aqua science engineers inc.

ALCO HAZMAT

93 DEC 10 AM 11:03

December 8, 1993

STID 379

QUARTERLY GROUNDWATER MONITORING REPORT
ASE JOB NO. 2659
at
Romak Iron Works
3250 Hollis Street
Oakland, California 94662

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

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

1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineer's, Inc. (ASE) quarterly groundwater sampling at the Romak Iron Works property located at 3250 Hollis Street in Oakland, California *(Figures 1 and 2)*.

2.0 GROUNDWATER SAMPLING

On November 18, 1993, ASE measured the depth to water in the site well using an electric sounder. The well was then purged dry using an electric PVC pump. Since the well went dry and did not recover to 80 percent of the static water level, the samples were collected after the well was allowed to recover for two hours. The samples were collected from the well with a dedicated polyethylene bailer. The groundwater samples were decanted from the bailer into three (3) 40-ml volatile organic analysis (VOA) vials. All of the samples were preserved with hydrochloric acid (except one VOA vial to be analyzed for pH), labeled, placed in protective foam sleeves, and stored on wet ice for transport to Geochem Environmental Laboratories (GEL) under chain of custody.

Well development and sampling purge water was contained in DOT 17H drums and stored on-site for handling by the client at a later date. See Appendix B for a copy of the well sample field log.

3.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by GEL (CSDHS #1741) for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015M, benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 602, pH by EPA Method 150.1 and electrical conductivity by EPA Method 120.1. The analytical results are tabulated below in Table One, and the certified analytical report and chain of custody form are included in Appendix A.

TPH-G was detected in the groundwater sample at 10,270 parts per billion (ppb), and BTEX was detected between 38 and 3,169 ppb. Only the benzene concentration exceeded the California EPA Department of Toxic Substance Control (DTSC) maximum contaminant level (MCL) for drinking water. The pH was 7.1, and the conductivity was 1400 (these values are not tabulated below).

TABLE ONE
Summary of Chemical Analysis of **GROUNDWATER** Samples
TPH-G and BTEX
All results are in **parts per billion**

Sampling Date	Analytical Laboratory	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes
08-04-93	PEL	12,000	7.6	9.7	9.9	29
11-18-93	GEL	10,270 ✓	3,169 ✓	38.3	661.2	659.4
DTSC MCL		Not Established	1.0	100*	680	1,750
EPA METHOD		5030/ 8015	602 or 8020	602 or 8020	602 or 8020	602 or 8020

PEL = Priority Analytical Labs of Milpitez, California
GEL = Geochem Environmental Laboratory of San Jose, California
DTSC = California EPA Department of Toxic Substance Control
MCL = maximum contaminant level for drinking water
* = DTSC recommended action level for drinking water; MCL not established

4.0 CONCLUSIONS AND RECOMMENDATIONS

Relatively high TPH-G and benzene concentrations (10,270 ppb and 3,169 ppb, respectively) were detected in groundwater samples collected from monitoring well MW-1. ASE recommends continuing groundwater sampling on a quarterly basis.

5.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the groundwater sampling, at the specific locations at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an 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 assist Romak Iron Works with its environmental needs. Should you have any questions or comments, please feel free to call us at (510) 820-9391.

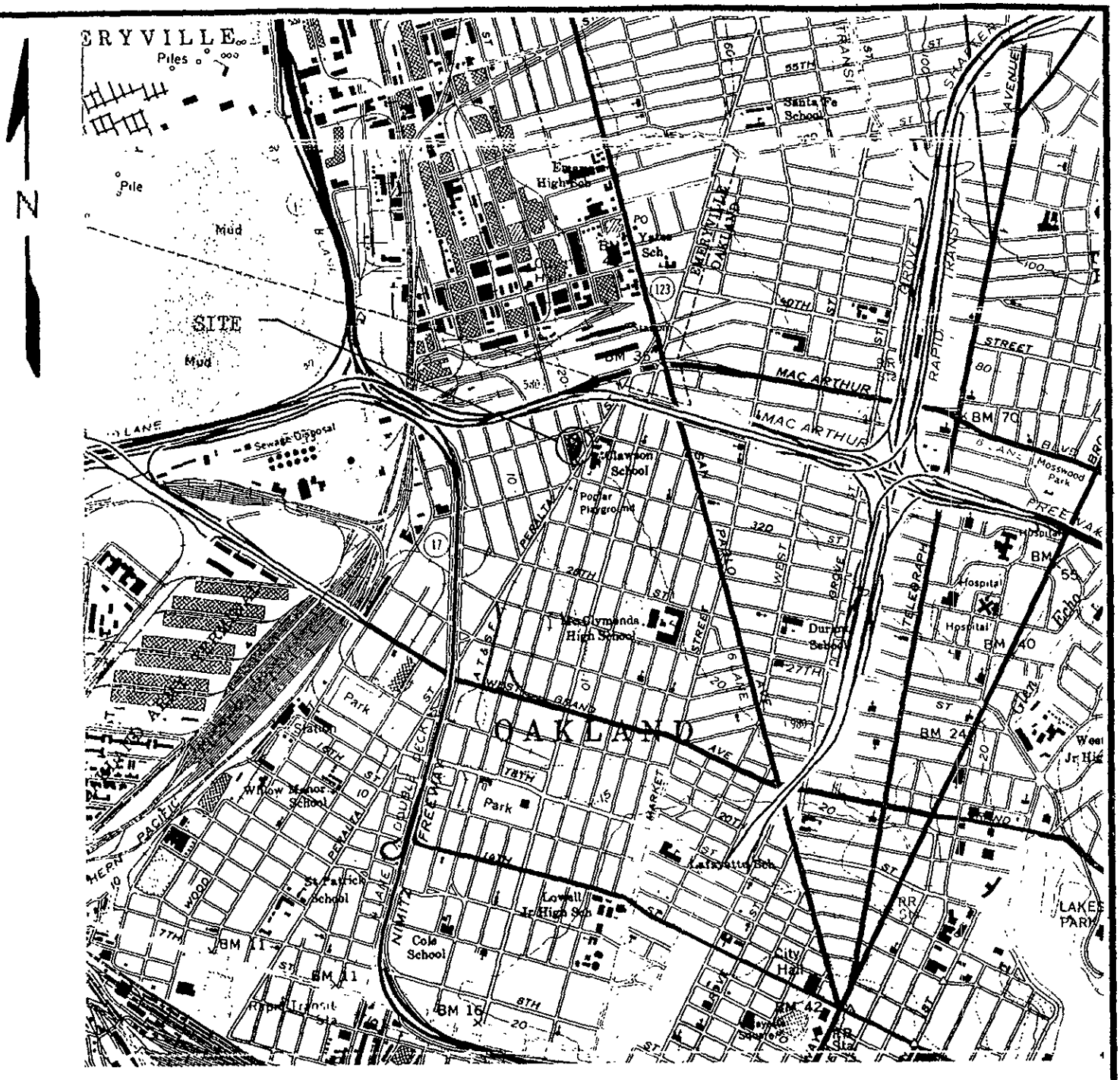
Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay
Project Geologist

Attachments: Figures 1 and 2
Appendices A and B

cc: Mr. Kevin Romak, Romak Iron Works
Ms. Susan Hugo, Alameda County Health Care Services Agency
Mr. Richard Hiett, California Regional Water Quality Control Board

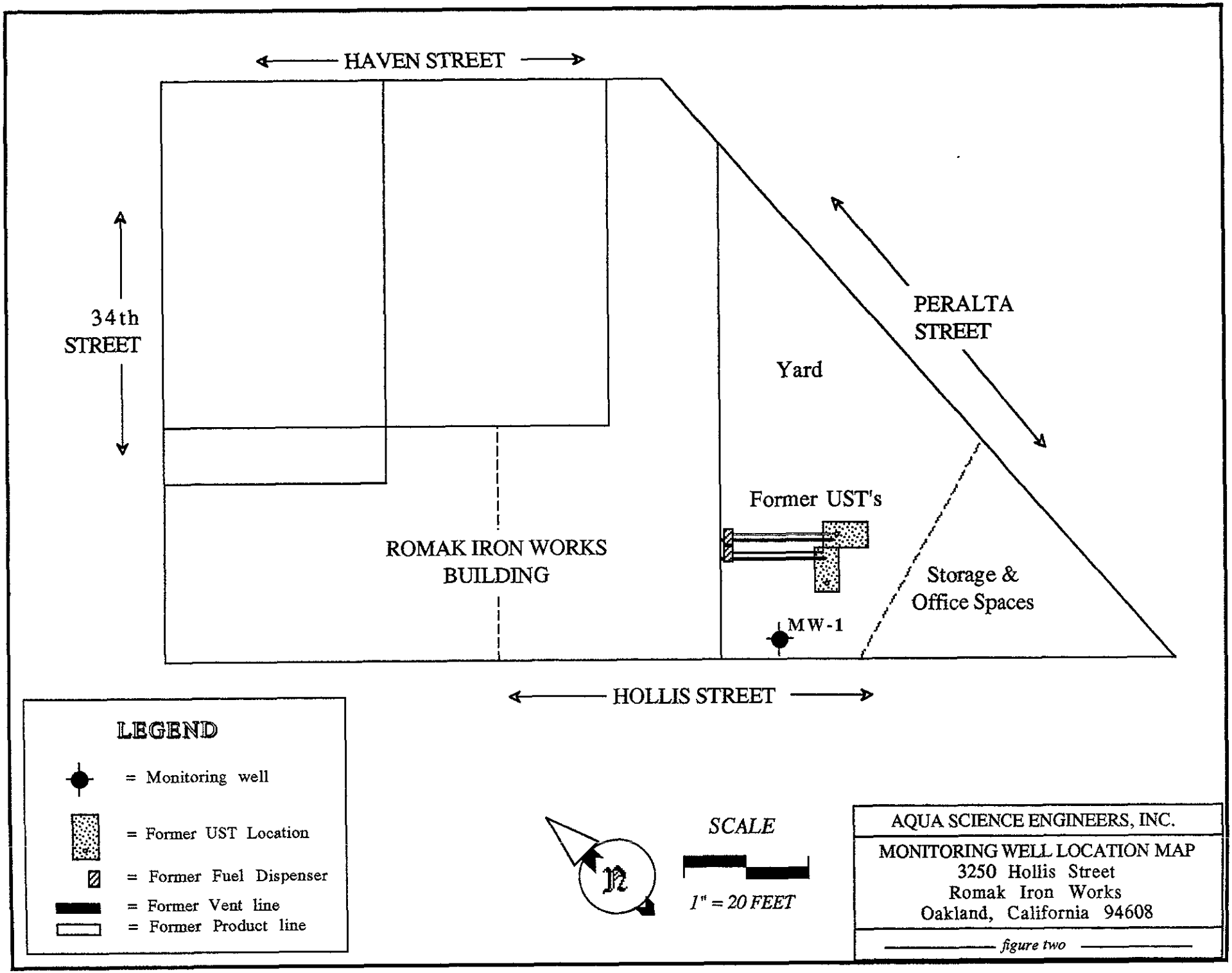


SITE LOCATION MAP

Romak Iron Works
3250 Hollis Street
Oakland, California

Aqua Science Engineers | Figure 1

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


HAVEN STREET
34th STREET
PERALTA STREET
Yard
Former UST's
ROMAK IRON WORKS BUILDING
Storage & Office Spaces
MW-1
HOLLIS STREET
LEGEND
= Monitoring well
= Former UST Location
= Former Fuel Dispenser
= Former Vent line
= Former Product line
N
SCALE
1" = 20 FEET
AQUA SCIENCE ENGINEERS, INC.
MONITORING WELL LOCATION MAP
3250 Hollis Street
Romak Iron Works
Oakland, California 94608
figure two

APPENDIX A

Analytical Report and Chain of Custody Form

Geochem ENVIRONMENTAL LABORATORIES

Mobile & In-House Laboratories Certified by State of California
Phone: (408) 955-9988 / FAX: (408) 955-9538

ANALYTICAL REPORT

****

Client: Aqua Science Engineers, Inc.
2411 Old Crow Canyon Rd.,#4
San Ramon, CA 94583
Attn: Robert Kitay

Date Sampled: 11/18/93
Date Received: 11/22/93
Date Analyzed: 11/23/93
Batch:SD-327 Matrix: Water
Conc. Unit ug/L (ppb)

Project: Romak Iron Works

****

"**ND**" means "not detected" at indicated detection limit.
B:benzene, **T**:toluene, **E**:ethylbenzene & **X**:total xylenes.
Samples recieved chilled with a chain of custody record.

SAMPLE I.D.	8015M/TPH Gasoline	602 B / T / E / X
DETECTION LIMIT	50 ppb	0.5 ppb
MW-1	10270	3169 / 38.3 / 661.2/ 659.4

Reviewed and approved by George Tsai Nov. 29, 1993
George Tsai, Laboratory Director

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT

CLIENT:
GEOCHEM ENVIRONMENTAL
780 MONTAGUE AVE.,STE.404
SAN JOSE, CA 95131
SAMPLE COLLECTION DATE: 11/18/93
Project Manager: Tom Monroe
PROJECT:Romak Iron Works

AMER REPORT #: E063
DATE RECEIVED: 11/30/93
DATE REPORTED: 12/01/93
MATRIX: WATER

Client I.D.	AMER I.D.	EPA 150.1 pH	EPA 120.1 Conductivity
MW-1	E31129.17	7.1	1400
Units		su	umhos/cm

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

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

Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) Robert E. Kitay (PHONE NO.) (510) 820-9391

PROJECT NAME Romak Iron Works JOB NO. 2659

ADDRESS 3250 Hollis Street, Oakland, CA DATE 11-18-93

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS	PURGABLE HALOCARBONS	VOLATILE ORGANICS	BASE/NUETRALS, ACIDS	OIL & GREASE (EPA 5520 E&F or B&F)	TRPH (EPA 418.1)	TOTAL LEAD (EPA 7420)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	pH (EPA 9045)	CONDUCTIVITY (EPA 120.1)	PCB (EPA 608/8080)	REACTIVITY CORROSIVITY IGNITABILITY		
MW-1	11-18-93	12:45	Water	4		X											X	X				

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
Robert E. Kitay 10:42	Amelia Z Garza			
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
Robert E. Kitay 11-22-93	Amelia Garza 11-22-93			
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company-	

GEOCHEM Environmental Laboratories
780 Montague Expressway, Suite 404
San Jose, CA 95131
(408) 955-9988 • FAX (408) 955-9538

CHAIN OF CUSTODY RECORD

Date 11-29-93 Page 1 of 1

CLIENT	PROJECT NAME	PROJECT MANAGER contact-	PHONE NUMBER
ADDRESS	Romak Iron Works	Tom Monroe	408/955-9988

SAMPLE I.D.	LOCATION DESCRIPTION	DATE	TIME	MATRIX AIR	MATRIX WATER	MATRIX SOIL	NO. OF CTNR	TESTS REQUIRED: 418.1/TRPH	8010 (601)	8015 E/TPH-diesel	8015 M/TPH-gasoline	8020 (602) BTEX	7420/Total Lead	Organic Lead	PH (EPA 9045)	Conductivity (EPA 120.1)	Archive
MW-1		11-18-93	12:45		X		4								X	X	

Sampled/Relinquished by: Arnulfo Z Garza	Received by: Tom McDaniel	Date 11/29/93	Time 4:40 pm
Relinquished by:	Received by:	Date	Time
Relinquished by:	Received by:	Date	Time

Turnaround time:
24 hr. 48 hr. Normal (3-5 days)

Special Instructions: RUSH

APPENDIX B

Well Sampling Field Log

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Romak Iron Works
Job #: 2659 Date of sampling: 11-18-93
Well Name: MW-1 Sampled by: RK
Total depth of well (feet): 21.65 Well diameter (inches): 2
Depth to water before sampling (feet): 9.65
Thickness of floating product if any: Sheen
Depth of well casing in water (feet): 12.00
Number of gallons per well casing volume (gallons): 2
Number of well casing volumes to be removed: 5
Req'd volume of groundwater to be purged before sampling (gallons): 10
Equipment used to purge the well: 12 volt electric PVC pump
Time Evacuation Began: 10:25 Time Evacuation Finished: 10:35
Approximate volume of groundwater purged: 8
Did the well go dry?: Yes After how many gallons: 8
Time samples were collected: 12:45
Depth to water at time of sampling: 15.59
Percent recovery at time of sampling: 51%
Samples collected with: Dedicated polyethylene bailer
Sample color: None Odor: Very strong hydrocarbon odor
Description of sediment in sample: None

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	3	40-ml brown VOAs	HCl	Yes	TPH-G/BTEX
↓	1	↓	No	↓	pH/conductivity