Woodward-Clyde

Engineering & sciences applied to the earth & its environment

August 15, 1997
961276NA

Ms. Susan Hugo
Division of Environmental Protection
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Transmittal of Results of Additional Site Investigation at
City of Emeryville Fire Station No. 2 UST Site
Emeryville, California

Dear Ms. Hugo:

On behalf of the City of Emeryville Redevelopment Agency, transmitted herewith is the subject site additional investigation results for your review and approval. The investigation was performed in accordance with the Workplan (Woodward-Clyde, August 1996), which was submitted to and approved by the Alameda County Department of Environmental Health. Field work was conducted on March 24 through 26, 1997.

Please do not hesitate to call me at (510) 874-3060 or Mr. Ignacio Dayrit at (510) 596-4356 for questions or comments.

Sincerely,

Xinggang Tong, P.E., Ph.D.
Project Manager

cc: Kevin Graves, RWQCB
Ignacio Dayrit, City of Emeryville

Woodward-Clyde Consultants • A subsidiary of Woodward-Clyde Group, Inc.
500 12th Street, Suite 200 • Oakland, California 94607-4014
(510) 893-3600 • Fax (510) 874-3268

REPORT

RESULTS OF ADDITIONAL SITE INVESTIGATION AT CITY OF EMERYVILLE FIRE STATION NO. 2

Prepared for
City of Emeryville Redevelopment Agency
2200 Powell Street, 12th Floor
Emeryville, California 94608-4356

July 22, 1997

Woodward-Clyde

Woodward-Clyde Consultants
500 12th Street, Suite 200
Oakland, CA 94607
961276NA

Woodward-Clyde

Engineering & sciences applied to the earth & its environment

July 22, 1997
961276NA

Mr. Ignacio Dayrit
City of Emeryville Redevelopment Agency
2200 Powell Street, 12th Floor
Emeryville, California 94608-1806

Subject: Transmittal of Results for Additional Site Investigation at City of Emeryville Fire Station No. 2

Dear Mr. Dayrit:

Woodward-Clyde is pleased to present the results of additional site investigation at the City of Emeryville Fire Station No. 2. The investigation was requested by the Alameda County Department of Environmental Health (ACDEH) in a letter to the City dated May 29, 1996. The work was performed in accordance with the Workplan (Woodward-Clyde, August 1996), which was submitted to and approved by the ACDEH in a letter to the City dated October 8, 1996. Field work was conducted on March 24 through 26, 1997.

It is our pleasure to be of service to the City of Emeryville Redevelopment Agency on this important project. Please call the undersigned if you have questions or comments.

Sincerely,

WOODWARD-CLYDE INTERNATIONAL-AMERICAS

Xinggang Tong, Ph.D., P.E.
Project Manager
(510) 874-3060

Albert P. Ridley, C.E.G.
Senior Consulting Geologist
(510) 874-3125

Enclosures

Woodward-Clyde Consultants • A subsidiary of Woodward-Clyde Group, Inc.
500 12th Street, Suite 200 • Oakland, California 94607-4014
(510) 893-3600 • Fax (510) 874-3268

CERTIFICATION

RESULTS OF ADDITIONAL SITE INVESTIGATION AT
EMERYVILLE FIRE STATION NO. 2
6303 Hollis Street, Emeryville, California

July 22, 1997

This report has been prepared by the staff of Woodward-Clyde International-Americas and has been reviewed and approved by the professional whose signature appears below.

The findings, recommendations, specifications, or professional opinions are presented within the limits prescribed by the client and in accordance with generally accepted engineering practice in Northern California at the time this work plan was prepared. No other warranty is either expressed or implied.

WOODWARD-CLYDE INTERNATIONAL-AMERICAS

Xingg[illegible] P.E.
Proj[illegible]nager

REGISTERED PROFESSIONAL ENGINEER
XINGMING FONG
No. C 055202
Exp. 12/31/2000
CIVIL
STATE OF CALIFORNIA

Albert P. Ridley, C.E.G.
Senior Associate Geologist

CERTIFIED ENGINEERING GEOLOGIST
ALBERT PAUL RIDLEY
EXP 5.31.98
No. 926
State of California

REPORT

RESULTS OF ADDITIONAL SITE INVESTIGATION AT CITY OF EMERYVILLE FIRE STATION NO. 2

Prepared for
City of Emeryville Redevelopment Agency
2200 Powell Street, 12th Floor
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July 22, 1997

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500 12th Street, Suite 200
Oakland, CA 94607
961276NA

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This report describes the field activities conducted and the results obtained during additional soil and groundwater investigation at the City of Emeryville First Station No. 2, which is located at 6303 Hollis Street, Emeryville, California (the Site). The investigation was requested by the Alameda County Department of Environmental Health (ACDEH) in a letter to the City of Emeryville Redevelopment Agency dated May 29, 1996. Woodward-Clyde conducted the investigation on behalf of the Emeryville Redevelopment Agency in accordance with the Workplan (Woodward-Clyde, August 1996), which was submitted to and approved by the ACDEH in a letter to the Agency dated October 8, 1996. Field work was conducted on March 25 through 27, 1997.

1.1 SCOPE OF WORK

The activities conducted for this additional site investigation include the following tasks:

- Collection of grab samples of soil and groundwater at four locations west and south of the former tank area to characterize the extent of gasoline impact
- Installation of one groundwater monitoring well
- Preparation of this investigation report

1.2 SITE CONTACTS

The site is owned by the City of Emeryville. Woodward-Clyde is providing environmental consulting engineering services for the project to the Emeryville Redevelopment Agency. Table 1 presents the names and addresses of other important entities involved with the site investigation, including the regulatory agencies who will receive copies of reports and correspondence regarding this work effort.

1.3 SITE LOCATION

The City of Emeryville Fire Station No. 2 (site) is located at 6303 Hollis Street, in Emeryville. The site is located at the northwest corner of Hollis and 63rd Streets in Emeryville, as shown in Figure 1. The facility is located in a mixed use area with light commercial and residential structures in the area. Commercial buildings are located immediately north and west of the site. The site is located at an approximate elevation of 17 feet above mean sea level and about one-half mile east of San Francisco Bay.

1.4 SITE HISTORY

A drawing from the City files, prepared in 1949, shows the planned construction of the Fire Station on this site. It is believed that the Fire Station was constructed in about 1949, and has been in continuous use since that time. Two underground fuel storage tanks (UST) were installed on the site, as shown in Figure 2. The 1,000 gallon gasoline UST was a single wall steel tank that was reportedly replaced in 1989. The 1,000 gallon diesel UST was also a single wall steel tank, and was reportedly replaced in 1982. Actual replacement documents are not available. Both USTs were removed in October 1995.

2.1 INITIAL INVESTIGATIONS MARCH AND JULY 1995

Woodward-Clyde performed a preliminary investigation of the tank site area in March 1995 and presented the results in a report dated June 20, 1995. The detections of TPH gasoline and BTEX in soil appeared to occur mostly in the soil samples from approximately 5 feet in depth. Borings SB-1 through SB-5 were drilled at the site during the March 1995 investigation. The highest reported detection of gasoline in soil was 540 mg/kg in a soil sample from a depth of 5 feet in SB-1. The highest reported detection of benzene in soil was 0.63 mg/kg in a soil sample from a depth of 6 feet in SB-2. TPH diesel was not detected in soil from these borings.

The March 1995 investigation included grab groundwater samples collected from SB-1 and SB-3. Only 0.99 mg/L TPH gasoline was reported in groundwater from SB-1. Benzene was detected at 0.22 mg/L in water from SB-3, and 0.0061 mg/L in water from SB-1.

A further round of site investigation was conducted by Woodward-Clyde in July 1995 to better characterize the site and to prepare for tank removal. Borings SB-6 through SB-12 were selected to explore for evidence of petroleum in soil or groundwater at distances farther from the USTs. The July 1995 samples were not analyzed for diesel, because diesel was not detected in the March 1995 investigation. Like in March, the detections of TPH gasoline and BTEX in soil appeared to occur mostly in the soil samples from approximately 5 feet in depth. The highest reported concentration of TPH gasoline in soil was 480 mg/kg at 5.5 feet in SB-7. The highest reported concentration of benzene in soil was 1.2 mg/kg at 5.5 feet in SB-6.

The July 1995 investigation included grab groundwater samples collected from SB-6 through SB-12. The highest reported detection of TPH gasoline was 5.5 mg/L in groundwater from SB-7. The highest reported detection of benzene was 0.04 mg/L in groundwater from SB-12.

Sampling locations are shown on Figure 2, and analytical results are summarized in Tables 2 and 3.

2.2 UNDERGROUND TANK REMOVAL OCTOBER 1995

The two USTs and associated piping were removed in October 1995 (Woodward-Clyde 1996). The depth of both tank excavations was approximately 7.5 feet. Groundwater was encountered at an approximate depth of 7 feet.

Soil samples from the floor of each end of both UST excavations were collected after the tanks were removed. Although groundwater was encountered in the excavations, groundwater samples were not collected from the excavations because, in accordance with the workplan for this phase of work, groundwater samples had been collected in the previous site investigations.

TPH gasoline was detected at 380 mg/kg, and benzene was detected at 0.34 mg/kg from the east end of the gasoline UST excavation. TPH gasoline was detected up to 560 mg/kg in stockpile sample Stock-Gas-2, and benzene was detected in sample Stock-Gas-2 at 0.58 mg/kg. These samples were also analyzed for MTBE, with only one detection of MTBE at 0.28 mg/kg in the west end of the gasoline UST excavation.

TPH diesel was not detected in the diesel UST excavation samples or the stockpile sample. The diesel UST samples were not analyzed for parameters other than TPH diesel.

The soils from the two excavations were placed in two separate stockpiles. After sampling the stockpiles, the gasoline UST excavation was backfilled with soils from both tank excavations. The diesel UST excavation was backfilled with imported soil. Both excavation areas were paved with asphalt and concrete to match the surrounding grade.

3.1 DRILLING LOCATIONS

Groundwater monitoring well MW-1 was installed approximately 10 feet from the former gasoline UST location in the downgradient direction (Figure 2) on March 24, 1997. This well serves as the point to monitor shallow groundwater quality. Shallow groundwater gradient in the area has been established by the ACDEH in the westerly direction toward the Bay.

Borings SB-13 through SB-16 were drilled and sampled on March 25 and 26, 1997 at the locations shown on Figure 2. The borehole locations were selected, based on the ACDEH's request, to characterize the gasoline impact in the western and southern directions from the former tanks.

3.2 DRILLING AND SAMPLING PROCEDURES

Prior to drilling, a project-specific health and safety plan was prepared, which was followed during field work. All drilling locations were marked and Underground Services Alert were contacted on March 18, 1997. Cruz Brothers Locators of Milpitas, California, a private utility locator, was also retained to provide underground utility clearance in the drilling locations. A drilling permit was obtained from the Alameda County Zone 7 Water Agency before drilling began at the site.

Woodward-Clyde retained Gregg Drilling & Testing, Inc. of Martinez, California to drill SB-13 through SB-16 using its truck mounted Geoprobe rig. The rig was equipped with an 1.5-inch diameter continuous core sampler. A California-registered geologist from Woodward-Clyde supervised the drilling, logged borings, and collected samples for analyses. As the boring advances and sample liners are retrieved, the borings were logged by inspecting the soil not intended for laboratory testing. Boring logs are included in Appendix A. Soil samples from each boring were generally collected from 5 and 10 feet below ground surface (bgs). Six-inch long sample liners from the specified depth intervals were sealed with Teflon™ sheeting and plastic end caps, labeled, placed in a ice-cooled container, and transported to Intertek Testing Services of San Jose for chemical analyses under chain-of-custody. Samples were analyzed for TPH gasoline by EPA Method 8015 (modified), BTEX and MTBE by EPA Method 8020, and total lead by EPA Method 6010A.

A grab groundwater sample was collected from Boring SB-16 in the same day of drilling. However, groundwater samples could not be collected in the same day from the other three borings due to slow recharge, but were successfully collected the next day. Soil encountered during the drilling consisted primarily of silty clay, with limited sandy clay and clayey sand. Water levels measured the day after drilling were as follows: 6.6 feet bgs at SB-13, 5.3 feet bgs at SB-14, 12.7 feet bgs at SB-15, and 1.6 feet bgs at SB-16.

Groundwater samples were collected from each borehole by first inserting an one-inch diameter slotted PVC pipe into the borehole to allow groundwater accumulation within the pipe A groundwater sample was then collected by lowering a fresh disposable bailer into the temporary PVC casing. The sample was placed into clean sample bottles provided by the analytical laboratory, sealed, labeled and placed in ice-cooled container for transport to the laboratory. The four groundwater samples were analyzed for TPH gasoline, BTEX, and MTBE.

Once groundwater sampling was completed, the boreholes were backfilled with a bentonite-cement grout mixture. Soil cuttings and decon water were placed in 55-gallon drums, which were labeled with the information of source of generation, date, nature of contamination, and a contact person with phone number. The drums were later disposed of off-site under manifests by Americlean, Inc. of Walnut Creek, California.

For quality control purpose, a travel blank water sample accompanied the sample container in which the samples are stored during transportation from the laboratory to the site, and back to the laboratory. The travel blank was analyzed for TPH gasoline, BTEX and MTBE.

3.3 MONITORING WELL INSTALLATION

Gregg Drilling & Testing drilled the boring for monitoring well MW-1 under the observation of a Woodward-Clyde California-registered Geologist. The boring was drilled using a truck-mounted drilling rig equipped with 8-inch outside diameter hollow-stem augers. The borehole was advanced to 21 feet bgs. Soil samples were collected at 5-foot intervals by driving a stainless steel tube lined split-spoon sampler ahead of the auger into undisturbed soil. During collection, soil samples were screened using a hand-held organic vapor analyzer equipped with a photo ionization detector (PID). Lithologic descriptions and PID measurements were recorded in a boring log which is included in Appendix A.

Soil samples collected at 6, 11, and 16 feet bgs were sealed with Teflon™ sheeting and plastic end caps, labeled, placed in a ice-cooled container, and transported to Intertek Testing Services of San Jose for chemical analyses under chain-of-custody. Samples were analyzed for TPH gasoline by EPA Method 8015 (modified), BTEX and MTBE by EPA Method 8020, and total lead by EPA Method 6010A.

The soil boring was completed as a groundwater monitoring well. The well was constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) piping with flush-threaded ends. The procedure for well installation is as follows:

- Two-inch-diameter Schedule 40 PVC casing and 0.02-inch slot size PVC screen was installed through the hollow-stem auger. The bottom of the pipe was capped with a threaded end cap. The well was screened from 6 to 21 feet bgs.
- Lonestar #3 sand pack was placed by a tremie method as the augers were removed from the bottom of the well to 5 feet bgs. The sand pack thickness was measured continuously to ensure a solid pack with no bridging.
- Approximately two feet of bentonite pellets was placed on the top of the sand pack and hydrated with tap water to form a seal above the sand pack.
- Neat cement grout was placed from the top of the bentonite seal to the ground surface.
- The well was completed at grade, with a watertight locking well cap and a traffic-rated box.

The well was surveyed by PLS Surveys, Inc. of Oakland on July 11, 1997. The top of the well casing has an elevation of 17.02 mean sea level (MSL). The well has not yet been developed due to access difficulties. The well development and quarterly sampling will start as soon as the firehouse renovation construction is completed.

3.4 DECONTAMINATION PROCEDURES

Down-hole drilling equipment such as augers and well development equipment were decontaminated using a pressure steam cleaner with potable water before beginning drilling, between each drilling/sampling location, and before leaving the site. Split-spoon samplers, brass tube liners, oil-water interface probe/water level indicators and re-useable bailers were decontaminated before use by washing/scrubbing in an Alconox™ solution and rinsing with potable water followed by rinsing with deionized water. A decontamination pad was constructed to contain the runoff water from steam cleaning. The decontamination water was contained in 55-gallon drums and disposed of off-site by Americlean under manifests.

4.1 QA/QC REVIEW OF ANALYTICAL DATA

A review of field procedures and laboratory quality control data indicates the following:

- Chain-of-Custody was maintained throughout sampling and analysis
- All sample holding times were met for the analyses performed
- Matrix spike and matrix spike duplicates (MS/MSD), laboratory control spikes, and corresponding relative percent differences (RPD) for all analyses were within method-specific QC limits
- Surrogate spike recoveries for the TPHg, BTEX, and MTBE were within acceptable limits except for samples MW-1-6 and SB-16-5 that were diluted out due to relatively high sample concentrations
- No analytes were detected at or above laboratory reporting limits for the trip blank and laboratory method blanks

Overall, the data present acceptable quality.

4.2 SOIL RESULTS

Historical and current soil analytical results are summarized in Table 2. The current investigation results are also illustrated on Figure 2. Laboratory reports are included in Appendix B.

The detection of TPHg in the 6-foot bgs soil sample from boring MW-1, but not in the other two deeper samples are consistent with previous investigation results, i.e. the gasoline impact is limited to around the 5 feet depth. MW-1 is located midway between SB-1 and SB-8, and the TPHg concentrations at the 5 to 6 feet interval decreased 50% from SB-1 (540 mg/kg) to MW-1 (270 mg/kg) and another 55% from MW-1 to SB-8. This shows rapid decrease in TPHg concentrations in the downgradient direction.

TPHg and BTEX concentrations were all below laboratory reporting limits in soil samples collected from borings SB-13 through SB-15. MTBE was detected only in the 10'-deep sample from SB-13 at a concentration of 0.021 mg/kg, which is just slightly above the detection limit of 0.005 mg/kg. In a telephone discussion the laboratory indicated that MTBE usually has higher frequencies of fault positive identification at low concentrations as compared to BTEX under the current GC analytical protocol. The detection of MTBE in only one sample at this low concentration may be insignificant. Lead concentrations are also within normal background range. In summary, the gasoline impact in subsurface soil is limited to less than approximately 50 feet downgradient of the former gasoline underground storage tank.

However, boring SB-16, which is located upgradient near the intersection of Hollis Street and 63rd Street, showed a TPHg concentration of 45 mg/kg at 5 feet bgs. Boring SB-12, which is located about midway between the gasoline UST and SB-16, showed no TPHg detection in soil. The TPHg detected in SB-16 may therefore not result from the migration of the on-site source. Migration from potential upgradient off-site sources is suspected.

4.3 GROUNDWATER RESULTS

Historical and current groundwater analytical results are presented in Table 3. The current investigation results are also illustrated on Figure 2. Laboratory reports are included in Appendix B.

TPHg, BTEX, and MTBE concentrations were all below laboratory reporting limits in groundwater samples collected from borings SB-13 through SB-15. This is consistent with the soil data from the same boreholes. The results indicate that the gasoline impact to the shallow groundwater is limited to less than approximately 50 feet downgradient of the former gasoline underground storage tank.

The groundwater sample from the upgradient boring SB-16 showed the highest TPHg concentration (29 mg/L) among all groundwater samples analyzed since the Phase I investigation. The reported TPHg concentration in groundwater from SB-12, located nearer to the former gasoline UST, was only 0.97 mg/L. This indicates that TPHg detected in the SB-16 may not result from the migration of the on-site source, but may be from the migration of potential upgradient off-site sources.

4.4 CONCLUSIONS

Based on the results of this round and previous investigations, the following conclusions are made:

- Petroleum hydrocarbon impact on shallow groundwater and soil has been defined to non-detect levels in the downgradient direction. The impact is limited to less than approximately 50 feet downgradient of the former gasoline underground storage tank.
- MTBE was only detected in one soil sample at near detection level. MTBE may not be a chemical of concern for this site.
- Concentrations of total lead are within typical background levels in this area and it may not require further investigation.
- The furthest upgradient boring (SB-16) had the highest TPHg groundwater concentration. It indicates the existence of potential upgradient sources that may be migrating to this site.

This report has been prepared by the staff of Woodward-Clyde International-Americas solely for the use of the client. The scope of work was limited to the contract-specified scope of work as defined by the client.

The data, information, interpretations, conclusions, and recommendations contained in this report are presented solely as preliminary bases and guides to the existing environmental conditions of the site. The conclusions and professional opinions presented herein were developed by Woodward-Clyde within the limits prescribed by the client and in accordance with generally accepted engineering practice in Northern California at the time this investigation was performed. As with all environmental and geotechnical reports, the opinions expressed here are subject to revisions in light of new information which may be developed in the future, and no warranties are expressed or implied. Any reliance on this report by third parties shall be at such party's sole risk.

Soil deposits may vary in type, strength and many other important properties between points of observation and exploration. Additionally, changes can occur in groundwater and soil moisture conditions due to seasonal variations, or for other reasons. Furthermore, the distribution of chemical concentrations in the soil and groundwater can vary spatially and over time. The chemical analysis results, valid as of the time of collection, are based on data collected at the sampling locations only. Therefore, it must be recognized that Woodward-Clyde does not and cannot have complete knowledge of the subsurface conditions underlying the subject site. The opinions presented are based upon the findings at the points of exploration and upon interpretative data, including interpolation and extrapolation of information obtained at points of observation.

Regional Water Quality Control Board - North Coast, San Francisco Bay, and Central Valley Regions (RWQCB), August 1990. Tri-Regional Board Staff Recommendation for Preliminary Evaluation and Investigation of Underground Tank Sites. Appendix A - Reports, August 1991.

Woodward-Clyde Consultants, Workplan for Phase II Soil and Groundwater Investigation, City of Emeryville Fire Station No. 2, Emeryville, California, June 20, 1995

Woodward-Clyde Consultants, Preliminary Investigation and Evaluation Report, City of Emeryville Fire Station No. 2, Emeryville, California, August 25, 1995

Woodward-Clyde Consultants, Report on Removal of Two Underground Fuel Storage Tanks and Associated Piping, Emeryville Fire Station No. 2, Emeryville, California, January 8, 1996

Woodward-Clyde Consultants, Workplan for Additional Site Investigation at City of Emeryville Fire Station No. 2, August 7, 1996.

TABLE 1

LIST OF CONTACTS
CITY OF EMERYVILLE
FIRE STATION NO. 2
6303 Hollis Street
Emeryville, California

Facility Owner/Operator:

City of Emeryville
2200 Powell Street, 12th Floor
Emeryville, California 94608

Ignacio Dayrit
(510) 596-4356

Environmental Consultants to City of Emeryville:

Woodward-Clyde Consultants
500 12th Street, Suite 100
Oakland, California 94607

Xinggang Tong
(510) 874-3060

Lead Implementing Agency:

Alameda County Department of Environmental Health
Environmental Protection Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Susan Hugo
(510) 567-6780

Regional Water Quality Control Board:

Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Kevin Graves

TABLE 2
SOIL ANALYTICAL RESULTS
CITY OF EMERYVILLE
FIRE STATION No. 2

Sample No.	Date Sampled	Sampling Depth	TPH[a] Gasoline (mg/kg)	TPH[b] Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (ug/kg)	Total Lead (mg/kg)	Notes
SB-1-2'	3/15/95	2'-2.5'	2.4	NA	280	12	200	370	NA	NA	Phase I
SB-1-5'	3/15/95	5'-5.5'	540	NA	ND (1,000)	7,000	10,000	51,000	NA	NA	investigation
SB-1-10'	3/15/95	10'-10.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	
SB-2-6'	3/15/95	6'-6.5'	3.0	NA	630	5.7	ND (5.0)	15	NA	NA	Phase I
SB-2-10'	3/15/95	10'-10.5'	ND (1.0)	NA	110	ND (5.0)	9.7	6.1	NA	NA	investigation
SB-3-6'	3/15/95	6'-6.5'	NA	ND (1.0)	420	11,000	5,500	27,000	NA	NA	Phase I
SB-3-10'	3/15/95	10'-10.5'	NA	ND (1.0)	47	81	60	80	NA	NA	investigation
SB-4-6'	3/15/95	6'-6.5'	NA	ND (1.0)	ND (50)	54	1,100	3,300	NA	NA	Phase I
SB-4-11'	3/15/95	11'-11.5'	NA	ND (1.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
SB-5-5.5'	3/15/95	5.5'-6'	NA	ND (1.0)	240	170	2,300	8,200	NA	NA	Phase I
SB-5-10'	3/15/95	10'-10.5'	NA	ND (1.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
SB-6-5.5	6/17/95	5.5'-6'	440	NA	1,200	4,900	8,600	47,000	NA	NA	Phase II
SB-6-11	6/17/95	11'-11.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
SB-7-5.5	6/17/95	5.5'-6'	480	NA	690	760	7,500	28,000	NA	NA	Phase II
SB-7-11	6/17/95	11'-11.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
SB-8-5.5	6/17/95	5.5'-6'	120	NA	190	230	1,500	3,500	NA	NA	Phase II
SB-8-11	6/17/95	11'-11.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation

TABLE 2
SOIL ANALYTICAL RESULTS
CITY OF EMERYVILLE
FIRE STATION No. 2

Sample No.	Date Sampled	Sampling Depth	TPH[a] Gasoline (mg/kg)	TPH[b] Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (ug/kg)	Total Lead (mg/kg)	Notes
SB-9-5.5	6/17/95	5.5'-6'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	Phase II
SB-9-13	6/17/95	13'-13.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
SB-10-11.5	6/17/95	11.5'-12'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	Phase II investigation
SB-11-5.5	6/17/95	5.5'-6'	170	NA	1,200	5,300	3,300	17,000	NA	NA	Phase II
SB-11-11	6/17/95	11'-11.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	5.7	26	NA	NA	investigation
SB-12-5.5	6/17/95	5.5'-6'	ND (1.0)	NA	8.3	15	ND (5.0)	24	NA	NA	Phase II
SB-12-11.5	6/17/95	11.5'-12'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	NA	investigation
GE-1-7	10/12/95	7'-7.5'	380	NA	340	4	8,700	42,000	ND (3900)	NA	Tank
GW-1-7	10/12/95	7'-7.5'	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	280	NA	removal
Stock-Gas-1	10/12/95		140	NA	ND (100)	220	1,600	6,600	ND (370)	NA	Tank
Stock-Gas-2	10/12/95		560	NA	580	1,800	12,000	56,000	ND (1300)	NA	removal
Stock-Diesel-1	10/12/95		NA	ND (1.0)	NA	NA	NA	NA	NA	NA	
DN-1-7.5	10/12/95	7.5'-8'	NA	ND (1.0)	NA	NA	NA	NA	NA	NA	Tank
DS-1-7.5	10/12/95	7.5'-8'	NA	ND (1.0)	NA	NA	NA	NA	NA	NA	removal
SB-13-5	3/25/97	5'-5.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	Current
SB-13-10	3/25/97	10'-10.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	21	2	investigation
SB-14-5	3/25/97	5'-5.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	Current
SB-14-10	3/25/97	10'-10.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	4	investigation

TABLE 2
SOIL ANALYTICAL RESULTS
CITY OF EMERYVILLE
FIRE STATION No. 2

Sample No.	Date Sampled	Sampling Depth	TPH[a] Gasoline (mg/kg)	TPH[b] Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (ug/kg)	Total Lead (mg/kg)	Notes
SB-15-5	3/25/97	5'-5.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	NA	Current
SB-15-10	3/25/97	10'-10.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	7	investigation
SB-16-5	3/25/97	5'-5.5'	45	NA	ND (50)	60	260	1,200	ND (50)	NA	Current
SB-16-12	3/25/97	12'-12.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	7	investigation
MW-1-6	3/24/97	6'-6.5'	270	NA	ND (500)	1,300	4,200	21,000	ND (500)	8.2	Current
MW-1-11	3/24/97	11'-11.5'	ND (0.5)	NA	ND (5.0)	7	9	38	ND (5.0)	3.5	investigation
MW-1-16	3/24/97	16'-16.5'	ND (0.5)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	5.4	

Notes: [a] Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.

[b] Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as diesel.

Benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.

NA - Not analyzed; ND - Not detected at or above the detection limit given in parentheses.

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
CITY OF EMERYVILLE
FIRE STATION No. 2

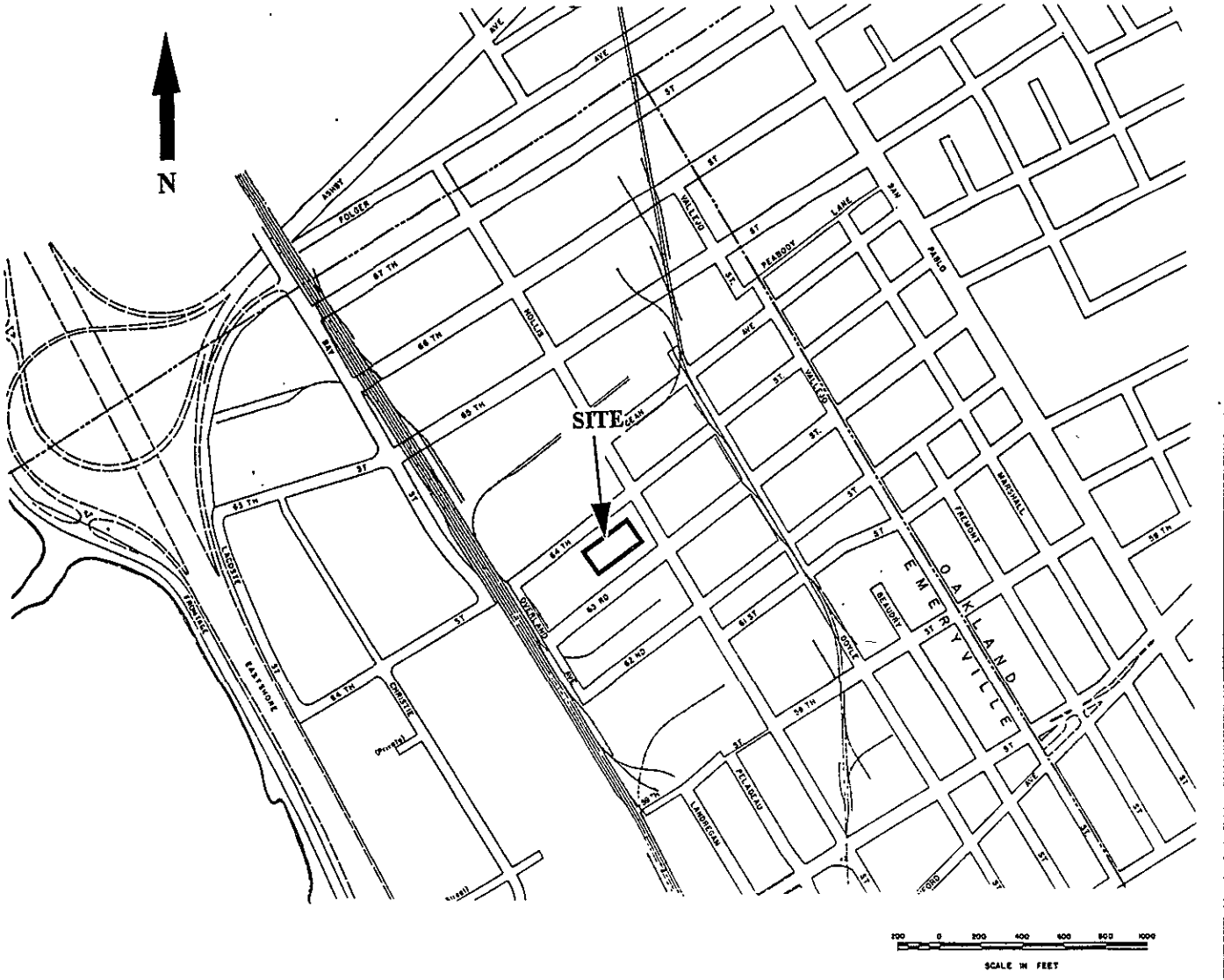
Sample No.	Date Sampled	TPH[a] Gasoline (mg/L)	TPH[b] Diesel (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (ug/L)	Total Lead (ug/L)	Notes
SB-3	3/15/95	NA	NA	220	3,800	2,500	14,000	NA	NA	Phase I
SB-1	3/15/95	0.99	NA	6.1	40	33	160	NA	NA	investigation
Trip Blank	3/15/95	NA	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	
SB-6-W	6/17/95	0.41	NA	24	27	27	110	NA	NA	Phase II
SB-7-W	6/17/95	5.50	NA	36	30	180	510	NA	NA	investigation
SB-8-W	6/17/95	0.46	NA	18	36	27	100	NA	NA	
SB-9-W	6/17/95	ND (0.05)	NA	ND (0.5)	ND (0.5)	0.7	3.7	NA	NA	Phase II
SB-10-W	6/17/95	ND (0.05)	NA	ND (0.5)	ND (0.5)	0.6	3.3	NA	NA	investigation
SB-11-W	6/17/95	0.23	NA	12	8.6	12	44	NA	NA	
SB-12-W	6/17/95	0.97	NA	40	130	38	170	NA	NA	Phase II
Trip Blank	6/17/95	ND (0.05)	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	investigation
SB-13-W	3/26/97	ND (0.05)	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	Current
SB-14-W	3/26/97	ND (0.05)	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	investigation
SB-15-W	3/26/97	ND (0.05)	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	
SB-16-W	3/26/97	29	NA	430	1,200	1,000	4,700	ND (500)	NA	Current
Trip Blank	3/26/97	ND (0.05)	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	investigation

Notes: [a] Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.

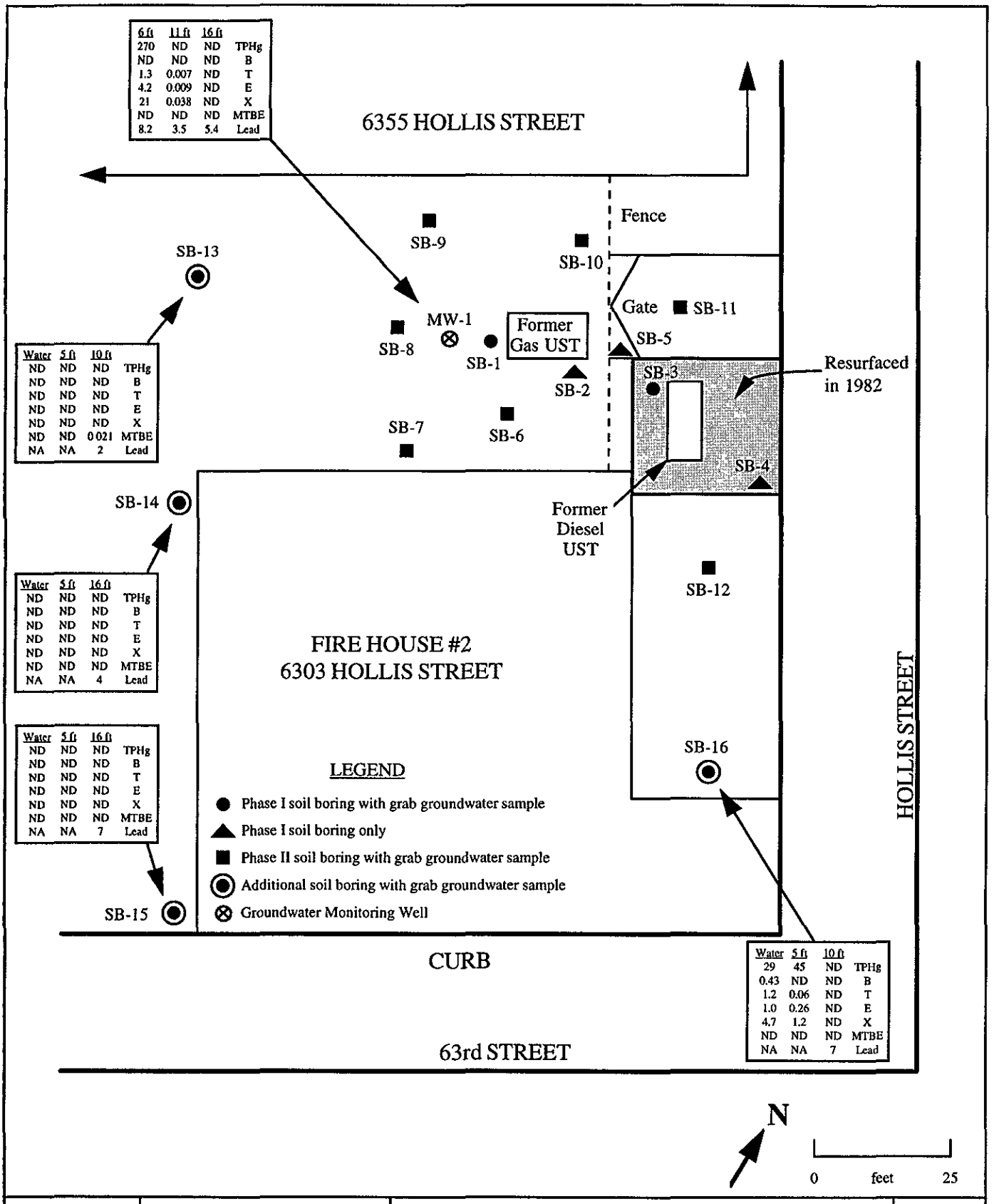
[b] Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as diesel.

Benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.

NA - Not analyzed; ND - Not detected at or above the detection limit given in parentheses.



Project No. 94166NA	CITY OF EMERYVILLE Fire Station Number 2	SITE LOCATION	Figure 1
Woodward-Clyde Consultants			July 15, 1995



6 ft	11 ft	16 ft	
270	ND	ND	TPHg
ND	ND	ND	B
1.3	0.007	ND	T
4.2	0.009	ND	E
21	0.038	ND	X
ND	ND	ND	MTBE
8.2	3.5	5.4	Lead

Water	5 ft	10 ft	
ND	ND	ND	TPHg
ND	ND	ND	B
ND	ND	ND	T
ND	ND	ND	E
ND	ND	ND	X
ND	ND	0.021	MTBE
NA	NA	2	Lead

Water	5 ft	16 ft	
ND	ND	ND	TPHg
ND	ND	ND	B
ND	ND	ND	T
ND	ND	ND	E
ND	ND	ND	X
ND	ND	ND	MTBE
NA	NA	4	Lead

Water	5 ft	16 ft	
ND	ND	ND	TPHg
ND	ND	ND	B
ND	ND	ND	T
ND	ND	ND	E
ND	ND	ND	X
ND	ND	ND	MTBE
NA	NA	7	Lead

Water	5 ft	10 ft	
29	45	ND	TPHg
0.43	ND	ND	B
1.2	0.06	ND	T
1.0	0.26	ND	E
4.7	1.2	ND	X
ND	ND	ND	MTBE
NA	NA	7	Lead

Project No. 941366NA	City of Emeryville Fire Station No. 2	MARCH 1997 INVESTIGATION CHEMICAL CONCENTRATIONS MEASURED IN SOIL (mg/kg) AND GROUNDWATER (mg/L)	Figure 2
Woodward-Clyde Consultants			

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APPENDIX A Boring Logs

Project: City of Emergyville Fire Station #2, CA
Project Number: 961276NA
Location: Approx. 12 feet west of gasoline UST

Log of Boring MW-1

Date(s) Drilled: 3/24/97	Total Depth Drilled (feet): 21.0	Top of Casing Elevation (feet):	Groundwater Level (feet): First ▽	Completion ▼ 11	12 Hours ▽ 4.1
Logged by: W. Dittman	Checked by:	Diameter of Hole (inches): 8	Diameter of Well (inches): 2	Number of Samples: Disturbed	Undisturbed 4
Drilling Company: Gregg Drilling		Drilling Method: Hollow Stem Auger		Drill Rig Type: Mobile B61	
Sampler Type: 2" cal mod		Drill Bit Size: 8"		Type of Well Casing: 2" PVC Sch. 40	
Screen Perforation: 0.020" Slotted 6-20 ft			Type of Sand Pack: #3 Lonestar Sand 5-21ft		
Type of Seals: Neat Cement 1 to 4 ft.; Bentonite Pellets 4 to 5 ft.					
Comments:					

Depth, feet	Elevation, feet	SAMPLES: Recovery / Sample	Blows/foot	USCS Classification	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	HNu (ppm)	REMARKS
0						4" of AC over 6" of base rock			Photo Ionization Detector (PID) reading in parts per million in air
						SILTY CLAY (CL) Soft; moist; very dark brown (10YR - 2/2); low to medium plasticity			
5			18			SANDY CLAY(CL) Loose; dark greenish-gray (10GY - 4/1); low-medium plasticity; trace some fine to coarse sand variable with depth			PID = 1022 Strong product odor at 5 feet
10			26			brown (10YR - 5/3); trace fine gravel to 3/8"			PID = 37.8
15			16			SILTY CLAY (CL) Soft; moist; brown (7.5YR - 5/3); low-medium plasticity			PID = 1.8
20			20			becoming sandy			PID = 6.6
						SILTY SAND (SM) Loose; wet; brown (7.5 YR - 5/3); fine to coarse sand; trace to some silt			
						TD @ 21 FT.			
25									

Project: City of Emergyville Fire Station #2, CA
Project Number: 961276NA
Location: Adjacent to firehose drying tower

Log of Boring SB-13

Date(s) Drilled: 3/25/97	Total Depth Drilled (feet): 20.0	Top of Casing Elevation (feet):	Groundwater Level (feet): ▽ First	▼ Completion ▽ 12 Hours 6.6
Logged by: W. Dittman	Checked by:	Diameter of Hole (inches):	Diameter of Well (inches):	Number of Samples: Disturbed / Undisturbed 3
Drilling Company: Gregg Drilling		Drilling Method: Direct Push		Drill Rig Type: Marl 2.5T
Sampler Type: 1 - 1/2" core		Drill Bit Size:		Type of Well Casing:
Screen Perforation:			Type of Sand Pack:	
Type of Seals: Neat Cement 1/2 to 20 ft.				
Comments:				

Depth, feet	Elevation, feet	SAMPLES: Recovery	SAMPLES: Sample	Blows/foot	USCS Classification	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	HNu (ppm)	REMARKS
0							4" AC			Borehole logged at sample intervals only - no cuttings produced
							?			
5		X		1			SILTY CLAY (CL) Medium stiff, moist; dark greenish-gray (10GY - 4/1); medium-high plasticity; trace coarse sand and fine gravel to 3/8"			
							▼			PID = 1.4
10		X		2			light brownish-gray (2.5Y - 6/2); no sand or gravel observed in sample; iron oxide stains			PID = 11.4
										Grab water sample collected (SB-13-W) via temporary well casing on 3/26/97
15		X		3			as above			PID = 10.7
										Dry @ 16' @ 15:00
20							TD @ 20 FT. Note: Borehole dry @ 16' @ 17:20 hours. At 17:20 - deepened borehole to 20' to obtain grab water sample.			Photo Ionization Detector (PID) reading in parts per million in air
25										

Project: City of Emergyville Fire Station #2, CA
Project Number: 961276NA
Location: Near western corner of Fire Station

Log of Boring SB-14

Date(s) Drilled: 3/25/97	Total Depth Drilled (feet): 20.0	Top of Casing Elevation (feet):	Groundwater Level (feet): First ▽ 19.2	Completion ▼	12 Hours ▽ 5.3
Logged by: W. Dittman	Checked by:	Diameter of Hole (inches):	Diameter of Well (inches):	Number of Samples: Disturbed	Undisturbed: 3
Drilling Company: Gregg Drilling		Drilling Method: Direct Push		Drill Rig Type: Marl 2.5T	
Sampler Type: 1 - 1/2" core		Drill Bit Size:		Type of Well Casing:	
Screen Perforation:			Type of Sand Pack:		
Type of Seals: Neat Cement 1/2 to 20 ft.					
Comments:					

Depth, feet	Elevation, feet	SAMPLES: Recovery / Sample	Blows/foot	USCS Classification	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	HNu (ppm)	REMARKS
0						4" AC			Borehole logged @ sample intervals only - no cuttings produced to log during drilling
						?			
5			1			SILTY CLAY (CL) Medium stiff; moist; dark greenish-gray (10G - 4/1); medium-high plasticity; trace coarse sand to 1/4"			PID = 10.5
10			2			light brownish-gray (2.5Y 6/2); decrease in sand content			PID = 9.1
15			3			as above; iron oxide staining predominates			PID = 9.2 Grab water sample collected (SB-14-W) via temporary well casing on 3/26/97
20						TD @ 20 FT.			Photo Ionization Detector (PID) readings in parts per million in air
25									

Project: City of Emergyville Fire Station #2, CA
Project Number: 961276NA
Location: Near southern corner of firestation

Log of Boring SB-15

Date(s) Drilled 3/25/97	Total Depth Drilled (feet) 20.0	Top of Casing Elevation (feet)	Groundwater Level (feet) ▽ First ▼ Completion ▼ 12 Hours 12.7	
Logged by W. Dittman	Checked by	Diameter of Hole (inches)	Diameter of Well (inches)	Number of Samples Disturbed / Undisturbed 3
Drilling Company Gregg Drilling		Drilling Method Direct Push		Drill Rig Type Marl 2.5T
Sampler Type 1 - 1/2" core		Drill Bit Size		Type of Well Casing
Screen Perforation			Type of Sand Pack	
Type of Seals Neat Cement 1/2 to 20 ft.				
Comments				

Depth, feet	Elevation, feet	SAMPLES Recovery	SAMPLES Sample	Blows/foot	USCS Classification	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	HNu (ppm)	REMARKS
0							4" AC			Borehole logged at sample intervals only - no currings produced during drilling for logging
							?			
5				1			SILTY CLAY (CL) Medium stiff; yellowish-brown (10YR - 5/4); medium-high plasticity; trace fine to coarse sand			PID = 14.6
				2			mottled with black staining; decrease in sand content			PID = 4.9
10							▽			
				3						PID = 1.5
15							iron oxide stained throughout; brown (7.5YR - 4/4)			Grab water sample collected (SB-15-W) via temporary well casing on 3/26/97
20							TD @ 20 FT.			Photo Ionizatino Detector (PID) reading in parts per million in air
25										

Project: City of Emergyville Fire Station #2, CA
Project Number: 961276NA
Location: Front of Fire Station at Hollis Street

Log of Boring SB-16

Date(s) Drilled: 3/25/97	Total Depth Drilled (feet): 16.0	Top of Casing Elevation (feet):	Groundwater Level (feet): First ▽ 8 ▼ Completion ▼ 12 Hours 1.6
Logged by: W. Dittman	Checked by:	Diameter of Hole (inches):	Diameter of Well (inches):
Number of Samples: Disturbed	Undisturbed: 3		
Drilling Company: *Gregg Drilling*	Drilling Method: *Direct Push*	Drill Rig Type: *Marl 2.5T*	
Sampler Type: 1 - 1/2" core	Drill Bit Size:	Type of Well Casing:	
Screen Perforation:	Type of Sand Pack:		
Type of Seals: Neat Cement 1/2 to 16 ft.			
Comments:			

Depth, feet	Elevation, feet	SAMPLES: Recovery / Sample	SAMPLES: Blows/foot	USCS Classification	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	HNu (ppm)	REMARKS
0						7" of CONCRETE			Borehole logged @ sample intervals only - no cutting produced during drilling for logging
						▽ ?			
5			1			CLAYEY SAND (SC) loose; damp; dark greenish-gray (5GY - 4/1); fine to coarse sand; trace fine gravel to 3/4"			PID = 187 Strong product odor at 5'
						▽			
10									No recovery drive #2
			3			SILTY CLAY (CL) Medium stiff; moist; light olive-brown (2.5Y - 5/2); medium plasticity			PID = 26.5
			4						PID = 7.2
15						iron oxide staining			
						TD @ 16 FT.			Grab water sample collected (SB-16-W) *via temporary well* casing on 3/25/97. Photo Ionization Detector (PID) reading in parts per million in air
20									
25									

APPENDIX B Laboratory Reports

ITS Intertek Testing Services
Environmental Laboratories

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703226
Date Received : 03/26/97
Project ID : 961276NA
Purchase Order: N/A

The following samples were received at Inchcape for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9703226- 1	SB-13-5
9703226- 2	SB-13-10
9703226- 3	SB-13-W
9703226- 4	SB-14-5
9703226- 5	SB-14-10
9703226- 6	SB-14-W
9703226- 7	SB-15-5
9703226- 8	SB-15-10
9703226- 9	SB-15-W
9703226-10	SB-16-5
9703226-11	SB-16-12
9703226-12	SB-16-W
9703226-13	SB-100-W

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

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

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

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

Project Manager

04/07/97
Date

This report consists of 46 pages.

Intertek Testing Services NA Inc.
1961 Concourse Drive, Suite E San Jose, CA 95131
Telephone (408) 432-8192 Fax (408) 432-8198

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703226
Date Received : 03/26/97
Project ID : 961276NA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9703226- 1	SB-13-5	SOIL	03/25/97	TPHgBTEX
9703226- 2	SB-13-10	SOIL	03/25/97	TPHgBTEX
9703226- 3	SB-13-W	WATER	03/26/97	TPHgBTEX
9703226- 4	SB-14-5	SOIL	03/25/97	TPHgBTEX
9703226- 5	SB-14-10	SOIL	03/25/97	TPHgBTEX
9703226- 6	SB-14-W	WATER	03/26/97	TPHgBTEX
9703226- 7	SB-15-5	SOIL	03/25/97	TPHgBTEX
9703226- 8	SB-15-10	SOIL	03/25/97	TPHgBTEX
9703226- 9	SB-15-W	WATER	03/26/97	TPHgBTEX
9703226-10	SB-16-5	SOIL	03/25/97	TPHgBTEX
9703226-11	SB-16-12	SOIL	03/25/97	TPHgBTEX
9703226-12	SB-16-W	WATER	03/25/97	TPHgBTEX
9703226-13	SB-100-W	WATER	03/25/97	TPHgBTEX

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703226
Date Received : 03/26/97
Project ID : 961276NA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The surrogate was diluted out for sample SB-16-5.
- The difference between the responses from the primary and the confirmation columns was greater than 25% for MtBE in sample SB-13-10.The lower value from the confirmation column has been reported.

M. Hasse 4/7/97
Department Supervisor Date

Chemist 04/07/97
Date

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-01	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-13-5
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/28/97	Surrogate Recovery:	104%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-02	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-13-10
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/28/97	Surrogate Recovery:	103%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	0.021
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-03	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	SB-13-W
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	103%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-04	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-14-5
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	107%
Date Released:	4/7/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-05	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-14-10
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	104%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-06	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	SB-14-W
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	106%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-07	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-15-5
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	106%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-08	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-15-10
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/28/97	Surrogate Recovery:	104%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-09	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	SB-15-W
Date Sampled:	3/26/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	108%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-10	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-16-5
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/31/97	Surrogate Recovery:	0%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	100	0.05	ND
Benzene	100	0.05	ND
Toluene	100	0.05	0.06
Ethylbenzene	100	0.05	0.26
Total Xylenes	100	0.05	1.2
Gasoline	100	5	45

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-11	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SB-16-12
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/28/97	Surrogate Recovery:	104%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-12	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	SB-16-W
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	97%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	200	500	ND
Benzene	200	100	430
Toluene	200	100	1200
Ethylbenzene	200	100	1000
Total Xylenes	200	100	4700
Gasoline	200	10000	29000

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703226-13	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	SB-100-W
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	112%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM2701E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SAND BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	101%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.005	ND
Benzene	1	0.005	ND
Toluene	1	0.005	ND
Ethylbenzene	1	0.005	ND
Total Xylenes	1	0.005	ND
Gasoline	1	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM2702E1	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	METHOD BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	3/27/97	Surrogate Recovery:	106%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM2801E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SAND BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	3/28/97	Surrogate Recovery:	105%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.005	ND
Benzene	1	0.005	ND
Toluene	1	0.005	ND
Ethylbenzene	1	0.005	ND
Total Xylenes	1	0.005	ND
Gasoline	1	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM3103E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	MEOH BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	3/31/97	Surrogate Recovery:	106%
Date Released:	4/4/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	50	0.025	ND
Benzene	50	0.025	ND
Toluene	50	0.025	ND
Ethylbenzene	50	0.025	ND
Total Xylenes	50	0.025	ND
Gasoline	50	2.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BA0401E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SAND BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	4/4/97	Surrogate Recovery:	107%
Date Released:	4/7/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.005	ND
Benzene	1	0.005	ND
Toluene	1	0.005	ND
Ethylbenzene	1	0.005	ND
Total Xylenes	1	0.005	ND
Gasoline	1	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BA0402E1	Client Project ID:	961276NA
Matrix:	WATER	Client Sample ID:	METHOD BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	4/4/97	Surrogate Recovery:	106%
Date Released:	4/7/97	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

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

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

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703226-03
Client Sample ID:	SB-13-W	Date Released:	4/7/97
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Matrix:	WATER
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
Gasoline	400	0	410	103%	440	110%	7%
p-Bromofluorobenzene				104%		103%	

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

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

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

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703226-03
Client Sample ID:	SB-13-W	Date Released:	4/7/97
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	4/4/97	Matrix:	WATER
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
MtBE	10.0	0	12.0	120%	12.0	120%	0%
Benzene	10.0	0	9.8	98%	10.2	102%	4%
Toluene	10.0	0	9.1	91%	9.4	94%	3%
Ethylbenzene	10.0	0	9.9	99%	9.9	99%	0%
Total Xylenes	10.0	0	9.9	99%	10.2	102%	3%
p-Bromofluorobenzene				98%		102%	

Quality control limits for MS/MSD recovery are 50-150% for MtBE, 45-139% for benzene, 51-138% for toluene, 48-146% for ethylbenzene, and 50-139% for total xylenes.

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

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

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703226-04
Client Sample ID:	SB-14-5	Date Released:	4/7/97
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	3/27/97	Matrix:	SOIL
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
MtBE	0.020	0	0.020	100%	0.023	115%	15%
Benzene	0.020	0	0.018	90%	0.019	95%	3%
Toluene	0.020	0	0.017	85%	0.018	90%	2%
Ethylbenzene	0.020	0	0.018	90%	0.018	90%	3%
Total Xylenes	0.020	0	0.018	90%	0.018	90%	4%
p-Bromofluorobenzene				96%		102%	

Quality control limits for MS/MSD recovery are 50-150% for MtBE, 45-139% for benzene, 51-138% for toluene, 48-146% for ethylbenzene, and 50-139% for total xylenes.

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703226-04
Client Sample ID:	SB-14-5	Date Released:	4/7/97
Date Sampled:	3/25/97	Instrument ID:	HP4
Date Analyzed:	4/4/97	Matrix:	SOIL
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
Gasoline	0.8	0	0.98	123%	0.96	120%	-2%
p-Bromofluorobenzene				93%		96%	

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

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE.

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM2701E1
Matrix:	WATER	Date Released:	4/7/97
Date Analyzed:	3/27/97	Instrument ID:	HP4
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	400	400	100%
p-Bromofluorobenzene			97%

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

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

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM2701E1
Matrix:	WATER	Date Released:	4/7/97
Date Analyzed:	3/27/97	Instrument ID:	HP4
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	10.0	10.6	106%
Benzene	10.0	9.4	94%
Toluene	10.0	8.9	89%
Ethylbenzene	10.0	9.2	92%
Total Xylenes	10.0	9.0	90%
p-Bromofluorobenzene			101%

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM2702E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/27/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	0.40	0.42	105%
p-Bromofluorobenzene			102%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM2702E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/27/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.010	0.0107	107%
Benzene	0.010	0.0094	94%
Toluene	0.010	0.0087	87%
Ethylbenzene	0.010	0.0090	90%
Total Xylenes	0.010	0.0089	89%
p-Bromofluorobenzene			101%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM2801E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/28/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	0.40	0.38	95%
p-Bromofluorobenzene			106%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM2801E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/28/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.010	0.0096	96%
Benzene	0.010	0.0094	94%
Toluene	0.010	0.0088	88%
Ethylbenzene	0.010	0.0091	91%
Total Xylenes	0.010	0.0089	89%
p-Bromofluorobenzene			104%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM3102E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/31/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	20	21	105%
p-Bromofluorobenzene			102%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM3102E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	3/31/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.050	0.056	112%
Benzene	0.050	0.044	88%
Toluene	0.050	0.042	84%
Ethylbenzene	0.050	0.044	88%
Total Xylenes	0.050	0.044	88%
p-Bromofluorobenzene			101%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE.

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MA0401E1
Matrix:	WATER	Date Released:	4/7/97
Date Analyzed:	4/4/97	Instrument ID:	HP4
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	400	470	118%
p-Bromofluorobenzene			100%

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

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

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NA0401E1
Matrix:	WATER	Date Released:	4/7/97
Date Analyzed:	4/4/97	Instrument ID:	HP4
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	10.0	9.6	96%
Benzene	10.0	9.7	97%
Toluene	10.0	9.0	90%
Ethylbenzene	10.0	9.7	97%
Total Xylenes	10.0	9.4	94%
p-Bromofluorobenzene			98%

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

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

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MA0402E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	4/4/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	0.40	0.48	120%
p-Bromofluorobenzene			105%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MA0402E1
Matrix:	SOIL	Date Released:	4/7/97
Date Analyzed:	4/4/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.010	0.0098	98%
Benzene	0.010	0.0098	98%
Toluene	0.010	0.0093	93%
Ethylbenzene	0.010	0.0099	99%
Total Xylenes	0.010	0.0097	97%
p-Bromofluorobenzene			

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703226
Date Received : 03/26/97
Project ID : 961276NA
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9703226- 2	SB-13-10	SOIL	03/25/97	6010
9703226- 5	SB-14-10	SOIL	03/25/97	6010
9703226- 8	SB-15-10	SOIL	03/25/97	6010
9703226-11	SB-16-12	SOIL	03/25/97	6010

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703226
Date Received : 03/26/97
Project ID : 961276NA
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

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

Mona Kamel for 04/06/97
Department Supervisor Date

Tracee Pham 4/7/97
Chemist Date

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: **Lead-6010A**
Client Project Number: **961276NA**
Matrix - Units: **SOIL - mg/Kg**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: TP
Supervisor:

ITS-SJ Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9703226-02	SB-13-10	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	2.0	
9703226-05	SB-14-10	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	4.2	
9703226-08	SB-15-10	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	7.1	
9703226-11	SB-16-12	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	7.1	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
METHOD BLANK REPORT

ITS-SJ Sample ID: **BM277SA**
Client Sample ID: **N/A**
ITS-SJ WO #: **9703226**
Client Project Number: **961276NA**
Matrix: **SOIL**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: IP
Supervisor: MN

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Lead	3050A	6010A	ICP3	03/27/97	03/31/97	1	mg/Kg	0.30	**ND**	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

ITS-SJ Sample ID: **9703216-02MS,MD**
Client Sample ID: **BATCH QC**
Client Proj. Number: **961276NA**
Matrix: **SOIL**
Associated W.O#: **9703226**

SDG #: **N/A**
Analyst: TD
Supervisor: MM

Analyte	Prep. Batch	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amt.	Sample Conc.	Matrix Spike Conc.	% Rec.	Matrix Sp. Dup. Conc.	% Rec.	RPD	Q
Lead	16138	6010A	ICP3	03/27/97	03/31/97	mg/Kg	50.0	8.3	54.7	92.8	58.0	99.4	5.9	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

ITS-SJ Sample ID: **LM277SA**
Client Sample ID: **N/A**
ITS-SJ WO #: **9703226**
Client Project Number: **961276NA**
Matrix: **SOIL**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: D
Supervisor: MM

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Lead	3050A	6010A	ICP3	03/27/97	03/31/97	1	mg/Kg	50.0	51.3	103	

COMMENTS:

9703226 (18) (26)

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(510) 893-3600

Chain of Custody Record

PROJECT NO. 961276NA / Fire Sta # 2

SAMPLERS: (Signature) Wayne Dittman

	DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	EPA Method	EPA Method	EPA Method	EPA Method	(TPH gas & BTEX & MTBE)	Total Lead				Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
1	3/25/97	1401	SB-13-5'	S					X					1	Results/Questions to Xinggang Tong (510) 874-3060
2	3/25/97	1430	SB-13-10'	S					X	X				1	
3	3/26/97	736	SB-13-W	W					X					3	
4	3/25/97	1534	SB-14-5'	S					X					1	
5	3/25/97	1547	SB-14-10'	S					X	X				1	
6	3/26/97	723	SB-14-W	W					X					3	
7	3/25/97	1631	SB-15-5'	S					X					1	ITS Quote No 970319A
8	3/25/97	1645	SB-15-10	S					X	X				1	
9	3/26/97	8:00	SB-15-W	W					X					3	
10	3/25/97	1757	SB-16-5'	S					X					1	
11	3/25/97	1816	SB-16-12'	S					X	X				1	
12	3/25/97	1830	SB-16-W	W					X					3	
13	3/25/	1300	SB-100-W	W					X					3	← Trip Blank

TOTAL NUMBER OF CONTAINERS: 23

RELINQUISHED BY : (Signature)	DATE/TIME	RECEIVED BY : (Signature)	RELINQUISHED BY : (Signature)	DATE/TIME	RECEIVED BY : (Signature)
Wayne Dittman	3/26/97 240	Time: 1240 Date: 3-26-96		3-26-97 15:30	

METHOD OF SHIPMENT :	SHIPPED BY : (Signature)	COURIER : (Signature)	RECEIVED FOR LAB BY : (Signature)	DATE/TIME
				3/27/97 1530

Inchcape Testing Services
Environmental Laboratories

SAMPLE RECEIVING CHECKLIST

Workorder Number: 9703226	*Client Project ID:* 961276 NA	*Quote Number:*

Cooler			
Shipping documentation present? If YES, enter Carrier and Airbill #:	YES	NO	(N/A)
Custody Seal on the outside of cooler? *Condition*: Intact ☐ Broken ☐	YES	NO	(N/A)
Temperature of sample(s) within range? List temperatures of cooler(s): 5° C	(YES)	NO	N/A
Note: If all samples taken within previous 4 hr, circle N/A and place in sample storage area as soon as possible.	IR #1	Temp Blank	____
Samples			
Chain of custody seal present for each container? *Condition*: Intact ☐ Broken ☐	YES	NO	(N/A)
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested? *Condition of containers*: Intact ☑ Broken ☐ If NO, were samples transferred to proper container(s)? Yes ☐ No ☐	(YES)	NO	
VOA containers received with zero headspace or bubbles < 6 mm?	(YES)	NO	N/A
Container labels complete? (ID, date, time, preservative)	(YES)	NO	N/A
Samples properly preserved? If NO, was the preservative added at time of receipt? Yes ☐ No ☐	(YES)	NO	N/A
pH check of samples required at time of receipt?(volatiles checked at analysis) If YES, pH checked and recorded by:	YES	(NO)	
Sufficient amount of sample received for methods requested? If NO, has the client or PM been notified? Yes ☐ No ☐	(YES)	NO	
Field blanks received with sample batch?	YES	NO	(N/A)
Trip blanks received with sample batch?	(YES)	NO	N/A
Chain of Custody			
Chain of custody form received with samples?	(YES)	NO	
Has it been filled out completely and in ink?	(YES)	NO	
Sample IDs on chain of custody form agree with labels?	(YES)	NO	
Number of containers on chain agree with number received?	(YES)	NO	
Analysis methods specified?	(YES)	NO	
Sampling date and time indicated?	(YES)	NO	
Proper signatures of sampler, courier and custodian in appropriate spaces? With time and date? Yes ☑ No ☐	(YES)	NO	
Turnaround time? Standard ☑ Rush ☐			

Any NO responses and/or any BROKEN that was checked must be detailed in a Corrective Action Form.

Sample Custodian: JP Date: 3-26-97 Project Manager: [signature] Date: 03/28/97

Intertek Testing Services
Environmental Laboratories

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703214
Date Received : 03/25/97
Project ID : 961276NA
Purchase Order: N/A

The following samples were received at Inchcape for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9703214- 1	MW-1-6
9703214- 2	MW-1-11
9703214- 3	MW-1-16

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

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

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

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

Project Manager

04/07/97
Date

This report consists of 25 pages.

Intertek Testing Services NA Inc.
1961 Concourse Drive, Suite E San Jose, CA 95131
Telephone (408) 432-8192 Fax (408) 432-8198

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703214
Date Received : 03/25/97
Project ID : 961276NA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9703214- 1	MW-1-6	SOIL	03/24/97	TPHgBTEX
9703214- 2	MW-1-11	SOIL	03/24/97	TPHgBTEX
9703214- 3	MW-1-16	SOIL	03/24/97	TPHgBTEX

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703214
Date Received : 03/25/97
Project ID : 961276NA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The surrogate was diluted out for sample MW-1-6.
- The Toluene and Ethylbenzene were reported from HP-4 for sample MW-1-11.

Reggie Dawson 4/2/97
Department Supervisor Date

Chemist 04.02.97
Chemist Date

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703214-01	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	MW-1-6
Date Sampled:	3/24/97	Instrument ID:	HP4
Date Analyzed:	3/31/97	Surrogate Recovery:	0%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1000	0.5	ND
Benzene	1000	0.5	ND
Toluene	1000	0.5	1.3
Ethylbenzene	1000	0.5	4.2
Total Xylenes	1000	0.5	21
Gasoline	1000	50	270

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES
(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703214-02	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	MW-1-11
Date Sampled:	3/24/97	Instrument ID:	HP12
Date Analyzed:	3/27/97	Surrogate Recovery:	99%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	5	0.005	ND
Benzene	5	0.005	ND
Toluene	5	0.005	0.007
Ethylbenzene	5	0.005	0.009
Total Xylenes	5	0.005	0.038
Gasoline	5	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9703214-03	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	MW-1-16
Date Sampled:	3/24/97	Instrument ID:	HP12
Date Analyzed:	3/27/97	Surrogate Recovery:	93%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	0.005	ND
Benzene	2	0.005	ND
Toluene	2	0.005	ND
Ethylbenzene	2	0.005	ND
Total Xylenes	2	0.005	ND
Gasoline	2	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM2701E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SAND BLANK
Date Sampled:	N/A	Instrument ID:	HP12
Date Analyzed:	3/27/97	Surrogate Recovery:	93%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.005	ND
Benzene	1	0.005	ND
Toluene	1	0.005	ND
Ethylbenzene	1	0.005	ND
Total Xylenes	1	0.005	ND
Gasoline	1	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM2801E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	SAND BLANK
Date Sampled:	N/A	Instrument ID:	HP12
Date Analyzed:	3/28/97	Surrogate Recovery:	105%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	0.005	ND
Benzene	1	0.005	ND
Toluene	1	0.005	ND
Ethylbenzene	1	0.005	ND
Total Xylenes	1	0.005	ND
Gasoline	1	0.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BM3103E1	Client Project ID:	961276NA
Matrix:	SOIL	Client Sample ID:	MEOH BLANK
Date Sampled:	N/A	Instrument ID:	HP4
Date Analyzed:	3/31/97	Surrogate Recovery:	106%
Date Released:	4/1/97	Concentration Units:	mg/Kg

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	50	0.025	ND
Benzene	50	0.025	ND
Toluene	50	0.025	ND
Ethylbenzene	50	0.025	ND
Total Xylenes	50	0.025	ND
Gasoline	50	2.5	ND

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

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

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

Reporting limits are determined by dividing the dilution factor by 10 to generate an RLMF (reporting limit multiplication factor) which is then multiplied by the reporting limit for an undiluted sample. RLMFs of less than one are rounded up to one.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703214-03
Client Sample ID:	MW-1-16	Date Released:	4/1/97
Date Sampled:	3/24/97	Instrument ID:	HP12
Date Analyzed:	3/27/97	Matrix:	SOIL
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
Gasoline	0.8	0	0.67	84%	0.60	75%	-11%
p-Bromofluorobenzene				79%		71%	

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

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	961276NA	Laboratory ID:	9703214-03
Client Sample ID:	MW-1-16	Date Released:	4/1/97
Date Sampled:	3/24/97	Instrument ID:	HP12
Date Analyzed:	3/27/97	Matrix:	SOIL
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
MtBE	0.020	0	0.019	95%	0.022	110%	15%
Benzene	0.020	0	0.018	90%	0.021	105%	15%
Toluene	0.020	0	0.018	90%	0.022	110%	16%
Ethylbenzene	0.020	0	0.019	95%	0.022	110%	15%
Total Xylenes	0.020	0	0.019	95%	0.025	125%	27%
p-Bromofluorobenzene				92%		96%	

Quality control limits for MS/MSD recovery are 50-150% for MtBE, 45-139% for benzene, 51-138% for toluene, 48-146% for ethylbenzene, and 50-139% for total xylenes.

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM2702E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/27/97	Instrument ID:	HP12
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	0.40	0.37	93%
p-Bromofluorobenzene			91%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM2702E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/27/97	Instrument ID:	HP12
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.010	0.0094	94%
Benzene	0.010	0.0093	93%
Toluene	0.010	0.0093	93%
Ethylbenzene	0.010	0.0098	98%
Total Xylenes	0.010	0.0103	103%
p-Bromofluorobenzene			94%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM2801E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/28/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	0.40	0.38	95%
p-Bromofluorobenzene			106%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM2801E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/28/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.010	0.0096	96%
Benzene	0.010	0.0094	94%
Toluene	0.010	0.0088	88%
Ethylbenzene	0.010	0.0091	91%
Total Xylenes	0.010	0.0089	89%
p-Bromofluorobenzene			104%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
INCHCAPE TESTING SERVICES/ENVIRONMENTAL LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	MM3102E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/31/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	20	21	105%
p-Bromofluorobenzene			102%

Quality control limits for LCS recovery are 58-130%.

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	961276NA	Laboratory ID:	NM3102E1
Matrix:	SOIL	Date Released:	4/1/97
Date Analyzed:	3/31/97	Instrument ID:	HP4
		Concentration Units:	mg/Kg

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	0.500	0.560	112%
Benzene	0.500	0.440	88%
Toluene	0.500	0.420	84%
Ethylbenzene	0.500	0.440	88%
Total Xylenes	0.500	0.440	88%
p-Bromofluorobenzene			101%

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

Quality control limits for p-Bromofluorobenzene recovery are 53-147%.

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703214
Date Received : 03/25/97
Project ID : 961276NA
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9703214- 1	MW-1-6	SOIL	03/24/97	6010
9703214- 2	MW-1-11	SOIL	03/24/97	6010
9703214- 3	MW-1-16	SOIL	03/24/97	6010

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

MR. XINGGANG TONG
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4014

Workorder # : 9703214
Date Received : 03/25/97
Project ID : 961276NA
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

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

Mona Kamel for 04/04/97
Department Supervisor Date

Tracee Pham 4/4/97
Chemist Date

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: **Lead-6010A**
Client Project Number: **961276NA**
Matrix - Units: **SOIL - mg/Kg**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: TP
Supervisor: mjh

ITS-SJ Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9703214-01	MW-1-6	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	8.2	
9703214-02	MW-1-11	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	3.5	
9703214-03	MW-1-16	3050A	ICP3	03/24/97	03/27/97	03/31/97	1	0.30	5.4	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
METHOD BLANK REPORT

ITS-SJ Sample ID: **BM277SA**
Client Sample ID: **N/A**
ITS-SJ WO #: **9703214**
Client Project Number: **961276NA**
Matrix: **SOIL**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: TP
Supervisor: mh

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Lead	3050A	6010A	ICP3	03/27/97	03/31/97	1	mg/Kg	0.30	**ND**	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

ITS-SJ Sample ID: **9703216-02MS,MD**
Client Sample ID: **BATCH QC**
Client Proj. Number: **961276NA**
Matrix: **SOIL**
Associated W.O#: **9703214**

SDG #: **N/A**
Analyst: TP
Supervisor: MH

Analyte	Prep. Batch	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amt.	Sample Conc.	Matrix Spike Conc.	% Rec.	Matrix Sp. Dup. Conc.	% Rec.	RPD	Q
Lead	16138	6010A	ICP3	03/27/97	03/31/97	mg/Kg	50.0	8.3	54.7	92.8	58.0	99.4	5.9	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

ITS-SJ Sample ID: **LM277SA**
Client Sample ID: **N/A**
ITS-SJ WO #: **9703214**
Client Project Number: **961276NA**
Matrix: **SOIL**

SDG #: **N/A**
Prep. Batch: **16138**
Analyst: TP
Supervisor: mh

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Lead	3050A	6010A	ICP3	03/27/97	03/31/97	1	mg/Kg	50.0	51.3	103	

COMMENTS:

97703214 (26)

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(510) 893-3600

Chain of Custody Record

PROJECT NO. 961276 NA

SAMPLERS: (Signature) Wayne Dittman

	DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	EPA Method	EPA Method	EPA Method	EPA Method	ANALYSES: TPH gas & BTEX & MTBE		ANALYSES: Total Lead					Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
1	3/24/97	1500	MW-1 – 6'	S					X		X					1	
2		1517	MW-1 – 11'	S					X		X					1	
3	↓	1525	MW-1 – 16'	S					X		X					1	

Results to Xinggang Teng (510) 874-3060

ITS Quote No. 970319A

TOTAL NUMBER OF CONTAINERS: 3

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Wayne Dittman	3/25/97 11:03	[signature]	[signature] 14:27	3-25 11:03 1997	

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
ITS courier			Lori Plunkett	3/25/97 17:27

Inchcape Testing Services
Environmental Laboratories

SAMPLE RECEIVING CHECKLIST

Workorder Number: 9703214	Client Project ID: 9612746NA	Quote Number:

Cooler			
Shipping documentation present? If YES, enter Carrier and Airbill #:	YES	NO	(N/A)
Custody Seal on the outside of cooler? *Condition:* Intact ☐ Broken ☐	YES	NO	(N/A)
Temperature of sample(s) within range? List temperatures of cooler(s): 4°	(YES)	NO	N/A
Note: If all samples taken within previous 4 hr, circle N/A and place in sample storage area as soon as possible.	IR___	Temp Blank F95-245	
Samples			
Chain of custody seal present for each container? *Condition:* Intact ☐ Broken ☐	YES	NO	(N/A)
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested? *Condition of containers:* Intact ☒ Broken ☐ If NO, were samples transferred to proper container(s)? Yes ☐ No ☐	(YES)	NO	
VOA containers received with zero headspace or bubbles < 6 mm?	YES	NO	(N/A)
Container labels complete? (ID, date, time, preservative)	(YES)	NO	N/A
Samples properly preserved? If NO, was the preservative added at time of receipt? Yes ☐ No ☐	YES	NO	(N/A)
pH check of samples required at time of receipt?(volatiles checked at analysis) If YES, pH checked and recorded by:	YES	(NO)	
Sufficient amount of sample received for methods requested? If NO, has the client or PM been notified? Yes ☐ No ☐	(YES)	NO	
Field blanks received with sample batch?	YES	NO	(N/A)
Trip blanks received with sample batch?	YES	NO	(N/A)
Chain of Custody			
Chain of custody form received with samples?	(YES)		NO
Has it been filled out completely and in ink?	(YES)		NO
Sample IDs on chain of custody form agree with labels?	(YES)		NO
Number of containers on chain agree with number received?	(YES)		NO
Analysis methods specified?	(YES)		NO
Sampling date and time indicated?	(YES)		NO
Proper signatures of sampler, courier and custodian in appropriate spaces? With time and date? Yes ☐ No ☐	(YES)		NO
Turnaround time? Standard ☒ Rush ☐			

Any NO responses and/or any BROKEN that was checked must be detailed in a Corrective Action Form.

Sample Custodian: Lori Plunkett Date: 3-25-97 Project Manager: _____ Date: 03/28/97

f:\forms.newscr2.doc