AB&I

AMERICAN BRASS & IRON FOUNDRY

7825 San Leandro Street • Oakland, CA 94621 • (415) 632-3467
Fax No. (415) 632-8035

October 15, 1991

8K gasoline

Alameda County Health Agency
Attn: Barney Chan
Hazardous Materials Specialist
80 Swan Way, rm 200
Oakland, CA 94621

Subject: Underground Storage Tank Closure Report

Dear Mr. Chan:

In accordance with Alameda County Health Care Services Underground Storage Tank Removal Process, please find attached American Brass & Iron Foundry's closure report for the removal of an on site 8,000 gallon storage tank. This report includes a summary report by Levine-Fricke Consultants and a copy of the excavate permit by the City of Oakland.

Please note this closure report reflects a portion of the initial underground storage tank closure plan submitted to Alameda County Health Agency on August 1, 1991. A detailed ground-monitoring program will be developed at the completion of the overall tank removal project at AB&I. Information on soil geology and ground water contamination for surrounding property locations are being reviewed in order to fully evaluate a soil ground water investigation.

If you require further information or have additional questions please feel free in contacting me at (510) 632-3467 ext. 211.

Sincerely,

Dave Robinson
Environmental Engineer

DR/aw

cc: John Fehringer, Don Wixson,
John Sturman, Levine-Fricke Consultants

REMOVAL OF 8,000-GALLON CAPACITY UNDERGROUND GASOLINE STORAGE TANK AMERICAN BRASS & IRON OAKLAND, CALIFORNIA

October 15, 1991
LF 2408

Prepared for:

American Brass & Iron
7825 San Leandro Avenue
Oakland, California

LEVINE·FRICKE

LEVINE·FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

October 15, 1991

LF 2408

Mr. David Robinson
Environmental Manager
American Brass & Iron
7825 San Leandro Avenue
Oakland, California 94621

Subject: Enclosed Report on Removal of 8,000-Gallon Capacity Underground Gasoline Tank, American Brass & Iron Facility, Oakland, California

Dear Dave:

Enclosed are three copies of the report on the removal of the subject tank. Please submit copies to the Alameda County Department of Environmental Health and Regional Water Quality Control Board.

Please call me or Ted Splitter with any questions or comments.

Sincerely,

John Sturman

John Sturman
Senior Project Geotechnical Engineer

Enclosure

1900 Powell Street, 12th Floor
Emeryville, California 94608
(415) 652-4500
FAX (415) 652-2246

Other offices in Irvine, CA, Sacramento/Roseville, CA; Tallahassee, FL

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October 15, 1991 LF 2408

**REMOVAL OF 8,000-GALLON CAPACITY
UNDERGROUND GASOLINE STORAGE TANK
AMERICAN BRASS & IRON FACILITY
OAKLAND, CALIFORNIA**

1.0 INTRODUCTION

On behalf of American Brass & Iron (AB&I), Levine•Fricke has prepared this report to describe the removal of one 8,000-gallon capacity underground gasoline storage tank from the AB&I facility located at 7825 San Leandro Street in Oakland, California ("the Site"; Figure 1). This tank is the first tank removed as part of AB&I's current tank closure program.

This report describes the tank removal, disposal, and soil and ground-water sampling activities, and presents laboratory analytical results and our conclusions based on these results. Levine•Fricke was retained by AB&I to provide services to assist with closure of this tank, including permitting, compliance, field observation, sampling, and preparation of this closure report.

AB&I used this tank for fueling vehicles at their facility until approximately 1989. The tank installation date is unknown, but AB&I estimates that it was installed in the early 1970s.

2.0 WORK PERFORMED

The tank removal was directed and performed by AB&I, using the contracted services of Walt's Backhoe Service of Oakland, California.

2.1 Tank Contents Removal and Stabilization Procedure

As AB&I reportedly had not used the tank to store fuel since about 1989, the tank contained only about 3 inches of gasoline in July 1991. This gasoline was pumped out prior to uncovering the tank on August 1, 1991. This gasoline was pumped out and removed from the Site by Evergreen Vacuum Services of Newark, California ("Evergreen"), and was used for recycling. The tank and appurtenant piping were high-pressure rinsed by AB&I on August 5, 1991. The rinsate, which totalled about 65 gallons, was pumped into two 55-gallon drums and

receipts.

transported off site by Evergreen on August 6, 1991. After removal of the rinsate, only a small amount (approximately 1 inch) of rinsate remained.

On August 8, 1991, 250 pounds of pelletized dry ice was placed in the tank through ports at each end. Combustible gases and oxygen concentrations were measured in the tank using a combustible gas meter. The air inside the tank was drawn to the meter through tubing that was lowered approximately 3 feet into the tank. Prior to tank removal, meter readings of the percentage lower explosion limit (LEL) indicated combustible gases and oxygen at zero percent.

2.2 Tank Excavation and Removal

The product piping, which extended approximately 6 feet from the tank to the dispenser, was removed on August 5, 1991 after rinsing the tank. The fill piping and extractor piping were removed on August 8, 1991. The piping was set aside for subsequent removal from the Site with the tank.

On August 8, 1991, the overburden soil was removed from the top of the tank. After gaining the approval of Mr. Scott Seery of the Alameda County Department of Environmental Health Hazardous Materials Division (Alameda County) and Mr. Jim Edwards of the Oakland Fire Department (OFD), the tank was lifted out of the ground using two loaders. The tank was loaded onto a truck operated by H&H Ship Service of San Francisco, California, (H&H) using one loader and a forklift.

The piping appurtenant to the tank was also loaded onto the H&H truck for transport to H&H's facility in San Francisco. The tank was manifested as hazardous waste and recorded under EPA Manifest number 90546536. A copy of this manifest is included in Appendix A.

2.3 Soil and Ground-Water Sampling

After the tank was removed from the Site, soil and ground-water samples were collected by Levine·Fricke under the observation of Alameda County staff. Two soil samples were collected: one below each end of the tank. Additionally, one sample of standing water was collected from the excavation.

Soil samples were collected using a backhoe. The backhoe operator was directed to remove portions of native (not tank bedding material) soil at the desired depth and location with the backhoe. After raising the backhoe bucket to the ground surface, soil samples were collected by driving 2-inch

diameter brass liners into the desired portion of soil in the backhoe bucket. After filling the tube completely to minimize headspace, the ends of the tube were enclosed with plastic caps over aluminum foil and sealed with cloth tape. Samples were labelled and placed in a chilled ice chest. Soil samples collected immediately after the tank removal were labelled T1-N-10.5, T1-S-11, T1-W-11, and T1-NE-11. Figure 2 presents soil sampling locations.

Ground-water samples were collected by lowering a clear plastic bailer into the excavation with nylon rope, and pouring the collected water into 40-milliliter capacity volatile organic analysis (VOA) vials. The vials were completely filled and checked to verify that there were no trapped air bubbles. The water samples were labelled and placed in a chilled ice chest. The water sample collected immediately after tank removal was labelled T1-water.

2.4 Excavation of Gasoline-Affected Soils

Levine·Fricke used a photoionization detector (PID) to screen soils encountered in the excavation for volatile organic chemicals (VOCs) associated with gasoline. The PID measurements indicated that the soils adjacent to the tank on north and east sides were affected by gasoline, and that the depth of affected soils was limited from about 8 to 11.5 feet below ground surface. On August 19, 1991, approximately 20 cubic yards of soils were removed by Walt's Backhoe Service under the observation of Levine·Fricke.

When PID measurements showed that the gasoline-affected soils were removed, samples of remaining native soils were collected to confirm soil quality around the perimeter of the excavation. Two additional confirmatory soil samples were collected on August 26, 1991 (samples T1-N-7 and T1-NW-10). These samples were collected after excavating approximately 2 feet of soil to obtain samples representing native soils from potentially high and low water depths, based on regional interpretations by Mr. Dennis Byrne of Alameda County.

2.5 Removal of Water in Excavation

After collecting soil and ground-water samples on August 8, 1991, AB&I lowered a submersible pump into the excavation, and pumped out approximately 300 gallons of water until the depth of water in the excavation was too low to pump (an average of approximately 2 inches). The water-level recovered in the

excavation over the following week. On August 18, 1991, approximately 600 additional gallons were pumped into drums. Levine·Fricke collected a sample of the recovered water (labelled "Pit Water") on August 19, 1991. The procedure of pumping and subsequent resampling of excavation water as an assessment of ground-water quality is in the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites (August, 1991).

The water removed from the excavation was transferred to AB&I's on-site wastewater treatment system. This system is operating in compliance with NPDES discharge standards.

2.6 Aeration of Gasoline-Affected Soils

The gasoline-affected soils removed from the excavation were transported with a loader to the northwest portion of the Site, and spread on a concrete pad for aeration. The soils were turned and mixed by AB&I to facilitate aeration. The Bay Area Air Quality Management District (BAAQMD) was notified of aeration activities.

When visual observations and PID measurements indicated that the soils were aerated, soil samples were collected and sent to the laboratory for analysis. On September 12, 1991, Levine·Fricke collected two samples from the stockpile at an approximate depth of 1 foot. The stockpile consisted of about 20 cubic yards of soils, and had an average thickness of 1.5 feet. AB&I subsequently used that soil as backfill for subsequent tank removals.

2.7 Excavation Backfilling

AB&I backfilled the excavation on August 28 and 29, 1991. On September 3, 1991 Levine·Fricke observed that the excavation was filled, but did not observe backfilling activities.

2.8 Laboratory Analyses

Soil and water samples collected during the course of tank removal activities were submitted to BC Analytical Laboratories of Emeryville, California (BCA). BCA analyzed the samples for total petroleum hydrocarbons (TPH) as gasoline using EPA Method 8015 and for the gasoline constituents benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8020. The samples were handled using strict chain-of-custody procedures.

3.0 FIELD OBSERVATIONS

3.1 Tank Conditions

Levine•Fricke and Mr. Scott Seery of Alameda County inspected the tank upon removal. No holes or cracks were observed. The asphalt tar wrapping around the tank was partially dissolved around the fill pipe. The fill pipe was located at the north end of the tank.

3.2 Soil and Ground-Water Conditions

A 4-inch thick layer of asphalt paving covered the ground surface over the tank. Below the asphalt, an approximately 8-inch thick layer of aggregate base gravel, consisting of gravel and sand, was observed. Below the aggregate base, a layer of fill material consisting of concrete rubble, gravel and sand, extended to a depth of about 5.5 feet. A unit of dark gray-colored silty clay was encountered below the fill. The clay was soft to medium stiff, and did not appear to have fractures. Portions of the clay sediments affected by gasoline (according to PID measurements) had a blue-gray discoloration. Upon removal of these soils, no PID measurements or discoloration were observed.

Upon removal of the tank, standing water was observed in the excavation at a depth of about 11 feet. The water had a brown film over a portion of it. The suspected source of the brown film is dissolved tar paper. After this water was pumped out of the excavation, the recovered water was not discolored.

4.0 RESULTS

4.1 Soil Quality

Analytical soil sampling results indicate that soil below the northern portion of the tank was affected by gasoline at concentrations as high as 820 milligrams per kilogram (mg/kg) TPH, 40 mg/kg ethylbenzene, and 120 mg/kg xylenes. Benzene and toluene were not detected in these soil samples. The soil at this sampling location was excavated and aerated; therefore, these results no longer represent soil quality around the north end of the former tank location. After excavating gasoline-affected soils, analytical results of confirmatory samples of native soils indicate less than 1 mg/kg TPH and nondetectable levels of BTEX compounds.

Analytical results of the two samples collected from aerated soils indicated nondetectable BTEX and less than 1 mg/kg TPH. Table 1 summarizes soil sample analytical results. Laboratory data sheets are included in Appendix B.

4.2 Water Quality

The water sample collected from the excavation immediately after tank removal indicated 30 milligrams per liter (mg/l) TPH, and 0.31 mg/l, 0.26 mg/l, 2.3 mg/l, and 14.00 mg/l of the BTEX compounds, respectively. The water sample collected after AB&I removed water from the excavation indicated 0.150 mg/l TPH and 0.0032 mg/l, 0.0026 mg/l, 0.0062 mg/l, and 0.026 mg/l BTEX compounds, respectively. Table 1 also presents water-quality data, and Appendix B contains water-quality laboratory data sheets.

5.0 SUMMARY AND CONCLUSIONS

Based upon our review of the work performed, sampling and analysis procedures, and the results obtained, it is our opinion that the work was performed in compliance with applicable tank closure requirements. As noted above, some gasoline-affected soils were encountered around the north end of the tank and removed. Based upon the soil-quality data obtained, we do not recommend additional soil excavation. The water-quality data indicate that ground water at the former tank location has some dissolved gasoline present. Although it is our opinion that the gasoline hydrocarbon concentrations detected in excavation water samples are not sufficiently high to merit ground-water remediation, the lateral extent of gasoline-affected ground water has not been assessed.

TABLE 1

SOIL- AND WATER-QUALITY RESULTS
8,000-GALLON UNDERGROUND GASOLINE TANK REMOVAL
AMERICAN BRASS & IRON FOUNDRY
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Sample Number	Date Collected	Depth (feet)	TPH as Gasoline **	Benzene	Toluene	Ethyl-benzene	Xylenes
Soil Samples (results in milligrams per kilogram [mg/kg])							
T1-N-10.5 *	08-Aug-91	10.5	820	<13	<13	40	120
TI-S-11	08-Aug-91	11	0.5	<0.005	<0.005	0.018	0.06
T1-W-11	08-Aug-91	11	<0.1	<0.005	<0.005	<0.005	<0.005
T1-NE-11 *	08-Aug-91	11	1.8	0.11	0.01	0.19	0.11
T1-E-11	19-Aug-91	11	<0.1	<0.005	<0.005	<0.005	<0.005
T1-N2-10	19-Aug-91	10	<0.1	<0.005	<0.005	<0.005	<0.005
T1-NE2-10	19-Aug-91	10	<0.1	<0.005	<0.005	<0.005	<0.005
T1-N-7	26-Aug-91	7	<0.1	<0.005	<0.005	<0.005	<0.005
T1-NW-10	26-Aug-91	10	<0.1	<0.005	<0.005	<0.005	<0.005
T2-SP-W	12-Sep-91	---	<0.1	<0.005	<0.005	<0.005	<0.005
T2-SP-W	12-Sep-91	---	0.70	<0.02	<0.02	<0.02	<0.02
Water Samples (results in milligrams per liter [mg/l])							
T1-WATER *	08-Aug-91	-	30.000	0.310	0.260	2.300	14.000
Pit Water	20-Aug-91	-	0.150	0.0032	0.0026	0.0062	0.026

NOTES:

All samples were analyzed by BC Anayltical Laboratory, Emeryville, California.

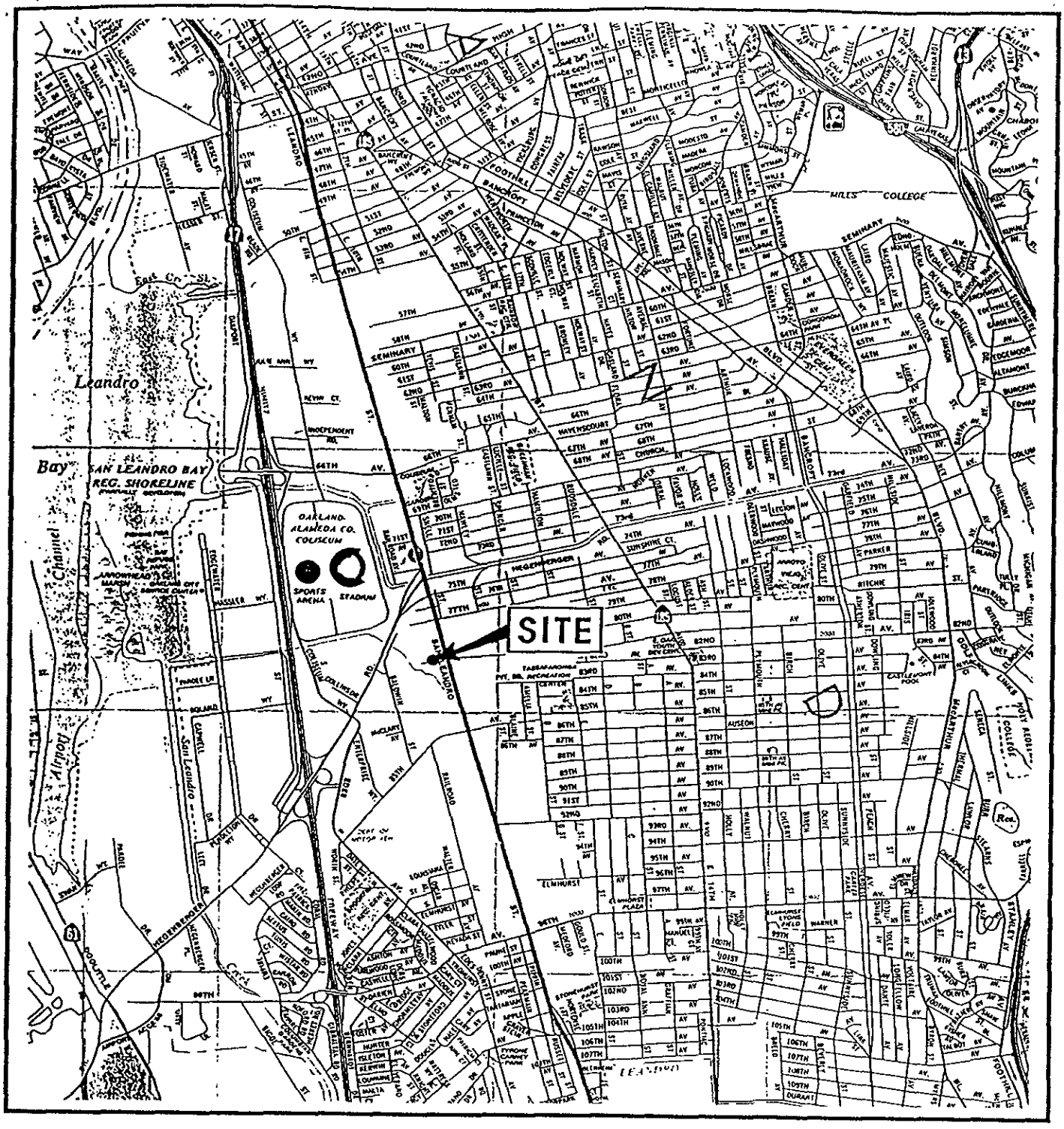
Excavation depth to water was 10.5 feet on August 8, 1991, and 9.5 feet on August 20, 1991.

Samples T2-SP-W and T2-SP-E were post-aeration stockpile samples from soil excavated around the tank.

TPH = Total Petroleum Hydrocarbons

* These samples do not represent existing native soils and ground water due to re-excavation and ground-water pumping.

** TPH as gasoline is reported by BC Analytical Laboratory as C6 to C12 hydrocarbons.



0 1/2 1 Mile

MAP SOURCE:
Oakland, Berkley, Alameda
California State Automobile Association
7-86

Figure 1 : SITE VICINITY

Project No. 1150

LEVINE•FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

PK25AUG88[m

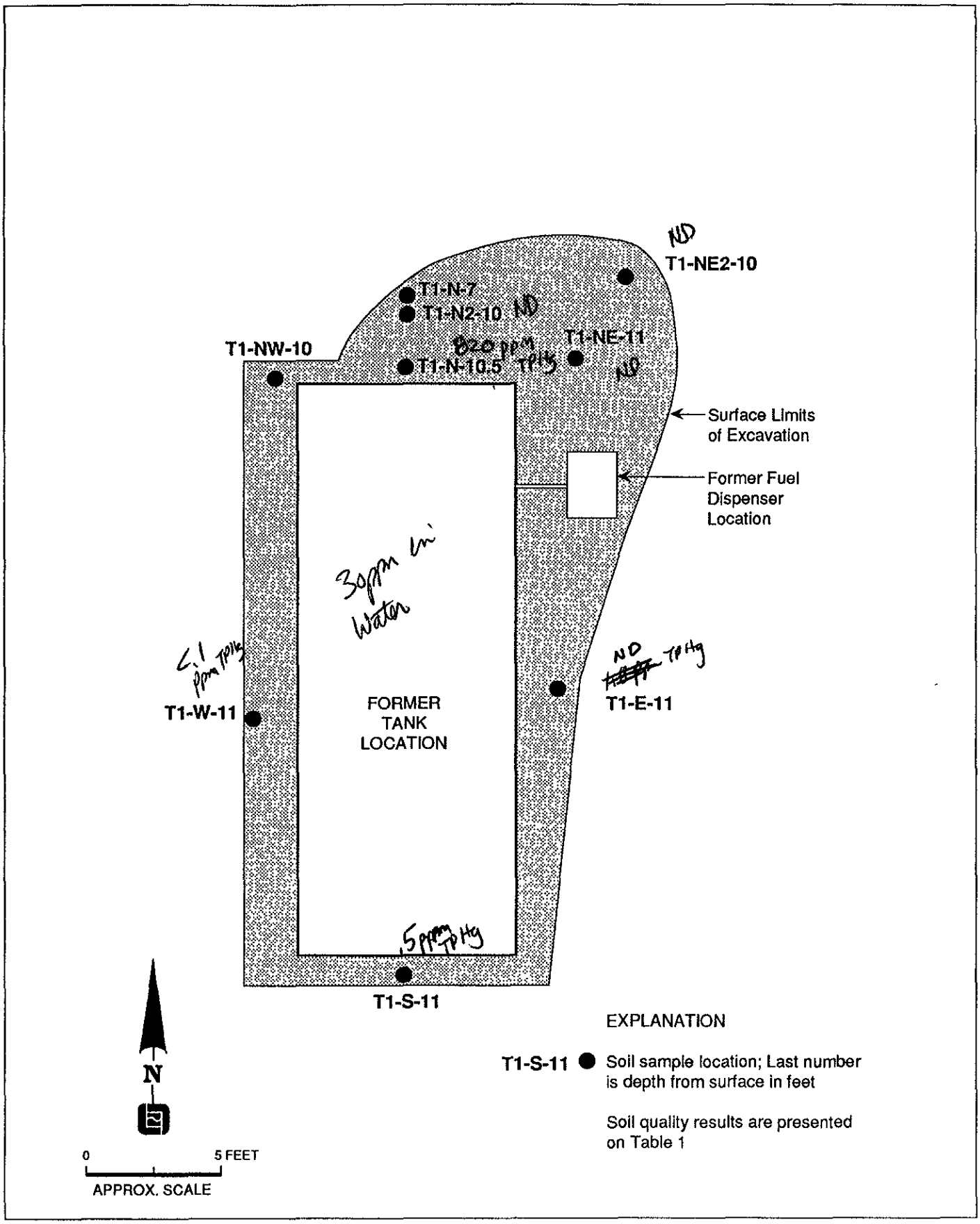


Figure 2: PLAN SHOWING SOIL SAMPLE LOCATIONS

APPENDIX A

TANK MANIFEST AND LABORATORY DATA SHEETS

Analytical Report

LOG NO: E91-08-220

Received: 08 AUG 91
Mailed : 13 AUG 91

RESENT OCT 15 1991

Purchase Order: 1268

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

CC: John Sturman, Levine-Fricke

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-220-1	T1-N-10.5	08 AUG 91
08-220-2	T1-S-11	08 AUG 91
08-220-3	T1-W-11	08 AUG 91
08-220-4	T1-NE-11	08 AUG 91

PARAMETER	08-220-1	08-220-2	08-220-3	08-220-4
TPH-Volatile/BTEX				
Date Analyzed	08.10.91	08.09.91	08.09.91	08.09.91
Dilution Factor, Times	2500	1	1	1
Benzene, mg/kg	<13	<0.005	<0.005	0.11
Ethylbenzene, mg/kg	40	0.018	<0.005	0.19
Toluene, mg/kg	<13	<0.005	<0.005	0.010
Total Xylene Isomers, mg/kg	120	0.060	<0.005	0.11
C6 to C12 Hydrocarbons, mg/kg	820	0.5	<0.1	1.8

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA *B C Analytical*

Analytical Report

LOG NO: E91-08-220

Received: 08 AUG 91
Mailed : 13 AUG 91

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

Purchase Order: 1268

CC: John Sturman, Levine-Fricke

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
08-220-5	T1-Water	08 AUG 91

PARAMETER	08-220-5	
TPH-Volatile/BTEX		
Date Analyzed	08.09.91	
Dilution Factor, Times	100	
Benzene, ug/L	310	
Ethylbenzene, ug/L	2300	
Toluene, ug/L	260	
Total Xylene Isomers, ug/L	14000	
C6 to C12 Hydrocarbons, ug/L	30000	30ppm

NOTE: A facsimile copy of this report was sent to Mr. John Fehringer on 8/12/91 by R. Bauer.

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

CHAIN OF CUSTODY RECORD

BCA Log Number 9103220

Client name: ABI	Project or PO#:
Address: 7825 San Leandro St.	Phone #: 632-3467
City, State, Zip: Oakland CA 94621	Report attention: John Fehringer

Sampled by: John Sturman

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	EPA Method 8015	EPA Method 8020	Hazardous sample Special handling required	Remarks
T1-V-10.5	8/8/91	13:20	SO	Unleaded Gas Tank Soil	1	X	X		RUSH as per
2-S-11	"	14:00	"	"	"	X	X		John Fehringer
1-W-11	"	14:50	"	"	"	X	X		
NE-11	"	15:50	"	"	"	X	X		
WATER	"	13:20	GW	Excavation Water Sample	3	X	X		
									LF Project #2408

	Signature	Print Name	Company	Date	Time
Relinquished by	John Sturman Levine-Fricke	John Sturman	Levine-Fricke Emeryville	8/8/91	16:45
Received by		TRUDY ING	BCA	8/8/91	16:47
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

BC ANALYTICAL

- [X] 1255 Powell Street, Emeryville, CA 94608 (415) 428-2300
- [ ] 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
- [ ] 1200 Pacific Avenue, Anaheim, CA 92805 (714) 978-0113

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: _____

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil OT—Other PE—Petroleum

JOS

Analytical Report

LOG NO: E91-08-441

Received: 19 AUG 91

Mailed: AUG 23 1991

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

Purchase Order: 1268

CC: Mr. John Sturman

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-441-1	T1-E-11	19 AUG 91
08-441-2	T1N2-10	19 AUG 91
08-441-3	T1-NE2-10	19 AUG 91

PARAMETER	08-441-1	08-441-2	08-441-3
TPH-Volatile/BTEX			
Date Analyzed	08.19.91	08.19.91	08.20.91
Dilution Factor, Times	1	1	1
Benzene, mg/kg	<0.005	<0.005	<0.005
Ethylbenzene, mg/kg	<0.005	<0.005	<0.005
Toluene, mg/kg	<0.005	<0.005	<0.005
Total Xylene Isomers, mg/kg	<0.005	<0.005	<0.005
C6 to C12 Hydrocarbons, mg/kg	<0.1	<0.1	<0.1

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

CHAIN OF CUSTODY RECORD

BCA Log Number 9108441

Client name ABI	Project or PO#
Address 7825 San Leandro St.	Phone # 632-3467
City, State, Zip Oakland CA 94621	Report attention John Sturman John Fehringer

Sampled by John Sturman

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	TPH gasoline	BTXE	Hazardous sample Special handling required	Remarks
T1-E-11	08/19/91	9:15	SO	Soil from gasoline tank removal	1	X	X		RUSH as per John
T1-N2-10	"	10:05			"	X	X		Fehringer
T1-W-10	"	10:50			"	X	X		RESENT OCT 15 1991
									48 hr. Rush
									- R. Baner
									8/19/91

	Signature	Print Name	Company	Date	Time
Relinquished by	John Sturman	John Sturman	Levine-Fricke	8/19/91	12:15
Received by	J. Anderson	J. ANDERSON	BCA	8/19/91	12:14
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

- ☒ 1255 Powell Street, Emeryville, CA 94608 (415) 428-2300
- ☐ 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
- ☐ 1200 Pacifico Avenue Anaheim CA 92805 (714) 978-0113

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: _____

*KEY. AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil OT—Other PE—Petroleum

2 days

Analytical Report

JOS

LOG NO: E91-08-464

Received: 20 AUG 91

Mailed: AUG 23 1991

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

CC: Mr. John Sturman

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
08-464-1	Water from Tank Pit	20 AUG 91

PARAMETER	08-464-1
TPH-Volatile/BTEX	
Date Analyzed	08.21.91
Dilution Factor, Times	1
Benzene, ug/L	3.2
Ethylbenzene, ug/L	6.2
Toluene, ug/L	2.6
Total Xylene Isomers, ug/L	26
C6 to C12 Hydrocarbons, ug/L	150

Sim D. Lessley, Ph.D., Laboratory Director

AUG 26 1991

E-FRICKE

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

CHAIN OF CUSTODY RECORD

BC Log Number 9108464.

Client name AB+I		Project or PO#	
Address 7825 San Leandro		Phone # 632-3467	
City, State, Zip Oak CA 94621		Report attention John Tebringer	

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sampled by John Sturman / Sample description	Number of containers	TPH gasoline	BTEX	Hazardous sample Special handling required	Remarks
WATER	8/20/91	10:40	GW	Water from Tank Pit	3	X	X		

RESENT OCT 1 0 1991

CC results to
John Sturman
Levine Fricke

	Signature	Print Name	Company	Date	Time
Relinquished by	John Sturman	John Sturman	Levine · Fricke	8/20/91	11:30
Received by	Phornthong Khamthong	PHORN THONGKHAM	BCL	8/20/91	1130
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

BROWN AND CALDWELL LABORATORIES

- ☒ 1255 Powell Street, Emeryville, CA 94608 (415) 428-2300
- ☐ 373 South Fair Oaks Avenue, Pasadena, CA 91105 (818) 795-7553
- ☐ 1200 Pacifico Avenue, Anaheim, CA 92805

Note:
Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense.

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil OT—Other PE—Petroleum

Analytical Report

LOG NO: E91-08-615

Received: 26 AUG 91
Mailed : 29 AUG 91

RESENT OCT 15 1991

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

CC: Don Wixson/John Sturman

Project: 2408

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-615-1	T1-N-7	26 AUG 91
08-615-2	T1-NW-10	26 AUG 91

PARAMETER	08-615-1	08-615-2
TPH-Volatile/BTEX		
Date Analyzed	08.27.91	08.27.91
Dilution Factor, Times	1	1
Benzene, mg/kg	<0.005	<0.005
Ethylbenzene, mg/kg	<0.005	<0.005
Toluene, mg/kg	<0.005	<0.005
Total Xylene Isomers, mg/kg	<0.005	<0.005
C6 to C12 Hydrocarbons, mg/kg	<0.1	<0.1

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

CHAIN OF CUSTODY RECORD

BCA Log Number 910862

Client name: American Brass + Iron	Project or PO#:
Address: 7825 San Leandro	Phone #: 632-3467
City, State, Zip: Oakland	Report attention: John Fehringer

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sampled by / Sample description	Number of containers	Analyses required: TPH gasoline	BTEX					Hazardous sample Special handling required	Remarks
T7-N-7	8/26/91	12:30	SO	Soil from UST Removal	1	X	X				-1		RUSH as per J.
T7-NW-10	"	12:35	"		1	X	X				-2		Fehringer
													CC results to
													John Sturman
													Levine-Fricke
													LF #2408

	Signature	Print Name	Company	Date	Time
Relinquished by	John Sturman	John Sturman	Levine-Fricke	8/26/91	16:20
Received by		FEDEX	BCA	8/26/91	16:20
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

- [X] 1255 Powell Street, Emeryville, CA 94608 (415) 428-2300
- [ ] 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
- [ ] 1200 Pacifico Avenue, Anaheim CA 92805 (714) 978-0113

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense

Disposal arrangements: _____

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil OT—Other PE—Petroleum

Analytical Report

LOG NO: E91-09-263

Received: 12 SEP 91
Mailed : 14 OCT 91

RESENT OCT 15 1991

Purchase Order: 1268

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

CC: John Sturman, Levine Fricke

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
09-263-1	T2-SE-8.5	12 SEP 91
09-263-2	T2-BASE-13	12 SEP 91
09-263-3	T2-NW9	12 SEP 91
09-263-4	T2-NE9	12 SEP 91
09-263-5	T2-SP-W	12 SEP 91

PARAMETER	09-263-1	09-263-2	09-263-3	09-263-4	09-263-5
TPH-Volatile/BTEX					
Date Analyzed	09.16.91	09.30.91	09.30.91	09.16.91	09.16.91
Dilution Factor, Times	1	100	100	1	1
Benzene, mg/kg	<0.005	<0.05	<0.05	<0.005	<0.005
Ethylbenzene, mg/kg	0.027	2.0	3.1	0.013	<0.005
Toluene, mg/kg	<0.005	0.21	0.52	<0.005	<0.005
Total Xylene Isomers, mg/kg	0.019	3.3	3.1	0.012	<0.005
C6 to C12 Hydrocarbons, mg/kg	0.1	78	100	<0.1	<0.1

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

Analytical Report

LOG NO: E91-09-263

Received: 12 SEP 91
Mailed : 14 OCT 91

Mr. John Fehringer
American Brass and Iron
7825 San Leandro Street
Oakland, California 94621

Purchase Order: 1268

CC: John Sturman, Levine Fricke

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
09-263-6	TS-SP-E	12 SEP 91
09-263-7	T2-SW-10	12 SEP 91
09-263-8	T2-N BASE-12.5	12 SEP 91

PARAMETER	09-263-6	09-263-7	09-263-8
Sample Held, Not Analyzed	---	HELD	HELD
TPH-Volatile/BTEX			
Date Analyzed	09.16.91	---	---
Dilution Factor, Times	5	---	---
Benzene, mg/kg	<0.02	---	---
Ethylbenzene, mg/kg	<0.02	---	---
Toluene, mg/kg	<0.02	---	---
Total Xylene Isomers, mg/kg	<0.02	---	---
C6 to C12 Hydrocarbons, mg/kg	0.70	---	---

Note: 9109263*2,3 were extracted into methanol on 9/21/91. T.Chiang 10/11/91

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

CHAIN OF CUSTODY RECORD

BCA Log Number 9109263

Client name: American Brass + Iron	Project or PO#
Address: 7825 San Leandro	Phone #: 632-3407
City, State, Zip: Oakland CA	Report attention: John Fehringer

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sampled by / Sample description	Number of containers	TPH gasoline	BTEX				HOLD	Hazardous sample Special handling required	Remarks
T2-SE-8.5	9/12/91		SO		1	X	X						-1
T2-SW-10	"										X		-7
T2-BASE-13	"					X	X						-2
T2-NW9	"					X	X						-3
T2-NBKED.5	"										X		-8
T2-NE9	"					X	X						-4
T2-SP-W	"					X	X						; CC: results to
T2-SPE	"					X	X						& John Sturman Levine · Fricke

	Signature	Print Name	Company	Date	Time
Relinquished by		John Sturman	Levine · Fricke	9/12/91	15:00
Received by		Karni Flores	BCA	9/12/91	15:00
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

☑ 1255 Powell Street, Emeryville, CA 94608 (415) 428-2300

☐ 801 Western Avenue, Glendale, CA 91201 (818) 247-5737

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: _____

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil OT—Other PE—Petroleum