Rec'd 11/5/97
PE

TANK REMOVAL REPORT

UNIVERSITY OF CALIFORNIA, BERKELEY
GILL TRACT RESEARCH FACILITY
ALBANY, CALIFORNIA

OCT 1997

Prepared for:

Ms. Hari Krashna
Project Manager
University of California, Berkeley
Planning, Design, and Construction
2000 Carleton Street
Berkeley, California 94720-1380

Prepared by:

IT Corporation
4584 Pacheco Boulevard
Martinez, California 94553

IT Project No. 772569

October 1997

11/5/97
PE

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

OFFICE OF ENVIRONMENT, HEALTH AND SAFETY
UNIVERSITY HALL, 3rd FLOOR

BERKELEY, CALIFORNIA 94720

November 5, 1997

Gordon Coleman
Environmental Health Services
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Underground Storage Tank Removal Report for Gill Tract, UC Berkeley
References: 1) Chu—Spencer, 9/3/97 2) Spencer—Coleman 9/15/97

Dear Mr. Coleman:

Enclosed is the report entitled "University of California, Berkeley, Gill Tract Research Facility, Albany, California," prepared by International Technology Corporation under contract with the University. This report documents the August 15, 1997 removal of two underground fuel storage tanks at the Gill Tract and the subsequent soil and water sampling which was completed on August 20, 1997. Ms. Eva Chu of your office inspected the removal and sampling activities. Contaminated soil and storm runoff water were removed from the site and sent for offsite disposal as documented in the report. An unauthorized release report was sent to your office on September 3, 1997 (Reference 1).

We received your Notice of Responsibility dated September 15, 1997 (Reference 2) placing the site in the Local Oversight Program. Please note that the parties responsible for investigation and cleanup of the site are the Regents of the University of California and the University of California, Berkeley, College of Natural Resources; consequently, please change the name of the Responsible Party to the Regents of the University of California. In my capacity as Director of the Office of Environment, Health & Safety, I assist the campus (and therefore, the Regents) in their compliance with applicable requirements. For this site, I will work with Gordon Rausser, Dean of the College of Natural Resources, and your representative, Pam Evans, to ensure that proper corrective action is completed.

If you need further information, please contact Karl Hans (643-9574) or Anna Moore (643-9518).

Sincerely,

Susan L. Spencer
Director

SLS:tn
Enclosure

cc: Pam Evans, Alameda County Environmental Health Services
Eva Chu, Inspector, Alameda County Environmental Health Services
Steve Schwartz, IT Corporation

Ron Kiriaze, Associate Director, Utilities & Central Services, Physical Plant-Campus Services
Horace Mitchell, Ph.D., Vice Chancellor—Business and Administrative Services
Gordon Rausser, Dean, College of Natural Resources

Karl Hans, EH&S
Anna Moore, EH&S

11/5/97 pc

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Horace Mitchell, Ph.D., Vice Chancellor—Business and Administrative Services
Gordon Rausser, Dean, College of Natural Resources

Karl Hans, EH&S
Anna Moore, EH&S

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1.0 Introduction

IT Corporation (IT) has prepared this report documenting the action steps taken to clean, remove and dispose of one, 500-gallon diesel underground storage tank (UST) and one, 500-gallon gasoline UST from the University of California, Berkeley (UC Berkeley), Gill Tract Research Facility, Albany, California (Figures 1). Supporting data and field activities involved with the tank removal procedures at this site are detailed in this document.

This report also documents the soil and ground water sampling activities completed at the project site to determine the extent of residual hydrocarbons present in the stockpiled soils and the floor and sidewalls of the UST excavations.

1.1 Site Background and History

The Gill Tract Research facility (the site) is located adjacent to the southwest corner of the intersection of Marin and San Pablo Avenue in Albany, California. The tanks were located directly east and adjacent to the Maintenance Building (Figure 2). During conversations with UC Berkeley personnel, it is unclear as to exactly when the USTs were installed on site. However, on-site staff postulated that the tanks were probably installed during the mid 1940's or early 1950's.

1.2 Permits

The permit required to remove the UST from the project site was procured on 4 August 1997 (APPENDIX A). The permit was issued by Ms. Eva Chu, a Hazmat Specialist with the Alameda County Health Agency, Division of Environmental Protection, Department of Environmental Health.

The UC Berkeley Fire Marshal (Fire Prevention Division) and City of Albany Fire Department were notified of the tank removal activities. A representative from each department was present during the actual removal process. No official permit was issued.

1.3 Scope of Work

The following scope of work was completed from 1 August through 15 September 1997:

1) Permits were obtained from the County of Alameda.

2) A site specific Work Plan and Health & Safety Plan was prepared to document all work procedures, proposed laboratory analysis, emergency procedures, and health and safety protocol.

3) All on-site utilities were located and marked by Subtronics, Inc. a licensed underground utility locator from Concord, California.

4) The tank piping and associated pumps were disconnected.

5) A total of 100 gallons of residual product and tank rinsate was pumped into two 55-gallon drums. The drums were transported under California Uniform Hazardous Waste #96833643 to Rollins, a State permitted facility in Los Angeles, California for disposal.

6) The tanks were unearthed, rendered inert and transported under a Uniform Hazardous Waste Manifest to Erickson Inc., a State Certified disposal/recycle facility in Richmond, California.

7) Confirmatory soil samples were obtained for laboratory analysis from the floor of the diesel tank excavation and the associated stockpile.

8) Confirmatory soil samples were obtained for laboratory analysis from the floor and side walls of the gasoline tank excavation and the associated stockpile.

9) A ground water sample was obtained from the floor of the gasoline UST pit and submitted for laboratory analysis.

10) Excavation soils were stockpiled and protected with visqueen pending receipt of the results of the confirmation sampling.

11) Tank piping was cut and capped at the excavation limit.

12) Following receipt of the laboratory analytical data, all of the excavated soils associated with the diesel tank were placed back in to the tank pit. The floor of the gasoline tank excavation was over-excavated approximately two feet (ft).

13) Approximately 40 tons of soils obtained from the gasoline tank excavation were profiled, loaded and transported under a Non-Hazardous Bill of Lading to TPS Technologies Soil Recycling, a State licensed recycle facility located in Richmond, California.

14) The excavations were backfilled in six-inch lifts, compacted to 95% or better (verified by soil density tests), with clean imported Class II Aggregate Base and refinished with a four-inch thick asphalt surface and sealant material.

2.0 Field Investigative Procedures

The following sections detail the field procedures that were initiated to remove and dispose of the USTs and sample the tank excavations and associated stockpiles.

2.1 Tank Removal

Prior to initiating the site activities, a utility survey was completed by Subtronic, Inc. a State licensed utility surveyor located in Concord, California. A steam line location was verified and various storm water pipe locations were marked that enter a storm water collection sump adjacent to the gasoline tank. A clay drainage pipe was located directly over the gasoline tank.

IT excavation activities began on 13 August 1997, with the disconnection of the associated tank pumps, vent and product lines. The three-inch clay pipe/French-drain storm water drainage system was dismantled. The tank contents were pumped out of each UST into DOT approved 55-gallon drums for appropriate disposal by UC Berkeley personnel. The tanks were unearthed and the soils associated with each tank were independently placed on visqueen and kept separate pending receipt of the confirmatory laboratory analysis.

On 15 August 1997, IT personnel removed a single walled, steel 500-gallon diesel and a single walled, steel 500-gallon gasoline UST from the project site. Each tank was rendered inert, inspected by IT and UC Berkeley personnel, Alameda County and the City of Albany Fire Department officials, and transported under State of California Uniform Hazardous Waste Manifest #96836283 to Erickson Environmental, Inc. a State certified tank recycling facility in Richmond, California (APPENDIX B). Each tank was inerted with approximately 50 pounds of dry ice (solid carbon dioxide). Prior to removal, the lower explosive limit (LEL) associated with the diesel and gasoline tank was verified to be 3% and 2%, respectively. In each tank, the oxygen content stabilized at approximately 1%.

Following the removal from the excavation, each UST was visually inspected by Ms. Eva Chu, a Hazmat Specialist with the Alameda County Health Agency, Division of Environmental Protection, Department of Environmental Health, Ms. Anna Moore with the

UC Berkeley Office of Environment, Health & Safety, and IT personnel. The UST was scraped with a blade shovel to remove soil that had adhered to the walls and tank bottom. This permitted on-site personnel to properly inspect the tank integrity. It was noted that the gasoline tank contained a hole approximately two-inches in diameter adjacent to the vent pipe and numerous holes up to one-inch in diameter on the product line. The diesel tank did not contain any visible holes, cracks, or corrosion on its sides, bottom or top.

Selected photographs of the tank removal activities are shown in APPENDIX C.

2.2 Gasoline Tank Excavation

The gasoline UST had visibly impacted the surrounding soils with residual hydrocarbons. The floor was excavated approximately two to three ft past the original tank bottom grade to a depth of approximately nine ft. Soil sample analysis confirmed that residual levels of hydrocarbons remained in the excavation. There was some residual material visible on the western sidewall at approximately eight to nine ft below ground surface (bgs). As a result of the location of the material with respect to the adjacent structure, IT Personnel were not able to removed this material from the excavation.

IT returned to the site on 20 August 1997, to further over-excavate the floor of the tank pit. As a result of out-of-season storm activity and the removal of the French drain, the excavation was filled with storm water. Universal Engineering was contracted to pump the storm water from the excavation and transport the material for recycle to Seaport Petroleum Corporation, a State certified recycling facility in Redwood City, California. Approximately 1,600 gallons of water was removed from the excavation. Following removal of the storm water, IT over-excavated the floor surface to approximately 11.5 ft bgs. Ground water was encountered in the excavation at approximately 11 feet bgs. The final excavation dimensions were approximately 12 ft long by 6 ft 7-inches wide x 11.5 ft deep. Side wall soil samples were obtained from the northeast and southwest corners of the tank excavation at a depth of approximately 10 ft.

Following receipt of the laboratory analysis on the confirmatory sidewall samples, permission was granted from the Alameda County Health Department to backfill and restore the site. Approximately 20 tons of drain rock was placed in the excavation to one ft above the ground water elevation. Imported Caltrans specification Class II Aggregate Base was immediately

placed back in to the excavation. Soils were compacted to 95% in six-inch lifts and re-surfaced with a layer of four-inch asphalt and sealant material. BSK, a soils engineering firm located in Pleasanton, California was utilized to verify the compaction on the excavation. A copy of the soil density report is included as APPENDIX D.

2.3 Diesel Tank Excavation

The diesel tank excavation was completed without incident on 13 August 1997. The tank integrity did not appear to have been compromised. However, a faint hydrocarbon odor was associated with the excavated soils. Upon receipt of confirmatory laboratory analysis on soil samples obtained from the excavation floor and stockpile samples, Ms. Chu did not require further over-excavation and gave permission to backfill the excavation with the excavated soils. The final excavation dimensions were approximately 11 ft long x 6 ft wide x 8.5 ft deep. Approximately 8 tons of clean, imported backfill was added to the excavation. Soils were compacted to 95% in six-inch lifts and re-surfaced with a layer of four-inch asphalt and sealant material.

Copies of the compaction testing are included as APPENDIX D.

2.4 Sampling Rationale and Procedures

Initially, one confirmatory tank floor soil sample was obtained from the floor of each tank excavation (Figure 2). One sample was obtained beneath the product line of the diesel tank. One soil sample was obtained from beneath the vent line and hole associated with the gasoline tank. One, four-point composite sample was obtained from each stockpile. All sampling activities were performed under the supervision and direction of Ms. Chu.

Based on the results of the laboratory analysis associated with the gasoline tank, IT was instructed by Ms. Chu to over-excavate the bottom of the excavation. The bottom of the excavation was encountered at 11.5 ft, approximately six-inches below the static ground water level. In order to help define the lateral extent of the hydrocarbon migration, a soil sample was obtained from the northeast and southwest side wall approximately one ft above the static water level.

Based on the visual condition of the excavation and laboratory analysis associated with the diesel tank pit, no further soil sampling or over-excavation work was required.

The site activities generated two, ten cubic yard stockpiles immediately adjacent to the excavation. IT personnel obtained two, four-point composite soil samples from the stockpiles and submitted them for laboratory analysis. Following receipt of the composite sample obtained from the diesel tank stockpile, Ms. Chu requested that an additional discrete soil sample be obtained from the diesel tank to verify its acceptability to be placed back into the excavation.

Soil samples for chemical analysis were collected from the floor of the tank excavation in thin-walled brass tubes, six-inches long with an outside diameter of two-inches. The tubes were driven into undisturbed in the front area of the backhoe bucket. Stockpile soil samples were driven by hand, into undisturbed soil at four random points, six-inches below the exposed surface of the pile. The brass tube was immediately trimmed and capped with Teflon liners and plastic end caps. All of the samples were immediately labelled and placed into a cooler to cool the sample to a maximum temperature of four degrees Celsius for delivery, under chain of custody protocol, to McCampbell Analytical, Inc. a State certified laboratory in Martinez, California for analysis.

Utilizing a dedicated Teflon bailer, a discrete ground water sample was obtained from the gasoline excavation and decanted into two, 40 milliliter (ml) sample containers preserved with HCL. All sample bottles were supplied and prepared by the laboratory. Care was taken to ensure that there no head space was present in the sample containers. The samples were transported to McCampbell Analytical under the same procedures discussed above.

These procedures minimize the potential for volatilization of volatile organic compounds (VOCs) prior to chemical analysis.

2.5 Disposal

Based on the results of the laboratory analysis, approximately 40 tons of impacted soils associated with the gasoline tank were loaded and transported under a Non-Hazardous Waste Manifest to TPS Technologies Soil Recycling in Richmond, California.

Universal Engineering transported 1,600 gallons of rain water, collected in the gasoline excavation, to Seaport Petroleum Corporation, a recycling facility in Redwood City, California.

Tank contents and rinsate were collected in DOT approved 55-gallon drums and transported under California Uniform Hazardous Waste Manifest #96833643 to Rollins Environmental Services, a State permitted facility in Los Angeles, California. Disposal and transportation of this material was arranged by UC Berkeley personnel.

Copies of the Non-Hazardous Waste Manifest, Hazardous Waste Manifest and the Bill of Lading are included in APPENDIX B.

3.0 Laboratory Analytical Procedures

3.1 Soil Samples

One soil sample was obtained from the floor of the diesel tank excavation. A total of three soil samples were obtained from the gasoline excavation, one floor and two sidewall samples. One composite soil stockpile sample was obtained from each stockpile and an additional discrete sample was obtained from the diesel stockpile.

The samples associated with the diesel excavation and the stockpiles were analyzed for total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as gasoline (TPH-g), fuel components benzene, toluene, ethyl-benzene, and xylene (BTEX) by EPA method 5030/8020, and total lead by EPA Method 6010. All samples were analyzed for methyl tert-butyl ether (MTBE) by EPA Method 8020.

Samples obtained from the gasoline excavation and stockpile were sampled for TPH-g, BTEX, MTBE, and total lead.

3.2 Ground Water Samples

A ground water sample was obtained from the gasoline tank excavation. The sample was analyzed for TPH-g, TPH-d, and BTEX.

4.0 Laboratory Analytical Results

4.1 Tank Excavation Soil Samples

4.1.1 Diesel Soil Samples

The tank excavation soil sample obtained from the floor of the diesel tank excavation did not contain any analyzed chemical constituents above the method detection limits (MDLs). The diesel stockpile contained 240 mg/kg TPH-d, 8.1 milligrams per kilogram (mg/kg) TPH-g, 0.007 mg/kg ethylbenzene, 0.027 mg/kg xylenes and 9.6 mg/kg total lead. The discrete soil sample obtained from the stockpile contained 130 TPH-d, 8.7 TPH-g, 0.011 mg/kg ethylbenzene, and 0.048 mg/kg xylenes. Benzene and MTBE were not encountered above the MDL.

4.1.2 Gasoline Soil Samples

The initial soil sample obtained from the floor of the gasoline tank excavation contained 900 mg/kg TPH-g, 3.0 mg/kg benzene, 6.2 mg/kg ethylbenzene, and 9.7 mg/kg total lead. TPH-d or MTBE was not detected above the MDL. The southwest side wall sample contained 300 mg/kg TPH-g, 0.44 mg/kg benzene, 0.63 mg/kg toluene, 1.7 ethylbenzene, and 1.9 mg/kg xylene. The northeast sidewall sample contained 1.0 mg/kg TPH-g, 0.047 mg/kg benzene, 0.017 mg/kg toluene, 0.006 ethylbenzene, and 0.022 mg/kg xylene.

4.1.3 Ground Water Sample

The ground water sample obtained from the gasoline tank excavation contained 7,400 micro grams per kilogram (ug/kg) TPH-g, 760 ug/kg TPH-d, 1,200 ug/kg benzene, 260 ug/kg toluene, 130 ug/kg ethylbenzene, and 370 ug/kg xylenes.

Results of all of the laboratory analytical data are included in Table 1. Laboratory analytical reports and chain of custody documentation are contained in APPENDIX E.

5.0 Conclusion and Recommendations

5.1 Conclusion

On the basis of the visual condition of the diesel tank excavation, laboratory analysis of the excavation floor and stockpile soil samples, it appears that the tank has not significantly impacted the surrounding environment. The soil stockpiles did contain concentrations of residual hydrocarbons that may be attributed to tank overspill and pump or line seal leaks.

Site observations and analytical data confirmed that the gasoline tank appeared to have impacted the immediate area of the excavation. Following over-excavation activities, the northwest side wall soil sample confirmed that only 1 ppm TPH-g and 0.047 ppm benzene were present in this area of the excavation. The southwest side wall sample contained elevated residual TPH-g and benzene at 300 ppm and 0.44 ppm, respectively.

5.2 Recommendations

As a result of the excavation floor soil sample results associated with the southwest area of the gasoline tank excavation, it is our understanding that the Alameda County will require additional subsurface investigation work to help determine the lateral extent or migration of the hydrocarbons. Based on the relatively clean condition of the diesel tank excavation, it would be prudent to focus the activities in the assumed down gradient direction towards the south southwest within ten feet of the gasoline tank excavation.

6.0 Disclaimer

The statements, opinions and conclusions contained in this report are based solely upon the services performed by IT Corporation (IT) as described in this report and the Scope of Work as established for the report by Client's budgetary and time constraints and the terms and conditions of the agreement with Client. In performing these services and preparing the report, IT relied upon the work and information provided by others, including public agencies, whose information is not guaranteed by IT Corporation.

In addition, Client has been advised and understands that the absence of contamination in one location does not necessarily preclude the finding of contamination in other locations that were not investigated in preparing this report.

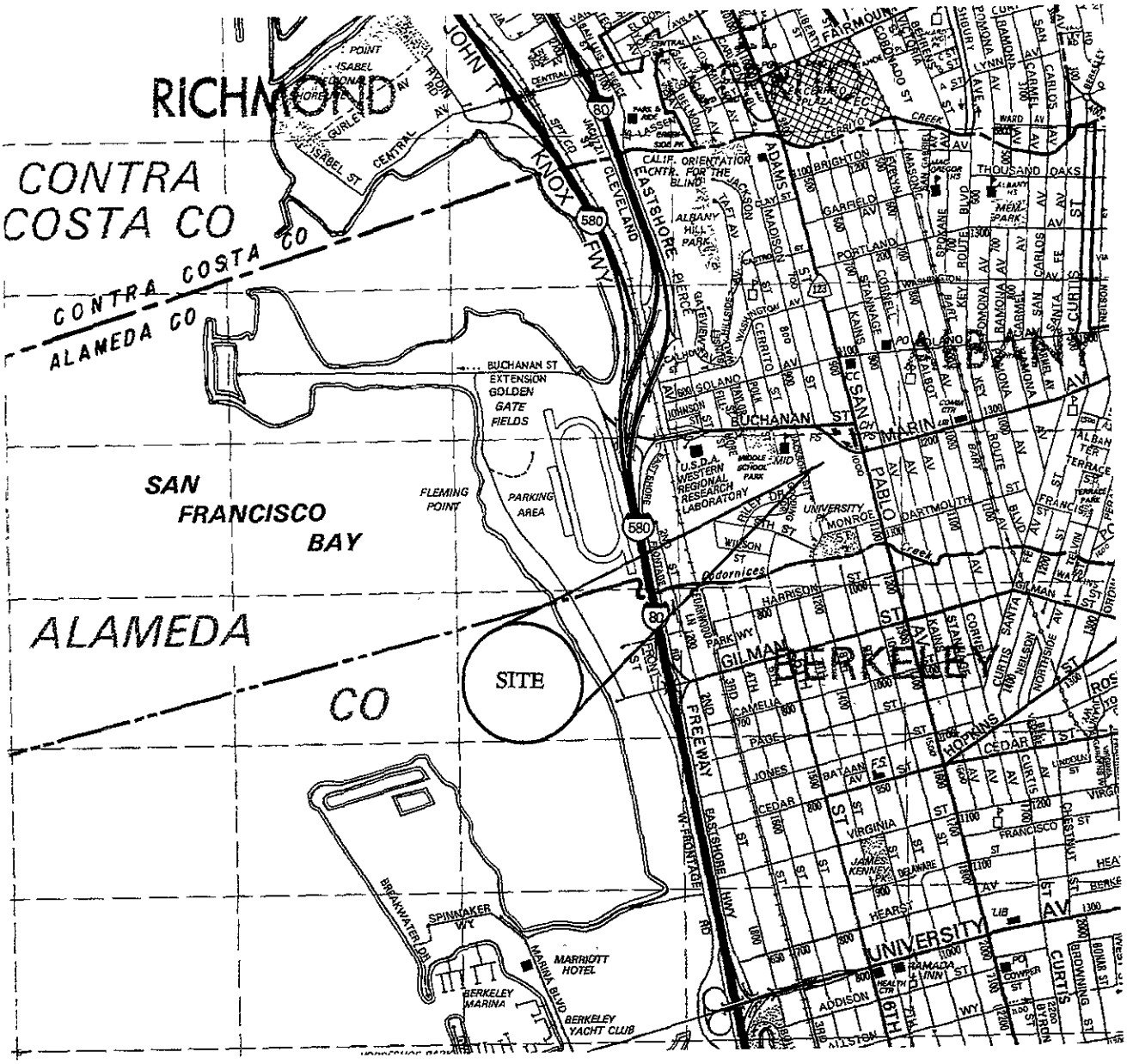
This report is intended for the Client's sole and exclusive use and not for the benefit of others and may not be used or relied upon by others. The findings of the report are limited to those specifically expressed in the report and no other representations or warranties are given by IT and no additional conclusions should be reached or representations relied on other that those expressly stated in the report and as limited by IT Terms and Conditions.

DRAWING NUMBER

CHECKED BY
APPROVED BY

DRAWN BY

NORTH ↑



SCALE OF MAP PAGES
1 INCH TO ¼ MILE

FIGURE 1
SITE LOCATION MAP

PREPARED FOR:

UC BERKELEY
GILL TRACT RESEARCH FACILITY

126076

IT . . Creating a Safer Tomorrow

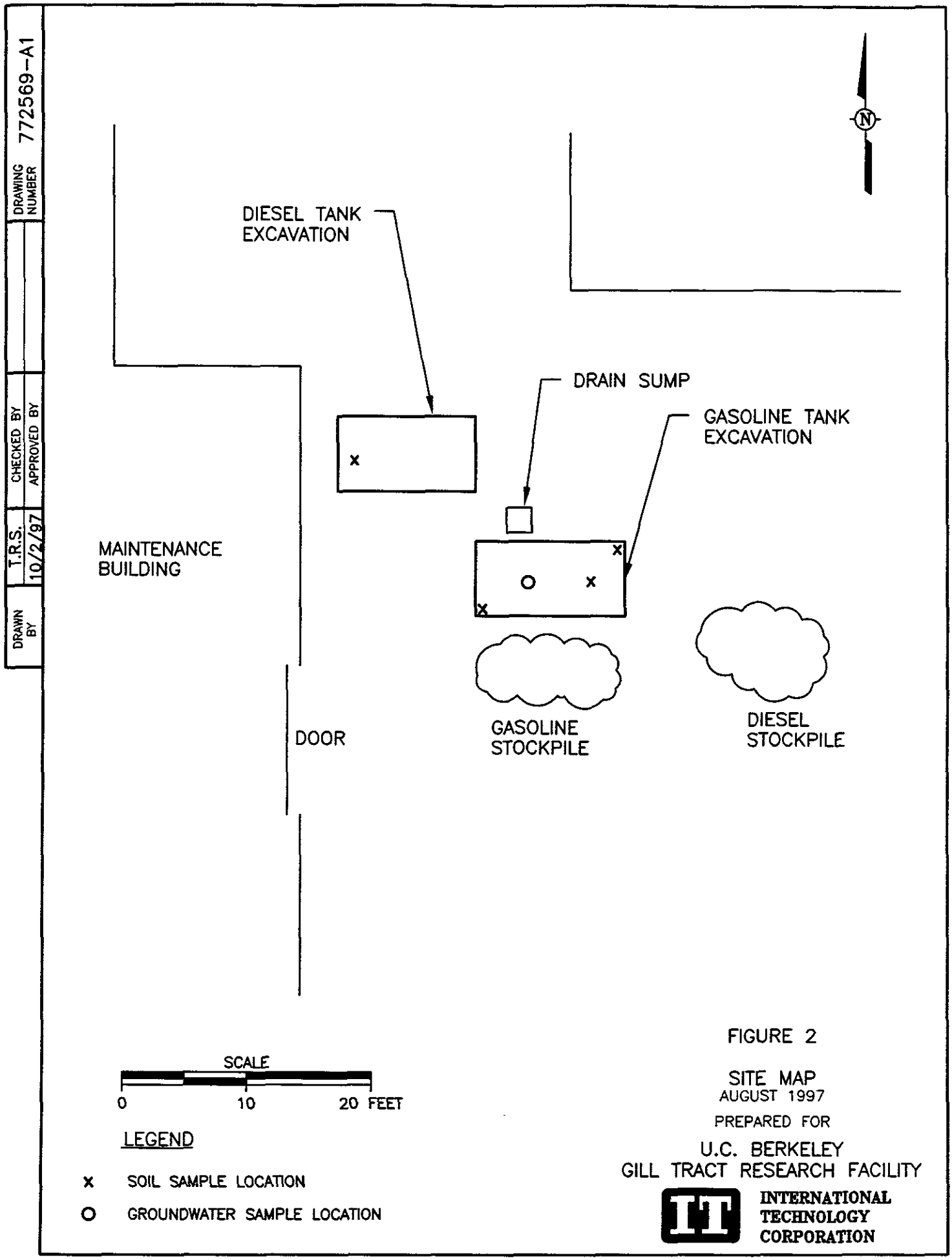


FIGURE 2

SITE MAP
AUGUST 1997

PREPARED FOR

U.C. BERKELEY
GILL TRACT RESEARCH FACILITY

INTERNATIONAL TECHNOLOGY CORPORATION

UCB-SITE(UCB1)

TABLE 1
CONFIRMATORY SAMPLING RESULTS
Gill Tract Research Facility
Albany, California
August, 1997

SAMPLE I.D.	TPH-g (mg/kg)	TPH-d (mg/kg)	Total Lead (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/Kg)
	Method 8015	Method 8015	Method 6010	Method 8020	Method 8020	Method 8020	Method 8020	Method 8020
Tank Floor Excavation Samples								
Diesel Floor	ND<1.0	ND<1.0	Not Analyzed	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Gasoline Floor	**900**	Not Analyzed	**9.7**	**3.0**	ND<0.05	**6.2**	**17**	ND<17
Gasoline Floor-SW	**300**	Not Analyzed	Not Analyzed	**0.44**	**0.63**	**1.7**	**1.9**	Not Analyzed
Gasoline Floor-NE	**1.0**	Not Analyzed	Not Analyzed	**0.047**	**0.017**	**0.006**	**0.022**	Not Analyzed
Soil Stockpile Samples								
Diesel Stockpile Composite 1	**8.1**	**230**	**9.6**	ND<1.0	ND<1.0	**0.007**	**0.027**	ND<1.0
Diesel Stockpile 2 Discrete	**8.7**	**130**	Not Analyzed	ND<1.0	ND<1.0	**0.011**	**0.048**	ND<1.0
Gasoline Stockpile Composite	**24**	Not Analyzed	**8.2**	**0.036**	**0.13**	**0.092**	**0.58**	ND<0.4

SAMPLE I.D.	TPH-g ug/L	TPH-d ug/L	Total Lead ug/L	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)
	Method 8015	Method 8015	Method 6010	Method 8020	Method 8020	Method 8020	Method 8020	Method 8020
Ground Water Sample								
Excavation Water Sample	**7,400**	**760**	Not Analyzed	**1,200**	**260**	**130**	**370**	Not Analyzed

ND<0.05 = Non-Detect. The chemical constituent is below the Method Detection Limit (MDL).

office copy

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

DEPARTMENT OF ENVIRONMENTAL HEALTH

ENVIRONMENTAL PROTECTION DIVISION

1131 HARBOR BAY PARKWAY, RM 250
ALAMEDA, CA 94502-6577
PHONE # 510/567-6700
FAX # 510/337-9335

Project Specialist [signature] 8/4/97
see changes / additions in red

ACCEPTED

Underground Storage Tank Closure Permit Application
Alameda County Division of Hazardous Materials
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for any construction/destruction.

One copy of the accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 72 hours prior to the following required inspections:

✓ Removal of Tank(s) and Piping
✓ Sampling
Final Inspection

Issuance of a) permit to operate, b) permanent site closure, is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

Contact Specialist:

97 JUL 30 AM 9:10
ENVIRONMENTAL PROTECTION

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Name of Business University of California, Berkeley
   Business Owner or Contact Person (PRINT) Ms Hari Krishna
2. Site Address Gill Tract Facility West of Intersection of Marin and San Pablo Aves
   City Albany Zip ______ Phone n/A
3. Mailing Address 2000 Carleton Street
   City Berkeley Zip 94720-1382 Phone 510-642-6416
4. Property Owner PPCS University California Regents
   Business Name (if applicable) PPC
   Address 2000 Carleton Street, Room 115
   City, State Berkeley, CA Zip 94720-1382
5. Generator name under which tank will be manifested
   University California, Berkeley
   EPA ID# under which tank will be manifested CA Q Ø Ø Ø 3 Ø 3 9 6 6

rev 4/6/95

6. Contractor Ecology Contra Industries

Address 4585 Pacheco Blvd

City Martinez, CA Phone 510-372-4418

License Type* General B, HAZ, Asbestos ID# 137422

*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires pr contractors to also hold Hazardous Waste Certification issued by the State Contract License Board.

7. Consultant (if applicable) Ecology Contra Industries

Address 4585 Pacheco Blvd

City, State Martinez, CA Phone 510-372-4418

8. Main Contact Person for Investigation (if applicable)

Name Ms. Anna Moore Title Haz. Materials Specialist

Company University California, Berkeley (EH&S)

Phone 510-643-9518

. Number of underground tanks being closed with this plan Two (2)

Length of piping being removed under this plan Less than 20 Feet

Total number of underground tanks at this facility (**confirmed wi owner or operator) 2

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground storage tanks must be handled as hazardous waste **

a) Product/Residual Sludge/Rinsate Transporter

Name Evergreen Environmental EPA I.D. No. CAD988287412

Hauler License No. 0242 License Exp. Date 7-1-97

Address 6880 Smith Avenue

City Newark State CA Zip 94560

b) Product/Residual Sludge/Rinsate Disposal Site

Name Evergreen Environmental EPA ID# CAD988287418

Address 6880 Smith Avenue

City Newark State CA Zip 94560

c) Tank and Piping Transporter

Name Erickson Inc EPA I.D. No. CAD009466

Hauler License No. 0019 License Exp. Date May 31 98

Address 255 Parr-Boulevard

City Richmond State CA Zip 94801

d) Tank and Piping Disposal Site

Name Erickson, Inc EPA I.D. No. CAD009466

Address 255 Parr Boulevard

City Richmond State CA Zip 94801

11. Sample Collector

Name Stephen Schwartz

Company Ecology Control Industries

Address 4585 Pacheco Blvd

City Martinez State CA Zip 94553 Phone 510-372-9

12. Laboratory

Name Chromalab

Address 1220 Quarry Lane

City Pleasanton State CA Zip 94566-47

State Certification No. 1094

13. Have tanks or pipes leaked in the past? Yes[ ] No[✓] Unknown[ ]

If yes, describe.

14. Describe methods to be used for rendering tank(s) inert:

30 Pounds of Dry Ice / 1000 gallons Tank volume

Before tanks are pumped out and inerted, all associated piping must b flushed out into the tanks. All accessible associated piping must the be removed. Inaccessible piping must be permanently plugged.

The Bay Area Air Quality Management District, 415/771-6000, along wit local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas indicato on-site to verify that the tank is inert.

15. Tank History and Sampling Information *** (see instructions) ***

Tank		Material to be sampled (tank contents, soil, groundwater)	Location and Depth of Samples
Capacity	Use History include date last used (estimated)		
500 gallon (Diesel)	Diesel (Stopped use in 1996)	Soil - (groundwater not Anticipated)	Beneath each Tan end to a maximum of 2 Feet below the tank
500 gallon (gasoline)	Unleaded/leaded Gas (Stopped use in 1996)	Soil (groundwater not anticipated)	Beneath each Tank end to a maximum of 2 Feet below the tank.

One soil sample must be collected for every 20 linear feet of piping that removed. A ground water sample must be collected if any ground water present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (estimated)	**Sampling Plan**
Less than 20 cubic yards 1 / 10 yards - 500 gallon Diesel - 2 / 10 yards - 500 gallon gasoline	1 - 4pt composite - Diesel, BTEX (MTBE) Total Lead 1 - 4pt composite - Gasoline, BTEX (MTBE) Total Lead

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

Will the excavated soil be returned to the excavation immediately after tank removal? [ ] yes [X] no [ ] unknown

If yes, explain reasoning _____

_____

If unknown at this point in time, please be aware that excavated soil m not be returned to the excavation without prior approval from Alame County. This means that the contractor, consultant, or responsible par must communicate with the Specialist IN ADVANCE of backfilli operations.

16. Chemical methods and associated detection limits to be used for analyzi samples:
The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed.
See attached Table 2.

17. Submit Site Health and Safety Plan (See Instructions)

Contaminant Sought	EPA or Other Sample Preparation Method Number	EPA or Other Analysis Method Number	Method Detection Limit
Diesel	EPA method 3550	EPA method 3510/8015	1ppm
BTEX (MTBE)		EPA method 8020	5ppb
Gasoline	EPA method 5030	EPA method 8015	1ppm
Total Lead	EPA method 3050	EPA method 6010	0.01ppm

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. Form designed for use on elite (12-pitch) typewriter

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A 0 0 0 0 3 0 3 9 6 6 | Manifest Document No. 3 3 6 4 3 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
University of California, Berkeley, Environment, Health & Safety, University Hall, 3rd floor, Berkeley, CA 94720

4. Generator's Phone (510) 643-8976 ATTN: Van

A. State Manifest Document Number 968 33643

B. State Generator's ID H W E R 0 3 5 H 0 0 8 8 5

C. State Transporter's ID

D. Transporter 1 Phone (510) 643-2073

E. State Transporter's ID

F. Transporter 2 Phone (408) 281-5000

G. State Facility's ID

H. Facility's Phone (213) 585-5000

5. Transporter 1 Company Name: University of California, Berkeley; EH&S
6. US EPA ID Number: C A D 9 8 0 5 8 4 6 9 2

7. Transporter 2 Company Name: Laidlaw Environmental Services
8. US EPA ID Number: C A D 0 0 0 0 8 3 1 2 1

9. Designated Facility Name and Site Address
Rollins OPC
5756 Alba Street
Los Angeles, CA 90058
10. US EPA ID Number: C A D 0 5 0 8 0 5 3 5 0

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. (RQ) Waste Flammable liquds, n.o.s., (Diesel and water), 3, UN1993, PG II, (D001)	001	DM	00055	G	State 214 EPA/Other D001
b. (RQ) WAste Flammable liquids, n.o.s., (gasoline and water), 3, UN1993, PG II, (D001)	001	DM	00055	G	State 214 EPA/Other D001/D018
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above See attached sheets.
11a) OP-329274-165, 4478, ERG#128.
11b) OP-329274-165, 4476, ERG#128

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE CONTACT: (24 hrs) Call ChemTrec, 1-800-424-9300.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark Van Valkenburgh — Signature: Mark Van Valkenburgh — Month 1 0 Day 1 7 Year 9 7

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Philip J. Kruse — Signature: for UC Berkeley — Month 1 0 Day 1 7 Year 9 7

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Donald Dearing — Signature: Donald Dearing — Month 1 0 Day 2 2 Year 9 7

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802 (WITHIN CA 800-550-8300)

DTSC 8022A (1/95) Blue GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 25401

CUSTOMER
I.T.CORPORATIO

JOB NO.
970858

FOR: ERICKSON, INC. TANK NO. 20793

LOCATION: RICHMOND DATE: 97/08/25 TIME: 14:49

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT D

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE TITLE INSPECTOR

CP599

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 2540

CUSTOMER
I.T.CORPORATIO

JOB NO.
970858

FOR: ERICKSON, INC. TANK NO. 20800

LOCATION: RICHMOND DATE: 97/08/25 TIME: 14:49

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT GAS

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Ramiro Cruz — REPRESENTATIVE

TITLE

Dave Sifo — INSPECTOR

CP599

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6. 970858

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA000030396 | Manifest Document No. 36293 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law. FILE

3. Generator's Name and Mailing Address
UC BERKELEY EH&S
317 UNIVERSITY HALL
BERKELEY, CA 94720-1150
ATTN: ART MAHONEY
4. Generator's Phone (510) 642-3073

5. Transporter 1 Company Name: ERICKSON, INC. | 6. US EPA ID Number: CAD009466392

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
ERICKSON, INC.
255 PARR BLVD.
RICHMOND, CA 94801
10. US EPA ID Number: CAD009466392

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-RCRA HAZARDOUS WASTE, SOLID (WASTE EMPTY STORAGE TANK)	002	T P	10000	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
KEEP AWAY FROM SOURCES OF IGNITION. ALWAYS WEAR HARDHATS WHEN WORKING AROUND UGST'S
E - OE job# 970858

EMERGENCY RESPONSE CONTACT
ART MAHONEY
EMERGENCY RESPONSE PHONE
510 642-3073

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
ANNA MOORE	Anna Moore	08	15	97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Fred F Okino	Fred F Okino	08	15	97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
DAVID SATO	DAVE SATO	08	15	97

FACILITY

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DTSC 8022A (1/95)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

Page 1 of 1

ERICKSON Tank Processing JOB #: 970858
TANK CERTIFICATION

**********PART 1 - To be completed by the Customer**********

CUSTOMER: ITCorporation GENERATOR: UC Berkeley State Waste Codes: 512

LOCATION: Martinez EPA I.D.#: CA0000303966 EPA Waste Codes: ☒ None ☐ See Attached

TRANSPORTER: Erickson MANIFEST #: 96836283

	TANK 1	TANK 2	TANK 5	TANK 6
TANK #:	20799	20780		
CAPACITY:	500	500		
DIAMETER	3'8"	3'6"		
LENGTH:	7'1/2"	6'9"		
STEEL/GLASS:	Steel	Steel		
LAST CONTAINED:	Diesel	Gasoline		

← TANK # S/B 20800

LG = Leaded Gas, UG = Unleaded Gas, D = Diesel, UO = Used Oil, FO = Fuel Oil
Specify the material Last Contained if other than above.

ERICKSON, INC. TANK PROCESSING FACILITY
LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Waste represented on this manifest is not generated by a chemical manufacturing plant, coke-by-product recovery plant of petroleum refinery. As such, it is not regulated under 40 CFR Part 61, Subpart FF (NESHAPS for Benzene Operations).

Pursuant to 40 CFR 268.7 I am notifying Erickson, Inc. that the material described by the above manifest is a nonwastewater, non-RCRA hazardous waste and not currently subject to EPA Land Disposal Restrictions.

Pursuant to CCR 22 66268.7 I am notifying Erickson, Inc. that the material described by the manifest is a metal containing Non-RCRA solid hazardous waste (66268.29(g)), and an organics containing Non-RCRA solid hazardous waste (66268.29 (k)). The treatment standards for these wastes have been repealed. This waste is no longer subject to land disposal restrictions.

I am an authorized agent/representative of the generator. I certify that all information submitted in this and associated documents is complete and accurate to the best of my knowledge. The tanks on the transport equipment have been numbered to correspond with the information provided above. In the event that the tanks do not correspond to the form, I will pay any and all costs incurred in verifying the discrepancy(ies) between the tank(s) and the form. In the event that the tank(s) contain excessive solids or liquids, I agree to pay the cost of preparation, transportation and disposal/recycling of the excess material according to the schedule of charges in effect at the time of receipt of the tank(s). Further, I will not hold Erickson, Inc. responsible for any damage to tanks which occurs when the tanks are removed from the ground.

AUTHORIZED REPRESENTATIVE

SIGNATURE: Anna Moore DATE: 8/15/97

PRINT NAME: ANNA MOORE TITLE: EH&S Specialist

For assistance in completing this form, please contact Karen Ruffin at (510) 970-7463.

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
8-20-97	Consultant	C87-C87B	A04	00172	001

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
UC Berkeley University Hall 3rd Floor Berkeley, CA 94720-1150 USA	(510) 643-8542	
	Person to Contact: Hank Field	
	FAX#: (510) 643-7595	Customer Account Number with TPS: 4UCBERK
Consultant's Name and Billing Address:	**Consultant's Phone #:**	
ITCorporation-Martinez 4585 Pacheco Blvd. Martinez, CA 94553 USA	(510) 372-9100	
	Person to Contact: Steve Schwartz	
	FAX#: (510) 228-2501	Customer Account Number with TPS: 1003129
Generation Site (Transport from): *(name & address)*	**Site Phone #:**	BTEX Levels
UC Berkeley-Gill Tract 1050 San Pablo Ave Albany, CA 94706 USA	(510) 642-6416	
	Person to Contact: Hari Krashma	TPH Levels
	FAX#:	AVG. Levels
Designated Facility (Transport to): *(name & address)*	**Facility Phone #:**	Facility Permit Numbers:
TPS TECHNOLOGIES INC. 20 Recycling Lane Richmond, CA 94801 USA	510-235-8778	
	Person to Contact: D. Murashima/C. Rice	
	FAX#: 510-231-4154	
Transporter Name and Mailing Address:	**Transporter's Phone #:**	Transporter's US EPA ID No.:
Cabarello Trucking 2530 Berryessa Road Suite 527 San Jose, CA 95132 USA	(408) 729-0196	
	Person to Contact: Tammy Cabarello	Transporter's DOT No.:
	FAX#: (408) 729-0322	Customer Account Number with TPS: 4CABARE

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			76200	32020	44,180
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					22.09

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ | Signature and date: Signature on File | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: JOHN M. GOODWIN | Signature and date: | Month: 08 | Day: 20 | Year: 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: CHERON L. RICE | Signature and date: | 8-20-97

TPS INVOICING COPY

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
8-22-97	Consultant	921	A04	00172	002

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
UC Berkeley University Hall 3rd Floor Berkeley, CA 94720-1150 USA	(510) 643-8542	
	Person to Contact: Hank Field	
	FAX#: (510) 643-7595	Customer Account Number with TPS: 4UCBERK

Consultant's Name and Billing Address:	Consultant's Phone #:	
ITCorporation-Martinez 4585 Pacheco Blvd. Martinez, CA 94553 USA	(510) 372-9100	
	Person to Contact: Steve Schwartz	
	FAX#: (510) 228-2501	Customer Account Number with TPS: 1003129

Generation Site (Transport from): *(name & address)*	Site Phone #:	BTEX Levels
UC Berkeley-Gill Tract 1050 San Pablo Ave Albany, CA 94706 USA	(510) 642-6416	
	Person to Contact: Hari Krashma	TPH Levels
	FAX#:	AVG. Levels

Designated Facility (Transport to): *(name & address)*	Facility Phone #:	Facility Permit Numbers:
TPS TECHNOLOGIES INC. 20 Recycling Lane Richmond, CA 94801 USA	510-235-8778	
	Person to Contact: D. Murashima/C. Rice	
	FAX#: 510-231-4154	

Transporter Name and Mailing Address:	Transporter's Phone #:	Transporter's US EPA ID No.:
Cabarello Trucking 2530 Berryessa Road Suite 527 San Jose, CA 95132 USA	(408) 729-0196	
	Person to Contact: Tammy Cabarello	Transporter's DOT No.:
	FAX#: (408) 729-0322	Customer Account Number with TPS: 4CABARE

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			43702	43320	19.38 .919
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☒	Signature and date:	Month	Day	Year
Steve Schwartz	For UC Berkeley	08	22	97

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year

Recycling Facility

Discrepancies: George Price

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
CHERON RICE	8-22-97

Please print or type

TPS INVOICING COPY

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Consultant	K2	A04	00172	004

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
UC Berkeley University Hall 3rd Floor Berkeley, CA 94720-1150 USA	(510) 643-8542	
	Person to Contact: Hank Field	
	FAX#: (510) 643-7595	Customer Account Number with TPS: 4UCBERK
Consultant's Name and Billing Address:	Consultant's Phone #:	
ITCorporation-Martinez 4585 Pacheco Blvd. Martinez, CA 94553 USA	(510) 372-9100	
	Person to Contact: Steve Schwartz	
	FAX#: (510) 228-2501	Customer Account Number with TPS: 1003129
Generation Site (Transport from): *(name & address)*	Site Phone #:	BTEX Levels
UC Berkeley-Gill Tract 1050 San Pablo Ave Albany, CA 94706 USA	(510) 642-6416	
	Person to Contact: Hari Krashma	TPH Levels
	FAX#:	AVG. Levels
Designated Facility (Transport to): *(name & address)*	Facility Phone #:	Facility Permit Numbers
TPS TECHNOLOGIES INC. 20 Recycling Lane Richmond, CA 94801 USA	510-235-8778	
	Person to Contact: D. Murashima/C. Rice	
	FAX#: 510-231-4154	
Transporter Name and Mailing Address:	Transporter's Phone #:	Transporter's US EPA ID No.:
Cabarello Trucking 2530 Berryessa Road Suite 527 San Jose, CA 95132 USA	(408) 729-0196	
	Person to Contact: Tammy Cabarello	Transporter's DOT No.:
	FAX#: (408) 729-0322	Customer Account Number with TPS: 4CABARE

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			40580	32060	8,26
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: ☐ Generator ☑ Consultant	Signature and date:	Month	Day	Year
Steve Schwartz	For UC Berkeley	08	22	97

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Tom Kincey		8	22	97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
C Rice	8-22-97

Please print or type.

TPS INVOICING COPY

HIS SHIPPING ORDER

must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent

Shipper's No. _____

arrier) UNIVERSAL ENVIRONMENTAL, INC. SCAC. _____ Carrier's No. 1528

erved, subject to the classifications and tariffs in effect on the date of this Bill of Lading:

BENICIA, CA, date 8/24/97 from _____

e property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said company (the word company being understood throughout this ontract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said estination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be ubject to all the conditions not prohibited by law, whether printed or written herein contained (as specified in Appendix B to Part 1035) which are hereby agreed to by the shipper and accepted for himself and his assigns.

(Mail or street address of consignee for purposes of notification only.)

O: _____

onsignee Seaport

treet _____

estination Redwood city Zip

oute: _____

FROM: UC Berkeley

Shipper _____

Street Gill tract.

Origin Berkley Zip

elivering Carrier _____

Trailer Initial/ Number 1105

SCAC Equipment Number

No. of Packages	HM	Description of articles, special marks, and exceptions	Hazard Class	I.D. Number	Packing Group	*Weight (subject to correction)	Class or rate	Labels required (or exemption)	Check column
		1600 gal. water from excavation							
		Have to pay							

emit C.O.D. to: _____

ddress: _____

ity: _____ State: _____ Zip: _____

COD AMT: $ _____

Charges Advanced $ _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

C. O. D. FEE: Prepaid ☐ Collect ☐ $

FREIGHT CHARGES ☐ Prepaid ☐ Collect

Shipment moves between two ports by a carrier by water the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight" where the rate is dependent on value shippers are required to state specifically in writing the agreed or declared value of the property reed or declared value of the property is hereby _____ per _____ aily stated by the shipper to be not exceeding _____

s to certify that the above-named materials are properly classified, described, packaged, marked and d and are in proper condition for transportation according to the applicable regulations of the Department ansportation

Per _____

PLACARDS REQUIRED none

PLACARDS SUPPLIED ☐ YES ☐ NO - FURNISHED BY CARRIER

DRIVER'S SIGNATURE:

HIPPER: _____

ER: _____ DATE: _____

CARRIER: UE

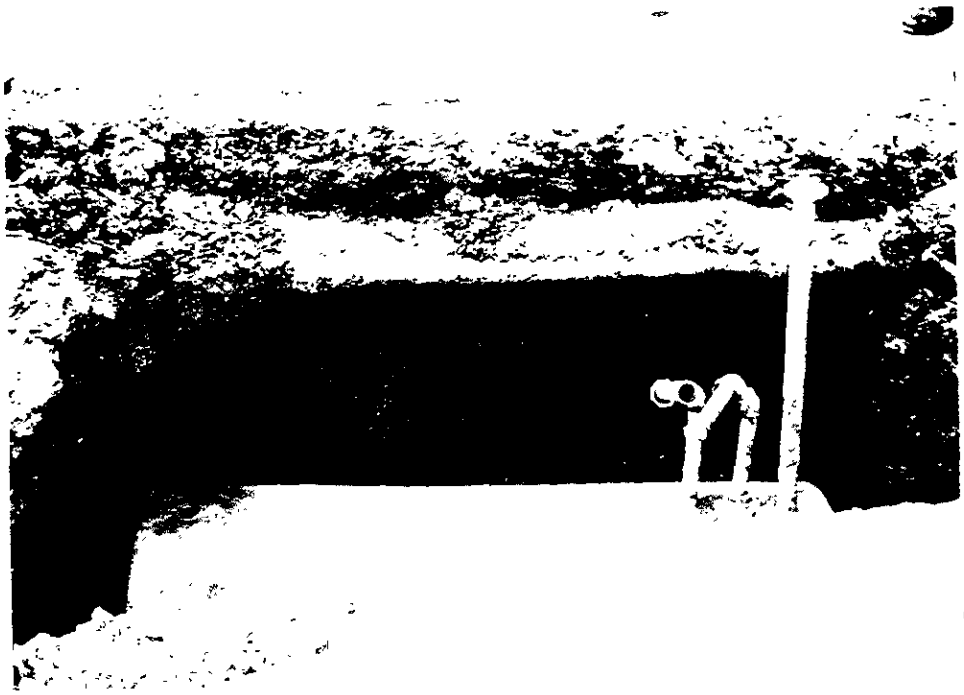
PER: _____ DATE: 8/24/97

EMERGENCY RESPONSE TELEPHONE NUMBER: ( ) _____

manent post office address of shipper

9-BLS-A4 (Rev. 7/95)

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.



Diesel Tank Looking North

Diesel Tank Looking
East.
Staining Due to Cleaning

Gasoline Tank Looking East
Note Product Line Hole

Gasoline Tank Looking West
Note Vent Line Hole

BSK
1181 Quarry Lane, Building 300
Pleasanton, CA 94566
(510) 462-4000 • FAX (510) 462-6283

August 29, 1997

BSK JOB NO. 04-20-0328

IT Corporation
4585 Pacheco Boulevard
Martinez, California 94553

Attention: Mr. Steve Schwartz

Subject: SUMMARY REPORT
Laboratory and Field Compaction Testing Services
Gill Tract Research
1050 San Pablo Boulevard
Albany, California
REPORT #1 (Period Covered: August 1997)

Gentlemen:

At your request and authorization, we have performed laboratory and field compaction testing services for the subject project.

Our activities were coordinated by Mr. Steve Schwartz who was apprised of the results at the time of testing.

Enclosed are summaries of our daily field activities and results of field compaction and laboratory tests performed during this reporting period.

Respectfully submitted,
BSK & Associates

Alex Y. Eskandari, P.E.
Project Manager
C.E. 38101

AYE:hhc (REPORTS\04200328.R#1)

Enclosures: Summary of Field Activities and Test Results
Terms and Limitations

Distribution: IT Corporation (2 copies)

NUCLEAR AND SAND CONE FIELD DENSITY TESTS RESULTS

SUMMARY OF FIELD ACTIVITIES

Test No.	Test Location	Depth Below Final Grade (Feet)	Field Moisture (Percent)	Maximum Dry Density (PC)	Field Compaction (Percent)	Required Compaction (Percent)
Excavation Backfill (Aggregate Base - Recycled)						
1	Near Building	0.0	7.7	126.0	99	-
2	8' from the Building	0.0	8.8	126.0	98	-

ACTIVITIES: Arrived on-site as scheduled and waited for IT personnel for almost an hour before performing tests, but no one came in.

Performed nuclear field density tests on the final lift of the excavation.

Obtained a bulk sample of aggregate base backfill and delivered it to our laboratory for a moisture/density curve determination.

SUMMARY OF LABORATORY TEST DATA

Test:	Moisture/Density Curve Determination
Method:	ASTM D 1557 (6" Mold)
Date Sampled:	August 26, 1997
Date Tested:	August 27, 1997
Sample Location:	Excavation Backfill
Material Description:	Aggregate Base (Recycled)
Maximum Dry Density:	126.0 p.c.f.
Optimum Moisture:	8..5 percent

TECHNICIAN: J. Go

WORK PERFORMED ON: Friday, 08/26/97

TIME: 4 Hours

BSK

SUMMARY REPORT
Laboratory and Field Compaction Testing Services
Gill Tract Research
1050 San Pablo Boulevard
Albany, California
REPORT #1 (Period Covered: August 1997)

BSK Job No. 04-20-0328
August 29, 1997
Enclosure 2

Terms and Limitations

Compaction test results reported herein provide an indication of the degree of compaction of materials for specific, prescribed locations but do not necessarily reflect the overall character of the prepared materials. Test results should be considered accurate only at the locations and depths indicated. All results are submitted to the project engineer and representing job inspector for their review and evaluation.

Interpretation of test results as to the adequacy of compacted materials remains solely the responsibility of the project engineer and no engineering evaluations, unless specifically stated, are provided herein as to the adequacy of compacted material.

Respectfully submitted,
BSK & Associates

BSK

McCAMPBELL ANALYTICAL INC.

110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley Gill Tract	Date Sampled: 08/15/97
		Date Received: 08/15/97
	Client Contact: Steve Schwartz	Date Extracted: 08/15/97
	Client P.O:	Date Analyzed: 08/15/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)[+]	MTBE	Benzene	Toluene	Ethylben -zene	Xylenes	% Recovery Surrogate
79804	Diesel Floor	S	ND	ND	ND	ND	ND	ND	99
79805	Gasoline Floor	S	900,b,j	ND<17	3 0	ND<0.05	6.2	17	111[#]
79806	Diesel Stkpile 2	S	8.7,g,j	ND	ND	ND	0.011	0.048	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0 5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram, sample peak coelutes with surrogate peak

[+]The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern

DHS Certification No. 1644

Edward Hamilton, Lab Director

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IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley Gill Tract	Date Sampled: 08/15/97
		Date Received: 08/15/97
	Client Contact: Steve Schwartz	Date Extracted: 08/15/97
	Client P.O:	Date Analyzed: 08/15/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
79804	Diesel Floor	S	ND	108
79806	Diesel Stockpile 2	S	130,a	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1 0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks. or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?), f) one to a few isolated peaks present; g) oil range compounds are significant, h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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		Date Received: 08/15/97
	Client Contact: Steve Schwartz	Date Extracted: 08/15/97
	Client P.O:	Date Analyzed: 08/15/97

Lead*

EPA analytical methods 6010/200.7, 239 2+

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
79805	Gasoline Floor	S	TTLC	9.7	100

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLC	3.0 mg/kg
	W	TTLC	0 005 mg/L
	---	STLC,TCLP	0.2 mg/L

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L

+Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

1) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

for Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/15/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75865)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.203	2.274	2.03	109	112	3.2
Benzene	0.000	0.200	0.194	0.2	100	97	3.0
Toluene	0.000	0.214	0.206	0.2	107	103	3.8
Ethylbenzene	0.000	0.218	0.216	0.2	109	108	0.9
Xylenes	0.000	0.638	0.642	0.6	106	107	0.6
TPH(diesel)	0	314	319	300	105	106	1.3
TRPH (oil and grease)	0.0	21.2	20.4	20.8	102	98	3.8

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR ICP and/or AA METALS

Date: 08/15/97 Matrix: Soil

Extraction: TTLC

Analyte	Concentration (mg/kg,mg/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Total Lead	0.0	4.93	4.65	5.0	99	93	6.0
Total Cadmium	0.0	5.32	5.20	5.0	106	104	2.4
Total Chromium	0.0	5.32	5.10	5.0	106	102	4.3
Total Nickel	0.0	4.90	4.76	5.0	98	95	2.9
Total Zinc	0.0	5.63	5.29	5.0	113	106	6.2
Total Copper	0.00	4.80	4.64	5.0	96	93	3.4
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 522599
Page 1 of ___

White: To accompany samples

Project Name/No.[1] UC Berkeley Gill Tract
Sample Team Members[2] Schwartz
Profit Center No.[3]
Project Manager[4] Schwartz
Purchase Order No.[6]
Required Report Date[11] 24 hour

Samples Shipment Date[7]
Lab Destination[8] McCampbell
Lab Contact[9]
Project Contact/Phone[12]
Carrier/Waybill No.[13]

Bill to:[5] IT Corporation
4585 Pacheco Blvd, Martinez CA 94553

Report to:[10] IT Corporation
J. Schwartz

ONE CONTAINER PER LINE

Sample Number[14]	Sample Description/Type[15]	Date/Time Collected[16]	Container Type[17]	Sample Volume[18]	Preservative[19]	Requested Testing Program[20]	Condition on Receipt[21]	Disposal Record No.[22]
Diesel Floor	Soil	8/15/97	Brass		Ice	TPH-D/BTEX	FOR LAB USE ONLY	79804
Gasoline Floor	↓	↓	↓		↓	TPH-g/BTEX/MTBE/Lead		79805
Diesel Stockpile 2	↓	↓	↓		↓	TPH-D/BTEX		79806

Special Instructions:[23]

Possible Hazard Identification:[24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:[25]
Return to Client ☐ Disposal by Lab ☒ Archive ____ (mos

Turnaround Time Required:[26]
Normal ☐ Rush ☒

QC Level:[27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by[28] (Signature/Affiliation)	Date: 8/15/97 Time: 13:30	1. Received by[28] (Signature/Affiliation) MAI	Date: 8-15-97 Time: 1330
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments:[29]
ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

	VOAS	O&G	METALS	OTHER
PRESERVATION APPROPRIATE				
CONTAINERS ✓				

MCA 3/15/91

McCAMPBELL ANALYTICAL INC.
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Telephone : 510-798-1620 Fax . 510-798-1622
http://www.mccampbell.com E-mail. main@mccampbell.com

IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley / Gill Tract	Date Sampled: 08/14/97
		Date Received: 08/14/97
	Client Contact: Steve Schwartz	Date Extracted: 08/14/97
	Client P.O:	Date Analyzed: 08/14/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)[+]	MTBE	Benzene	Toluene	Ethylben -zene	Xylenes	% Recovery Surrogate
79799	Stockpile Diesel	S	8.1,g,j	ND	ND	ND	0.007	0.027	102
79800	Stockpile Gas	S	24,b,j	ND<0.4	0 036	0 13	0.092	0.58	---[#]
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

[+]The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley / Gill Tract	Date Sampled: 08/14/97
		Date Received: 08/14/97
	Client Contact: Steve Schwartz	Date Extracted: 08/14/97
	Client P.O:	Date Analyzed: 08/14/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)^	% Recovery Surrogate
79799	Stockpile Diesel	S	230,a	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

^The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant, h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley / Gill Tract	Date Sampled: 08/14/97 Date Received: 08/14/97
	Client Contact: Steve Schwartz	Date Extracted: 08/14/97
	Client P.O:	Date Analyzed: 08/15/97

Lead*

EPA analytical methods 6010/200 7, 239.2+

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
79799	Stockpile Diesel	S	TTLC	9.6	99
79800	Stockpile Gas	S	TTLC	8.2	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	3.0 mg/kg	
		W	TTLC	0 005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L

+Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC), STLC - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/13/97-08/14/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75865)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.668	1.678	2.03	82	83	0.6
Benzene	0.000	0.166	0.170	0.2	83	85	2.4
Toluene	0.000	0.182	0.182	0.2	91	91	0.0
Ethylbenzene	0.000	0.172	0.174	0.2	86	87	1.2
Xylenes	0.000	0.532	0.540	0.6	89	90	1.5
TPH(diesel)	0	328	328	300	109	109	0.1
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR METALS

Date: 08/15/97 Matrix: Soil

Extraction: TTLC

Analyte	Concentration (mg/kg,mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD	Spiked	MS	MSD	
Arsenic	0.0	5.0	5.1	5.0	101	102	0.9
Selenium	0.0	4.9	4.9	5.0	99	98	1.0
Molybdenum	0.0	5.2	5.2	5.0	103	104	0.5
Silver	0.0	0.5	0.5	0.5	101	102	0.9
Thallium	0.0	4.8	4.7	5.0	96	95	0.7
Barium	0.0	4.4	4.3	5.0	88	87	1.0
Nickel	0.0	4.9	5.0	5.0	98	99	0.9
Chromium	0.0	5.1	5.1	5.0	101	102	0.4
Vanadium	0.0	4.8	4.8	5.0	95	96	0.7
Beryllium	0.0	5.4	5.4	5.0	108	108	0.5
Zinc	0.0	5.3	5.3	5.0	106	106	0.1
Copper	0.0	4.7	4.6	5.0	93	93	0.2
Antimony	0.0	4.9	4.8	5.0	97	97	0.4
Lead	0.0	4.7	4.8	5.0	95	95	0.5
Cadmium	0.0	5.1	5.1	5.0	102	101	0.5
Cobalt	0.0	5.0	5.0	5.0	99	99	0.2
Mercury	0.000	0.256	0.263	0.25	102	105	2.7

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

9495 xit410

Reference Document No. 522598
Page 1 of ___

Project Name/No. [1] UCBerkeley/all Tracks
Sample Team Members [2] Schwartz
Profit Center No. [3]
Project Manager [4] Schwartz
Purchase Order No. [6] (call Richard Sollero)
Required Report Date [11] * 24 hours *

Samples Shipment Date [7] 8/14/97
Lab Destination [8] McCampbell
Lab Contact [9] Ed Hamilton
Project Contact/Phone [12] Schwartz/3240
Carrier/Waybill No. [13]

Bill to: [5] IT Corporation
(S. Schwartz)
4585 Pacheco Blvd
Martinez, CA 94591

Report to: [10] As Above

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal [22]
Stockpile-Diesel	Soil	8/14/97	Brass		Ice	Diesel (g)/BTEX/Lead		
Stockpile-Gas	↓	↓	↓		↓	Gas/BTEX/MTBE		
						total Lead		

FOR LAB USE

ICE/T® ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

VOAS | O&G | METALS | OTHER

FOR LAB USE ONLY

Special Instructions: [23] Page me with Results! 510 988-5687

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive ____ (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☑

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation)	Date: 8/14/97 Time: 4:55	1. Received by [28] (Signature/Affiliation) Angela Rydelius	Date: 8/14/97 Time: 455pm
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

MCA 3/15/91

White: samples Yellow: Field copy *See back of form for special instructions.

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley- Gill Tract	Date Sampled: 08/20/97
		Date Received: 08/20/97
	Client Contact: Steve Schwartz	Date Extracted: 08/20/97
	Client P.O:	Date Analyzed: 08/20/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
79980	Excavation Water	W	7400,a	---	1200	260	130	370	96
79981	Gas Floor-Southwest	S	300,b,j	---	0.44	0.63	1.7	1.9	113#
79982	Gas Floor-Northeast	S	1.0,a	---	0.047	0.017	0.006	0.022	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant, b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?, e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

for Edward Hamilton, Lab Director

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IT Corporation 4585 Pacheco Blvd. Martinez, CA 94553	Client Project ID: UC Berkeley- Gill Tract	Date Sampled: 08/20/97
		Date Received: 08/20/97
	Client Contact: Steve Schwartz	Date Extracted: 08/20/97
	Client P.O:	Date Analyzed: 08/20/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
79980	Excavation Water	W	760,d	108
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1 0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern, c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/20/97 Matrix: Water

Analyte	Concentration (mg/L) Sample #(79884)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	100.2	102.0	100.0	100.2	102.0	1.8
Benzene	0.0	9.2	9.3	10.0	92.0	93.0	1.1
Toluene	0.0	10.5	10.5	10.0	105.0	105.0	0.0
Ethyl Benzene	0.0	11.1	11.2	10.0	111.0	112.0	0.9
Xylenes	0.0	33.7	34.0	30.0	112.3	113.3	0.9
TPH (diesel)	0	163	162	150	109	108	0.3
TRPH (oil & grease)	0	20.6	20.5	20.8	99	99	0.5

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/20/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75873)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.783	1.846	2.03	88	91	3.5
Benzene	0.000	0.182	0.188	0.2	91	94	3.2
Toluene	0.000	0.190	0.192	0.2	95	96	1.0
Ethylbenzene	0.000	0.188	0.190	0.2	94	95	1.1
Xylenes	0.000	0.576	0.586	0.6	96	98	1.7
TPH(diesel)	0	272	264	300	91	88	2.8
TRPH (oil and grease)	0.0	24.0	24.6	23.7	101	104	2.5

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 522600
Page 1 of ____

Project Name/No.[1] UC Berkeley - Gill Tract
Sample Team Members[2] Schwartz
Profit Center No.[3]
Project Manager[4] Schwartz
Purchase Order No.[6]
Required Report Date[11] 24-hour (soil only)

Samples Shipment Date[7] 8/20/97
Lab Destination[8] M°Campbell
Lab Contact[9] Ed Hamilton
Project Contact/Phone[12] Schwartz
Carrier/Waybill No.[13]

Bill to:[5] IT Corporation
4585 Pacheco Blvd
Martinez, CA
94553

Report to:[10] S. Schwartz

ONE CONTAINER PER LINE

Sample Number[14]	Sample Description/Type[15]	Date/Time Collected[16]	Container Type[17]	Sample Volume[18]	Pre-servative[19]	Requested Testing Program[20]	Condition on Receipt[21]	Disposal Record No.[22]
x2 Excavation Water	Water	8/20/97	2-40mL 1-Liter		HCL Ice	TPHd, gas, BTEX	79980	
Gas Floor-Southeast	* Soil	↓	Brass		Ice	TPHg/BTEX *	79981	
Gas Floor-Northeast	* ↓	↓	↓		↓	↓ *	79982	

FOR LAB USE ONLY

ICE® ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

VOAs | O&G | METALS | OTHER
PRESERVATION ✓
APPROPRIATE ✓
CONTAINERS ✓

Special Instructions:[23] *24 hour soil only* 5 Day - water

Possible Hazard Identification:[24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:[25]
Return to Client ☐ Disposal by Lab ☐ Archive ____ (mos.)

Turnaround Time Required:[26]
Normal ☐ Rush ☑ Rush on Soil

QC Level:[27]
I. ☐ II. ☐ III. ☐ Project Specific (specify): ____

1. Relinquished by[28] (Signature/Affiliation)	Date: 8/20/97 Time: 5:35	1. Received by[28] (Signature/Affiliation) Jenny Milenic MAI	Date: 8/20/97 Time: 535
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments:[29]

MCA 3/15/91

White: To accompany samples
Yellow: Field copy
*See special instructions.