	7.17
	01-07-97		4.27	10.65
MW-4	10-03-96	14.98	8.73	6.25
	01-07-97		5.28	9.70

TABLE TWO

Summary of Chemical Analysis of **WATER** Samples
TPH-G, TPH-D, BTEX and MTBE
(All Results are in **parts per billion**)

Sample I.D.	TPH-G	TPH-D	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1							
10/03/96	83	<50	<0.5	<0.5	<0.5	<0.5	<5
01/07/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-2							
10/03/96	210	2,000*	1.1	<0.5	<0.5	<0.5	130
01/07/97	320	3,200*	2.0	0.86	<0.5	<0.5	<50
MW-3							
10/03/96	200	53	<0.5	1.4	<0.5	<0.5	<5
01/07/97	<50	<50	<0.5	0.68	<0.5	<0.5	<5
MW-4							
10/03/96	120	1,400*	<0.5	3.8	<0.5	<0.5	<5
01/07/97	<50	2,100*	<0.5	0.91	<0.5	<0.5	<5

Notes:
* = Chromatogram pattern does not resemble diesel fuel; hydrocarbons in motor oil range detected.

TABLE THREE

Summary of Chemical Analysis of **WATER** Samples
Volatile Organic Compounds (VOC's)
EPA Method 8240 or 8010
(All Results are in parts per billion)

Sample I.D.	VC	1,1-DCE	trans-1,2-DCE	cis-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CB	1,3-DCB	1,4-DCB	1,2-DCB
MW-1												
10/03/96	<20	<20	<20	61	<20	<20	2,200	<20	<20	<20	<20	<20
01/07/97	2.0	0.70	2.7	73	<0.5	1.8	1,500	18	<0.5	<0.5	<0.5	<0.5
MW-2												
10/03/96	160	<20	47	200	<20	<20	220	<20	32	<20	<20	<20
01/07/97	95	4.5	42	290	4.7	<0.5	270	18	74	0.90	4.8	35
MW-3												
10/03/96	<20	<20	<20	<20	<20	<20	120	520	<20	<20	<20	<20
01/07/97	<20	<20	<20	<20	<20	<20	300	1,700	<20	<20	<20	<20
MW-4												
10/03/96	<20	<20	<20	28	<20	<20	270	<20	<20	<20	<20	<20
01/07/97	1.7	<0.5	<0.5	58	<0.5	<0.5	18	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:
VC = vinyl chloride
1,1-DCE = 1,1-dichloroethene
trans 1,2-DCE = trans-1,2-dichloroethene
cis 1,2-DCE = cis-1,2-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichlororethane
TCE = trichloroethene
PCE = tetrachloroethene
CB = chlorobenzene
1,3-DCB = 1,3-dichlorobenzene
1,4-DCB = 1,4-dichlorobenzene
1,2-DCB = 1,2-dichlorobenzene

APPENDIX A

California EPA Certified Laboratory
Report of Groundwater Samples
and
Chain of Custody Record

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 Submission #: 9701073

AQUA SCIENCE ENGINEERS INC
2411 OLD CROW CANYON RD #4
SAN RAMON, CA 94583

Attn: Scott Ferriman

RE: Analysis for project CUSTOM ALLOY SCRAP SALES, number 2971.

REPORTING INFORMATION

Samples were received cold and in good condition on January 8, 1997. They were refrigerated upon receipt and analyzed as described in the attached report. ChromaLab followed EPA or equivalent methods for all testing reported.

No discrepancies were observed or difficulties encountered with the testing.

Hydrocarbon in the Motor oil range was found in sample MW-2.
Hydrocarbon in the Motor oil range was found in sample MW-4.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: 4 samples for TPH - Diesel analysis.
Method: *EPA 8015M*

Matrix: WATER *Extracted:* January 14, 1997
Sampled: January 7, 1997 *Run#:* 4858 *Analyzed:* January 15, 1997

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
113269	MW-1	N.D.	50	N.D.	77.0	1
113270	MW-2	3200	50	N.D.	77.0	--
	Note: Hydrocarbon reported is in the late Diesel range and does not match our Diesel standard.					
113271	MW-3	N.D.	50	N.D.	77.0	1
113272	MW-4	2100	50	N.D.	77.0	1
	Note: Hydrocarbon reported is in the late Diesel range and does not match our Diesel standard.					

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.
Method: *EPA 8015M SW846 8020A Nov 1990*

Client Sample ID: **MW-1**
Spl#: 113269 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4854 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	100	1
BENZENE	N.D.	0.50	N.D.	102	1
TOLUENE	N.D.	0.50	N.D.	101	1
ETHYL BENZENE	N.D.	0.50	N.D.	95.9	1
XYLENES	N.D.	0.50	N.D.	97.6	1
MTBE	N.D.	5.0	N.D.	82.0	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.
Method: *EPA 8015M SW846 8020A Nov 1990*

Client Sample ID: **MW-2**
Spl#: 113270 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4849 *Analyzed:* January 13, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	320	50	N.D.	107	1
BENZENE	2.0	0.50	N.D.	99.2	1
TOLUENE	0.86	0.50	N.D.	96.6	1
ETHYL BENZENE	N.D.	0.50	N.D.	92.7	1
XYLENES	N.D.	0.50	N.D.	93.2	1
MTBE	N.D.	50	N.D.	92.2	10

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.
Method: *EPA 8015M SW846 8020A Nov 1990*

Client Sample ID: **MW-3**
Spl#: 113271 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4849 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	107	1
BENZENE	N.D.	0.50	N.D.	99.2	1
TOLUENE	0.68	0.50	N.D.	96.6	1
ETHYL BENZENE	N.D.	0.50	N.D.	92.7	1
XYLENES	N.D.	0.50	N.D.	93.2	1
MTBE	N.D.	5.0	N.D.	92.2	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.
Method: *EPA 8015M SW846 8020A Nov 1990*

Client Sample ID: **MW-4**
Spl#: 113272 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4849 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	107	1
BENZENE	N.D.	0.50	N.D.	99.2	1
TOLUENE	0.91	0.50	N.D.	96.6	1
ETHYL BENZENE	N.D.	0.50	N.D.	92.7	1
XYLENES	N.D.	0.50	N.D.	93.2	1
MTBE	N.D.	5.0	N.D.	92.2	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July, 1992*

Client Sample ID: **MW-1**
Spl#: 113269 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4851 *Analyzed:* January 10, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	2.0	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	0.70	0.50	N.D.	130	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	2.7	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	73	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
1,1-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROFORM	N.D.	2.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	1.8	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	1500	0.50	N.D.	80.0	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	18	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	91.0	1
BROMOFORM	N.D.	0.50	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

Chip Poalinelli
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July, 1992*

Client Sample ID: **MW-2**
Spl#: 113270 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4873 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	95	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	4.5	0.50	N.D.	95.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	42	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
CIS-1,2-DICHLOROETHENE	290	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
1,1-DICHLOROETHANE	4.7	0.50	N.D.	--	1
CHLOROFORM	N.D.	2.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	270	0.50	N.D.	84.0	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	18	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	74	0.50	N.D.	93.0	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
BROMOFORM	N.D.	0.50	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	0.90	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	4.8	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	35	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997

Submission #: 9701073
page 2

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Volatile Halogenated Organics analysis, continued.
Method: *SW846 Method 8010A July, 1992*

Client Sample ID: **MW-2**
Spl#: 113270 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4873 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR

Oleg Nemtsov
Chemist

Chip Poalinelli
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July, 1992*

Client Sample ID: **MW-3**
Spl#: 113271 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4869 *Analyzed:* January 15, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	20	N.D.	--	40
CHLOROETHANE	N.D.	20	N.D.	--	40
TRICHLOROFLUOROMETHANE	N.D.	20	N.D.	--	40
1,1-DICHLOROETHENE	N.D.	20	N.D.	103	40
METHYLENE CHLORIDE	N.D.	200	N.D.	--	40
TRANS-1,2-DICHLOROETHENE	N.D.	20	N.D.	--	40
CIS-1,2-DICHLOROETHENE	N.D.	20	N.D.	--	40
1,1-DICHLOROETHANE	N.D.	20	N.D.	--	40
CHLOROFORM	N.D.	80	N.D.	--	40
1,1,1-TRICHLOROETHANE	N.D.	20	N.D.	--	40
CARBON TETRACHLORIDE	N.D.	20	N.D.	--	40
1,2-DICHLOROETHANE	N.D.	20	N.D.	--	40
TRICHLOROETHENE	300	20	N.D.	101	40
1,2-DICHLOROPROPANE	N.D.	20	N.D.	--	40
BROMODICHLOROMETHANE	N.D.	20	N.D.	--	40
2-CHLOROETHYL VINYL ETHER	N.D.	20	N.D.	--	40
TRANS-1,3-DICHLOROPROPENE	N.D.	20	N.D.	--	40
CIS-1,3-DICHLOROPROPENE	N.D.	20	N.D.	--	40
1,1,2-TRICHLOROETHANE	N.D.	20	N.D.	--	40
TETRACHLOROETHENE	1700	20	N.D.	--	40
DIBROMOCHLOROMETHANE	N.D.	20	N.D.	--	40
CHLOROBENZENE	N.D.	20	N.D.	103	40
BROMOFORM	N.D.	20	N.D.	--	40
1,1,2,2-TETRACHLOROETHANE	N.D.	20	N.D.	--	40
1,3-DICHLOROBENZENE	N.D.	20	N.D.	--	40
1,4-DICHLOROBENZENE	N.D.	20	N.D.	--	40
1,2-DICHLOROBENZENE	N.D.	20	N.D.	--	40
TRICHLOROTRIFLUOROETHANE	N.D.	20	N.D.	--	40
CHLOROMETHANE	N.D.	40	N.D.	--	40
BROMOMETHANE	N.D.	40	N.D.	--	40

Note: SAMPLE WAS ANALYZED USING EPA METHOD 8240

Oleg Nemtsov
Chemist

Chip Poalinelli
Operations Manager

510-837-4853 MV 01/15

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July, 1992*

Client Sample ID: **MW-4**
Spl#: 113272 *Matrix:* WATER
Sampled: January 7, 1997 *Run#:* 4873 *Analyzed:* January 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	1.7	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	95.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	58	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
1,1-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROFORM	N.D.	2.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	18	0.50	N.D.	84.0	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	93.0	1
BROMOFORM	N.D.	0.50	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

Chip Poalinelli
Operations Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Polynuclear Aromatics (PNAs) analysis.
Method: *SW846 Method 8310 Sept 1986*

Client Sample ID: MW-1
Spl#: 113269 *Matrix:* WATER *Extracted:* January 14, 1997
Sampled: January 7, 1997 *Run#:* 4870 *Analyzed:* January 15, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
NAPHTHALENE	N.D.	2.0	N.D.	63.8	1
ACENAPHTHENE	N.D.	3.5	N.D.	--	1
ACENAPTHYLENE	N.D.	1.7	N.D.	--	1
FLUORENE	N.D.	0.30	N.D.	--	1
PHENANTHRENE	N.D.	0.15	N.D.	92.0	1
ANTHRACENE	N.D.	0.070	N.D.	--	1
FLUORANTHENE	N.D.	0.15	N.D.	--	1
PYRENE	N.D.	0.32	N.D.	66.4	1
BENZO(A)ANTHRACENE	N.D.	0.15	N.D.	--	1
CHRYSENE	N.D.	0.35	N.D.	65.2	1
BENZO(B)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(A)PYRENE	N.D.	0.15	N.D.	68.4	1
IDENO(1,2,3-CD)PYRENE	N.D.	0.16	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	4.6	N.D.	--	1
BENZO(GHI)PERYLENE	N.D.	0.67	N.D.	--	1

Dennis Mayugba
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Polynuclear Aromatics (PNAs) analysis.
Method: *SW846 Method 8310 Sept 1986*

Client Sample ID: **MW-2**
Spl#: 113270 *Matrix:* WATER *Extracted:* January 14, 1997
Sampled: January 7, 1997 *Run#:* 4870 *Analyzed:* January 15, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
NAPHTHALENE	N.D.	2.0	N.D.	63.8	1
ACENAPHTHENE	N.D.	3.5	N.D.	--	1
ACENAPTHYLENE	N.D.	1.7	N.D.	--	1
FLUORENE	N.D.	0.30	N.D.	--	1
PHENANTHRENE	N.D.	0.15	N.D.	92.0	1
ANTHRACENE	N.D.	0.070	N.D.	--	1
FLUORANTHENE	N.D.	0.15	N.D.	--	1
PYRENE	N.D.	0.32	N.D.	66.4	1
BENZO(A)ANTHRACENE	N.D.	0.15	N.D.	--	1
CHRYSENE	N.D.	0.35	N.D.	65.2	1
BENZO(B)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(A)PYRENE	N.D.	0.15	N.D.	68.4	1
IDENO(1,2,3-CD)PYRENE	N.D.	0.16	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	4.6	N.D.	--	1
BENZO(GHI)PERYLENE	N.D.	0.67	N.D.	--	1

Dennis Mayugba
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Attn: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Polynuclear Aromatics (PNAs) analysis.
Method: *SW846 Method 8310 Sept 1986*

Client Sample ID: **MW-3**
Spl#: 113271 *Matrix:* WATER *Extracted:* January 14, 1997
Sampled: January 7, 1997 *Run#:* 4870 *Analyzed:* January 15, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
NAPHTHALENE	N.D.	2.0	N.D.	63.8	1
ACENAPHTHENE	N.D.	3.5	N.D.	--	1
ACENAPTHYLENE	N.D.	1.7	N.D.	--	1
FLUORENE	N.D.	0.30	N.D.	--	1
PHENANTHRENE	N.D.	0.15	N.D.	92.0	1
ANTHRACENE	N.D.	0.070	N.D.	--	1
FLUORANTHENE	N.D.	0.15	N.D.	--	1
PYRENE	N.D.	0.32	N.D.	66.4	1
BENZO(A)ANTHRACENE	N.D.	0.15	N.D.	--	1
CHRYSENE	N.D.	0.35	N.D.	65.2	1
BENZO(B)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(A)PYRENE	N.D.	0.15	N.D.	68.4	1
IDENO(1,2,3-CD)PYRENE	N.D.	0.16	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	4.6	N.D.	--	1
BENZO(GHI)PERYLENE	N.D.	0.67	N.D.	--	1

Dennis Mayugba
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 21, 1997 *Submission #:* 9701073

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: CUSTOM ALLOY SCRAP SALES *Project#:* 2971
Received: January 8, 1997

re: One sample for Polynuclear Aromatics (PNAs) analysis.
Method: *SW846 Method 8310 Sept 1986*

Client Sample ID: **MW-4**
Spl#: 113272 *Matrix:* WATER *Extracted:* January 14, 1997
Sampled: January 7, 1997 *Run#:* 4870 *Analyzed:* January 15, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
NAPHTHALENE	N.D.	2.0	N.D.	63.8	1
ACENAPHTHENE	N.D.	3.5	N.D.	--	1
ACENAPTHYLENE	N.D.	1.7	N.D.	--	1
FLUORENE	N.D.	0.30	N.D.	--	1
PHENANTHRENE	N.D.	0.15	N.D.	92.0	1
ANTHRACENE	N.D.	0.070	N.D.	--	1
FLUORANTHENE	N.D.	0.15	N.D.	--	1
PYRENE	N.D.	0.32	N.D.	66.4	1
BENZO(A)ANTHRACENE	N.D.	0.15	N.D.	--	1
CHRYSENE	N.D.	0.35	N.D.	65.2	1
BENZO(B)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	0.050	N.D.	--	1
BENZO(A)PYRENE	N.D.	0.15	N.D.	68.4	1
IDENO(1,2,3-CD)PYRENE	N.D.	0.16	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	4.6	N.D.	--	1
BENZO(GHI)PERYLENE	N.D.	0.67	N.D.	--	1

Dennis Mayugba
Chemist

Alex Tam
Semivolatiles Supervisor

C13/113269 - 113272

31531

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 1-7-97 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
Scott T. Ferriman 510-820-9391

PROJECT NAME Custom Alloy Scrap Sales NO. 2971
ADDRESS 2711 Union Street, Oakland, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
5 - Day

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX/MTBE (EPA 5030/8015-8020)	TPH- DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	EPA 8310
MW-1	1-7-97	12:15	water	6		X	X		X									X
MW-2	"	11:25	"	6		X	X		X									X
MW-3	"	13:25	"	5		X	X		X									X
MW-4	"	12:40	"	6		X	X		X									X

SUBM #: 9701073 REP: MV
CLIENT: ASE
DUE: 01/15/97
REF #: 31531

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
Scott T. Ferriman 0959	[illegible] 0959	[illegible] 1400	[illegible] 1838	
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
Scott T. Ferriman 1-8-97	[illegible] 1-8-97	[illegible] 1838	[illegible] 1/8/97	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE, Inc.	Company- Chromalab	Company- Chromalab	Company- C/L	

APPENDIX B

Well Sampling Field Logs

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Custom Alloy Scrap, Sales, Oakland
Job #: 2971 Date of sampling: 1-7-98
Well Name: MW-1 Sampled by: SF
Total depth of well (feet): 24.73 Well diameter (inches): 2"
Depth to water before sampling (feet): 6.74
Thickness of floating product if any: none
Depth of well casing in water (feet): 17.99
Number of gallons per well casing volume (gallons): 3.0
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 12
Equipment used to purge the well: Dedicated Poly Bailer
Time Evacuation Began: 11:44 Time Evacuation Finished: 12:10
Approximate volume of groundwater purged: 12
Did the well go dry?: no After how many gallons: —
Time samples were collected: 12:15
Depth to water at time of sampling: 6.81
Percent recovery at time of sampling: 99%
Samples collected with: Dedicated Poly Bailer
Sample color: Clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	61.1	8.16	788
2	62.3	8.05	891
3	62.0	7.87	924
4	62.1	7.85	937

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	2	40 ml VOAs	HCl	Yes	TPHg/BTEX/MTBE
	2	40 ml VOAs	HCl	↓	8010
	1	1 L Amber	HCl	↓	TPH-D
	1	1 L Amber	—	↓	8310

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Custom Alloy Scrap Sales, Oakland
Job #: 2971 Date of sampling: 1-7-98
Well Name: MW-2 Sampled by: SF
Total depth of well (feet): 19.23 Well diameter (inches): 2"
Depth to water before sampling (feet): 6.90
Thickness of floating product if any: none
Depth of well casing in water (feet): 12.33
Number of gallons per well casing volume (gallons): 2.1
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 8.4
Equipment used to purge the well: Dedicated Poly Bailer
Time Evacuation Began: 11:05 Time Evacuation Finished: 11:20
Approximate volume of groundwater purged: 9
Did the well go dry?: no After how many gallons: —
Time samples were collected: 11:25
Depth to water at time of sampling: 6.94
Percent recovery at time of sampling: 99%
Samples collected with: Dedicated Poly Bailer
Sample color: Clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	60.3	8.35	962
2	61.7	8.05	1005
3	61.9	7.89	1081
4	61.7	7.81	1102

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	2	40 ml VOAs	HCl	Yes	TPH-g/BTEX/MTBE
	2	40 ml VOAs	HCl	↓	8010
	1	1 L Amber	HCl	↓	TPH-D
↓	1	1 L Amber	—	↓	8310

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Custom Alloy Scrap, Sales, Oakland
Job #: 2971 Date of sampling: 1-7-98
Well Name: MW-3 Sampled by: SC
Total depth of well (feet): 24.78 Well diameter (inches): 2"
Depth to water before sampling (feet): 4.27
Thickness of floating product if any: none
Depth of well casing in water (feet): 20.51
Number of gallons per well casing volume (gallons): 3.5
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 14
Equipment used to purge the well: Dedicated Poly Bailer
Time Evacuation Began: 12:50 Time Evacuation Finished: 13:20
Approximate volume of groundwater purged: 14
Did the well go dry?: no After how many gallons: —
Time samples were collected: 13:25
Depth to water at time of sampling: 4.36
Percent recovery at time of sampling: 99%
Samples collected with: Dedicated Poly Bailer
Sample color: clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	60.9	8.37	855
2	61.4	8.14	962
3	61.7	8.02	1015
4	61.8	7.96	1027

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3	2	40 ml VOAs	HCl	Yes	TPHg/BTEX/MTBE
	2	40 ml VOAs	HCl	↓	8010
	1	1 L Amber	HCl		TPH-D
↓	1	1 L Amber	—		8310

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Custom Alloy Scrap, Sales, Oakland
Job #: 2971 Date of sampling: 1-7-98
Well Name: MW-4 Sampled by: SF
Total depth of well (feet): 21.26 Well diameter (inches): 2"
Depth to water before sampling (feet): 5.28
Thickness of floating product if any: none
Depth of well casing in water (feet): 15.98
Number of gallons per well casing volume (gallons): 2.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 11
Equipment used to purge the well: Dedicated Poly Bailer
Time Evacuation Began: 12:20 Time Evacuation Finished: 12:35
Approximate volume of groundwater purged: 11
Did the well go dry?: no After how many gallons: —
Time samples were collected: 12:40
Depth to water at time of sampling: 5.34
Percent recovery at time of sampling: 99%
Samples collected with: Dedicated Poly Bailer
Sample color: clear Odor: none
Description of sediment in sample: none

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	61.6	8.31	818
2	62.2	8.01	965
3	62.1	7.81	1009
4	62.1	7.79	1021

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-4	2	40 ml VOAs	HCl	Yes	TPHg/BTEX/MTBE
	2	40 ml VOAs	HCl	↓	8010
	1	1 L Amber	HCl		TPH-D
↓	1	1 L Amber	—		8310