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MCAS EL TORO
SSIC #5090.3

# Former Underground Storage Tank Sites 298A & 298B
# Marine Corps Air Station
# El Toro, California

SWDIV Contract No. N68711-93-D-1459 – Delivery Order No. 0070 – Revision 0
OHM Project No. 18609 – Document Control No. SW8564 – February 20, 2001

# Site Assessment Report

Appendix A - Letter to RQWCB; Appendix B - Preferred Land Use Plan; Appendix C - Boring Log for Monitoring Well 10_DGMW77; Appendix D - TCE Plume Map; Appendix E - INEL Report; Appendix F - GEOFON, Underground Storage Tank Removal Report; Appendix G - Laboratory Analytical Reports; Appendix H - Site Photographs; Appendix I - Waste Manifests; Appendix J - Soil Boring Logs, and Appendix K - Land Survey Data

# Site Assessment Report

*Former Underground Storage Tank Sites 298A & 298B*
*Marine Corps Air Station*
*El Toro, California*

*SWDIV Contract Number: N68711-93-D-1459, Delivery Order Number: 0070*
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*February 20, 2001*


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# *Acronyms and Abbreviations*

| | |
|---|---|
| bgs | below ground surface |
| BRAC | Base Realignment and Closure Act |
| BTEX | benzene, toluene, ethylbenzene, total xylenes |
| DO | Delivery Order |
| EPA | U.S. Environmental Protection Agency |
| INEL | Idaho National Engineering Laboratory |
| JEG | Jacobs Engineering Group, Inc. |
| LUFT | Leaking Underground Fuel Tank |
| MAW | Marine Aircraft Wing |
| mg/kg | milligrams per kilogram |
| mg/L | milligrams per liter |
| msl | mean sea level |
| MTBE | methyl tertiary butyl ether |
| NFESC | Naval Facilities Engineering Services Center |
| OCHCA | Orange County Health Care Agency |
| OHM | OHM Remediation Services Corp. |
| PID | photoionization detector |
| ppm | parts per million |
| QA | quality assurance |
| QC | quality control |
| RWQCB | Regional Water Quality Control Board |
| TPH | total petroleum hydrocarbons |
| SWDIV | Southwest Division Naval Facilities Engineering Command |
| SWRCB | California State Water Resources Control Board |
| TPH-Diesel | total petroleum hydrocarbons as diesel |
| TPH-Gas | total petroleum hydrocarbons as gasoline |
| USCS | Unified Soil Classification System |
| UST | underground storage tank |
| µg/kg | micrograms per kilogram |

# *Section 1*
# *Introduction*

The purpose of this Site Assessment Report is to present information pertaining to Former Underground Storage Tank (UST) Sites 298A and 298B at the Marine Corps Air Station (MCAS), El Toro (herein after referred to as the Station). Former UST Sites 298A and 298B were used for storage of gasoline and diesel at the Garrison Mobile Equipment (GME) facility at the Public Works Compound in the southwestern section of the Station. The tanks were removed in July 1999 with oversight by the Orange County Health Care Agency (OCHCA), fuel-impacted soils were excavated and removed from the site in March 2000, and site assessment activities were conducted in May 2000.

A release of petroleum hydrocarbons including MTBE to subsurface soils, which occurred from the piping that supplied product to the pump island dispenser area, was identified during the tank (USTs 298A and 298B) removal activities and during subsequent field sampling activities. OCHCA referred the tank 298A and 298B site to the Regional Water Quality Control Board (RWQCB) Santa Ana Region for evaluation in a letter dated 19 October 1999. A copy of the RWQCB letter is included in Appendix A.

This report includes a summary of tank removal activities, soil excavation activities, an assessment of the potential risk to groundwater quality caused by the petroleum hydrocarbons that remain at the site, and a recommendation that the unauthorized release be closed. OHM Remediation Services Corporation (OHM) conducted the excavation of fuel-impacted soils and the site assessment activities under the Southwest Division Naval Facilities Engineering Command (SWDIV) Remedial Action Contract Number N68711-93-D-1459, Delivery Order (DO) Number 0070.

The Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres and is located in eastern Orange County approximately 45 miles southeast of Los Angeles, California. The location of former Underground Storage Tank Sites 298A and 298B is shown in Figure 1-1. Former Underground Storage Tank Sites 298A and 298B were located in the southwest quadrant of the station near Building 298, former Garrison Mobile Equipment (GME) facility near cross section of South Marine Way and "L" Street. The Former UST Sites 298A and 298B are located within the investigation boundary of Installation Restoration Program (IRP) Site 24 – the Volatile Organic Compound (VOC) Source Area. The site location and adjacent groundwater monitoring wells are shown in Figure 1-2.

The Station closed in July 1999 in accordance with the Base Closure and Realignment Act of 1993 (BRAC III). The Former UST Sites 298A and 298B are located within a parcel that has been tentatively designated for use as a future cargo area according to *The Preferred Land Use Plan* (County of Orange, August 1999), as shown in Figure 1 of Appendix B.

# *Section 2*
# *Environmental Setting*

This section summarizes the general area surrounding the Station and the environmental setting in the vicinity of Former UST Sites 298A and 298B.

## *2.1 Site Topography*

The Station is located on the southeastern edge of the Tustin Plain, which slopes gently to the west-southwest. The Station is situated on the edge of the Tustin Plain and extends into the Santa Ana Mountains. Land surface elevations are approximately 215 feet above mean sea level (msl) at the western corner and approximately 800 feet msl at the east corner of the Station. The topography in the immediate area of Former UST Sites 298A and 298B is relatively flat. The elevation surrounding Building 298 ranges from 265-269 feet above msl.

## *2.2 Geology*

The Station is situated on alluvial fan deposits derived mainly from the Santa Ana Mountains. These Holocene materials consist of isolated, coarse-grained; stream channel deposits within a matrix of fine-grained overbank deposits, with a maximum thickness of approximately 300 feet (Herndon and Reilly, 1989).

The Holocene alluvial materials conformably overlie Pleistocene sediments predominantly composed of interlayered fine-grained lagoonal and near-shore marine deposits. These materials become increasingly mixed with beach sands, terrace deposits and stream channel deposits in the eastern portion of the Tustin Plain and along the plain edges. Thus, the Quaternary deposits form a heterogeneous mixture of silts and clays, with interbedded sands and fine gravel's that are as much as 500 feet thick in the western portion of the Tustin Plain (Singer, 1973).

Information on shallow subsurface geology in the general area of Former UST Sites 298A and 298B was obtained by reviewing the boring log for groundwater monitoring well 10_DGMW77 (Jacobs Engineering Group Inc. [JEG], 1993). The well is the nearest groundwater monitoring well and is located approximately 350 feet east of the site (Figure 1-2). The boring log indicates that the stratigraphy in the 275-foot borehole consists predominantly of alternating layers of sand, clayey sand, sandy clay, and clay from surface grade to the depth at which groundwater was encountered (approximately 130 feet below ground surface), below which is sand. A silty, fine to medium sand with ~ 20% fines and, medium density dominates the immediate subsurface to 40 feet below ground surface. A poorly graded fine sand with silt is present 41.5 – 61.5 feet below ground surface. A copy of the boring log for 10_DGMW77 is presented in Appendix C.

## 2.3 Hydrogeology

The Station is situated within the Irvine groundwater subbasin. The Irvine subbasin comprises the southeast part of the main Orange County groundwater basin. Regional groundwater flow in the subbasin has been to the west and northwest since the 1940s and is controlled locally by large pumping depressions. From 1969 to 1982, an average gradient of 0.0046 to the northwest was reported in the principal aquifer zone of the Irvine area (Banks, 1984). Phase I remedial investigation data indicated a similar groundwater flow direction in the shallower groundwater zone, with a slightly higher gradient of 0.008 (JEG, 1993).

The depth to groundwater beneath the Station ranges from approximately 45 feet below ground surface in the foothills to 240 feet below ground surface in the deepest portion of the Irvine subbasin. The groundwater gradient averages from 0.004 to 0.006 ft/ft from the central portion to the western portion of the Station respectively. The direction of the groundwater flow in the shallow units is primarily to the northwest beneath the Station, and to the west in the downgradient area. The depth to groundwater in the vicinity of former UST Sites 298A and 298B is approximately 104 feet below ground surface based on available water-level data from monitoring well 10_DGMW77 (Camp Dresser & McKee, Inc., Federal Programs, 1997). Table 2-1 summarizes the data for this well.

The groundwater quality in the surrounding wells located near the former UST Sites 298A and 298B (10_DGMW77, 12_UGMW31 and 21_UGMW37) was also examined. Well 10_DGMW77 is located approximately 275 feet east, well 12_UGMW31 is located 1000 feet northwest and well 21_UGMW37 is located approximately 425 feet southwest of former UST Sites 298A and 298B. All three wells have been impacted by trichloroethylene (TCE) (CDM, 1997); these wells are part of the boundary of the existing TCE plume in the shallow aquifer. The source of TCE is Installation Restoration Program (IRP) Site 24 (Volatile Organic Compound [VOC] Source Area).

Former UST Sites 298A and 298B is located above the VOC plume and the presence of the TCE in the vicinity of former UST Sites 298A and 298B is believed to be associated with the source identified in IRP Site 24 rather than with former UST Sites 298A and 298B. The groundwater conditions in the vicinity of former UST Sites 298A and 298B will be addressed in the Record of Decision for IRP Site 24. The current TCE plume groundwater map with the locations of former USTs Site 298A and 298B, is attached in Appendix D.

# Section 3
# Previous Work

This section describes previous work and background information relevant to former UST Sites 298A and 298B.

## 3.1 Underground Storage Tank History

In 1990, the Idaho National Environmental Laboratory (INEL, 1990) reviewed historical information for UST Site 298 and determined that two underground storage tanks (USTs 298A and 298B) were installed at the site in 1944 to supply fuel for vehicles at the Station. The report states that former UST 298A was a steel, 3,000-gallon tank that contained unleaded fuel and former UST 298B was a steel, 3,000 gallon tank that contained diesel fuel. A copy of the INEL report is provided in Appendix E.

## 3.2 Underground Storage Tank Removal and Soil Sampling Results

Former USTs 298A and 298B and approximately 160 feet of associated piping were removed in July 22, 1999 by GEOFON under Contract Number: N68711-97-D-8702. The UST removal and sampling activities were observed by an OCHCA field inspector under OCHCA plan check number 99PM54 (GEOFON, 1999). The GEOFON tank removal report is included in Appendix F.

GEOFON observed areas of staining in the pipe trenches, indicating a possible unauthorized release of petroleum hydrocarbons including MTBE from the piping to the pump island dispenser. Seven (7) soil samples were collected by GEOFON:

- Three samples from the base of the UST excavation
- Three samples from the bottom of the former pipe line trench
- One sample from the excavated soil stockpile.

Soil samples collected during tank removal activities were submitted to American Environmental Testing Laboratories and analyzed for Total Petroleum Hydrocarbons (TPH) analysis using the California Leaking Underground Fuel Tank (CA-LUFT) Method 8015M for gasoline, diesel, and heavy chain hydrocarbons, and for Benzene, Toluene, Ethylebenzene and xylenes (BTEX), including Methyl tertiary Butyl Ether (MTBE) using the U.S. Environmental Protection Agency (EPA) Method 8020. Analytical results for soil samples collected from the bottom of the UST 298A and 298B excavations were below laboratory reporting limits (GEOFON, 1999).

Per GEOFON's *Underground Storage Tank Removal Report* (Appendix F), the maximum concentrations detected in soil samples from the fuel dispenser pipe line trench area were; 1,330 milligrams per kilogram (mg/kg) for total petroleum hydrocarbons as gasoline (TPH-gas); 363 mg/kg for TPH as diesel (TPH-diesel); 12,800 micrograms per kilogram (µg/kg) for benzene; 43,300 µg/kg for toluene; 36,000 µg/kg for ethylbenzene; 149,000 µg/kg for total xylenes; and 10,100 µg/kg for MTBE (GEOFON, 1999). These concentrations exceeded the government-regulated acceptable levels in the vicinity of the piping trench area. Based on these results, further investigation to determine the extent of MTBE, BTEX and petroleum hydrocarbon contamination in the surrounding piping trench area was recommended. The locations of pipeline trench samples are shown on Figure 3-1.

# Section 4
# Field Activities

OHM performed field activities at former UST Sites 298A and 298B to remove subsurface petroleum hydrocarbon and MTBE contaminated soil from the former piping trench area as identified by the GEOFON and to ascertain the vertical and lateral extent of contamination within the piping trench area. Field activities included; excavation of contaminated soil, collection of confirmation samples, drilling and soil sampling from five-(5) verification soil borings. Work was performed in general accordance with the following DO 0024 documents: *Final Work Plan, Remediation of Various Underground Storage Tanks at the Marine Corps Air Station El Toro, California.*

## 4.1 Excavation and Sampling Activities

On March 15, 2000, OHM began excavation activities at the former dispenser piping trench area at former UST Sites 298A and 298B to excavate and remove petroleum hydrocarbons and MTBE contaminated soil, per GEOFON's soil sampling activities summarized in their *Underground Storage Tank Removal Report* (GEOFON, 1999). OHM initially removed approximately twenty (20) cubic yards of visually contaminated soil and collected five (5) progress soil samples.

Based on the review of the progress soil sample results, additional soil was removed from the excavation. The total excavation was approximately thirty-five (35) feet in width, ninety (90) feet in length and ten (10) feet deep. Approximately one thousand cubic yards of soil was excavated and placed in two separate stockpiles, separating the visually impacted soil from the non-visually impacted soil.

After removal of visually contaminated soil, a total of twelve (12) confirmation soil samples were collected from the floor and sidewalls of the excavation in order to confirm that all hydrocarbon-impacted soil had been removed (Figure 4-1). A total of seven soil samples were collected from the sidewall (sample numbers 18609-2886, 2920, 2921, 2888, 2918, 2902 and 2922) and five samples were collected from the bottom of the excavation floor (sample numbers 18609-2884, 2887, 2919, 2860 and 2917). The confirmation soil sample locations and final limits of excavation are shown in Figure 3-1.

Sampling, including sample handling and packaging, was conducted in accordance with the procedures described in the approved work plan (OHM, 1995). The soil samples were collected in brass sleeve directly from the excavator bucket, with no tools, to minimize the need for decontamination. The soil samples were analyzed for TPH purgeable and TPH extractable using CA LUFT Manual Method 8015 modified; and for BTEX and methyl tert-butyl ether (MTBE) using EPA Method 8260.

The maximum concentration of TPH-diesel was detected at 2,500 mg/kg and TPH-gas at 1,900 mg/kg in only one excavation bottom floor sample 18609-2884 at 10 feet below ground surface. TPH and BTEX including MTBE compounds were not detected above the

laboratory reporting limits in remaining four bottom floor samples. Also, maximum concentration of TPH as diesel was detected at 430 mg/kg and TPH as gasoline at 650 mg/kg in only one northeast wall sample 18609-2922 at 4 feet below ground surface. TPH and BTEX, including MTBE compounds were not detected above the laboratory reporting limits in remaining six wall samples. Benzene and MTBE compounds were not detected above the laboratory reporting limits in all 12-confirmation soil samples. Analytical results of the confirmation soil samples are presented in Table 4-1 and hard copies of the laboratory reports are provided in Appendix G.

Review of the analytical results from the confirmation soil sampling confirmed that some residual localized petroleum hydrocarbon contamination (most likely a hot spot) remained at the bottom of the excavation. The residual contaminant mass is insufficient for surface water infiltration to promote vertical migration of petroleum hydrocarbons to groundwater at 104 feet below ground surface. Due to close proximity of Building 298 and unstable sloughing conditions encountered at the northeast wall, no further excavation was conducted. Photographs of the field excavation activities are included in Appendix H.

The groundwater has been impacted by chlorinated solvents beneath former UST Sites 298A and 298B. Groundwater quality management will be addressed during the development of the Proposed Plan and Record of Decision for IRP Site 24 – the VOC Source Area (SWDIV, 1998).

## *4.2 Waste Management and Site Restoration*

Approximately one thousand cubic yards of excavated soil was placed in two separate stockpiles, separating the visually impacted soil from the non-visually impacted soil. A total of twelve (12) stockpile soil samples were collected and analysed for TPH, VOCs and metals. Analytical results of the stockpile soil samples are presented in Table 4-1.

After review of the stockpile soil sample analytical results, approximately 25 cubic yards of petroleum hydrocarbon and MTBE impacted soil was transported off-site to Chemical Waste Management facility in Kettleman City, California following proper state mandated manifest protocol. A copy of the non-hazardous waste manifest is provided in Appendix I.

The excavation was backfilled and compacted with approximately 1,000 cubic yards of non-impacted stockpiled soil and soil from the on base stockpile to within 6 inches of surface grade. From 6 inches below ground surface to surface grade the excavation was backfilled and compacted with Class II road base material.

## *4.3 Verification Soil Boring Sampling Activities*

On May 10, 2000, OHM advanced five (5) verification soil borings vertically within the vicinity of former product piping trench area of former USTs 298A and 298B to ascertain the vertical and lateral extent of petroleum hydrocarbon contamination. The borings were drilled using hollow stem drilling methods to a total depth of approximately 61.5 feet below ground

surface to evaluate subsurface conditions. Locations of verification borings are shown in Figure 3-1 and copies of the boring logs are provided in Appendix J.

A total of twenty (20) soil samples were collected from the verification soil borings SB-01 through SB-05, using the California split spoon method. Soil samples were collected from the soil borings at approximately 20.5, 40.5, 50.5 and 60.5 feet below ground surface in all five borings. The lithology was logged in accordance with the Unified Soil Classification System (USCS).

Sampling equipment was decontaminated before collection of each sample using a non-phosphate Alconox soap and triple rinsed. Sample sleeves retained for laboratory analysis were covered on either end with Teflon® sheeting and plastic end caps, labeled, and placed in an ice chest maintained at 4°C pending transportation to EMAX Laboratory, a laboratory certified by the State of California and approved by the Naval Facilities Engineering Service Center (NFESC).

Upon completion of soil sampling, the boreholes were backfilled from total depth to ground surface with a cement-bentonite grout.

A schematic cross section of the piping trench area excavation, showing the confirmation soil boring locations, analytical results, and the confirmation soil samples is presented in Figure 4-1.

Soil samples were submitted to EMAX (under chain-of-custody protocol), for analysis of TPH-diesel and TPH-gas using CA-LUFT Method 8015M, and for VOCs (including BTEX and MTBE) using EPA Method 8260A.

TPH-diesel, TPH-gas, benzene, toluene, ethylbenzene, total xylenes and MTBE were not detected above the laboratory reporting limits in any of the soil samples collected during confirmation drilling soil boring installation activity on May 10 and 11, 2000. Analytical results are presented in Table 4-2, and copies of the laboratory reports are provided in Appendix G.

Quality Assurance/Quality Control

Field quality assurance/quality control (QA/QC) samples were collected during sampling activities to evaluate the consistency and accuracy of the analytical data. Field QC samples for the UST Sites 298A and 298B consisted of equipment rinsate, soil sample duplicate, and trip blank samples as follows:

- One equipment rinsate samples was collected (sample number 18609-2972A).
- One duplicate soil sample was collected (sample number 18609-2971A).
- Trip blank samples were collected at a frequency of 1 blank for each cooler containing samples for VOC analysis.

Analytical results of the trip blank and equipment rinsate samples are summarized in Table 4-3.

## *4.4 Land Surveying*

After completion of the excavation, drilling and soil sampling at the former UST Sites 298A and 298B, the sampling locations and limits of the excavation were surveyed by California-registered land surveyors (Cal Vada Surveying, Inc.). The surveyed locations were measured to +/- 0.01 foot horizontally and tied to the California State Plan Coordinate Systems, North American Datum 1983. The surveyed locations were also measured to +/-0.01 foot vertically and tied to mean sea level datum. A copy of the surveyed data including elevations and coordinates for the soil borings at former UST Sites 298A and 298B is included in Appendix K.

# *Section 5*
# *Conclusions and Recommendation*

The following observations and conclusions are based on previous tank removal activities performed by GEOFON, and on data presented in this report from OHM's field activities, which included excavation and removal of TPH and MTBE contaminated soil and drilling and sampling of five (5) verification soil borings.

- GEOFON removed USTs 298A and 298B and 160 feet of associated piping under OCHCA plan check number 99PM54 in July 1999.
- Former USTs 298A and 298B were used to store unleaded gasoline and diesel fuel.
- The depth to groundwater is estimated to be 104 feet below ground surface, based on historical data from monitoring well 10_DGMW77.
- Confirmation soil samples collected by GEOFON, during tank removal activities, from the bottom of the USTs 298A and 298B excavation were below laboratory reporting limits. The soil samples collected from the bottom of the fuel dispensers at 2.5 feet below ground surface detected concentrations of TPH-gas at 1,330 mg/kg, benzene at 12,800 µg/kg, and MTBE at 10,100 µg/kg
- OHM excavated and removed approximately 1,000 cubic yards of potentially (TPH, BTEX and MTBE) contaminated soil from the former fuel dispenser piping trench of former USTs 298A and 298B and collected a total of twelve (12) final confirmation soil samples from the bottom and four walls of the excavation.
- Analytical results from twelve excavation confirmation soil samples indicate maximum concentrations of TPH-diesel at 2,500 mg/kg and TPH-gas at 1,900 mg/kg in only one excavation bottom floor sample at 10 feet below ground surface. TPH and BTEX, including MTBE compounds were not detected above the laboratory reporting limits in the remaining four bottom floor samples. Also, the maximum concentration of TPH-diesel was detected at 430 mg/kg and TPH-gas at 650 mg/kg in only one northeast wall sample at 4 feet below ground surface. TPH and BTEX including MTBE compounds were not detected above the laboratory reporting limits in the remaining six wall samples. Benzene and MTBE compounds were not detected above the laboratory reporting limits in all 12-confirmation soil samples:
- Five (5) verification soil borings were then advanced in vicinity of the piping trench area and a total of twenty (20) soil samples were collected from depths of 20 to 60 feet. TPH-diesel, TPH-gas, benzene, toluene, ethylbenzene, total xylenes and MTBE were not detected above laboratory reporting limits in any of the soil samples collected from the verification soil borings.

- The groundwater has been impacted by chlorinated solvents beneath former UST Sites 298A and 298B. Groundwater quality management will be addressed during the development of the Proposed Plan and Record of Decision for IRP Site 24 – the VOC Source Area (SWDIV, 1998).

Analytical results indicate that TPH, BTEX and MTBE impacted soil was removed from the former piping trench area. Verification soil boring results indicate that there is no significant release of petroleum hydrocarbons below the former piping trench area.

Therefore, it is concluded that the residual concentrations of petroleum hydrocarbons pose a minimal risk to groundwater quality. Insufficient mass loading is present to promote vertical migration of petroleum hydrocarbons to groundwater. This conclusion is based on the depth to groundwater, relative low residual concentration and California Leaking Underground Fuel Tank Field Manual Guidelines (SWRCB, 1989).

Based on the information provided in this report and the absence of a significant release of petroleum hydrocarbons at former UST Sites 298A and 298B, OHM, on behalf of the Station, recommends that this report be submitted to RWQCB, Santa Ana Region, and *no further action status* be granted for this unauthorized release case (OCHCA Case Number 99 PM 54).

# *Section 6*
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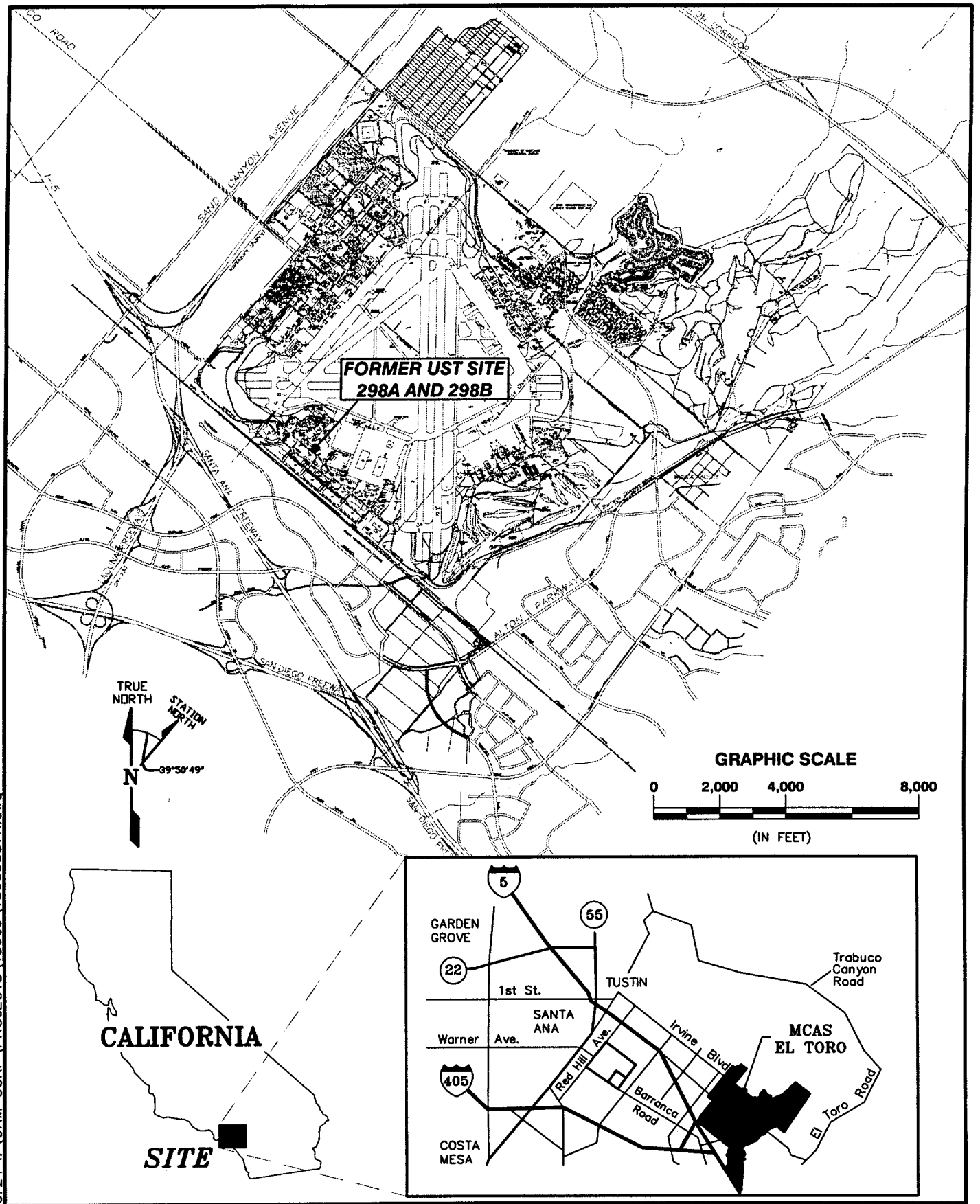
SWRCB, see California State Water Resources Control Board.

# *Figures*

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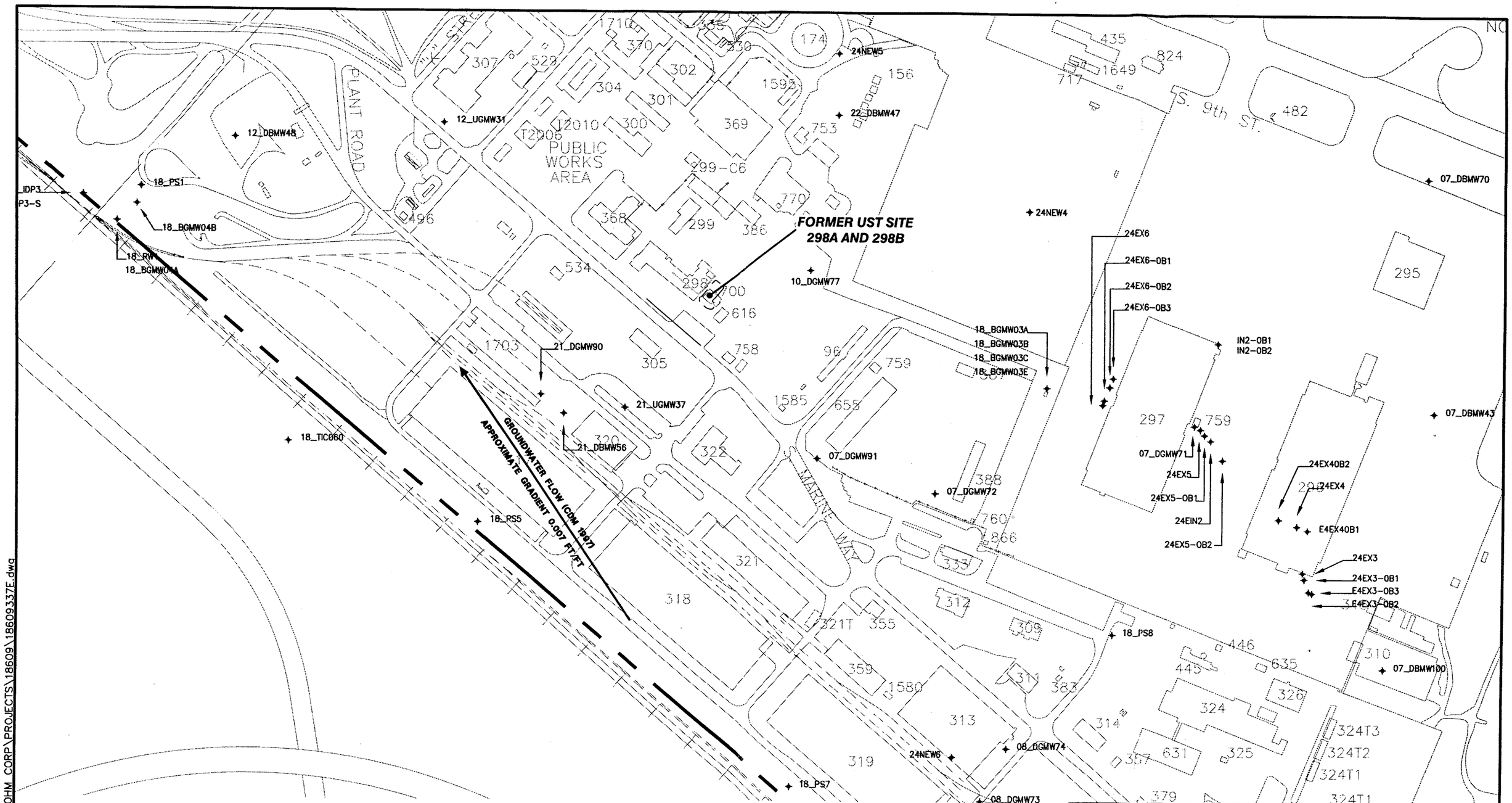
|---|---|---|---|---|---|---|---|
| OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA | DRAWN BY R. PIRMORADIAN | DATE 1/5/01 | | FACILITY LOCATION MAP FORMER UST SITE 298A AND 298B | | | |
| | CHECKED BY | DATE 2/20/01 | | | | | |
| | APPROVED BY | DATE 2/20/01 | | | | | |
| CONTRACT NAME SWDIV | PROJECT MANAGER | DATE | | MARINE CORPS AIR STATION EL TORO, CALIFORNIA | | | |
| AUTOCAD FILE No. 18609337A.DWG | PLOT SCALE 1=1 | SHEET 1 | OF 1 | SCALE 1"=4,000' | DOCUMENT CONTROL No. SW8564 | OHM PROJECT No. 18609 | FIGURE No. FIG 1-1 | REVISION 0 |

Jan 08, 2001 – 14:10:24 I:\OHM CORP\PROJECTS\18609\18609337A.dwg




**EXPLANATION:**

✦ GROUNDWATER MONITORING WELL

TRUE NORTH
STATION NORTH
N
39°50'49"

**GRAPHIC SCALE**

0 150 300 600

(IN FEET)

| REVISIONS | | | |
|---|---|---|---|
| REV. No. | DESCRIPTION | DATE | APPROVED |
| | | | |

| | |
|---|---|
| CONTRACT NAME: SWDIV | OHM Remediation Services Corp. A Subsidiary of OHM Corporation IRVINE, CA |
| DRAWN BY: R. PIRMORADIAN — DATE: 2/6/01 | LOCATION MAP FORMER UST SITE 298A AND 298B |
| CHECKED BY: [signature] — DATE: 2/20/01 | |
| APPROVED BY: [signature] — DATE: 2/20/01 | |
| PROJECT MANAGER — DATE | MARINE CORPS AIR STATION EL TORO, CALIFORNIA |
| AUTOCAD FILE No.: 18609337E.DWG | |

| SCALE | SHEET | OF | DOCUMENT CONTROL No. | OHM PROJECT No. | DRAWING No. |
|---|---|---|---|---|---|
| 1"=300' | 1 | 1 | SW8564 | 18609 | FIG 1-2 |

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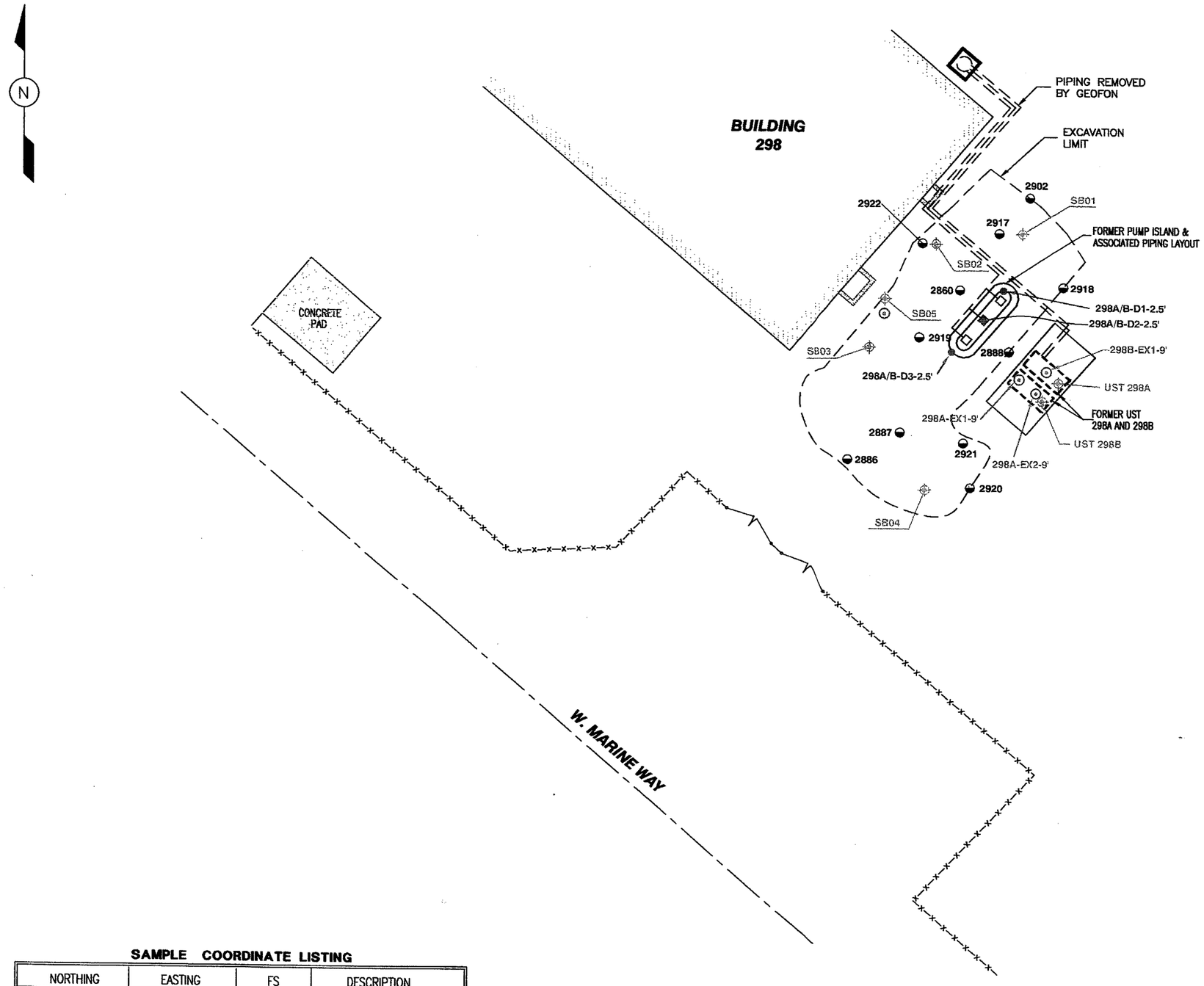



**LEGEND:**

| | |
|---|---|
| SB01 | SOIL BORING LOCATIONS (OHM) |
| 2902 | CONFIRMATION SAMPLE LOCATIONS (OHM) |
| 298A/B-D1-2.5' | CONTAMINATED SOIL SAMPLE LOCATIONS (GEOFON) |
| 298A-EX2-9' | NON-DETECT SOIL SAMPLE LOCATIONS (GEOFON) |
| —X— | CHAIN LINK FENCE |

DATE OF SURVEY: 5-18-00

**GRAPHIC SCALE**

0 15 30 60

(IN FEET)

**SAMPLE COORDINATE LISTING**

| NORTHING | EASTING | FS | DESCRIPTION |
|---|---|---|---|
| 2189167.73 | 6108385.67 | 267.61 | SB UST298-SB01 |
| 2189165.05 | 6108362.47 | 267.29 | SB UST298-SB02 |
| 2189137.12 | 6108344.63 | 267.28 | SB UST298-SB03 |
| 2189098.56 | 6108359.55 | 267.90 | SB UST298-SB04 |
| 2189150.20 | 6108348.79 | 267.59 | SB UST298-SB05 |

REVISIONS

| REV. No. | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| 01 | SITE 298B.DWG BY CALVADA SURVEYING, INC. | 5/18/00 | |

CONTRACT NAME: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
IRVINE, CA

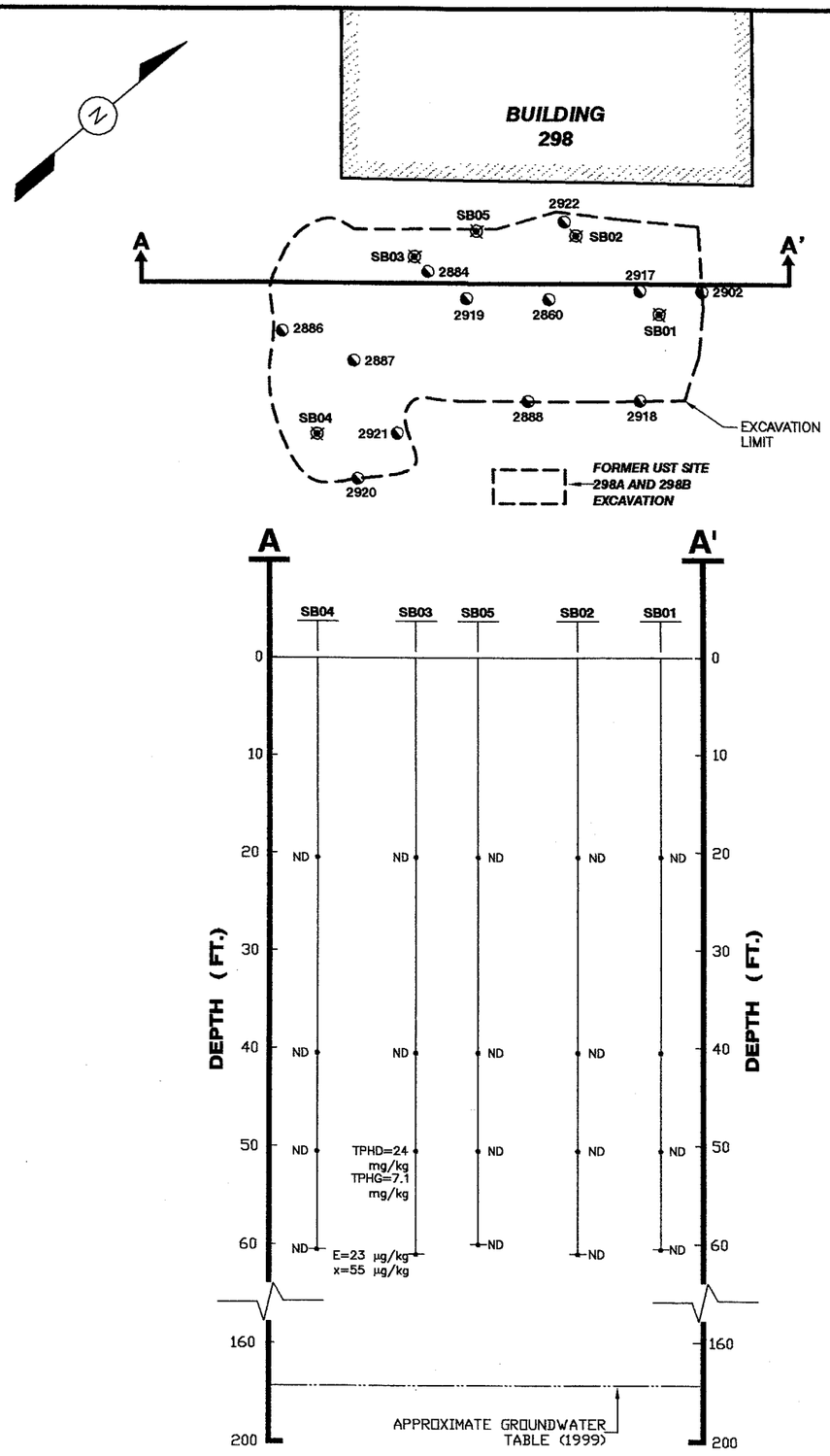
DRAWN BY: R. PIRMORADIAN DATE: 1/5/01
CHECKED BY: DATE: 2/20/01
APPROVED BY: DATE: 2/20/01
PROJECT MANAGER: DATE:
AUTOCAD FILE No.: 18609337B.DWG

SITE PLAN
FORMER UST SITE 298A AND 298B

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

| SCALE | SHEET | OF | DOCUMENT CONTROL No. | OHM PROJECT No. | DRAWING No. |
|---|---|---|---|---|---|
| 1"=30' | 1 | 1 | SW8564 | 18609 | FIG 3-1 |

Jan 05, 2001 - 10:10:18 I:\OHM CORP\PROJECTS\18609\18609337B.dwg

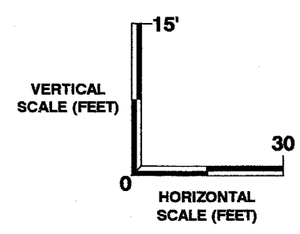



**EXPLANATION:**

- ⊠ VERIFICATION SOIL BORING
- ◐ CONFIRMATION SOIL SAMPLE
- PP POWER POLE
- ⊞ CONC. COLUMN

| SAMPLE IDENTIFICATION | DATE: | TPH–D (mg/kg) | TPH–G (mg/kg) | B (µg/kg) | E (µg/kg) | MTBE (µg/kg) | T (µg/kg) | X (µg/kg) |
|---|---|---|---|---|---|---|---|---|
| **CONFIRMATION SAMPLES** | | | | | | | | |
| **18609-2884** | 3/21/00 | 2500 | 1900 | 12000 U | 9600 J | 23000 U | 3100 J | 79000 |
| **18609-2886** | 3/21/00 | 11.6 U | 2.6 | 29 U | 29 U | 58 U | 29 U | 29 U |
| **18609-2887** | 3/21/00 | 11.9 U | 1.19 U | 5.9 U | 5.9 U | 12 U | 5.9 U | 5.9 U |
| **18609-2888** | 3/21/00 | 11.9 U | 3.9 | 12 U | 12 U | 24 U | 12 U | 3.8 J |
| **18609-2901** | 3/22/00 | 12.8 U | 1.28 U | 6.4 U | 6.4 U | 13 U | 6.4 U | 3.7 J |
| **18609-2902** | 3/22/00 | 12.1 U | 1.21 U | 6.1 U | 6.1 U | 12 U | 6.1 U | 6.1 U |
| **18609-2917** | 3/30/00 | 11.9 U | 1.19 U | 6 U | 6 U | 12 U | 6 U | 6 U |
| **18609-2918** | 3/30/00 | 11.9 U | 1.19 U | 5.9 U | 5.9 U | 12 U | 5.9 U | 5.9 U |
| **18609-2919** | 3/30/00 | 12.1 U | 1.21 U | 6.1 U | 6.1 U | 12 U | 6.1 U | 6.1 U |
| **18609-2920** | 3/30/00 | 11.4 U | 1.14 U | 5.7 U | 5.7 U | 11 U | 5.7 U | 5.7 U |
| **18609-2921** | 3/30/00 | 1.16 U | 11.6 U | 5.8 U | 30 | 12 U | 5.8 U | 62 |
| **SOIL BORINGS** | | | | | | | | |
| **SB-1 (20.5')** | 5/10/00 | 11.2 U | 1.12 U | 5.6 U | 5.6 U | 11 U | 5.6 U | 5.6 U |
| **SB-1 (40.5')** | 5/10/00 | 11.8 U | 1.18 U | 5.9 U | 5.9 U | 12 U | 5.9 U | 5.9 U |
| **SB-1 (50.5')** | 5/10/00 | 12.8 U | 1.28 U | 6.4 U | 6.4 U | 13 U | 6.4 U | 6.4 U |
| **SB-1 (60.5')** | 5/10/00 | 12.1 U | 1.21 U | 6 U | 6 U | 12 U | 6 U | 6 U |
| **SB-2 (20.5')** | 5/10/00 | 11.3 U | 1.13 U | 5.6 U | 5.6 U | 11 U | 5.6 U | 5.6 U |
| **SB-2 (40.5')** | 5/10/00 | 11.9 U | 1.19 U | 6 U | 6 U | 12 U | 6 U | 6 U |
| **SB-2 (50.5')** | 5/10/00 | 10.7 U | 1.07 U | 5.3 U | 5.3 U | 11 U | 5.3 U | 5.3 U |
| **SB-2 (60.5')** | 5/10/00 | 11.4 U | 1.14 U | 5.7 U | 5.7 U | 11 U | 5.7 U | 5.7 U |
| **SB-2 (61')** | 5/10/00 | 11.4 U | 1.14 U | 5.7 U | 5.7 U | 11 U | 5.7 U | 11 U |
| **SB-3 (20.5')** | 5/10/00 | 11.2 U | 1.12 U | 5.6 U | 5.6 U | 11 U | 5.6 U | 5.6 U |
| **SB-3 (40.5')** | 5/10/00 | 10.6 U | 1.06 U | 5.3 U | 5.3 U | 11 U | 5.3 U | 5.3 U |
| **SB-3 (50.5')** | 5/10/00 | 24 | 7.1 | 5.8 U | .56 J | 12 U | 5.8 U | 4.6 J |
| **SB-3 (60.5')** | 5/10/00 | 12.3 U | 1.23 U | 6.1 U | 6.1 U | 12 U | 6.1 U | 3.5 J |
| **SB-3 (61')** | 5/10/00 | 11.18 U | 1.18 U | 5.9 U | 23 | 12 U | 5.9 U | 55 |
| **SB-4 (20.5')** | 5/10/00 | 11.1 U | 1.11 U | 5.5 U | 5.5 U | 11 U | 5.5 U | 5.5 U |
| **SB-4 (40.5')** | 5/10/00 | 11.2 U | 1.12 U | 5.6 U | 5.6 U | 11 U | 5.6 U | 5.6 U |
| **SB-4 (50.5')** | 5/10/00 | 11.9 U | 1.19 U | 6 U | 6 U | 12 U | 6 U | 6 U |
| **SB-4 (60.5')** | 5/10/00 | 12.3 U | 1.23 U | 6.1 U | 6.1 U | 12 U | 6.1 U | 6.1 U |
| **SB-5 (20.5')** | 5/11/00 | 11.2 U | 1.12 U | 5.6 U | 5.6 U | 11 U | 5.6 U | 5.6 U |
| **SB-5 (40.5')** | 5/11/00 | 12.4 U | 1.24 U | 6.2 U | 6.2 U | 12 U | 6.2 U | 6.2 U |
| **SB-5 (50.5')** | 5/11/00 | 11 U | 1.1 U | 5.5 U | 5.5 U | 11 U | 5.5 U | 5.5 U |
| **SB-5 (60')** | 5/11/00 | 12.3 U | 1.23 U | 6.2 U | 6.2 U | 12 U | 6.2 U | 6.2 U |

**NOTES:**
mg/kg= MILLIGRAM PER KILOGRAM
µg/kg= MICROGRAM PER KILOGRAM
U= BELOW OR EQUAL TO DETECTION LIMIT
SB= SOIL BORING
ND= NOT DETECTED ABOVE LABORATORY REPORTED LIMITS




| REVISIONS | | | |
|---|---|---|---|
| REV. No. | DESCRIPTION | DATE | APPROVED |

CONTRACT NAME: SWDIV

DRAWN BY: R. PIRMORADIAN DATE: 2/19/01
CHECKED BY: DATE: 2/20/01
APPROVED BY: DATE: 2/20/01
PROJECT MANAGER: DATE:
AUTOCAD FILE No.: 18609337D.DWG

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
IRVINE, CA

**CONFIRMATION SOIL SAMPLES AND VERIFICATION BORING LOCATIONS FORMER UST SITE 298A AND 298B**

**MARINE CORPS AIR STATION EL TORO, CALIFORNIA**

| SCALE | SHEET | OF | DOCUMENT CONTROL No. | OHM PROJECT No. | DRAWING No. |
|---|---|---|---|---|---|
| AS NOTED | 1 | 1 | SW8564 | 18609 | FIG 4–1 |

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# *Tables*

## Table 2-1
## Monitoring Well Data Summary – Former UST Sites 298A and 298B Vicinity

| Monitoring Well Identification Number | Distance from Site 298 (feet) | Direction from Site 298 | Surface[a] Elevation (feet msl) | Screened Interval Top (feet msl) | Screened Interval Base (feet msl) | Well[b] Total Depth (feet bgs) | August 1997 Water-Level Elevation (feet msl) | Depth to Groundwater (feet bgs) |
|---|---|---|---|---|---|---|---|---|
| 10_DGMW77 | 350 | East | 271.40 | 130 | 170 | 175 | 167.10 | 104.30 |
| 12_UGMW31 | 1000 | Northwest | 255.82 | 105 | 145 | 150 | 159.88 | 95.94 |
| 21_UGMW37 | 450 | Southwest | 257.87 | 89 | 130 | 135 | 167.27 | 90.60 |

[a]*Surface and screened interval elevation (JEG, 1993, Appendix E).*
[b]*Well total depth and depth to groundwater (CDM, 1997, Appendix B).*

*bgs – below ground surface*
*msl - mean sea level*

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification | | 18609-2886 | 18609-2887 | 18609-2888 | 18609-2901 | 18609-2902 | 18609-2916 | 18609-2917 |
|---|---|---|---|---|---|---|---|---|
| Location Code (UST-298-) | | EX1-11 WW | EX1-12 Flr | EX1-13 SW | EX1-14 Flr | EX1-15 EW | EX2-01 Wall | EX1-16 Floor |
| Date Sampled | | 03/21/00 | 03/21/00 | 03/21/00 | 03/22/00 | 03/22/00 | 03/30/00 | 03/30/00 |
| Depth (feet below ground surface) | | NA.0 | NA.0 | NA.0 | NA.0 | NA.0 | 4.0 | 10.0 |
| | Unit | | | | | | | |
| ***CA LUFT 8015M*** | | | | | | | | |
| TPH as Diesel | mg/kg | 11.6 U | 11.9 U | 11.9 U | 12.8 U | 12.1 U | 11.6 U | 11.9 U |
| TPH as Gasoline | mg/kg | 2.6 | 1.19 U | 3.9 | 1.28 U | 1.21 U | 1.3 | 1.19 U |
| ***EPA 8260A*** | | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,1,2-Trichloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,1-Dichloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,1-Dichloroethene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,2-Dichloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 1,2-Dichloropropane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| 2-Butanone (MEK) | µg/kg | 290 U | 59 U | 120 U | 64 U | 61 U | 58 U | 60 U |
| 2-Chloroethyl vinyl ether | µg/kg | 290 U | 59 U | 120 U | 64 U | 61 U | 58 UJ | 60 UJ |
| 2-Hexanone | µg/kg | 290 U | 59 U | 120 U | 64 U | 61 U | 58 U | 60 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 290 U | 59 U | 120 U | 64 U | 61 U | 58 U | 60 U |
| Acetone | µg/kg | 290 UJ | 28 J | 120 UJ | 64 UJ | 61 UJ | 12 J | 60 U |
| Benzene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Bromodichloromethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Bromoform | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Bromomethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Carbon disulfide | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Carbon tetrachloride | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Chlorobenzene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Chloroethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Chloroform | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Chloromethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| cis-1,2-Dichloroethene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| cis-1,3-Dichloropropene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Dibromochloromethane | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Ethylbenzene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 18 | 6 U |
| Methyl tert-butyl ether (MTBE) | µg/kg | 58 U | 12 U | 24 U | 13 U | 12 U | 12 U | 12 U |
| Methylene chloride | µg/kg | 29 U | 5.9 U | 12 U | 11 U | 8.7 U | 5.8 U | 6 U |
| Styrene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Tetrachloroethene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Toluene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 1.5 J | 6 U |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification | | 18609-2886 | 18609-2887 | 18609-2888 | 18609-2901 | 18609-2902 | 18609-2916 | 18609-2917 |
|---|---|---|---|---|---|---|---|---|
| Location Code (UST-298-) | | EX1-11 WW | EX1-12 Flr | EX1-13 SW | EX1-14 Flr | EX1-15 EW | EX2-01 Wall | EX1-16 Floor |
| Date Sampled | | 03/21/00 | 03/21/00 | 03/21/00 | 03/22/00 | 03/22/00 | 03/30/00 | 03/30/00 |
| Depth (feet below ground surface) | | NA.0 | NA.0 | NA.0 | NA.0 | NA.0 | 4.0 | 10.0 |
| | Unit | | | | | | | |
| trans-1,2-Dichloroethene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| trans-1,3-Dichloropropene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Trichloroethene | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Vinyl acetate | µg/kg | 290 U | 59 U | 120 U | 64 U | 61 U | 58 U | 60 U |
| Vinyl chloride | µg/kg | 29 U | 5.9 U | 12 U | 6.4 U | 6.1 U | 5.8 U | 6 U |
| Xylenes (total) | µg/kg | 29 U | 5.9 U | 3.8 J | 3.7 J | 6.1 U | 82 | 6 U |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification | | 18609-2918 | 18609-2919 | 18609-2920 | 18609-2921 | 18609-2922 | 18609-2923 |
|---|---|---|---|---|---|---|---|
| Location Code (UST-298-) | | EX1-17 Wall | EX1-18 Floor | EX2-02 Wall | EX2-03 Wall | EX1-14 Wall | EX1-15 Wall |
| Date Sampled | | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 |
| Depth (feet below ground surface) | | 4.0 | 10.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| | Unit | | | | | | |
| ***CA LUFT 8015M*** | | | | | | | |
| TPH as Diesel | mg/kg | 11.9 U | 12.1 U | 11.4 U | 11.6 U | 430 | 220 |
| TPH as Gasoline | mg/kg | 1.19 U | 1.21 U | 1.14 U | 1.16 U | 650 | 120 |
| ***EPA 8260A*** | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,1,2-Trichloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,1-Dichloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,1-Dichloroethene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,2-Dichloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 1,2-Dichloropropane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| 2-Butanone (MEK) | µg/kg | 59 U | 61 U | 57 U | 58 U | 6100 U | 60000 U |
| 2-Chloroethyl vinyl ether | µg/kg | 59 UJ | 61 UJ | 57 UJ | 58 UJ | 6100 UJ | 60000 UJ |
| 2-Hexanone | µg/kg | 59 U | 61 U | 57 U | 58 U | 6100 U | 60000 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 59 U | 61 U | 57 U | 58 U | 6100 U | 60000 U |
| Acetone | µg/kg | 59 U | 61 U | 57 U | 6.2 J | 6100 U | 60000 U |
| Benzene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Bromodichloromethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Bromoform | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Bromomethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Carbon disulfide | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Carbon tetrachloride | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Chlorobenzene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Chloroethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Chloroform | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Chloromethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| cis-1,2-Dichloroethene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| cis-1,3-Dichloropropene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Dibromochloromethane | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Ethylbenzene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 30 | 4200 | 19000 |
| Methyl tert-butyl ether (MTBE) | µg/kg | 12 U | 12 U | 11 U | 12 U | 1200 U | 12000 U |
| Methylene chloride | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Styrene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Tetrachloroethene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Toluene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 30000 |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification | | 18609-2918 | 18609-2919 | 18609-2920 | 18609-2921 | 18609-2922 | 18609-2923 |
|---|---|---|---|---|---|---|---|
| Location Code (UST-298-) | | EX1-17 Wall | EX1-18 Floor | EX2-02 Wall | EX2-03 Wall | EX1-14 Wall | EX1-15 Wall |
| Date Sampled | | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 | 03/30/00 |
| Depth (feet below ground surface) | | 4.0 | 10.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| | Unit | | | | | | |
| trans-1,2-Dichloroethene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| trans-1,3-Dichloropropene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Trichloroethene | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Vinyl acetate | µg/kg | 59 U | 61 U | 57 U | 58 U | 6100 U | 60000 U |
| Vinyl chloride | µg/kg | 5.9 U | 6.1 U | 5.7 U | 5.8 U | 610 U | 6000 U |
| Xylenes (total) | µg/kg | 5.9 U | 6.1 U | 5.7 U | 62 | 6300 | 120000 |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification<br>Location Code (UST-298-)<br>Date Sampled | Unit | 18609-2889<br>Stockpile<br>03/22/00 | 18609-2890<br>Stockpile<br>03/22/00 | 18609-2891<br>Stockpile<br>03/22/00 | 18609-2892<br>Stockpile<br>03/22/00 | 18609-2893<br>Stockpile<br>03/22/00 | 18609-2894<br>Stockpile<br>03/22/00 | 18609-2895<br>Stockpile<br>03/22/00 |
|---|---|---|---|---|---|---|---|---|
| ***CA LUFT 8015M*** | | | | | | | | |
| TPH as Diesel | mg/kg | 79 | 69 | 69 | 81 | 200 | 45 | 21 |
| TPH as Gasoline | mg/kg | 18 | 5 | 15 | 18 | 180 | 1.7 | 2.2 |
| ***EPA 6010*** | | | | | | | | |
| Arsenic | mg/kg | 4.12 | 2.94 | 3.94 | 2.92 | 4.17 | 3.47 | 3.88 |
| Lead | mg/kg | 3.64 | 17.2 | 4.72 | 4.68 | 5.66 | 2.96 | 3.75 |
| Selenium | mg/kg | 1.11 U | 1.11 U | 1.15 U | 1.13 U | 1.14 U | 1.16 U | 1.15 U |
| Thallium | mg/kg | 1.28 | 1.11 U | 1.15 U | 1.13 U | 1.14 U | 1.16 U | 1.15 U |
| ***EPA 8260A*** | | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,1,2-Trichloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,1-Dichloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,1-Dichloroethene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,2-Dichloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 1,2-Dichloropropane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| 2-Butanone (MEK) | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 58 U | 57 U |
| 2-Chloroethyl vinyl ether | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 58 U | 57 U |
| 2-Hexanone | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 58 U | 57 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 58 U | 57 U |
| Acetone | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 12 J | 57 U |
| Benzene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Bromodichloromethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Bromoform | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Bromomethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Carbon disulfide | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Carbon tetrachloride | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Chlorobenzene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Chloroethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Chloroform | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Chloromethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| cis-1,2-Dichloroethene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| cis-1,3-Dichloropropene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Dibromochloromethane | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Ethylbenzene | µg/kg | 280 U | 280 U | 36 J | 54 J | 650 | 25 | 1.5 J |
| Methyl tert-butyl ether (MTBE) | µg/kg | 560 U | 550 U | 580 U | 570 U | 1100 U | 12 U | 11 U |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification<br>Location Code (UST-298-)<br>Date Sampled | Unit | 18609-2889<br>Stockpile<br>03/22/00 | 18609-2890<br>Stockpile<br>03/22/00 | 18609-2891<br>Stockpile<br>03/22/00 | 18609-2892<br>Stockpile<br>03/22/00 | 18609-2893<br>Stockpile<br>03/22/00 | 18609-2894<br>Stockpile<br>03/22/00 | 18609-2895<br>Stockpile<br>03/22/00 |
|---|---|---|---|---|---|---|---|---|
| Methylene chloride | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 10 * | 5.7 U |
| trans-1,3-Dichloropropene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Tetrachloroethene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Toluene | µg/kg | 280 U | 280 U | 290 U | 110 J | 290 J | 18 | 5.7 U |
| trans-1,2-Dichloroethene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| trans-1,3-Dichloropropene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Trichloroethene | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Vinyl acetate | µg/kg | 2800 U | 2800 U | 2900 U | 2800 U | 5700 U | 58 U | 57 U |
| Vinyl chloride | µg/kg | 280 U | 280 U | 290 U | 280 U | 570 U | 5.8 U | 5.7 U |
| Xylenes (total) | µg/kg | 240 J | 130 J | 410 | 640 | 6000 | 140 | 16 |

# Table 4-1
# Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification<br>Location Code (UST-298-)<br>Date Sampled | Unit | 18609-2896<br>Stockpile<br>03/22/00 | 18609-2897<br>Stockpile<br>03/22/00 | 18609-2898<br>Stockpile<br>03/22/00 | 18609-2899<br>Stockpile<br>03/22/00 | 18609-2900<br>Stockpile<br>03/22/00 |
|---|---|---|---|---|---|---|
| ***CA LUFT 8015M*** | | | | | | |
| TPH as Diesel | mg/kg | 84 | 16 | 22 | 13 | 11 |
| TPH as Gasoline | mg/kg | 16 | 4.3 | 4.1 | 1.17 U | 1.15 U |
| ***EPA 6010*** | | | | | | |
| Arsenic | mg/kg | 3.78 | 3.79 | 2.75 | 3.82 | 3.65 |
| Lead | mg/kg | 5 | 3.66 | 3.37 | 3.19 | 3.22 |
| Selenium | mg/kg | 1.15 U | 1.15 U | 1.13 U | 1.17 U | 1.15 U |
| Thallium | mg/kg | 1.15 U | 1.15 U | 1.13 U | 1.17 U | 1.15 U |
| ***EPA 8260A*** | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,1,2-Trichloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,1-Dichloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,1-Dichloroethene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,2-Dichloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 1,2-Dichloropropane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| 2-Butanone (MEK) | µg/kg | 2900 U | 57 U | 57 U | 58 U | 58 U |
| 2-Chloroethyl vinyl ether | µg/kg | 2900 U | 57 U | 57 U | 58 U | 58 U |
| 2-Hexanone | µg/kg | 2900 U | 57 U | 57 U | 58 U | 58 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 2900 U | 57 U | 57 U | 58 U | 58 U |
| Acetone | µg/kg | 2900 U | 7.9 J | 57 U | 58 U | 14 J |
| Benzene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Bromodichloromethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Bromoform | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Bromomethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Carbon disulfide | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Carbon tetrachloride | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Chlorobenzene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Chloroethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Chloroform | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Chloromethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| cis-1,2-Dichloroethene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| cis-1,3-Dichloropropene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Dibromochloromethane | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Ethylbenzene | µg/kg | 26 J | 15 | 2.7 J | 5.8 U | 5.8 U |
| Methyl tert-butyl ether (MTBE) | µg/kg | 570 U | 11 U | 11 U | 12 U | 12 U |

# Table 4-1
## Summary of Analytical Results, Piping Trench, Sites 298A and 298B

| Sample Identification<br>Location Code (UST-298-)<br>Date Sampled | Unit | 18609-2896<br>Stockpile<br>03/22/00 | 18609-2897<br>Stockpile<br>03/22/00 | 18609-2898<br>Stockpile<br>03/22/00 | 18609-2899<br>Stockpile<br>03/22/00 | 18609-2900<br>Stockpile<br>03/22/00 |
|---|---|---|---|---|---|---|
| Methylene chloride | µg/kg | 290 U | 11 * | 9 * | 5.8 U | 5.8 U |
| trans-1,3-Dichloropropene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Tetrachloroethene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Toluene | µg/kg | 290 U | 1.8 J | 5.7 U | 5.8 U | 5.8 U |
| trans-1,2-Dichloroethene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| trans-1,3-Dichloropropene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Trichloroethene | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Vinyl acetate | µg/kg | 2900 U | 57 U | 57 U | 58 U | 58 U |
| Vinyl chloride | µg/kg | 290 U | 5.7 U | 5.7 U | 5.8 U | 5.8 U |
| Xylenes (total) | µg/kg | 360 | 57 | 31 | 3.2 J | 3.7 J |

# Table 4-1
# Summary of Analytical Results, Piping Trench, Former UST Sites 298A and 298B, and Stockpile

*CA LUFT - California Leaking Underground Fuel Tank*
*EPA - United States Environmental Protection Agency*
*J - estimated value*
*M - Modified*
*mg/kg - milligrams per kilogram*
*NA - not analyzed*
*OHM - OHM Remediation Services Corp.*
*R - data is not usable*
*RL - reporting limit*
*SB - soil boring*
*TPH - total petroleum hydrocarbons*
*U - not detected above or equal to the stated reporting limit*
*UJ - the sample detection limit is an estimated value*
*µg/kg - micrograms per kilogram*
**found in the associated blank.*

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2957A | 18609-2959A | 18609-2960A | 18609-2961A | 18609-2962A | 18609-2963A | 18609-2964A |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-02 | UST-298-SB-02 | UST-298-SB-02 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 |
| Depth (feet below ground surface) | | 20.5 | 40.5 | 50.5 | 60.5 | 20.5 | 40.5 | 50.5 |
| | Unit | | | | | | | |
| ***CA LUFT 8015M*** | | | | | | | | |
| TPH as Diesel | mg/kg | 11.2 U | 11.8 U | 12.8 U | 12.1 U | 11.3 U | 11.9 U | 10.7 U |
| TPH as Gasoline | mg/kg | 1.12 U | 1.18 U | 1.28 U | 1.21 U | 1.13 U | 1.19 U | 1.07 U |
| ***EPA 8260A*** | | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,1,2-Trichloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,1-Dichloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,1-Dichloroethene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,2-Dichloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 1,2-Dichloropropane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| 2-Butanone (MEK) | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| 2-Chloroethyl vinyl ether | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| 2-Hexanone | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| Acetone | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| Benzene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Bromodichloromethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Bromoform | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Bromomethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Carbon disulfide | µg/kg | 11 U | 12 U | 13 U | 12 U | 11 U | 12 U | 11 U |
| Carbon tetrachloride | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Chlorobenzene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Chloroethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Chloroform | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Chloromethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| cis-1,2-Dichloroethene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| cis-1,3-Dichloropropene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Dibromochloromethane | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Ethylbenzene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Methyl tert-butyl ether (MTBE) | µg/kg | 11 U | 12 U | 13 U | 12 U | 11 U | 12 U | 11 U |
| Methylene chloride | µg/kg | 11 U | 12 U | 13 U | 12 U | 11 U | 12 U | 11 U |
| Styrene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Tetrachloroethene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Toluene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2957A | 18609-2959A | 18609-2960A | 18609-2961A | 18609-2962A | 18609-2963A | 18609-2964A |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-01 | UST-298-SB-02 | UST-298-SB-02 | UST-298-SB-02 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 |
| Depth (feet below ground surface) | | 20.5 | 40.5 | 50.5 | 60.5 | 20.5 | 40.5 | 50.5 |
| | Unit | | | | | | | |
| trans-1,2-Dichloroethene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| trans-1,3-Dichloropropene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Trichloroethene | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Vinyl acetate | µg/kg | 56 U | 59 U | 64 U | 60 U | 56 U | 60 U | 53 U |
| Vinyl chloride | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |
| Xylenes (total) | µg/kg | 5.6 U | 5.9 U | 6.4 U | 6 U | 5.6 U | 6 U | 5.3 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2965A | 18609-2966A | 18609-2967A | 18609-2968A | 18609-2969A | 18609-2970A | 18609-2971A (Dup) |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-02 | UST-298-SB-02 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 |
| Depth (feet below ground surface) | | 60.5 | 61.0 | 20.5 | 40.5 | 50.5 | 60.5 | 61.0 |
| | Unit | | | | | | | |
| ***CA LUFT 8015M*** | | | | | | | | |
| TPH as Diesel | mg/kg | 11.4 U | 11.4 U | 11.2 U | 10.6 U | 24 | 12.3 U | 11.8 U |
| TPH as Gasoline | mg/kg | 1.14 U | 1.14 U | 1.12 U | 1.06 U | 7.1 | 1.23 U | 1.18 U |
| ***EPA 8260A*** | | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,1,2-Trichloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,1-Dichloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,1-Dichloroethene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,2-Dichloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 1,2-Dichloropropane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| 2-Butanone (MEK) | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 U | 59 U |
| 2-Chloroethyl vinyl ether | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 U | 59 U |
| 2-Hexanone | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 U | 59 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 U | 59 U |
| Acetone | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 J | 59 U |
| Benzene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Bromodichloromethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Bromoform | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Bromomethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Carbon disulfide | µg/kg | 11 U | 11 U | 11 U | 11 U | 12 U | 12 U | 12 U |
| Carbon tetrachloride | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Chlorobenzene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Chloroethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Chloroform | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Chloromethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| cis-1,2-Dichloroethene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| cis-1,3-Dichloropropene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Dibromochloromethane | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Ethylbenzene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | .56 J | 6.1 U | 23 |
| Methyl tert-butyl ether (MTBE) | µg/kg | 11 U | 11 U | 11 U | 11 U | 12 U | 12 U | 12 U |
| Methylene chloride | µg/kg | 11 U | 11 U | 11 U | 6.6 J | 12 U | 4.2 J | 4.9 J |
| Styrene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Tetrachloroethene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Toluene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2965A | 18609-2966A | 18609-2967A | 18609-2968A | 18609-2969A | 18609-2970A | 18609-2971A (Dup) |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-02 | UST-298-SB-02 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 | UST-298-SB-03 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 |
| Depth (feet below ground surface) | | 60.5 | 61.0 | 20.5 | 40.5 | 50.5 | 60.5 | 61.0 |
| | Unit | | | | | | | |
| trans-1,2-Dichloroethene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| trans-1,3-Dichloropropene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Trichloroethene | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Vinyl acetate | µg/kg | 57 U | 57 U | 56 U | 53 U | 58 U | 61 U | 59 U |
| Vinyl chloride | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 5.8 U | 6.1 U | 5.9 U |
| Xylenes (total) | µg/kg | 5.7 U | 5.7 U | 5.6 U | 5.3 U | 4.6 J | 3.5 J | 55 |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2973A | 18609-2974A | 18609-2975A | 18609-2976A | 18609-2978A | 18609-2979A | 18609-2980A |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-05 | UST-298-SB-05 | UST-298-SB-05 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/11/00 | 05/11/00 | 05/11/00 |
| Depth (feet below ground surface) | | 20.5 | 40.5 | 50.5 | 60.5 | 20.5 | 40.5 | 50.5 |
| | Unit | | | | | | | |
| ***CA LUFT 8015M*** | | | | | | | | |
| TPH as Diesel | mg/kg | 11.1 U | 11.2 U | 11.9 U | 12.3 U | 11.2 U | 12.4 U | 11 U |
| TPH as Gasoline | mg/kg | 1.11 U | 1.12 U | 1.19 U | 1.23 U | 1.12 U | 1.24 U | 1.1 U |
| ***EPA 8260A*** | | | | | | | | |
| 1,1,1-Trichloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,1,2-Trichloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,1-Dichloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,1-Dichloroethene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,2-Dichloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 1,2-Dichloropropane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| 2-Butanone (MEK) | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 U | 62 U | 55 U |
| 2-Chloroethyl vinyl ether | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 UJ | 62 UJ | 55 UJ |
| 2-Hexanone | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 U | 62 U | 55 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 U | 62 U | 55 U |
| Acetone | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 U | 62 U | 55 U |
| Benzene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Bromodichloromethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Bromoform | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Bromomethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Carbon disulfide | µg/kg | 11 U | 11 U | 12 U | 12 U | 11 U | 12 U | 11 U |
| Carbon tetrachloride | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Chlorobenzene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Chloroethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Chloroform | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Chloromethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| cis-1,2-Dichloroethene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| cis-1,3-Dichloropropene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Dibromochloromethane | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Ethylbenzene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Methyl tert-butyl ether (MTBE) | µg/kg | 11 U | 11 U | 12 U | 12 U | 11 U | 12 U | 11 U |
| Methylene chloride | µg/kg | 11 U | 11 U | 12 U | 12 U | 11 U | 12 U | 11 U |
| Styrene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Tetrachloroethene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Toluene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2973A | 18609-2974A | 18609-2975A | 18609-2976A | 18609-2978A | 18609-2979A | 18609-2980A |
|---|---|---|---|---|---|---|---|---|
| Location Code | | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-04 | UST-298-SB-05 | UST-298-SB-05 | UST-298-SB-05 |
| Date Sampled | | 05/10/00 | 05/10/00 | 05/10/00 | 05/10/00 | 05/11/00 | 05/11/00 | 05/11/00 |
| Depth (feet below ground surface) | | 20.5 | 40.5 | 50.5 | 60.5 | 20.5 | 40.5 | 50.5 |
| | Unit | | | | | | | |
| trans-1,2-Dichloroethene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| trans-1,3-Dichloropropene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Trichloroethene | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Vinyl acetate | µg/kg | 55 U | 56 U | 60 U | 61 U | 56 U | 62 U | 55 U |
| Vinyl chloride | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |
| Xylenes (total) | µg/kg | 5.5 U | 5.6 U | 6 U | 6.1 U | 5.6 U | 6.2 U | 5.5 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification | | 18609-2981A |
|---|---|---|
| Location Code | | UST-298-SB-05 |
| Date Sampled | | 05/11/00 |
| Depth (feet below ground surface) | | 60.0 |
| | Unit | |
| ***CA LUFT 8015M*** | | |
| TPH as Diesel | mg/kg | 12.3 U |
| TPH as Gasoline | mg/kg | 1.23 U |
| ***EPA 8260A*** | | |
| 1,1,1-Trichloroethane | µg/kg | 6.2 U |
| 1,1,2,2-Tetrachloroethane | µg/kg | 6.2 U |
| 1,1,2-Trichloroethane | µg/kg | 6.2 U |
| 1,1-Dichloroethane | µg/kg | 6.2 U |
| 1,1-Dichloroethene | µg/kg | 6.2 U |
| 1,2-Dichloroethane | µg/kg | 6.2 U |
| 1,2-Dichloropropane | µg/kg | 6.2 U |
| 2-Butanone (MEK) | µg/kg | 62 U |
| 2-Chloroethyl vinyl ether | µg/kg | 62 UJ |
| 2-Hexanone | µg/kg | 62 U |
| 4-Methyl-2-pentanone (MIBK) | µg/kg | 62 U |
| Acetone | µg/kg | 62 U |
| Benzene | µg/kg | 6.2 U |
| Bromodichloromethane | µg/kg | 6.2 U |
| Bromoform | µg/kg | 6.2 U |
| Bromomethane | µg/kg | 6.2 U |
| Carbon disulfide | µg/kg | 12 U |
| Carbon tetrachloride | µg/kg | 6.2 U |
| Chlorobenzene | µg/kg | 6.2 U |
| Chloroethane | µg/kg | 6.2 U |
| Chloroform | µg/kg | 6.2 U |
| Chloromethane | µg/kg | 6.2 U |
| cis-1,2-Dichloroethene | µg/kg | 6.2 U |
| cis-1,3-Dichloropropene | µg/kg | 6.2 U |
| Dibromochloromethane | µg/kg | 6.2 U |
| Ethylbenzene | µg/kg | 6.2 U |
| Methyl tert-butyl ether (MTBE) | µg/kg | 12 U |
| Methylene chloride | µg/kg | 12 U |
| Styrene | µg/kg | 6.2 U |
| Tetrachloroethene | µg/kg | 6.2 U |
| Toluene | µg/kg | 6.2 U |

# Table 4-2
## Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

| **Sample Identification** | | 18609-2981A |
|---|---|---|
| **Location Code** | | UST-298-SB-05 |
| **Date Sampled** | | 05/11/00 |
| **Depth (feet below ground surface)** | | 60.0 |
| | **Unit** | |
| trans-1,2-Dichloroethene | µg/kg | 6.2 U |
| trans-1,3-Dichloropropene | µg/kg | 6.2 U |
| Trichloroethene | µg/kg | 6.2 U |
| Vinyl acetate | µg/kg | 62 U |
| Vinyl chloride | µg/kg | 6.2 U |
| Xylenes (total) | µg/kg | 6.2 U |

# Table 4-2
# Summary of Analytical Results, Verification Soil Borings, Former UST Sites 298A and 298B

*CA LUFT - California Leaking Underground Fuel Tank*
*EPA - United States Environmental Protection Agency*
*J - estimated value*
*M - Modified*
*mg/kg - milligrams per kilogram*
*NA - not analyzed*
*OHM - OHM Remediation Services Corp.*
*R - data is not usable*
*RL - reporting limit*
*SB - soil boring*
*TPH - total petroleum hydrocarbons*
*U - not detected above or equal to the stated reporting limit*
*UJ - the sample detection limit is an estimated value*
*µg/kg - micrograms per kilogram*

# Table 4-3
## Summary of QC Results — Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification<br>Location Code<br>Date Sampled | Unit | 18609-2958A<br>Trip Blank<br>05/10/00 | 18609-2972A<br>Equipment Rinsate<br>05/10/00 | 18609-2977A<br>Trip Blank<br>05/11/00 |
|---|---|---|---|---|
| ***CA LUFT 8015M*** | | | | |
| TPH as Diesel | mg/L | NA | .093 U | NA |
| TPH as Gasoline | mg/L | NA | .1 U | NA |
| ***EPA 8260A*** | | | | |
| 1,1,1-Trichloroethane | µg/L | 5 U | 5 U | 5 U |
| 1,1,2,2-Tetrachloroethane | µg/L | 5 U | 5 U | 5 U |
| 1,1,2-Trichloroethane | µg/L | 5 U | 5 U | 5 U |
| 1,1-Dichloroethane | µg/L | 5 U | 5 U | 5 U |
| 1,1-Dichloroethene | µg/L | 5 U | 5 U | 5 U |
| 1,2-Dichloroethane | µg/L | 5 U | 5 U | 5 U |
| 1,2-Dichloropropane | µg/L | 5 U | 5 U | 5 U |
| 2-Butanone (MEK) | µg/L | 50 U | 50 U | 50 U |
| 2-Chloroethyl vinyl ether | µg/L | 50 U | 50 U | 50 UJ |
| 2-Hexanone | µg/L | 50 U | 50 U | 50 U |
| 4-Methyl-2-pentanone (MIBK) | µg/L | 50 U | 50 U | 50 U |
| Acetone | µg/L | 50 U | 50 U | 50 UJ |
| Benzene | µg/L | 5 U | 5 U | 5 U |
| Bromodichloromethane | µg/L | 5 U | 5 U | 5 U |
| Bromoform | µg/L | 5 U | 5 U | 5 U |
| Bromomethane | µg/L | 5 U | 5 U | 5 U |
| Carbon disulfide | µg/L | 5 U | 5 U | 5 U |
| Carbon tetrachloride | µg/L | 5 U | 5 U | 5 U |
| Chlorobenzene | µg/L | 5 U | 5 U | 5 U |
| Chloroethane | µg/L | 5 U | 5 U | 5 U |
| Chloroform | µg/L | 5 U | 5 U | 5 U |
| Chloromethane | µg/L | 5 U | 5 U | 5 U |
| cis-1,2-Dichloroethene | µg/L | 5 U | 5 U | 5 U |
| cis-1,3-Dichloropropene | µg/L | 5 U | 5 U | 5 U |
| Dibromochloromethane | µg/L | 5 U | 5 U | 5 U |
| Ethylbenzene | µg/L | 5 U | 5 U | 5 U |
| Methyl tert-butyl ether (MTBE) | µg/L | 10 U | 10 U | 10 U |
| Methylene chloride | µg/L | 3.9 J | 5 U | 5 U |
| Styrene | µg/L | 5 U | 5 U | 5 U |
| Tetrachloroethene | µg/L | 5 U | 5 U | 5 U |
| Toluene | µg/L | 5 U | 5 U | 5 U |
| trans-1,2-Dichloroethene | µg/L | 5 U | 5 U | 5 U |
| trans-1,3-Dichloropropene | µg/L | 5 U | 5 U | 5 U |

# Table 4-3
## Summary of QC Results — Verification Soil Borings, Former UST Sites 298A and 298B

| Sample Identification<br>Location Code<br>Date Sampled | | 18609-2958A<br>Trip Blank<br>05/10/00 | 18609-2972A<br>Equipment Rinsate<br>05/10/00 | 18609-2977A<br>Trip Blank<br>05/11/00 |
|---|---|---|---|---|
| | Unit | | | |
| Trichloroethene | µg/L | 5 U | 5 U | 5 U |
| Vinyl acetate | µg/L | 50 U | 50 U | 50 U |
| Vinyl chloride | µg/L | 5 U | 5 U | 5 U |
| Xylenes (total) | µg/L | 5 U | 5 U | 5 U |

# Table 4-3
# Summary of QC Results — Verification Soil Borings, Former UST Sites 298A and 298B

*CA LUFT - California Leaking Underground Fuel Tank*
*EPA - United States Environmental Protection Agency*
*J - estimated value*
*M - Modified*
*mg/L - milligrams per liter*
*NA - not analyzed*
*OHM - OHM Remediation Services Corp.*
*R - data is not usable*
*RL - reporting limit*
*SB - soil boring*
*TPH - total petroleum hydrocarbons*
*U - not detected above or equal to the stated reporting limit*
*UJ - the sample detection limit is an estimated value*
*µg/L - micrograms per liter*

# *Appendix A*
# *Letter to RQWCB*

# COUNTY OF ORANGE
# HEALTH CARE AGENCY

## HEALTH CARE REGULATORY SERVICES
## ENVIRONMENTAL HEALTH

JULIETTE A. POULSON, RN, MN
INTERIM DIRECTOR

MIKE SPURGEON
INTERIM DIRECTOR
HEALTH CARE REGULATORY SERVICES

JACK MILLER, REHS
DIRECTOR
ENVIRONMENTAL HEALTH

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 568-5116
E-MAIL: environhealth@hca.co.orange.ca.us

October 19, 1999

Ms. Patricia Hannon
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

RE: Marine Corps Air Station El Toro
Tanks #298A and 298B
Santa Ana, CA 92709

Dear Ms. Hannon:

Due to the detection of soil contamination in the samples collected from the dispenser area during tank removal activities at the above referenced site, this Agency is referring the case to you for assessment and remediation oversight. It is this Agency's understanding that a copy of the tank closure report documenting the removal and results of all soil sampling will be forwarded to your Agency.

If you have any questions or require any further information, please contact me at (714) 667-3713.

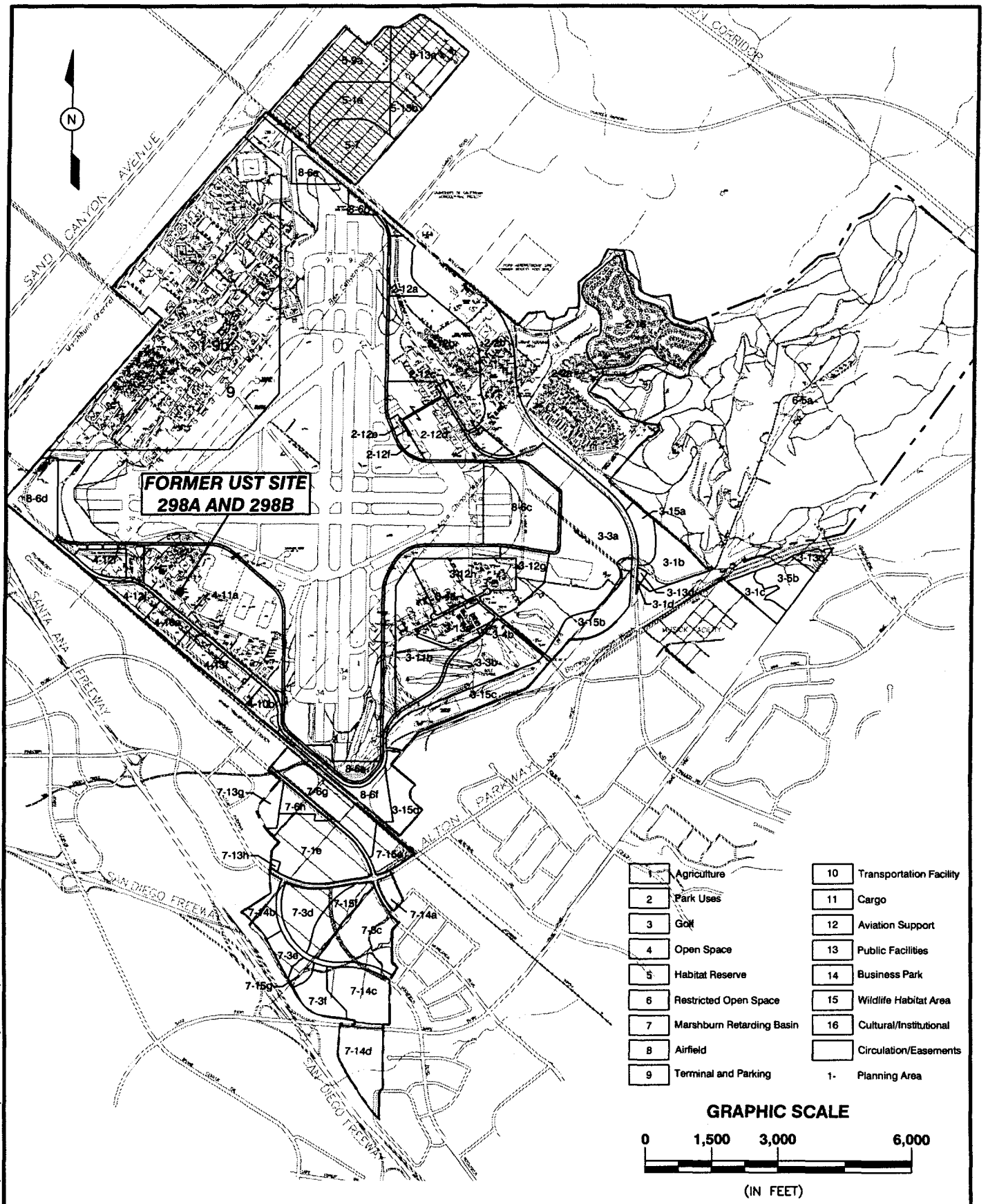
Sincerely,

Arghavan Rashidi-Fard

Arghavan Rashidi-Fard
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

cc: Lynn Hornecker, SWDIV

# *Appendix B*
# *Preferred land Use Plan*




| | | | |
|---|---|---|---|
| OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA | DRAWN BY R. PIRMORADIAN | DATE 1/5/01 | TENTATIVE REUSE PARCEL LOCATION FORMER UST SITE 298A AND 298B |
| | CHECKED BY | DATE 2/15/01 | |
| | APPROVED BY | DATE | |
| CONTRACT NAME SWDIV | PROJECT MANAGER | DATE | MARINE CORPS AIR STATION EL TORO, CALIFORNIA |

| AUTOCAD FILE No. | PLOT SCALE | SHEET | OF | SCALE | DOCUMENT CONTROL No. | OHM PROJECT No. | FIGURE No. | REVISION |
|---|---|---|---|---|---|---|---|---|
| 18609337C.DWG | 1=1 | 1 | 1 | 1"=3000' | SW8564 | 18609 | FIG 1-2 | 0 |

Jan 08, 2001 - 14:24:58 I:\OHM CORP\PROJECTS\18609\18609337C.dwg

# *Appendix C*
# *Boring Log for Monitoring Well 10_DGMW77*

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 1 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

ELEVATION 271.7 ft DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE INTERVAL | SAMPLE TYPE AND NUMBER | SAMPLE RECOVERY (FT) | PENETRATION TEST RESULTS 6"-6"-6" | SOIL DESCRIPTION: SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | FID/PID READING | COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
|---|---|---|---|---|---|---|---|
| | | | | | Asphalt ±6" | | |
| | | | | | WELL GRADED SAND WITH GRAVEL (SW), fill<br>From about 2 ft,<br>Cuttings: SANDY CLAY (CL), brown, moist | | |
| 5.0 | | | | | | | |
| | 10.0 | | | | | | |
| 10.0 | 11.5 | I-C | .75 | 6-10-22 | CLAYEY SAND (SC), brown, moist, fine sand, poorly graded | F: 0.2 ppm | |
| 15.0 | | | | | | | |
| | 20.0 | | | | | | |
| 20.0 | 21.5 | 2-C | 1.25 | | SANDY CLAY (CL), dark brown, moist, fine to medium with some coarse sand, many veins of white carbonate infillings <1 mm thick (reacts strongly with HCl) | F: 0.2 ppm | |
| 25.0 | | | | | | | |
| 30.0 | | | | | | | |

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 2 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

ELEVATION 271.7 ft DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE INTERVAL | SAMPLE TYPE AND NUMBER | SAMPLE RECOVERY (FT) | PENETRATION TEST RESULTS 6"-6"-6" | SOIL DESCRIPTION: SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | FID/PID READING | COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
|---|---|---|---|---|---|---|---|
| | 31.5 | 3-C | 1.5 | 10-25-31 | POORLY GRADED SAND WITH GRAVEL, (SP), brown, moist, moslty fine sand with medium and coarse poorly graded sand, angular, 20% subangular to subrounded gravel, non-carbonate | F: 1.2 ppm | Rocky drilling |
| 35.0 | | | | | | | |
| | 40.0 | | | | | | |
| 40.0 | 41.5 | 4-C | 1.25 | 25-36-38 | SANDY CLAY, (CL), brown, moist, hard. some non-carbonate subangular to subrounded gravel | F: 4.7 ppm | |
| 45.0 | | | | | | | |
| | 50.0 | | | | | | |
| 50.0 | 51.5 | 5-C | | 16-25-36 | SANDY CLAY, (CL), brown with some light brown mottles, moist to dry, fine sand, medium plasticity | F: 0.4 ppm | |
| 55.0 | | | | | | | |
| 60.0 | | | | | | | |

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 3 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

ELEVATION 271.7 ft. DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft. 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE INTERVAL | SAMPLE TYPE AND NUMBER | SAMPLE RECOVERY (FT) | PENETRATION TEST RESULTS 6"-6"-6" | SOIL DESCRIPTION: SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | FID/PID READING | COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
|---|---|---|---|---|---|---|---|
| | 30.0 31.5 | 6-C | 1.25 | 30-40-52 | Upper 10 inches: POORLY GRADED SAND, (SP), tan, dry, fine to medium, with pockets of coarse sand poorly graded Lower 5 inches, FAT CLAY, (CH), dark brown, moist, some lamina, high plasticity | F: 4.8 ppm | |
| 65.0 | | | | | | | |
| 70.0 | 70.0 71.5 | 7-C | 1.5 | 31-46-50 | POORLY GRADED SAND, (SP), light brown, dry to moist, fine to medium with trace coarse poorly graded sand, with some muscovite | F: 0.2 ppm | |
| 75.0 | | | | | | | |
| 80.0 | 80.0 81.5 | 8-C | .75 | 11-27-50 | SANDY CLAY, (CL), medium dark brown, moist, some coarse sand and small 1/4" gravel. | F: 3.9 ppm | |
| 85.0 | | | | | | | |
| 90.0 | | | | | | | |

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 4 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

ELEVATION 271.7 ft. DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft. 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE INTERVAL | SAMPLE TYPE AND NUMBER | SAMPLE RECOVERY (FT) | PENETRATION TEST RESULTS 6"-6"-6" | SOIL DESCRIPTION: SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | FID/PID READING | COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
|---|---|---|---|---|---|---|---|
| | 91.5 | 9-C | 1.3 | 50-50-50 | POORLY GRADED SAND, (SP), light brown, moist, fine to medium with pockets of coarse sand and small gravel, gravel is non-carbonated and subangular to subrounded | F: 0.8 ppm | |
| 65.0 | | | | | | | |
| | 100.0 | | | | | | |
| 70.0 | 101.5 | 10-C | 1.0 | 23-75 | POORLY GRADED SAND, (SP), light brown, moist, fine to medium with coarse poorly graded sand | F: 2.0 ppm | |
| 75.0 | | | | | | | |
| | 110.0 | | | | | | |
| 80.0 | 111.5 | 11-C | .6 | 27-75 | LEAN CLAY, (CL), dark brown, moist, very hard, some 1/2" rounded gravel are coarse sand, some whitish brown carbonate infillings that react moderately to strong with HCl | F: 1.8 ppm | Very hard drilling |
| 85.0 | | | | | | | |
| 90.0 | | | | | | | |

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 5 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

ELEVATION 271.7 ft. DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE INTERVAL | SAMPLE TYPE AND NUMBER | SAMPLE RECOVERY (FT) | PENETRATION TEST RESULTS 6"-6"-6" | SOIL DESCRIPTION: SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | FID/PID READING | COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
|---|---|---|---|---|---|---|---|
| | 121.5 | 12-C | 1.5 | | LEAN CLAY, (CL), dark brown, dry to moist, very hard, some gravel (rounded to subrounded), some coarse sand | F: 0.2 ppm | Possible water zone (driller) Center plug rod was wet Split spoon was dry |
| 125.0 | | | | | | | Driller says last three feet felt like water zone |
| | 129.0 | | | | | | |
| 130.0 | 130.5 | 13-C | .75 | 8-9-15 | LEAN CLAY, (CL), medium brown with sand and gravel | F: 0.2 ppm | Surface of sampler wet and contains much unrepresentative sample, will send sampler to 131 ft. and sample again. Sample again is very wet and sloppy. |
| | 132.0 | 14-C | .5 | 6-10-14 | | | |
| | 134.0 | | | | | | |
| 135.0 | 135.5 | 15-C | 1.2 | 6-18-29 | POORLY GRADED SAND, (SP), grayish brown, wet, mostly coarse with some medium and fine poorly graded sand, some subrounded gravel fragments. | F: 0.2 ppm | |
| 140.0 | | | | | | | |
| 145.0 | | | | | | | |
| 150.0 | | | | | | | |

| PROJECT NUMBER | BORING NUMBER | |
|---|---|---|
| LAO31981 | MW-77 | SHEET 6 OF 6 |

# SOIL BORING LOG

PROJECT MCAS El Toro RI/FS Phase I LOCATION Site 10

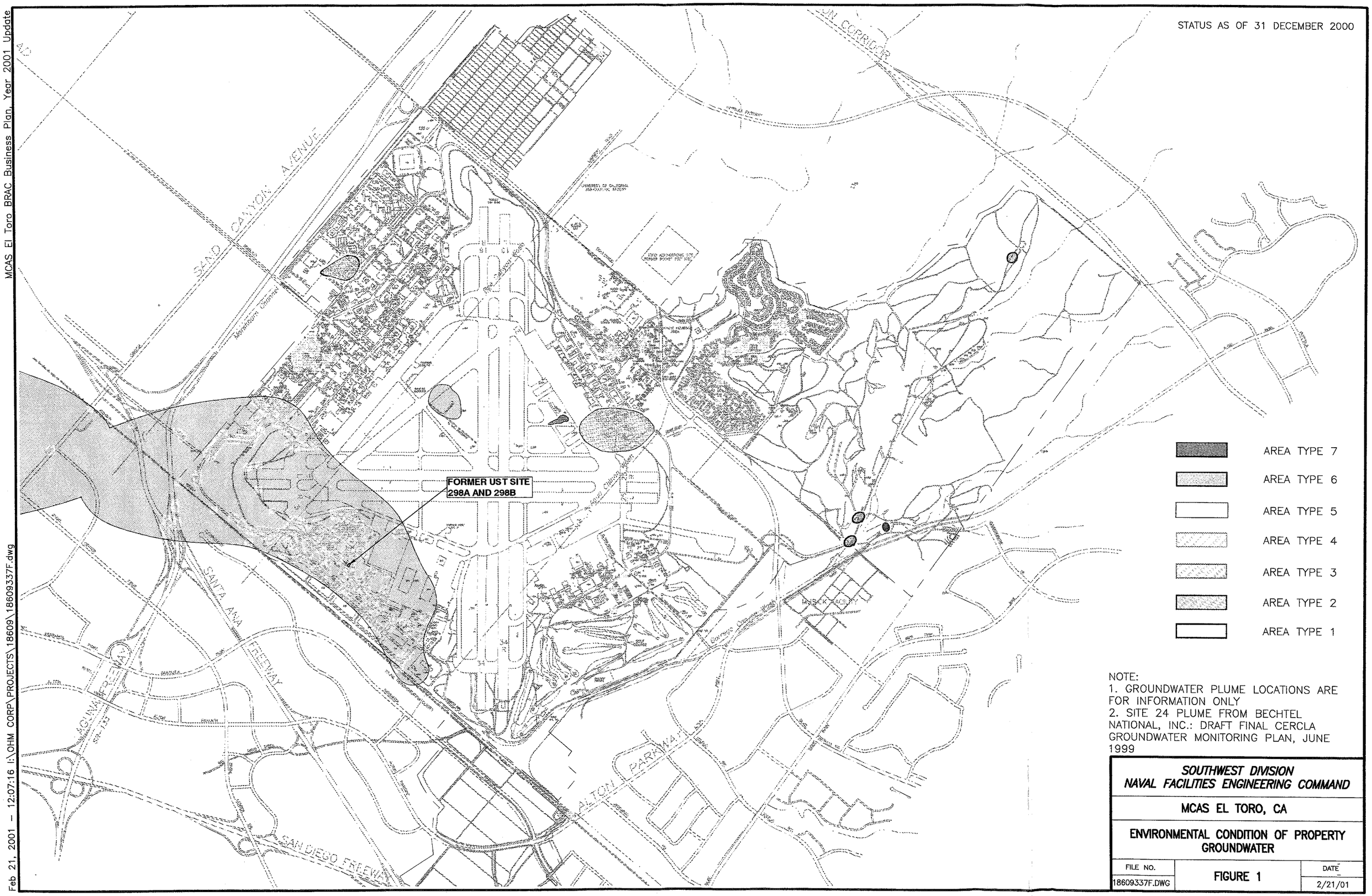
ELEVATION 271.7 ft. DRILLING CONTRACTOR Beylik Drilling Inc.

DRILLING METHOD AND EQUIPMENT Failing F-10

WATER LEVEL AND DATE 110.6 ft 1/20/93 START 9/2/92 FINISH LOGGER T. MacGillivray

| DEPTH BELOW SURFACE (FT) | SAMPLE | | | PENETRATION TEST RESULTS | SOIL DESCRIPTION | FID/PID READING | COMMENTS |
|---|---|---|---|---|---|---|---|
| | INTERVAL | TYPE AND NUMBER | RECOVERY (FT) | 6"-6"-6" | SOIL NAME, USGS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY | | DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION |
| 155.0 | | | | | | | |
| .0 | | | | | | | |
| 165.0 | | | | | | | |
| 170.0 | | | | | | | |
| 175.0 | | | | | Total Depth - 175.0 ft | | |
| 180.0 | | | | | | | |

# *Appendix D*
# *TCE Plume Map*

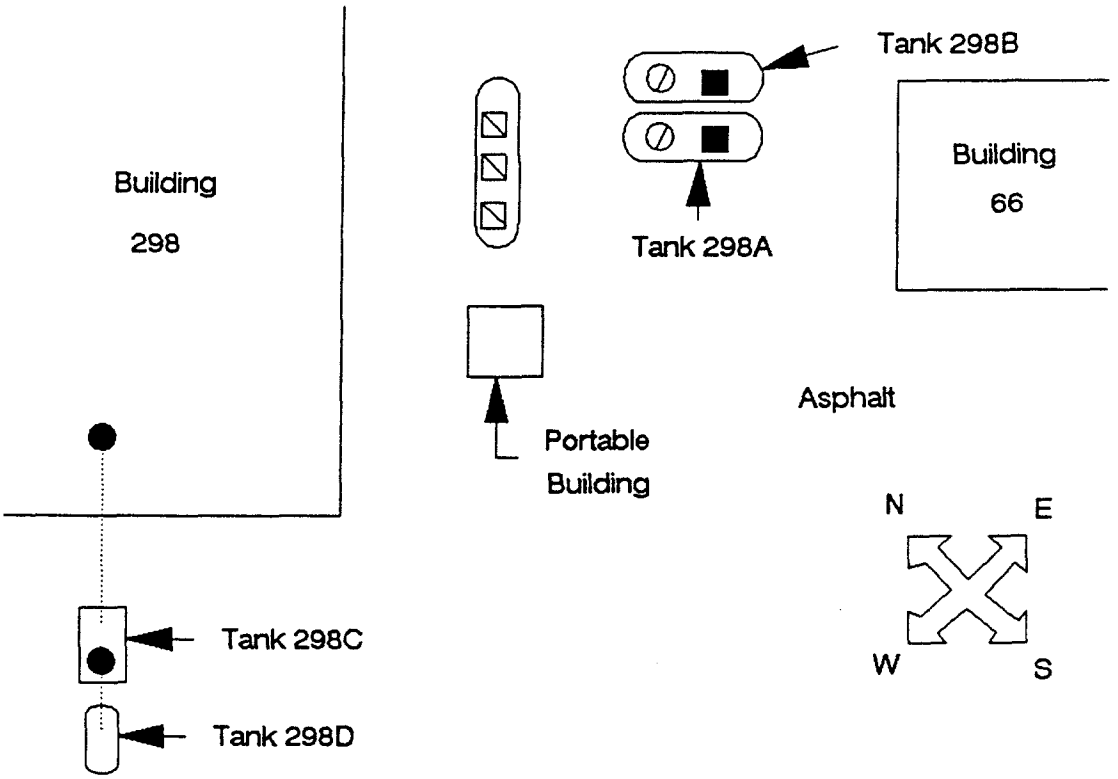



NOTE:
1. GROUNDWATER PLUME LOCATIONS ARE FOR INFORMATION ONLY
2. SITE 24 PLUME FROM BECHTEL NATIONAL, INC.: DRAFT FINAL CERCLA GROUNDWATER MONITORING PLAN, JUNE 1999

| | | |
|---|---|---|
| ***SOUTHWEST DIVISION NAVAL FACILITIES ENGINEERING COMMAND*** | | |
| **MCAS EL TORO, CA** | | |
| **ENVIRONMENTAL CONDITION OF PROPERTY GROUNDWATER** | | |
| FILE NO. | **FIGURE 1** | DATE |
| 18609337F.DWG | | 2/21/01 |

# *Appendix E*
# *INEL Report*

# TANK 298A
# EL TORO MARINE BASE




3" Fill Pipe
6" Remote Fill
20" Manway
Dispenser

EG&G Idaho, Inc.

# ACTIVE UNDERGROUND STORAGE TANK QUESTIONNAIRE

## 1. General Information

1. Tank Identification No: ET-298A
2. Facility Name: Vehicle Maint. Shop
3. Operator Organization: Vehicle Maint.
4. Current Status: Active

## 2. Construction Details

1. Estimated Installation Date: 1944
2. Volume: 3,000 Gallon
3. Contents: Premium Unleaded Gas
4. Tank Construction:
   - Material: Carbon Steel
   - Geometry: Cylindrical
   - Installation: Horizontal
   - Containment: None
5. Facility Drawing Number(s): 6058921, 6058927, 6058928
6. Tank Dimensions: Not Available
   - Source: None
7. Product Piping:
   - System Type: Suction
   - Location: Below Grade
   - Construction Material: Fiberglass
   - Cathodic Protection: None
8. Other Piping: Vapor Recovery
9. Tank Openings:
   - Direct Fill Port: 4" Diameter
   - Remote Fill Port: None
   - Gauge Port: None
   - Vent Line: 2" Diameter
   - Manway: None
10. Permanent Drop Tube: Yes

11. Leak Detection System: Inventory Control & Annual Tank Test

12. Corrosion Control:
    External: None
    Internal: None

13. Spill and Overfill Prevention: High & Low Level Shut-offs

## 3. Operational Characteristics

1. System Function: Vehicle Refueling
2. Operation Duty: 5 Days Per Week
3. Gauge Method: Manual
4. Monitoring Technique: Daily
5. In-Tank Water Testing: Daily
6. Volumetric Chart: None

## 4. Geophysical Data

1. Surrounding Soil:
    Type: Loam
    pH: 8.15
    Resistivity: >2000 ohm/cm
    Permeability: Moderate
2. Adjacent Surface Water: None
3. Surface Finish: Asphalt & Concrete
4. Groundwater Depth: 105 ft.
5. Adjacent Monitoring Well: None
6. Hydraulic Conductivity and Direction: 30 ft/day NW

## 5. Environmental and Risk Hazards

1. Adjacent Sensitive Receivers: None
2. Adjacent Underground Utilities: Electric

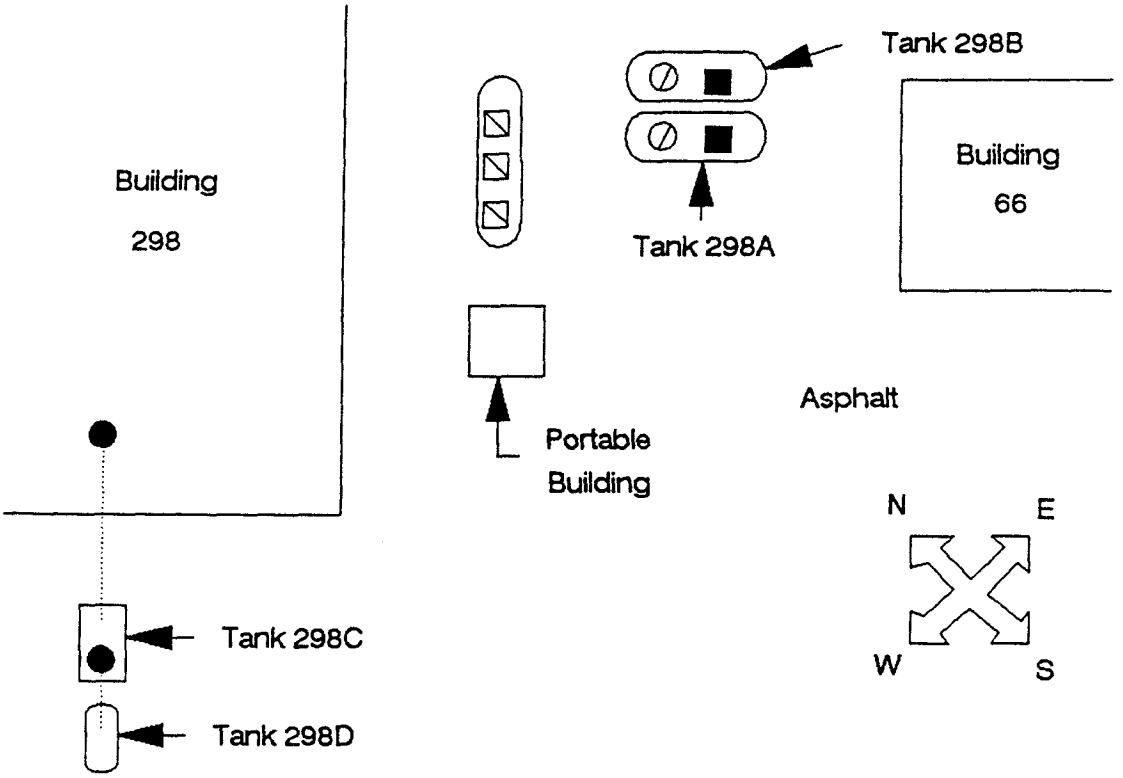
## 6. Historical Information

1. Contents History: Stored Liquid Fuel Since Installation
2. Corrosion Controls: None
3. Inventory Records: Available
4. System Repair Records: Available
5. EPA Registration: Yes
6. Monitoring Records: Available
7. Prior Contamination Records: Available
8. Leak Detection Records Available

## 7. Comments, Updates and Modifications

Leak Tested on 2/20/90 and passed.

# TANK 298B
# EL TORO MARINE BASE




3" Fill Pipe
6" Remote Fill
20" Manway
Dispenser

EG&G Idaho, Inc.

# ACTIVE UNDERGROUND STORAGE TANK QUESTIONNAIRE

## 1. General Information

| | | |
|---|---|---|
| 1. | Tank Identification No: | ET-298B |
| 2. | Facility Name: | Vehicle Maint. Shop |
| 3. | Operator Organization: | Vehicle Maint. |
| 4. | Current Status: | Active |

## 2. Construction Details

| | | |
|---|---|---|
| 1. | Estimated Installation Date: | 1944 |
| 2. | Volume: | 3,000 Gallon |
| 3. | Contents: | Unleaded Gas |
| 4. | Tank Construction: | |
| | Material: | Carbon Steel |
| | Geometry: | Cylindrical |
| | Installation: | Horizontal |
| | Containment: | None |
| 5. | Facility Drawing Number(s): | 6058921, 6058927, 6058928 |
| 6. | Tank Dimensions: | Not Available |
| | Source: | None |
| 7. | Product Piping: | |
| | System Type: | Suction |
| | Location: | Below Grade |
| | Construction Material: | Fiberglass |
| | Cathodic Protection: | None |
| 8. | Other Piping: | Vapor Recovery |
| 9. | Tank Openings: | |
| | Direct Fill Port: | 4" Diameter |
| | Remote Fill Port: | None |
| | Gauge Port: | None |
| | Vent Line: | 2" Diameter |
| | Manway: | None |
| 10. | Permanent Drop Tube: | Yes |

11. Leak Detection System: Inventory Control & Annual Tank Test

12. Corrosion Control:
    External: None
    Internal: None

13. Spill and Overfill Prevention: None

## 3. Operational Characteristics

1. System Function: Vehicle Refueling
2. Operation Duty: 5 Days Per Week
3. Gauge Method: Manual
4. Monitoring Technique: Daily
5. In-Tank Water Testing: Daily
6. Volumetric Chart: None

## 4. Geophysical Data

1. Surrounding Soil:
    Type: Loam
    pH: 8.15
    Resistivity: >2000 ohm/cm
    Permeability: Moderate
2. Adjacent Surface Water: None
3. Surface Finish: Asphalt Concrete
4. Groundwater Depth: 105 ft.
5. Adjacent Monitoring Well: None
6. Hydraulic Conductivity and Direction: 30 ft/day to NW

## 5. Environmental and Risk Hazards

1. Adjacent Sensitive Receivers: None
2. Adjacent Underground Utilities: Electric

## 6. Historical Information

1. Contents History: Stored Liquid Fuel Since Installation
2. Corrosion Controls: None
3. Inventory Records: Available
4. System Repair Records: Available
5. EPA Registration: Yes
6. Monitoring Records: Available
7. Prior Contamination Records: Available
8. Leak Detection Records Available

## 7. Comments, Updates and Modifications

Leak Tested on 2/20/90 and passed.

# *Appendix F*
# *GEOFON, Underground Storage Tank Removal Report*

# UNDERGROUND STORAGE TANK REMOVAL REPORT

**USTs 298A and UST 298B**
**Marine Corps Air Station (MCAS)**
**El Toro, California**

**Contract No. N68711-97-D-8702**
**Delivery Order No. 0028**

Prepared for:
**Department of the Navy,**
**Southwest Division**
**Naval Facilities Engineering Command**
**BRAC Operations Office**
**1420 Kettner Boulevard, Suite 507**
**San Diego, California 92101-2404**

Prepared by:

**GEOFON, INC.**
**22632 Golden Springs Drive, Suite 270**
**Diamond Bar, CA 91765**

GEOFON Project No. 04-4304.280 October 27, 1999

## CERTIFICATION

To the best of our knowledge, all statements and information provided in this report are true and correct.

Asrar Faheem, REA
Registered Environmental Assessor

Charles K. Duckworth, P.E.
Registered Civil Engineer

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## 1.0 INTRODUCTION

GEOFON, Inc. has been retained by the Department of the Navy, Southwest Division (SWDIV), under Contract No. N68711-97-D-8702, Delivery Order No. 0028 to remove and dispose of inactive underground storage tanks (USTs) at the Marine Corps Air Station (MCAS), El Toro, California (Figure 1). The work involved the removal and disposal of two (2) USTs and associated pump/dispenser islands at Building 298.

This report documents and summarizes work performed at the site of USTs 298A and 298B, observations during the UST removals, investigative findings, waste management, site restoration, conclusions and recommendations. Analytical results for soil samples are presented in Table 1. The UST Removal Summary and the soil sample location map are presented in Appendix A. The removal permit, the waste manifest and the tank destruction certificate are included in Appendix B. Laboratory reports and chain-of-custody forms are included in Appendix C. Miscellaneous information including field density tests and modified proctor test data are presented in Appendix D.

## 2.0 SUMMARY OF WORK AT UST 298A AND UST 298B

Two (2) steel USTs identified as UST 298A (3,000 gallon) and UST 298B (2,000 gallon), historically containing unleaded gasoline and diesel, respectively, with approximately 160 feet of associated piping, were removed on July 22, 1999. The operation of removal and disposal of the USTs including the soil sampling of the excavations was performed under the supervision of the Orange County Health Care Agency (OCHCA) and the Assistant Resident Officer in Charge of Construction (AROICC).

### *2.1 Observations during UST Removals*

USTs 298A and 298B were located on the south side of MCAS, El Toro, approximately 50 feet southeast of Building 298. The USTs were covered by concrete slab and bounded by an associated pump island and Building 298 to the northwest and Building 616 to the south as shown in Figure 2. The reported date of installation of the USTs was 1944. The excavation for USTs 298A was approximately 19 feet in length, 20 feet in width, and 12 feet in depth. It was observed that the USTs were constructed of steel. UST 298A measured approximately 6 feet in diameter and 15 feet in length. UST 298B measured approximately 6 feet in diameter and 10 feet in length. Approximately 142 cubic yards of soil was excavated around the tank and placed near the excavation on 10-mil polyethylene sheeting/visqueen. Groundwater was not encountered during excavation activities.

## *2.2 Investigative Findings*

Following the UST removals, GEOFON collected a total of seven (7) soil samples. Three (3) of the samples were collected from the bottom of the excavation, three (3) from underneath the dispenser islands in the Fuel Dispensing Area (FDA), and one (1) from the stockpiled soil generated during excavation activities. Soil sample locations and depths were determined by the OCHCA representative (Figure 3).

The sampling was conducted in accordance with the sampling protocol outlined in the approved Work Plan Addendum dated June 22, 1999 and in coordination with the OCHCA and the AROICC. The soil samples were collected following an environmental protocol and transported following standard chain-of-custody procedures to American Environmental Testing Laboratories (AETL), a California-certified laboratory.

The sampling procedures were as follows:

1. All sampling equipment was thoroughly cleaned prior to use.
2. The soil samples were collected from the backhoe bucket. Approximately three inches of soil was removed from the exposed surface prior to collecting the soil sample in a steel sleeve.
3. The sleeve was covered on both ends with three-inch square Teflon sheets, sealed with plastic caps, and care was taken to assure that no headspace was present in the sampling tube.
4. The sleeves were labeled; an evidence tape was placed around them and placed immediately into a refrigerated ice chest.
5. The samples were sent to a California-certified laboratory under the proper chain of custody.

Soil samples collected were analyzed by AETL for Total Petroleum Hydrocarbons (TPH-G, TPH-D, and TPH-HC) using the Environmental Protection Agency (EPA) method 8015M and for benzene, toluene, ethylbenzene, and (total) xylenes plus MtBE using EPA method 8020.

Soil samples from the fuel dispensers, the excavation and the stockpile reported concentrations of TPH-G ranging from 18.8 to 1,330 mg/kg and TPH-D ranging from 256 to 363 mg/kg. Concentrations of benzene ranged from 11.5 to 12,800 µg/kg, toluene ranged from 20.6 to 43,300 µg/kg, ethylbenzene ranged from 25.1 to 36,000 µg/kg, (total) xylenes ranged from 93.8 to 149,000 µg/kg and MtBE ranged from 225 to 10,100 µg/kg. Concentrations of TPH-HC above the PQL were not reported in any of the soil samples. Summarized laboratory analytical results are presented in Table 1. Laboratory reports and chain-of-custody forms are included in Appendix C.

Additional EPA analytical method 418.1 (TRPH) was performed on the soil samples. Concentrations of TRPH ranged from 11 to 442 mg/kg.

### *2.3 Waste Management of Rinsate*

Approximately 200 gallons of rinsate from UST 298A and UST 298B was transported on July 22, 1999 by EFR Environmental Services (EFR), a California-certified waste hauler, to DRI, a recycling facility located at Quartzsite, Arizona.

UST 298A and UST 298B were removed on July 22, 1999 and transported by EFR to Pacific Coast Recycling located in San Diego, California. The tank destruction certificate is included in Appendix B.

## 3.0 SITE RESTORATION

The area of USTs 298A and B was restored by August 11, 1999. Restoration began by backfilling the excavations in one-foot lifts with the excavated material compacted with a backhoe-mounted sheepsfoot roller and a dual-drum-vibrating roller. Field density tests were performed using a Nuclear Gauge (ASTM D 2922) to achieve 90% or better relative compaction. Upon receipt of analytical data and in discussion with the AROICC, the excavated material was stockpiled onsite and covered with visqueen. Field density tests and the modified proctor test data are presented in Appendix D.

## 4.0 CONCLUSIONS

Based on our sampling, analysis, and observations, we conclude that:

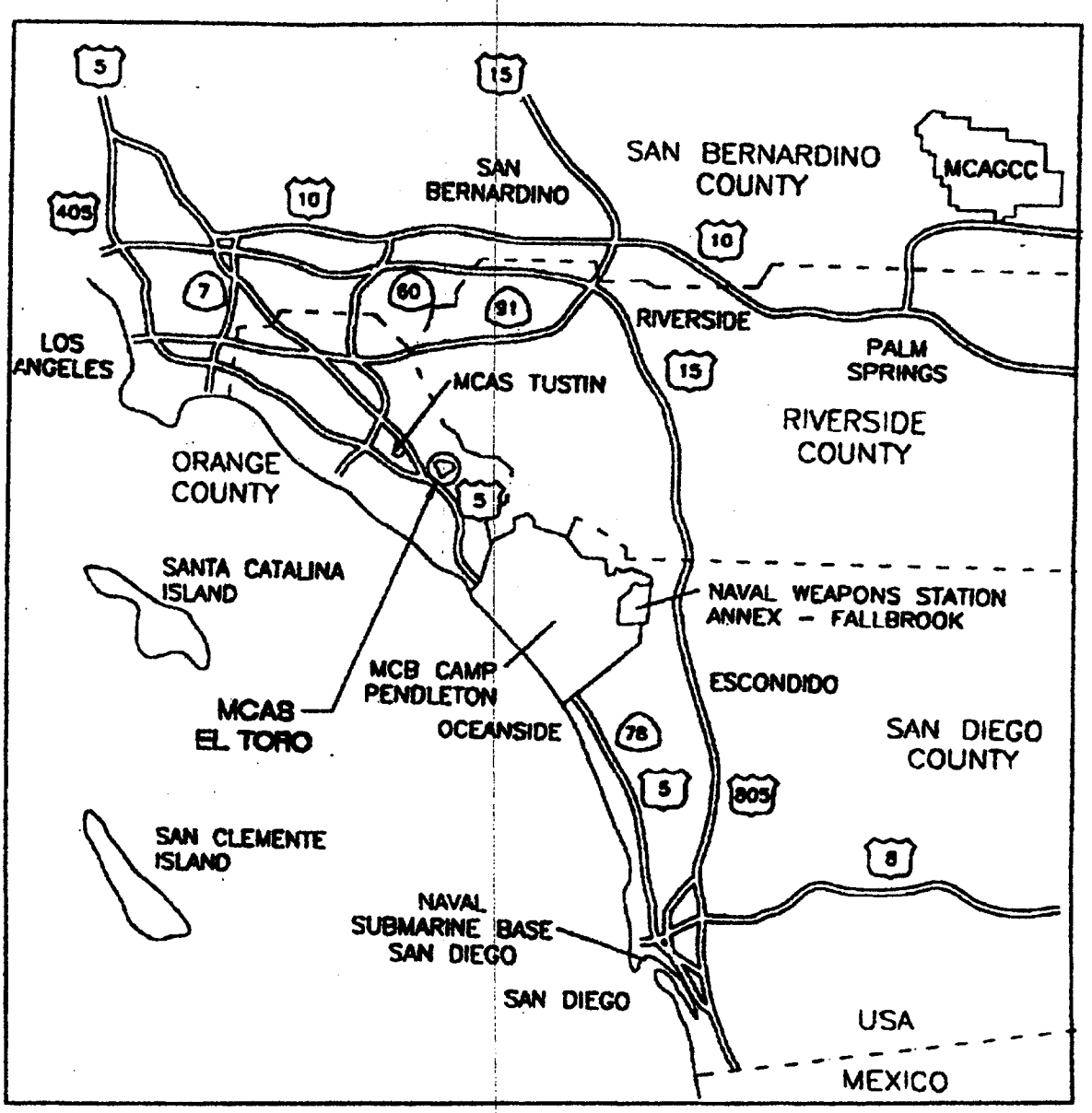
- Two (2) USTs and associated pump islands were removed and disposed in accordance with the approved Work Plan Addendum dated June 22, 1999.
- Post removal investigation of the USTs showed gradual signs of deterioration of the UST's.
- There was evidence of spillage and areas of moderate to heavy staining observed in the excavation and the stockpiled material.
- There was no groundwater encountered in the excavation.
- Soil samples from the fuel dispensers and the excavation reported maximum concentrations of TPH-G at 1,330 mg/kg (298A/B-D3-2.5'), TPH-D at 363 mg/kg (298A/B-D3-2.5'), and TRPH at 442 mg/kg (298A/B-D1-2.5').

- Soil samples from the fuel dispensers and the excavation reported maximum concentrations of benzene at 12,800 µg/kg (298A/B-D1-2.5'), toluene at 43,300 µg/kg (298A/B-D1-2.5'), ethylbenzene at 36,000 µg/kg (298A/B-D3-2.5'), (total) xylenes at 149,000 µg/kg (298A/B-D3-2.5') and MtBE at 10,100 µg/kg (298A/B-D3-2.5').
- Verbal approvals were accorded by the RPM and the AROICC to backfill the excavation with clean imported soil.

## 5.0 LIMITATIONS

The investigative results of this report represent conditions at the specific time and location at which soil and tank content samples were obtained and for the parameters analyzed for by the independent laboratory. The laboratory data presented in this report was prepared under the direction and management of the independent laboratory and it is solely responsible for the contents and conclusions of the data presented.

The work described herein has been performed by GEOFON, Inc., and its licensed or certified subcontractors. The work has been performed in accordance with the professional standards and practices currently accepted in the Environmental Industry. No other representations, expressed or implied, and no warranty or guarantee is included in this report.




Reference: UST Removal Plans prepared by Kleinfelder

Scale in Feet

0 20 40

N

GEOFON INCORPORATED

PROJECT NO.: 04-4304.280

**PROJECT VICINITY MAP**

9/99

Figure 1

## TABLE 1 - USTs 298A and 298B
## Summary of Laboratory Analytical Data

| USTs 298A and 298B Fuel Dispenser, Excavation and Stockpile Soil Sampling | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical Analyte | EPA Method | PQL | Sample ID 298A/B-D1-2.5 | Sample ID 298A/B-D2-2.5 | Sample ID 298A/B-D3-2.5 | Sample ID 298A/B-X1-9 | Sample ID 298A/B-X2-9 | Sample ID 298B-X3-9 | Sample ID 298A/B-SP-01 |
| **TPH-G ($C_4$ - $C_{12}$)** | 8015 | 1 mg/kg | 1,200.0 | 18.8 | 1,330.0 | ND | ND | ND | 5.9 |
| **TPH-D ($C_{12}$- $C_{23}$)** | 8015 | 10 mg/kg | 256.0 | ND | 363.0 | ND | ND | ND | ND |
| **TPH-HC ($C_{23+}$)** | 8015 | 10 mg/kg | ND | ND | ND | ND | ND | ND | ND |
| **TRPH** | 418.1 | 10 mg/kg | 442.0 | 11.0 | 400.0 | ND | ND | ND | 30.0 |
| **Benzene** | 8020 | 5 µg/kg | 12,800.0 | 235.0 | 2,500.0 | ND | ND | ND | 11.5 |
| **Toluene** | 8020 | 5 µg/kg | 43,300.0 | 1,820.0 | 34,000.0 | ND | ND | ND | 20.6 |
| **Ethylbenzene** | 8020 | 5 µg/kg | 28,500.0 | 590.0 | 36,000.0 | ND | ND | ND | 25.1 |
| **(total) Xylenes** | 8020 | 10 µg/kg | 143,000.0 | 4,180.0 | 149,000.0 | ND | ND | ND | 93.8 |
| **MtBE** | 8020 | 10 µg/kg | < 500 | 225.0 | 10,100.0 | ND | ND | ND | 352.0 |

Note: Analyte concentrations are in the same units as the PQL

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-HC = Total Petroleum Hydrocarbons as Heavy Chains

TRPH = Total Recoverable Petroleum Hydrocarbons

Note: All samples were collected on 7/22/99

µg/kg = Micrograms per Kilogram

mg/kg = Milligrams per Kilogram

PQL = Practical Quantitation Limit

MtBE = Methyl tertiary Butyl Ether

# APPENDIX A
# UST REMOVAL SUMMARY

## SITE ASSESSMENT REPORT – FORMER UNDERGROUND STORAGE TANK SITES 298A & 298B, APPENDIX F – GEOFON, UNDERGROUND STORAGE TANK REMOVAL REPORT

DATED 20 FEBRUARY 2001

GEOFON INCORPORATED

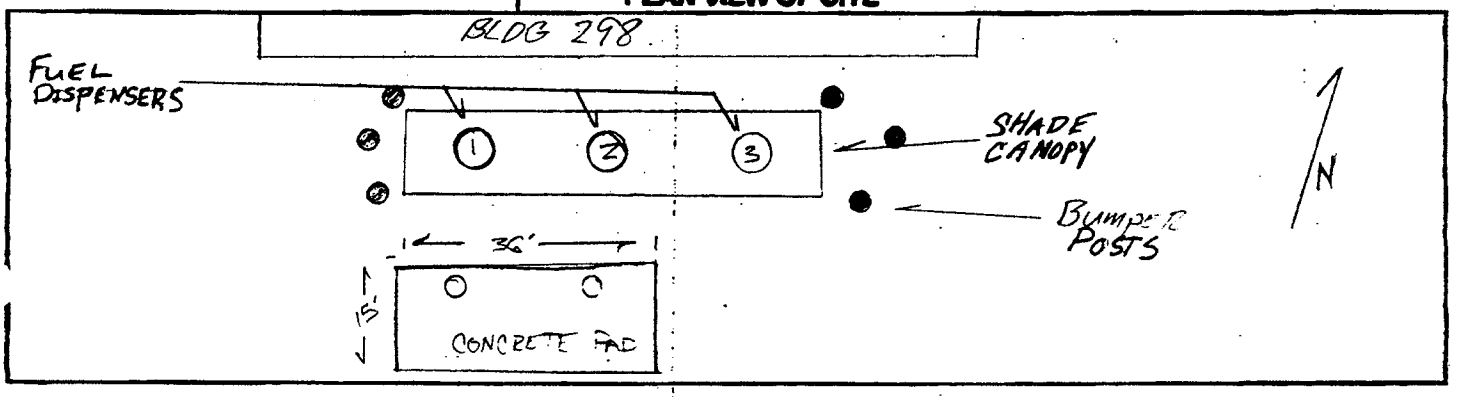
# UST REMOVAL SUMMARY

**PROJECT LOCATION:** EL TORO **DELIVERY ORDER NO:** _____ **PROJECT NO:** 04-4304-280
**TANK NO:** 298 A&B

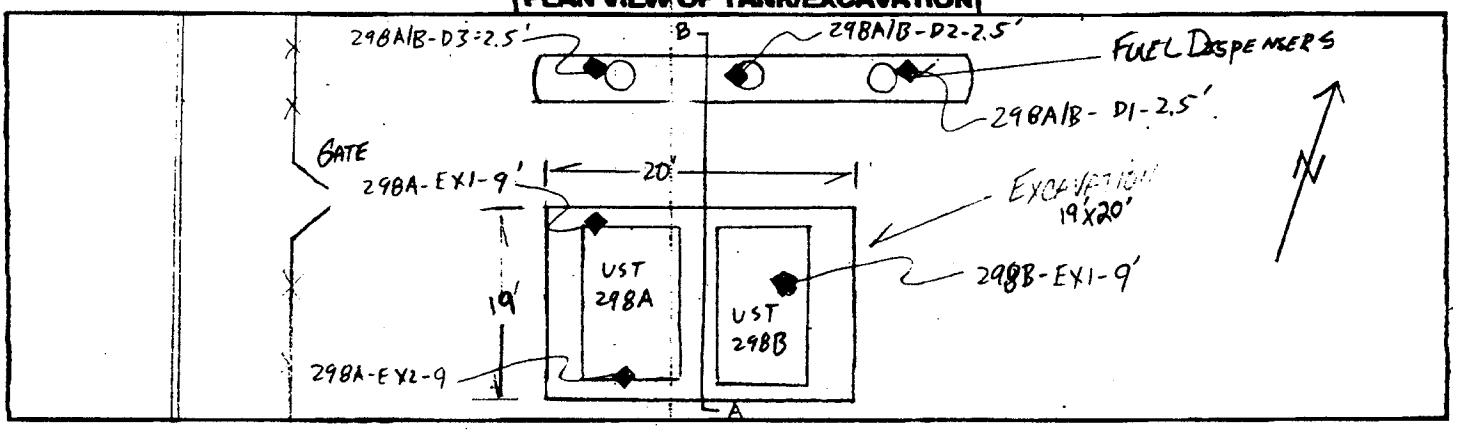
**Date Started:** 7-14-99 **Date Tank Removed:** 7-22-99 **Date Site Restored:** 8-11-99

1) TANK CONTENT (gl): A GAS / B DIESEL NO. OF TESTS (ea): 6
2) EX. DIMENSISION (lf): 19x20x12' EX. VOLUME (cu yd): _____
3) UST DIMENSIONS (lf): A 6x15 / B 6x10 UST VOLUME (gl): A 3000 / B 2000 UST VOLUME (cu yd): A 15 / B 10
4) VOLUME EX. SOIL (cu yd): _____ EX. SOIL UNDER UST (cu yd): N/A TOTAL EX. SOIL (cu yd): 142 yds
6) TRENCH (lf): 50' NO. OF PIPE IN TRENCH (ea): 3 TOTAL PIPE REMOVED (lf): 160'
7) NO. OF TESTS STK PILE (ea): 1 NO. OF TESTS IN TRENCH(ea): 3
5) MISC WORK: REMOVED PUMP ISLAND & DISPENSERS

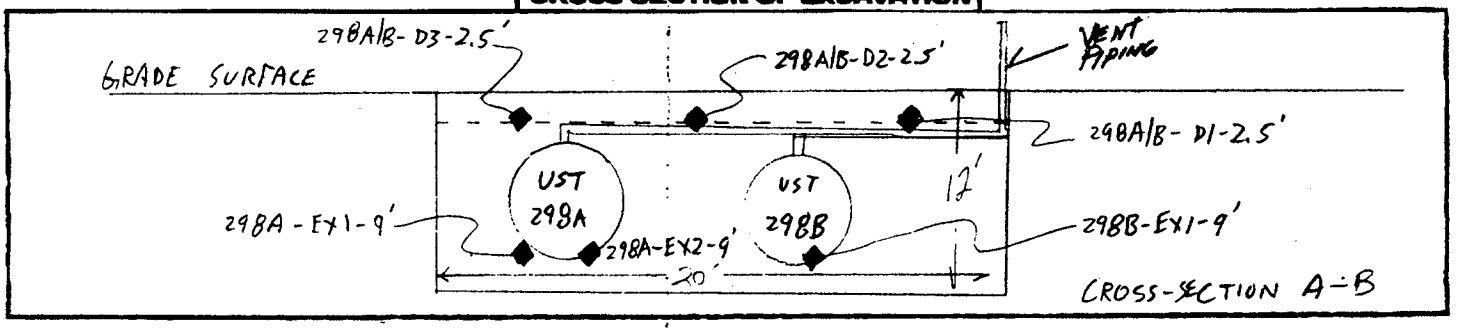
## PLAN VIEW OF SITE




## PLAN VIEW OF TANK/EXCAVATION




## CROSS SECTION OF EXCAVATION



GEOFON INCORPORATED

# UST REMOVAL SUMMARY

## VOLUMES AND QUANTITIES

PROJECT LOCATION: ELTORO
DELIVERY ORDER NO: _____
TANK NO: 298 A+B
PROJECT NO: 04-4304.280

Date Started: 7-14-99
Date Stockpile Transported: 7-22-99
Date Site Restored: 8-11-99

**TANK CONTENT**
TANK CONTENT (gl): 3K/2K
DATE HAULED: 7-22-99
HAULED BY: EFR
GALLONS HAULED: 400

**EXCAVATION (Vol)**
SOIL TYPE: Silt + Dirt
DATE STARTED: 7-14-99
EX. DIMENSISION (lf): 19x20x12
EX. VOLUME (cu yd): _____
VOLUME EX. SOIL (cu yd): N/A
UNDER UST (cu yd): N/A
TOTAL EX. SOIL (cu yd): 142

**TANK (dimenssions)**
UST DIMENSIONS (lf): A 6x5' / B 6x5'
UST VOLUME (gl): 3K/2K
UST VOLUME (cu yd): 25

**TRENCH (Quatity)**
TRENCH (lf): 50
PIPE IN TRENCH (ea): 3
PIPE REMOVED (lf): 160'

**SOIL TESTS**
TESTS STK PILE (ea): 0
TESTS IN TRENCH(ea): 3

**FENCE**
FENCING (lf): 140'

**TANK CONTENTS**
DATE SAMPLED: 7/22/99
SAMPLE NO.: Please refer to table 1
TPH GASOLINE: _____
TPH DEISEL: _____
WASTE OIL 418.1: _____
VOC's EPA 8240: _____
SEMI VOC'S EPA 8270: _____
BTEX 8020 / 8240: _____
CA ORGANIC LEAD: _____
TOTAL LEAD: _____
METALS: _____
RCRA: _____
PCB EPA 8080: _____

**SOIL TESTS, -2 feet**
DATE SAMPLED: 7/22/99
SAMPLE NO.: Table 1
TPH DEISEL: _____
TPH GASOLINE: _____
BTEX EPA 8020: _____
CA ORGANIC LEAD : _____
VOCs EPA 8240: _____
SEMI VOC'S 8270: _____
WASTE OIL TRPH 418.1: _____

**SOIL TESTS, stk pile**
DATE SAMPLED: 7/22/99
SAMPLE NO.: Table 1
TPH DEISEL: _____
TPH GASOLINE: _____
BTEX EPA 8020: _____
CA ORGANIC LEAD : _____
VOCs EPA 8240: _____
SEMI VOC'S 8270: _____
WASTE OIL TRPH 418.1: _____

**WATER ANALYSIS**
DATE SAMPLED: N/A
SAMPLE NO.: N/A
TPH DEISEL: _____
TPH GASOLINE: _____
BTEX EPA 8020: _____
TOTAL LEAD: _____
VOCs EPA 8240: _____
SEMI VOC'S 8270: _____
WASTE OIL TRPH 418.1: _____

**BACKFILL**
VOLUME OF BACKFILL: 118 CY

MISC WORK: Asphalt placed on Top to match existing grade

M60050.002501
MCAS EL TORO
SSIC # 5090.3

# APPENDIX B
# REMOVAL PERMIT, WASTE MANIFEST AND TANK DESTRUCTION CERTIFICATE

## SITE ASSESSMENT REPORT – FORMER UNDERGROUND STORAGE TANK SITES 298A & 298B, APPENDIX F – GEOFON, UNDERGROUND STORAGE TANK REMOVAL REPORT

DATED 20 FEBRUARY 2001

## TANK INFORMATION

PROVIDE THE INFORMATION BELOW FOR ALL TANKS AND PIPING SYSTEMS TO BE INSTALLED, REMOVED OR REPAIRED. ALSO INDICATE THE UPGRADE/CHANGES TO BE MADE TO EACH TANK SYSTEM.

| TANK I.D. | | | UST 760A | OWS 760B | UST 298A | UST 298B |
|---|---|---|---|---|---|---|
| MATERIAL STORED | MATERIAL OR WASTE STORED | CURRENTLY | WASTE OIL | OIL/WATER | UNLEADED | DIESEL |
| | | PROPOSED | | | | |
| | | PREVIOUSLY | | | | |
| | FUEL TYPE, I.E., UNLEADED | | | | | |
| TANK | TYPE (TANK, SUMP, OTHERS) | | UST | OWS | UST | OWS |
| | DOUBLE WALL/SINGLE WALL | | | | | |
| | UL NUMBER | | | | | |
| | YEAR INSTALLED | | 1982 | 1982 | 1944 | 1944 |
| | VAULTED/NOT VAULTED | | VAULTED | VAULTED | NOT VAULTED | NOT VAULTED |
| CONTAINMENT | PRIMARY | MANUFACTURER | | | | |
| | | CAPACITY (GALLONS) | 500 | 100 | 3,000 | 2,000 |
| | | CONSTRUCTION MATERIAL | STEEL | STEEL | STEEL | STEEL |
| | | THICKNESS (UNITS) | | | | |
| | | INTERIOR LINING | | | | |
| | SECONDARY | MANUFACTURER | | | | |
| | | CAPACITY (GALLONS) | | | | |
| | | CONSTRUCTION MATERIAL | | | | |
| | | THICKNESS (UNITS) | | | | |
| | CORROSION PROTECTION | | | | | |
| | TYPE OF LEAK DETECTION FOR USTs (LIQUID, PROBE, ETC.) | | | | | |
| | MANUFACTURER OF LEAK DETECTOR | | | | | |
| PIPING | LOCATION (UNDER/ABOVE GROUND) | | UNDER | UNDER | UNDER | UNDER |
| | SUCTION/PRESSURE GRAVITY/UNKNOWN | | GRAVITY | GRAVITY | | |
| | PRIMARY | CONSTRUCTION MATERIAL | | | | |
| | | MANUFACTURER | | | | |
| | SECONDARY | CONSTRUCTION MATERIAL | | | | |
| | | MANUFACTURER | | | | |
| | TYPE OF LEAK DETECTION FOR PIPING (PRESSURE LOSS DEVICE, ETC.) | | | | | |
| | MANUFACTURER OF LEAK DETECTOR | | | | | |
| OVERFILL PROTECTION (TYPE) | | | | | | |
| SPILL CONTAINMENT (TYPE) | | | | | | |

APPROVED
ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION
HAZARDOUS MATERIALS MANAGEMENT SECTION
THIS APPROVAL IS VALID FOR 12 MONTHS FROM THE APPROVAL DATE
DR 6/23/99 99PM54
Plan Reviewed By Date Time

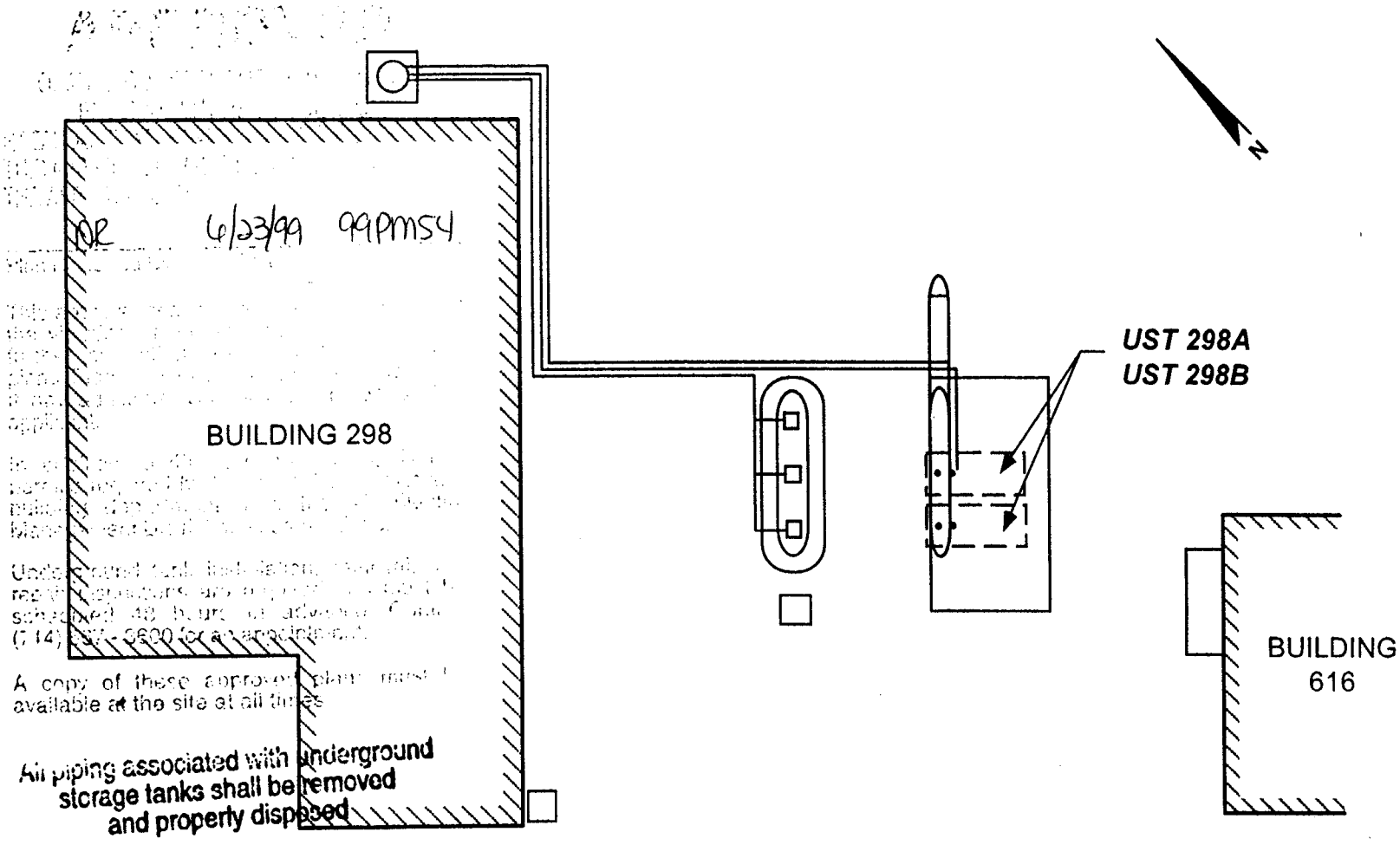
This approval shall not be construed to permit the violation of any [illegible] further conditions [illegible] plans [illegible] if any additional changes are made by the applicant.

In addition to this approval, all applicable [illegible] local fire department, building department and the Air Quality Management District must be obtained.

Underground tank installation, removal, and repair inspections are required and must be scheduled 48 hours in advance. Contact (714) 567 - 3600 for an appointment.

A copy of these approved plans must be available at the site at all times.

All piping associated with underground storage tanks shall be removed and properly disposed




Scale in Feet

0 20 40

GEOFON INCORPORATED

PROJECT NO.: 04-4304.280

**SITE LOCATION MAP**
**USTs 298A AND 298B**

6/99

Figure 7

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back page 6.

Department of Toxic Substances Control
Sacramento, California

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of

Information in the shaded areas is not required by federal law.

3. Generator's Name and Mailing Address: MCAS MIRAMAR 3165 09 ... SAN DIEGO, CA 92145-5013

4. Generator's Phone: 858-577-4214 MIRAMAR WAY P.O. BOX 452013

A. State Manifest Document Number: 99319714

B. State Generator's ID: H A N O 1 3 6 0 1 3 1 0 1 1 6

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID (Reserved)

D. Transporter's Phone

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

E. State Transporter's ID (Reserved): 199-6500

F. Transporter's Phone

9. Designated Facility Name and Site Address: DOME ROCK INDUSTRIES, 2555 MOORE ROAD, COMPTON, CA 90220 | 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

| 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste Number |
|---|---|---|---|---|---|
| a. NON-RCRA HAZARDOUS WASTE LIQUID (CONTAMINATED WATER) | 001 | T,T | 90400 | | State / EPA/Other 34 |
| b. | | | | | State: NON-RCRA / EPA/Other |
| c. | | | | | State / EPA/Other |
| d. | | | | | State / EPA/Other |

J. Additional Descriptions for Materials Listed Above

11A.ACCEPTANCE# D0270 (DIESEL/GASOLINE CONTAMINATED WATER)
SITE ADDRESS: EL TORO, SANTA ANA

K. Handling Codes for Wastes Listed Above: a. | b. | d.

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PPE AND ... 24 HOUR EMERGENCY NUMBER (800) 424-8802 WITHIN CALIFORNIA

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

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

Printed/Typed Name: Eric Yaselowitz | Signature | Month 07 Day 22 Year 99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Doug Ford | Signature: Doug Ford | Month 07 Day 22 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: Jerry R. Sorrento | Signature | Month 07 Day 26 Year 99

DO NOT WRITE BELOW THIS LINE.

GENERATOR

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

31114

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 7-30-99)
Please print or type. Form designed for use on elite (12 pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

# UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No: CA6170023208 | Manifest Document No: 16605 | 2. Page 1 of 1 | Information in the shaded areas is not required by federal law

3. Generator's Name and Mailing Address: MCAS MIRAMAR 6311 & 16609
~~MCAS EL TORO, CODE 5AU/WM, BLDG. M-311~~
~~PO BOX 452013, SAN DIEGO, CA 92145-2013~~
~~SANTA ANA, CA. 45249~~ MIRAMAR WAY P.O BOX 452013

4. Generator's Phone: 949 559-8229 RICK PHILLIPS (GEOFON)

5. Transporter 1 Company Name: ~~GRAYSON TRANSPORTATION~~ 6. US EPA ID Number: CAL000180377

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

9. Designated Facility Name and Site Address: DOME ROCK INDUSTRIES
3125 W. DOME ROCK ROAD
QUARTZSITE, AZ 85346
10. US EPA ID Number: AZC980813022

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

| | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | Waste Number |
|---|---|---|---|---|---|
| a. NON-RCRA HAZARDOUS WASTE LIQUID (CONTAMINATED WATER) | 001 | TT | 04700 | G | State 134 / EPA/Other NON-RCRA |
| b. | | | | | State / EPA/Other |
| c. | | | | | State / EPA/Other |
| d. | | | | | State / EPA/Other |

J. Additional Descriptions for Materials Listed Above: 11A.ACCEPTANCE# D0270 (DIESEL/GASOLINE CONTAMINATED WATER) SITE ADDRESS: EL TORO, SANTA ANA

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

15. Special Handling Instructions and Additional Information:
ALWAYS WEAR APPROPRIATE PPE AND USE SAFE HANDLING METHODS.
24 HOUR EMERGENCY NUMBER (800) 424-9300:*CHEM TECH*

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

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

Printed/Typed Name: Eric Yeschawin | Signature: [signature] | Month 07 Day 22 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: GREG FLIPPEN | Signature: [signature] | Month 07 Day 22 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 19
Printed/Typed Name: [signature] | Signature: [signature] | Month 07 Day 23 Year 99

DO NOT WRITE BELOW THIS LINE.

GENERATOR — TRANSPORTER — FACILITY

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

EFR ENVIRONMENTAL SERVICES
CERTIFICATE OF DESTRUCTION

1-800-244-1202 760-735-9602

Fax 760-735-9653

EFR ENVIRONMENTAL SERVICES certifies that the waste accepted from the generator described below was recycled in accordance with the United States EPA and State Regulations:

GENERATOR: MCAS-EL TORO/SANTA ANA, CA
C/0 MCAS MIRAMAR
C0DE: 5AU/WM, BLDG. M-311
PO BOX 452013
SAN DIEGO, CA 92145-2013

| DATE: | MANIFEST #(s) | DESCRIPTION: | QUANTITY: |
|---|---|---|---|
| 07/22/99 | 99319714 & | 2000 Gallon Steel | 2 |
| | 99319721 | 3000 " " | |

The above listed tank(s) were taken to Pacific Coast Recycling.

If this information does not agree with your records, please notify us within 10 days so we can resolve any discrepancies.

Thank you for using EFR ENVIRONMENTAL SERVICES for your recycling needs!

# APPENDIX C
# LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

## SITE ASSESSMENT REPORT – FORMER UNDERGROUND STORAGE TANK SITES 298A & 298B, APPENDIX F – GEOFON, UNDERGROUND STORAGE TANK REMOVAL REPORT

## DATED 20 FEBRUARY 2001

**CHAIN OF CUSTODY**
Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. **ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.**

2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

**LAB NO.:** _____

**DATE RECEIVED:** _____

**SAMPLE(S) CONDITION (PLEASE CHECK):**

**CHILLED:** _____ **COUNTY SEAL(S) INTACT:** _____

**CONTAINER IN GOOD CONDITION:** _____

**DATE ANALYSIS COMPLETED:** _____

**ANALYST:** _____

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

**SITE NAME/ADDRESS:** [illegible]
Bldg. 298 [illegible], S.A.

**DATE OF COLLECTION:** 7-22-99

**SAMPLE COLLECTOR/COMPANY:** L. Williamson
Geofon

**TELEPHONE NO.:** _____

**HCA REPRESENTATIVE:** [illegible]

6.

| SAMPLE NUMBER | DETERMINATION REQUESTED | SAMPLE DESCRIPTION/COMMENTS | TIME OF COLLECTION |
|---|---|---|---|
| 298A[illegible] | TDH [illegible] | [illegible] (GLS) BTEX [illegible] | [illegible] |
| 298A[illegible] | ↓ | ↓ | [illegible] |
| 298A[illegible] | ↓ | ↓ | [illegible] |
| 298B-FXL-9 | ↓ | ↓ | [illegible] |
| 298A[illegible] | ↓ | ↓ | [illegible] |
| 298B[illegible] | ↓ | ↓ | 1975 |
| 298NB-SP-1 | ↓ | ↓ | 1940 |

7. **CHAIN OF CUSTODY**

| | SIGNATURE | COMPANY/AGENCY | INCLUSIVE DATES/TIMES |
|---|---|---|---|
| 1. | [illegible] | Haz. Waste | 7-22-99 - 3:45pm |
| 2. | L. W. Williamson | GEOFON INC | 7/22/99 - 350 pm |
| 3. | [illegible] | AETL | 7/22/99 - 9:45 |
| 4. | | | - |
| 5. | | | - |
| 6. | | | - |

**WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY**
**PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY**

F272-9 1531.1(R8/89)

**CHAIN OF CUSTODY**
Orange County Health Care Agency
*Environmental Health Division*
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. **ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.**

2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

**LAB NO.:** _____

**DATE RECEIVED:** _____

**SAMPLE(S) CONDITION (PLEASE CHECK):**

**CHILLED:** _____ **COUNTY SEAL(S) INTACT:** _____

**CONTAINER IN GOOD CONDITION:** _____

**DATE ANALYSIS COMPLETED:** _____

**ANALYST:** _____

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

**SITE NAME/ADDRESS:** MCAS El Toro
Bldg. 800 Tanks 800A, B + C S.A.

**DATE OF COLLECTION:** 7-22-99

**SAMPLE COLLECTOR/COMPANY:** L. Williamson
GEOTEK

**TELEPHONE NO.:** _____

**HCA REPRESENTATIVE:** A. Rahimi-Ahad

6.

| SAMPLE NUMBER | DETERMINATION REQUESTED | SAMPLE DESCRIPTION/COMMENTS | TIME OF COLLECTION |
|---|---|---|---|
| 800-D1-2' | TPH gasoline (8015) | BTEX + MTBE (8020) | 1:15pm |
| 800-D2-2' | ↓ | ↓ | 1:20p |
| 800-D3-2' | ↓ | ↓ | 1:25p |
| 800-D4-2' | ↓ | ↓ | 1:30p |
| 800-D5-2' | ↓ | ↓ | 1:35p |
| 800-D6-2' | ↓ | ↓ | 1:40p |
| | | | |

7. **CHAIN OF CUSTODY**

| | SIGNATURE | COMPANY/AGENCY | INCLUSIVE DATES/TIMES |
|---|---|---|---|
| 1. | Nighavar Rahimi-Ahad | Haz Waste | 7-22-99 . 3:55pm |
| 2. | Leo W. Williamson | GEOTEK, INC. | 7/22/99 . 355p |
| 3. | Richard Jones | AETL | 7/23/99 . 9:45 |
| 4. | | | |
| 5. | | | |
| 6. | | | |

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY
PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

F272-9.1531.1(R8/89) CRS

**CHAIN OF CUSTODY**
Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. **ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.**

2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

LAB NO.: _____

DATE RECEIVED: _____

SAMPLE(S) CONDITION (PLEASE CHECK):

CHILLED: _____ COUNTY SEAL(S) INTACT: _____

CONTAINER IN GOOD CONDITION: _____

DATE ANALYSIS COMPLETED: _____

ANALYST: _____

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

SITE NAME/ADDRESS: MCAS El Toro Bldg. 388, Tank # 388B, Santa Ana

DATE OF COLLECTION: 7-22-99

SAMPLE COLLECTOR/COMPANY: L. Williams / Geotn

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A Kashinskaid

6.

| SAMPLE NUMBER | DETERMINATION REQUESTED | SAMPLE DESCRIPTION/COMMENTS | TIME OF COLLECTION |
|---|---|---|---|
| 388 [illegible] | | | |
| 388 [illegible] | TPH (diesel) SM15 | BTEX + MTBE (8015) | [illegible] |
| 388B.EX1.5 | ↓ | ↓ | 1405 |
| 388B.SP-[illegible] | ↓ | ↓ | 1415 |
| | | | |
| | | | |
| | | | |

7. **CHAIN OF CUSTODY**

| | SIGNATURE | COMPANY/AGENCY | INCLUSIVE DATES/TIMES |
|---|---|---|---|
| 1. | Nancy Kashinskaid | Haz Waste | 7-22-99 - 3:50 pm |
| 2. | Leo W. Williamson | GEOTON, INC. | 7/22/99 - 350 |
| 3. | [illegible] | AETL | 7/23/99 - [illegible] |
| 4. | | | - |
| 5. | | | - |
| 6. | | | - |

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY
PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

F272-9.1531.1(R8/89) CRS

American Environmental Testing Laboratory Inc.

2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

Number of Pages: 18
Date Received : 07/23/99
Date Reported : 07/29/99

Attn : Leo Williamson
Phone: 714/220-2777

---

AETL Job Number: 12838

Project Name : MCAS El Toro

Site: Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

Enclosed please find results of analyses of 15 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: Joe Serrean

Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840



# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12838

**PROJECT:** MCAS El Toro
**SITE:** Bldg. 800, Tanks 800A,B&C, Bldg. 388, Tank 388B, Bldg. 298, Tanks 298A&B, Santa Ana
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-28-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by client

| | ANALYTE | GASOLINE $C_4 - C_9$ | DIESEL $C_9 - C_{23}$ | HEAVY HC $C_{23+}$ |
|---|---|---|---|---|
| | UNITS | mg/Kg | mg/Kg | mg/Kg |
| | METHOD OF ANALYSIS | M8015G | M8015D | M8015D |
| | DETECTION LIMIT | 1.0 | 10 | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** | **RESULTS** | **RESULTS** |
| AE62293 | 800-D1-2' | ND | NA | NA |
| AE62294 | 800-D2-2' | ND | NA | NA |
| AE62295 | 800-D3-2' | ND | NA | NA |
| AE62296 | 800-D4-2' | ND | NA | NA |
| AE62297 | 800-D5-2' | ND | NA | NA |
| AE62298 | 800-D6-2' | ND | NA | NA |
| AE62299 | 388B-EX1-8' | NA | **7,360** | **470** |
| AE62300 | 388B-SP-1 | NA | **103** | **63** |

ND = Not Detected at the detection limit

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840



# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12838

**PROJECT:** MCAS El Toro
**SITE:** Bldg. 800, Tanks 800A,B&C, Bldg. 388, Tank 388B, Bldg. 298, Tanks 298A&B, Santa Ana
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-28-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by client

| | ANALYTE | GASOLINE $C_4 - C_9$ | DIESEL $C_9 - C_{23}$ | HEAVY HC $C_{23+}$ |
|---|---|---|---|---|
| | UNITS | mg/Kg | mg/Kg | mg/Kg |
| | METHOD OF ANALYSIS | M8015G | M8015D | M8015D |
| | DETECTION LIMIT | 1.0 | 10 | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** | **RESULTS** | **RESULTS** |
| AE62301 | 298AB-D1-2.5 | **1.200** | **256** | ND |
| AE62302 | 298AB-D2-2.5 | **18.8** | ND | ND |
| AE62303 | 298AB-D3-2.5 | **1.330** | **363** | ND |
| AE62304 | 298B-EX1-9 | ND | ND | ND |
| AE62305 | 298A-EX1-9 | ND | ND | ND |
| AE62306 | 298A-EX2-9 | ND | ND | ND |
| AE62307 | 298AB-SP-1 | **5.9** | ND | ND |
| AE62308 | M. BLANK | ND | ND | ND |

ND = Not Detected at the detection limit

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# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12838

**PROJECT:** MCAS El Toro
**SITE:** Bldg. 800, Tanks 800A,B&C, Bldg. 388, Tank 388B, Bldg. 298, Tanks 298A&B, Santa Ana
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-22-99
**DATE ANALYSIS COMPLETED:** 07-28-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by client

| | ANALYTE | BENZENE | TOLUENE | ETHYL BENZENE | XYLENES | MTBE |
|---|---|---|---|---|---|---|
| | UNITS | µg/Kg | µg/Kg | µg/Kg | µg/Kg | µg/Kg |
| | METHOD OF ANALYSIS | 8020 | 8020 | 8020 | 8020 | 8020 |
| | DETECTION LIMIT | 5 | 5 | 5 | 10 | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** | **RESULTS** | **RESULTS** | **RESULTS** | **RESULTS** |
| AE62293 | 800-D1-2' | ND | ND | ND | ND | ND |
| AE62294 | 800-D2-2' | ND | ND | ND | ND | ND |
| AE62295 | 800-D3-2' | ND | ND | ND | ND | ND |
| AE62296 | 800-D4-2' | ND | **5.1** | **29.8** | **129** | ND |
| AE62297 | 800-D5-2' | ND | ND | ND | ND | ND |
| AE62298 | 800-D6-2' | ND | ND | ND | ND | ND |
| AE62299 | 388B-EX1-8' | ND | ND | ND | **10.1** | ND |
| AE62300 | 388B-SP-1 | ND | ND | ND | ND | ND |

ND = Not Detected at the detection limit

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# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12838

**PROJECT:** MCAS El Toro
**SITE:** Bldg. 800, Tanks 800A,B&C, Bldg. 388, Tank 388B, Bldg. 298, Tanks 298A&B, Santa Ana
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-28-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by client

| | ANALYTE | BENZENE | TOLUENE | ETHYL BENZENE | XYLENES | MTBE |
|---|---|---|---|---|---|---|
| | UNITS | µg/Kg | µg/Kg | µg/Kg | µg/Kg | µg/Kg |
| | METHOD OF ANALYSIS | 8020 | 8020 | 8020 | 8020 | 8020 |
| | DETECTION LIMIT | 5 | 5 | 5 | 10 | 10 |
| LAB ID | FIELD ID | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS |
| AE62301 | 298AB-D1-2.5 | **12,800** | **43,300** | **28,500** | **143,000** | **<500** |
| AE62302 | 298AB-D2-2.5 | **235** | **1,820** | **590** | **4,180** | **225** |
| AE62303 | 298AB-D3-2.5 | **2,500** | **34,000** | **36,000** | **149,000** | **10,100** |
| AE62304 | 298B-EX1-9 | ND | ND | ND | ND | ND |
| AE62305 | 298A-EX1-9 | ND | ND | ND | ND | ND |
| AE62306 | 298A-EX2-9 | ND | ND | ND | ND | ND |
| AE62307 | 298AB-SP-1 | **11.5** | **20.6** | **25.1** | **93.8** | **352** |
| AE62308 | M. BLANK | ND | ND | ND | ND | ND |

ND = Not Detected at the detection limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| **Lab ID:** | AE62293 | AE62294 | AE62295 | AE62296 | |
|---|---|---|---|---|---|
| **Sample No:** | 80C-D1-2' | 800-D2-2' | 800-D3-2' | 800-D4-2' | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/26/99 | 07/26/99 | 07/26/99 | 07/26/99 | **Detection** |
| **Date Analyzed:** | 07/26/99 | 07/26/99 | 07/26/99 | 07/26/99 | **Limit** |
| Benzene | ND | ND | ND | ND | 5 |
| Ethylbenzene | ND | ND | ND | 29.8 | 5 |
| Toluene | ND | ND | ND | 5.1 | 5 |
| Xylenes(Total) | ND | ND | ND | 129 | 10 |
| MTBE | ND | ND | ND | ND | 10 |
| TPH as Gasoline or Light HCs | ND | ND | ND | ND | 1.0(mg/Kg |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62293 | AE62294 | AE62295 | AE62296 |
|---|---|---|---|---|
| **Surrogate Percent Recovery** | | | | |
| Bromofluorobenzene | 91 | 82 | 89 | 85 |
| Trifluorotoluene | 97 | 91 | 97 | 63 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| M- Xylene | 92 | 86 | 7 |
| O- Xylene | 102 | 96 | 6 |

**Comment to Sample(s)**
AE62296: Low surrogate recovery due to matrix interference.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| **Lab ID:** | AE62297 | AE62298 | |
|---|---|---|---|
| **Sample No:** | 800-D5-2' | 800-D6-2' | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/26/99 | 07/26/99 | **Detection** |
| **Date Analyzed:** | 07/26/99 | 07/26/99 | **Limit** |
| Benzene | ND | ND | 5 |
| Ethylbenzene | ND | ND | 5 |
| Toluene | ND | ND | 5 |
| Xylenes(Total) | ND | ND | 10 |
| MTBE | ND | ND | 10 |
| TPH as Gasoline or Light HCs | ND | ND | 1.0(mg/Kg) |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62297 | AE62298 |
|---|---|---|
| **Surrogate Percent Recovery** | | |
| Bromofluorobenzene | 90 | 99 |
| Trifluorotoluene | 105 | 101 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| M- Xylene | 92 | 86 | 7 |
| O- Xylene | 102 | 96 | 6 |

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (8020/BTXE)
Aromatic Volatile Organics + MTBE
**Units:** ug/Kg

| **Lab ID:** | AE62299 | AE62300 | |
|---|---|---|---|
| **Sample No:** | 388B-EX1-8' | 388B-SP-1 | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | 07/29/99 | **Detection** |
| **Date Analyzed:** | 07/26/99 | 07/26/99 | **Limit** |
| Benzene | ND | ND | 5 |
| Ethylbenzene | ND | ND | 5 |
| Toluene | ND | ND | 5 |
| Xylenes(Total) | **10.1** | ND | 10 |
| MTBE | ND | ND | 10 |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62299 | AE62300 |
|---|---|---|
| **Surrogate Percent Recovery** | | |
| Bromofluorobenzene | 63 | 71 |
| Trifluorotoluene | 48 | 80 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| O- Xylene | 92 | 86 | 7 |
| M,P- Xylenes | 102 | 96 | 6 |

**Comment to Sample(s)**
AE62299: Low surrogate recovery due to matrix interference.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62301 | |
| **Sample No:** | 298AB-D1-2.5 | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/28/99 | **Detection Limit** |
| **Date Analyzed:** | 07/28/99 | |
| Benzene | **12800** | 250 |
| Ethylbenzene | **28500** | 250 |
| Toluene | **43300** | 250 |
| Xylenes(Total) | **143000** | 500 |
| MTBE | ND | 500 |
| TPH as Gasoline or Light HCs | **1200** | 50(mg/Kg) |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62301

**Surrogate Percent Recovery**

| | |
|---|---|
| Bromofluorobenzene | 126 |
| Trifluorotoluene | 138 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 98 | 98 | <1 |
| Ethylbenzene | 102 | 102 | <1 |
| Toluene | 100 | 100 | <1 |
| M- Xylene | 98 | 96 | 2 |
| O- Xylene | 108 | 106 | 2 |

**Comment to Sample(s)**
AE62301: High surrogate recov. due to matrix interference. (C4-C9)= 1200mg/Kg.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Leo Williamson

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62302 | |
| **Sample No:** | 298AB-D2-2.5 | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/26/99 | **Detection Limit** |
| **Date Analyzed:** | 07/26/99 | |
| Benzene | 235 | 50 |
| Ethylbenzene | 590 | 50 |
| Toluene | 1820 | 50 |
| Xylenes(Total) | 4180 | 100 |
| MTBE | 225 | 100 |
| TPH as Gasoline or Light HCs | 18.8 | 10(mg/Kg) |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62302

**Surrogate Percent Recovery**

| | |
|---|---|
| Bromofluorobenzene | 103 |
| Trifluorotoluene | 88 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| M- Xylene | 92 | 86 | 7 |
| O- Xylene | 102 | 96 | 6 |

**Comment to Sample(s)**
AE62302: MTBE confirmed by GC/MS. (C4-C9)= 18.8mg/Kg.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62303 | |
| **Sample No:** | 298AB-D3-2.5 | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/28/99 | **Detection Limit** |
| **Date Analyzed:** | 07/28/99 | |
| Benzene | **2500** | 250 |
| Ethylbenzene | **36500** | 250 |
| Toluene | **34000** | 250 |
| Xylenes(Total) | **149000** | 500 |
| MTBE | **10100** | 500 |
| TPH as Gasoline or Light HCs | **1330** | 50(mg/Kg) |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62303

**Surrogate Percent Recovery**

| | |
|---|---|
| Bromofluorobenzene | 131 |
| Trifluorotoluene | 151 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 98 | 98 | <1 |
| Ethylbenzene | 102 | 102 | <1 |
| Toluene | 100 | 100 | <1 |
| M- Xylene | 98 | 96 | 2 |
| O- Xylene | 108 | 106 | 2 |

**Comment to Sample(s)**
AE62303: Low surrogate recov. due to matrix interference. (C4-C9)= 1330mg/Kg.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62304 | |
| **Sample No:** | 298B-EX1-9 | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/28/99 | **Detection Limit** |
| **Date Analyzed:** | 07/28/99 | |
| Benzene | ND | 5 |
| Ethylbenzene | ND | 5 |
| Toluene | ND | 5 |
| Xylenes(Total) | ND | 10 |
| MTBE | ND | 10 |
| TPH as Gasoline or Light HCs | ND | 1.0(mg/Kg) |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62304

**Surrogate Percent Recovery**

| | |
|---|---|
| Bromofluorobenzene | 72 |
| Trifluorotoluene | 71 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 98 | 98 | <1 |
| Ethylbenzene | 102 | 102 | <1 |
| Toluene | 100 | 100 | <1 |
| M- Xylene | 98 | 96 | 2 |
| O- Xylene | 108 | 106 | 2 |

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Leo Williamson

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| **Lab ID:** | AE62305 | AE62306 | AE62307 | AE62308 | |
|---|---|---|---|---|---|
| **Sample No:** | 298A-EX1-9 | 298A-EX2-9 | 298AB-SP-1 | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/26/99 | 07/26/99 | 07/26/99 | 07/26/99 | **Detection** |
| **Date Analyzed:** | 07/26/99 | 07/26/99 | 07/26/99 | 07/26/99 | **Limit** |
| Benzene | ND | ND | 11.5 | ND | 5 |
| Ethylbenzene | ND | ND | 25.1 | ND | 5 |
| Toluene | ND | ND | 20.6 | ND | 5 |
| Xylenes(Total) | ND | ND | 93.8 | ND | 10 |
| MTBE | ND | ND | 352 | ND | 10 |
| TPH as Gasoline or Light HCs | ND | ND | 5.9 | ND | 1.0(mg/Kg) |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62305 | AE62306 | AE62307 | AE62308 |
|---|---|---|---|---|
| **Surrogate Percent Recovery** | | | | |
| Bromofluorobenzene | 80 | 95 | 100 | 107 |
| Trifluorotoluene | 81 | 98 | 81 | 113 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| M- Xylene | 92 | 86 | 7 |
| O- Xylene | 102 | 96 | 6 |

**Comment to Sample(s)**
AE62307: (C4-C9)= 5.9mg/Kg.

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD/8020.
TPH as Gasoline and BTXE + MTBE
**Units:** ug/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62308 | |
| **Sample No:** | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/28/99 | **Detection Limit** |
| **Date Analyzed:** | 07/28/99 | |
| Benzene | ND | 5 |
| Ethylbenzene | ND | 5 |
| Toluene | ND | 5 |
| Xylenes(Total) | ND | 10 |
| MTBE | ND | 10 |
| TPH as Gasoline or Light HCs | ND | 1.0(mg/Kg) |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62308

| Surrogate Percent Recovery | |
|---|---|
| Bromofluorobenzene | 94 |
| Trifluorotoluene | 101 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 98 | 98 | <1 |
| Ethylbenzene | 102 | 102 | <1 |
| Toluene | 100 | 100 | <1 |
| M- Xylene | 98 | 96 | 2 |
| O- Xylene | 108 | 106 | 2 |

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Leo Williamson

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62299 | |
| **Sample No:** | 388B-EX1-8' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/27/99 | **Detection Limit** |
| **Date Analyzed:** | 07/27/99 | |
| TPH as Diesel and Heavier HC | **7830** | 50 |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62299

**Surrogate Percent Recovery**

| | |
|---|---|
| Chlorobenzene | 92 |

| | Spike %REC. | Spike DUP. %REC. | AVG. RPD |
|---|---|---|---|
| Diesel | 86 | 89 | 3.4 |

**Comment to Sample(s)**
AE62299: (C9-C23)= 7360mg/Kg; (C23+)= 470mg/Kg.

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Leo Williamson

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| **Lab ID:** | AE62300 | AE62301 | AE62302 | AE62303 | |
|---|---|---|---|---|---|
| **Sample No:** | 388B-SP-1 | 298AB-D1-2.5 | 298AB-D2-2.5 | 298AB-D3-2.5 | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/27/99 | 07/27/99 | 07/27/99 | 07/27/99 | **Detection** |
| **Date Analyzed:** | 07/27/99 | 07/27/99 | 07/27/99 | 07/27/99 | **Limit** |
| TPH as Diesel and Heavier HC | **166** | **256** | ND | **363** | 10 |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62300 | AE62301 | AE62302 | AE62303 |
|---|---|---|---|---|
| **Surrogate Percent Recovery** | | | | |
| Chlorobenzene | 93 | 93 | 91 | 91 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Diesel | 86 | 89 | 3.4 |

**Comment to Sample(s)**
AE62300: (C9-C23)= 103mg/Kg; (C23+)= 63mg/Kg.
AE62301: (C9-C23)= 256mg/kg; (C23+)= ND.
AE62303: (C9-C23)= 363mg/Kg; (C23+)= ND.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Leo Williamson

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| **Lab ID:** | AE62304 | AE62305 | AE62306 | AE62307 | |
|---|---|---|---|---|---|
| **Sample No:** | 298B-EX1-9 | 298A-EX1-9 | 298A-EX2-9 | 298AB-SP-1 | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/27/99 | 07/27/99 | 07/27/99 | 07/27/99 | **Detection** |
| **Date Analyzed:** | 07/27/99 | 07/27/99 | 07/27/99 | 07/27/99 | **Limit** |
| TPH as Diesel and Heavier HC | ND | ND | ND | ND | 10 |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62304 | AE62305 | AE62306 | AE62307 |
|---|---|---|---|---|
| **Surrogate Percent Recovery** | | | | |
| Chlorobenzene | 109 | 108 | 89 | 96 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Diesel | 86 | 89 | 3.4 |

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12838
**Project Name:** MCAS El Toro



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
Bldg. 800, Tanks 800A,B,& C, S.A.
Bldg. 388, Tank #388B, Santa Ana
Bldg. 298, Tanks 298A & B, S.A.

**Attn:** Leo Williamson

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| | | |
|---|---|---|
| **Lab ID:** | AE62308 | |
| **Sample No:** | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/27/99 | Detection Limit |
| **Date Analyzed:** | 07/27/99 | |
| TPH as Diesel and Heavier HC | ND | 10 |

## QUALITY CONTROL SUMMARY

**Lab ID:** AE62308

**Surrogate Percent Recovery**

| | |
|---|---|
| Chlorobenzene | 99 |

| | Spike %REC. | Spike DUP. %REC. | AVG. RPD |
|---|---|---|---|
| Diesel | 86 | 89 | 3.4 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory, Inc.
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Fax (818) 845-8840

AETL JOB# _____ PAGE 1 OF 3

# CHAIN OF CUSTODY RECORD

CLIENT: Globon, INC
TELEPHONE: (714) 770-2777
FAX: (714) 770 2768
ADDRESS: 5552 Cerritos Ave #E
SITE: Ft Yoo UST 600A/B/C
CONTACT PERSON: Tomoko Tayamaha
PROJECT NAME: UST Removals
PROJECT NUMBER: 04-4364.260

ANALYSIS REQUESTED: TPH-D (8015) (TRPH) 418.1

| SAMPLE ID | LAB ID | DATE | TIME | CONTAINER SIZE/TYPE | SAMPLE TYPE: SOIL | WATER | SOLID WASTE | LIQUID WASTE | OTHER | PRES. | TPH-D (8015) | TRPH 418.1 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ET-UST600-D1-2' | | 7/22/99 | 1315 | 2" x 6" ss tube | X | | | | | NONE | X | X | |
| ET-UST600-D2-2' | | | 1320 | " | X | | | | | | X | X | |
| ET-UST600 D3-2' | | | 1325 | " | X | | | | | | X | X | |
| ET-UST600-D4-2' | | | 1330 | " | X | | | | | | X | X | |
| ET-UST600 D5-2' | | | 1335 | " | X | | | | | | X | X | |
| ET-UST600 D6-2' | | | 1340 | " | X | | | | | | X | X | |

Collected By: Leo W. Williamson Date 7/22/99 Time 3:58
Delivered By: [illegible] Date 7/23/99 Time 9:45
Relinquished By: Leo W. Williamson Date 7/23/99 Time 1:45
Received For Laboratory Date 7/23/99 Time
Turn Around Time ☒ Normal ☐ Rush

American Environmental Testing Laboratory Inc.
2834 North Naomi Street, Burbank, California 91504, Phone (888) 288-AETL, (818) 845-8200
Fax (818) 845-8840

AETL JOB# _____ PAGE 2 OF 3

# CHAIN OF CUSTODY RECORD

ANALYSIS REQUESTED

CLIENT: GECTON, INC. TELEPHONE: (714) 220 2777 FAX: (714) 220-1268

ADDRESS: 5552 Cerritos Ave #F

SITE: 11 Yuma UST 3885

CONTACT PERSON: Tomoko Toyamaha PROJECT NAME: [illegible] PROJECT NUMBER: [illegible]

| SAMPLE ID | LAB ID | DATE | TIME | CONTAINER SIZE/TYPE | SAMPLE TYPE: SOIL | WATER | SOLID WASTE | LIQUID WASTE | OTHER | PRES. | [illegible] | TPH (418.1) | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17-UST 3885-EX-1-6' | | 7/22/99 | 1465 | 2"x6" [illegible] | X | | | | | None | X | X | | | | | | | | | | |
| 17-UST 3885-SP-1 | | ↓ | 1415 | " | X | | | | | ↓ | X | X | | | | | | | | | | |

Collected By: Leon Williamson Date 7/22/99 Time [illegible]

Relinquished By: Leon Williamson Date 7/23/99 Time [illegible]

Delivered By: [illegible] Date 7/23/99 Time [illegible]

Received For Laboratory Date 7/23/99 Time

Turn Around Time ☐ Normal ☐ Rush

American Environmental Testing Laboratory Inc.
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Fax (818) 845-8840

AETL JOB# _____ PAGE 3 OF 3

# CHAIN OF CUSTODY RECORD

ANALYSIS REQUESTED

TELEPHONE: (714) 770-2777
FAX: (714) 770-1708

CLIENT: GEOTON INC.

ADDRESS: 5552 Cerritos Ave #F

SITE: El Toro - USTs 298A & 298B

CONTACT PERSON: Jenaka Jayawalia

PROJECT NAME: Leon Williamson

PROJECT NUMBER: 14 4364 760

| SAMPLE ID | LAB ID | DATE | TIME | CONTAINER SIZE/TYPE | SAMPLE TYPE: SOIL | WATER | SOLID WASTE | LIQUID WASTE | OTHER | PRES. | 418.1 (TRPH) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ET-298A/B-D1-2.5' | | 7/22/99 | 1450 | | X | | | | | None | X | |
| ET-298A/B-D2-2.5' | | ↓ | 1455 | | X | | | | | ↓ | X | |
| ET-298A/B-D3-2.5' | | ↓ | 1500 | | X | | | | | ↓ | X | |
| | | | | | | | | | | | | |
| ET-298B-Ex-1-9' | | 7/22/99 | 1510 | | X | | | | | None | X | |
| | | | | | | | | | | | | |
| ET-298A-Ex-1-9' | | 7/22/99 | 1520 | | X | | | | | None | X | |
| ET-298A-Ex-2-9' | | ↓ | 1525 | | X | | | | | ↓ | X | |
| | | | | | | | | | | | | |
| ET-298A/B-SP-1 | | ↓ | 1540 | | X | | | | | None | X | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Collected By: Leon W. Williamson Date 7/22/99 Time [illegible]

Relinquished By: Leon Williamson Date 7/23/99 Time [illegible]

Delivered By: [illegible] Date 7/23/99 Time [illegible]

Received For Laboratory Date 7/23/99 Time

Turn Around Time ☒ Normal ☐ Rush

American Environmental Testing Laboratory Inc.

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Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

Number of Pages: 18
Date Received : 07/23/99
Date Reported : 07/29/99

Attn : Janaka Jayamaha
Phone: 714/220-2777

---

AETL Job Number: 12837

Project Name : UST Removals
Project Number : 04-4304.280

Site: El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

Enclosed please find results of analyses of 15 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: Joe Sierran

Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840



# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12837

**PROJECT:** UST Removals-04-4304.280
**SITE:** El Toro, UST 800A/B/C, UST 388B, USTS 298A/B
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-27-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by the client

| | ANALYTE | GASOLINE $C_4 - C_9$ | DIESEL $C_9 - C_{23}$ | HEAVY HC $C_{23+}$ |
|---|---|---|---|---|
| | UNITS | mg/Kg | mg/Kg | mg/Kg |
| | METHOD OF ANALYSIS | M8015G | M8015D | M8015D |
| | DETECTION LIMIT | 1.0 | 10 | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** | **RESULTS** | **RESULTS** |
| AE62277 | UST800-D1-2' | NA | ND | ND |
| AE62278 | UST800-D2-2' | NA | ND | ND |
| AE62279 | UST800-D3-2' | NA | **66** | ND |
| AE62280 | UST800-D4-2' | NA | **3,960** | **160** |
| AE62281 | UST800-D5-2' | NA | ND | ND |
| AE62282 | UST800-D6-2' | NA | **682** | **21** |
| AE62283 | 388B-EX-1-8' | ND | NA | NA |
| AE62284 | 388B-SP-1 | ND | NA | NA |
| AE62292 | M. Blank | ND | ND | ND |

ND = Not Detected at the detection limit

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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# SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12837

**PROJECT:** UST Removals-04-4304.280
**SITE:** El Toro, UST 800A/B/C, UST 388B, USTS 298A/B
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-29-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by the client

| | | |
|---|---|---|
| | **ANALYTE** | **TRPH** |
| | **UNITS** | mg/Kg |
| | **METHOD OF ANALYSIS** | 418.1 |
| | **DETECTION LIMIT** | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** |
| AE62277 | UST800-D1-2' | ND |
| AE62278 | UST800-D2-2' | ND |
| AE62279 | UST800-D3-2' | 76 |
| AE62280 | UST800-D4-2' | **4,390** |
| AE62281 | UST800-D5-2' | ND |
| AE62282 | UST800-D6-2' | **849** |
| AE62283 | 388B-EX-1-8' | **9,240** |
| AE62284 | 388B-SP-1 | **262** |
| AE62285 | 298ABD1-2.5' | **442** |
| AE62286 | 298ABD2-2.5' | **11** |
| AE62287 | 298ABD3-2.5' | **400** |
| AE62288 | 298B-EX-1-9' | ND |

ND = Not Detected at the detection limit

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Laboratory Director

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## SUMMARY OF RESULTS

**CLIENT NAME:** Geofon Inc.
5552 Cerritos Ave., Suite F
Cypress, CA 90630

**AETL JOB NO.:** 12837

**PROJECT:** UST Removals-04-4304.280
**SITE:** El Toro, UST 800A/B/C, UST 388B, USTS 298A/B
**DATE SAMPLED:** 07-22-99
**DATE SUBMITTED:** 07-23-99
**DATE ANALYSIS COMPLETED:** 07-29-99
**SAMPLE DESCRIPTION:** Grab soil samples (For details, please see COC)
**SAMPLE MATRIX:** Soil
**NOTE:** Samples were collected by client

| | | |
|---|---|---|
| | **ANALYTE** | **TRPH** |
| | **UNITS** | mg/Kg |
| | **METHOD OF ANALYSIS** | 418.1 |
| | **DETECTION LIMIT** | 10 |
| **LAB ID** | **FIELD ID** | **RESULTS** |
| AE62289 | 298A-EX-1-9' | 19 |
| AE62290 | 298A-EX-2-9' | ND |
| AE62291 | 298A/B-SP-1 | 30 |
| AE62292 | M. BLANK | ND |

ND = Not Detected at the detection limit

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Attn:** Janaka Jayamaha

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| **Lab ID:** | AE62277 | AE62278 | AE62279 | |
|---|---|---|---|---|
| **Sample No:** | UST800-D1-2' | UST800-D2-2' | UST800-D3-2' | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | 07/29/99 | 07/29/99 | **Detection** |
| **Date Analyzed:** | 07/29/99 | 07/29/99 | 07/29/99 | **Limit** |
| TRPH | ND | ND | 76 | 10 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62280 | |
| **Sample No:** | UST800-D4-2' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | **4390** | 500 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62281 | |
| **Sample No:** | UST800-D5-2' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | ND | 10 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62282 | |
| **Sample No:** | UST800-D6-2' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | **849** | 150 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Attn:** Janaka Jayamaha

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62283 | |
| **Sample No:** | 388B-EX-1-8' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | 9240 | 1500 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Attn:** Janaka Jayamaha

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62284 | |
| **Sample No:** | 388B-SP-1 | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | **262** | 30 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Attn:** Janaka Jayamaha

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62285 | |
| **Sample No:** | 298ABD1-2.5' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | **442** | 50 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62286 | |
| **Sample No:** | 298ABD2-2.5' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | 11 | 10 |

## QUALITY CONTROL SUMMARY

| | Spike %REC. | Spike DUP. %REC. | AVG. RPD |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62287 | |
| **Sample No:** | 298ABD3-2.5' | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | **400** | 50 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| **Lab ID:** | AE62288 | AE62289 | AE62290 | AE62291 | |
|---|---|---|---|---|---|
| **Sample No:** | 298B-EX-1-9' | 298A-EX-1-9' | 298A-EX-2-9' | 298A/B-SP-1 | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | 07/29/99 | 07/29/99 | 07/29/99 | **Detection** |
| **Date Analyzed:** | 07/29/99 | 07/29/99 | 07/29/99 | 07/29/99 | **Limit** |
| TRPH | ND | 19 | ND | 30 | 10 |

## QUALITY CONTROL SUMMARY

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** (418.1)
Total Recoverable Petroleum Hydrocarbons
**Units:** mg/Kg

| | | |
|---|---|---|
| **Lab ID:** | AE62292 | |
| **Sample No:** | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | |
| **Date Extracted:** | 07/29/99 | **Detection Limit** |
| **Date Analyzed:** | 07/29/99 | |
| TRPH | ND | 10 |

## QUALITY CONTROL SUMMARY

| | Spike %REC. | Spike DUP. %REC. | AVG. RPD |
|---|---|---|---|
| TRPH | 93 | 94 | 1.1 |

ND - Not Detected at The Detection L

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# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015MOD.
TPH as Gasoline
**Units:** mg/Kg

| **Lab ID:** | AE62283 | AE62284 | AE62292 | |
|---|---|---|---|---|
| **Sample No:** | 388B-EX-1-8' | 388B-SP-1 | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/26/99 | 07/26/99 | 07/26/99 | **Detection** |
| **Date Analyzed:** | 07/26/99 | 07/26/99 | 07/26/99 | **Limit** |
| TPH as Gasoline or Light HCs | ND | ND | ND | 1.0 |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62283 | AE62284 | AE62292 |
|---|---|---|---|
| **Surrogate Percent Recovery** | | | |
| Bromofluorobenzene | 63 | 71 | 107 |
| Trifluorotoluene | 48 | 80 | 113 |

| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
|---|---|---|---|
| Benzene | 90 | 86 | 5 |
| Ethylbenzene | 96 | 90 | 6 |
| Toluene | 96 | 92 | 4 |
| M- Xylene | 92 | 86 | 7 |
| O- Xylene | 102 | 96 | 6 |

**Comment to Sample(s)**
AE62283: Low surrogate recovery due to matrix interference.

ND - Not Detected at The Detection Limit

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# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Attn:** Janaka Jayamaha

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| Lab ID: | AE62277 | AE62278 | AE62279 | AE62280 | |
|---|---|---|---|---|---|
| Sample No: | UST800-D1-2' | UST800-D2-2' | UST800-D3-2' | UST800-D4-2' | |
| Date Sampled: | 07/22/99 | 07/22/99 | 07/22/99 | 07/22/99 | |
| Date Extracted: | 07/28/99 | 07/28/99 | 07/28/99 | 07/28/99 | Detection |
| Date Analyzed: | 07/28/99 | 07/28/99 | 07/28/99 | 07/28/99 | Limit |
| TPH as Diesel and Heavier HC | ND | ND | 66 | 4120 | 10 |

## QUALITY CONTROL SUMMARY

| Lab ID: | AE62277 | AE62278 | AE62279 | AE62280 |
|---|---|---|---|---|
| **Surrogate Percent Recovery** | | | | |
| Chlorobenzene | 96 | 94 | 98 | 93 |

| | Spike %REC. | Spike DUP. %REC. | AVG. RPD |
|---|---|---|---|
| Diesel | 88 | 87 | 1.1 |

**Comment to Sample(s)**
AE62279: (C9-C23)= 66mg/Kg; (C23+)= ND.
AE62280: (C9-C23)= 3960mg/Kg; (C23+)= 160 mg/Kg.

ND - Not Detected at The Detection Limit

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

# ANALYTICAL RESULTS

**AETL Job No:** 12837
**Project ID:** 04-4304.280
**Project Name:** UST Removals



**Report To:** (GEOFON)
Geofon Inc.
5552 Cerritos Ave. Suite F
Cypress, CA 90630

**Site:**
El Toro, UST 800A/B/C
UST 388B
USTS 298A & 298B

**Attn:** Janaka Jayamaha

**Phone:** 714/220-2777

**Matrix:** Soil
**Method:** 8015M{DHS-LUFT}
TPH as Diesel and Heavier HCs (Extended Run)
**Units:** mg/kg

| **Lab ID:** | AE62281 | AE62282 | AE62292 | |
|---|---|---|---|---|
| **Sample No:** | UST800-D5-2' | UST800-D6-2' | METHOD BLANK | |
| **Date Sampled:** | 07/22/99 | 07/22/99 | 07/22/99 | |
| **Date Extracted:** | 07/28/99 | 07/28/99 | 07/28/99 | **Detection** |
| **Date Analyzed:** | 07/28/99 | 07/28/99 | 07/28/99 | **Limit** |
| TPH as Diesel and Heavier HC | ND | 703 | ND | 10 |

## QUALITY CONTROL SUMMARY

| **Lab ID:** | AE62281 | AE62282 | AE62292 |
|---|---|---|---|
| **Surrogate Percent Recovery** | | | |
| Chlorobenzene | 92 | 96 | 98 |
| | **Spike %REC.** | **Spike DUP. %REC.** | **AVG. RPD** |
| Diesel | 88 | 87 | 1.1 |

**Comment to Sample(s)**
AE62282: (C9-C23)= 682mg/Kg; (C23+)= 21mg/Kg.

ND - Not Detected at The Detection Limit

# APPENDIX D
# MISCELLANEOUS INFORMATION: COMPACTION TESTS-FIELD DATA, MODIFIED PROCTOR TEST DATA AND THE ASPHALT MIX DESIGNS

## SITE ASSESSMENT REPORT – FORMER UNDERGROUND STORAGE TANK SITES 298A & 298B, APPENDIX F – GEOFON, UNDERGROUND STORAGE TANK REMOVAL REPORT

DATED 20 FEBRUARY 2001

**GEOFON**

# FIELD DENSITY TEST

PROJECT NAME [illegible] PROJECT NUMBER [illegible]

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEST NO. | | 1 | 2 | 3 | 4 | | | | |
| DATE | | [illegible] | 9.[illegible] | [illegible] | 8.9.[illegible] | | | | |
| ELEVATION | | | | | | | | | |
| DEPTH BELOW FINISHED GRADE | | 5' | 3' | 1' | [illegible] | | | | |
| LOCATION | | A+B 298 | A+B [illegible] | A+B [illegible] | A+B 298 | | | | |
| SAND CONE METHOD ASTM D1556-82 — SAND | Initial weight of sand and tare (lbs) | | | | | | | | |
| | Final weight of sand and tare (lbs) | | | | | | | | |
| | Gross sand used (lbs) | | | | | | | | |
| | Correction for cone (lbs) | | | | | | | | |
| | Net sand used (lbs) | | | | | | | | |
| | Density of sand (lbs) | | | | | | | | |
| SAND CONE METHOD ASTM D1556-82 — SOIL | Wet weight of soil and tare (lbs) | | | | | | | | |
| | Weight tare (lbs) | | | | | | | | |
| | Wet weight of soil (lbs) | | | | | | | | |
| | Wet density of soil (pcf) | | | | | | | | |
| NUCLEAR GAUGE ASTM D2922-81 | Depth of measurement | [illegible] | | | [illegible] | | | | |
| | Measurment speed | [illegible] | [illegible] | [illegible] | [illegible] | | | | |
| | Density count | | | | | | | | |
| | Moisture count | | | | | | | | |
| | Wet density (lb/ft$^3$) | [illegible] | [illegible] | [illegible] | [illegible] | | | | |
| MOISTURE | Wet weight + cup (gms) | | | | | | | | |
| | Dry weight + cup (gms) | | | | | | | | |
| | Weight of cup (gms) | | | | | | | | |
| | Weight of dry soil (gms) | | | | | | | | |
| | Weight of water (gms) | | | | | | | | |
| | Moisture content (percent) | 12.6 | [illegible] | 10.[illegible] | [illegible] | | | | |
| RESULTS | Dry density (lb/ft3) | 119.1 | [illegible] | [illegible] | 117.[illegible] | | | | |
| | Curve number | | | | | | | | |
| | Maximum dry density | 134 | 134 | [illegible] | 139 | | | | |
| | Compaction (percent) | 98.2 | [illegible] | 99.0 | 97.0 | | | | |

Density standard _____ _____ _____

Moisture standard _____ _____ _____

REMARKS _____

Tested by [illegible]

Job No. 13193

Location El Toro

Date 7-8-7-99

Tested by: R.C

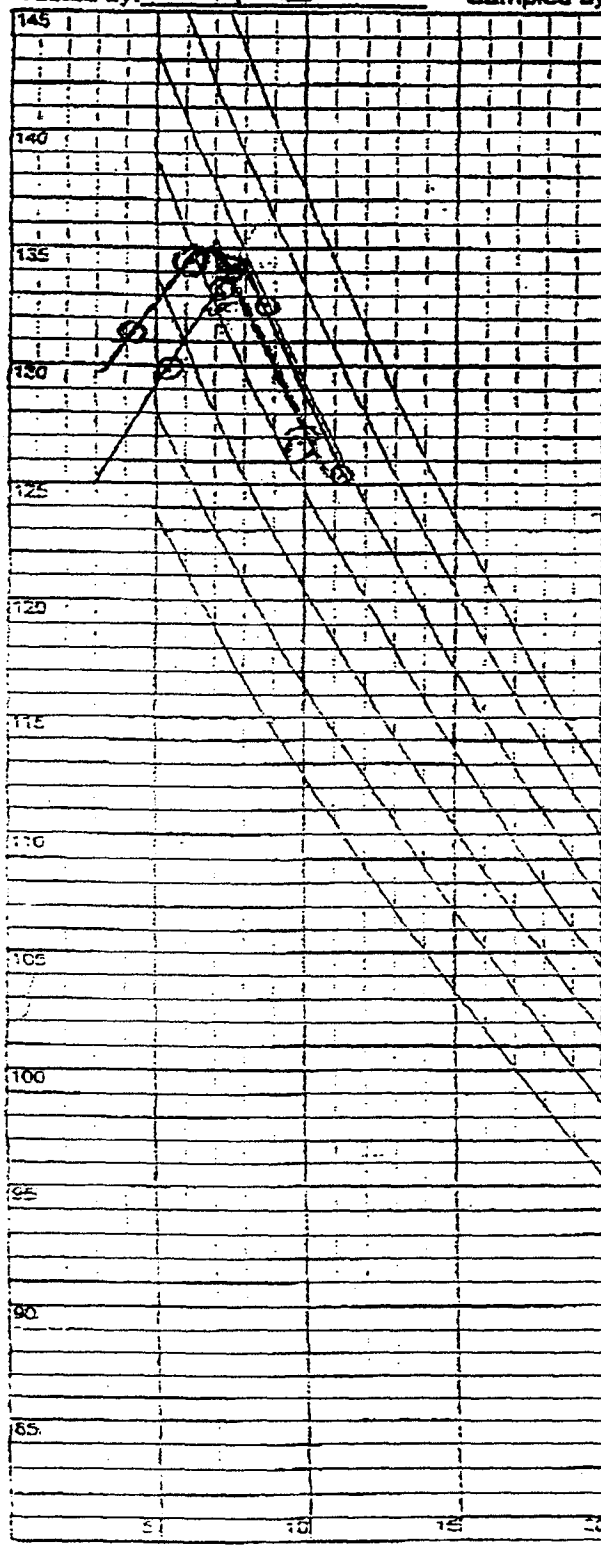
Associated Soils Engineering
Max. Density and Moisture Curves
ASTM D1557 or D698

Sample No. 1 - 7/27

Elevation

Sta.

Sampled by:




| Test Data | | | | |
|---|---|---|---|---|
| Compaction Test Standard 5 LAY | | | Size Mold 0.30 | |
| Test No. | 1 | 2 | 3 | 4 |
| Weight of Water Added | 100 | 200 | 160 | 140 |
| Weight of Soil & Mold | 3868 | 3957 | 3982 | 3906 |
| Weight - Mold | 1800 | 1806 | 1800 | 1800 |
| Net Wet Weight Soil | 2068 | 2157 | 2182 | 2106 |
| Wet Density - lbs/cu ft | 136.8 | 142.7 | 144.3 | 139.3 |
| Dry Density - lbs/cu ft Stove | 129.9 | 133.3 | 132.7 | 125.3 |
| Dry Density - lbs/cu ft Oven | 131.3 | 134.5 | 134.2 | 126.8 |
| Moisture Determinations | | | | |
| Wet Wt. of Soil | | | | |
| Dry Wt. of Soil | | | | |
| Can No. | 262 | 74 | 136 | 100A |
| Net Loss Moist | | | | |
| Moisture % Dry Wt. - Oven | 4.2 | 6.1 | 7.5 | 9.9 |
| Moisture % Dry Wt. - Stove | 5.3 | 7.0 | 8.7 | 11.1 |

Soil Class: Med Brn Sily Sand w/ grvl. trace cl

% Passing 3/4"

% Passing #4

Specific Gravity:

STOVE 134.0 @ 8.0 %

OVEN 132.0 @ 7.0 %

Job No. 13193/04-4304.280 Associated Soils Engineering Sample No. #2

Location EL TORO

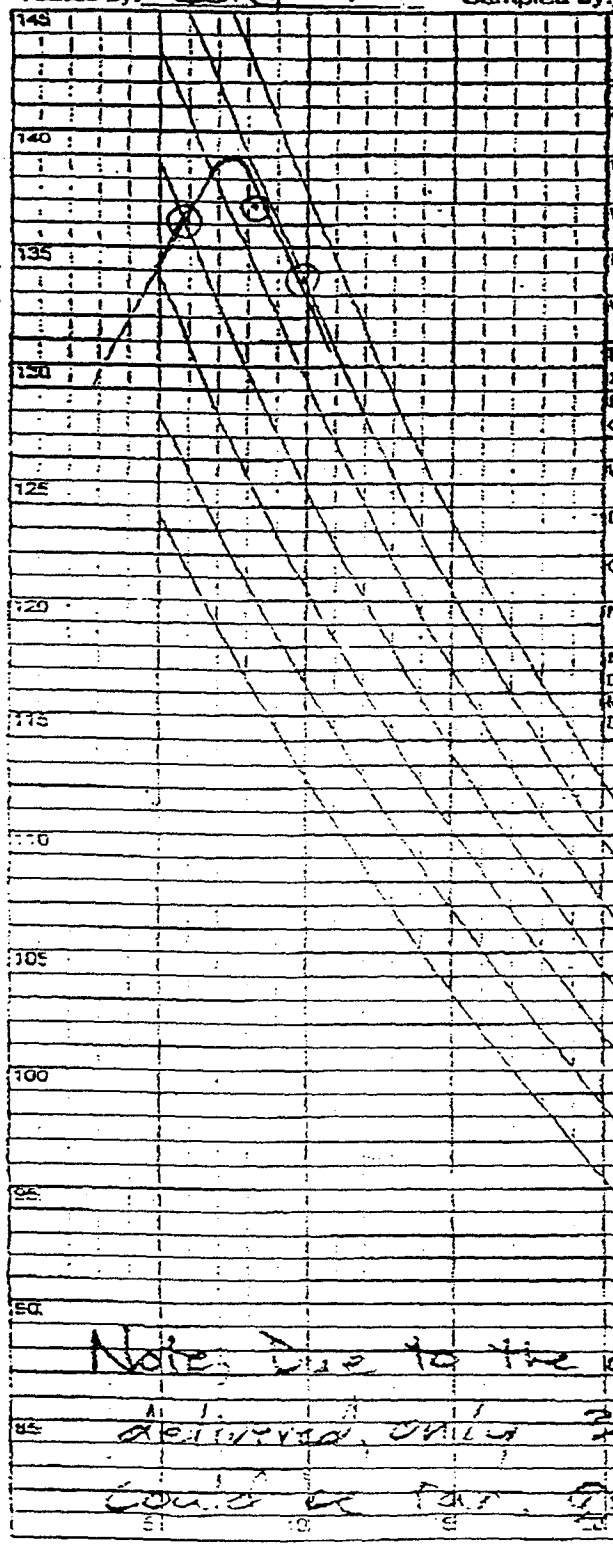
Max. Density and Moisture Curves
ASTM D1557 or D698

Elevation

Date 7-28-99

Sta. B 800

Tested by: CORY T. Sampled by: (D)




| Test Data | | | | |
|---|---|---|---|---|
| Compaction Test Standard 5 LAY. | | Size Mold .075 | | |
| Test No. | 1 | 2 | 3 | 4 |
| Weight of Water Added | 220 | 320 | 110 | |
| Weight of Soil & Mold | 16.86 | 16.76 | 16.56 | |
| Weight - Mold | 5.75 | 5.75 | 5.75 | |
| Net Wet Weight Soil | 11.11 | 11.01 | 10.81 | |
| Wet Density - lbs/cu ft | 148.1 | 146.8 | 144.1 | |
| Dry Density - lbs/cu ft Stove | 136.9 | 133.6 | 136.1 | |
| Dry Density - lbs/cu ft Oven | | | | |
| Moisture Determinations | | | | |
| Wet Wt. of Soil | | | | |
| Dry Wt. of Soil | | | | |
| Can No. | NO | CANS | | |
| Net Loss Moist | | | | |
| Moisture % Dry Wt. - Oven | | | | |
| Moisture % Dry Wt. - Stove | 8.2 | 9.9 | 5.9 | |

Soil Class: OLIVE BRN BASE MAT'L
SiY SA. W/ GRAV.

% Passing 3/4"

% Passing #4

Specific Gravity

139.0 @ 7.5%

NOTE: DUE TO THE AMOUNT OF MAT'L
ACTUAL ONLY 2 PTS.
COULD BE FAIR OF

INDUSTRIAL ASPHALT

INDUSTRIAL ASPHALT
LOCATION: SANTA ANA
CUSTOMER:
IMPERIAL ASPHALT

PROJECT: USMCAS
EL TORO, CA

LAB# 23470 - 99
DATE: 08/02/99

TYPE OF MIX: 6.400 TYPE III/C
AC: AR-4000 OR AR-8000
SMRA 91-33-0011/91-33-0001
TYPE - 8 ASG

| 1.0 % FILLER | | 15.0 % RECYCLE | | 0.0 % BIN#5 | | 0.0 % BIN#4 | | 21.0 % BIN#3 | | 19.0 % BIN#2 | | 44.0 % BIN#1 | | COMBINED PASSING | OPERATING RANGE | ENG (SI) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 LBS | | 284 LBS | | 0 LBS | | 0 LBS | | 397 LBS | | 359 LBS | | 832 LBS | | | | |
| Pass | Use | Pass | Use | Pass | Use | Pass | Use | Pass | Use | Pass | Use | Pass | Use | | | |
| 100.0 | 1.0 | 100.0 | 15.0 | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 | 21.0 | 100.0 | 19.0 | 100.0 | 44.0 | 100.0 | | 2-50.0 (50.0) |
| 100.0 | 1.0 | 100.0 | 15.0 | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 | 21.0 | 100.0 | 19.0 | 100.0 | 44.0 | 100.0 | | 1 1/2 (37.5) |
| 100.0 | 1.0 | 100.0 | 15.0 | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 | 21.0 | 100.0 | 19.0 | 100.0 | 44.0 | 100.0 | | 1" (25.0) |
| 100.0 | 1.0 | 100.0 | 15.0 | 0.0 | 0.0 | 96.0 | 0.0 | 100.0 | 21.0 | 100.0 | 19.0 | 100.0 | 44.0 | 100.0 | 100 | 3/4" (19.0) |
| 100.0 | 1.0 | 100.0 | 15.0 | 0.0 | 0.0 | 24.0 | 0.0 | 96.0 | 20.2 | 100.0 | 19.0 | 100.0 | 44.0 | 99.2 | 95-100 | 1/2" (12.5) |
| 100.0 | 1.0 | 98.0 | 14.7 | 0.0 | 0.0 | 2.0 | 0.0 | 40.0 | 8.4 | 99.0 | 18.8 | 100.0 | 44.0 | 86.9 | 80-95 | 3/8" (9.5) |
| 100.0 | 1.0 | 72.0 | 10.8 | 0.0 | 0.0 | 1.0 | 0.0 | 2.0 | 0.4 | 40.0 | 7.6 | 100.0 | 44.0 | 63.8 | 55-72 | #4 (4.75) |
| 100.0 | 1.0 | 53.0 | 8.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.2 | 9.0 | 1.7 | 89.0 | 39.2 | 50.0 | 38-55 | #8 (2.36) |
| 100.0 | 1.0 | 41.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.2 | 65.3 | 28.7 | 36.1 | | #16 (1.18) |
| 99.0 | 1.0 | 31.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 45.5 | 20.0 | 25.7 | 18-33 | #30 (.60) |
| 96.0 | 1.0 | 22.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.3 | 11.6 | 15.9 | | #50 (.30) |
| 95.0 | 1.0 | 15.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.5 | 6.4 | 9.6 | | #100 (1.5) |
| 90.0 | 0.9 | 11.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 | 3.4 | 6.0 | 4-8 | #200 (.075) |

RAP AC% 3.8

KM OF COMBINED AGGREGATE---1.10

SURFACE AREA: 31.8

% ASPHALT -OUTSIDE- 5.8 % + 100% AGG

% ASPHALT -INSIDE- 5.5 % PLUS

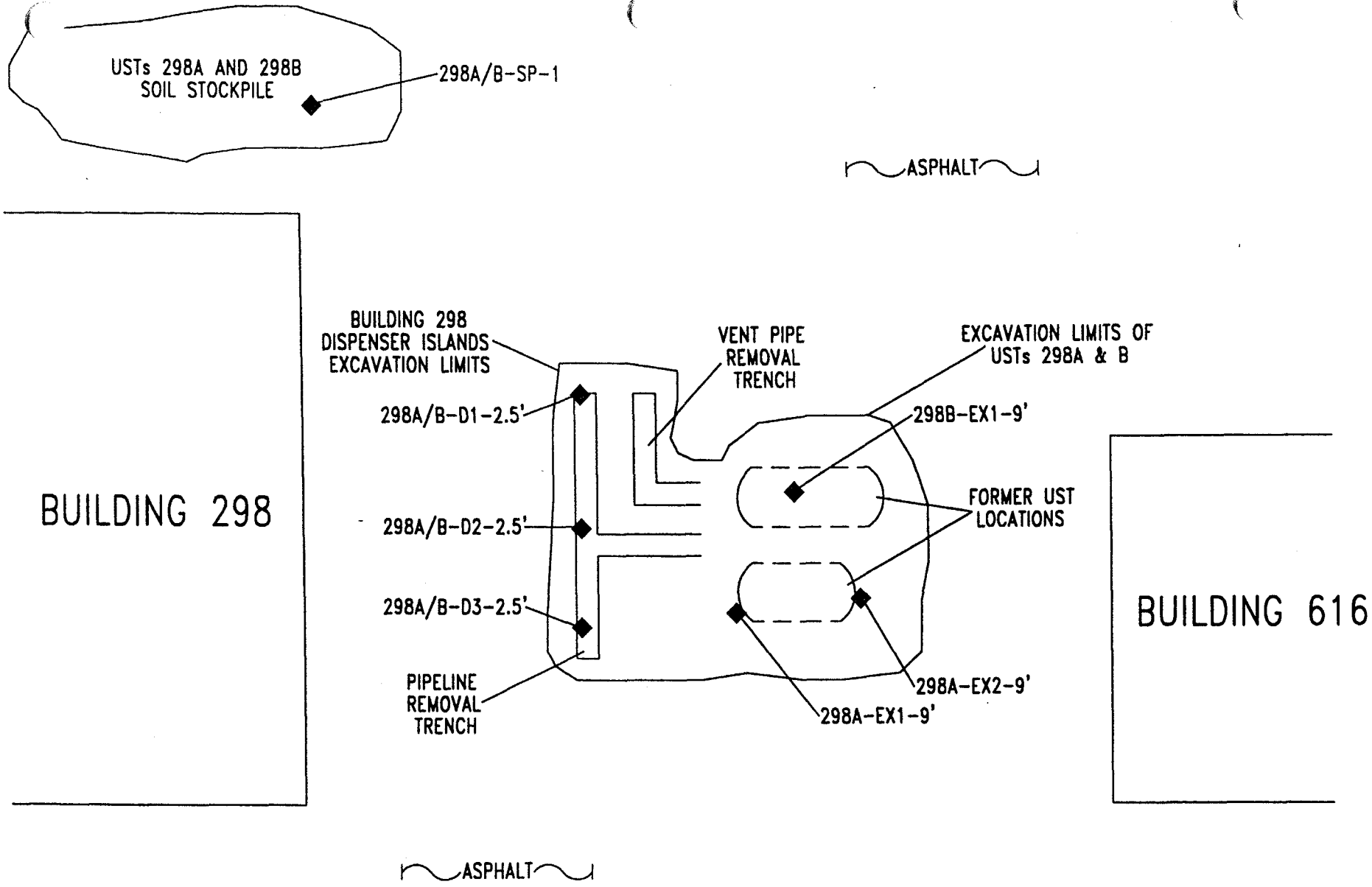
WGT.PER TON 110 LBS 94.5 % AGGREGATE

BATCH WT: 2000.0 LBS

Mascarenhas

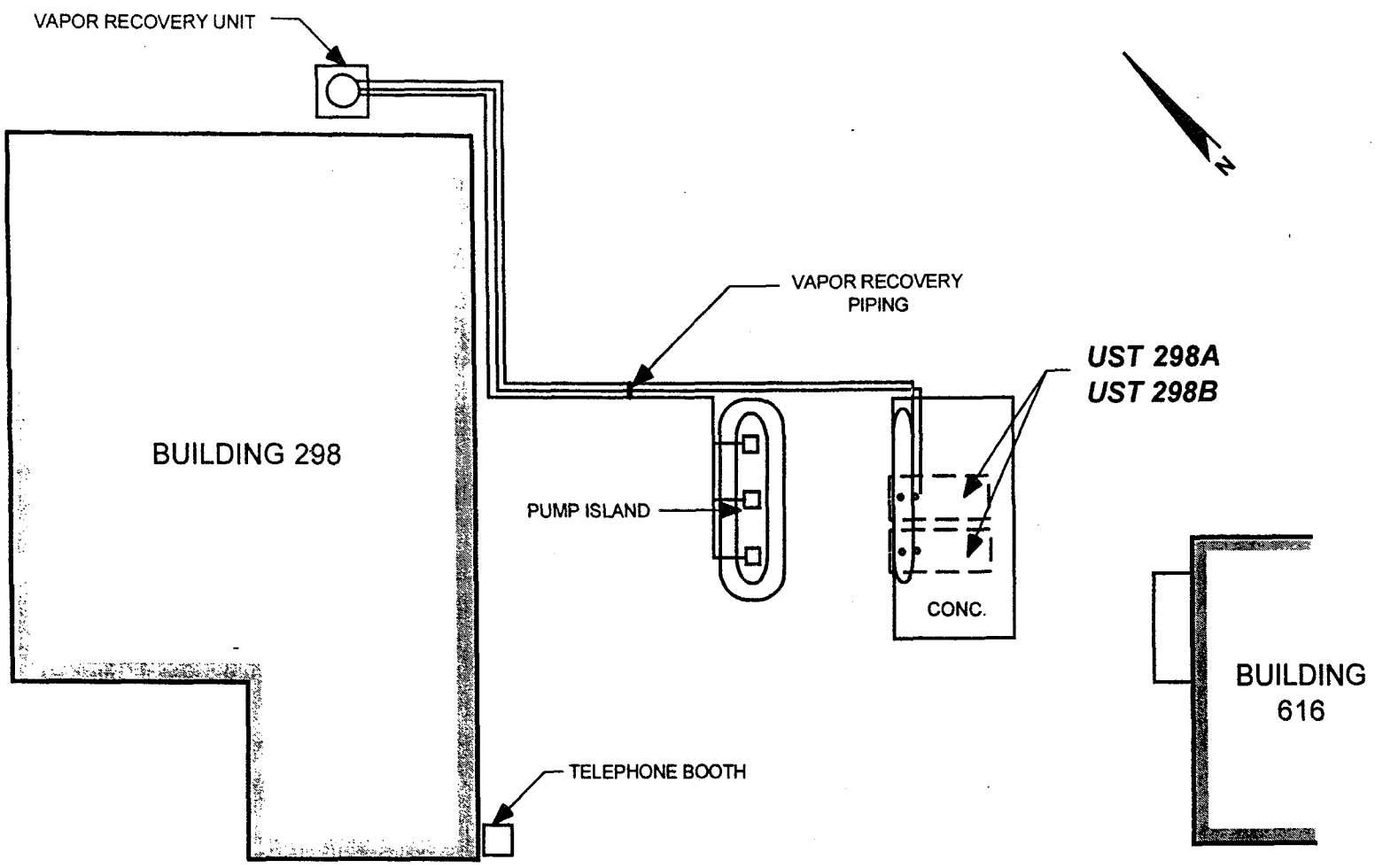
PASCAL MASCARENHAS
REGIONAL QUALITY CONTROL MANAGER

Prepared by:_____ ( Initials )




◆ DENOTES SOIL SAMPLE LOCATION
D: DENOTES DISPENSER SAMPLE COLLECTED ON 7/22/99
EX: DENOTES EXCAVATION SAMPLE COLLECTED ON 7/22/99
NOTE: NOT TO SCALE
PROJECT NO: 04-4304.280

SOIL SAMPLE LOCATION MAP
USTs 298A & 298B
7/99
FIGURE 3




Scale in Feet

0 20 40

GEOFON INCORPORATED

PROJECT NO.: 04-4304.280

**SITE LOCATION MAP**
**USTs 298A AND 298B**

6/99

Figure 8

# *Appendix G*
# *Laboratory Analytical Reports*

COMPLETED 14 MG 5/23/00

WBS 0 000 10 7

**the IT group**

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10862

UST 298 Confirmation Drilling

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: M. Concepcion | LAB COORDINATOR'S PHONE: 949-660-7550 | LAB COORDINATOR'S FAX: 949-475-5433 | LABORATORY SERVICE ID: E065 | LABORATORY CONTACT: EMAX | MAIL REPORT (COMPANY NAME): IT Group |
| PROJECT NAME: El Toro-D070 | PROJECT LOCATION: MCAS El Toro, CA | PROJECT NUMBER: 18609 | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Dwayne Isbister |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1667 | PROJECT FAX: 949-451-1672 | LABORATORY ADDRESS: 630 Maple Ave. | ADDRESS: 3347 Michelson Drive | |
| PROJECT ADDRESS: — | CITY, STATE AND ZIP CODE: — | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | CITY, STATE AND ZIP CODE: Irvine CA 92612 | |
| PROJECT MANAGER: B. Sellak | PROJECT MANAGER'S PHONE: 949-660-5444 5433 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

Analyses: TPH-Gas, TPH-Diesel, 8260

Analyze from "X"

| Item | Sample Identifier | Matrix | 200C Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | TPH-Gas | TPH-Diesel | 8260 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2957 A | S | 5-10 | 0900 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 2 | 18609-2958 A | WW | 5-10 | 0905 | 4°C | 2 | 3 | 5 day | X | X | X | 8260 only | | | | | |
| 3 | 18609-2959 A | S | 5-10 | 0915 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 4 | 18609-29160 A | S | 5-10 | 0925 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 5 | 18609-2961 A | S | 5-10 | 0940 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 6 | 18609-2962 A | S | 5-10 | 1045 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 7 | 18609-2963 A | S | 5-10 | 1055 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 8 | 18609-2964 A | S | 5-10 | 1105 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 9 | 18609-2965 A | S | 5-10 | 1115 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 10 | 18609-29166 A | S | 5-10 | 1120 | 4°C | 1 | 4 | 5 day | X | X | X | | | | | | |

SAMPLES COLLECTED BY: W. Peterson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wayne Peterson | [illegible] | 5/10/00 | 900 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298
Confirmation Drilling

| Sample Point Location | Sample Type G | C | F | QC |
|---|---|---|---|---|
| ① UST 298-SB-01 20.5-21.0' bgs | X | | | |
| ② UST 298-SB-01 40.5-41.0' bgs | X | | | |
| ③ Trip Blank | X | | | X |
| ④ UST 298-SB-01 50.5-51.0' bgs | X | | | |
| ⑤ UST-298-SB-01 60.5-61.0' bgs | X | | | |
| ⑥ UST 298-SB-02 20.5-21.0' bgs | X | | | |
| ⑦ UST 298-SB-02 40.5-41.0' bgs | X | | | |
| ⑧ UST 298-SB-02 50.5-51.0' | X | | | |
| ⑨ UST 298-SB-02 60.5-61.0' | X | | | |
| ⑩ UST 298-SB-02 61.0-61.5' bgs (Dup) | X | | | X |

Comments: Drums generated Due 5/18/00 rec'd 5/19/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

5130

[redacted]

WBS 0200 9011

**the igroup**

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10863

UST 298 - Confirmation Drilling

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: M. Concepcion | LAB COORDINATOR'S PHONE: 949-660-1550 | LAB COORDINATOR'S FAX: 949-475-5433 | LABORATORY SERVICE ID: E065 | LABORATORY CONTACT: EMAX | MAIL REPORT (COMPANY NAME): IT Corp |
| PROJECT NAME: El Toro - D070 | PROJECT LOCATION: MCAS El Toro, CA | PROJECT NUMBER: 18609 | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Dwayne Ishida |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1607 | PROJECT FAX: 949-451-1672 | LABORATORY ADDRESS: 630 Maple Ave. | | ADDRESS: 3347 Michelson #200 |
| PROJECT ADDRESS: | CITY, STATE AND ZIP CODE: | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: ~~Irvine, CA 92~~ Torrance, CA | | CITY, STATE AND ZIP CODE: Irvine, CA 92612 |
| PROJECT MANAGER: B. Sydlak | PROJECT MANAGER'S PHONE: 949-660-5446 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

Analyze from "X"

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-GRO | TPH-Diesel | 8260 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2967 A | S | 5-10 | 1355 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 2 | 18609-2968 A | S | 5-10 | 1405 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 3 | 18609-2969 A | S | 5-10 | 1415 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 4 | 18609-2970 A | S | 5-10 | 1425 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 5 | 18609-2971 A | S | 5-10 | 1430 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 6 | 18609-2972 A | W | 5-10 | 1430 | 4°C | 5 | 3 | 5 day | X | X | X | | | | | | |
| 7 | 18609-2973 A | S | 5/10 | 1530 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 8 | 18609-2974 A | S | 5/10 | 1545 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 9 | 18609-2975 A | S | 5/10 | 1550 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |
| 10 | 18609-2976 A | S | 5/10 | 1600 | 4°C | 1 | 3 | 5 day | X | X | X | | | | | | |

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wayne Jefferson | [illegible] | 5/10/00 | 400 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

## Project Information Section For Project Personnel Only Do Not Submit to Laboratory

UST 298 - Confirmation Drilling

| Sample Point Location | G | C | F | QC |
|---|---|---|---|---|
| ① UST 298-SB-03 20.5'-21.0' bgs | X | | | |
| ② UST 298-SB-03 40.5'-41.0' bgs | X | | | |
| ③ UST 298-SB-03 50.5'-51.0' bgs | X | | | |
| ④ UST 298-SB-03 60.5'-61.0' bgs | X | | | |
| ⑤ UST 298-SB-03 61.0'-61.5' bgs (Dup) | X | | | X |
| ⑥ ~~UST 298-SB-04~~ Equipment Rinsate | X | | | X |
| ⑦ UST 298-SB-04 ~~0'-20~~ 20.5'-21.0 | X | | | |
| ⑧ UST 298-SB-04 40.5'-41.0' | X | | | |
| ⑨ UST 298-SB-04 50.5'-51.0' | X | | | |
| ⑩ UST 298-SB-04 60.5-61.0' bgs | X | | | |

Comments: Drums generated Due 5/18/00 rec'd 5/19/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

5130

4912 F

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 05-22-2000
EMAX Batch No.: 00E065

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 05/10/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2957 A | E065-01 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2958 A | E065-02 | 05/10/00 | water | Volatile Organics by GC/MS |
| 18609-2959 A | E065-03 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2960 A | E065-04 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>NW TPH Gasoline<br>TPH by Extraction |
| 18609-2961 A | E065-05 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2962 A | E065-06 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2963 A | E065-07 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2964 A | E065-08 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2965 A | E065-09 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2966 A | E065-10 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2967 A | E065-11 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2968 A | E065-12 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2969 A | E065-13 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2970 A | E065-14 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2971 A | E065-15 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2972 A | E065-16 | 05/10/00 | water | TPH by Extraction<br>NW TPH Gasoline<br>Volatile Organics by GC/MS |
| 18609-2973 A | E065-17 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2974 A | E065-18 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2975 A | E065-19 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |
| 18609-2976 A | E065-20 | 05/10/00 | SOIL | Volatile Organics by GC/MS<br>TPH by Extraction<br>NW TPH Gasoline |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

ME M8015

TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00E065

Matrix : SOIL
Instrument ID : GCT050

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | DSE017SB | ND | 76 | 87 | 1 | NA | 10 | 3.47 | 05/13/0005:48 | 05/11/0014:15 | TE07023A | TE07013A | DSE017S | NA | 05/11/00 |
| LCS1S | DSE017SL | 418 | 80 | 92 | 1 | NA | 10 | 3.47 | 05/13/0007:28 | 05/11/0014:15 | TE07025A | TE07024A | DSE017S | NA | 05/11/00 |
| 18609-2957 A | E065-01 | ND | 82 | 93 | 1 | 11.1 | 11.2 | 3.9 | 05/13/0008:18 | 05/11/0014:15 | TE07026A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2959 A | E065-03 | ND | 79 | 93 | 1 | 14.9 | 11.8 | 4.08 | 05/13/0009:08 | 05/11/0014:15 | TE07027A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2960 A | E065-04 | ND | 83 | 92 | 1 | 22.0 | 12.8 | 4.45 | 05/13/0009:58 | 05/11/0014:15 | TE07028A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2961 A | E065-05 | ND | 76 | 85 | 1 | 17.1 | 12.1 | 4.19 | 05/13/0010:48 | 05/11/0014:15 | TE07029A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2962 A | E065-06 | ND | 80 | 91 | 1 | 11.5 | 11.3 | 3.92 | 05/13/0011:38 | 05/11/0014:15 | TE07030A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2963 A | E065-07 | ND | 81 | 89 | 1 | 16.1 | 11.9 | 4.14 | 05/13/0012:28 | 05/11/0014:15 | TE07031A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2964 A | E065-08 | ND | 77 | 89 | 1 | 6.4 | 10.7 | 3.71 | 05/13/0013:18 | 05/11/0014:15 | TE07032A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2965 A | E065-09 | ND | 75 | 87 | 1 | 12.1 | 11.4 | 3.95 | 05/13/0014:08 | 05/11/0014:15 | TE07033A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2965MS | E065-09M | 519 | 79 | 91 | 1 | 12.1 | 11.4 | 3.95 | 05/13/0014:58 | 05/11/0014:15 | TE07034A | TE07024A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2965MSD | E065-09S | 533 | 84 | 95 | 1 | 12.1 | 11.4 | 3.95 | 05/13/0016:38 | 05/11/0014:15 | TE07036A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2966 A | E065-10 | ND | 81 | 90 | 1 | 12.3 | 11.4 | 3.96 | 05/13/0017:28 | 05/11/0014:15 | TE07037A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2967 A | E065-11 | ND | 84 | 92 | 1 | 10.7 | 11.2 | 3.89 | 05/13/0018:18 | 05/11/0014:15 | TE07038A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2968 A | E065-12 | ND | 83 | 91 | 1 | 6.0 | 10.6 | 3.69 | 05/13/0019:07 | 05/11/0014:15 | TE07039A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2969 A | E065-13 | 24* | 78 | 88 | 1 | 13.8 | 11.6 | 4.03 | 05/13/0019:57 | 05/11/0014:15 | TE07040A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2970 A | E065-14 | ND | 81 | 94 | 1 | 18.6 | 12.3 | 4.26 | 05/13/0020:47 | 05/11/0014:15 | TE07041A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2971 A | E065-15 | ND | 82 | 88 | 1 | 15.2 | 11.8 | 4.09 | 05/13/0021:37 | 05/11/0014:15 | TE07042A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2973 A | E065-17 | ND | 81 | 90 | 1 | 9.6 | 11.1 | 3.84 | 05/13/0022:26 | 05/11/0014:15 | TE07043A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2974 A | E065-18 | ND | 81 | 86 | 1 | 10.7 | 11.2 | 3.89 | 05/13/0023:16 | 05/11/0014:15 | TE07044A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2975 A | E065-19 | ND | 82 | 89 | 1 | 16.1 | 11.9 | 4.14 | 05/14/0000:06 | 05/11/0014:15 | TE07045A | TE07035A | DSE017S | 05/10/00 | 05/10/00 |
| 18609-2976 A | E065-20 | ND | 82 | 86 | 1 | 18.6 | 12.3 | 4.26 | 05/14/0001:45 | 05/11/0014:15 | TE07047A | TE07046A | DSE017S | 05/10/00 | 05/10/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit
* : Chromatogram shows a Diesel-like pattern, calculated and reported as Diesel.

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00E065

Matrix : WATER
Instrument ID : GCT043

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | DSE019WB | ND | 87 | 112 | 1 | NA | .1 | .067 | 05/12/0022:33 | 05/12/0015:30 | DE06015A | DE06013A | DSE019W | NA | 05/12/00 |
| LCS1W | DSE019WL | 5.19 | 95 | 124 | 1 | NA | .1 | .067 | 05/12/0023:15 | 05/12/0015:30 | DE06016A | DE06013A | DSE019W | NA | 05/12/00 |
| LCD1W | DSE019WC | 5.19 | 90 | 117 | 1 | NA | .1 | .067 | 05/12/0023:57 | 05/12/0015:30 | DE06017A | DE06013A | DSE019W | NA | 05/12/00 |
| 18609-2972A | E065-16 | ND | 85 | 108 | .93 | NA | .093 | .0623 | 05/13/0002:04 | 05/12/0015:30 | DE06020A | DE06013A | DSE019W | 05/10/00 | 05/10/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit

5005

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
LOT NO.: 00E065
METHOD: METHOD M8015

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | SOIL | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | |
| LAB SAMP ID: | DSE017SB | DSE017SL | | |
| LAB FILE ID: | TE07023A | TE07025A | | |
| DATE EXTRACTED: | 05/11/0014:15 | 05/11/0014:15 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/13/0005:48 | 05/13/0007:28 | DATE RECEIVED: | 05/11/00 |
| PREP. BATCH: | DSE017S | DSE017S | | |
| CALIB. REF: | TE07013A | TE07024A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Diesel | ND | 500 | 418 | 84 | 51-153 |

==========

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|
| Bromobenzene | 100 | 79.7 | 80 | 60-140 |
| Hexacosane | 25 | 22.9 | 92 | 55-150 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | DSE019WB | DSE019WL | DSE019WC | | |
| LAB FILE ID: | DE06015A | DE06016A | DE06017A | | |
| DATE EXTRACTED: | 05/12/0015:30 | 05/12/0015:30 | 05/12/0015:30 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/12/0022:33 | 05/12/0023:15 | 05/12/0023:57 | DATE RECEIVED: | 05/12/00 |
| PREP. BATCH: | DSE019W | DSE019W | DSE019W | | |
| CALIB. REF: | DE06013A | DE06013A | DE06013A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 5 | 5.19 | 104 | 5 | 5.19 | 104 | 0 | 61-143 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 1 | .951 | 95 | 1 | .903 | 90 | 65-135 |
| Hexacosane | .25 | .311 | 124 | .25 | .294 | 117 | 60-145 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
LOT NO.: 00E065
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 12.1 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2965 | | | | |
| LAB SAMP ID: | E065-09 | E065-09M | E065-09S | | |
| LAB FILE ID: | TE07033A | TE07034A | TE07036A | | |
| DATE EXTRACTED: | 05/11/0014:15 | 05/11/0014:15 | 05/11/0014:15 | DATE COLLECTED: | 05/10/00 |
| DATE ANALYZED: | 05/13/0014:08 | 05/13/0014:58 | 05/13/0016:38 | DATE RECEIVED: | 05/10/00 |
| PREP. BATCH: | DSE017S | DSE017S | DSE017S | | |
| CALIB. REF: | TE07024A | TE07024A | TE07035A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 567 | 519 | 92 | 568 | 533 | 94 | 2 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 113.4 | 89.9 | 79 | 113.5 | 95.0 | 84 | 60-140 |
| Hexacosane | 28.4 | 25.8 | 91 | 28.4 | 27.0 | 95 | 55-150 |

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00E065

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | PRL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VAE2739B | ND | 95 | 1 | NA | 1 | .02 | 05/17/0014:43 | 05/17/0014:43 | EE11034A | EE11027A | VAE2739 | NA | 05/17/00 |
| LCS1S | VAE2739L | 2.77 | 102 | 1 | NA | 1 | .02 | 05/17/0013:27 | 05/17/0013:27 | EE11032A | EE11027A | VAE2739 | NA | 05/17/00 |
| LCD1S | VAE2739C | 2.73 | 100 | 1 | NA | 1 | .02 | 05/17/0014:06 | 05/17/0014:06 | EE11033A | EE11027A | VAE2739 | NA | 05/17/00 |
| 18609-2957A | E065-01 | ND | 94 | 1 | 11.1 | 1.12 | .0225 | 05/17/0015:19 | 05/17/0015:19 | EE11035A | EE11027A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2959A | E065-03 | ND | 84 | 1 | 14.9 | 1.18 | .0235 | 05/17/0015:55 | 05/17/0015:55 | EE11036A | EE11027A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2960A | E065-04 | ND | 93 | 1 | 22.0 | 1.28 | .0256 | 05/17/0016:37 | 05/17/0016:37 | EE11037A | EE11027A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2961A | E065-05 | ND | 90 | 1 | 17.1 | 1.21 | .0241 | 05/17/0017:50 | 05/17/0017:50 | EE11039A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2962A | E065-06 | ND | 87 | 1 | 11.5 | 1.13 | .0226 | 05/17/0018:28 | 05/17/0018:28 | EE11040A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2963A | E065-07 | ND | 87 | 1 | 16.1 | 1.19 | .0238 | 05/17/0019:04 | 05/17/0019:04 | EE11041A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2964A | E065-08 | ND | 89 | 1 | 6.4 | 1.07 | .0214 | 05/17/0019:40 | 05/17/0019:40 | EE11042A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2965A | E065-09 | ND | 88 | 1 | 12.1 | 1.14 | .0228 | 05/17/0020:16 | 05/17/0020:16 | EE11043A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2965MS | E065-09M | 2.64 | 92 | 1 | 12.1 | 1.14 | .0228 | 05/17/0020:52 | 05/17/0020:52 | EE11044A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2965MSD | E065-09S | 2.62 | 91 | 1 | 12.1 | 1.14 | .0228 | 05/17/0021:28 | 05/17/0021:28 | EE11045A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2966A | E065-10 | ND | 89 | 1 | 12.3 | 1.14 | .0228 | 05/17/0022:03 | 05/17/0022:03 | EE11046A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2967A | E065-11 | ND | 87 | 1 | 10.7 | 1.12 | .0224 | 05/17/0022:39 | 05/17/0022:39 | EE11047A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2968A | E065-12 | ND | 90 | 1 | 6.0 | 1.06 | .0213 | 05/17/0023:14 | 05/17/0023:14 | EE11048A | EE11038A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2969A | E065-13 | 7.1* | 102 | 1 | 13.8 | 1.16 | .0232 | 05/18/0003:23 | 05/18/0003:23 | EE11055A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2970A | E065-14 | ND | 87 | 1 | 18.6 | 1.23 | .0246 | 05/18/0003:58 | 05/18/0003:58 | EE11056A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2971A | E065-15 | ND | 87 | 1 | 15.2 | 1.18 | .0236 | 05/18/0000:25 | 05/18/0000:25 | EE11050A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2973A | E065-17 | ND | 85 | 1 | 9.6 | 1.11 | .0221 | 05/18/0001:00 | 05/18/0001:00 | EE11051A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2974A | E065-18 | ND | 83 | 1 | 10.7 | 1.12 | .0224 | 05/18/0001:36 | 05/18/0001:36 | EE11052A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2975A | E065-19 | ND | 83 | 1 | 16.1 | 1.19 | .0238 | 05/18/0002:11 | 05/18/0002:11 | EE11053A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |
| 18609-2976A | E065-20 | ND | 85 | 1 | 18.6 | 1.23 | .0246 | 05/18/0002:47 | 05/18/0002:47 | EE11054A | EE11049A | VAE2739 | 05/10/00 | 05/10/00 |

SURR : Bromofluorobenzene (W)65-135 (S)60-140
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution
* : Presence of heavier HC in the Chromatogram .

METHOD 5[illegible]M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00E065

Matrix : WATER
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | SURR (%) | DLF | MOIST | PRL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | VAE2539B | ND | 94 | 1 | NA | .1 | .012 | 05/16/0014:20 | 05/16/0014:20 | EE10047A | EE10043A | VAE2539 | NA | 05/16/00 |
| LCS1W | VAE2539L | .518 | 103 | 1 | NA | .1 | .012 | 05/16/0014:56 | 05/16/0014:56 | EE10048A | EE10043A | VAE2539 | NA | 05/16/00 |
| LCD1W | VAE2539C | .427 | 99 | 1 | NA | .1 | .012 | 05/16/0015:32 | 05/16/0015:32 | EE10049A | EE10043A | VAE2539 | NA | 05/16/00 |
| 18609-2972A | E065-16 | ND | 92 | 1 | NA | .1 | .012 | 05/16/0016:43 | 05/16/0016:43 | EE10051A | EE10043A | VAE2539 | 05/10/00 | 05/10/00 |

SURR : Bromofluorobenzene (W)65-135 (S)60-140
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD 5030B/M8015

MATRIX: WATER % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | VAE2539B | VAE2539L | VAE2539C | | |
| LAB FILE ID: | EE10047A | EE10048A | EE10049A | | |
| DATE EXTRACTED: | 05/16/0014:20 | 05/16/0014:56 | 05/16/0015:32 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/16/0014:20 | 05/16/0014:56 | 05/16/0015:32 | DATE RECEIVED: | 05/16/00 |
| PREP. BATCH: | VAE2539 | VAE2539 | VAE2539 | | |
| CALIB. REF: | EE10043A | EE10043A | EE10043A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | .55 | .518 | 94 | .55 | .427 | 78 | 19 | 67-136 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .05 | .0517 | 103 | .05 | .0493 | 99 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
P CT: MCAS EL TORO/18609/D.O. 70
B NO.: 00E065
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAE2739B | VAE2739L | VAE2739C | | |
| LAB FILE ID: | EE11034A | EE11032A | EE11033A | | |
| DATE EXTRACTED: | 05/17/0014:43 | 05/17/0013:27 | 05/17/0014:06 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/17/0014:43 | 05/17/0013:27 | 05/17/0014:06 | DATE RECEIVED: | 05/17/00 |
| PREP. BATCH: | VAE2739 | VAE2739 | VAE2739 | | |
| CALIB. REF: | EE11027A | EE11027A | EE11027A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 2.77 | 101 | 2.75 | 2.73 | 99 | 1 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .256 | 102 | .25 | .249 | 100 | 60-140 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 12.1 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2965 | | | | |
| LAB SAMP ID: | E065-09 | E065-09M | E065-09S | | |
| LAB FILE ID: | EE11043A | EE11044A | EE11045A | | |
| DATE EXTRACTED: | 05/17/0020:16 | 05/17/0020:52 | 05/17/0021:28 | DATE COLLECTED: | 05/10/00 |
| DATE ANALYZED: | 05/17/0020:16 | 05/17/0020:52 | 05/17/0021:28 | DATE RECEIVED: | 05/10/00 |
| PREP. BATCH: | VAE2739 | VAE2739 | VAE2739 | | |
| CALIB. REF: | EE11038A | EE11038A | EE11038A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 3.13 | 2.64 | 84 | 3.13 | 2.62 | 84 | 1 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .284 | .263 | 92 | .284 | .258 | 91 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| : IT CORPORATION | | Date Collected: | 05/10/00 |
| roject : MCAS EL TORO/18609/D.O. 70 | | Date Received: | 05/10/00 |
| atch No. : 00E065 | | Date Extracted: | 05/17/00 21:02 |
| ample ID: 18609-2957 A | | Date Analyzed: | 05/17/00 21:02 |
| ab Samp ID: E065-01 | | Dilution Factor: | 1 |
| ab File ID: REV446 | | Matrix : | SOIL |
| xt Btch ID: VOE3301 | | % Moisture : | 11.1 |
| alib. Ref.: REV437 | | Instrument ID : | T-001 |

| ARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 5.6 | .38 |
| ,1,2,2-TETRACHLOROETHANE | ND | 5.6 | .83 |
| ,1,2-TRICHLOROETHANE | ND | 5.6 | .74 |
| ,1-DICHLOROETHANE | ND | 5.6 | .59 |
| ,1-DICHLOROETHENE | ND | 5.6 | .54 |
| ,2-DICHLOROETHANE | ND | 5.6 | 1.1 |
| ,2-DICHLOROPROPANE | ND | 5.6 | .62 |
| ?-BUTANONE | ND | 56 | 1.7 |
| ?-CHLOROETHYLVINYLETHER | ND | 56 | .83 |
| ?-HEXANONE | ND | 56 | 1.7 |
| -METHYL-2-PENTANONE | ND | 56 | 3.2 |
| ACETONE | ND | 56 | 3.2 |
| BENZENE | ND | 5.6 | .59 |
| BROMODICHLOROMETHANE | ND | 5.6 | .48 |
| BROMOFORM | ND | 5.6 | .67 |
| BROMOMETHANE | ND | 5.6 | 4 |
| CARBON DISULFIDE | ND | 11 | .38 |
| CARBON TETRACHLORIDE | ND | 5.6 | .6 |
| CHLOROBENZENE | ND | 5.6 | .52 |
| CHLOROETHANE | ND | 5.6 | 1 |
| CH FORM | ND | 5.6 | .59 |
| CH METHANE | ND | 5.6 | .59 |
| CIS-1,2-DICHLOROETHENE | ND | 5.6 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.6 | .45 |
| DIBROMOCHLOROMETHANE | ND | 5.6 | .41 |
| ETHYLBENZENE | ND | 5.6 | .52 |
| MTBE | ND | 11 | .85 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.6 | .38 |
| TETRACHLOROETHENE | ND | 5.6 | .38 |
| TOLUENE | ND | 5.6 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.6 | .53 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.6 | .51 |
| TRICHLOROETHENE | ND | 5.6 | .69 |
| VINYL ACETATE | ND | 56 | .93 |
| VINYL CHLORIDE | ND | 5.6 | .66 |
| XYLENES | ND | 5.6 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 95 | 52-149 |
| BROMOFLUOROBENZENE | 89 | 65-135 |
| TOLUENE-D8 | 94 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 19:54 |
| Sample ID: | 18609-2958 | Date Analyzed: | 05/17/00 19:54 |
| Lab Samp ID: | E065-02 | Dilution Factor: | 1 |
| Lab File ID: | REV444 | Matrix : | WATER |
| Ext Btch ID: | VOE3301 | % Moisture : | NA |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | PRL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .91 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 1.1 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .83 |
| 1,1-DICHLOROETHANE | ND | 5 | .65 |
| 1,1-DICHLOROETHENE | ND | 5 | .86 |
| 1,2-DICHLOROETHANE | ND | 5 | .95 |
| 1,2-DICHLOROPROPANE | ND | 5 | .73 |
| 2-BUTANONE | ND | 50 | 6.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | 1.3 |
| 2-HEXANONE | ND | 50 | 5.6 |
| 4-METHYL-2-PENTANONE | ND | 50 | 3.6 |
| ACETONE | ND | 50 | 9.6 |
| BENZENE | ND | 5 | .77 |
| BROMODICHLOROMETHANE | ND | 5 | .82 |
| BROMOFORM | ND | 5 | .74 |
| BROMOMETHANE | ND | 5 | 1.9 |
| CARBON DISULFIDE | ND | 5 | .61 |
| CARBON TETRACHLORIDE | ND | 5 | .83 |
| CHLOROBENZENE | ND | 5 | 1.1 |
| CHLOROETHANE | ND | 5 | 1.7 |
| CHLOROFORM | ND | 5 | .67 |
| CHLOROMETHANE | ND | 5 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .79 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .79 |
| DIBROMOCHLOROMETHANE | ND | 5 | .71 |
| ETHYLBENZENE | ND | 5 | 1 |
| MTBE | ND | 10 | .77 |
| METHYLENE CHLORIDE | 3.9J | 5 | 1.4 |
| STYRENE | ND | 5 | .87 |
| TETRACHLOROETHENE | ND | 5 | 1.1 |
| TOLUENE | ND | 5 | .99 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .73 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .82 |
| TRICHLOROETHENE | ND | 5 | .89 |
| VINYL ACETATE | ND | 50 | 1.4 |
| VINYL CHLORIDE | ND | 5 | 2.5 |
| XYLENES | ND | 5 | 3.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 100 | 62-139 |
| BROMOFLUOROBENZENE | 97 | 75-125 |
| TOLUENE-D8 | 102 | 75-125 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible] | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 21:36 |
| Sample ID: | 18609-2959 Amy | Date Analyzed: | 05/17/00 21:36 |
| Lab Samp ID: | E065-03 | Dilution Factor: | 1 |
| Lab File ID: | REV447 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 14.9 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.9 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.9 | .87 |
| 1,1,2-TRICHLOROETHANE | ND | 5.9 | .77 |
| 1,1-DICHLOROETHANE | ND | 5.9 | .62 |
| 1,1-DICHLOROETHENE | ND | 5.9 | .56 |
| 1,2-DICHLOROETHANE | ND | 5.9 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 5.9 | .64 |
| 2-BUTANONE | ND | 59 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 59 | .87 |
| 2-HEXANONE | ND | 59 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 59 | 3.3 |
| ACETONE | ND | 59 | 3.4 |
| BENZENE | ND | 5.9 | .62 |
| BROMODICHLOROMETHANE | ND | 5.9 | .5 |
| BROMOFORM | ND | 5.9 | .7 |
| BROMOMETHANE | ND | 5.9 | 4.2 |
| CARBON DISULFIDE | ND | 12 | .39 |
| CARBON TETRACHLORIDE | ND | 5.9 | .63 |
| CHLOROBENZENE | ND | 5.9 | .55 |
| CHLOROETHANE | ND | 5.9 | 1.1 |
| C[illegible]FORM | ND | 5.9 | .62 |
| C[illegible]METHANE | ND | 5.9 | .62 |
| CIS-1,2-DICHLOROETHENE | ND | 5.9 | .54 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.9 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.9 | .43 |
| ETHYLBENZENE | ND | 5.9 | .54 |
| MTBE | ND | 12 | .89 |
| METHYLENE CHLORIDE | ND | 12 | 3.5 |
| STYRENE | ND | 5.9 | .4 |
| TETRACHLOROETHENE | ND | 5.9 | .4 |
| TOLUENE | ND | 5.9 | .68 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.9 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.9 | .53 |
| TRICHLOROETHENE | ND | 5.9 | .72 |
| VINYL ACETATE | ND | 59 | .98 |
| VINYL CHLORIDE | ND | 5.9 | .69 |
| XYLENES | ND | 5.9 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 94 | 65-135 |
| TOLUENE-D8 | 98 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.02970 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 22:10 |
| Sample ID: | 18609-2960 | Date Analyzed: | 05/17/00 22:10 |
| Lab Samp ID: | E065-04 | Dilution Factor: | 1 |
| Lab File ID: | REV448 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 22.0 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.4 | .44 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.4 | .95 |
| 1,1,2-TRICHLOROETHANE | ND | 6.4 | .84 |
| 1,1-DICHLOROETHANE | ND | 6.4 | .67 |
| 1,1-DICHLOROETHENE | ND | 6.4 | .62 |
| 1,2-DICHLOROETHANE | ND | 6.4 | 1.3 |
| 1,2-DICHLOROPROPANE | ND | 6.4 | .7 |
| 2-BUTANONE | ND | 64 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 64 | .95 |
| 2-HEXANONE | ND | 64 | 1.9 |
| 4-METHYL-2-PENTANONE | ND | 64 | 3.6 |
| ACETONE | ND | 64 | 3.7 |
| BENZENE | ND | 6.4 | .67 |
| BROMODICHLOROMETHANE | ND | 6.4 | .54 |
| BROMOFORM | ND | 6.4 | .76 |
| BROMOMETHANE | ND | 6.4 | 4.6 |
| CARBON DISULFIDE | ND | 13 | .43 |
| CARBON TETRACHLORIDE | ND | 6.4 | .69 |
| CHLOROBENZENE | ND | 6.4 | .59 |
| CHLOROETHANE | ND | 6.4 | 1.2 |
| CHLOROFORM | ND | 6.4 | .67 |
| CHLOROMETHANE | ND | 6.4 | .68 |
| CIS-1,2-DICHLOROETHENE | ND | 6.4 | .59 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.4 | .52 |
| DIBROMOCHLOROMETHANE | ND | 6.4 | .47 |
| ETHYLBENZENE | ND | 6.4 | .59 |
| MTBE | ND | 13 | .97 |
| METHYLENE CHLORIDE | ND | 13 | 3.9 |
| STYRENE | ND | 6.4 | .44 |
| TETRACHLOROETHENE | ND | 6.4 | .43 |
| TOLUENE | ND | 6.4 | .74 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.4 | .61 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.4 | .58 |
| TRICHLOROETHENE | ND | 6.4 | .78 |
| VINYL ACETATE | ND | 64 | 1.1 |
| VINYL CHLORIDE | ND | 6.4 | .75 |
| XYLENES | ND | 6.4 | 1.5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 86 | 65-135 |
| TOLUENE-D8 | 91 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible] | : IT CORPORATION | Date Collected: | 05/10/00 |
| P[illegible]ct | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 22:43 |
| Sample ID: | 18609-2961 A ms | Date Analyzed: | 05/17/00 22:43 |
| Lab Samp ID: | E065-05 | Dilution Factor: | 1 |
| Lab File ID: | REV449 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 17.1 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6 | .89 |
| 1,1,2-TRICHLOROETHANE | ND | 6 | .79 |
| 1,1-DICHLOROETHANE | ND | 6 | .63 |
| 1,1-DICHLOROETHENE | ND | 6 | .58 |
| 1,2-DICHLOROETHANE | ND | 6 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6 | .66 |
| 2-BUTANONE | ND | 60 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 60 | .89 |
| 2-HEXANONE | ND | 60 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 60 | 3.4 |
| ACETONE | ND | 60 | 3.5 |
| BENZENE | ND | 6 | .63 |
| BROMODICHLOROMETHANE | ND | 6 | .51 |
| BROMOFORM | ND | 6 | .71 |
| BROMOMETHANE | ND | 6 | 4.3 |
| CARBON DISULFIDE | ND | 12 | .4 |
| CARBON TETRACHLORIDE | ND | 6 | .65 |
| CHLOROBENZENE | ND | 6 | .56 |
| CHLOROETHANE | ND | 6 | 1.1 |
| C[illegible]OFORM | ND | 6 | .63 |
| [illegible]OMETHANE | ND | 6 | .64 |
| CIS-1,2-DICHLOROETHENE | ND | 6 | .55 |
| CIS-1,3-DICHLOROPROPENE | ND | 6 | .48 |
| DIBROMOCHLOROMETHANE | ND | 6 | .44 |
| ETHYLBENZENE | ND | 6 | .55 |
| MTBE | ND | 12 | .91 |
| METHYLENE CHLORIDE | ND | 12 | 3.6 |
| STYRENE | ND | 6 | .41 |
| TETRACHLOROETHENE | ND | 6 | .41 |
| TOLUENE | ND | 6 | .69 |
| TRANS-1,2-DICHLOROETHENE | ND | 6 | .57 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6 | .54 |
| TRICHLOROETHENE | ND | 6 | .74 |
| VINYL ACETATE | ND | 60 | 1 |
| VINYL CHLORIDE | ND | 6 | .71 |
| XYLENES | ND | 6 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 89 | 65-135 |
| TOLUENE-D8 | 101 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/P.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 23:17 |
| Sample ID: | 18609-2962 | Date Analyzed: | 05/17/00 23:17 |
| Lab Samp ID: | E065-06 | Dilution Factor: | 1 |
| Lab File ID: | REV450 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 11.5 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.6 | .38 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.6 | .83 |
| 1,1,2-TRICHLOROETHANE | ND | 5.6 | .74 |
| 1,1-DICHLOROETHANE | ND | 5.6 | .59 |
| 1,1-DICHLOROETHENE | ND | 5.6 | .54 |
| 1,2-DICHLOROETHANE | ND | 5.6 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.6 | .62 |
| 2-BUTANONE | ND | 56 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 56 | .84 |
| 2-HEXANONE | ND | 56 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 56 | 3.2 |
| ACETONE | ND | 56 | 3.3 |
| BENZENE | ND | 5.6 | .59 |
| BROMODICHLOROMETHANE | ND | 5.6 | .48 |
| BROMOFORM | ND | 5.6 | .67 |
| BROMOMETHANE | ND | 5.6 | 4.1 |
| CARBON DISULFIDE | ND | 11 | .38 |
| CARBON TETRACHLORIDE | ND | 5.6 | .61 |
| CHLOROBENZENE | ND | 5.6 | .52 |
| CHLOROETHANE | ND | 5.6 | 1 |
| CHLOROFORM | ND | 5.6 | .59 |
| CHLOROMETHANE | ND | 5.6 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.6 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.6 | .45 |
| DIBROMOCHLOROMETHANE | ND | 5.6 | .41 |
| ETHYLBENZENE | ND | 5.6 | .52 |
| MTBE | ND | 11 | .85 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.6 | .39 |
| TETRACHLOROETHENE | ND | 5.6 | .38 |
| TOLUENE | ND | 5.6 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.6 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.6 | .51 |
| TRICHLOROETHENE | ND | 5.6 | .69 |
| VINYL ACETATE | ND | 56 | .94 |
| VINYL CHLORIDE | ND | 5.6 | .66 |
| XYLENES | ND | 5.6 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 | 52-149 |
| BROMOFLUOROBENZENE | 93 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 00:59 |
| Sample ID: | 18609-2963 | Date Analyzed: | 05/18/00 00:59 |
| Lab Samp ID: | E065-07 | Dilution Factor: | 1 |
| Lab File ID: | REV453 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 16.1 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6 | .88 |
| 1,1,2-TRICHLOROETHANE | ND | 6 | .78 |
| 1,1-DICHLOROETHANE | ND | 6 | .62 |
| 1,1-DICHLOROETHENE | ND | 6 | .57 |
| 1,2-DICHLOROETHANE | ND | 6 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6 | .65 |
| 2-BUTANONE | ND | 60 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 60 | .88 |
| 2-HEXANONE | ND | 60 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 60 | 3.3 |
| ACETONE | ND | 60 | 3.4 |
| BENZENE | ND | 6 | .63 |
| BROMODICHLOROMETHANE | ND | 6 | .5 |
| BROMOFORM | ND | 6 | .71 |
| BROMOMETHANE | ND | 6 | 4.3 |
| CARBON DISULFIDE | ND | 12 | .4 |
| CARBON TETRACHLORIDE | ND | 6 | .64 |
| CHLOROBENZENE | ND | 6 | .55 |
| CHLOROETHANE | ND | 6 | 1.1 |
| CHLOROFORM | ND | 6 | .62 |
| CHLOROMETHANE | ND | 6 | .63 |
| CIS-1,2-DICHLOROETHENE | ND | 6 | .55 |
| CIS-1,3-DICHLOROPROPENE | ND | 6 | .48 |
| DIBROMOCHLOROMETHANE | ND | 6 | .44 |
| ETHYLBENZENE | ND | 6 | .55 |
| MTBE | ND | 12 | .9 |
| METHYLENE CHLORIDE | ND | 12 | 3.6 |
| STYRENE | ND | 6 | .41 |
| TETRACHLOROETHENE | ND | 6 | .4 |
| TOLUENE | ND | 6 | .69 |
| TRANS-1,2-DICHLOROETHENE | ND | 6 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6 | .54 |
| TRICHLOROETHENE | ND | 6 | .73 |
| VINYL ACETATE | ND | 60 | .99 |
| VINYL CHLORIDE | ND | 6 | .7 |
| XYLENES | ND | 6 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 87 | 65-135 |
| TOLUENE-D8 | 88 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 01:33 |
| Sample ID: | 18609-2964 A | Date Analyzed: | 05/18/00 01:33 |
| Lab Samp ID: | E065-08 | Dilution Factor: | 1 |
| Lab File ID: | REV454 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 6.4 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.3 | .36 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.3 | .79 |
| 1,1,2-TRICHLOROETHANE | ND | 5.3 | .7 |
| 1,1-DICHLOROETHANE | ND | 5.3 | .56 |
| 1,1-DICHLOROETHENE | ND | 5.3 | .51 |
| 1,2-DICHLOROETHANE | ND | 5.3 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.3 | .59 |
| 2-BUTANONE | ND | 53 | 1.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 53 | .79 |
| 2-HEXANONE | ND | 53 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 53 | 3 |
| ACETONE | ND | 53 | 3.1 |
| BENZENE | ND | 5.3 | .56 |
| BROMODICHLOROMETHANE | ND | 5.3 | .45 |
| BROMOFORM | ND | 5.3 | .63 |
| BROMOMETHANE | ND | 5.3 | 3.8 |
| CARBON DISULFIDE | ND | 11 | .36 |
| CARBON TETRACHLORIDE | ND | 5.3 | .57 |
| CHLOROBENZENE | ND | 5.3 | .5 |
| CHLOROETHANE | ND | 5.3 | .99 |
| CHLOROFORM | ND | 5.3 | .56 |
| CHLOROMETHANE | ND | 5.3 | .56 |
| CIS-1,2-DICHLOROETHENE | ND | 5.3 | .49 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.3 | .43 |
| DIBROMOCHLOROMETHANE | ND | 5.3 | .39 |
| ETHYLBENZENE | ND | 5.3 | .49 |
| MTBE | ND | 11 | .81 |
| METHYLENE CHLORIDE | ND | 11 | 3.2 |
| STYRENE | ND | 5.3 | .36 |
| TETRACHLOROETHENE | ND | 5.3 | .36 |
| TOLUENE | ND | 5.3 | .62 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.3 | .51 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.3 | .48 |
| TRICHLOROETHENE | ND | 5.3 | .65 |
| VINYL ACETATE | ND | 53 | .89 |
| VINYL CHLORIDE | ND | 5.3 | .62 |
| XYLENES | ND | 5.3 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 52-149 |
| BROMOFLUOROBENZENE | 77 | 65-135 |
| TOLUENE-D8 | 80 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 02:07 |
| Sample ID: | 18609-2965 A MB | Date Analyzed: | 05/18/00 02:07 |
| Lab Samp ID: | E065-09 | Dilution Factor: | 1 |
| Lab File ID: | REV455 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 12.1 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .84 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .75 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .62 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .84 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | ND | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .48 |
| BROMOFORM | ND | 5.7 | .67 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 11 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .61 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1 |
| CHLOROFORM | ND | 5.7 | .6 |
| CHLOROMETHANE | ND | 5.7 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | ND | 5.7 | .52 |
| MTBE | ND | 11 | .86 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .38 |
| TOLUENE | ND | 5.7 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .51 |
| TRICHLOROETHENE | ND | 5.7 | .7 |
| VINYL ACETATE | ND | 57 | .94 |
| VINYL CHLORIDE | ND | 5.7 | .67 |
| XYLENES | ND | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 | 52-149 |
| BROMOFLUOROBENZENE | 85 | 65-135 |
| TOLUENE-D8 | 92 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/186[illegible]. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 02:40 |
| Sample ID: | 18609-2966 | Date Analyzed: | 05/18/00 02:40 |
| Lab Samp ID: | E065-10 | Dilution Factor: | 1 |
| Lab File ID: | REV456 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 12.3 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .84 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .75 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .62 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .84 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | ND | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .48 |
| BROMOFORM | ND | 5.7 | .68 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 11 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .61 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1.1 |
| CHLOROFORM | ND | 5.7 | .6 |
| CHLOROMETHANE | ND | 5.7 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | ND | 5.7 | .52 |
| MTBE | ND | 11 | .86 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .39 |
| TOLUENE | ND | 5.7 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .51 |
| TRICHLOROETHENE | ND | 5.7 | .7 |
| VINYL ACETATE | ND | 57 | .95 |
| VINYL CHLORIDE | ND | 5.7 | .67 |
| XYLENES | ND | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 86 | 65-135 |
| TOLUENE-D8 | 93 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 03:14 |
| Sample ID: | 18609-2967 A ms | Date Analyzed: | 05/18/00 03:14 |
| Lab Samp ID: | E065-11 | Dilution Factor: | 1 |
| Lab File ID: | REV457 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | 10.7 |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.6 | .38 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.6 | .83 |
| 1,1,2-TRICHLOROETHANE | ND | 5.6 | .73 |
| 1,1-DICHLOROETHANE | ND | 5.6 | .59 |
| 1,1-DICHLOROETHENE | ND | 5.6 | .54 |
| 1,2-DICHLOROETHANE | ND | 5.6 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.6 | .61 |
| 2-BUTANONE | ND | 56 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 56 | .83 |
| 2-HEXANONE | ND | 56 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 56 | 3.1 |
| ACETONE | ND | 56 | 3.2 |
| BENZENE | ND | 5.6 | .59 |
| BROMODICHLOROMETHANE | ND | 5.6 | .47 |
| BROMOFORM | ND | 5.6 | .66 |
| BROMOMETHANE | ND | 5.6 | 4 |
| CARBON DISULFIDE | ND | 11 | .37 |
| CARBON TETRACHLORIDE | ND | 5.6 | .6 |
| CHLOROBENZENE | ND | 5.6 | .52 |
| CHLOROETHANE | ND | 5.6 | 1 |
| CHLOROFORM | ND | 5.6 | .59 |
| [illegible]OMETHANE | ND | 5.6 | .59 |
| [illegible],2-DICHLOROETHENE | ND | 5.6 | .51 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.6 | .45 |
| DIBROMOCHLOROMETHANE | ND | 5.6 | .41 |
| ETHYLBENZENE | ND | 5.6 | .51 |
| MTBE | ND | 11 | .85 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.6 | .38 |
| TETRACHLOROETHENE | ND | 5.6 | .38 |
| TOLUENE | ND | 5.6 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.6 | .53 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.6 | .5 |
| TRICHLOROETHENE | ND | 5.6 | .69 |
| VINYL ACETATE | ND | 56 | .93 |
| VINYL CHLORIDE | ND | 5.6 | .66 |
| XYLENES | ND | 5.6 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 86 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.0 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 13:52 |
| Sample ID: | 18609-2968 | Date Analyzed: | 05/18/00 13:52 |
| Lab Samp ID: | E065-12 | Dilution Factor: | 1 |
| Lab File ID: | REV464 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 6.0 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.3 | .36 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.3 | .79 |
| 1,1,2-TRICHLOROETHANE | ND | 5.3 | .7 |
| 1,1-DICHLOROETHANE | ND | 5.3 | .56 |
| 1,1-DICHLOROETHENE | ND | 5.3 | .51 |
| 1,2-DICHLOROETHANE | ND | 5.3 | 1 |
| 1,2-DICHLOROPROPANE | ND | 5.3 | .58 |
| 2-BUTANONE | ND | 53 | 1.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 53 | .79 |
| 2-HEXANONE | ND | 53 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 53 | 3 |
| ACETONE | ND | 53 | 3.1 |
| BENZENE | ND | 5.3 | .56 |
| BROMODICHLOROMETHANE | ND | 5.3 | .45 |
| BROMOFORM | ND | 5.3 | .63 |
| BROMOMETHANE | ND | 5.3 | 3.8 |
| CARBON DISULFIDE | ND | 11 | .36 |
| CARBON TETRACHLORIDE | ND | 5.3 | .57 |
| CHLOROBENZENE | ND | 5.3 | .49 |
| CHLOROETHANE | ND | 5.3 | .98 |
| CHLOROFORM | ND | 5.3 | .56 |
| CHLOROMETHANE | ND | 5.3 | .56 |
| CIS-1,2-DICHLOROETHENE | ND | 5.3 | .49 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.3 | .43 |
| DIBROMOCHLOROMETHANE | ND | 5.3 | .39 |
| ETHYLBENZENE | ND | 5.3 | .49 |
| MTBE | ND | 11 | .8 |
| METHYLENE CHLORIDE | 6.6J | 11 | 3.2 |
| STYRENE | ND | 5.3 | .36 |
| TETRACHLOROETHENE | ND | 5.3 | .36 |
| TOLUENE | ND | 5.3 | .61 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.3 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.3 | .48 |
| TRICHLOROETHENE | ND | 5.3 | .65 |
| VINYL ACETATE | ND | 53 | .88 |
| VINYL CHLORIDE | ND | 5.3 | .62 |
| XYLENES | ND | 5.3 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 92 | 65-135 |
| TOLUENE-D8 | 94 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible] : | IT CORPORATION | Date Collected: | 05/10/00 |
| P[illegible]ct : | MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. : | 00E065 | Date Extracted: | 05/18/00 17:11 |
| Sample ID: | 18609-2969 Amy | Date Analyzed: | 05/18/00 17:11 |
| Lab Samp ID: | E065-13 | Dilution Factor: | 1 |
| Lab File ID: | REV470 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 13.8 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .86 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .76 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .61 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .56 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .64 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .86 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.3 |
| ACETONE | ND | 58 | 3.3 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .69 |
| BROMOMETHANE | ND | 5.8 | 4.2 |
| CARBON DISULFIDE | ND | 12 | .39 |
| CARBON TETRACHLORIDE | ND | 5.8 | .62 |
| CHLOROBENZENE | ND | 5.8 | .54 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| CH[illegible]OFORM | ND | 5.8 | .61 |
| C[illegible]METHANE | ND | 5.8 | .61 |
| C[illegible],2-DICHLOROETHENE | ND | 5.8 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .43 |
| ETHYLBENZENE | .56J | 5.8 | .53 |
| MTBE | ND | 12 | .88 |
| METHYLENE CHLORIDE | ND | 12 | 3.5 |
| STYRENE | ND | 5.8 | .4 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | ND | 5.8 | .67 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .52 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .96 |
| VINYL CHLORIDE | ND | 5.8 | .68 |
| XYLENES | 4.6J | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 84 | 65-135 |
| TOLUENE-D8 | 93 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/B.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 21:09 |
| Sample ID: | 18609-2970 | Date Analyzed: | 05/18/00 21:09 |
| Lab Samp ID: | E065-14 | Dilution Factor: | 1 |
| Lab File ID: | REV477 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 18.6 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.1 | .42 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.1 | .91 |
| 1,1,2-TRICHLOROETHANE | ND | 6.1 | .81 |
| 1,1-DICHLOROETHANE | ND | 6.1 | .64 |
| 1,1-DICHLOROETHENE | ND | 6.1 | .59 |
| 1,2-DICHLOROETHANE | ND | 6.1 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.1 | .67 |
| 2-BUTANONE | ND | 61 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 61 | .91 |
| 2-HEXANONE | ND | 61 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 61 | 3.5 |
| ACETONE | 61J | 61 | 3.5 |
| BENZENE | ND | 6.1 | .65 |
| BROMODICHLOROMETHANE | ND | 6.1 | .52 |
| BROMOFORM | ND | 6.1 | .73 |
| BROMOMETHANE | ND | 6.1 | 4.4 |
| CARBON DISULFIDE | ND | 12 | .41 |
| CARBON TETRACHLORIDE | ND | 6.1 | .66 |
| CHLOROBENZENE | ND | 6.1 | .57 |
| CHLOROETHANE | ND | 6.1 | 1.1 |
| CHLOROFORM | ND | 6.1 | .64 |
| CHLOROMETHANE | ND | 6.1 | .65 |
| CIS-1,2-DICHLOROETHENE | ND | 6.1 | .56 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.1 | .49 |
| DIBROMOCHLOROMETHANE | ND | 6.1 | .45 |
| ETHYLBENZENE | ND | 6.1 | .56 |
| MTBE | ND | 12 | .93 |
| METHYLENE CHLORIDE | 4.2J | 12 | 3.7 |
| STYRENE | ND | 6.1 | .42 |
| TETRACHLOROETHENE | ND | 6.1 | .42 |
| TOLUENE | ND | 6.1 | .71 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.1 | .58 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.1 | .55 |
| TRICHLOROETHENE | ND | 6.1 | .75 |
| VINYL ACETATE | ND | 61 | 1 |
| VINYL CHLORIDE | ND | 6.1 | .72 |
| XYLENES | 3.5J | 6.1 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 52-149 |
| BROMOFLUOROBENZENE | 88 | 65-135 |
| TOLUENE-D8 | 96 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 05/10/00 |
| Project : MCAS EL TORO/18609/D.O. 70 | Date Received: 05/10/00 |
| Batch No. : 00E065 | Date Extracted: 05/18/00 14:26 |
| Sample ID: 18609-2971 | Date Analyzed: 05/18/00 14:26 |
| Lab Samp ID: E065-15 | Dilution Factor: 1 |
| Lab File ID: REV465 | Matrix : SOIL |
| Ext Btch ID: VOE3501 | % Moisture : 15.2 |
| Calib. Ref.: REV460 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.9 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.9 | .87 |
| 1,1,2-TRICHLOROETHANE | ND | 5.9 | .77 |
| 1,1-DICHLOROETHANE | ND | 5.9 | .62 |
| 1,1-DICHLOROETHENE | ND | 5.9 | .57 |
| 1,2-DICHLOROETHANE | ND | 5.9 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 5.9 | .65 |
| 2-BUTANONE | ND | 59 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 59 | .87 |
| 2-HEXANONE | ND | 59 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 59 | 3.3 |
| ACETONE | ND | 59 | 3.4 |
| BENZENE | ND | 5.9 | .62 |
| BROMODICHLOROMETHANE | ND | 5.9 | .5 |
| BROMOFORM | ND | 5.9 | .7 |
| BROMOMETHANE | ND | 5.9 | 4.2 |
| CARBON DISULFIDE | ND | 12 | .39 |
| CARBON TETRACHLORIDE | ND | 5.9 | .63 |
| CHLOROBENZENE | ND | 5.9 | .55 |
| CHLOROETHANE | ND | 5.9 | 1.1 |
| CHLOROFORM | ND | 5.9 | .62 |
| CHLOROMETHANE | ND | 5.9 | .62 |
| CIS-1,2-DICHLOROETHENE | ND | 5.9 | .54 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.9 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.9 | .43 |
| ETHYLBENZENE | 23 | 5.9 | .54 |
| MTBE | ND | 12 | .89 |
| METHYLENE CHLORIDE | 4.9J | 12 | 3.6 |
| STYRENE | ND | 5.9 | .4 |
| TETRACHLOROETHENE | ND | 5.9 | .4 |
| TOLUENE | ND | 5.9 | .68 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.9 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.9 | .53 |
| TRICHLOROETHENE | ND | 5.9 | .72 |
| VINYL ACETATE | ND | 59 | .98 |
| VINYL CHLORIDE | ND | 5.9 | .69 |
| XYLENES | 55 | 5.9 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 91 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/970. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 20:28 |
| Sample ID: | 18609-2972 A M | Date Analyzed: | 05/17/00 20:28 |
| Lab Samp ID: | E065-16 | Dilution Factor: | 1 |
| Lab File ID: | REV445 | Matrix : | WATER |
| Ext Btch ID: | VOE3301 | % Moisture : | NA |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | PRL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .91 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 1.1 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .83 |
| 1,1-DICHLOROETHANE | ND | 5 | .65 |
| 1,1-DICHLOROETHENE | ND | 5 | .86 |
| 1,2-DICHLOROETHANE | ND | 5 | .95 |
| 1,2-DICHLOROPROPANE | ND | 5 | .73 |
| 2-BUTANONE | ND | 50 | 6.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | 1.3 |
| 2-HEXANONE | ND | 50 | 5.6 |
| 4-METHYL-2-PENTANONE | ND | 50 | 3.6 |
| ACETONE | ND | 50 | 9.6 |
| BENZENE | ND | 5 | .77 |
| BROMODICHLOROMETHANE | ND | 5 | .82 |
| BROMOFORM | ND | 5 | .74 |
| BROMOMETHANE | ND | 5 | 1.9 |
| CARBON DISULFIDE | ND | 5 | .61 |
| CARBON TETRACHLORIDE | ND | 5 | .83 |
| CHLOROBENZENE | ND | 5 | 1.1 |
| CHLOROETHANE | ND | 5 | 1.7 |
| CHLOROFORM | ND | 5 | .67 |
| CHLOROMETHANE | ND | 5 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .79 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .79 |
| DIBROMOCHLOROMETHANE | ND | 5 | .71 |
| ETHYLBENZENE | ND | 5 | 1 |
| MTBE | ND | 10 | .77 |
| METHYLENE CHLORIDE | ND | 5 | 1.4 |
| STYRENE | ND | 5 | .87 |
| TETRACHLOROETHENE | ND | 5 | 1.1 |
| TOLUENE | ND | 5 | .99 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .73 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .82 |
| TRICHLOROETHENE | ND | 5 | .89 |
| VINYL ACETATE | ND | 50 | 1.4 |
| VINYL CHLORIDE | ND | 5 | 2.5 |
| XYLENES | ND | 5 | 3.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 62-139 |
| BROMOFLUOROBENZENE | 102 | 75-125 |
| TOLUENE-D8 | 103 | 75-125 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible]t | : IT CORPORATION | Date Collected: | 05/10/00 |
| P[illegible]t | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 17:45 |
| Sample ID: | 18609-2973 AM | Date Analyzed: | 05/18/00 17:45 |
| Lab Samp ID: | E065-17 | Dilution Factor: | 1 |
| Lab File ID: | REV471 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 9.6 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.5 | .38 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.5 | .82 |
| 1,1,2-TRICHLOROETHANE | ND | 5.5 | .73 |
| 1,1-DICHLOROETHANE | ND | 5.5 | .58 |
| 1,1-DICHLOROETHENE | ND | 5.5 | .53 |
| 1,2-DICHLOROETHANE | ND | 5.5 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.5 | .61 |
| 2-BUTANONE | ND | 55 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 55 | .82 |
| 2-HEXANONE | ND | 55 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 55 | 3.1 |
| ACETONE | ND | 55 | 3.2 |
| BENZENE | ND | 5.5 | .58 |
| BROMODICHLOROMETHANE | ND | 5.5 | .47 |
| BROMOFORM | ND | 5.5 | .65 |
| BROMOMETHANE | ND | 5.5 | 4 |
| CARBON DISULFIDE | ND | 11 | .37 |
| CARBON TETRACHLORIDE | ND | 5.5 | .59 |
| CHLOROBENZENE | ND | 5.5 | .51 |
| CHLOROETHANE | ND | 5.5 | 1 |
| CH[illegible]ROFORM | ND | 5.5 | .58 |
| [illegible]OMETHANE | ND | 5.5 | .58 |
| [illegible],2-DICHLOROETHENE | ND | 5.5 | .51 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.5 | .44 |
| DIBROMOCHLOROMETHANE | ND | 5.5 | .41 |
| ETHYLBENZENE | ND | 5.5 | .51 |
| MTBE | ND | 11 | .84 |
| METHYLENE CHLORIDE | ND | 11 | 3.3 |
| STYRENE | ND | 5.5 | .38 |
| TETRACHLOROETHENE | ND | 5.5 | .37 |
| TOLUENE | ND | 5.5 | .64 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.5 | .52 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.5 | .5 |
| TRICHLOROETHENE | ND | 5.5 | .68 |
| VINYL ACETATE | ND | 55 | .92 |
| VINYL CHLORIDE | ND | 5.5 | .65 |
| XYLENES | ND | 5.5 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 52-149 |
| BROMOFLUOROBENZENE | 86 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 18:19 |
| Sample ID: | 18609-2974 A mg | Date Analyzed: | 05/18/00 18:19 |
| Lab Samp ID: | E065-18 | Dilution Factor: | 1 |
| Lab File ID: | REV472 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 10.7 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.6 | .38 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.6 | .83 |
| 1,1,2-TRICHLOROETHANE | ND | 5.6 | .73 |
| 1,1-DICHLOROETHANE | ND | 5.6 | .59 |
| 1,1-DICHLOROETHENE | ND | 5.6 | .54 |
| 1,2-DICHLOROETHANE | ND | 5.6 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.6 | .61 |
| 2-BUTANONE | ND | 56 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 56 | .83 |
| 2-HEXANONE | ND | 56 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 56 | 3.1 |
| ACETONE | ND | 56 | 3.2 |
| BENZENE | ND | 5.6 | .59 |
| BROMODICHLOROMETHANE | ND | 5.6 | .47 |
| BROMOFORM | ND | 5.6 | .66 |
| BROMOMETHANE | ND | 5.6 | 4 |
| CARBON DISULFIDE | ND | 11 | .37 |
| CARBON TETRACHLORIDE | ND | 5.6 | .6 |
| CHLOROBENZENE | ND | 5.6 | .52 |
| CHLOROETHANE | ND | 5.6 | 1 |
| CHLOROFORM | ND | 5.6 | .59 |
| CHLOROMETHANE | ND | 5.6 | .59 |
| CIS-1,2-DICHLOROETHENE | ND | 5.6 | .51 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.6 | .45 |
| DIBROMOCHLOROMETHANE | ND | 5.6 | .41 |
| ETHYLBENZENE | ND | 5.6 | .51 |
| MTBE | ND | 11 | .85 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.6 | .38 |
| TETRACHLOROETHENE | ND | 5.6 | .38 |
| TOLUENE | ND | 5.6 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.6 | .53 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.6 | .5 |
| TRICHLOROETHENE | ND | 5.6 | .69 |
| VINYL ACETATE | ND | 56 | .93 |
| VINYL CHLORIDE | ND | 5.6 | .66 |
| XYLENES | ND | 5.6 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 52-149 |
| BROMOFLUOROBENZENE | 85 | 65-135 |
| TOLUENE-D8 | 93 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 18:53 |
| Sample ID: | 18609-2975 A mg | Date Analyzed: | 05/18/00 18:53 |
| Lab Samp ID: | E065-19 | Dilution Factor: | 1 |
| Lab File ID: | REV473 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 16.1 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6 | .88 |
| 1,1,2-TRICHLOROETHANE | ND | 6 | .78 |
| 1,1-DICHLOROETHANE | ND | 6 | .62 |
| 1,1-DICHLOROETHENE | ND | 6 | .57 |
| 1,2-DICHLOROETHANE | ND | 6 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6 | .65 |
| 2-BUTANONE | ND | 60 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 60 | .88 |
| 2-HEXANONE | ND | 60 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 60 | 3.3 |
| ACETONE | ND | 60 | 3.4 |
| BENZENE | ND | 6 | .63 |
| BROMODICHLOROMETHANE | ND | 6 | .5 |
| BROMOFORM | ND | 6 | .71 |
| BROMOMETHANE | ND | 6 | 4.3 |
| CARBON DISULFIDE | ND | 12 | .4 |
| CARBON TETRACHLORIDE | ND | 6 | .64 |
| CHLOROBENZENE | ND | 6 | .55 |
| CHLOROETHANE | ND | 6 | 1.1 |
| CHLOROFORM | ND | 6 | .62 |
| [illegible]OMETHANE | ND | 6 | .63 |
| [illegible],2-DICHLOROETHENE | ND | 6 | .55 |
| CIS-1,3-DICHLOROPROPENE | ND | 6 | .48 |
| DIBROMOCHLOROMETHANE | ND | 6 | .44 |
| ETHYLBENZENE | ND | 6 | .55 |
| MTBE | ND | 12 | .9 |
| METHYLENE CHLORIDE | ND | 12 | 3.6 |
| STYRENE | ND | 6 | .41 |
| TETRACHLOROETHENE | ND | 6 | .4 |
| TOLUENE | ND | 6 | .69 |
| TRANS-1,2-DICHLOROETHENE | ND | 6 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6 | .54 |
| TRICHLOROETHENE | ND | 6 | .73 |
| VINYL ACETATE | ND | 60 | .99 |
| VINYL CHLORIDE | ND | 6 | .7 |
| XYLENES | ND | 6 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 88 | 65-135 |
| TOLUENE-D8 | 94 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/10/00 |
| Project | : MCAS EL TORO/18609/D.O. 78 | Date Received: | 05/10/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 19:27 |
| Sample ID: | 18609-2976 | Date Analyzed: | 05/18/00 19:27 |
| Lab Samp ID: | E065-20 | Dilution Factor: | 1 |
| Lab File ID: | REV474 | Matrix : | SOIL |
| Ext Btch ID: | VOE3501 | % Moisture : | 18.6 |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.1 | .42 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.1 | .91 |
| 1,1,2-TRICHLOROETHANE | ND | 6.1 | .81 |
| 1,1-DICHLOROETHANE | ND | 6.1 | .64 |
| 1,1-DICHLOROETHENE | ND | 6.1 | .59 |
| 1,2-DICHLOROETHANE | ND | 6.1 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.1 | .67 |
| 2-BUTANONE | ND | 61 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 61 | .91 |
| 2-HEXANONE | ND | 61 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 61 | 3.5 |
| ACETONE | ND | 61 | 3.5 |
| BENZENE | ND | 6.1 | .65 |
| BROMODICHLOROMETHANE | ND | 6.1 | .52 |
| BROMOFORM | ND | 6.1 | .73 |
| BROMOMETHANE | ND | 6.1 | 4.4 |
| CARBON DISULFIDE | ND | 12 | .41 |
| CARBON TETRACHLORIDE | ND | 6.1 | .66 |
| CHLOROBENZENE | ND | 6.1 | .57 |
| CHLOROETHANE | ND | 6.1 | 1.1 |
| CHLOROFORM | ND | 6.1 | .64 |
| CHLOROMETHANE | ND | 6.1 | .65 |
| CIS-1,2-DICHLOROETHENE | ND | 6.1 | .56 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.1 | .49 |
| DIBROMOCHLOROMETHANE | ND | 6.1 | .45 |
| ETHYLBENZENE | ND | 6.1 | .56 |
| MTBE | ND | 12 | .93 |
| METHYLENE CHLORIDE | ND | 12 | 3.7 |
| STYRENE | ND | 6.1 | .42 |
| TETRACHLOROETHENE | ND | 6.1 | .42 |
| TOLUENE | ND | 6.1 | .71 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.1 | .58 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.1 | .55 |
| TRICHLOROETHENE | ND | 6.1 | .75 |
| VINYL ACETATE | ND | 61 | 1 |
| VINYL CHLORIDE | ND | 6.1 | .72 |
| XYLENES | ND | 6.1 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 85 | 65-135 |
| TOLUENE-D8 | 92 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/17/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 17:42 |
| Sample ID | : MBLK1W | Date Analyzed: | 05/17/00 17:42 |
| Lab Samp ID | : VOE3301B | Dilution Factor: | 1 |
| Lab File ID | : REV440 | Matrix | : WATER |
| Ext Btch ID | : VOE3301 | % Moisture | : NA |
| Calib. Ref. | : REV437 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | PRL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .91 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 1.1 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .83 |
| 1,1-DICHLOROETHANE | ND | 5 | .65 |
| 1,1-DICHLOROETHENE | ND | 5 | .86 |
| 1,2-DICHLOROETHANE | ND | 5 | .95 |
| 1,2-DICHLOROPROPANE | ND | 5 | .73 |
| 2-BUTANONE | ND | 50 | 6.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | 1.3 |
| 2-HEXANONE | ND | 50 | 5.6 |
| 4-METHYL-2-PENTANONE | ND | 50 | 3.6 |
| ACETONE | ND | 50 | 9.6 |
| BENZENE | ND | 5 | .77 |
| BROMODICHLOROMETHANE | ND | 5 | .82 |
| BROMOFORM | ND | 5 | .74 |
| BROMOMETHANE | ND | 5 | 1.9 |
| CARBON DISULFIDE | ND | 5 | .61 |
| CARBON TETRACHLORIDE | ND | 5 | .83 |
| CHLOROBENZENE | ND | 5 | 1.1 |
| CHLOROETHANE | ND | 5 | 1.7 |
| CHLOROFORM | ND | 5 | .67 |
| CHLOROMETHANE | ND | 5 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .79 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .79 |
| DIBROMOCHLOROMETHANE | ND | 5 | .71 |
| ETHYLBENZENE | ND | 5 | 1 |
| MTBE | ND | 10 | .77 |
| METHYLENE CHLORIDE | ND | 5 | 1.4 |
| STYRENE | ND | 5 | .87 |
| TETRACHLOROETHENE | ND | 5 | 1.1 |
| TOLUENE | ND | 5 | .99 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .73 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .82 |
| TRICHLOROETHENE | ND | 5 | .89 |
| VINYL ACETATE | ND | 50 | 1.4 |
| VINYL CHLORIDE | ND | 5 | 2.5 |
| XYLENES | ND | 5 | 3.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 62-139 |
| BROMOFLUOROBENZENE | 105 | 75-125 |
| TOLUENE-D8 | 107 | 75-125 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | VOE3301B | VOE3301L | VOE3301C | | |
| LAB FILE ID: | REV440 | REV438 | REV439 | | |
| DATE EXTRACTED: | 05/17/0017:42 | 05/17/0016:34 | 05/17/0017:08 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/17/0017:42 | 05/17/0016:34 | 05/17/0017:08 | DATE RECEIVED: | 05/17/00 |
| PREP. BATCH: | VOE3301 | VOE3301 | VOE3301 | | |
| CALIB. REF: | REV437 | REV437 | REV437 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 20.4 | 102 | 20 | 20.8 | 104 | 2 | 75-125 | 20 |
| Benzene | ND | 20 | 21.6 | 108 | 20 | 20.9 | 105 | 3 | 75-125 | 20 |
| Chlorobenzene | ND | 20 | 20.5 | 103 | 20 | 20.4 | 102 | 0 | 75-125 | 20 |
| Toluene | ND | 20 | 21.1 | 105 | 20 | 20.5 | 102 | 3 | 74-125 | 20 |
| Trichloroethene | ND | 20 | 22.7 | 114 | 20 | 21.8 | 109 | 4 | 71-125 | 20 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 54.1 | 108 | 50 | 52.3 | 105 | 62-139 |
| Bromofluorobenzene | 50 | 52.3 | 105 | 50 | 51.2 | 102 | 75-125 |
| Toluene-d8 | 50 | 53.4 | 107 | 50 | 51.1 | 102 | 75-125 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible]t | : IT CORPORATION | Date Collected: | NA |
| P[illegible]ct | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/17/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/17/00 17:42 |
| Sample ID: | MBLK1S | Date Analyzed: | 05/17/00 17:42 |
| Lab Samp ID: | VOE3301B | Dilution Factor: | 1 |
| Lab File ID: | REV440 | Matrix : | SOIL |
| Ext Btch ID: | VOE3301 | % Moisture : | NA |
| Calib. Ref.: | REV437 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 10 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| C[illegible]OFORM | ND | 5 | .52 |
| ([illegible]METHANE | ND | 5 | .53 |
| C[illegible],2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 10 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 107 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: ODE065
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOE3301B | VOE3301L | VOE3301C | | |
| LAB FILE ID: | REV440 | REV438 | REV439 | | |
| DATE EXTRACTED: | 05/17/0017:42 | 05/17/0016:34 | 05/17/0017:08 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/17/0017:42 | 05/17/0016:34 | 05/17/0017:08 | DATE RECEIVED: | 05/17/00 |
| PREP. BATCH: | VOE3301 | VOE3301 | VOE3301 | | |
| CALIB. REF: | REV437 | REV437 | REV437 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 20.4 | 102 | 20 | 20.8 | 104 | 2 | 65-135 | 30 |
| Benzene | ND | 20 | 21.6 | 108 | 20 | 20.9 | 105 | 3 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 20.5 | 103 | 20 | 20.4 | 102 | 0 | 65-135 | 30 |
| Toluene | ND | 20 | 21.1 | 105 | 20 | 20.5 | 102 | 3 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 22.7 | 114 | 20 | 21.8 | 109 | 4 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 54.1 | 108 | 50 | 52.3 | 105 | 52-149 |
| Bromofluorobenzene | 50 | 52.3 | 105 | 50 | 51.2 | 102 | 65-135 |
| Toluene-d8 | 50 | 53.4 | 107 | 50 | 51.1 | 102 | 65-135 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/18/00 |
| Batch No. | : 00E065 | Date Extracted: | 05/18/00 13:18 |
| Sample ID: | MBLK2S | Date Analyzed: | 05/18/00 13:18 |
| Lab Samp ID: | V0E3501B | Dilution Factor: | 1 |
| Lab File ID: | REV463 | Matrix : | SOIL |
| Ext Btch ID: | V0E3501 | % Moisture : | NA |
| Calib. Ref.: | REV460 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 10 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| [illegible]ROBENZENE | ND | 5 | .46 |
| [illegible]ROETHANE | ND | 5 | .92 |
| [illegible]OROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 10 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 104 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/T8609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOE3501B | VOE3501L | VOE3501C | | |
| LAB FILE ID: | REV463 | REV461 | REV462 | | |
| DATE EXTRACTED: | 05/18/0013:18 | 05/18/0012:14 | 05/18/0012:44 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/18/0013:18 | 05/18/0012:14 | 05/18/0012:44 | DATE RECEIVED: | 05/18/00 |
| PREP. BATCH: | VOE3501 | VOE3501 | VOE3501 | | |
| CALIB. REF: | REV460 | REV460 | REV460 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 19 | 95 | 20 | 20.3 | 101 | 7 | 65-135 | 30 |
| Benzene | ND | 20 | 22.1 | 111 | 20 | 20.6 | 103 | 7 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 21.6 | 108 | 20 | 20.3 | 101 | 6 | 65-135 | 30 |
| Toluene | ND | 20 | 21.9 | 109 | 20 | 20.7 | 104 | 5 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 22.3 | 112 | 20 | 21.1 | 106 | 5 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 45.4 | 91 | 50 | 47.7 | 95 | 52-149 |
| Bromofluorobenzene | 50 | 50.8 | 102 | 50 | 49.4 | 99 | 65-135 |
| Toluene-d8 | 50 | 52 | 104 | 50 | 48.8 | 98 | 65-135 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E065
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 6.0 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2968 | | | | |
| LAB SAMP ID: | E065-12 | E065-12M | E065-12S | | |
| LAB FILE ID: | REV464 | REV475 | REV476 | | |
| DATE EXTRACTED: | 05/18/0013:52 | 05/18/0020:01 | 05/18/0020:35 | DATE COLLECTED: | 05/10/00 |
| DATE ANALYZED: | 05/18/0013:52 | 05/18/0020:01 | 05/18/0020:35 | DATE RECEIVED: | 05/10/00 |
| PREP. BATCH: | VOE3501 | VOE3501 | VOE3501 | | |
| CALIB. REF: | REV460 | REV460 | REV460 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/kg) | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 53.2 | 49.3 | 93 | 53.2 | 48.6 | 91 | 1 | 65-135 | 30 |
| Benzene | ND | 53.2 | 47.7 | 90 | 53.2 | 47.1 | 89 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 53.2 | 47.8 | 90 | 53.2 | 47 | 88 | 2 | 65-135 | 30 |
| Toluene | ND | 53.2 | 48.2 | 91 | 53.2 | 47.3 | 89 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 53.2 | 50.5 | 95 | 53.2 | 50.2 | 94 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 53.2 | 55 | 103 | 53.2 | 50.8 | 95 | 52-149 |
| Bromofluorobenzene | 53.2 | 47.8 | 90 | 53.2 | 45.9 | 86 | 65-135 |
| Toluene-d8 | 53.2 | 50.5 | 95 | 53.2 | 48.5 | 91 | 65-135 |

* : Out side of QC Limit

COMPLETED DH  NG 5/23/00

the IT group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10866

UST 298 / UST 651 Confirmation Dr. (Hi)

FORM 0019 REV. 9-99

| IT'S LAB COORDINATOR | LAB COORDINATOR'S PHONE | LAB COORDINATOR'S FAX | LABORATORY SERVICE ID | LABORATORY CONTACT | MAIL REPORT (COMPANY NAME) |
|---|---|---|---|---|---|
| M. Concepcion | 949 660 7550 | 949 495 5433 | E077 | EMAK | IT GROUP |

| PROJECT NAME | PROJECT LOCATION | PROJECT NUMBER | LABORATORY PHONE | LABORATORY FAX | RECIPIENT NAME |
|---|---|---|---|---|---|
| EL TORO, DO# 70 | MCAS, EL TORO | 18609 | 310 618 8889 | 310 618 0818 | DWAYNE ISHIDA |

| PROJECT CONTACT | PROJECT PHONE NUMBER | PROJECT FAX | LABORATORY ADDRESS | ADDRESS |
|---|---|---|---|---|
| M. Concepcion | 949 451 1667 | 949-451-1672 | 630 MAPLE AVE | 3347 MICHELSON Dr. Suite 200 |

| PROJECT ADDRESS | CITY, STATE AND ZIP CODE | CLIENT | CITY, STATE AND ZIP CODE | CITY, STATE AND ZIP CODE |
|---|---|---|---|---|
| — | — | SW DIV | TORRANCE CA | IRVINE, CA 92612 |

| PROJECT MANAGER | PROJECT MANAGER'S PHONE | PROJECT MANAGER'S FAX |
|---|---|---|
| B. SEDLAK | 949 660 5446 | 949 474 8309 |

Analyze from "X"

| Item | Sample Identifier | Matrix | Date 2000 | Time | Preserved | # of Cont. | QC Level | T.A.T. | TPH Gas | TPH Diesel | 8260 + MTBE | Field | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2977 A | W | 5/11 | 0730 | HCl | 2 | 3 | 5-Day | | | X | | | | | | |
| 2 | 18609-2978 A | S | 5/11 | 0815 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 3 | 18609-2979 A | S | 5/11 | 0830 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 4 | 18609-2980 A | S | 5/11 | 0840 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 5 | 18609-2981 A | S | 5/11 | 0855 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 6 | 18609-2982 A | W | 5/11 | 0905 | 4°C | 5 | 3 | 5day | X | X | X | | X | | | | HOLD |
| 7 | 18609-2983 A | S | 5/11 | 1225 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 8 | 18609-2984 A | S | 5/11 | 1420 | 4°C | 1 | 3 | 5day | X | X | X | | | | | | |
| 9 | 18609-2985 A | S | 5/11 | 1540 | 4°C | 1 | 3 | 5day | X | X | X | | X | | | | ~~HOLD~~ 48hr TAT per DR |
| 10 | ~~18609-2986 W.S~~ | | | | | | | ~~48hr~~ TAT | NG 5/24/00 | | | | | | | | |

SAMPLES COLLECTED BY: W. Williams

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| [signature] | [signature] | 5/11/00 | 3:00 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

## Project Information Section For Project Personnel Only Do Not Submit to Laboratory

UST 298 / UST 651 Confirmation Drilling

| Sample Point Location | G | C | F | QC |
|---|---|---|---|---|
| ① Trip Blank | | | | X |
| ② 298-SB05 at ~~0'-20' bgs~~ 20.5'-21.0' | X | | X | |
| ③ 298-SB05 at 40.5'-41.0' bgs | X | | X | |
| ④ 298-SB05 at 50.5'-51.0' bgs | X | | X | |
| ⑤ UST 298-SB-05 at 60.5'-61.0' bgs | X | | X | |
| ⑥ Equipment Rinsate | X | | | X |
| ⑦ UST ~~298~~ 651-SB-02 100.5'-101.0' bgs | X | | X | |
| ⑧ UST 651-SB-02 120.5-121.0' bgs | X | | X | |
| ⑨ UST 651-SB-02 130.5'-131.0' bgs | X | | X | |

Comments Drums generated

48hr TAT due 5/16/00 rec'd 5/16

5 day TAT due 5/19/00 rec'd 5/19

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

5/30

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 05-22-2000
EMAX Batch No.: 00E077

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 05/11/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2977 A | E077-01 | 05/11/00 | Water | Volatile Organics by GC/MS |
| 18609-2978 A | E077-02 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | TPH by Extraction |
| | | | | NW TPH Gasoline |
| 18609-2979 A | E077-03 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | TPH by Extraction |
| | | | | NW TPH Gasoline |
| 18609-2980 A | E077-04 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | TPH by Extraction |
| | | | | NW TPH Gasoline |
| 18609-2981 A | E077-05 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | NW TPH Gasoline |
| | | | | TPH by Extraction |
| 18609-2982 A | E077-06 | 05/11/00 | Water | Hold |
| 18609-2983 A | E077-07 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | TPH by Extraction |
| | | | | NW TPH Gasoline |
| 18609-2984 | E077-08 | 05/11/00 | Soil | Volatile Organics by GC/MS |
| | | | | TPH by Extraction |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2985 | E077-09 | 05/11/00 | Soil | NW TPH Gasoline Hold |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director



EMAX LABORATORIES, INC. [illegible] CA 90502 TEL: (310) 618-8889 FAX: (310) 618-0818

METH .8015

TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

lient : IT CORPORATION
roject : MCAS EL TORO/18609/D.O. 70
atch No. : 00E077

Matrix : SOIL
Instrument ID : GCT050

| AMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLK1S | DSE021SB | ND | 70 | 81 | 1 | NA | 10 | 3.47 | 05/12/0013:58 | 05/12/0013:30 | TE07004A | TE07002A | DSE021S | NA | 05/12/00 |
| CS1S | DSE021SL | 392 | 70 | 81 | 1 | NA | 10 | 3.47 | 05/12/0014:48 | 05/12/0013:30 | TE07005A | TE07002A | DSE021S | NA | 05/12/00 |
| CD1S | DSE021SC | 452 | 74 | 84 | 1 | NA | 10 | 3.47 | 05/12/0015:39 | 05/12/0013:30 | TE07006A | TE07002A | DSE021S | NA | 05/12/00 |
| 8609-2978 A | E077-02 | ND | 81 | 99 | 1 | 10.9 | 11.2 | 3.89 | 05/12/0019:51 | 05/12/0013:30 | TE07011A | TE07002A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2979 A | E077-03 | ND | 86 | 107 | 1 | 19.1 | 12.4 | 4.29 | 05/12/0020:41 | 05/12/0013:30 | TE07012A | TE07002A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2980 A | E077-04 | ND | 94 | 112 | 1 | 9.1 | 11 | 3.82 | 05/12/0022:20 | 05/12/0013:30 | TE07014A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2981 A | E077-05 | ND | 93 | 108 | 1 | 18.7 | 12.3 | 4.27 | 05/12/0023:10 | 05/12/0013:30 | TE07015A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2983 A | E077-07 | ND | 80 | 95 | 1 | 10.4 | 11.2 | 3.87 | 05/13/0000:00 | 05/12/0013:30 | TE07016A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2984 A | E077-08 | ND | 105 | 120 | 1 | 14.2 | 11.7 | 4.04 | 05/13/0000:50 | 05/12/0013:30 | TE07017A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2985 A | E077-09 | ND | 89 | 101 | 1 | 11.3 | 11.3 | 3.91 | 05/13/0001:39 | 05/12/0013:30 | TE07018A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2985MS | E077-09M | 602 | 89 | 98 | 1 | 11.3 | 11.3 | 3.91 | 05/13/0002:29 | 05/12/0013:30 | TE07019A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |
| 8609-2985MSD | E077-09S | 550 | 76 | 85 | 1 | 11.3 | 11.3 | 3.91 | 05/13/0003:19 | 05/12/0013:30 | TE07020A | TE07013A | DSE021S | 05/11/00 | 05/11/00 |

C LIMIT : (SOIL) 60-140 55-150
C LIMIT : (WATER) 65-135 60-145
URR1 : Bromobenzene
URR2 : Hexacosane
L : Reporting Limit

5004

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | DSE021SB | DSE021SL | DSE021SC | | |
| LAB FILE ID: | TE07004A | TE07005A | TE07006A | | |
| DATE EXTRACTED: | 05/12/0013:30 | 05/12/0013:30 | 05/12/0013:30 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/12/0013:58 | 05/12/0014:48 | 05/12/0015:39 | DATE RECEIVED: | 05/12/00 |
| PREP. BATCH: | DSE021S | DSE021S | DSE021S | | |
| CALIB. REF: | TE07002A | TE07002A | TE07002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 500 | 392 | 79 | 500 | 452 | 91 | 14 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 100 | 70.2 | 70 | 100 | 74 | 74 | 60-140 |
| Hexacosane | 25 | 20.3 | 81 | 25 | 21.1 | 84 | 55-150 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 11.3 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2985 | | | | |
| LAB SAMP ID: | E077-09 | E077-09M | E077-09S | | |
| LAB FILE ID: | TE07018A | TE07019A | TE07020A | | |
| DATE EXTRACTED: | 05/12/0013:30 | 05/12/0013:30 | 05/12/0013:30 | DATE COLLECTED: | 05/11/00 |
| DATE ANALYZED: | 05/13/0001:39 | 05/13/0002:29 | 05/13/0003:19 | DATE RECEIVED: | 05/11/00 |
| PREP. BATCH: | DSE021S | DSE021S | DSE021S | | |
| CALIB. REF: | TE07013A | TE07013A | TE07013A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 564 | 602 | 107 | 564 | 550 | 98 | 9 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 113 | 99.9 | 89 | 113 | 86 | 76 | 60-140 |
| Hexacosane | 28.2 | 27.8 | 98 | 28.2 | 23.9 | 85 | 55-150 |

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00E077

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | PRL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VAE1839B | ND | 85 | 1 | NA | 1 | .02 | 05/13/0001:56 | 05/13/0001:56 | EE08023A | EE08016A | VAE1839 | NA | 05/13/00 |
| LCS1S | VAE1839L | 2.64 | 92 | 1 | NA | 1 | .02 | 05/13/0002:31 | 05/13/0002:31 | EE08024A | EE08016A | VAE1839 | NA | 05/13/00 |
| LCD1S | VAE1839C | 2.7 | 91 | 1 | NA | 1 | .02 | 05/13/0003:07 | 05/13/0003:07 | EE08025A | EE08016A | VAE1839 | NA | 05/13/00 |
| MBLK2S | VAE3039B | ND | 101 | 1 | NA | 1 | .02 | 05/18/0020:31 | 05/18/0020:31 | EE12003A | EE12002A | VAE3039 | NA | 05/18/00 |
| LCS2S | VAE3039L | 3.29 | 107 | 1 | NA | 1 | .02 | 05/18/0021:06 | 05/18/0021:06 | EE12004A | EE12002A | VAE3039 | NA | 05/18/00 |
| LCD2S | VAE3039C | 2.79 | 109 | 1 | NA | 1 | .02 | 05/18/0021:42 | 05/18/0021:42 | EE12005A | EE12002A | VAE3039 | NA | 05/18/00 |
| 18609-2978 A | E077-02 | ND | 97 | 1 | 10.9 | 1.12 | .0224 | 05/19/0000:40 | 05/19/0000:40 | EE12010A | EE12002A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2979 A | E077-03 | ND | 97 | 1 | 19.1 | 1.24 | .0247 | 05/19/0001:15 | 05/19/0001:15 | EE12011A | EE12002A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2980 A | E077-04 | ND | 96 | 1 | 9.1 | 1.1 | .022 | 05/19/0001:51 | 05/19/0001:51 | EE12012A | EE12002A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2981 A | E077-05 | ND | 96 | 1 | 18.7 | 1.23 | .0246 | 05/19/0003:03 | 05/19/0003:03 | EE12014A | EE12013A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2983 A | E077-07 | ND | 97 | 1 | 10.4 | 1.12 | .0223 | 05/19/0003:38 | 05/19/0003:38 | EE12015A | EE12013A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2984 A | E077-08 | ND | 98 | 1 | 14.2 | 1.17 | .0233 | 05/19/0004:14 | 05/19/0004:14 | EE12016A | EE12013A | VAE3039 | 05/11/00 | 05/11/00 |
| 18609-2985 A | E077-09 | ND | 83 | 1 | 11.3 | 1.13 | .0225 | 05/13/0003:43 | 05/13/0003:43 | EE08026A | EE08016A | VAE1839 | 05/11/00 | 05/11/00 |

SURR : Bromofluorobenzene (W)65-135 / (S)60-140
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

'ENT: IT CORPORATION
IECT: MCAS EL TORO/18609/D.O. 70
CH NO.: 00E077
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAE1839B | VAE1839L | VAE1839C | | |
| LAB FILE ID: | EE08023A | EE08024A | EE08025A | | |
| DATE EXTRACTED: | 05/13/0001:56 | 05/13/0002:31 | 05/13/0003:07 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/13/0001:56 | 05/13/0002:31 | 05/13/0003:07 | DATE RECEIVED: | 05/13/00 |
| PREP. BATCH: | VAE1839 | VAE1839 | VAE1839 | | |
| CALIB. REF: | EE08016A | EE08016A | EE08016A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 2.64 | 96 | 2.75 | 2.7 | 98 | 3 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .231 | 92 | .25 | .227 | 91 | 60-140 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18600/P.O. 70
BATCH NO.: 00E077
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VAE3039B | VAE3039L | VAE3039C | | |
| LAB FILE ID: | EE12003A | EE12004A | EE12005A | | |
| DATE EXTRACTED: | 05/18/0020:31 | 05/18/0021:06 | 05/18/0021:42 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/18/0020:31 | 05/18/0021:06 | 05/18/0021:42 | DATE RECEIVED: | 05/18/00 |
| PREP. BATCH: | VAE3039 | VAE3039 | VAE3039 | | |
| CALIB. REF: | EE12002A | EE12002A | EE12002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 3.29 | 120 | 2.75 | 2.79 | 101 | 17 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .267 | 107 | .25 | .272 | 109 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | 05/11/00 |
| ject | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/11/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/15/00 17:55 |
| Sample ID: | 18609-2977 A | Date Analyzed: | 05/15/00 17:55 |
| Lab Samp ID: | E077-01 | Dilution Factor: | 1 |
| Lab File ID: | REP212 | Matrix | : WATER |
| Ext Btch ID: | VOE1802 | % Moisture | : NA |
| Calib. Ref.: | REP201 | Instrument ID | : T-002 |

| PARAMETERS | RESULTS (ug/L) | PRL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .91 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 1.1 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .83 |
| 1,1-DICHLOROETHANE | ND | 5 | .65 |
| 1,1-DICHLOROETHENE | ND | 5 | .86 |
| 1,2-DICHLOROETHANE | ND | 5 | .95 |
| 1,2-DICHLOROPROPANE | ND | 5 | .73 |
| 2-BUTANONE | ND | 50 | 6.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | 1.3 |
| 2-HEXANONE | ND | 50 | 5.6 |
| 4-METHYL-2-PENTANONE | ND | 50 | 3.6 |
| ACETONE | ND | 50 | 9.6 |
| BENZENE | ND | 5 | .77 |
| BROMODICHLOROMETHANE | ND | 5 | .82 |
| BROMOFORM | ND | 5 | .74 |
| BROMOMETHANE | ND | 5 | 1.9 |
| CARBON DISULFIDE | ND | 5 | .61 |
| CARBON TETRACHLORIDE | ND | 5 | .83 |
| CHLOROBENZENE | ND | 5 | 1.1 |
| CHLOROETHANE | ND | 5 | 1.7 |
| ROFORM | ND | 5 | .67 |
| ROMETHANE | ND | 5 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .79 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .79 |
| DIBROMOCHLOROMETHANE | ND | 5 | .71 |
| ETHYLBENZENE | ND | 5 | 1 |
| MTBE | ND | 10 | .77 |
| METHYLENE CHLORIDE | 1.5J | 5 | 1.4 |
| STYRENE | ND | 5 | .87 |
| TETRACHLOROETHENE | ND | 5 | 1.1 |
| TOLUENE | ND | 5 | .99 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .73 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .82 |
| TRICHLOROETHENE | ND | 5 | .89 |
| VINYL ACETATE | ND | 50 | 1.4 |
| VINYL CHLORIDE | ND | 5 | 2.5 |
| XYLENES | ND | 5 | 3.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 99 | 62-139 |
| BROMOFLUOROBENZENE | 106 | 75-125 |
| TOLUENE-D8 | 102 | 75-125 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 05/11/00 |
| Project : MCAS EL TORO/18609/D.O. 70 | Date Received: 05/11/00 |
| Batch No. : 00E077 | Date Extracted: 05/15/00 19:33 |
| Sample ID: 18609-2978 | Date Analyzed: 05/15/00 19:33 |
| Lab Samp ID: E077-02 | Dilution Factor: 1 |
| Lab File ID: REP215 | Matrix : SOIL |
| Ext Btch ID: VOE1802 | % Moisture : 10.9 |
| Calib. Ref.: REP201 | Instrument ID : T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.6 | .38 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.6 | .83 |
| 1,1,2-TRICHLOROETHANE | ND | 5.6 | .74 |
| 1,1-DICHLOROETHANE | ND | 5.6 | .59 |
| 1,1-DICHLOROETHENE | ND | 5.6 | .54 |
| 1,2-DICHLOROETHANE | ND | 5.6 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.6 | .62 |
| 2-BUTANONE | ND | 56 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 56 | .83 |
| 2-HEXANONE | ND | 56 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 56 | 3.2 |
| ACETONE | ND | 56 | 3.2 |
| BENZENE | ND | 5.6 | .59 |
| BROMODICHLOROMETHANE | ND | 5.6 | .47 |
| BROMOFORM | ND | 5.6 | .66 |
| BROMOMETHANE | ND | 5.6 | 4 |
| CARBON DISULFIDE | ND | 11 | .37 |
| CARBON TETRACHLORIDE | ND | 5.6 | .6 |
| CHLOROBENZENE | ND | 5.6 | .52 |
| CHLOROETHANE | ND | 5.6 | 1 |
| CHLOROFORM | ND | 5.6 | .59 |
| CHLOROMETHANE | ND | 5.6 | .59 |
| CIS-1,2-DICHLOROETHENE | ND | 5.6 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.6 | .45 |
| DIBROMOCHLOROMETHANE | ND | 5.6 | .41 |
| ETHYLBENZENE | ND | 5.6 | .52 |
| MTBE | ND | 11 | .85 |
| METHYLENE CHLORIDE | ND | 11 | 3.4 |
| STYRENE | ND | 5.6 | .38 |
| TETRACHLOROETHENE | ND | 5.6 | .38 |
| TOLUENE | ND | 5.6 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.6 | .53 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.6 | .51 |
| TRICHLOROETHENE | ND | 5.6 | .69 |
| VINYL ACETATE | ND | 56 | .93 |
| VINYL CHLORIDE | ND | 5.6 | .66 |
| XYLENES | ND | 5.6 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 102 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 103 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | 05/11/00 |
| ject | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/11/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/15/00 20:06 |
| Sample ID: | 18609-2979 A | Date Analyzed: | 05/15/00 20:06 |
| Lab Samp ID: | E077-03 | Dilution Factor: | 1 |
| Lab File ID: | REP216 | Matrix : | SOIL |
| Ext Btch ID: | VOE1802 | % Moisture : | 19.1 |
| Calib. Ref.: | REP201 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.2 | .42 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.2 | .91 |
| 1,1,2-TRICHLOROETHANE | ND | 6.2 | .81 |
| 1,1-DICHLOROETHANE | ND | 6.2 | .65 |
| 1,1-DICHLOROETHENE | ND | 6.2 | .59 |
| 1,2-DICHLOROETHANE | ND | 6.2 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.2 | .68 |
| 2-BUTANONE | ND | 62 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 62 | .91 |
| 2-HEXANONE | ND | 62 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 62 | 3.5 |
| ACETONE | ND | 62 | 3.6 |
| BENZENE | ND | 6.2 | .65 |
| BROMODICHLOROMETHANE | ND | 6.2 | .52 |
| BROMOFORM | ND | 6.2 | .73 |
| BROMOMETHANE | ND | 6.2 | 4.4 |
| CARBON DISULFIDE | ND | 12 | .41 |
| CARBON TETRACHLORIDE | ND | 6.2 | .66 |
| CHLOROBENZENE | ND | 6.2 | .57 |
| CHLOROETHANE | ND | 6.2 | 1.1 |
| ROFORM | ND | 6.2 | .65 |
| ROMETHANE | ND | 6.2 | .65 |
| CIS-1,2-DICHLOROETHENE | ND | 6.2 | .57 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.2 | .5 |
| DIBROMOCHLOROMETHANE | ND | 6.2 | .45 |
| ETHYLBENZENE | ND | 6.2 | .57 |
| MTBE | ND | 12 | .93 |
| METHYLENE CHLORIDE | ND | 12 | 3.7 |
| STYRENE | ND | 6.2 | .42 |
| TETRACHLOROETHENE | ND | 6.2 | .42 |
| TOLUENE | ND | 6.2 | .71 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.2 | .59 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.2 | .56 |
| TRICHLOROETHENE | ND | 6.2 | .76 |
| VINYL ACETATE | ND | 62 | 1 |
| VINYL CHLORIDE | ND | 6.2 | .72 |
| XYLENES | ND | 6.2 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 104 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 05/11/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/11/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/16/00 15:29 |
| Sample ID: | 18609-2980 | Date Analyzed: | 05/16/00 15:29 |
| Lab Samp ID: | E077-04 | Dilution Factor: | 1 |
| Lab File ID: | REP231 | Matrix : | SOIL |
| Ext Btch ID: | VOE1902 | % Moisture : | 9.1 |
| Calib. Ref.: | REP223 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.5 | .37 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.5 | .81 |
| 1,1,2-TRICHLOROETHANE | ND | 5.5 | .72 |
| 1,1-DICHLOROETHANE | ND | 5.5 | .58 |
| 1,1-DICHLOROETHENE | ND | 5.5 | .53 |
| 1,2-DICHLOROETHANE | ND | 5.5 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.5 | .6 |
| 2-BUTANONE | ND | 55 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 55 | .81 |
| 2-HEXANONE | ND | 55 | 1.6 |
| 4-METHYL-2-PENTANONE | ND | 55 | 3.1 |
| ACETONE | ND | 55 | 3.2 |
| BENZENE | ND | 5.5 | .58 |
| BROMODICHLOROMETHANE | ND | 5.5 | .47 |
| BROMOFORM | ND | 5.5 | .65 |
| BROMOMETHANE | ND | 5.5 | 3.9 |
| CARBON DISULFIDE | ND | 11 | .37 |
| CARBON TETRACHLORIDE | ND | 5.5 | .59 |
| CHLOROBENZENE | ND | 5.5 | .51 |
| CHLOROETHANE | ND | 5.5 | 1 |
| CHLOROFORM | ND | 5.5 | .58 |
| CHLOROMETHANE | ND | 5.5 | .58 |
| CIS-1,2-DICHLOROETHENE | ND | 5.5 | .5 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.5 | .44 |
| DIBROMOCHLOROMETHANE | ND | 5.5 | .4 |
| ETHYLBENZENE | ND | 5.5 | .5 |
| MTBE | ND | 11 | .83 |
| METHYLENE CHLORIDE | 4JB | 11 | 3.3 |
| STYRENE | ND | 5.5 | .38 |
| TETRACHLOROETHENE | ND | 5.5 | .37 |
| TOLUENE | ND | 5.5 | .63 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.5 | .52 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.5 | .5 |
| TRICHLOROETHENE | ND | 5.5 | .67 |
| VINYL ACETATE | ND | 55 | .91 |
| VINYL CHLORIDE | ND | 5.5 | .64 |
| XYLENES | ND | 5.5 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 102 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 102 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | 05/11/00 |
| ect | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/11/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/15/00 21:12 |
| Sample ID: | 18609-2981 | Date Analyzed: | 05/15/00 21:12 |
| Lab Samp ID: | E077-05 | Dilution Factor: | 1 |
| Lab File ID: | REP218 | Matrix | : SOIL |
| Ext Btch ID: | VOE1802 | % Moisture | : 18.7 |
| Calib. Ref.: | REP201 | Instrument ID | : T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.2 | .42 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.2 | .91 |
| 1,1,2-TRICHLOROETHANE | ND | 6.2 | .81 |
| 1,1-DICHLOROETHANE | ND | 6.2 | .64 |
| 1,1-DICHLOROETHENE | ND | 6.2 | .59 |
| 1,2-DICHLOROETHANE | ND | 6.2 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.2 | .67 |
| 2-BUTANONE | ND | 62 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 62 | .91 |
| 2-HEXANONE | ND | 62 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 62 | 3.5 |
| ACETONE | ND | 62 | 3.5 |
| BENZENE | ND | 6.2 | .65 |
| BROMODICHLOROMETHANE | ND | 6.2 | .52 |
| BROMOFORM | ND | 6.2 | .73 |
| BROMOMETHANE | ND | 6.2 | 4.4 |
| CARBON DISULFIDE | ND | 12 | .41 |
| CARBON TETRACHLORIDE | ND | 6.2 | .66 |
| CHLOROBENZENE | ND | 6.2 | .57 |
| CHLOROETHANE | ND | 6.2 | 1.1 |
| ROFORM | ND | 6.2 | .64 |
| ROMETHANE | ND | 6.2 | .65 |
| CIS-1,2-DICHLOROETHENE | ND | 6.2 | .56 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.2 | .49 |
| DIBROMOCHLOROMETHANE | ND | 6.2 | .45 |
| ETHYLBENZENE | ND | 6.2 | .56 |
| MTBE | ND | 12 | .93 |
| METHYLENE CHLORIDE | ND | 12 | 3.7 |
| STYRENE | ND | 6.2 | .42 |
| TETRACHLOROETHENE | ND | 6.2 | .42 |
| TOLUENE | ND | 6.2 | .71 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.2 | .58 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.2 | .55 |
| TRICHLOROETHENE | ND | 6.2 | .75 |
| VINYL ACETATE | ND | 62 | 1 |
| VINYL CHLORIDE | ND | 6.2 | .72 |
| XYLENES | ND | 6.2 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 106 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 104 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/15/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/15/00 13:05 |
| Sample ID: | MBLK1W | Date Analyzed: | 05/15/00 13:05 |
| Lab Samp ID: | VOE1802B | Dilution Factor: | 1 |
| Lab File ID: | REP204 | Matrix : | WATER |
| Ext Btch ID: | VOE1802 | % Moisture : | NA |
| Calib. Ref.: | REP201 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | PRL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .91 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 1.1 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .83 |
| 1,1-DICHLOROETHANE | ND | 5 | .65 |
| 1,1-DICHLOROETHENE | ND | 5 | .86 |
| 1,2-DICHLOROETHANE | ND | 5 | .95 |
| 1,2-DICHLOROPROPANE | ND | 5 | .73 |
| 2-BUTANONE | ND | 50 | 6.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | 1.3 |
| 2-HEXANONE | ND | 50 | 5.6 |
| 4-METHYL-2-PENTANONE | ND | 50 | 3.6 |
| ACETONE | ND | 50 | 9.6 |
| BENZENE | ND | 5 | .77 |
| BROMODICHLOROMETHANE | ND | 5 | .82 |
| BROMOFORM | ND | 5 | .74 |
| BROMOMETHANE | ND | 5 | 1.9 |
| CARBON DISULFIDE | ND | 5 | .61 |
| CARBON TETRACHLORIDE | ND | 5 | .83 |
| CHLOROBENZENE | ND | 5 | 1.1 |
| CHLOROETHANE | ND | 5 | 1.7 |
| CHLOROFORM | ND | 5 | .67 |
| CHLOROMETHANE | ND | 5 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .79 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .79 |
| DIBROMOCHLOROMETHANE | ND | 5 | .71 |
| ETHYLBENZENE | ND | 5 | 1 |
| MTBE | ND | 10 | .77 |
| METHYLENE CHLORIDE | 2.5J | 5 | 1.4 |
| STYRENE | ND | 5 | .87 |
| TETRACHLOROETHENE | ND | 5 | 1.1 |
| TOLUENE | ND | 5 | .99 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .73 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .82 |
| TRICHLOROETHENE | ND | 5 | .89 |
| VINYL ACETATE | ND | 50 | 1.4 |
| VINYL CHLORIDE | ND | 5 | 2.5 |
| XYLENES | ND | 5 | 3.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 87 | 62-139 |
| BROMOFLUOROBENZENE | 96 | 75-125 |
| TOLUENE-D8 | 91 | 75-125 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | VOE1802B | VOE1802L | VOE1802C | | |
| LAB FILE ID: | REP204 | REP202 | REP203 | | |
| DATE EXTRACTED: | 05/15/0013:05 | 05/15/0011:59 | 05/15/0012:32 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/15/0013:05 | 05/15/0011:59 | 05/15/0012:32 | DATE RECEIVED: | 05/15/00 |
| PREP. BATCH: | VOE1802 | VOE1802 | VOE1802 | | |
| CALIB. REF: | REP201 | REP201 | REP201 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 18.2 | 91 | 20 | 18.7 | 94 | 3 | 75-125 | 20 |
| Benzene | ND | 20 | 18.8 | 94 | 20 | 18.4 | 92 | 2 | 75-125 | 20 |
| Chlorobenzene | ND | 20 | 18.8 | 94 | 20 | 18.5 | 93 | 2 | 75-125 | 20 |
| Toluene | ND | 20 | 18.9 | 94 | 20 | 18.5 | 92 | 2 | 74-125 | 20 |
| Trichloroethene | ND | 20 | 18.9 | 95 | 20 | 18.8 | 94 | 1 | 71-125 | 20 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.5 | 97 | 50 | 47.9 | 96 | 62-139 |
| [illegible]mofluorobenzene | 50 | 51.9 | 104 | 50 | 48.9 | 98 | 75-125 |
| [illegible]uene-d8 | 50 | 50.3 | 101 | 50 | 48.9 | 98 | 75-125 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D 70 | Date Received: | 05/15/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/15/00 13:05 |
| Sample ID: | MBLK1S | Date Analyzed: | 05/15/00 13:05 |
| Lab Samp ID: | VOE1802B | Dilution Factor: | 1 |
| Lab File ID: | REP204 | Matrix : | SOIL |
| Ext Btch ID: | VOE1802 | % Moisture : | NA |
| Calib. Ref.: | REP201 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 10 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 10 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 87 | 52-149 |
| BROMOFLUOROBENZENE | 96 | 65-135 |
| TOLUENE-D8 | 91 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOE1802B | VOE1802L | VOE1802C | | |
| LAB FILE ID: | REP204 | REP202 | REP203 | | |
| DATE EXTRACTED: | 05/15/0013:05 | 05/15/0011:59 | 05/15/0012:32 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/15/0013:05 | 05/15/0011:59 | 05/15/0012:32 | DATE RECEIVED: | 05/15/00 |
| PREP. BATCH: | VOE1802 | VOE1802 | VOE1802 | | |
| CALIB. REF: | REP201 | REP201 | REP201 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 18.2 | 91 | 20 | 18.7 | 94 | 3 | 65-135 | 30 |
| Benzene | ND | 20 | 18.8 | 94 | 20 | 18.4 | 92 | 2 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 18.8 | 94 | 20 | 18.5 | 93 | 2 | 65-135 | 30 |
| Toluene | ND | 20 | 18.9 | 94 | 20 | 18.5 | 92 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 18.9 | 95 | 20 | 18.8 | 94 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.5 | 97 | 50 | 47.9 | 96 | 52-149 |
| ofluorobenzene | 50 | 51.9 | 104 | 50 | 48.9 | 98 | 65-135 |
| ene-d8 | 50 | 50.3 | 101 | 50 | 48.9 | 98 | 65-135 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION,ORG | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/16/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/16/00 12:20 |
| Sample ID: | MBLK2S | Date Analyzed: | 05/16/00 12:20 |
| Lab Samp ID: | VOE1902B | Dilution Factor: | 1 |
| Lab File ID: | REP226 | Matrix : | SOIL |
| Ext Btch ID: | VOE1902 | % Moisture : | NA |
| Calib. Ref.: | REP223 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 10 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | 4.2J | 10 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOE1902B | VOE1902L | VOE1902C | | |
| LAB FILE ID: | REP226 | REP224 | REP225 | | |
| DATE EXTRACTED: | 05/16/0012:20 | 05/16/0011:14 | 05/16/0011:47 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/16/0012:20 | 05/16/0011:14 | 05/16/0011:47 | DATE RECEIVED: | 05/16/00 |
| PREP. BATCH: | VOE1902 | VOE1902 | VOE1902 | | |
| CALIB. REF: | REP223 | REP223 | REP223 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 20.3 | 101 | 20 | 20.4 | 102 | 1 | 65-135 | 30 |
| Benzene | ND | 20 | 19.8 | 99 | 20 | 19.8 | 99 | 0 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 19.6 | 98 | 20 | 19.5 | 98 | 0 | 65-135 | 30 |
| Toluene | ND | 20 | 19.6 | 98 | 20 | 19.6 | 98 | 0 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 20.1 | 101 | 20 | 20 | 100 | 0 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.7 | 97 | 50 | 48.3 | 97 | 52-149 |
| [illegible]nofluorobenzene | 50 | 50.4 | 101 | 50 | 50.5 | 101 | 65-135 |
| [illegible]uene-d8 | 50 | 49.5 | 99 | 50 | 49.9 | 100 | 65-135 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/186996D.O. 70 | Date Received: | 05/16/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/16/00 11:47 |
| Sample ID: | LCD2S | Date Analyzed: | 05/16/00 11:47 |
| Lab Samp ID: | VOE1902C | Dilution Factor: | 1 |
| Lab File ID: | REP225 | Matrix : | SOIL |
| Ext Btch ID: | VOE1902 | % Moisture : | NA |
| Calib. Ref.: | REP223 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | 20.2 | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | 19.9 | 5 | .738 |
| 1,1,2-TRICHLOROETHANE | 20 | 5 | .656 |
| 1,1-DICHLOROETHANE | 20.2 | 5 | .524 |
| 1,1-DICHLOROETHENE | 20.4 | 5 | .48 |
| 1,2-DICHLOROETHANE | 20 | 5 | .985 |
| 1,2-DICHLOROPROPANE | 20 | 5 | .548 |
| 2-BUTANONE | 20J | 50 | 1.52 |
| 2-CHLOROETHYLVINYLETHER | 18.2J | 50 | .74 |
| 2-HEXANONE | 20J | 50 | 1.47 |
| 4-METHYL-2-PENTANONE | 20.9J | 50 | 2.81 |
| ACETONE | 20.3J | 50 | 2.88 |
| BENZENE | 19.8 | 5 | .526 |
| BROMODICHLOROMETHANE | 20.6 | 5 | .423 |
| BROMOFORM | 20.5 | 5 | .592 |
| BROMOMETHANE | 22.2 | 5 | 3.59 |
| CARBON DISULFIDE | 20.7 | 10 | .334 |
| CARBON TETRACHLORIDE | 20.8 | 5 | .537 |
| CHLOROBENZENE | 19.5 | 5 | .464 |
| CHLOROETHANE | 21.2 | 5 | .922 |
| CHLOROFORM | 19.9 | 5 | .524 |
| CHLOROMETHANE | 18.9 | 5 | .527 |
| CIS-1,2-DICHLOROETHENE | 20.3 | 5 | .459 |
| CIS-1,3-DICHLOROPROPENE | 20.9 | 5 | .402 |
| DIBROMOCHLOROMETHANE | 20.5 | 5 | .367 |
| ETHYLBENZENE | 19.5 | 5 | .459 |
| MTBE | 20 | 10 | .756 |
| METHYLENE CHLORIDE | 23.5 | 10 | 3.02 |
| STYRENE | 19.8 | 5 | .341 |
| TETRACHLOROETHENE | 19.7 | 5 | .338 |
| TOLUENE | 19.6 | 5 | .576 |
| TRANS-1,2-DICHLOROETHENE | 20.5 | 5 | .474 |
| TRANS-1,3-DICHLOROPROPENE | 20.8 | 5 | .45 |
| TRICHLOROETHENE | 20 | 5 | .612 |
| VINYL ACETATE | 22.1J | 50 | .83 |
| VINYL CHLORIDE | 20 | 5 | .585 |
| XYLENES | 60.1 | 5 | 1.13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 100 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| ent | : IT CORPORATION | Date Collected: | NA |
| ject | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 05/18/00 |
| Batch No. | : 00E077 | Date Extracted: | 05/18/00 15:54 |
| Sample ID: | MBLK3S | Date Analyzed: | 05/18/00 15:54 |
| Lab Samp ID: | VOE2102Q | Dilution Factor: | 50 |
| Lab File ID: | REP274 | Matrix : | SOIL |
| Ext Btch ID: | VOE2102 | % Moisture : | NA |
| Calib. Ref.: | REP266 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 250 | 17 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 250 | 37 |
| 1,1,2-TRICHLOROETHANE | ND | 250 | 33 |
| 1,1-DICHLOROETHANE | ND | 250 | 26 |
| 1,1-DICHLOROETHENE | ND | 250 | 24 |
| 1,2-DICHLOROETHANE | ND | 250 | 49 |
| 1,2-DICHLOROPROPANE | ND | 250 | 27 |
| 2-BUTANONE | ND | 2500 | 76 |
| 2-CHLOROETHYLVINYLETHER | ND | 2500 | 37 |
| 2-HEXANONE | ND | 2500 | 74 |
| 4-METHYL-2-PENTANONE | ND | 2500 | 140 |
| ACETONE | ND | 2500 | 140 |
| BENZENE | ND | 250 | 26 |
| BROMODICHLOROMETHANE | ND | 250 | 21 |
| BROMOFORM | ND | 250 | 30 |
| BROMOMETHANE | ND | 250 | 180 |
| CARBON DISULFIDE | ND | 500 | 17 |
| CARBON TETRACHLORIDE | ND | 250 | 27 |
| CHLOROBENZENE | ND | 250 | 23 |
| CHLOROETHANE | ND | 250 | 46 |
| ROFORM | ND | 250 | 26 |
| ROMETHANE | ND | 250 | 26 |
| CIS-1,2-DICHLOROETHENE | ND | 250 | 23 |
| CIS-1,3-DICHLOROPROPENE | ND | 250 | 20 |
| DIBROMOCHLOROMETHANE | ND | 250 | 18 |
| ETHYLBENZENE | ND | 250 | 23 |
| MTBE | ND | 500 | 38 |
| METHYLENE CHLORIDE | ND | 500 | 150 |
| STYRENE | ND | 250 | 17 |
| TETRACHLOROETHENE | ND | 250 | 17 |
| TOLUENE | ND | 250 | 29 |
| TRANS-1,2-DICHLOROETHENE | ND | 250 | 24 |
| TRANS-1,3-DICHLOROPROPENE | ND | 250 | 22 |
| TRICHLOROETHENE | ND | 250 | 31 |
| VINYL ACETATE | ND | 2500 | 41 |
| VINYL CHLORIDE | ND | 250 | 29 |
| XYLENES | ND | 250 | 57 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 99 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/418609/D.O. 70
BATCH NO.: 00E077
METHOD: METHOD 5030A/8260A

MATRIX: SOIL
% MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 50 | 1 | 1 | | |
| SAMPLE ID: | MBLK3S | | | | |
| LAB SAMP ID: | VOE2102Q | VOE2102L | VOE2102C | | |
| LAB FILE ID: | REP274 | REP267 | REP268 | | |
| DATE EXTRACTED: | 05/18/0015:54 | 05/18/0011:04 | 05/18/0011:36 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 05/18/0015:54 | 05/18/0011:04 | 05/18/0011:36 | DATE RECEIVED: | 05/18/00 |
| PREP. BATCH: | VOE2102 | VOE2102 | VOE2102 | | |
| CALIB. REF: | REP266 | REP266 | REP266 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 20.2 | 101 | 20 | 20.4 | 102 | 1 | 65-135 | 30 |
| Benzene | ND | 20 | 19.4 | 97 | 20 | 20.1 | 100 | 4 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 18.9 | 95 | 20 | 19.7 | 98 | 4 | 65-135 | 30 |
| Toluene | ND | 20 | 19.4 | 97 | 20 | 19.8 | 99 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 19.3 | 97 | 20 | 19.9 | 100 | 3 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 45.4 | 91 | 50 | 48.7 | 97 | 52-149 |
| Bromofluorobenzene | 50 | 48 | 96 | 50 | 49.3 | 99 | 65-135 |
| Toluene-d8 | 50 | 46.1 | 92 | 50 | 48.7 | 97 | 65-135 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
ECT: MCAS EL TORO/18609/D.O. 70
H NO.: 00E077
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 18.7 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2981 | | | | |
| LAB SAMP ID: | E077-05 | E077-05M | E077-05S | | |
| LAB FILE ID: | REP218 | REP219 | REP220 | | |
| DATE EXTRACTED: | 05/15/0021:12 | 05/15/0021:45 | 05/15/0022:18 | DATE COLLECTED: | 05/11/00 |
| DATE ANALYZED: | 05/15/0021:12 | 05/15/0021:45 | 05/15/0022:18 | DATE RECEIVED: | 05/11/00 |
| PREP. BATCH: | VOE1802 | VOE1802 | VOE1802 | | |
| CALIB. REF: | REP201 | REP201 | REP201 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/kg) | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 61.5 | 62.4 | 101 | 61.5 | 67.7 | 110 | 8 | 65-135 | 30 |
| Benzene | ND | 61.5 | 58.6 | 95 | 61.5 | 62.4 | 102 | 6 | 65-135 | 30 |
| Chlorobenzene | ND | 61.5 | 58.4 | 95 | 61.5 | 62.8 | 102 | 7 | 65-135 | 30 |
| Toluene | ND | 61.5 | 58.3 | 95 | 61.5 | 62.9 | 102 | 8 | 64-135 | 30 |
| Trichloroethene | ND | 61.5 | 60.1 | 98 | 61.5 | 64.9 | 106 | 8 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 61.5 | 66 | 107 | 61.5 | 66 | 107 | 52-149 |
| ofluorobenzene | 61.5 | 62.7 | 102 | 61.5 | 63.4 | 103 | 65-135 |
| ene-d8 | 61.5 | 63.7 | 104 | 61.5 | 64.1 | 104 | 65-135 |

* : Out side of QC Limit

LDC Report# 4912F8

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 10, 2000

**LDC Report Date:** June 26, 2000

**Matrix:** Soil/Water

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C & D

**Laboratory:** EMAX Laboratories. Inc.

**Sample Delivery Group (SDG):** 00E065

**Sample Identification**

| | |
|---|---|
| 18609-2957 A | 18609-2965MSD |
| 18609-2959 A | |
| 18609-2960 A | |
| 18609-2961 A | |
| 18609-2962 A | |
| 18609-2963 A | |
| 18609-2964 A | |
| 18609-2965 A | |
| 18609-2966** A | |
| 18609-2967 A | |
| 18609-2968 A | |
| 18609-2969 A | |
| 18609-2970 A | |
| 18609-2971 A | |
| 18609-2972 A | |
| 18609-2973 A | |
| 18609-2974 A | |
| 18609-2975 A | |
| 18609-2976 A | |
| 18609-2965MS A | |

**Indicates sample underwent NFESC Level D review

## Introduction

This data review covers 20 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent NFESC Level D review. NFESC Level C review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

All target compound identifications were within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VII. System Performance

The system performance was within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

LDC Report# 4912F7

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 10, 2000

**LDC Report Date:** June 26, 2000

**Matrix:** Soil/Water

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C & D

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00E065

**Sample Identification**

| | |
|---|---|
| 18609-2957 A | 18609-2965MSD |
| 18609-2959 A | |
| 18609-2960 A | |
| 18609-2961 A | |
| 18609-2962 A | |
| 18609-2963 A | |
| 18609-2964 A | |
| 18609-2965 A | |
| 18609-2966** A | |
| 18609-2967 A | |
| 18609-2968 A | |
| 18609-2969 A | |
| 18609-2970 A | |
| 18609-2971 A | |
| 18609-2972 A | |
| 18609-2973 A | |
| 18609-2974 A | |
| 18609-2975 A | |
| 18609-2976 A | |
| 18609-2965MS A-MS | |

**Indicates sample underwent NFESC Level D review

## Introduction

This data review covers 20 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent NFESC Level D review. NFESC Level C review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

All target compound identifications were within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VII. System Performance

The system performance was within validation criteria for samples on which NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level C criteria.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

LDC Report# 4912F1

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 10, 2000

**LDC Report Date:** June 16, 2000

**Matrix:** Soil/Water

**Parameters:** Volatiles

**Validation Level:** NFESC Level C & D

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00E065

**Sample Identification**

| | |
|---|---|
| 18609-2957 | 18609-2968MS |
| 18609-2958 | 18609-2968MSD |
| 18609-2959 | |
| 18609-2960 | |
| 18609-2961 | |
| 18609-2962 | |
| 18609-2963 | |
| 18609-2964 | |
| 18609-2965 | |
| 18609-2966** | |
| 18609-2967 | |
| 18609-2968 | |
| 18609-2969 | |
| 18609-2970 | |
| 18609-2971 | |
| 18609-2972 | |
| 18609-2973 | |
| 18609-2974 | |
| 18609-2975 | |
| 18609-2976 | |

**Indicates sample underwent NFESC Level D review

## Introduction

This data review covers 20 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a NFESC Level D review. A NFESC Level C review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level C criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria,

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were within method and validation criteria.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by Level C criteria.

## XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by Level C criteria.

## XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

## XIV. System Performance

The system performance was within validation criteria for samples on which a NFESC Level D review was performed. Raw data were not evaluated for the samples reviewed by Level C criteria.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Volatiles - Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 00E065**

No Sample Data Qualified in this SDG

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 11, 2000

**LDC Report Date:** June 16, 2000

**Matrix:** Soil/Water

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00E077

**Sample Identification**

18609-2977 A
18609-2978 A
18609-2979 A
18609-2980 A
18609-2981 A
18609-2983 A
18609-2983DL A
18609-2984 A
18609-2984DL A
18609-2985 A
18609-2981MS
18609-2981MSD

## Introduction

This data review covers 11 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %RSD | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 5/12/00 | 2-Chloroethylvinyl ether | 56.188 | All samples in SDG 00E077 | J (all detects)<br>UJ (all non-detects) | A |

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

| Date | Compound | RRF (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 5/12/00 | 2-Chloroethylvinyl ether | 0.04472 (≥0.05) | All samples in SDG 00E077 | J (all detects)<br>UJ (all non-detects) | A |

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

| Date | Compound | RRF (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 5/15/00 | Acetone<br><br>2-Chloroethylvinyl ether | 0.04386 (≥0.05)<br><br>0.03364 (≥0.05) | 18609-2977<br>18609-2978<br>18609-2979<br>18609-2981<br>18609-2985<br>18609-2981MS<br>18609-2981MSD<br>MBLK1W<br>MBLK1S | J (all detects)<br>UJ (all non-detects)<br>J (all detects)<br>UJ (all non-detects) | A |
| 5/16/00 | Acetone<br><br>2-Chloroethylvinyl ether | 0.04259 (≥0.05)<br><br>0.02897 (≥0.05) | 18609-2980<br>18609-2983<br>18609-2984<br>MBLK2S | J (all detects)<br>UJ (all non-detects)<br>J (all detects)<br>UJ (all non-detects) | A |
| 5/18/00 | Acetone<br><br>2-Chloroethylvinyl ether | 0.04626 (≥0.05)<br><br>0.03965 (≥0.05) | 18609-2983DL<br>18609-2984DL<br>MBLK3S | J (all detects)<br>UJ (all non-detects)<br>J (all detects)<br>UJ (all non-detects) | A |

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis Date | Compound TIC (RT in minutes) | Concentration | Associated Samples |
|---|---|---|---|---|
| MBLK1W | 5/15/00 | Methylene chloride | 2.5 ug/L | 18609-2977 |
| MBLK2S | 5/16/00 | Methylene chloride | 4.2 ug/Kg | 18609-2980<br>18609-2983<br>18609-2984 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Compound TIC (RT in minutes) | Reported Concentration | Modified Final Concentration |
|---|---|---|---|
| 18609-2977 | Methylene chloride | 1.5 ug/L | 5U ug/L |

| Sample | Compound TIC (RT in minutes) | Reported Concentration | Modified Final Concentration |
|---|---|---|---|
| 18609-2980 A | Methylene chloride | 4 ug/Kg | 11U ug/Kg |

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|---|---|---|---|---|---|
| 18609-2983 A<br>18609-2984 P | Methyl-tert-butyl ether | Sample result exceeded calibration range. | Reported result should be within calibration range. | J (all detects) | A |

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

Sample 18609-2977 was identified as a trip blank. No volatile contaminants were found in this blank with the following exceptions:

| Trip Blank ID | Compound | Concentration (ug/L) |
|---|---|---|
| 18609-2977 A | Methylene chloride | 1.5 |

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00E077

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00E077 | 18609-2977<br>18609-2978<br>18609-2979<br>18609-2980<br>18609-2981<br>18609-2983<br>18609-2983DL<br>18609-2984<br>18609-2984DL<br>18609-2985 | 2-Chloroethylvinyl ether | J (all detects)<br>UJ (all non-detects) | A | Initial calibration (%RSD) |
| 00E077 | 18609-2977<br>18609-2978<br>18609-2979<br>18609-2980<br>18609-2981<br>18609-2983<br>18609-2983DL<br>18609-2984<br>18609-2984DL<br>18609-2985 | 2-Chloroethylvinyl ether | J (all detects)<br>UJ (all non-detects) | A | Initial calibration (RRF) |
| 00E077 | 18609-2977<br>18609-2978<br>18609-2979<br>18609-2981<br>18609-2985<br>18609-2980<br>18609-2983<br>18609-2984<br>18609-2983DL<br>18609-2984DL | Acetone<br><br>2-Chloroethylvinyl ether | J (all detects)<br>UJ (all non-detects)<br>J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (RRF) |
| 00E077 | 18609-2983<br>18609-2984 | Methyl-tert-butyl ether | J (all detects) | A | Compound quantitation and CRQLs |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00E077

| SDG | Sample | Compound<br>TIC (RT in minutes) | Modified Final Concentration | A or P |
|---|---|---|---|---|
| 00E077 | 18609-2977 | Methylene chloride | 5U ug/L | A |
| 00E077 | 18609-2980 | Methylene chloride | 11U ug/Kg | A |

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 11, 2000

**LDC Report Date:** June 26, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00E077

**Sample Identification**

18609-2978 A
18609-2979 A
18609-2980 A
18609-2981 A
18609-2983 A
18609-2984 A
18609-2985 A

## Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00E077**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00E077**

No Sample Data Qualified in this SDG

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** May 11, 2000

**LDC Report Date:** June 27, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00E077

**Sample Identification**

18609-2978 A
18609-2979 A
18609-2980 A
18609-2981 A
18609-2983 A
18609-2984 A
18609-2985 A
18609-2985MS
18609-2985MSD

## Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00E077**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00E077**

No Sample Data Qualified in this SDG

COMPLETE (LW 3/28/00)

the IT group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10808

UST 298 Excavation

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: M. Concepcion | LAB COORDINATOR'S PHONE: 941-666-7550 | LAB COORDINATOR'S FAX: 949-475-5433 | LABORATORY SERVICE ID: 00C135 | LABORATORY CONTACT: EMMY | MAIL REPORT (COMPANY NAME): IT Group |
| PROJECT NAME: El Toro-D070 | PROJECT LOCATION: MCAS El Toro, CA | PROJECT NUMBER: 186609 | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Dwayne Ishida |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-11667 | PROJECT FAX: 949-475-5433 | LABORATORY ADDRESS: 630 Maple Ave. | | ADDRESS: 3347 Michelson |
| PROJECT ADDRESS: | CITY, STATE AND ZIP CODE: | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | | CITY, STATE AND ZIP CODE: Irvine, CA 92606 |
| PROJECT MANAGER: B. Sellick | PROJECT MANAGER'S PHONE: 949-460-5446 | PROJECT MANAGER'S FAX: 949-475-5433 | | | |

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-Gas | TPH-Diesel | 8260 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 186609-2859 | S | 3-15 | 0850 | 4°C | 6 | 3 | ~~48hr~~ 72hr | X | X | X | | | | | | sample cancelled. |
| 2 | 186609-2860 | S | 3-15 | 0920 | 4°C | 6 | 3 | ~~48hr~~ 72hr | X | X | X | | | | | | |
| 3 | 186609-2861 | S | 3-15 | 1000 | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 4 | 186609-2862 | S | 3-15 | 1042 | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 5 | 186609-2863 | S | 3-15 | 1053 | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | sample cancelled |
| 6 | 186609-2864 | S | 3-15 | 1110 | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 7 | ~~186609-2865~~ | S | 3-15 | | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 8 | ~~186609-2866~~ | S | 3-15 | | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 9 | ~~186609-2867~~ | S | 3-15 | | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |
| 10 | ~~186609-2868~~ | S | 3-15 | | 4°C | 6 | 3 | 72hr | X | X | X | | | | | | |

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wm. Jefferson | [illegible] | 3/15/00 | 2:50 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 Excavation

| Sample Point Location | Sample Type G | C | F | QC |
|---|---|---|---|---|
| ~~① UST298-EX1-01 10ft off wall & floor~~ | X | | | |
| ② UST 298-EX1-02 10ft off floor | X | | | |
| ③ UST 298-EX1-03 5ft deep side wall W. wall | X | | | |
| ④ UST 298-EX1-04 ~~10ft deep~~ 5ft W. wall. | X | | | |
| ~~⑤ UST 298-EX1-05 5ft deep side wall W. wall 10ft off floor + wall~~ | | | | |
| ⑥ UST 298-EX1-06 4ft off ~~wall~~ E. wall | X | | | |

Comments

Due 3/21/00
reanalyze #28600 for 8260

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

4881/900

[redacted]

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 03-28-2000
EMAX Batch No.: 00C135

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 03/15/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2859 | C135-01 | 03/15/00 | Soil | Cancelled |
| 18609-2860 | C135-02 | 03/15/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| 18609-2861 | C135-03 | 03/15/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2862 | C135-04 | 03/15/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| 18609-2863 | C135-05 | 03/15/00 | Soil | Cancelled |
| 18609-2864 | C135-06 | 03/15/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

ME... M8015

TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : OOC135

Matrix : SOIL
Instrument ID : GCT043

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | DSC014SB | ND | 68 | 109 | 1 | NA | 10 | 2.1 | 03/16/0016:42 | 03/16/0014:00 | DC09005A | DC09002A | DSC014S | NA | 03/16/00 |
| LCS1S | DSC014SL | 403 | 80 | 116 | 1 | NA | 10 | 2.1 | 03/16/0018:06 | 03/16/0014:00 | DC09007A | DC09002A | DSC014S | NA | 03/16/00 |
| LCD1S | DSC014SC | 409 | 77 | 111 | 1 | NA | 10 | 2.1 | 03/16/0018:48 | 03/16/0014:00 | DC09008A | DC09002A | DSC014S | NA | 03/16/00 |
| 18609-2860 | C135-02 | 28* | 80 | 121 | 1 | 13.1 | 11.5 | 2.41 | 03/16/0019:31 | 03/16/0014:00 | DC09009A | DC09002A | DSC014S | 03/15/00 | 03/15/00 |
| 18609-2861 | C135-03 | ND | 66 | 105 | 1 | 15.3 | 11.8 | 2.47 | 03/16/0020:13 | 03/16/0014:00 | DC09010A | DC09002A | DSC014S | 03/15/00 | 03/15/00 |
| 18609-2862 | C135-04 | 180** | 75 | 113 | 1 | 14.5 | 11.7 | 2.45 | 03/16/0020:55 | 03/16/0014:00 | DC09011A | DC09002A | DSC014S | 03/15/00 | 03/15/00 |
| 18609-2864 | C135-06 | 650** | 94 | 119 | 1 | 15.3 | 11.8 | 2.47 | 03/16/0021:36 | 03/16/0014:00 | DC09012A | DC09002A | DSC014S | 03/15/00 | 03/15/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit

* : Chromatogram shows a mixture of Diesel and a non-typical Motor Oil, results were calculated as Diesel.
** : Full integration of HC from C8-C34, chromatogram shows a mixture of JP5, Diesel and a non-typical motor oil pattern.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C135
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | DSC014SB | DSC014SL | DSC014SC | | |
| LAB FILE ID: | DC09005A | DC09007A | DC09008A | | |
| DATE EXTRACTED: | 03/16/0014:00 | 03/16/0014:00 | 03/16/0014:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/16/0016:42 | 03/16/0018:06 | 03/16/0018:48 | DATE RECEIVED: | 03/16/00 |
| PREP. BATCH: | DSC014S | DSC014S | DSC014S | | |
| CALIB. REF: | DC09002A | DC09002A | DC09002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 500 | 403 | 81 | 500 | 409 | 82 | 2 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 100 | 79.6 | 80 | 100 | 77.1 | 77 | 60-140 |
| Hexacosane | 50 | 58.2 | 116 | 50 | 55.7 | 111 | 55-150 |

METHOD 5030B/8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

lient : IT CORPORATION
roject : MCAS EL TORO/18609/D.O. 70
atch No. : 00C135

Matrix : SOIL
Instrument ID : GCT039

| AMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | PRL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLK1S | VMC2439B | ND | 90 | 10 | NA | 10 | .88 | 03/16/0016:15 | 03/16/0016:15 | EC09012A | EC09003A | VMC2439 | NA | 03/16/00 |
| CS1S | VMC2439L | 25.6 | 96 | 10 | NA | 10 | .88 | 03/16/0016:51 | 03/16/0016:51 | EC09013A | EC09003A | VMC2439 | NA | 03/16/00 |
| CD1S | VMC2439C | 25.2 | 89 | 10 | NA | 10 | .88 | 03/16/0017:26 | 03/16/0017:26 | EC09014A | EC09003A | VMC2439 | NA | 03/16/00 |
| 8609-2860 | C135-02 | ND | 85 | 12.1 | 13.1 | 13.9 | 1.23 | 03/16/0019:12 | 03/16/0019:12 | EC09017A | EC09015A | VMC2439 | 03/15/00 | 03/15/00 |
| 8609-2861 | C135-03 | 29 | 61 | 8.56 | 15.3 | 10.1 | .889 | 03/16/0019:48 | 03/16/0019:48 | EC09018A | EC09015A | VMC2439 | 03/15/00 | 03/15/00 |
| 8609-2862 | C135-04 | 120 | 114 | 10.4 | 14.5 | 12.2 | 1.07 | 03/16/0020:23 | 03/16/0020:23 | EC09019A | EC09015A | VMC2439 | 03/15/00 | 03/15/00 |
| 8609-2864 | C135-06 | 37 | 97 | 9.1 | 15.3 | 10.7 | .945 | 03/16/0020:58 | 03/16/0020:58 | EC09020A | EC09015A | VMC2439 | 03/15/00 | 03/15/00 |

URR : Bromofluorobenzene
RL : Reporting Limit
: Value exceed the upper level of the initial calibration
: Value from dilution
xtraction Date: 03/16/00 10:30

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C135
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 10 | 10 | 10 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VMC2439B | VMC2439L | VMC2439C | | |
| LAB FILE ID: | EC09012A | EC09013A | EC09014A | | |
| DATE EXTRACTED: | 03/16/0016:15 | 03/16/0016:51 | 03/16/0017:26 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/16/0016:15 | 03/16/0016:51 | 03/16/0017:26 | DATE RECEIVED: | 03/16/00 |
| PREP. BATCH: | VMC2439 | VMC2439 | VMC2439 | | |
| CALIB. REF: | EC09003A | EC09003A | EC09003A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 27.5 | 25.6 | 93 | 27.5 | 25.2 | 92 | 2 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | 2.5 | 2.41 | 96 | 2.5 | 2.22 | 89 | 60-140 |

Extraction Date: 03/16/00 10:30

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C[illegible] | : IT CORPORATION | Date Collected: | 03/15/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/15/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/16/00 10:30 |
| Sample ID | : 18609-2860 | Date Analyzed: | 03/23/00 16:33 |
| Lab Samp ID | : C135-02 | Dilution Factor: | 1.1 |
| Lab File ID | : RCQ629 | Matrix | : SOIL |
| Ext Btch ID | : VOC4705 | % Moisture | : 13.1 |
| Calib. Ref. | : RCQ624 | Instrument ID | : T-005 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.3 | .43 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.3 | .93 |
| 1,1,2-TRICHLOROETHANE | ND | 6.3 | .83 |
| 1,1-DICHLOROETHANE | ND | 6.3 | .66 |
| 1,1-DICHLOROETHENE | ND | 6.3 | .61 |
| 1,2-DICHLOROETHANE | ND | 6.3 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.3 | .69 |
| 2-BUTANONE | ND | 63 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 63 | .94 |
| 2-HEXANONE | ND | 63 | 1.9 |
| 4-METHYL-2-PENTANONE | ND | 63 | 3.6 |
| ACETONE | ND | 63 | 3.6 |
| BENZENE | 4.2J | 6.3 | .67 |
| BROMODICHLOROMETHANE | ND | 6.3 | .54 |
| BROMOFORM | ND | 6.3 | .75 |
| BROMOMETHANE | ND | 6.3 | 4.5 |
| CARBON DISULFIDE | ND | 6.3 | .42 |
| CARBON TETRACHLORIDE | ND | 6.3 | .68 |
| CHLOROBENZENE | ND | 6.3 | .59 |
| C[illegible]ETHANE | ND | 6.3 | 1.2 |
| C[illegible]FORM | ND | 6.3 | .66 |
| CHLOROMETHANE | ND | 6.3 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 6.3 | .58 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.3 | .51 |
| DIBROMOCHLOROMETHANE | ND | 6.3 | .46 |
| ETHYLBENZENE | 45 | 6.3 | .58 |
| MTBE | ND | 13 | .96 |
| METHYLENE CHLORIDE | 5.7J | 6.3 | 3.8 |
| STYRENE | ND | 6.3 | .43 |
| TETRACHLOROETHENE | ND | 6.3 | .43 |
| TOLUENE | 17 | 6.3 | .73 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.3 | .6 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.3 | .57 |
| TRICHLOROETHENE | ND | 6.3 | .77 |
| VINYL ACETATE | ND | 63 | 1.1 |
| VINYL CHLORIDE | ND | 6.3 | .74 |
| XYLENES | 140 | 6.3 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 110 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 96 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/15/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/15/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/16/00 10:30 |
| Sample ID: | 18609-2861 | Date Analyzed: | 03/22/00 05:58 |
| Lab Samp ID: | C135-03 | Dilution Factor: | 43 |
| Lab File ID: | RCH554 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | 15.3 |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 250 | 17 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 250 | 37 |
| 1,1,2-TRICHLOROETHANE | ND | 250 | 33 |
| 1,1-DICHLOROETHANE | ND | 250 | 27 |
| 1,1-DICHLOROETHENE | ND | 250 | 24 |
| 1,2-DICHLOROETHANE | ND | 250 | 50 |
| 1,2-DICHLOROPROPANE | ND | 250 | 28 |
| 2-BUTANONE | ND | 2500 | 77 |
| 2-CHLOROETHYLVINYLETHER | ND | 2500 | 38 |
| 2-HEXANONE | ND | 2500 | 75 |
| 4-METHYL-2-PENTANONE | ND | 2500 | 140 |
| ACETONE | ND | 2500 | 150 |
| BENZENE | ND | 250 | 27 |
| BROMODICHLOROMETHANE | ND | 250 | 21 |
| BROMOFORM | ND | 250 | 30 |
| BROMOMETHANE | ND | 250 | 180 |
| CARBON DISULFIDE | ND | 250 | 17 |
| CARBON TETRACHLORIDE | ND | 250 | 27 |
| CHLOROBENZENE | ND | 250 | 24 |
| CHLOROETHANE | ND | 250 | 47 |
| CHLOROFORM | ND | 250 | 27 |
| CHLOROMETHANE | ND | 250 | 27 |
| CIS-1,2-DICHLOROETHENE | ND | 250 | 23 |
| CIS-1,3-DICHLOROPROPENE | ND | 250 | 20 |
| DIBROMOCHLOROMETHANE | ND | 250 | 19 |
| ETHYLBENZENE | ND | 250 | 23 |
| MTBE | ND | 510 | 38 |
| METHYLENE CHLORIDE | ND | 250 | 150 |
| STYRENE | ND | 250 | 17 |
| TETRACHLOROETHENE | ND | 250 | 17 |
| TOLUENE | 40J | 250 | 29 |
| TRANS-1,2-DICHLOROETHENE | ND | 250 | 24 |
| TRANS-1,3-DICHLOROPROPENE | ND | 250 | 23 |
| TRICHLOROETHENE | ND | 250 | 31 |
| VINYL ACETATE | ND | 2500 | 42 |
| VINYL CHLORIDE | ND | 250 | 30 |
| XYLENES | 530 | 250 | 58 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 52-149 |
| BROMOFLUOROBENZENE | 78 | 65-135 |
| TOLUENE-D8 | 86 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/15/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/15/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/16/00 10:30 |
| Sample ID: | 18609-2862 | Date Analyzed: | 03/22/00 06:36 |
| Lab Samp ID: | C135-04 | Dilution Factor: | 52 |
| Lab File ID: | RCH555 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | 14.5 |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 300 | 21 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 300 | 45 |
| 1,1,2-TRICHLOROETHANE | ND | 300 | 40 |
| 1,1-DICHLOROETHANE | ND | 300 | 32 |
| 1,1-DICHLOROETHENE | ND | 300 | 29 |
| 1,2-DICHLOROETHANE | ND | 300 | 60 |
| 1,2-DICHLOROPROPANE | ND | 300 | 33 |
| 2-BUTANONE | ND | 3000 | 92 |
| 2-CHLOROETHYLVINYLETHER | ND | 3000 | 45 |
| 2-HEXANONE | ND | 3000 | 89 |
| 4-METHYL-2-PENTANONE | ND | 3000 | 170 |
| ACETONE | ND | 3000 | 180 |
| BENZENE | ND | 300 | 32 |
| BROMODICHLOROMETHANE | ND | 300 | 26 |
| BROMOFORM | ND | 300 | 36 |
| BROMOMETHANE | ND | 300 | 220 |
| CARBON DISULFIDE | ND | 300 | 20 |
| CARBON TETRACHLORIDE | ND | 300 | 33 |
| CHLOROBENZENE | ND | 300 | 28 |
| CHLOROETHANE | ND | 300 | 56 |
| CHLOROFORM | ND | 300 | 32 |
| CHLOROMETHANE | ND | 300 | 32 |
| CIS-1,2-DICHLOROETHENE | ND | 300 | 28 |
| CIS-1,3-DICHLOROPROPENE | ND | 300 | 24 |
| DIBROMOCHLOROMETHANE | ND | 300 | 22 |
| ETHYLBENZENE | 320 | 300 | 28 |
| MTBE | ND | 610 | 46 |
| METHYLENE CHLORIDE | ND | 300 | 180 |
| STYRENE | ND | 300 | 21 |
| TETRACHLOROETHENE | ND | 300 | 21 |
| TOLUENE | 320 | 300 | 35 |
| TRANS-1,2-DICHLOROETHENE | ND | 300 | 29 |
| TRANS-1,3-DICHLOROPROPENE | ND | 300 | 27 |
| TRICHLOROETHENE | ND | 300 | 37 |
| VINYL ACETATE | ND | 3000 | 50 |
| VINYL CHLORIDE | ND | 300 | 36 |
| XYLENES | 2700 | 300 | 69 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 86 | 52-149 |
| BROMOFLUOROBENZENE | 75 | 65-135 |
| TOLUENE-D8 | 85 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/15/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/15/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/16/00 10:30 |
| Sample ID: | 18609-2864 | Date Analyzed: | 03/22/00 07:15 |
| Lab Samp ID: | C135-06 | Dilution Factor: | 45.5 |
| Lab File ID: | RCH556 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | 15.3 |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 270 | 18 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 270 | 40 |
| 1,1,2-TRICHLOROETHANE | ND | 270 | 35 |
| 1,1-DICHLOROETHANE | ND | 270 | 28 |
| 1,1-DICHLOROETHENE | ND | 270 | 26 |
| 1,2-DICHLOROETHANE | ND | 270 | 53 |
| 1,2-DICHLOROPROPANE | ND | 270 | 29 |
| 2-BUTANONE | ND | 2700 | 82 |
| 2-CHLOROETHYLVINYLETHER | ND | 2700 | 40 |
| 2-HEXANONE | ND | 2700 | 79 |
| 4-METHYL-2-PENTANONE | ND | 2700 | 150 |
| ACETONE | ND | 2700 | 150 |
| BENZENE | ND | 270 | 28 |
| BROMODICHLOROMETHANE | ND | 270 | 23 |
| BROMOFORM | ND | 270 | 32 |
| BROMOMETHANE | ND | 270 | 190 |
| CARBON DISULFIDE | ND | 270 | 18 |
| CARBON TETRACHLORIDE | ND | 270 | 29 |
| CHLOROBENZENE | ND | 270 | 25 |
| CHLOROETHANE | ND | 270 | 50 |
| CHLOROFORM | ND | 270 | 28 |
| CHLOROMETHANE | ND | 270 | 28 |
| CIS-1,2-DICHLOROETHENE | ND | 270 | 25 |
| CIS-1,3-DICHLOROPROPENE | ND | 270 | 22 |
| DIBROMOCHLOROMETHANE | ND | 270 | 20 |
| ETHYLBENZENE | 160J | 270 | 25 |
| MTBE | ND | 540 | 41 |
| METHYLENE CHLORIDE | ND | 270 | 160 |
| STYRENE | ND | 270 | 18 |
| TETRACHLOROETHENE | ND | 270 | 18 |
| TOLUENE | ND | 270 | 31 |
| TRANS-1,2-DICHLOROETHENE | ND | 270 | 25 |
| TRANS-1,3-DICHLOROPROPENE | ND | 270 | 24 |
| TRICHLOROETHENE | ND | 270 | 33 |
| VINYL ACETATE | ND | 2700 | 45 |
| VINYL CHLORIDE | ND | 270 | 31 |
| XYLENES | 120J | 270 | 61 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 92 | 52-149 |
| BROMOFLUOROBENZENE | 80 | 65-135 |
| TOLUENE-D8 | 88 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/23/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/23/00 15:56 |
| Sample ID: | MBLK1S | Date Analyzed: | 03/23/00 15:56 |
| Lab Samp ID: | VOC4705Q | Dilution Factor: | 1 |
| Lab File ID: | RCQ628 | Matrix : | SOIL |
| Ext Btch ID: | VOC4705 | % Moisture : | NA |
| Calib. Ref.: | RCQ624 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| C[illegible]OETHANE | ND | 5 | .92 |
| [illegible]OFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 96 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C135
METHOD: METHOD 5030A/8260A

MATRIX: SOIL
% MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOC4705Q | VOC4705L | VOC4705C | | |
| LAB FILE ID: | RCQ628 | RCQ625 | RCQ626 | | |
| DATE EXTRACTED: | 03/23/0015:56 | 03/23/0014:02 | 03/23/0014:40 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0015:56 | 03/23/0014:02 | 03/23/0014:40 | DATE RECEIVED: | 03/23/00 |
| PREP. BATCH: | VOC4705 | VOC4705 | VOC4705 | | |
| CALIB. REF: | RCQ624 | RCQ624 | RCQ624 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 19.6 | 98 | 20 | 19.2 | 96 | 2 | 65-135 | 30 |
| Benzene | ND | 20 | 19.6 | 98 | 20 | 19.3 | 97 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 19.8 | 99 | 20 | 19.1 | 96 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 20 | 100 | 20 | 19.9 | 99 | 0 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 18.5 | 92 | 20 | 18.5 | 92 | 0 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.5 | 97 | 50 | 47.1 | 94 | 52-149 |
| Bromofluorobenzene | 50 | 50.7 | 101 | 50 | 50.9 | 102 | 65-135 |
| Toluene-d8 | 50 | 48.8 | 98 | 50 | 48.1 | 96 | 65-135 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C135 | Date Extracted: | 03/22/00 04:04 |
| Sample ID: | MBLK2S | Date Analyzed: | 03/22/00 04:04 |
| Lab Samp ID: | VOC4404B | Dilution Factor: | 1 |
| Lab File ID: | RCH551 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | NA |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 89 | 52-149 |
| BROMOFLUOROBENZENE | 90 | 65-135 |
| TOLUENE-D8 | 87 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO 618609/D.O. 70
BATCH NO.: 00C135
METHOD: METHOD 5030A/8260A

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MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOC4404B | VOC4404L | VOC4404C | | |
| LAB FILE ID: | RCH551 | RCH549 | RCH550 | | |
| DATE EXTRACTED: | 03/22/0004:04 | 03/22/0002:48 | 03/22/0003:26 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/22/0004:04 | 03/22/0002:48 | 03/22/0003:26 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | VOC4404 | VOC4404 | VOC4404 | | |
| CALIB. REF: | RCH548 | RCH548 | RCH548 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 25.4 | 127 | 20 | 25.6 | 128 | 1 | 65-135 | 30 |
| Benzene | ND | 20 | 21.9 | 110 | 20 | 22.8 | 114 | 4 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 21.4 | 107 | 20 | 21.9 | 110 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 22.2 | 111 | 20 | 22.4 | 112 | 1 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 19.1 | 95 | 20 | 19.2 | 96 | 1 | 61-135 | 30 |

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| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 45.7 | 91 | 50 | 45.8 | 92 | 52-149 |
| Bromofluorobenzene | 50 | 45.6 | 91 | 50 | 45.8 | 92 | 65-135 |
| Toluene-d8 | 50 | 44.1 | 88 | 50 | 45.1 | 90 | 65-135 |

COMPLETED 3/27/00

the IT group

IT Corporation
2790 Mosside Blvd.
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(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10809

UST 298 Excavation

FORM 0019 REV. 9-99

| IT'S LAB COORDINATOR | LAB COORDINATOR'S PHONE | LAB COORDINATOR'S FAX | LABORATORY SERVICE ID | LABORATORY CONTACT | MAIL REPORT (COMPANY NAME) |
|---|---|---|---|---|---|
| M. Concepcion | 949-660-7550 | 949-451-1667 | OOC161 | EMAX | IT Group |
| PROJECT NAME: El Toro-D070 | PROJECT LOCATION: MCAS El Toro, CA / PROJECT NUMBER: 186009 | | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Dwayne Shields |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1667 | PROJECT FAX: 949-451-1672 | LABORATORY ADDRESS: 630 Maple Ave. | | ADDRESS: 3347 Michelson #200 |
| PROJECT ADDRESS: — | CITY, STATE AND ZIP CODE: — | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | | CITY, STATE AND ZIP CODE: Irvine, CA 92606 |
| PROJECT MANAGER: B. Sedlak | PROJECT MANAGER'S PHONE: 949-660-5446 | PROJECT MANAGER'S FAX: 949-475-5433 | | | |

| Item | Sample Identifier | Matrix | 2000 Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-Gas | TPH-Diesel | 8260 (VOC) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 186009-2881 | S | 3-20 | 1430 | 4°C | 2 | 3 | $72hr | X | X | X | |
| 2 | 186009-2882 | S | 3-20 | 1435 | 4°C | 2 | 3 | 72hr | X | X | X | |
| 3 | ~~186009-2883 (W)~~ | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |

W.J. 3-20-00

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wayne Jefferson | [illegible] | 3-20-00 | 3:00 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 Excavation

| Sample Point Location | Sample Type: G | C | F | QC |
|---|---|---|---|---|
| (1) UST298-EX1-07 N.Wall-5ft | X | | | |
| (2) UST298-EX1-08 N.Wall 5ft | X | | | |

Comments

Due 3/24/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

4860/90D

[redacted]

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 03-27-2000
EMAX Batch No.: 00C161

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

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Enclosed is the Laboratory report for samples received on 03/20/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2881 | C161-01 | 03/20/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Modified 8015 by Extraction |
| 18609-2882 | C161-02 | 03/20/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2881 | C161-01 | 03/20/00 | SOIL | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| 18609-2882 | C161-02 | 03/20/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

METHOD 8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

lient : IT CORPORATION
roject : MCAS EL TORO/18609/D.O. 70
atch No. : 00C161

Matrix : SOIL
Instrument ID : GCT043

| AMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLK1S! | DSC021SB | ND | 94 | 68 | 1 | NA | 10 | 2.1 | 03/21/0020:02 | 03/21/0015:00 | TC12017A | TC12013A | DSC021S | NA | 03/21/00 |
| CS1S! | DSC021SL | 438 | 95 | 72 | 1 | NA | 10 | 2.1 | 03/21/0020:40 | 03/21/0015:00 | TC12018A | TC12013A | DSC021S | NA | 03/21/00 |
| 8609-2881 | C161-01 | 3500* | 97 | 112 | 5 | 18.5 | 61.3 | 12.9 | 03/22/0021:52 | 03/21/0015:00 | DC14016A | DC14015A | DSC021S | 03/20/00 | 03/20/00 |
| 8609-2882! | C161-02 | 12 | 95 | 73 | 1 | 15.9 | 11.9 | 2.49 | 03/21/0021:54 | 03/21/0015:00 | TC12020A | TC12013A | DSC021S | 03/20/00 | 03/20/00 |
| 8609-2882MS! | C161-02M | 577 | 99 | 79 | 1 | 15.9 | 11.9 | 2.49 | 03/21/0022:32 | 03/21/0015:00 | TC12021A | TC12013A | DSC021S | 03/20/00 | 03/20/00 |
| 8609-2882MSD! | C161-02S | 573 | 98 | 77 | 1 | 15.9 | 11.9 | 2.49 | 03/21/0023:09 | 03/21/0015:00 | TC12022A | TC12013A | DSC021S | 03/20/00 | 03/20/00 |

! Instrument ID : GCT019
C LIMIT : (SOIL) 60-140 55-150
C LIMIT : (WATER) 65-135 60-145
URR1 : Bromobenzene
URR2 : Hexacosane
L : Reporting Limit
* : Chromatogram shows a JP5 pattern; results calculated as Diesel.

5004

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C161
METHOD: METHOD M8015

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | SOIL | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | |
| LAB SAMP ID: | DSC021SB | DSC021SL | | |
| LAB FILE ID: | TC12017A | TC12018A | | |
| DATE EXTRACTED: | 03/21/0015:00 | 03/21/0015:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/21/0020:02 | 03/21/0020:40 | DATE RECEIVED: | 03/21/00 |
| PREP. BATCH: | DSC021S | DSC021S | | |
| CALIB. REF: | TC12013A | TC12013A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Diesel | ND | 500 | 438 | 88 | 51-153 |

==========

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|
| Bromobenzene | 100 | 95.3 | 95 | 60-140 |
| Hexacosane | 50 | 36.1 | 72 | 55-150 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C161
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 15.9 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2882 | | | | |
| LAB SAMP ID: | C161-02 | C161-02M | C161-02S | | |
| LAB FILE ID: | TC12020A | TC12021A | TC12022A | | |
| DATE EXTRACTED: | 03/21/0015:00 | 03/21/0015:00 | 03/21/0015:00 | DATE COLLECTED: | 03/20/00 |
| DATE ANALYZED: | 03/21/0021:54 | 03/21/0022:32 | 03/21/0023:09 | DATE RECEIVED: | 03/20/00 |
| PREP. BATCH: | DSC021S | DSC021S | DSC021S | | |
| CALIB. REF: | TC12013A | TC12013A | TC12013A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 595 | 577 | 97 | 595 | 573 | 96 | 1 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 119 | 118 | 99 | 119 | 116 | 98 | 60-140 |
| Hexacosane | 59.5 | 47 | 79 | 59.5 | 45.8 | 77 | 55-150 |

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C161

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VMC3039B | ND | 76 | 10 | NA | 10 | .88 | 03/21/0018:42 | 03/21/0018:42 | EC10054A | EC10051A | VMC3039 | NA | 03/21/00 |
| LCS1S | VMC3039L | 47.6 | 89 | 10 | NA | 10 | .88 | 03/21/0019:17 | 03/21/0019:17 | EC10055A | EC10051A | VMC3039 | NA | 03/21/00 |
| LCD1S | VMC3039C | 49.3 | 90 | 10 | NA | 10 | .88 | 03/21/0019:53 | 03/21/0019:53 | EC10056A | EC10051A | VMC3039 | NA | 03/21/00 |
| 18609-2881 | C161-01 | 13000 | 96 | 2000 | 18.5 | 2450 | 216 | 03/21/0020:29 | 03/21/0020:29 | EC10057A | EC10051A | VMC3039 | 03/20/00 | 03/20/00 |
| 18609-2882 | C161-02 | 580* | 114 | 50 | 15.9 | 59.5 | 5.23 | 03/22/0000:33 | 03/22/0000:33 | EC10064A | EC10062A | VMC3039 | 03/20/00 | 03/20/00 |

SURR : Bromofluorobenzene
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution
* : Chromatogram shows mix pattern of Gasoline and heavier HC.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

C  'IT: IT CORPORATION
CT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C161
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 10 | 10 | 10 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VMC3039B | VMC3039L | VMC3039C | | |
| LAB FILE ID: | EC10054A | EC10055A | EC10056A | | |
| DATE EXTRACTED: | 03/21/0018:42 | 03/21/0019:17 | 03/21/0019:53 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/21/0018:42 | 03/21/0019:17 | 03/21/0019:53 | DATE RECEIVED: | 03/21/00 |
| PREP. BATCH: | VMC3039 | VMC3039 | VMC3039 | | |
| CALIB. REF: | EC10051A | EC10051A | EC10051A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 55 | 47.6 | 87 | 55 | 49.3 | 90 | 4 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | 2.5 | 2.22 | 89 | 2.5 | 2.25 | 90 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION CLIE | Date Collected: | 03/20/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/20/00 |
| Batch No. | : 00C161 | Date Extracted: | 03/21/00 18:36 |
| Sample ID: | 18609-2881 | Date Analyzed: | 03/21/00 18:36 |
| Lab Samp ID: | C161-01 | Dilution Factor: | 1000 |
| Lab File ID: | RCH536 | Matrix : | SOIL |
| Ext Btch ID: | VOC4204 | % Moisture : | 18.5 |
| Calib. Ref.: | RCH525 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6100 | 410 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6100 | 410 |
| 1,1,2-TRICHLOROETHANE | ND | 6100 | 290 |
| 1,1-DICHLOROETHANE | ND | 6100 | 370 |
| 1,1-DICHLOROETHENE | ND | 6100 | 660 |
| 1,2-DICHLOROETHANE | ND | 6100 | 400 |
| 1,2-DICHLOROPROPANE | ND | 6100 | 460 |
| 2-BUTANONE | ND | 61000 | 6300 |
| 2-CHLOROETHYLVINYLETHER | ND | 61000 | 210 |
| 2-HEXANONE | ND | 61000 | 1500 |
| 4-METHYL-2-PENTANONE | ND | 61000 | 1400 |
| ACETONE | ND | 61000 | 5000 |
| BENZENE | 14000 | 6100 | 300 |
| BROMODICHLOROMETHANE | ND | 6100 | 320 |
| BROMOFORM | ND | 6100 | 340 |
| BROMOMETHANE | ND | 6100 | 780 |
| CARBON DISULFIDE | ND | 6100 | 150 |
| CARBON TETRACHLORIDE | ND | 6100 | 970 |
| CHLOROBENZENE | ND | 6100 | 240 |
| CHLOROETHANE | ND | 6100 | 2200 |
| CHLOROFORM | ND | 6100 | 520 |
| CHLOROMETHANE | ND | 6100 | 2500 |
| CIS-1,2-DICHLOROETHENE | ND | 6100 | 360 |
| CIS-1,3-DICHLOROPROPENE | ND | 6100 | 270 |
| DIBROMOCHLOROMETHANE | ND | 6100 | 97 |
| ETHYLBENZENE | 130000E | 6100 | 480 |
| MTBE | ND | 12000 | 460 |
| METHYLENE CHLORIDE | ND | 6100 | 500 |
| STYRENE | ND | 6100 | 540 |
| TETRACHLOROETHENE | ND | 6100 | 300 |
| TOLUENE | 320000E | 6100 | 390 |
| TRANS-1,2-DICHLOROETHENE | ND | 6100 | 350 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6100 | 820 |
| TRICHLOROETHENE | ND | 6100 | 310 |
| VINYL ACETATE | ND | 61000 | 880 |
| VINYL CHLORIDE | ND | 6100 | 1200 |
| XYLENES | 760000E | 6100 | 1300 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 92 | 52-149 |
| TOLUENE-D8 | 91 | 65-135 |
| BROMOFLUOROBENZENE | 83 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/20/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/20/00 |
| Batch No. | : 00C161 | Date Extracted: | 03/22/00 09:48 |
| Sample ID: | 18609-2881DL | Date Analyzed: | 03/22/00 09:48 |
| Lab Samp ID: | C161-01T | Dilution Factor: | 5000 |
| Lab File ID: | RCH560 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | 18.5 |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 31000 | 2000 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 31000 | 2000 |
| 1,1,2-TRICHLOROETHANE | ND | 31000 | 1400 |
| 1,1-DICHLOROETHANE | ND | 31000 | 1900 |
| 1,1-DICHLOROETHENE | ND | 31000 | 3300 |
| 1,2-DICHLOROETHANE | ND | 31000 | 2000 |
| 1,2-DICHLOROPROPANE | ND | 31000 | 2300 |
| 2-BUTANONE | ND | 310000 | 31000 |
| 2-CHLOROETHYLVINYLETHER | ND | 310000 | 1000 |
| 2-HEXANONE | ND | 310000 | 7700 |
| 4-METHYL-2-PENTANONE | ND | 310000 | 7000 |
| ACETONE | ND | 310000 | 25000 |
| BENZENE | 18000JD | 31000 | 1500 |
| BROMODICHLOROMETHANE | ND | 31000 | 1600 |
| BROMOFORM | ND | 31000 | 1700 |
| BROMOMETHANE | ND | 31000 | 3900 |
| CARBON DISULFIDE | ND | 31000 | 770 |
| CARBON TETRACHLORIDE | ND | 31000 | 4900 |
| CHLOROBENZENE | ND | 31000 | 1200 |
| CHLOROETHANE | ND | 31000 | 11000 |
| CHLOROFORM | ND | 31000 | 2600 |
| CHLOROMETHANE | ND | 31000 | 13000 |
| CIS-1,2-DICHLOROETHENE | ND | 31000 | 1800 |
| CIS-1,3-DICHLOROPROPENE | ND | 31000 | 1400 |
| DIBROMOCHLOROMETHANE | ND | 31000 | 480 |
| ETHYLBENZENE | 200000D | 31000 | 2400 |
| MTBE | ND | 61000 | 2300 |
| METHYLENE CHLORIDE | ND | 31000 | 2500 |
| STYRENE | ND | 31000 | 2700 |
| TETRACHLOROETHENE | ND | 31000 | 1500 |
| TOLUENE | 470000D | 31000 | 1900 |
| TRANS-1,2-DICHLOROETHENE | ND | 31000 | 1800 |
| TRANS-1,3-DICHLOROPROPENE | ND | 31000 | 4100 |
| TRICHLOROETHENE | ND | 31000 | 1600 |
| VINYL ACETATE | ND | 310000 | 4400 |
| VINYL CHLORIDE | ND | 31000 | 6200 |
| XYLENES | 1200000D | 31000 | 6700 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 52-149 |
| TOLUENE-D8 | 88 | 65-135 |
| BROMOFLUOROBENZENE | 89 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/20/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/20/00 |
| Batch No. | : 00C161 | Date Extracted: | 03/21/00 17:58 |
| Sample ID: | 18609-2882 | Date Analyzed: | 03/21/00 17:58 |
| Lab Samp ID: | C161-02 | Dilution Factor: | 50 |
| Lab File ID: | RCH535 | Matrix : | SOIL |
| Ext Btch ID: | VOC4204 | % Moisture : | 15.9 |
| Calib. Ref.: | RCH525 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 300 | 20 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 300 | 20 |
| 1,1,2-TRICHLOROETHANE | ND | 300 | 14 |
| 1,1-DICHLOROETHANE | ND | 300 | 18 |
| 1,1-DICHLOROETHENE | ND | 300 | 32 |
| 1,2-DICHLOROETHANE | ND | 300 | 19 |
| 1,2-DICHLOROPROPANE | ND | 300 | 22 |
| 2-BUTANONE | ND | 3000 | 300 |
| 2-CHLOROETHYLVINYLETHER | ND | 3000 | 10 |
| 2-HEXANONE | ND | 3000 | 74 |
| 4-METHYL-2-PENTANONE | ND | 3000 | 68 |
| ACETONE | ND | 3000 | 240 |
| BENZENE | ND | 300 | 15 |
| BROMODICHLOROMETHANE | ND | 300 | 15 |
| BROMOFORM | ND | 300 | 17 |
| BROMOMETHANE | ND | 300 | 38 |
| CARBON DISULFIDE | ND | 300 | 7.5 |
| CARBON TETRACHLORIDE | ND | 300 | 47 |
| CHLOROBENZENE | ND | 300 | 12 |
| CHLOROETHANE | ND | 300 | 110 |
| CHLOROFORM | ND | 300 | 25 |
| CHLOROMETHANE | ND | 300 | 120 |
| CIS-1,2-DICHLOROETHENE | ND | 300 | 17 |
| CIS-1,3-DICHLOROPROPENE | ND | 300 | 13 |
| DIBROMOCHLOROMETHANE | ND | 300 | 4.7 |
| ETHYLBENZENE | 630 | 300 | 23 |
| MTBE | ND | 590 | 22 |
| METHYLENE CHLORIDE | ND | 300 | 24 |
| STYRENE | ND | 300 | 26 |
| TETRACHLOROETHENE | ND | 300 | 14 |
| TOLUENE | 440 | 300 | 19 |
| TRANS-1,2-DICHLOROETHENE | ND | 300 | 17 |
| TRANS-1,3-DICHLOROPROPENE | ND | 300 | 40 |
| TRICHLOROETHENE | ND | 300 | 15 |
| VINYL ACETATE | ND | 3000 | 43 |
| VINYL CHLORIDE | ND | 300 | 60 |
| XYLENES | 2200 | 300 | 65 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 99 | 52-149 |
| TOLUENE-D8 | 87 | 65-135 |
| BROMOFLUOROBENZENE | 90 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/21/00 |
| Batch No. | : 00C161 | Date Extracted: | 03/21/00 13:39 |
| Sample ID: | MBLK1S | Date Analyzed: | 03/21/00 13:39 |
| Lab Samp ID: | VOC4204B | Dilution Factor: | 1 |
| Lab File ID: | RCH528 | Matrix : | SOIL |
| Ext Btch ID: | VOC4204 | % Moisture : | NA |
| Calib. Ref.: | RCH525 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .33 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .33 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .23 |
| 1,1-DICHLOROETHANE | ND | 5 | .3 |
| 1,1-DICHLOROETHENE | ND | 5 | .54 |
| 1,2-DICHLOROETHANE | ND | 5 | .33 |
| 1,2-DICHLOROPROPANE | ND | 5 | .38 |
| 2-BUTANONE | ND | 50 | 5.1 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .17 |
| 2-HEXANONE | ND | 50 | 1.2 |
| 4-METHYL-2-PENTANONE | ND | 50 | 1.1 |
| ACETONE | ND | 50 | 4.1 |
| BENZENE | ND | 5 | .25 |
| BROMODICHLOROMETHANE | ND | 5 | .26 |
| BROMOFORM | ND | 5 | .28 |
| BROMOMETHANE | ND | 5 | .64 |
| CARBON DISULFIDE | ND | 5 | .13 |
| CARBON TETRACHLORIDE | ND | 5 | .79 |
| CHLOROBENZENE | ND | 5 | .2 |
| CHLOROETHANE | ND | 5 | 1.8 |
| CHLOROFORM | ND | 5 | .42 |
| CHLOROMETHANE | ND | 5 | 2.1 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .29 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .22 |
| DIBROMOCHLOROMETHANE | ND | 5 | .079 |
| ETHYLBENZENE | ND | 5 | .39 |
| MTBE | ND | 10 | .37 |
| METHYLENE CHLORIDE | ND | 5 | .41 |
| STYRENE | ND | 5 | .44 |
| TETRACHLOROETHENE | ND | 5 | .24 |
| TOLUENE | ND | 5 | .31 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .29 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .67 |
| TRICHLOROETHENE | ND | 5 | .25 |
| VINYL ACETATE | ND | 50 | .72 |
| VINYL CHLORIDE | ND | 5 | 1 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| TOLUENE-D8 | 82 | 65-135 |
| BROMOFLUOROBENZENE | 84 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/186[illegible]0. 70
BATCH NO.: 00C161
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOC4204B | VOC4204L | VOC4204C | | |
| LAB FILE ID: | RCH528 | RCH526 | RCH527 | | |
| DATE EXTRACTED: | 03/21/0013:39 | 03/21/0012:06 | 03/21/0012:43 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/21/0013:39 | 03/21/0012:06 | 03/21/0012:43 | DATE RECEIVED: | 03/21/00 |
| PREP. BATCH: | VOC4204 | VOC4204 | VOC4204 | | |
| CALIB. REF: | RCH525 | RCH525 | RCH525 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 24.3 | 122 | 20 | 23.5 | 117 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 21.6 | 108 | 20 | 21.3 | 106 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 20.8 | 104 | 20 | 20.6 | 103 | 1 | 65-135 | 30 |
| Toluene | ND | 20 | 21.3 | 106 | 20 | 20.7 | 104 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 18.3 | 91 | 20 | 18.4 | 92 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 49.1 | 98 | 50 | 50.2 | 100 | 52-149 |
| Toluene-d8 | 50 | 42.9 | 86 | 50 | 43.3 | 87 | 65-135 |
| Bromofluorobenzene | 50 | 41.7 | 83 | 50 | 42.6 | 85 | 65-135 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C161 | Date Extracted: | 03/22/00 04:04 |
| Sample ID: | MBLK2S | Date Analyzed: | 03/22/00 04:04 |
| Lab Samp ID: | VOC4404B | Dilution Factor: | 1 |
| Lab File ID: | RCH551 | Matrix : | SOIL |
| Ext Btch ID: | VOC4404 | % Moisture : | NA |
| Calib. Ref.: | RCH548 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .33 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .33 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .23 |
| 1,1-DICHLOROETHANE | ND | 5 | .3 |
| 1,1-DICHLOROETHENE | ND | 5 | .54 |
| 1,2-DICHLOROETHANE | ND | 5 | .33 |
| 1,2-DICHLOROPROPANE | ND | 5 | .38 |
| 2-BUTANONE | ND | 50 | 5.1 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .17 |
| 2-HEXANONE | ND | 50 | 1.2 |
| 4-METHYL-2-PENTANONE | ND | 50 | 1.1 |
| ACETONE | ND | 50 | 4.1 |
| BENZENE | ND | 5 | .25 |
| BROMODICHLOROMETHANE | ND | 5 | .26 |
| BROMOFORM | ND | 5 | .28 |
| BROMOMETHANE | ND | 5 | .64 |
| CARBON DISULFIDE | ND | 5 | .13 |
| CARBON TETRACHLORIDE | ND | 5 | .79 |
| CHLOROBENZENE | ND | 5 | .2 |
| CHLOROETHANE | ND | 5 | 1.8 |
| CHLOROFORM | ND | 5 | .42 |
| CHLOROMETHANE | ND | 5 | 2.1 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .29 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .22 |
| DIBROMOCHLOROMETHANE | ND | 5 | .079 |
| ETHYLBENZENE | ND | 5 | .39 |
| MTBE | ND | 10 | .37 |
| METHYLENE CHLORIDE | 1.8J | 5 | .41 |
| STYRENE | ND | 5 | .44 |
| TETRACHLOROETHENE | ND | 5 | .24 |
| TOLUENE | ND | 5 | .31 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .29 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .67 |
| TRICHLOROETHENE | ND | 5 | .25 |
| VINYL ACETATE | ND | 50 | .72 |
| VINYL CHLORIDE | ND | 5 | 1 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 89 | 52-149 |
| TOLUENE-D8 | 87 | 65-135 |
| BROMOFLUOROBENZENE | 90 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C161
METHOD: METHOD 5030A/8260A

==========

MATRIX: SOIL
% MOISTURE: NA

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | MBLK2S | | |
| LAB SAMP ID: | VOC4404B | VOC4404L | VOC4404C |
| LAB FILE ID: | RCH551 | RCH549 | RCH550 |
| DATE EXTRACTED: | 03/22/0004:04 | 03/22/0002:48 | 03/22/0003:26 |
| DATE ANALYZED: | 03/22/0004:04 | 03/22/0002:48 | 03/22/0003:26 |
| PREP. BATCH: | VOC4404 | VOC4404 | VOC4404 |
| CALIB. REF: | RCH548 | RCH548 | RCH548 |

DATE COLLECTED: NA
DATE RECEIVED: 03/22/00

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 25.4 | 127 | 20 | 25.6 | 128 | 1 | 65-135 | 30 |
| Benzene | ND | 20 | 21.9 | 110 | 20 | 22.8 | 114 | 4 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 21.4 | 107 | 20 | 21.9 | 110 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 22.2 | 111 | 20 | 22.4 | 112 | 1 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 19.1 | 95 | 20 | 19.2 | 96 | 1 | 61-135 | 30 |

==========

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 45.7 | 91 | 50 | 45.8 | 92 | 52-149 |
| Toluene-d8 | 50 | 44.1 | 88 | 50 | 45.1 | 90 | 65-135 |
| Bromofluorobenzene | 50 | 45.6 | 91 | 50 | 45.8 | 92 | 65-135 |

GUIDELINED 3/22/00

the igroup

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10653

UST 298 - Excavation

FORM 0019 REV. 9-99

| IT'S LAB COORDINATOR | LAB COORDINATOR'S PHONE | LAB COORDINATOR'S FAX | LABORATORY SERVICE ID | LABORATORY CONTACT | MAIL REPORT (COMPANY NAME) |
|---|---|---|---|---|---|
| M. Concepcion | 949-660-7550 | 949-475-5433 | 00C165 | EMAX | IT Group |
| PROJECT NAME: El Toro-DO | PROJECT LOCATION MCAS El Toro, CA | PROJECT NUMBER | LABORATORY PHONE (310) 618-8889 | LABORATORY FAX | RECIPIENT NAME Dwayne Ishida |
| PROJECT CONTACT M. Concepcion | PROJECT PHONE NUMBER 949-451-1667 | PROJECT FAX 949-475-5433 | LABORATORY ADDRESS 630 Maple Dr. | | ADDRESS 3347 Michelson #200 |
| PROJECT ADDRESS | CITY, STATE AND ZIP CODE | CLIENT SWDIV | CITY, STATE AND ZIP CODE Torrance, CA | | CITY, STATE AND ZIP CODE Irvine, CA 92612 |
| PROJECT MANAGER B. Sellek | PROJECT MANAGER'S PHONE 949-660-5446 | PROJECT MANAGER'S FAX | | | |

"Rush"

| Item | Sample Identifier | Matrix | 2200 Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses (1) 8015 | (2) 8020 | (3) TRH-GHS | (4) TRH-Diesel | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 186009-2884 | S | 3-21 | 1120 | 4°C | 2 | 3 | 24hr | X | X | X | | | | | | Except high concentration of fuel. |
| 2 | 186009-2885 | S | 3-21 | 1345 | 4°C | 2 | 3 | 24hr | X | X | X | | | | | | Strong fuel odor. |
| 3 | 186009-2886 | S | 3-21 | 1350 | 4°C | 2 | 3 | 24hr | X | X | X | | | | | | Strong fuel odor |
| 4 | 186009-2887 | S | 3-21 | 1353 | 4°C | 2 | 3 | 24hr | X | X | X | | | | | | [illegible] |
| 5 | 186009-2888 | S | 3-21 | 1437 | 4°C | 2 | 3 | 24hr | X | X | X | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

(W.) 3-21-00

SAMPLES COLLECTED BY: W. Ferguson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| W. Ferguson | [illegible] | 3-21-00 | 2200 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 - Excavation

| Sample Point Location | Sample Type G | C | F | QC |
|---|---|---|---|---|
| ① UST 298-EX1-09 Under Concrete Wall | X | | | |
| ② UST 298-EX-10 S. Wall | X | | | |
| ③ UST 298-EX-11 W. Wall | X | | | |
| ④ UST 298-EX1-12 Floor | X | | | |
| ⑤ UST 298-EX1-13 S. Wall, between Tanks | X | | | |

Comments

Due 3/23/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

4857/1125

[redacted]

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 03-29-2000
EMAX Batch No.: 00C165

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 03/21/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2884 | C165-01 | 03/21/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2885 | C165-02 | 03/21/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| 18609-2886 | C165-03 | 03/21/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2887 | C165-04 | 03/21/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| 18609-2888 | C165-05 | 03/21/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

---

Kam Y. Pang, Ph.D.
Laboratory Director

METHOD M8015

TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : OOC165

Matrix : SOIL
Instrument ID : GCT043

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | DSC022SB | ND | 82 | 84 | 1 | NA | 10 | 2.1 | 03/22/0022:34 | 03/21/0019:40 | DC14017A | DC14015A | DSC022S | NA | 03/21/00 |
| LCS1S | DSC022SL | 495 | 122 | 123 | 1 | NA | 10 | 2.1 | 03/22/0023:15 | 03/21/0019:40 | DC14018A | DC14015A | DSC022S | NA | 03/21/00 |
| 18609-2884 | C165-01 | 2500* | 109 | 113 | 5 | 14.6 | 58.5 | 12.3 | 03/23/0011:46 | 03/21/0019:40 | DC14036A | DC14026A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2885 | C165-02 | 1300* | 139 | 125 | 1 | 16.5 | 12 | 2.51 | 03/23/0000:39 | 03/21/0019:40 | DC14020A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2886 | C165-03 | ND | 111 | 124 | 1 | 13.7 | 11.6 | 2.43 | 03/23/0001:20 | 03/21/0019:40 | DC14021A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2887 | C165-04 | ND | 106 | 110 | 1 | 15.9 | 11.9 | 2.49 | 03/23/0002:02 | 03/21/0019:40 | DC14022A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2887MS | C165-04M | 534 | 116 | 117 | 1 | 15.9 | 11.9 | 2.49 | 03/23/0002:44 | 03/21/0019:40 | DC14023A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2887MSD | C165-04S | 567 | 122 | 124 | 1 | 15.9 | 11.9 | 2.49 | 03/23/0003:25 | 03/21/0019:40 | DC14024A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |
| 18609-2888 | C165-05 | ND | 109 | 119 | 1 | 15.8 | 11.9 | 2.49 | 03/23/0004:07 | 03/21/0019:40 | DC14025A | DC14015A | DSC022S | 03/21/00 | 03/21/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit
* : Chromatogram shows a JP5 pattern; results calculated as Diesel.

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD M8015

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | SOIL | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | |
| LAB SAMP ID: | DSC022SB | DSC022SL | | |
| LAB FILE ID: | DC14017A | DC14018A | | |
| DATE EXTRACTED: | 03/21/0019:40 | 03/21/0019:40 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/22/0022:34 | 03/22/0023:15 | DATE RECEIVED: | 03/21/00 |
| PREP. BATCH: | DSC022S | DSC022S | | |
| CALIB. REF: | DC14015A | DC14015A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Diesel | ND | 500 | 495 | 99 | 51-153 |

==========

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|
| Bromobenzene | 100 | 122 | 122 | 60-140 |
| Hexacosane | 50 | 61.3 | 123 | 55-150 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD M8015

MATRIX: SOIL
% MOISTURE: 15.9

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | 18609-2887 | | |
| LAB SAMP ID: | C165-04 | C165-04M | C165-04S |
| LAB FILE ID: | DC14022A | DC14023A | DC14024A |
| DATE EXTRACTED: | 03/21/0019:40 | 03/21/0019:40 | 03/21/0019:40 |
| DATE ANALYZED: | 03/23/0002:02 | 03/23/0002:44 | 03/23/0003:25 |
| PREP. BATCH: | DSC022S | DSC022S | DSC022S |
| CALIB. REF: | DC14015A | DC14015A | DC14015A |

DATE COLLECTED: 03/21/00
DATE RECEIVED: 03/21/00

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 595 | 534 | 90 | 595 | 567 | 95 | 6 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 119 | 138 | 116 | 119 | 145 | 122 | 60-140 |
| Hexacosane | 59.5 | 69.6 | 117 | 59.5 | 73.8 | 124 | 55-150 |

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C165

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VAC3139B | ND | 76 | 1 | NA | 1 | .088 | 03/22/0012:49 | 03/22/0012:49 | EC11004A | EC11003A | VAC3139 | NA | 03/22/00 |
| LCS1S | VAC3139L | 2.36 | 83 | 1 | NA | 1 | .088 | 03/22/0013:24 | 03/22/0013:24 | EC11005A | EC11003A | VAC3139 | NA | 03/22/00 |
| LCD1S | VAC3139C | 2.27 | 83 | 1 | NA | 1 | .088 | 03/22/0014:00 | 03/22/0014:00 | EC11006A | EC11003A | VAC3139 | NA | 03/22/00 |
| MBLK2S | VMC3239B | ND | 75 | 10 | NA | 10 | .88 | 03/22/0021:04 | 03/22/0021:04 | EC11018A | EC11015A | VMC3239 | NA | 03/22/00 |
| LCS2S | VMC3239L | 46.9 | 69 | 10 | NA | 10 | .88 | 03/22/0021:38 | 03/22/0021:38 | EC11019A | EC11015A | VMC3239 | NA | 03/22/00 |
| LCD2S | VMC3239C | 47.8 | 86 | 10 | NA | 10 | .88 | 03/22/0022:13 | 03/22/0022:13 | EC11020A | EC11015A | VMC3239 | NA | 03/22/00 |
| 18609-2884 | C165-01 | 1900 | 104 | 200 | 14.6 | 234 | 20.6 | 03/23/0001:06 | 03/23/0001:06 | EC11025A | EC11015A | VMC3239 | 03/21/00 | 03/21/00 |
| 18609-2885 | C165-02 | 3200 | 93 | 500 | 16.5 | 599 | 52.7 | 03/23/0000:31 | 03/23/0000:31 | EC11024A | EC11015A | VMC3239 | 03/21/00 | 03/21/00 |
| 18609-2886 | C165-03 | 2.6 | 80 | 1 | 13.7 | 1.16 | .102 | 03/22/0014:36 | 03/22/0014:36 | EC11007A | EC11003A | VAC3139 | 03/21/00 | 03/21/00 |
| 18609-2886MS | C165-03M | 5.09 | 83 | 1 | 13.7 | 1.16 | .102 | 03/22/0015:11 | 03/22/0015:11 | EC11008A | EC11003A | VAC3139 | 03/21/00 | 03/21/00 |
| 18609-2886MSD | C165-03S | 5.1 | 81 | 1 | 13.7 | 1.16 | .102 | 03/22/0015:47 | 03/22/0015:47 | EC11009A | EC11003A | VAC3139 | 03/21/00 | 03/21/00 |
| 18609-2887 | C165-04 | ND | 74 | 1 | 15.9 | 1.19 | .105 | 03/22/0016:23 | 03/22/0016:23 | EC11010A | EC11003A | VAC3139 | 03/21/00 | 03/21/00 |
| 18609-2888 | C165-05 | 3.9 | 90 | 1 | 15.8 | 1.19 | .105 | 03/22/0016:58 | 03/22/0016:58 | EC11011A | EC11003A | VAC3139 | 03/21/00 | 03/21/00 |

SURR : Bromofluorobenzene
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
JOB NO.: 00C165
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAC3139B | VAC3139L | VAC3139C | | |
| LAB FILE ID: | EC11004A | EC11005A | EC11006A | | |
| DATE EXTRACTED: | 03/22/0012:49 | 03/22/0013:24 | 03/22/0014:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/22/0012:49 | 03/22/0013:24 | 03/22/0014:00 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | VAC3139 | VAC3139 | VAC3139 | | |
| CALIB. REF: | EC11003A | EC11003A | EC11003A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 2.36 | 86 | 2.75 | 2.27 | 83 | 4 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .208 | 83 | .25 | .208 | 83 | 60-140 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/718609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD 5030B/M8015

MATRIX: SOIL
% MOISTURE: NA

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 10 | 10 | 10 |
| SAMPLE ID: | MBLK2S | | |
| LAB SAMP ID: | VMC3239B | VMC3239L | VMC3239C |
| LAB FILE ID: | EC11018A | EC11019A | EC11020A |
| DATE EXTRACTED: | 03/22/0021:04 | 03/22/0021:38 | 03/22/0022:13 |
| DATE ANALYZED: | 03/22/0021:04 | 03/22/0021:38 | 03/22/0022:13 |
| PREP. BATCH: | VMC3239 | VMC3239 | VMC3239 |
| CALIB. REF: | EC11015A | EC11015A | EC11015A |

DATE COLLECTED: NA
DATE RECEIVED: 03/22/00

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 55 | 46.9 | 85 | 55 | 47.8 | 87 | 2 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | 2.5 | 1.72 | 69 | 2.5 | 2.14 | 86 | 60-140 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: 13.7

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | 18609-2886 | | |
| LAB SAMP ID: | C165-03 | C165-03M | C165-03S |
| LAB FILE ID: | EC11007A | EC11008A | EC11009A |
| DATE EXTRACTED: | 03/22/0014:36 | 03/22/0015:11 | 03/22/0015:47 |
| DATE ANALYZED: | 03/22/0014:36 | 03/22/0015:11 | 03/22/0015:47 |
| PREP. BATCH: | VAC3139 | VAC3139 | VAC3139 |
| CALIB. REF: | EC11003A | EC11003A | EC11003A |

DATE COLLECTED: 03/21/00
DATE RECEIVED: 03/21/00

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | 2.62 | 3.19 | 5.09 | 78 | 3.19 | 5.1 | 78 | 0 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .29 | .239 | 83 | .29 | .235 | 81 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/21/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/21/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/23/00 22:36 |
| Sample ID: | 18609-2884 | Date Analyzed: | 03/23/00 22:36 |
| Lab Samp ID: | C165-01 | Dilution Factor: | 2000 |
| Lab File ID: | RCH617 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | 14.6 |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 12000 | 800 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 12000 | 1700 |
| 1,1,2-TRICHLOROETHANE | ND | 12000 | 1500 |
| 1,1-DICHLOROETHANE | ND | 12000 | 1200 |
| 1,1-DICHLOROETHENE | ND | 12000 | 1100 |
| 1,2-DICHLOROETHANE | ND | 12000 | 2300 |
| 1,2-DICHLOROPROPANE | ND | 12000 | 1300 |
| 2-BUTANONE | ND | 120000 | 3600 |
| 2-CHLOROETHYLVINYLETHER | ND | 120000 | 1700 |
| 2-HEXANONE | ND | 120000 | 3400 |
| 4-METHYL-2-PENTANONE | ND | 120000 | 6600 |
| ACETONE | ND | 120000 | 6700 |
| BENZENE | ND | 12000 | 1200 |
| BROMODICHLOROMETHANE | ND | 12000 | 990 |
| BROMOFORM | ND | 12000 | 1400 |
| BROMOMETHANE | ND | 12000 | 8400 |
| CARBON DISULFIDE | ND | 12000 | 780 |
| CARBON TETRACHLORIDE | ND | 12000 | 1300 |
| CHLOROBENZENE | ND | 12000 | 1100 |
| CHLOROETHANE | ND | 12000 | 2200 |
| CHLOROFORM | ND | 12000 | 1200 |
| CHLOROMETHANE | ND | 12000 | 1200 |
| CIS-1,2-DICHLOROETHENE | ND | 12000 | 1100 |
| CIS-1,3-DICHLOROPROPENE | ND | 12000 | 940 |
| DIBROMOCHLOROMETHANE | ND | 12000 | 860 |
| ETHYLBENZENE | 9600J | 12000 | 1100 |
| MTBE | ND | 23000 | 1800 |
| METHYLENE CHLORIDE | 21000B | 12000 | 7100 |
| STYRENE | ND | 12000 | 800 |
| TETRACHLOROETHENE | ND | 12000 | 790 |
| TOLUENE | 3100J | 12000 | 1300 |
| TRANS-1,2-DICHLOROETHENE | ND | 12000 | 1100 |
| TRANS-1,3-DICHLOROPROPENE | ND | 12000 | 1100 |
| TRICHLOROETHENE | ND | 12000 | 1400 |
| VINYL ACETATE | ND | 120000 | 1900 |
| VINYL CHLORIDE | ND | 12000 | 1400 |
| XYLENES | 79000 | 12000 | 2700 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 104 | 52-149 |
| BROMOFLUOROBENZENE | 99 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| t | : IT CORPORATION | Date Collected: | 03/21/00 |
| ct | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/21/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/23/00 23:13 |
| Sample ID: | 18609-2885 | Date Analyzed: | 03/23/00 23:13 |
| Lab Samp ID: | C165-02 | Dilution Factor: | 2000 |
| Lab File ID: | RCH618 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | 16.5 |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 12000 | 810 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 12000 | 1800 |
| 1,1,2-TRICHLOROETHANE | ND | 12000 | 1600 |
| 1,1-DICHLOROETHANE | ND | 12000 | 1300 |
| 1,1-DICHLOROETHENE | ND | 12000 | 1100 |
| 1,2-DICHLOROETHANE | ND | 12000 | 2400 |
| 1,2-DICHLOROPROPANE | ND | 12000 | 1300 |
| 2-BUTANONE | ND | 120000 | 3600 |
| 2-CHLOROETHYLVINYLETHER | ND | 120000 | 1800 |
| 2-HEXANONE | ND | 120000 | 3500 |
| 4-METHYL-2-PENTANONE | ND | 120000 | 6700 |
| ACETONE | ND | 120000 | 6900 |
| BENZENE | ND | 12000 | 1300 |
| BROMODICHLOROMETHANE | ND | 12000 | 1000 |
| BROMOFORM | ND | 12000 | 1400 |
| BROMOMETHANE | ND | 12000 | 8600 |
| CARBON DISULFIDE | ND | 12000 | 800 |
| CARBON TETRACHLORIDE | ND | 12000 | 1300 |
| CHLOROBENZENE | ND | 12000 | 1100 |
| CHLOROETHANE | ND | 12000 | 2200 |
| CHLOROFORM | ND | 12000 | 1300 |
| ROMETHANE | ND | 12000 | 1300 |
| ,2-DICHLOROETHENE | ND | 12000 | 1100 |
| CIS-1,3-DICHLOROPROPENE | ND | 12000 | 960 |
| DIBROMOCHLOROMETHANE | ND | 12000 | 880 |
| ETHYLBENZENE | 10000J | 12000 | 1100 |
| MTBE | ND | 24000 | 1800 |
| METHYLENE CHLORIDE | 22000B | 12000 | 7200 |
| STYRENE | ND | 12000 | 820 |
| TETRACHLOROETHENE | ND | 12000 | 810 |
| TOLUENE | 2800J | 12000 | 1400 |
| TRANS-1,2-DICHLOROETHENE | ND | 12000 | 1100 |
| TRANS-1,3-DICHLOROPROPENE | ND | 12000 | 1100 |
| TRICHLOROETHENE | ND | 12000 | 1500 |
| VINYL ACETATE | ND | 120000 | 2000 |
| VINYL CHLORIDE | ND | 12000 | 1400 |
| XYLENES | 81000 | 12000 | 2700 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 107 | 52-149 |
| BROMOFLUOROBENZENE | 99 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/21/00 |
| Project | : MCAS EL TORO/18609/0.70 | Date Received: | 03/21/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/27/00 14:57 |
| Sample ID: | 18609-2886 | Date Analyzed: | 03/27/00 14:57 |
| Lab Samp ID: | C165-03 | Dilution Factor: | 5 |
| Lab File ID: | RCP456 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | 13.7 |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 29 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 29 | 4.3 |
| 1,1,2-TRICHLOROETHANE | ND | 29 | 3.8 |
| 1,1-DICHLOROETHANE | ND | 29 | 3 |
| 1,1-DICHLOROETHENE | ND | 29 | 2.8 |
| 1,2-DICHLOROETHANE | ND | 29 | 5.7 |
| 1,2-DICHLOROPROPANE | ND | 29 | 3.2 |
| 2-BUTANONE | ND | 290 | 8.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 290 | 4.3 |
| 2-HEXANONE | ND | 290 | 8.5 |
| 4-METHYL-2-PENTANONE | ND | 290 | 16 |
| ACETONE | ND | 290 | 17 |
| BENZENE | ND | 29 | 3 |
| BROMODICHLOROMETHANE | ND | 29 | 2.5 |
| BROMOFORM | ND | 29 | 3.4 |
| BROMOMETHANE | ND | 29 | 21 |
| CARBON DISULFIDE | ND | 29 | 1.9 |
| CARBON TETRACHLORIDE | ND | 29 | 3.1 |
| CHLOROBENZENE | ND | 29 | 2.7 |
| CHLOROETHANE | ND | 29 | 5.3 |
| CHLOROFORM | ND | 29 | 3 |
| CHLOROMETHANE | ND | 29 | 3.1 |
| CIS-1,2-DICHLOROETHENE | ND | 29 | 2.7 |
| CIS-1,3-DICHLOROPROPENE | ND | 29 | 2.3 |
| DIBROMOCHLOROMETHANE | ND | 29 | 2.1 |
| ETHYLBENZENE | ND | 29 | 2.7 |
| MTBE | ND | 58 | 4.4 |
| METHYLENE CHLORIDE | ND | 29 | 17 |
| STYRENE | ND | 29 | 2 |
| TETRACHLOROETHENE | ND | 29 | 2 |
| TOLUENE | ND | 29 | 3.3 |
| TRANS-1,2-DICHLOROETHENE | ND | 29 | 2.7 |
| TRANS-1,3-DICHLOROPROPENE | ND | 29 | 2.6 |
| TRICHLOROETHENE | ND | 29 | 3.5 |
| VINYL ACETATE | ND | 290 | 4.8 |
| VINYL CHLORIDE | ND | 29 | 3.4 |
| XYLENES | ND | 29 | 6.6 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 100 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/21/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/21/00 |
| Job No. | : 00C165 | Date Extracted: | 03/27/00 14:25 |
| Sample ID | : 18609-2887 | Date Analyzed: | 03/27/00 14:25 |
| Lab Samp ID | : C165-04 | Dilution Factor: | 1 |
| Lab File ID | : RCP455 | Matrix | : SOIL |
| Ext Btch ID | : VOC2902 | % Moisture | : 15.9 |
| Calib. Ref. | : RCP449 | Instrument ID | : T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.9 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.9 | .88 |
| 1,1,2-TRICHLOROETHANE | ND | 5.9 | .78 |
| 1,1-DICHLOROETHANE | ND | 5.9 | .62 |
| 1,1-DICHLOROETHENE | ND | 5.9 | .57 |
| 1,2-DICHLOROETHANE | ND | 5.9 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 5.9 | .65 |
| 2-BUTANONE | ND | 59 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 59 | .88 |
| 2-HEXANONE | ND | 59 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 59 | 3.3 |
| ACETONE | 28J | 59 | 3.4 |
| BENZENE | ND | 5.9 | .63 |
| BROMODICHLOROMETHANE | ND | 5.9 | .5 |
| BROMOFORM | ND | 5.9 | .7 |
| BROMOMETHANE | ND | 5.9 | 4.3 |
| CARBON DISULFIDE | ND | 5.9 | .4 |
| CARBON TETRACHLORIDE | ND | 5.9 | .64 |
| CHLOROBENZENE | ND | 5.9 | .55 |
| CHLOROETHANE | ND | 5.9 | 1.1 |
| CHLOROFORM | ND | 5.9 | .62 |
| CHLOROMETHANE | ND | 5.9 | .63 |
| cis-1,2-DICHLOROETHENE | ND | 5.9 | .55 |
| cis-1,3-DICHLOROPROPENE | ND | 5.9 | .48 |
| DIBROMOCHLOROMETHANE | ND | 5.9 | .44 |
| ETHYLBENZENE | ND | 5.9 | .55 |
| MTBE | ND | 12 | .9 |
| METHYLENE CHLORIDE | ND | 5.9 | 3.6 |
| STYRENE | ND | 5.9 | .41 |
| TETRACHLOROETHENE | ND | 5.9 | .4 |
| TOLUENE | ND | 5.9 | .68 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.9 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.9 | .54 |
| TRICHLOROETHENE | ND | 5.9 | .73 |
| VINYL ACETATE | ND | 59 | .99 |
| VINYL CHLORIDE | ND | 5.9 | .7 |
| XYLENES | ND | 5.9 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 52-149 |
| BROMOFLUOROBENZENE | 102 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/21/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/21/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/26/00 20:55 |
| Sample ID: | 18609-2888 | Date Analyzed: | 03/26/00 20:55 |
| Lab Samp ID: | C165-05 | Dilution Factor: | 2 |
| Lab File ID: | RCP435 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 15.8 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 12 | .81 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 12 | 1.8 |
| 1,1,2-TRICHLOROETHANE | ND | 12 | 1.6 |
| 1,1-DICHLOROETHANE | ND | 12 | 1.2 |
| 1,1-DICHLOROETHENE | ND | 12 | 1.1 |
| 1,2-DICHLOROETHANE | ND | 12 | 2.3 |
| 1,2-DICHLOROPROPANE | ND | 12 | 1.3 |
| 2-BUTANONE | ND | 120 | 3.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 120 | 1.8 |
| 2-HEXANONE | ND | 120 | 3.5 |
| 4-METHYL-2-PENTANONE | ND | 120 | 6.7 |
| ACETONE | ND | 120 | 6.8 |
| BENZENE | ND | 12 | 1.2 |
| BROMODICHLOROMETHANE | ND | 12 | 1 |
| BROMOFORM | ND | 12 | 1.4 |
| BROMOMETHANE | ND | 12 | 8.5 |
| CARBON DISULFIDE | ND | 12 | .79 |
| CARBON TETRACHLORIDE | ND | 12 | 1.3 |
| CHLOROBENZENE | ND | 12 | 1.1 |
| CHLOROETHANE | ND | 12 | 2.2 |
| CHLOROFORM | ND | 12 | 1.2 |
| CHLOROMETHANE | ND | 12 | 1.3 |
| CIS-1,2-DICHLOROETHENE | ND | 12 | 1.1 |
| CIS-1,3-DICHLOROPROPENE | ND | 12 | .95 |
| DIBROMOCHLOROMETHANE | ND | 12 | .87 |
| ETHYLBENZENE | ND | 12 | 1.1 |
| MTBE | ND | 24 | 1.8 |
| METHYLENE CHLORIDE | ND | 12 | 7.2 |
| STYRENE | ND | 12 | .81 |
| TETRACHLOROETHENE | ND | 12 | .8 |
| TOLUENE | ND | 12 | 1.4 |
| TRANS-1,2-DICHLOROETHENE | ND | 12 | 1.1 |
| TRANS-1,3-DICHLOROPROPENE | ND | 12 | 1.1 |
| TRICHLOROETHENE | ND | 12 | 1.5 |
| VINYL ACETATE | ND | 120 | 2 |
| VINYL CHLORIDE | ND | 12 | 1.4 |
| XYLENES | 3.8J | 12 | 2.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 99 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 103 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/23/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/23/00 18:48 |
| Sample ID: | MBLK1S | Date Analyzed: | 03/23/00 18:48 |
| Lab Samp ID: | VOC4804B | Dilution Factor: | 1 |
| Lab File ID: | RCH511 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | NA |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| [illegible],2-DICHLOROETHENE | ND | 5 | .46 |
| [illegible],3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | 8.5 | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/26/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/26/00 17:16 |
| Sample ID: | MBLK2S | Date Analyzed: | 03/26/00 17:16 |
| Lab Samp ID: | VOC2802B | Dilution Factor: | 1 |
| Lab File ID: | RCP431 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | NA |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | 4.2J | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 108 | 65-135 |
| TOLUENE-D8 | 102 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| C t | : IT CORPORATION | Date Collected: | NA |
| ct | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/27/00 |
| Batch No. | : 00C165 | Date Extracted: | 03/27/00 12:58 |
| Sample ID: | MBLK3S | Date Analyzed: | 03/27/00 12:58 |
| Lab Samp ID: | VOC2902B | Dilution Factor: | 1 |
| Lab File ID: | RCP453 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | NA |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| C OMETHANE | ND | 5 | .53 |
| ,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 100 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOC4804B | VOC4804L | VOC4804C | | |
| LAB FILE ID: | RCH511 | RCH609 | RCH610 | | |
| DATE EXTRACTED: | 03/23/0018:48 | 03/23/0017:32 | 03/23/0018:10 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0018:48 | 03/23/0017:32 | 03/23/0018:10 | DATE RECEIVED: | 03/23/00 |
| PREP. BATCH: | VOC4804 | VOC4804 | VOC4804 | | |
| CALIB. REF: | RCH607 | RCH607 | RCH607 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 22.3 | 112 | 20 | 23.1 | 116 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 19.8 | 99 | 20 | 19.8 | 99 | 0 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 19.3 | 96 | 20 | 19.8 | 99 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 20.4 | 102 | 20 | 20.5 | 103 | 1 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 16.6 | 83 | 20 | 16.7 | 83 | 0 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 49.5 | 99 | 50 | 50.2 | 100 | 52-149 |
| Bromofluorobenzene | 50 | 51.1 | 102 | 50 | 52.5 | 105 | 65-135 |
| Toluene-d8 | 50 | 48.3 | 97 | 50 | 47.7 | 95 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
[illegible]CT: MCAS EL TORO/18609/D.O. 70
[illegible] NO.: 00C165
METHOD: METHOD 5030A/8260A

==========

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOC2802B | VOC2802L | VOC2802C | | |
| LAB FILE ID: | RCP431 | RCP429 | RCP430 | | |
| DATE EXTRACTED: | 03/26/0017:16 | 03/26/0016:11 | 03/26/0016:43 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/26/0017:16 | 03/26/0016:11 | 03/26/0016:43 | DATE RECEIVED: | 03/26/00 |
| PREP. BATCH: | VOC2802 | VOC2802 | VOC2802 | | |
| CALIB. REF: | RCP428 | RCP428 | RCP428 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 24.4 | 122 | 20 | 19.3 | 97 | 23 | 65-135 | 30 |
| Benzene | ND | 20 | 24.5 | 123 | 20 | 19.4 | 97 | 23 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 24.2 | 121 | 20 | 18.8 | 94 | 25 | 65-135 | 30 |
| Toluene | ND | 20 | 24.5 | 123 | 20 | 19.2 | 96 | 24 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 23.6 | 118 | 20 | 18.7 | 93 | 23 | 61-135 | 30 |

==========

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.4 | 97 | 50 | 49 | 98 | 52-149 |
| Bromofluorobenzene | 50 | 53.3 | 107 | 50 | 53.2 | 106 | 65-135 |
| T[illegible]ne-d8 | 50 | 50.7 | 101 | 50 | 50.7 | 101 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C165
METHOD: METHOD 5030A/8260A

MATRIX: SOIL
% MOISTURE: NA

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | MBLK3S | | |
| LAB SAMP ID: | VOC2902B | VOC2902X | VOC2902C |
| LAB FILE ID: | RCP453 | RCP452 | RCP451 |
| DATE EXTRACTED: | 03/27/0012:58 | 03/27/0012:25 | 03/27/0011:47 |
| DATE ANALYZED: | 03/27/0012:58 | 03/27/0012:25 | 03/27/0011:47 |
| PREP. BATCH: | VOC2902 | VOC2902 | VOC2902 |
| CALIB. REF: | RCP449 | RCP449 | RCP449 |

DATE COLLECTED: NA
DATE RECEIVED: 03/27/00

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 18.8 | 94 | 20 | 18.1 | 91 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 18.8 | 94 | 20 | 18.5 | 93 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 18.8 | 94 | 20 | 18.1 | 91 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 18.8 | 94 | 20 | 18 | 90 | 4 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 18.4 | 92 | 20 | 17.9 | 90 | 2 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.1 | 96 | 50 | 48.3 | 97 | 52-149 |
| Bromofluorobenzene | 50 | 52 | 104 | 50 | 53 | 106 | 65-135 |
| Toluene-d8 | 50 | 49.5 | 99 | 50 | 50.4 | 101 | 65-135 |

COMPLETED 3/27/00

the group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10818

UST 298- Excavation

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| T'S LAB COORDINATOR: M. Concepcion | LAB COORDINATOR'S PHONE: 949-660-1550 | LAB COORDINATOR'S FAX: 949-475-5433 | LABORATORY SERVICE ID: 00C175 | LABORATORY CONTACT: EMAX | MAIL REPORT (COMPANY NAME): IT Corp |
| PROJECT NAME: MCAS El Toro-Bldg | PROJECT LOCATION: MCAS El Toro, CA | PROJECT NUMBER: 186009 | LABORATORY PHONE: 310-615-8189 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Dwayne Ishida |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1667 | PROJECT FAX: 949-451-1672 | LABORATORY ADDRESS: 630 Maple Ave. | | ADDRESS: 3347 Michelson #200 |
| PROJECT ADDRESS: | CITY, STATE AND ZIP CODE: | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | | CITY, STATE AND ZIP CODE: Irvine CA 92606 |
| PROJECT MANAGER: B. Sedlak | PROJECT MANAGER'S PHONE: 949-660-5446 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-GRO | TPH-DRO | TPH-Diesel 8260 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 186009-2901 | S | 3-22 | 1400 | 4°C | 2 | 3 | 24hr | X | X | X | |
| 2 | 186009-2902 | S | 3-22 | 1405 | 4°C | 2 | 3 | 24hr | X | X | X | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |

W.J. 3-22-00

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| [illegible signature] | [illegible signature] | 3220 | 7:30 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

## Project Information Section For Project Personnel Only Do Not Submit to Laboratory

UST 298- Excavation

| Sample Point Location | G | C | F | QC |
|---|---|---|---|---|
| (1) UST298-EX1-14 Floor close to E. wall | X | | | |
| (2) UST298-EX1-15 E. Wall at Sdt | X | | | |

Comments: Due 3/24/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

4880/450

EMAX LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 03-28-2000
EMAX Batch No.: 00C175

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 03/22/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2901 | C175-01 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2902 | C175-02 | 03/22/00 | Soil | Volatile Organics by GC/MS |
| | | | | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

METHOD 8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C175

Matrix : SOIL
Instrument ID : GCT043

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | DSC026SB | ND | 110 | 117 | 1 | NA | 10 | 2.1 | 03/23/0005:30 | 03/22/0019:00 | DC14027A | DC14026A | DSC026S | NA | 03/22/00 |
| LCS1S | DSC026SL | 414 | 110 | 109 | 1 | NA | 10 | 2.1 | 03/23/0006:11 | 03/22/0019:00 | DC14028A | DC14026A | DSC026S | NA | 03/22/00 |
| LCD1S | DSC026SC | 436 | 112 | 111 | 1 | NA | 10 | 2.1 | 03/23/0006:53 | 03/22/0019:00 | DC14029A | DC14026A | DSC026S | NA | 03/22/00 |
| 18609-2901 | C175-01 | ND | 107 | 115 | 1 | 21.7 | 12.8 | 2.68 | 03/23/0010:22 | 03/22/0019:00 | DC14034A | DC14026A | DSC026S | 03/22/00 | 03/22/00 |
| 18609-2902 | C175-02 | ND | 111 | 117 | 1 | 17.5 | 12.1 | 2.54 | 03/23/0011:04 | 03/22/0019:00 | DC14035A | DC14026A | DSC026S | 03/22/00 | 03/22/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C175
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | DSC026SB | DSC026SL | DSC026SC | | |
| LAB FILE ID: | DC14027A | DC14028A | DC14029A | | |
| DATE EXTRACTED: | 03/22/0019:00 | 03/22/0019:00 | 03/22/0019:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0005:30 | 03/23/0006:11 | 03/23/0006:53 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | DSC026S | DSC026S | DSC026S | | |
| CALIB. REF: | DC14026A | DC14026A | DC14026A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 500 | 414 | 83 | 500 | 436 | 87 | 5 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 100 | 110 | 110 | 100 | 112 | 112 | 60-140 |
| Hexacosane | 50 | 54.4 | 109 | 50 | 55.6 | 111 | 55-150 |

METHOD 5030/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C175

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VAC3339B | ND | 73 | 1 | NA | 1 | .088 | 03/23/0011:16 | 03/23/0011:16 | EC12003A | EC12002A | VAC3339 | NA | 03/23/00 |
| LCS1S | VAC3339L | 4.77 | 84 | 1 | NA | 1 | .088 | 03/23/0011:51 | 03/23/0011:51 | EC12004A | EC12002A | VAC3339 | NA | 03/23/00 |
| LCD1S | VAC3339C | 4.77 | 85 | 1 | NA | 1 | .088 | 03/23/0012:27 | 03/23/0012:27 | EC12005A | EC12002A | VAC3339 | NA | 03/23/00 |
| 18609-2901 | C175-01 | ND | 76 | 1 | 21.7 | 1.28 | .112 | 03/23/0013:02 | 03/23/0013:02 | EC12006A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2902 | C175-02 | ND | 71 | 1 | 17.5 | 1.21 | .107 | 03/23/0013:38 | 03/23/0013:38 | EC12007A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |

SURR : Bromofluorobenzene
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C175
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAC3339B | VAC3339L | VAC3339C | | |
| LAB FILE ID: | EC12003A | EC12004A | EC12005A | | |
| DATE EXTRACTED: | 03/23/0011:16 | 03/23/0011:51 | 03/23/0012:27 / | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0011:16 | 03/23/0011:51 | 03/23/0012:27 | DATE RECEIVED: | 03/23/00 |
| PREP. BATCH: | VAC3339 | VAC3339 | VAC3339 | | |
| CALIB. REF: | EC12002A | EC12002A | EC12002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 5.5 | 4.77 | 87 | 5.5 | 4.77 | 87 | 0 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .211 | 84 | .25 | .212 | 85 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C175 | Date Extracted: | 03/24/00 02:23 |
| Sample ID: | 18609-2901 | Date Analyzed: | 03/24/00 02:23 |
| Lab Samp ID: | C175-01 | Dilution Factor: | 1 |
| Lab File ID: | RCH623 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | 21.7 |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.4 | .43 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.4 | .94 |
| 1,1,2-TRICHLOROETHANE | ND | 6.4 | .84 |
| 1,1-DICHLOROETHANE | ND | 6.4 | .67 |
| 1,1-DICHLOROETHENE | ND | 6.4 | .61 |
| 1,2-DICHLOROETHANE | ND | 6.4 | 1.3 |
| 1,2-DICHLOROPROPANE | ND | 6.4 | .7 |
| 2-BUTANONE | ND | 64 | 1.9 |
| 2-CHLOROETHYLVINYLETHER | ND | 64 | .95 |
| 2-HEXANONE | ND | 64 | 1.9 |
| 4-METHYL-2-PENTANONE | ND | 64 | 3.6 |
| ACETONE | ND | 64 | 3.7 |
| BENZENE | ND | 6.4 | .67 |
| BROMODICHLOROMETHANE | ND | 6.4 | .54 |
| BROMOFORM | ND | 6.4 | .76 |
| BROMOMETHANE | ND | 6.4 | 4.6 |
| CARBON DISULFIDE | ND | 6.4 | .43 |
| CARBON TETRACHLORIDE | ND | 6.4 | .69 |
| CHLOROBENZENE | ND | 6.4 | .59 |
| C[illegible]OETHANE | ND | 6.4 | 1.2 |
| [illegible]OFORM | ND | 6.4 | .67 |
| CHLOROMETHANE | ND | 6.4 | .67 |
| CIS-1,2-DICHLOROETHENE | ND | 6.4 | .59 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.4 | .51 |
| DIBROMOCHLOROMETHANE | ND | 6.4 | .47 |
| ETHYLBENZENE | ND | 6.4 | .59 |
| MTBE | ND | 13 | .97 |
| METHYLENE CHLORIDE | 11B | 6.4 | 3.9 |
| STYRENE | ND | 6.4 | .44 |
| TETRACHLOROETHENE | ND | 6.4 | .43 |
| TOLUENE | ND | 6.4 | .74 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.4 | .61 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.4 | .57 |
| TRICHLOROETHENE | ND | 6.4 | .78 |
| VINYL ACETATE | ND | 64 | 1.1 |
| VINYL CHLORIDE | ND | 6.4 | .75 |
| XYLENES | 3.7J | 6.4 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 108 | 65-135 |
| TOLUENE-D8 | 96 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C175 | Date Extracted: | 03/24/00 01:45 |
| Sample ID: | 18609-2902 | Date Analyzed: | 03/24/00 01:45 |
| Lab Samp ID: | C175-02 | Dilution Factor: | 1 |
| Lab File ID: | RCH622 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | 17.5 |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.1 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.1 | .89 |
| 1,1,2-TRICHLOROETHANE | ND | 6.1 | .8 |
| 1,1-DICHLOROETHANE | ND | 6.1 | .64 |
| 1,1-DICHLOROETHENE | ND | 6.1 | .58 |
| 1,2-DICHLOROETHANE | ND | 6.1 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.1 | .66 |
| 2-BUTANONE | ND | 61 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 61 | .9 |
| 2-HEXANONE | ND | 61 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 61 | 3.4 |
| ACETONE | ND | 61 | 3.5 |
| BENZENE | ND | 6.1 | .64 |
| BROMODICHLOROMETHANE | ND | 6.1 | .51 |
| BROMOFORM | ND | 6.1 | .72 |
| BROMOMETHANE | ND | 6.1 | 4.3 |
| CARBON DISULFIDE | ND | 6.1 | .4 |
| CARBON TETRACHLORIDE | ND | 6.1 | .65 |
| CHLOROBENZENE | ND | 6.1 | .56 |
| CHLOROETHANE | ND | 6.1 | 1.1 |
| CHLOROFORM | ND | 6.1 | .64 |
| CHLOROMETHANE | ND | 6.1 | .64 |
| CIS-1,2-DICHLOROETHENE | ND | 6.1 | .56 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.1 | .49 |
| DIBROMOCHLOROMETHANE | ND | 6.1 | .44 |
| ETHYLBENZENE | ND | 6.1 | .56 |
| MTBE | ND | 12 | .92 |
| METHYLENE CHLORIDE | 8.7B | 6.1 | 3.7 |
| STYRENE | ND | 6.1 | .41 |
| TETRACHLOROETHENE | ND | 6.1 | .41 |
| TOLUENE | ND | 6.1 | .7 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.1 | .57 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.1 | .55 |
| TRICHLOROETHENE | ND | 6.1 | .74 |
| VINYL ACETATE | ND | 61 | 1 |
| VINYL CHLORIDE | ND | 6.1 | .71 |
| XYLENES | ND | 6.1 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 105 | 52-149 |
| BROMOFLUOROBENZENE | 123 | 65-135 |
| TOLUENE-D8 | 108 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/23/00 |
| Batch No. | : 00C175 | Date Extracted: | 03/23/00 18:48 |
| Sample ID: | MBLK2S | Date Analyzed: | 03/23/00 18:48 |
| Lab Samp ID: | VOC4804B | Dilution Factor: | 1 |
| Lab File ID: | RCH511 | Matrix : | SOIL |
| Ext Btch ID: | VOC4804 | % Moisture : | NA |
| Calib. Ref.: | RCH607 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| [illegible]OETHANE | ND | 5 | .92 |
| [illegible]ROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | 8.5 | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/01 70
BATCH NO.: 00C175
METHOD: METHOD 5030A/8260A

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOC4804B | VOC4804L | VOC4804C | | |
| LAB FILE ID: | RCH511 | RCH609 | RCH610 | | |
| DATE EXTRACTED: | 03/23/0018:48 | 03/23/0017:32 | 03/23/0018:10 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0018:48 | 03/23/0017:32 | 03/23/0018:10 | DATE RECEIVED: | 03/23/00 |
| PREP. BATCH: | VOC4804 | VOC4804 | VOC4804 | | |
| CALIB. REF: | RCH607 | RCH607 | RCH607 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 22.3 | 112 | 20 | 23.1 | 116 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 19.8 | 99 | 20 | 19.8 | 99 | 0 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 19.3 | 96 | 20 | 19.8 | 99 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 20.4 | 102 | 20 | 20.5 | 103 | 1 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 16.6 | 83 | 20 | 16.7 | 83 | 0 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 49.5 | 99 | 50 | 50.2 | 100 | 52-149 |
| Bromofluorobenzene | 50 | 51.1 | 102 | 50 | 52.5 | 105 | 65-135 |
| Toluene-d8 | 50 | 48.3 | 97 | 50 | 47.7 | 95 | 65-135 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

NT: IT CORPORATION
ECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C175
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 21.7 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2901 | | | | |
| LAB SAMP ID: | C175-01 | C175-01M | C175-01S | | |
| LAB FILE ID: | RCH623 | RCH624 | RCH625 | | |
| DATE EXTRACTED: | 03/24/0002:23 | 03/24/0003:01 | 03/24/0003:39 | DATE COLLECTED: | 03/22/00 |
| DATE ANALYZED: | 03/24/0002:23 | 03/24/0003:01 | 03/24/0003:39 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | VOC4804 | VOC4804 | VOC4804 | | |
| CALIB. REF: | RCH607 | RCH607 | RCH607 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/kg) | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 63.9 | 68.8 | 108 | 63.9 | 69.9 | 109 | 2 | 65-135 | 30 |
| Benzene | ND | 63.9 | 64.7 | 101 | 63.9 | 63.1 | 99 | 2 | 65-135 | 30 |
| Chlorobenzene | ND | 63.9 | 60.8 | 95 | 63.9 | 59.7 | 93 | 2 | 65-135 | 30 |
| Toluene | ND | 63.9 | 65.5 | 103 | 63.9 | 63.8 | 100 | 3 | 64-135 | 30 |
| Trichloroethene | ND | 63.9 | 55.5 | 87 | 63.9 | 54.2 | 85 | 2 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | MS RSLT (ug/kg) | MS % REC | SPIKE AMT (ug/kg) | MSD RSLT (ug/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Dichlorethane-d4 | 63.9 | 59.4 | 93 | 63.9 | 58.6 | 92 | 52-149 |
| ofluorobenzene | 63.9 | 69.6 | 109 | 63.9 | 69.2 | 108 | 65-135 |
| luene-d8 | 63.9 | 64.1 | 100 | 63.9 | 62.3 | 98 | 65-135 |

* : Out side of QC Limit

COMPLETED 6W 4/2/01 MG 4/4/01

the igroup

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10824

FORM 0019 REV. 9-99

UST 298

| IT'S LAB COORDINATOR | LAB COORDINATOR'S PHONE | LAB COORDINATOR'S FAX | LABORATORY SERVICE ID | LABORATORY CONTACT | MAIL REPORT (COMPANY NAME) |
|---|---|---|---|---|---|
| M. Concepcion | 949-660-7537 | 949-475-5433 | 00C236 | EMAX | IT Corp |

| PROJECT NAME | PROJECT LOCATION | PROJECT NUMBER | LABORATORY PHONE | LABORATORY FAX | RECIPIENT NAME |
|---|---|---|---|---|---|
| El Toro-D070 | MCAS El Toro, CA | 918709609 | 30-618-8889 | 30-618-0818 | Dwayne Ishida |

| PROJECT CONTACT | PROJECT PHONE NUMBER | PROJECT FAX | LABORATORY ADDRESS | ADDRESS |
|---|---|---|---|---|
| M. Concepcion | 949-451-1667 | 949-451-1667 72 | 630 Maple Dr. | 3347 Michelson #200 |

| PROJECT ADDRESS | CITY, STATE AND ZIP CODE | CLIENT | CITY, STATE AND ZIP CODE | CITY, STATE AND ZIP CODE |
|---|---|---|---|---|
| — | — | SWDIV | Torrance, CA 92 | Irvine, CA 92606 |

| PROJECT MANAGER | PROJECT MANAGER'S PHONE | PROJECT MANAGER'S FAX |
|---|---|---|
| B. Sedlak | 949-660-5446 | 949-475-5450 |

| Item | Sample Identifier | Matrix | 2000 Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-Gas | TPH-Diesel | 8260 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2916 | S | 3-30 | 1330 | 4°C | 2 | 3 | 48hr | X | X | X | | | | | | * Expect high Concentration * Rush * |
| 2 | 18609-2917 | S | 3-30 | 1340 | | | | 5day | X | X | X | | | | | | |
| 3 | 18609-2918 | S | 3-30 | 1350 | | | | 5day | X | X | X | | | | | | |
| 4 | 18609-2919 | S | | 1400 | | | | 5day | X | X | X | | | | | | |
| 5 | 18609-2920 | S | | 1430 | | | | 48hr | X | X | X | | | | | | * Rush * expect high Conc. |
| 6 | 18609-2921 | S | | 1440 | | | | 48hr | X | X | X | | | | | | * Rush * expect high conc |
| 7 | 18609-2922 | S | | 1415 | | | | 5day | X | X | X | | | | | | |
| 8 | 18609-2923 | S | | 1425 | | | | 5day | X | X | X | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

W.J. 3-30-00

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| [illegible signature] | [illegible signature] | 331 00 | 930 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

## Project Information Section For Project Personnel Only Do Not Submit to Laboratory

UST298

| Sample Point Location | Sample Type: G | C | F | QC |
|---|---|---|---|---|
| (1) UST298-EX2-01 Wall @ 4' | X | | | |
| (2) UST298-EX2-02 floor @ 10'8 | X | | | |
| (3) UST298-EX2-03 Wall @ 4' | X | | | |
| (4) UST298-EX2-04 floor @ 10' | X | | | |
| (5) UST298-EX2-05 Wall @ 4' | X | | | |
| (6) UST298-EX2-06 Wall @ 4' | X | | | |
| (7) UST298-EX1-14 Wall @ 4' (3' in) deep | X | | | |
| (8) UST298-EX1-15 Wall @ 4' (3' deep) | X | | | |

Comments

due 4/4/00 Received 4/4/00
due 4/7/00 rec'd 4/7/00
results to BS 4/11/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

4919/1800 AC

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 04-10-2000
EMAX Batch No.: 00C236

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

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Enclosed is the Laboratory report for samples received on 03/31/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2916 | C236-01 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2917 | C236-02 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2918 | C236-03 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2919 | C236-04 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2920 | C236-05 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2921 | C236-06 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2922 | C236-07 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| 18609-2923 | C236-08 | 03/30/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C236

Matrix : SOIL
Instrument ID : GCT043

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | DSD003SB | ND | 104 | 107 | 1 | NA | 10 | 2.1 | 04/04/0011:02 | 04/03/0016:00 | DD02003A | DD02002A | DSD003S | NA | 04/03/00 |
| LCS1S | DSD003SL | 465 | 119 | 113 | 1 | NA | 10 | 2.1 | 04/04/0011:44 | 04/03/0016:00 | DD02004A | DD02002A | DSD003S | NA | 04/03/00 |
| 18609-2916 | C236-01 | ND | 111 | 118 | 1 | 13.7 | 11.6 | 2.43 | 04/04/0012:26 | 04/03/0016:00 | DD02005A | DD02002A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2917 | C236-02 | ND | 127 | 136 | 1 | 16.1 | 11.9 | 2.5 | 04/04/0015:14 | 04/03/0016:00 | DD02009A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2917MS | C236-02M | 538 | 118 | 116 | 1 | 16.1 | 11.9 | 2.5 | 04/04/0015:56 | 04/03/0016:00 | DD02010A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2917MSD | C236-02S | 682 | 140 | 143 | 1 | 16.1 | 11.9 | 2.5 | 04/04/0016:38 | 04/03/0016:00 | DD02011A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2918 | C236-03 | ND | 102 | 106 | 1 | 15.7 | 11.9 | 2.49 | 04/04/0017:20 | 04/03/0016:00 | DD02012A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2919 | C236-04 | ND | 128 | 132 | 1 | 17.4 | 12.1 | 2.54 | 04/04/0018:02 | 04/03/0016:00 | DD02013A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2920 | C236-05 | ND | 107 | 112 | 1 | 12.6 | 11.4 | 2.4 | 04/04/0013:08 | 04/03/0016:00 | DD02006A | DD02002A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2921 | C236-06 | ND | 106 | 111 | 1 | 14.1 | 11.6 | 2.44 | 04/04/0013:50 | 04/03/0016:00 | DD02007A | DD02002A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2922 | C236-07 | 430* | 139 | 140 | 1 | 17.4 | 12.1 | 2.54 | 04/04/0018:44 | 04/03/0016:00 | DD02014A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |
| 18609-2923 | C236-08 | 220** | 107 | 109 | 1 | 17.0 | 12 | 2.53 | 04/04/0019:26 | 04/03/0016:00 | DD02015A | DD02008A | DSD003S | 03/30/00 | 03/31/00 |

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit
* : Pattern of Diesel and JP5 - calculated as Diesel
** : Not a typical pattern of JP5 - calculated as Diesel

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
LAB NO.: 00C236
METHOD: METHOD M8015

MATRIX: SOIL % MOISTURE: 16.1

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2917 | | | | |
| LAB SAMP ID: | C236-02 | C236-02M | C236-02S | | |
| LAB FILE ID: | DD02009A | DD02010A | DD02011A | | |
| DATE EXTRACTED: | 04/03/0016:00 | 04/03/0016:00 | 04/03/0016:00 | DATE COLLECTED: | 03/30/00 |
| DATE ANALYZED: | 04/04/0015:14 | 04/04/0015:56 | 04/04/0016:38 | DATE RECEIVED: | 03/31/00 |
| PREP. BATCH: | DSD003S | DSD003S | DSD003S | | |
| CALIB. REF: | DD02008A | DD02008A | DD02008A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 594 | 538 | 91 | 595 | 682 | 115 | 23 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 119 | 141 | 118 | 119 | 167 | 140 | 60-140 |
| Hexacosane | 59.4 | 69 | 116 | 59.5 | 85.2 | 143 | 55-150 |

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C236
METHOD: METHOD M8015

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | SOIL | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | |
| LAB SAMP ID: | DSD003SB | DSD003SL | | |
| LAB FILE ID: | DD02003A | DD02004A | | |
| DATE EXTRACTED: | 04/03/0016:00 | 04/03/0016:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/04/0011:02 | 04/04/0011:44 | DATE RECEIVED: | 04/03/00 |
| PREP. BATCH: | DSD003S | DSD003S | | |
| CALIB. REF: | DD02002A | DD02002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Diesel | ND | 499 | 465 | 93 | 51-153 |

==========

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|
| Bromobenzene | 99.7 | 118.3 | 119 | 60-140 |
| Hexacosane | 49.9 | 56.2 | 113 | 55-150 |

METHOD 5[illegible]/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00C236

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | VAD0139B | ND | 83 | 1 | NA | 1 | .088 | 04/03/0012:16 | 04/03/0012:16 | ED01004A | ED01003A | VAD0139 | NA | 04/03/00 |
| LCS1S | VAD0139L | 2.66 | 95 | 1 | NA | 1 | .088 | 04/03/0012:52 | 04/03/0012:52 | ED01005A | ED01003A | VAD0139 | NA | 04/03/00 |
| LCD1S | VAD0139C | 2.77 | 91 | 1 | NA | 1 | .088 | 04/03/0013:27 | 04/03/0013:27 | ED01006A | ED01003A | VAD0139 | NA | 04/03/00 |
| MBLK2S | VMD0239B | ND | 84 | 10 | NA | 10 | .88 | 04/04/0001:18 | 04/04/0001:18 | ED01026A | ED01024A | VMD0239 | NA | 04/04/00 |
| LCS2S | VMD0239L | 27.3 | 92 | 10 | NA | 10 | .88 | 04/04/0001:53 | 04/04/0001:53 | ED01027A | ED01024A | VMD0239 | NA | 04/04/00 |
| LCD2S | VMD0239C | 28.2 | 96 | 10 | NA | 10 | .88 | 04/04/0002:28 | 04/04/0002:28 | ED01028A | ED01024A | VMD0239 | NA | 04/04/00 |
| 18609-2916 | C236-01 | 1.3 | 82 | 1 | 13.7 | 1.16 | .102 | 04/03/0015:53 | 04/03/0015:53 | ED01010A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2917 | C236-02 | ND | 83 | 1 | 16.1 | 1.19 | .105 | 04/03/0014:04 | 04/03/0014:04 | ED01007A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2917MS | C236-02M | 3.18 | 91 | 1 | 16.1 | 1.19 | .105 | 04/03/0014:40 | 04/03/0014:40 | ED01008A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2917MSD | C236-02S | 3.19 | 89 | 1 | 16.1 | 1.19 | .105 | 04/03/0015:16 | 04/03/0015:16 | ED01009A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2918 | C236-03 | ND | 82 | 1 | 15.7 | 1.19 | .104 | 04/03/0016:29 | 04/03/0016:29 | ED01011A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2919 | C236-04 | ND | 87 | 1 | 17.4 | 1.21 | .107 | 04/03/0019:29 | 04/03/0019:29 | ED01016A | ED01015A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2920 | C236-05 | ND | 80 | 1 | 12.6 | 1.14 | .101 | 04/03/0017:05 | 04/03/0017:05 | ED01012A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2921 | C236-06 | ND | 79 | 1 | 14.1 | 1.16 | .102 | 04/03/0017:41 | 04/03/0017:41 | ED01013A | ED01003A | VAD0139 | 03/30/00 | 03/31/00 |
| 18609-2922 | C236-07 | 650 | 119 | 50 | 17.4 | 60.5 | 5.33 | 04/04/0003:03 | 04/04/0003:03 | ED01029A | ED01024A | VMD0239 | 03/30/00 | 03/31/00 |
| 18609-2923 | C236-08 | 120 | 112 | 20 | 17.0 | 24.1 | 2.12 | 04/04/0004:48 | 04/04/0004:48 | ED01032A | ED01024A | VMD0239 | 03/30/00 | 03/31/00 |

SURR : Bromofluorobenzene
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/00. 70
BATCH NO.: 00C236
METHOD: METHOD 5030B/M8015

MATRIX: SOIL
% MOISTURE: NA

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | MBLK1S | | |
| LAB SAMP ID: | VAD0139B | VAD0139L | VAD0139C |
| LAB FILE ID: | ED01004A | ED01005A | ED01006A |
| DATE EXTRACTED: | 04/03/0012:16 | 04/03/0012:52 | 04/03/0013:27 |
| DATE ANALYZED: | 04/03/0012:16 | 04/03/0012:52 | 04/03/0013:27 |
| PREP. BATCH: | VAD0139 | VAD0139 | VAD0139 |
| CALIB. REF: | ED01003A | ED01003A | ED01003A |

DATE COLLECTED: NA
DATE RECEIVED: 04/03/00

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 2.66 | 97 | 2.75 | 2.77 | 101 | 4 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .236 | 95 | .25 | .227 | 91 | 60-140 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
CT: MCAS EL TORO/18609/D.O. 70
NO.: 00C236
METHOD: METHOD 5030B/M8015

==========

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 10 | 10 | 10 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VMD0239B | VMD0239L | VMD0239C | | |
| LAB FILE ID: | ED01026A | ED01027A | ED01028A | | |
| DATE EXTRACTED: | 04/04/0001:18 | 04/04/0001:53 | 04/04/0002:28 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/04/0001:18 | 04/04/0001:53 | 04/04/0002:28 | DATE RECEIVED: | 04/04/00 |
| PREP. BATCH: | VMD0239 | VMD0239 | VMD0239 | | |
| CALIB. REF: | ED01024A | ED01024A | ED01024A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 27.5 | 27.3 | 99 | 27.5 | 28.2 | 102 | 3 | 57-146 | 50 |

==========

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | 2.5 | 2.3 | 92 | 2.5 | 2.4 | 96 | 60-140 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C236
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 16.1 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2917 | | | | |
| LAB SAMP ID: | C236-02 | C236-02M | C236-02S | | |
| LAB FILE ID: | ED01007A | ED01008A | ED01009A | | |
| DATE EXTRACTED: | 04/03/0014:04 | 04/03/0014:40 | 04/03/0015:16 | DATE COLLECTED: | 03/30/00 |
| DATE ANALYZED: | 04/03/0014:04 | 04/03/0014:40 | 04/03/0015:16 | DATE RECEIVED: | 03/31/00 |
| PREP. BATCH: | VAD0139 | VAD0139 | VAD0139 | | |
| CALIB. REF: | ED01003A | ED01003A | ED01003A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 3.28 | 3.18 | 97 | 3.28 | 3.19 | 97 | 0 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .298 | .272 | 91 | .298 | .265 | 89 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | 03/30/00 |
| ect | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 08:06 |
| Sample ID: | 18609-2916 | Date Analyzed: | 04/04/00 08:06 |
| Lab Samp ID: | C236-01 | Dilution Factor: | 1 |
| Lab File ID: | RDH058 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | 13.7 |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .86 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .76 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .61 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .56 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .63 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .86 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.3 |
| ACETONE | 12J | 58 | 3.3 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .69 |
| BROMOMETHANE | ND | 5.8 | 4.2 |
| CARBON DISULFIDE | ND | 5.8 | .39 |
| CARBON TETRACHLORIDE | ND | 5.8 | .62 |
| CHLOROBENZENE | ND | 5.8 | .54 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| ROFORM | ND | 5.8 | .61 |
| ROMETHANE | ND | 5.8 | .61 |
| CIS-1,2-DICHLOROETHENE | ND | 5.8 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .43 |
| ETHYLBENZENE | 18 | 5.8 | .53 |
| MTBE | ND | 12 | .88 |
| METHYLENE CHLORIDE | ND | 5.8 | 3.5 |
| STYRENE | ND | 5.8 | .4 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | 1.5J | 5.8 | .67 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .52 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .96 |
| VINYL CHLORIDE | ND | 5.8 | .68 |
| XYLENES | 82 | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 84 | 52-149 |
| BROMOFLUOROBENZENE | 110 | 65-135 |
| TOLUENE-D8 | 106 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/30/00 |
| Project | : MCAS EL TORO/18609/P.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 10:00 |
| Sample ID: | 18609-2917 | Date Analyzed: | 04/04/00 10:00 |
| Lab Samp ID: | C236-02 | Dilution Factor: | 1 |
| Lab File ID: | RDH061 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | 16.1 |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6 | .88 |
| 1,1,2-TRICHLOROETHANE | ND | 6 | .78 |
| 1,1-DICHLOROETHANE | ND | 6 | .62 |
| 1,1-DICHLOROETHENE | ND | 6 | .57 |
| 1,2-DICHLOROETHANE | ND | 6 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6 | .65 |
| 2-BUTANONE | ND | 60 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 60 | .88 |
| 2-HEXANONE | ND | 60 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 60 | 3.3 |
| ACETONE | ND | 60 | 3.4 |
| BENZENE | ND | 6 | .63 |
| BROMODICHLOROMETHANE | ND | 6 | .5 |
| BROMOFORM | ND | 6 | .71 |
| BROMOMETHANE | ND | 6 | 4.3 |
| CARBON DISULFIDE | ND | 6 | .4 |
| CARBON TETRACHLORIDE | ND | 6 | .64 |
| CHLOROBENZENE | ND | 6 | .55 |
| CHLOROETHANE | ND | 6 | 1.1 |
| CHLOROFORM | ND | 6 | .62 |
| CHLOROMETHANE | ND | 6 | .63 |
| CIS-1,2-DICHLOROETHENE | ND | 6 | .55 |
| CIS-1,3-DICHLOROPROPENE | ND | 6 | .48 |
| DIBROMOCHLOROMETHANE | ND | 6 | .44 |
| ETHYLBENZENE | ND | 6 | .55 |
| MTBE | ND | 12 | .9 |
| METHYLENE CHLORIDE | ND | 6 | 3.6 |
| STYRENE | ND | 6 | .41 |
| TETRACHLOROETHENE | ND | 6 | .4 |
| TOLUENE | ND | 6 | .69 |
| TRANS-1,2-DICHLOROETHENE | ND | 6 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6 | .54 |
| TRICHLOROETHENE | ND | 6 | .73 |
| VINYL ACETATE | ND | 60 | .99 |
| VINYL CHLORIDE | ND | 6 | .7 |
| XYLENES | ND | 6 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 82 | 52-149 |
| BROMOFLUOROBENZENE | 107 | 65-135 |
| TOLUENE-D8 | 98 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| ıt | : IT CORPORATION | Date Collected: | 03/30/00 |
| ect | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 11:54 |
| Sample ID: | 18609-2918 | Date Analyzed: | 04/04/00 11:54 |
| Lab Samp ID: | C236-03 | Dilution Factor: | 1 |
| Lab File ID: | RDH064 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | 15.7 |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.9 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.9 | .88 |
| 1,1,2-TRICHLOROETHANE | ND | 5.9 | .78 |
| 1,1-DICHLOROETHANE | ND | 5.9 | .62 |
| 1,1-DICHLOROETHENE | ND | 5.9 | .57 |
| 1,2-DICHLOROETHANE | ND | 5.9 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 5.9 | .65 |
| 2-BUTANONE | ND | 59 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 59 | .88 |
| 2-HEXANONE | ND | 59 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 59 | 3.3 |
| ACETONE | ND | 59 | 3.4 |
| BENZENE | ND | 5.9 | .62 |
| BROMODICHLOROMETHANE | ND | 5.9 | .5 |
| BROMOFORM | ND | 5.9 | .7 |
| BROMOMETHANE | ND | 5.9 | 4.3 |
| CARBON DISULFIDE | ND | 5.9 | .4 |
| CARBON TETRACHLORIDE | ND | 5.9 | .64 |
| CHLOROBENZENE | ND | 5.9 | .55 |
| CHLOROETHANE | ND | 5.9 | 1.1 |
| ?OFORM | ND | 5.9 | .62 |
| ROMETHANE | ND | 5.9 | .63 |
| CIS-1,2-DICHLOROETHENE | ND | 5.9 | .54 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.9 | .48 |
| DIBROMOCHLOROMETHANE | ND | 5.9 | .44 |
| ETHYLBENZENE | ND | 5.9 | .54 |
| MTBE | ND | 12 | .9 |
| METHYLENE CHLORIDE | ND | 5.9 | 3.6 |
| STYRENE | ND | 5.9 | .4 |
| TETRACHLOROETHENE | ND | 5.9 | .4 |
| TOLUENE | ND | 5.9 | .68 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.9 | .56 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.9 | .53 |
| TRICHLOROETHENE | ND | 5.9 | .73 |
| VINYL ACETATE | ND | 59 | .98 |
| VINYL CHLORIDE | ND | 5.9 | .69 |
| XYLENES | ND | 5.9 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 86 | 52-149 |
| BROMOFLUOROBENZENE | 112 | 65-135 |
| TOLUENE-D8 | 105 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/30/00 |
| Project | : MCAS EL TORO/18609/P.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 18:31 |
| Sample ID: | 18609-2919 | Date Analyzed: | 04/04/00 18:31 |
| Lab Samp ID: | C236-04 | Dilution Factor: | 1 |
| Lab File ID: | RDH071 | Matrix : | SOIL |
| Ext Btch ID: | VOD0504 | % Moisture : | 17.4 |
| Calib. Ref.: | RDH066 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6.1 | .41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6.1 | .89 |
| 1,1,2-TRICHLOROETHANE | ND | 6.1 | .79 |
| 1,1-DICHLOROETHANE | ND | 6.1 | .63 |
| 1,1-DICHLOROETHENE | ND | 6.1 | .58 |
| 1,2-DICHLOROETHANE | ND | 6.1 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 6.1 | .66 |
| 2-BUTANONE | ND | 61 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 61 | .9 |
| 2-HEXANONE | ND | 61 | 1.8 |
| 4-METHYL-2-PENTANONE | ND | 61 | 3.4 |
| ACETONE | ND | 61 | 3.5 |
| BENZENE | ND | 6.1 | .64 |
| BROMODICHLOROMETHANE | ND | 6.1 | .51 |
| BROMOFORM | ND | 6.1 | .72 |
| BROMOMETHANE | ND | 6.1 | 4.3 |
| CARBON DISULFIDE | ND | 6.1 | .4 |
| CARBON TETRACHLORIDE | ND | 6.1 | .65 |
| CHLOROBENZENE | ND | 6.1 | .56 |
| CHLOROETHANE | ND | 6.1 | 1.1 |
| CHLOROFORM | ND | 6.1 | .63 |
| CHLOROMETHANE | ND | 6.1 | .64 |
| CIS-1,2-DICHLOROETHENE | ND | 6.1 | .56 |
| CIS-1,3-DICHLOROPROPENE | ND | 6.1 | .49 |
| DIBROMOCHLOROMETHANE | ND | 6.1 | .44 |
| ETHYLBENZENE | ND | 6.1 | .56 |
| MTBE | ND | 12 | .92 |
| METHYLENE CHLORIDE | ND | 6.1 | 3.7 |
| STYRENE | ND | 6.1 | .41 |
| TETRACHLOROETHENE | ND | 6.1 | .41 |
| TOLUENE | ND | 6.1 | .7 |
| TRANS-1,2-DICHLOROETHENE | ND | 6.1 | .57 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6.1 | .54 |
| TRICHLOROETHENE | ND | 6.1 | .74 |
| VINYL ACETATE | ND | 61 | 1 |
| VINYL CHLORIDE | ND | 6.1 | .71 |
| XYLENES | ND | 6.1 | 1.4 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 81 | 52-149 |
| BROMOFLUOROBENZENE | 107 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/30/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 09:22 |
| Sample ID: | 18609-2920 | Date Analyzed: | 04/04/00 09:22 |
| Lab Samp ID: | C236-05 | Dilution Factor: | 1 |
| Lab File ID: | RDH060 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | 12.6 |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .84 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .75 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .63 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .85 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | ND | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .48 |
| BROMOFORM | ND | 5.7 | .68 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 5.7 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .61 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1.1 |
| CHLOROFORM | ND | 5.7 | .6 |
| CHLOROMETHANE | ND | 5.7 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | ND | 5.7 | .53 |
| MTBE | ND | 11 | .86 |
| METHYLENE CHLORIDE | ND | 5.7 | 3.5 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .39 |
| TOLUENE | ND | 5.7 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .51 |
| TRICHLOROETHENE | ND | 5.7 | .7 |
| VINYL ACETATE | ND | 57 | .95 |
| VINYL CHLORIDE | ND | 5.7 | .67 |
| XYLENES | ND | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 86 | 52-149 |
| BROMOFLUOROBENZENE | 114 | 65-135 |
| TOLUENE-D8 | 92 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/30/00 |
| Project | : MCAS EL TORO/18609/D.O. | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 10:38 |
| Sample ID: | 18609-2921 | Date Analyzed: | 04/04/00 10:38 |
| Lab Samp ID: | C236-06 | Dilution Factor: | 1 |
| Lab File ID: | RDH062 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | 14.1 |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .86 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .76 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .61 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .56 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .64 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .86 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.3 |
| ACETONE | 6.2J | 58 | 3.4 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .69 |
| BROMOMETHANE | ND | 5.8 | 4.2 |
| CARBON DISULFIDE | ND | 5.8 | .39 |
| CARBON TETRACHLORIDE | ND | 5.8 | .63 |
| CHLOROBENZENE | ND | 5.8 | .54 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| CHLOROFORM | ND | 5.8 | .61 |
| CHLOROMETHANE | ND | 5.8 | .61 |
| CIS-1,2-DICHLOROETHENE | ND | 5.8 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .43 |
| ETHYLBENZENE | 30 | 5.8 | .53 |
| MTBE | ND | 12 | .88 |
| METHYLENE CHLORIDE | ND | 5.8 | 3.5 |
| STYRENE | ND | 5.8 | .4 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | ND | 5.8 | .67 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .52 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .97 |
| VINYL CHLORIDE | ND | 5.8 | .68 |
| XYLENES | 62 | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 92 | 52-149 |
| BROMOFLUOROBENZENE | 99 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| ·nt | : IT CORPORATION | Date Collected: | 03/30/00 |
| ·ect | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/05/00 15:18 |
| Sample ID: | 18609-2922 | Date Analyzed: | 04/05/00 15:18 |
| Lab Samp ID: | C236-07 | Dilution Factor: | 100 |
| Lab File ID: | RDH104 | Matrix : | SOIL |
| Ext Btch ID: | VOD0704 | % Moisture : | 17.4 |
| Calib. Ref.: | RDH087 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 610 | 41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 610 | 89 |
| 1,1,2-TRICHLOROETHANE | ND | 610 | 79 |
| 1,1-DICHLOROETHANE | ND | 610 | 63 |
| 1,1-DICHLOROETHENE | ND | 610 | 58 |
| 1,2-DICHLOROETHANE | ND | 610 | 120 |
| 1,2-DICHLOROPROPANE | ND | 610 | 66 |
| 2-BUTANONE | ND | 6100 | 180 |
| 2-CHLOROETHYLVINYLETHER | ND | 6100 | 90 |
| 2-HEXANONE | ND | 6100 | 180 |
| 4-METHYL-2-PENTANONE | ND | 6100 | 340 |
| ACETONE | ND | 6100 | 350 |
| BENZENE | ND | 610 | 64 |
| BROMODICHLOROMETHANE | ND | 610 | 51 |
| BROMOFORM | ND | 610 | 72 |
| BROMOMETHANE | ND | 610 | 430 |
| CARBON DISULFIDE | ND | 610 | 40 |
| CARBON TETRACHLORIDE | ND | 610 | 65 |
| CHLOROBENZENE | ND | 610 | 56 |
| CHLOROETHANE | ND | 610 | 110 |
| ·ROFORM | ND | 610 | 63 |
| ·ROMETHANE | ND | 610 | 64 |
| CIS-1,2-DICHLOROETHENE | ND | 610 | 56 |
| CIS-1,3-DICHLOROPROPENE | ND | 610 | 49 |
| DIBROMOCHLOROMETHANE | ND | 610 | 44 |
| ETHYLBENZENE | 4200 | 610 | 56 |
| MTBE | ND | 1200 | 92 |
| METHYLENE CHLORIDE | ND | 610 | 370 |
| STYRENE | ND | 610 | 41 |
| TETRACHLOROETHENE | ND | 610 | 41 |
| TOLUENE | ND | 610 | 70 |
| TRANS-1,2-DICHLOROETHENE | ND | 610 | 57 |
| TRANS-1,3-DICHLOROPROPENE | ND | 610 | 54 |
| TRICHLOROETHENE | ND | 610 | 74 |
| VINYL ACETATE | ND | 6100 | 100 |
| VINYL CHLORIDE | ND | 610 | 71 |
| XYLENES | 6300 | 610 | 140 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 78 | 52-149 |
| BROMOFLUOROBENZENE | 91 | 65-135 |
| TOLUENE-D8 | 99 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/30/00 |
| Project | : MCAS EL TORO/18609-0. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 19:09 |
| Sample ID: | 18609-2923 | Date Analyzed: | 04/04/00 19:09 |
| Lab Samp ID: | C236-08 | Dilution Factor: | 100 |
| Lab File ID: | RDH072 | Matrix : | SOIL |
| Ext Btch ID: | VOD0504 | % Moisture : | 17.0 |
| Calib. Ref.: | RDH066 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 600 | 41 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 600 | 89 |
| 1,1,2-TRICHLOROETHANE | ND | 600 | 79 |
| 1,1-DICHLOROETHANE | ND | 600 | 63 |
| 1,1-DICHLOROETHENE | ND | 600 | 58 |
| 1,2-DICHLOROETHANE | ND | 600 | 120 |
| 1,2-DICHLOROPROPANE | ND | 600 | 66 |
| 2-BUTANONE | ND | 6000 | 180 |
| 2-CHLOROETHYLVINYLETHER | ND | 6000 | 89 |
| 2-HEXANONE | ND | 6000 | 180 |
| 4-METHYL-2-PENTANONE | ND | 6000 | 340 |
| ACETONE | ND | 6000 | 350 |
| BENZENE | 790 | 600 | 63 |
| BROMODICHLOROMETHANE | ND | 600 | 51 |
| BROMOFORM | ND | 600 | 71 |
| BROMOMETHANE | ND | 600 | 430 |
| CARBON DISULFIDE | ND | 600 | 40 |
| CARBON TETRACHLORIDE | ND | 600 | 65 |
| CHLOROBENZENE | ND | 600 | 56 |
| CHLOROETHANE | ND | 600 | 110 |
| CHLOROFORM | ND | 600 | 63 |
| CHLOROMETHANE | ND | 600 | 63 |
| CIS-1,2-DICHLOROETHENE | ND | 600 | 55 |
| CIS-1,3-DICHLOROPROPENE | ND | 600 | 48 |
| DIBROMOCHLOROMETHANE | ND | 600 | 44 |
| ETHYLBENZENE | 20000 | 600 | 55 |
| MTBE | ND | 1200 | 91 |
| METHYLENE CHLORIDE | ND | 600 | 360 |
| STYRENE | ND | 600 | 41 |
| TETRACHLOROETHENE | ND | 600 | 41 |
| TOLUENE | 34000E | 600 | 69 |
| TRANS-1,2-DICHLOROETHENE | ND | 600 | 57 |
| TRANS-1,3-DICHLOROPROPENE | ND | 600 | 54 |
| TRICHLOROETHENE | ND | 600 | 74 |
| VINYL ACETATE | ND | 6000 | 100 |
| VINYL CHLORIDE | ND | 600 | 70 |
| XYLENES | 110000E | 600 | 140 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 61 | 52-149 |
| BROMOFLUOROBENZENE | 93 | 65-135 |
| TOLUENE-D8 | 103 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | 03/30/00 |
| ect | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/31/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/05/00 10:56 |
| Sample ID: | 18609-29230L | Date Analyzed: | 04/05/00 10:56 |
| Lab Samp ID: | C236-08T | Dilution Factor: | 1000 |
| Lab File ID: | RDH097 | Matrix : | SOIL |
| Ext Btch ID: | VOD0704 | % Moisture : | 17.0 |
| Calib. Ref.: | RDH087 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 6000 | 410 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 6000 | 890 |
| 1,1,2-TRICHLOROETHANE | ND | 6000 | 790 |
| 1,1-DICHLOROETHANE | ND | 6000 | 630 |
| 1,1-DICHLOROETHENE | ND | 6000 | 580 |
| 1,2-DICHLOROETHANE | ND | 6000 | 1200 |
| 1,2-DICHLOROPROPANE | ND | 6000 | 660 |
| 2-BUTANONE | ND | 60000 | 1800 |
| 2-CHLOROETHYLVINYLETHER | ND | 60000 | 890 |
| 2-HEXANONE | ND | 60000 | 1800 |
| 4-METHYL-2-PENTANONE | ND | 60000 | 3400 |
| ACETONE | ND | 60000 | 3500 |
| BENZENE | ND | 6000 | 630 |
| BROMODICHLOROMETHANE | ND | 6000 | 510 |
| BROMOFORM | ND | 6000 | 710 |
| BROMOMETHANE | ND | 6000 | 4300 |
| CARBON DISULFIDE | ND | 6000 | 400 |
| CARBON TETRACHLORIDE | ND | 6000 | 650 |
| CHLOROBENZENE | ND | 6000 | 560 |
| CHLOROETHANE | ND | 6000 | 1100 |
| ROFORM | ND | 6000 | 630 |
| ROMETHANE | ND | 6000 | 630 |
| CIS-1,2-DICHLOROETHENE | ND | 6000 | 550 |
| CIS-1,3-DICHLOROPROPENE | ND | 6000 | 480 |
| DIBROMOCHLOROMETHANE | ND | 6000 | 440 |
| ETHYLBENZENE | 19000D | 6000 | 550 |
| MTBE | ND | 12000 | 910 |
| METHYLENE CHLORIDE | ND | 6000 | 3600 |
| STYRENE | ND | 6000 | 410 |
| TETRACHLOROETHENE | ND | 6000 | 410 |
| TOLUENE | 30000D | 6000 | 690 |
| TRANS-1,2-DICHLOROETHENE | ND | 6000 | 570 |
| TRANS-1,3-DICHLOROPROPENE | ND | 6000 | 540 |
| TRICHLOROETHENE | ND | 6000 | 740 |
| VINYL ACETATE | ND | 60000 | 1000 |
| VINYL CHLORIDE | ND | 6000 | 700 |
| XYLENES | 120000D | 6000 | 1400 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 81 | 52-149 |
| BROMOFLUOROBENZENE | 97 | 65-135 |
| TOLUENE-D8 | 94 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18608/P.O. 70 | Date Received: | 04/04/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 04:18 |
| Sample ID: | MBLK1S | Date Analyzed: | 04/04/00 04:18 |
| Lab Samp ID: | VOD0404B | Dilution Factor: | 1 |
| Lab File ID: | RDH052 | Matrix : | SOIL |
| Ext Btch ID: | VOD0404 | % Moisture : | NA |
| Calib. Ref.: | RDH049 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 86 | 52-149 |
| BROMOFLUOROBENZENE | 109 | 65-135 |
| TOLUENE-D8 | 102 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/04/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/04/00 17:15 |
| Sample ID: | MBLK2S | Date Analyzed: | 04/04/00 17:15 |
| Lab Samp ID: | V000504B | Dilution Factor: | 1 |
| Lab File ID: | RDH069 | Matrix : | SOIL |
| Ext Btch ID: | V000504 | % Moisture : | NA |
| Calib. Ref.: | RDH066 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 85 | 52-149 |
| BROMOFLUOROBENZENE | 99 | 65-135 |
| TOLUENE-D8 | 95 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/P.O. 70 | Date Received: | 04/05/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/05/00 07:09 |
| Sample ID: | MBLK3S | Date Analyzed: | 04/05/00 07:09 |
| Lab Samp ID: | V0D07048 | Dilution Factor: | 1 |
| Lab File ID: | RDH091 | Matrix : | SOIL |
| Ext Btch ID: | V0D0704 | % Moisture : | NA |
| Calib. Ref.: | RDH087 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 102 | 65-135 |
| TOLUENE-D8 | 96 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| nt | : IT CORPORATION | Date Collected: | NA |
| ct | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/05/00 |
| Batch No. | : 00C236 | Date Extracted: | 04/05/00 07:47 |
| Sample ID: | MBLK4S | Date Analyzed: | 04/05/00 07:47 |
| Lab Samp ID: | VOD0804B | Dilution Factor: | 50 |
| Lab File ID: | RDH092 | Matrix : | SOIL |
| Ext Btch ID: | VOD0704 | % Moisture : | NA |
| Calib. Ref.: | RDH087 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 250 | 17 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 250 | 37 |
| 1,1,2-TRICHLOROETHANE | ND | 250 | 33 |
| 1,1-DICHLOROETHANE | ND | 250 | 26 |
| 1,1-DICHLOROETHENE | ND | 250 | 24 |
| 1,2-DICHLOROETHANE | ND | 250 | 49 |
| 1,2-DICHLOROPROPANE | ND | 250 | 27 |
| 2-BUTANONE | ND | 2500 | 76 |
| 2-CHLOROETHYLVINYLETHER | ND | 2500 | 37 |
| 2-HEXANONE | ND | 2500 | 74 |
| 4-METHYL-2-PENTANONE | ND | 2500 | 140 |
| ACETONE | ND | 2500 | 140 |
| BENZENE | ND | 250 | 26 |
| BROMODICHLOROMETHANE | ND | 250 | 21 |
| BROMOFORM | ND | 250 | 30 |
| BROMOMETHANE | ND | 250 | 180 |
| CARBON DISULFIDE | ND | 250 | 17 |
| CARBON TETRACHLORIDE | ND | 250 | 27 |
| CHLOROBENZENE | ND | 250 | 23 |
| CHLOROETHANE | ND | 250 | 46 |
| ROFORM | ND | 250 | 26 |
| OMETHANE | ND | 250 | 26 |
| CIS-1,2-DICHLOROETHENE | ND | 250 | 23 |
| CIS-1,3-DICHLOROPROPENE | ND | 250 | 20 |
| DIBROMOCHLOROMETHANE | ND | 250 | 18 |
| ETHYLBENZENE | ND | 250 | 23 |
| MTBE | ND | 500 | 38 |
| METHYLENE CHLORIDE | ND | 250 | 150 |
| STYRENE | ND | 250 | 17 |
| TETRACHLOROETHENE | ND | 250 | 17 |
| TOLUENE | ND | 250 | 29 |
| TRANS-1,2-DICHLOROETHENE | ND | 250 | 24 |
| TRANS-1,3-DICHLOROPROPENE | ND | 250 | 22 |
| TRICHLOROETHENE | ND | 250 | 31 |
| VINYL ACETATE | ND | 2500 | 41 |
| VINYL CHLORIDE | ND | 250 | 29 |
| XYLENES | ND | 250 | 57 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 85 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 86 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/186090010. 70
BATCH NO.: 00C236
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOD0404B | VOD0404L | VOD0404C | | |
| LAB FILE ID: | RDH052 | RDH050 | RDH051 | | |
| DATE EXTRACTED: | 04/04/0004:18 | 04/04/0003:03 | 04/04/0003:40 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/04/0004:18 | 04/04/0003:03 | 04/04/0003:40 | DATE RECEIVED: | 04/04/00 |
| PREP. BATCH: | VOD0404 | VOD0404 | VOD0404 | | |
| CALIB. REF: | RDH049 | RDH049 | RDH049 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 19.8 | 99 | 20 | 18.7 | 93 | 6 | 65-135 | 30 |
| Benzene | ND | 20 | 21.1 | 105 | 20 | 20.6 | 103 | 2 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 21.2 | 106 | 20 | 21.3 | 107 | 1 | 65-135 | 30 |
| Toluene | ND | 20 | 20.7 | 104 | 20 | 21.2 | 106 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 22.2 | 111 | 20 | 21.3 | 106 | 4 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 46.8 | 94 | 50 | 45.4 | 91 | 52-149 |
| Bromofluorobenzene | 50 | 52 | 104 | 50 | 53.3 | 107 | 65-135 |
| Toluene-d8 | 50 | 51 | 102 | 50 | 51.7 | 103 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
JOB NO.: 00C236
METHOD: METHOD 5030A/8260A

MATRIX: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2S | | | | |
| LAB SAMP ID: | VOD0504B | VOD0504L | VOD0504C | | |
| LAB FILE ID: | RDH069 | RDH067 | RDH068 | | |
| DATE EXTRACTED: | 04/04/0017:15 | 04/04/0015:58 | 04/04/0016:37 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/04/0017:15 | 04/04/0015:58 | 04/04/0016:37 | DATE RECEIVED: | 04/04/00 |
| PREP. BATCH: | VOD0504 | VOD0504 | VOD0504 | | |
| CALIB. REF: | RDH066 | RDH066 | RDH066 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 17.8 | 89 | 20 | 17.8 | 89 | 0 | 65-135 | 30 |
| Benzene | ND | 20 | 19.4 | 97 | 20 | 20.1 | 100 | 3 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 20 | 100 | 20 | 20.6 | 103 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 19.9 | 100 | 20 | 21 | 105 | 5 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 20.2 | 101 | 20 | 20 | 100 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 43.5 | 87 | 50 | 43.2 | 86 | 52-149 |
| [illegible]fluorobenzene | 50 | 48.1 | 96 | 50 | 48.5 | 97 | 65-135 |
| [illegible]ne-d8 | 50 | 48.2 | 96 | 50 | 47.7 | 95 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C236
METHOD: METHOD 5030A/8260A

MATRIX: SOIL | % MOISTURE: NA

| | | | |
|---|---|---|---|
| DILUTION FACTOR: | 1 | 1 | 1 |
| SAMPLE ID: | MBLK3S | | |
| LAB SAMP ID: | VOD0704B | VOD0704L | VOD0704C |
| LAB FILE ID: | RDH091 | RDH089 | RDH090 |
| DATE EXTRACTED: | 04/05/0007:09 | 04/05/0005:53 | 04/05/0006:31 |
| DATE ANALYZED: | 04/05/0007:09 | 04/05/0005:53 | 04/05/0006:31 |
| PREP. BATCH: | VOD0704 | VOD0704 | VOD0704 |
| CALIB. REF: | RDH087 | RDH087 | RDH087 |

DATE COLLECTED: NA
DATE RECEIVED: 04/05/00

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 19.9 | 100 | 20 | 19.1 | 96 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 21.1 | 105 | 20 | 20.6 | 103 | 2 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 21.2 | 106 | 20 | 20.6 | 103 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 20.9 | 105 | 20 | 20.9 | 104 | 0 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 22.2 | 111 | 20 | 21.9 | 109 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 43.8 | 88 | 50 | 42.7 | 85 | 52-149 |
| Bromofluorobenzene | 50 | 47.5 | 95 | 50 | 46.4 | 93 | 65-135 |
| Toluene-d8 | 50 | 47.2 | 94 | 50 | 46.4 | 93 | 65-135 |

LDC Report# 4668F8

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 15, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C135

**Sample Identification**

18609-2860
18609-2861
18609-2862
18609-2864

## Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00C135**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00C135**

No Sample Data Qualified in this SDG

LDC Report# 4668F7

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 15, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C135

**Sample Identification**

18609-2860
18609-2861
18609-2862
18609-2864

## Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00C135**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00C135**

No Sample Data Qualified in this SDG

LDC Report# 4668F1

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 15, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C135

**Sample Identification**

18609-2860
18609-2861
18609-2862
18609-2864

## Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %D (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/22/00 | 4-Methyl-2-pentanone | 54.4 (≤50.0) | 18609-2861<br>18609-2862<br>18609-2864<br>MBLK2S | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration RRF values were within validation criteria.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00C135

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00C135 | 18609-2861<br>18609-2862<br>18609-2864 | 4-Methyl-2-pentanone | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00C135

No Sample Data Qualified in this SDG

LDC Report# 4668G8

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 20, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C161

**Sample Identification**

18609-2881
18609-2882
18609-2882MS
18609-2882MSD

## Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00C161**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00C161**

No Sample Data Qualified in this SDG

LDC Report# 4668G7

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 20, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C161

**Sample Identification**

18609-2881
18609-2882

## Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00C161**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00C161**

No Sample Data Qualified in this SDG

LDC Report# 4668G1

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 20, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C161

**Sample Identification**

18609-2881
18609-2881DL
18609-2882

## Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %D (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/22/00 | 4-Methyl-2-pentanone | 54.4 (≤50.0) | 18609-2881DL<br>MBLK2S | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration RRF values were within validation criteria.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis Date | Compound TIC (RT in minutes) | Concentration | Associated Samples |
|---|---|---|---|---|
| MBLK2S | 3/22/00 | Methylene chloride | 1.8 ug/Kg | 18609-2881DL |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|---|---|---|---|---|---|
| 18609-2881 | Ethylbenzene<br>Toluene<br>Xylenes, total | Sample result exceeded calibration range. | Reported result should be within calibration range. | J (all detects)<br>J (all detects)<br>J (all detects) | A |

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00C161

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00C161 | 18609-2881DL ✓ | 4-Methyl-2-pentanone | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |
| 00C161 | 18609-2881 ✗ | Ethylbenzene<br>Toluene<br>Xylenes, total | J (all detects)<br>J (all detects)<br>J (all detects) | A | Compound quantitation and CRQLs |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00C161

No Sample Data Qualified in this SDG

LDC Report# 4668H8

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 21, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C165

**Sample Identification**

18609-2884
18609-2885
18609-2886
18609-2887
18609-2888
18609-2887MS
18609-2887MSD

## Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00C165**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00C165**

No Sample Data Qualified in this SDG

LDC Report# 4668H7

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 21, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C165

**Sample Identification**

18609-2884
18609-2885
18609-2886
18609-2887
18609-2888
18609-2886MS
18609-2886MSD

## Introduction

This data review covers 7 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00C165**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00C165**

No Sample Data Qualified in this SDG

LDC Report# 4668H1

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 21, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C165

**Sample Identification**

18609-2884
18609-2885
18609-2886
18609-2887
18609-2888

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %D (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/23/00 | Acetone | 55.9 (≤50.0) | 18609-2884<br>18609-2885<br>MBLK1S | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration RRF values were within validation criteria with the following exceptions:

| Date | Compound | RRF (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/26/00 | Acetone | 0.04676 (≥0.05) | 18609-2888<br>MBLK2S | J (all detects)<br>R (all non-detects) | A |

| Date | Compound | RRF (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/27/00 | Acetone | 0.04305 (≥0.05) | 18609-2886<br>18609-2887<br>MBLK3S | J (all detects)<br>R (all non-detects) | A |

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis Date | Compound TIC (RT in minutes) | Concentration | Associated Samples |
|---|---|---|---|---|
| MBLK1S | 3/23/00 | Methylene chloride | 8.5 ug/Kg | 18609-2884<br>18609-2885 |
| MBLK2S | 3/26/00 | Methylene chloride | 4.2 ug/Kg | 18609-2888 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Compound TIC (RT in minutes) | Reported Concentration | Modified Final Concentration |
|---|---|---|---|
| 18609-2884 | Methylene chloride | 21000 ug/Kg | 21000U ug/Kg |
| 18609-2885 | Methylene chloride | 22000 ug/Kg | 22000U ug/Kg |

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00C165

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00C165 | 18609-2884<br>18609-2885 | Acetone | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |
| 00C165 | 18609-2886<br>18609-2887<br>18609-2888 | Acetone | J (all detects)<br>R (all non-detects) | A | Continuing calibration (RRF) |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00C165

| SDG | Sample | Compound<br>TIC (RT in minutes) | Modified Final Concentration | A or P |
|---|---|---|---|---|
| 00C165 | 18609-2884 | Methylene chloride | 21000U ug/Kg | A |
| 00C165 | 18609-2885 | Methylene chloride | 22000U ug/Kg | A |

LDC Report# 466818

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 22, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C175

**Sample Identification**

18609-2901
18609-2902

## Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00C175**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00C175**

No Sample Data Qualified in this SDG

LDC Report# 466817

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 22, 2000

**LDC Report Date:** April 17, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C175

**Sample Identification**

18609-2901
18609-2902

## Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00C175**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00C175**

No Sample Data Qualified in this SDG

LDC Report# 46681I

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 22, 2000

**LDC Report Date:** April 14, 2000

**Matrix:** Soil

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C175

**Sample Identification**

18609-2901
18609-2902
18609-2901MS
18609-2901MSD

## Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %D (Limits) | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 3/23/00 | Acetone | 55.9 (≤50) | All samples in SDG 00C175 | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration RRF values were within validation criteria.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis Date | Compound TIC (RT in minutes) | Concentration | Associated Samples |
|---|---|---|---|---|
| MBLK2S | 3/23/00 | Methylene chloride | 8.5 ug/Kg | 18609-2901<br>18609-2902 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Compound TIC (RT in minutes) | Reported Concentration | Modified Final Concentration |
|---|---|---|---|
| 18609-2901 | Methylene chloride | 11 ug/Kg | 11U ug/Kg |
| 18609-2902 | Methylene chloride | 8.7 ug/Kg | 8.7U ug/Kg |

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00C175

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00C175 | 18609-2901<br>18609-2902 | Acetone | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00C175

| SDG | Sample | Compound<br>TIC (RT in minutes) | Modified Final Concentration | A or P |
|---|---|---|---|---|
| 00C175 | 18609-2901 | Methylene chloride | 11U ug/Kg | A |
| 00C175 | 18609-2902 | Methylene chloride | 8.7U ug/Kg | A |

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 30, 2000

**LDC Report Date:** May 11, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C236

**Sample Identification**

18609-2916
18609-2917
18609-2918
18609-2919
18609-2920
18609-2921
18609-2922
18609-2923
18609-2917MS
18609-2917MSD

## Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 00C236**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 00C236**

No Sample Data Qualified in this SDG

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 30, 2000

**LDC Report Date:** May 11, 2000

**Matrix:** Soil

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C236

**Sample Identification**

18609-2916
18609-2917
18609-2918
18609-2919
18609-2920
18609-2921
18609-2922
18609-2923
18609-2917MS
18609-2917MSD

## Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Calibration

### a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

### b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

## III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

## IV. Accuracy and Precision Data

### a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

### b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## V. Target Compound Identification

Raw data were not reviewed for this SDG.

## VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

## VII. System Performance

Raw data were not reviewed for this SDG.

## VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00C236**

No Sample Data Qualified in this SDG

**MCAS El Toro**
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00C236**

No Sample Data Qualified in this SDG

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** MCAS El Toro

**Collection Date:** March 30, 2000

**LDC Report Date:** May 11, 2000

**Matrix:** Soil

**Parameters:** Volatiles

**Validation Level:** NFESC Level C

**Laboratory:** EMAX Laboratories, Inc.

**Sample Delivery Group (SDG):** 00C236

**Sample Identification**

18609-2916
18609-2917
18609-2918
18609-2919
18609-2920
18609-2921
18609-2922
18609-2923
18609-2923DL

## Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 4/4/00 (RDH049) | 2-Chloroethylvinyl ether | 61.5 | 18609-2916<br>18609-2917<br>18609-2918<br>18609-2920<br>18609-2921<br>MBLK1S | J (all detects)<br>UJ (all non-detects) | A |
| 4/4/00 (RDH066) | 2-Chloroethylvinyl ether | 51.3 | 18609-2919<br>18609-2923<br>MBLK2S | J (all detects)<br>UJ (all non-detects) | A |
| 4/5/00 | 2-Chloroethylvinyl ether | 57.2 | 18609-2922<br>18609-2923DL<br>MBLK4S | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration RRF values were greater than or equal to 0.05 .

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|---|---|---|---|---|---|
| 18609-2923 | Toluene<br>Xylenes, total | Sample result exceeded calibration range. | Reported result should be within calibration range. | J (all detects)<br>J (all detects) | A |

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

## XVI. Field Duplicates

No field duplicates were identified in this SDG.

## XVII. Field Blanks

No field blanks were identified in this SDG.

## MCAS El Toro
## Volatiles - Data Qualification Summary - SDG 00C236

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| 00C236 | 18609-2916<br>18609-2917<br>18609-2918<br>18609-2919<br>18609-2920<br>18609-2921<br>18609-2922<br>18609-2923<br>18609-2923DL | 2-Chloroethylvinyl ether | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |
| 00C236 | 18609-2923 | Toluene<br>Xylenes, total | J (all detects)<br>J (all detects) | A | Compound quantitation and CRQLs |

## MCAS El Toro
## Volatiles - Laboratory Blank Data Qualification Summary - SDG 00C236

No Sample Data Qualified in this SDG

the IT group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY REC

PROJECT DATA MANAGER'S COPY

A 10820

FORM 0019 REV. 9-99

UST 298 - Stock Pile

| IT'S LAB COORDINATOR | LAB COORDINATOR'S PHONE | LAB COORDINATOR'S FAX | LABORATORY SERVICE ID | LABORATORY CONTACT | MAIL REPORT (COMPANY NAME) |
|---|---|---|---|---|---|
| M. Concepcion | 949-660-7550 | 949-475-5433 | 00C176 | EMAX | IT Group |

| PROJECT NAME | PROJECT LOCATION | PROJECT NUMBER | LABORATORY PHONE | LABORATORY FAX | RECIPIENT NAME |
|---|---|---|---|---|---|
| El Toro - D070 | MCAS El Toro, CA | 76609 | 310-616-8886 | 310-616-0818 | Dwayne Lahida |

| PROJECT CONTACT | PROJECT PHONE NUMBER | PROJECT FAX | LABORATORY ADDRESS | ADDRESS |
|---|---|---|---|---|
| M. Concepcion | 949-451-1667 | 949-451-1672 | 630 Maple Dr. | 3347 Michelson #200 |

| PROJECT ADDRESS | CITY, STATE AND ZIP CODE | CLIENT | CITY, STATE AND ZIP CODE | CITY, STATE AND ZIP CODE |
|---|---|---|---|---|
| | | SWDIV | Torrance, CA | Irvine, CA 92606 |

| PROJECT MANAGER | PROJECT MANAGER'S PHONE | PROJECT MANAGER'S FAX |
|---|---|---|
| B. Sedlak | 949-660-5446 | 949-474-8309 |

| Item | Sample Identifier | Matrix | Date (2003) | Time | Preserved | # of Cont. | QC Level | T.A.T. | TPH-G | TPH-Diesel | 8260 | Metals (Na Hg) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2889 | S | 3-22 | 0900 | 4°C | 2 | 3 | 24hr | X | X | X | X | |
| 2 | ~~18~~ 18609-2890 | S | | 0910 | 4°C | | | | X | X | X | X | |
| 3 | 18609-2891 | S | | ~~0920~~ | ~~1405~~ 4°C | | | | X | X | X | X | |
| 4 | 18609-2892 | S | | 0925 | 4°C | | | | X | X | X | X | |
| 5 | 18609-2893 | S | | ~~0930~~ | 1410/4°C | | | | X | X | X | X | |
| 6 | 18609-2894 | S | | ~~0935~~ | 1415/4°C | | | | X | X | X | X | |
| 7 | 18609-2895 | S | | 1430 | 4°C | | | | X | X | X | X | |
| 8 | 18609-2896 | S | | 1435 | 4°C | | | | X | X | X | X | |
| 9 | 18609-2897 | S | | 1440 | 4°C | | | | X | X | X | X | |
| 10 | 18609-2898 | S | | 1445 | 4°C | | | | X | X | X | X | |

SAMPLES COLLECTED BY: W. Jeffersor

COURIER AND AIR BILL NUMBER: Carrier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| [illegible] | [illegible] | 3-22-03 | 3:30 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 - Stock Pile

| Sample Point Location | Sample Type G | C | F | QC |
|---|---|---|---|---|
| ① UST298-Stock Pile | X | | | |
| ② UST 298-Stock Pile | X | | | |
| ③ UST 298-Stockpile | X | | | |
| ④ UST298-Stock Pile | X | | | |
| ⑤ UST 298-Stock Pile | X | | | |
| ⑥ UST 298-Stock Pile | X | | | |
| ⑦ UST298-Stock Pile | X | | | |
| ⑧ UST298-Stock Pile | X | | | |
| ⑨ UST298-Stock Pile | X | | | |
| ⑩ UST298-Stock Pile | X | | | |

Comments

Due 3/24/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

4931 / 4620

COMPLETED 3/27/00

the igroup

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10819

UST 298 - Stock Pile

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: M. Concepcion | LAB COORDINATOR'S PHONE: 941-660-7550 | LAB COORDINATOR'S FAX: 941-475-5433 | LABORATORY SERVICE ID: 00C176 | LABORATORY CONTACT: EMAX | MAIL REPORT (COMPANY NAME): IT Group |
| PROJECT NAME: El Toro - D070 | PROJECT LOCATION: MCAS El Toro, CA / PROJECT NUMBER: 18609 | | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310 618-0818 | RECIPIENT NAME: DWayne Ishida |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1667 | PROJECT FAX: 949-451-1672 | LABORATORY ADDRESS: 630 Maple Ave. | | ADDRESS: 3347 Michelson #200 |
| PROJECT ADDRESS: | CITY, STATE AND ZIP CODE: | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | | CITY, STATE AND ZIP CODE: Irvine, CA 92606 |
| PROJECT MANAGER: B. Selick | PROJECT MANAGER'S PHONE: 949-660-5446 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-Gas | TPH-Diesel | 8260 | Metals (DSHS) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2899 | S | 3-22 | 1450 | 4°C | 2 | 3 | 24hr | X | X | X | X | |
| 2 | 18609-2900 | S | 3-22 | 1455 | 4°C | 2 | 3 | 24hr | X | X | X | X | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |

Wed. 3-22-00

SAMPLES COLLECTED BY: W. Selick

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wayne Ishida | Philip Fisher | 3-22-00 | 3:20 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 - Stock Pile

| Sample Point Location | Sample Type: G | C | F | QC |
|---|---|---|---|---|
| ① UST 298 - Stockpile | X | | | |
| ② UST 298 - Stockpile | X | | | |

Comments: Due 3-24-00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

4931/4620

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 03-31-2000
EMAX Batch No.: 00C176

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 03/22/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2889 | C176-01 | 03/22/00 | Soil | Modified 8015 by Extraction<br>Modified 8015 by Purge & Trap<br>Volatile Organics by GC/MS<br>CAM Metals |
| 18609-2890 | C176-02 | 03/22/00 | Soil | Modified 8015 by Extraction<br>Modified 8015 by Purge & Trap<br>Volatile Organics by GC/MS<br>CAM Metals |
| 18609-2891 | C176-03 | 03/22/00 | Soil | Modified 8015 by Extraction<br>Modified 8015 by Purge & Trap<br>Volatile Organics by GC/MS<br>CAM Metals |
| 18609-2892 | C176-04 | 03/22/00 | Soil | Modified 8015 by Extraction<br>Modified 8015 by Purge & Trap<br>Volatile Organics by GC/MS<br>CAM Metals |
| 18609-2893 | C176-05 | 03/22/00 | Soil | Modified 8015 by Extraction<br>Modified 8015 by Purge & Trap<br>Volatile Organics by GC/MS |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| | | | | CAM Metals |
| 18609-2894 | C176-06 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2895 | C176-07 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2896 | C176-08 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2897 | C176-09 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2898 | C176-10 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2899 | C176-11 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |
| 18609-2900 | C176-12 | 03/22/00 | Soil | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | CAM Metals |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

METH 015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

lient : IT CORPORATION
roject : MCAS EL TORO/18609/D.O. 70
atch No. : 00C176

Matrix : SOIL
Instrument ID : GCT043

| AMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLK1S | DSC026SB | ND | 110 | 117 | 1 | NA | 10 | 2.1 | 03/23/0005:30 | 03/22/0019:00 | DC14027A | DC14026A | DSC026S | NA | 03/22/00 |
| CS1S | DSC026SL | 414 | 110 | 109 | 1 | NA | 10 | 2.1 | 03/23/0006:11 | 03/22/0019:00 | DC14028A | DC14026A | DSC026S | NA | 03/22/00 |
| CD1S | DSC026SC | 436 | 112 | 111 | 1 | NA | 10 | 2.1 | 03/23/0006:53 | 03/22/0019:00 | DC14029A | DC14026A | DSC026S | NA | 03/22/00 |
| 8609-2889 | C176-01 | 79## | 108 | 115 | 1 | 10.1 | 11.1 | 2.33 | 03/23/0013:10 | 03/22/0019:00 | DC14038A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2890 | C176-02 | 69$ | 115 | 123 | 1 | 9.8 | 11.1 | 2.32 | 03/23/0013:52 | 03/22/0019:00 | DC14039A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2891 | C176-03 | 69* | 118 | 126 | 1 | 13.2 | 11.5 | 2.41 | 03/23/0014:34 | 03/22/0019:00 | DC14040A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2892 | C176-04 | 81## | 113 | 123 | 1 | 11.7 | 11.3 | 2.37 | 03/23/0015:16 | 03/22/0019:00 | DC14041A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2893 | C176-05 | 200#* | 111 | 124 | 1 | 12.1 | 11.4 | 2.38 | 03/23/0015:58 | 03/22/0019:00 | DC14042A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2894 | C176-06 | 45** | 112 | 121 | 1 | 13.5 | 11.6 | 2.42 | 03/23/0016:40 | 03/22/0019:00 | DC14043A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2895 | C176-07 | 21$ | 118 | 126 | 1 | 12.8 | 11.5 | 2.4 | 03/23/0017:22 | 03/22/0019:00 | DC14044A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2896 | C176-08 | 84# | 99 | 106 | 1 | 12.8 | 11.5 | 2.4 | 03/23/0018:04 | 03/22/0019:00 | DC14045A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2897 | C176-09 | 16* | 120 | 133 | 1 | 12.9 | 11.5 | 2.41 | 03/23/0018:46 | 03/22/0019:00 | DC14046A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2898 | C176-10 | 22* | 112 | 125 | 1 | 11.8 | 11.3 | 2.38 | 03/23/0019:27 | 03/22/0019:00 | DC14047A | DC14037A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2899 | C176-11 | 13** | 116 | 129 | 1 | 14.4 | 11.7 | 2.45 | 03/23/0020:51 | 03/22/0019:00 | DC14049A | DC14048A | DSC026S | 03/22/00 | 03/22/00 |
| 8609-2900 | C176-12 | 11** | 117 | 129 | 1 | 13.2 | 11.5 | 2.41 | 03/23/0021:32 | 03/22/0019:00 | DC14050A | DC14048A | DSC026S | 03/22/00 | 03/22/00 |

C LIMIT : (SOIL) 60-140 55-150
C LIMIT : (WATER) 65-135 60-145
URR1 : Bromobenzene
URR2 : Hexacosane
L : Reporting Limit
: Pattern of non-typical JP5; results calculated as Diesel.
* : Pattern of non-typical motor oil; results calculated as Diesel.
: Pattern of non-typical JP5 and diesel; calculated as Diesel.
# : Pattern of non-typical JP5 and motor oil; calculated as Diesel.
: Pattern of diesel, non-typical JP5 and motor oil; calculated as Diesel.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | DSC026SB | DSC026SL | DSC026SC | | |
| LAB FILE ID: | DC14027A | DC14028A | DC14029A | | |
| DATE EXTRACTED: | 03/22/0019:00 | 03/22/0019:00 | 03/22/0019:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0005:30 | 03/23/0006:11 | 03/23/0006:53 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | DSC026S | DSC026S | DSC026S | | |
| CALIB. REF: | DC14026A | DC14026A | DC14026A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 500 | 414 | 83 | 500 | 436 | 87 | 5 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 100 | 110 | 110 | 100 | 112 | 112 | 60-140 |
| Hexacosane | 50 | 54.4 | 109 | 50 | 55.6 | 111 | 55-150 |

METHOD 503 015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

:lient : IT CORPORATION
'roject : MCAS EL TORO/18609/D.O. 70
atch No. : 00C176

Matrix : SOIL
Instrument ID : GCT039

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IBLK1S | VAC3339B | ND | 73 | 1 | NA | 1 | .088 | 03/23/0011:16 | 03/23/0011:16 | EC12003A | EC12002A | VAC3339 | NA | 03/23/00 |
| .CS1S | VAC3339L | 4.77 | 84 | 1 | NA | 1 | .088 | 03/23/0011:51 | 03/23/0011:51 | EC12004A | EC12002A | VAC3339 | NA | 03/23/00 |
| .CD1S | VAC3339C | 4.77 | 85 | 1 | NA | 1 | .088 | 03/23/0012:27 | 03/23/0012:27 | EC12005A | EC12002A | VAC3339 | NA | 03/23/00 |
| IBLK2S | VMC3539B | ND | 86 | 10 | NA | 10 | .88 | 03/24/0012:06 | 03/24/0012:06 | EC12045A | EC12037A | VMC3539 | NA | 03/23/00 |
| .CS2S | VMC3539L | 55.3 ✓ | 97 | 10 | NA | 10 | .88 | 03/24/0012:41 | 03/24/0012:41 | EC12046A | EC12037A | VMC3539 | NA | 03/23/00 |
| .CD2S | VMC3539C | 55.4 | 95 | 10 | NA | 10 | .88 | 03/24/0013:16 | 03/24/0013:16 | EC12047A | EC12037A | VMC3539 | NA | 03/23/00 |
| 18609-2889 | C176-01 | 18 | 105 | 1 | 10.1 | 1.11 | .0979 | 03/23/0019:29 | 03/23/0019:29 | EC12017A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2890 | C176-02 | 5 | 102 | 1 | 9.8 | 1.11 | .0976 | 03/23/0016:34 | 03/23/0016:34 | EC12012A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2891 | C176-03 | 15 | 108 | 1 | 13.2 | 1.15 | .101 | 03/23/0020:38 | 03/23/0020:38 | EC12019A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2892 | C176-04 | 18 | 112 | 1 | 11.7 | 1.13 | .0997 | 03/23/0017:44 | 03/23/0017:44 | EC12014A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2893 | C176-05 | 180 | 131 | 10 | 12.1 | 11.4 | 1 | 03/24/0015:01 | 03/24/0015:01 | EC12050A | EC12049A | VMC3539 | 03/22/00 | 03/22/00 |
| 18609-2894 | C176-06 | 1.7 | 81 | 1 | 13.5 | 1.16 | .102 | 03/23/0018:19 | 03/23/0018:19 | EC12015A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2895 | C176-07 | 2.2 | 75 | 1 | 12.8 | 1.15 | .101 | 03/23/0020:03 | 03/23/0020:03 | EC12018A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2896 | C176-08 | 16 | 107 | 1 | 12.8 | 1.15 | .101 | 03/23/0021:48 | 03/23/0021:48 | EC12021A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2897 | C176-09 | 4.3 | 85 | 1 | 12.9 | 1.15 | .101 | 03/23/0022:22 | 03/23/0022:22 | EC12022A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2898 | C176-10 | 4.1 | 81 | 1 | 11.8 | 1.13 | .0998 | 03/23/0018:54 | 03/23/0018:54 | EC12016A | EC12013A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2899 | C176-11 | ND | 76 | 1 | 14.4 | 1.17 | .103 | 03/23/0014:13 | 03/23/0014:13 | EC12008A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2899MS | C176-11M | 5.69 ✓ | 84 | 1 | 14.4 | 1.17 | .103 | 03/23/0014:49 | 03/23/0014:49 | EC12009A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2899MSD | C176-11S | 5.69 | 82 | 1 | 14.4 | 1.17 | .103 | 03/23/0015:24 | 03/23/0015:24 | EC12010A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |
| 18609-2900 | C176-12 | ND | 75 | 1 | 13.2 | 1.15 | .101 | 03/23/0015:59 | 03/23/0015:59 | EC12011A | EC12002A | VAC3339 | 03/22/00 | 03/22/00 |

SURR : Bromofluorobenzene
RL : Reporting Limit
: Value exceed the upper level of the initial calibration
) : Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAC3339B | VAC3339L | VAC3339C | | |
| LAB FILE ID: | EC12003A | EC12004A | EC12005A | | |
| DATE EXTRACTED: | 03/23/0011:16 | 03/23/0011:51 | 03/23/0012:27 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/23/0011:16 | 03/23/0011:51 | 03/23/0012:27 | DATE RECEIVED: | 03/23/00 |
| PREP. BATCH: | VAC3339 | VAC3339 | VAC3339 | | |
| CALIB. REF: | EC12002A | EC12002A | EC12002A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 5.5 | 4.77 | 87 | 5.5 | 4.77 | 87 | 0 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .211 | 84 | .25 | .212 | 85 | 60-140 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

L IT CORPORATION
RO: MCAS EL TORO/18609/D.O. 70
ATCH NO.: 00C176
ETHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| ATRIX: | SOIL | | | % MOISTURE: | NA |
| ILUTION FACTOR: | 10 | 10 | 10 | | |
| AMPLE ID: | MBLK2S | | | | |
| AB SAMP ID: | VMC3539B | VMC3539L | VMC3539C | | |
| AB FILE ID: | EC12045A | EC12046A | EC12047A | | |
| ATE EXTRACTED: | 03/24/0012:06 | 03/24/0012:41 | 03/24/0013:16 | DATE COLLECTED: | NA |
| ATE ANALYZED: | 03/24/0012:06 | 03/24/0012:41 | 03/24/0013:16 | DATE RECEIVED: | 03/23/00 |
| REP. BATCH: | VMC3539 | VMC3539 | VMC3539 | | |
| ALIB. REF: | EC12037A | EC12037A | EC12037A | | |

CCESSION:

| ARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| asoline | ND | 55 | 55.3 | 101 | 55 | 55.4 | 101 | 0 | 57-146 | 50 |

| URROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| romofluorobenzene | 2.5 | 2.42 | 97 | 2.5 | 2.37 | 95 | 60-140 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 14.4 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2899 | | | | |
| LAB SAMP ID: | C176-11 | C176-11M | C176-11S | | |
| LAB FILE ID: | EC12008A | EC12009A | EC12010A | | |
| DATE EXTRACTED: | 03/23/0014:13 | 03/23/0014:49 | 03/23/0015:24 | DATE COLLECTED: | 03/22/00 |
| DATE ANALYZED: | 03/23/0014:13 | 03/23/0014:49 | 03/23/0015:24 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | VAC3339 | VAC3339 | VAC3339 | | |
| CALIB. REF: | EC12002A | EC12002A | EC12002A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 6.43 | 5.69 | 89 | 6.43 | 5.69 | 89 | 0 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .292 | .246 | 84 | .292 | .238 | 82 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/26/00 23:05 |
| Sample ID: | 18609-2889 | Date Analyzed: | 03/26/00 23:05 |
| Lab Samp ID: | C176-01 | Dilution Factor: | 50 |
| Lab File ID: | RCP439 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 10.1 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 280 | 19 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 280 | 41 |
| 1,1,2-TRICHLOROETHANE | ND | 280 | 36 |
| 1,1-DICHLOROETHANE | ND | 280 | 29 |
| 1,1-DICHLOROETHENE | ND | 280 | 27 |
| 1,2-DICHLOROETHANE | ND | 280 | 55 |
| 1,2-DICHLOROPROPANE | ND | 280 | 30 |
| 2-BUTANONE | ND | 2800 | 85 |
| 2-CHLOROETHYLVINYLETHER | ND | 2800 | 41 |
| 2-HEXANONE | ND | 2800 | 82 |
| 4-METHYL-2-PENTANONE | ND | 2800 | 160 |
| ACETONE | ND | 2800 | 160 |
| BENZENE | ND | 280 | 29 |
| BROMODICHLOROMETHANE | ND | 280 | 24 |
| BROMOFORM | ND | 280 | 33 |
| BROMOMETHANE | ND | 280 | 200 |
| CARBON DISULFIDE | ND | 280 | 19 |
| CARBON TETRACHLORIDE | ND | 280 | 30 |
| CHLOROBENZENE | ND | 280 | 26 |
| CHLOROETHANE | ND | 280 | 51 |
| CHLOROFORM | ND | 280 | 29 |
| CHLOROMETHANE | ND | 280 | 29 |
| CIS-1,2-DICHLOROETHENE | ND | 280 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 280 | 22 |
| DIBROMOCHLOROMETHANE | ND | 280 | 20 |
| ETHYLBENZENE | ND | 280 | 26 |
| MTBE | ND | 560 | 42 |
| METHYLENE CHLORIDE | 270JB | 280 | 170 |
| STYRENE | ND | 280 | 19 |
| TETRACHLOROETHENE | ND | 280 | 19 |
| TOLUENE | ND | 280 | 32 |
| TRANS-1,2-DICHLOROETHENE | ND | 280 | 26 |
| TRANS-1,3-DICHLOROPROPENE | ND | 280 | 25 |
| TRICHLOROETHENE | ND | 280 | 34 |
| VINYL ACETATE | ND | 2800 | 46 |
| VINYL CHLORIDE | ND | 280 | 33 |
| XYLENES | 240J | 280 | 63 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 104 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 93 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/26/00 23:38 |
| Sample ID: | 18609-2890 | Date Analyzed: | 03/26/00 23:38 |
| Lab Samp ID: | C176-02 | Dilution Factor: | 50 |
| Lab File ID: | RCP440 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 9.8 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 280 | 19 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 280 | 41 |
| 1,1,2-TRICHLOROETHANE | ND | 280 | 36 |
| 1,1-DICHLOROETHANE | ND | 280 | 29 |
| 1,1-DICHLOROETHENE | ND | 280 | 27 |
| 1,2-DICHLOROETHANE | ND | 280 | 55 |
| 1,2-DICHLOROPROPANE | ND | 280 | 30 |
| 2-BUTANONE | ND | 2800 | 84 |
| 2-CHLOROETHYLVINYLETHER | ND | 2800 | 41 |
| 2-HEXANONE | ND | 2800 | 81 |
| 4-METHYL-2-PENTANONE | ND | 2800 | 160 |
| ACETONE | ND | 2800 | 160 |
| BENZENE | ND | 280 | 29 |
| BROMODICHLOROMETHANE | ND | 280 | 23 |
| BROMOFORM | ND | 280 | 33 |
| BROMOMETHANE | ND | 280 | 200 |
| CARBON DISULFIDE | ND | 280 | 19 |
| CARBON TETRACHLORIDE | ND | 280 | 30 |
| CHLOROBENZENE | ND | 280 | 26 |
| CHLOROETHANE | ND | 280 | 51 |
| CHLOROFORM | ND | 280 | 29 |
| CHLOROMETHANE | ND | 280 | 29 |
| CIS-1,2-DICHLOROETHENE | ND | 280 | 25 |
| CIS-1,3-DICHLOROPROPENE | ND | 280 | 22 |
| DIBROMOCHLOROMETHANE | ND | 280 | 20 |
| ETHYLBENZENE | ND | 280 | 25 |
| MTBE | ND | 550 | 42 |
| METHYLENE CHLORIDE | 240JB | 280 | 170 |
| STYRENE | ND | 280 | 19 |
| TETRACHLOROETHENE | ND | 280 | 19 |
| TOLUENE | ND | 280 | 32 |
| TRANS-1,2-DICHLOROETHENE | ND | 280 | 26 |
| TRANS-1,3-DICHLOROPROPENE | ND | 280 | 25 |
| TRICHLOROETHENE | ND | 280 | 34 |
| VINYL ACETATE | ND | 2800 | 46 |
| VINYL CHLORIDE | ND | 280 | 32 |
| XYLENES | 130J | 280 | 63 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 00:11 |
| Sample ID: | 18609-2891 | Date Analyzed: | 03/27/00 00:11 |
| Lab Samp ID: | C176-03 | Dilution Factor: | 50 |
| Lab File ID: | RCP441 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 13.2 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 290 | 20 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 290 | 43 |
| 1,1,2-TRICHLOROETHANE | ND | 290 | 38 |
| 1,1-DICHLOROETHANE | ND | 290 | 30 |
| 1,1-DICHLOROETHENE | ND | 290 | 28 |
| 1,2-DICHLOROETHANE | ND | 290 | 57 |
| 1,2-DICHLOROPROPANE | ND | 290 | 32 |
| 2-BUTANONE | ND | 2900 | 88 |
| 2-CHLOROETHYLVINYLETHER | ND | 2900 | 43 |
| 2-HEXANONE | ND | 2900 | 85 |
| 4-METHYL-2-PENTANONE | ND | 2900 | 160 |
| ACETONE | ND | 2900 | 170 |
| BENZENE | ND | 290 | 30 |
| BROMODICHLOROMETHANE | ND | 290 | 24 |
| BROMOFORM | ND | 290 | 34 |
| BROMOMETHANE | ND | 290 | 210 |
| CARBON DISULFIDE | ND | 290 | 19 |
| CARBON TETRACHLORIDE | ND | 290 | 31 |
| CHLOROBENZENE | ND | 290 | 27 |
| CHLOROETHANE | ND | 290 | 53 |
| [illegible]OFORM | ND | 290 | 30 |
| [illegible]OMETHANE | ND | 290 | 30 |
| CIS-1,2-DICHLOROETHENE | ND | 290 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 290 | 23 |
| DIBROMOCHLOROMETHANE | ND | 290 | 21 |
| ETHYLBENZENE | 36J | 290 | 26 |
| MTBE | ND | 580 | 44 |
| METHYLENE CHLORIDE | 260JB | 290 | 170 |
| STYRENE | ND | 290 | 20 |
| TETRACHLOROETHENE | ND | 290 | 19 |
| TOLUENE | ND | 290 | 33 |
| TRANS-1,2-DICHLOROETHENE | ND | 290 | 27 |
| TRANS-1,3-DICHLOROPROPENE | ND | 290 | 26 |
| TRICHLOROETHENE | ND | 290 | 35 |
| VINYL ACETATE | ND | 2900 | 48 |
| VINYL CHLORIDE | ND | 290 | 34 |
| XYLENES | 410 | 290 | 65 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 95 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 98 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 00:43 |
| Sample ID: | 18609-2892 | Date Analyzed: | 03/27/00 00:43 |
| Lab Samp ID: | C176-04 | Dilution Factor: | 50 |
| Lab File ID: | RCP442 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 11.7 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 280 | 19 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 280 | 42 |
| 1,1,2-TRICHLOROETHANE | ND | 280 | 37 |
| 1,1-DICHLOROETHANE | ND | 280 | 30 |
| 1,1-DICHLOROETHENE | ND | 280 | 27 |
| 1,2-DICHLOROETHANE | ND | 280 | 56 |
| 1,2-DICHLOROPROPANE | ND | 280 | 31 |
| 2-BUTANONE | ND | 2800 | 86 |
| 2-CHLOROETHYLVINYLETHER | ND | 2800 | 42 |
| 2-HEXANONE | ND | 2800 | 83 |
| 4-METHYL-2-PENTANONE | ND | 2800 | 160 |
| ACETONE | ND | 2800 | 160 |
| BENZENE | ND | 280 | 30 |
| BROMODICHLOROMETHANE | ND | 280 | 24 |
| BROMOFORM | ND | 280 | 34 |
| BROMOMETHANE | ND | 280 | 200 |
| CARBON DISULFIDE | ND | 280 | 19 |
| CARBON TETRACHLORIDE | ND | 280 | 30 |
| CHLOROBENZENE | ND | 280 | 26 |
| CHLOROETHANE | ND | 280 | 52 |
| CHLOROFORM | ND | 280 | 30 |
| CHLOROMETHANE | ND | 280 | 30 |
| CIS-1,2-DICHLOROETHENE | ND | 280 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 280 | 23 |
| DIBROMOCHLOROMETHANE | ND | 280 | 21 |
| ETHYLBENZENE | 54J | 280 | 26 |
| MTBE | ND | 570 | 43 |
| METHYLENE CHLORIDE | 280JB | 280 | 170 |
| STYRENE | ND | 280 | 19 |
| TETRACHLOROETHENE | ND | 280 | 19 |
| TOLUENE | 110J | 280 | 33 |
| TRANS-1,2-DICHLOROETHENE | ND | 280 | 27 |
| TRANS-1,3-DICHLOROPROPENE | ND | 280 | 25 |
| TRICHLOROETHENE | ND | 280 | 35 |
| VINYL ACETATE | ND | 2800 | 47 |
| VINYL CHLORIDE | ND | 280 | 33 |
| XYLENES | 640 | 280 | 64 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 01:16 |
| Sample ID: | 18609-2893 | Date Analyzed: | 03/27/00 01:16 |
| Lab Samp ID: | C176-05 | Dilution Factor: | 100 |
| Lab File ID: | RCP443 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 12.1 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 570 | 39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 570 | 84 |
| 1,1,2-TRICHLOROETHANE | ND | 570 | 75 |
| 1,1-DICHLOROETHANE | ND | 570 | 60 |
| 1,1-DICHLOROETHENE | ND | 570 | 55 |
| 1,2-DICHLOROETHANE | ND | 570 | 110 |
| 1,2-DICHLOROPROPANE | ND | 570 | 62 |
| 2-BUTANONE | ND | 5700 | 170 |
| 2-CHLOROETHYLVINYLETHER | ND | 5700 | 84 |
| 2-HEXANONE | ND | 5700 | 170 |
| 4-METHYL-2-PENTANONE | ND | 5700 | 320 |
| ACETONE | ND | 5700 | 330 |
| BENZENE | ND | 570 | 60 |
| BROMODICHLOROMETHANE | ND | 570 | 48 |
| BROMOFORM | ND | 570 | 67 |
| BROMOMETHANE | ND | 570 | 410 |
| CARBON DISULFIDE | ND | 570 | 38 |
| CARBON TETRACHLORIDE | ND | 570 | 61 |
| CHLOROBENZENE | ND | 570 | 53 |
| CHLOROETHANE | ND | 570 | 100 |
| CHLOROFORM | ND | 570 | 60 |
| C[illegible] METHANE | ND | 570 | 60 |
| C[illegible],2-DICHLOROETHENE | ND | 570 | 52 |
| CIS-1,3-DICHLOROPROPENE | ND | 570 | 46 |
| DIBROMOCHLOROMETHANE | ND | 570 | 42 |
| ETHYLBENZENE | 650 | 570 | 52 |
| MTBE | ND | 1100 | 86 |
| METHYLENE CHLORIDE | 550JB | 570 | 340 |
| STYRENE | ND | 570 | 39 |
| TETRACHLOROETHENE | ND | 570 | 38 |
| TOLUENE | 290J | 570 | 66 |
| TRANS-1,2-DICHLOROETHENE | ND | 570 | 54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 570 | 51 |
| TRICHLOROETHENE | ND | 570 | 70 |
| VINYL ACETATE | ND | 5700 | 94 |
| VINYL CHLORIDE | ND | 570 | 67 |
| XYLENES | 6000 | 570 | 130 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 100 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/24/00 09:21 |
| Sample ID: | 18609-2894 | Date Analyzed: | 03/24/00 09:21 |
| Lab Samp ID: | C176-06 | Dilution Factor: | 1 |
| Lab File ID: | RCH634 | Matrix : | SOIL |
| Ext Btch ID: | VOC5004 | % Moisture : | 13.5 |
| Calib. Ref.: | RCH629 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .85 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .76 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .61 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .63 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .86 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.2 |
| ACETONE | 12J | 58 | 3.3 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .68 |
| BROMOMETHANE | ND | 5.8 | 4.1 |
| CARBON DISULFIDE | ND | 5.8 | .39 |
| CARBON TETRACHLORIDE | ND | 5.8 | .62 |
| CHLOROBENZENE | ND | 5.8 | .54 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| CHLOROFORM | ND | 5.8 | .61 |
| CHLOROMETHANE | ND | 5.8 | .61 |
| CIS-1,2-DICHLOROETHENE | ND | 5.8 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .42 |
| ETHYLBENZENE | 25 | 5.8 | .53 |
| MTBE | ND | 12 | .87 |
| METHYLENE CHLORIDE | 10B | 5.8 | 3.5 |
| STYRENE | ND | 5.8 | .39 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | 18 | 5.8 | .67 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .52 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .96 |
| VINYL CHLORIDE | ND | 5.8 | .68 |
| XYLENES | 140 | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 | 52-149 |
| BROMOFLUOROBENZENE | 121 | 65-135 |
| TOLUENE-D8 | 111 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/26/00 22:33 |
| Sample ID: | 18609-2895 | Date Analyzed: | 03/26/00 22:33 |
| Lab Samp ID: | C176-07 | Dilution Factor: | 1 |
| Lab File ID: | RCP438 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 12.8 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .85 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .75 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .63 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .85 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | ND | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .49 |
| BROMOFORM | ND | 5.7 | .68 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 5.7 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .62 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1.1 |
| CHLOROFORM | ND | 5.7 | .6 |
| CHLOROMETHANE | ND | 5.7 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | 1.5J | 5.7 | .53 |
| MTBE | ND | 11 | .87 |
| METHYLENE CHLORIDE | ND | 5.7 | 3.5 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .39 |
| TOLUENE | ND | 5.7 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .52 |
| TRICHLOROETHENE | ND | 5.7 | .7 |
| VINYL ACETATE | ND | 57 | .95 |
| VINYL CHLORIDE | ND | 5.7 | .67 |
| XYLENES | 16 | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 100 | 52-149 |
| BROMOFLUOROBENZENE | 103 | 65-135 |
| TOLUENE-D8 | 103 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 16:35 |
| Sample ID: | 18609-2895DL | Date Analyzed: | 03/27/00 16:35 |
| Lab Samp ID: | C176-07T | Dilution Factor: | 5 |
| Lab File ID: | RCP459 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | 12.8 |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 29 | 1.9 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 29 | 4.2 |
| 1,1,2-TRICHLOROETHANE | ND | 29 | 3.8 |
| 1,1-DICHLOROETHANE | ND | 29 | 3 |
| 1,1-DICHLOROETHENE | ND | 29 | 2.8 |
| 1,2-DICHLOROETHANE | ND | 29 | 5.6 |
| 1,2-DICHLOROPROPANE | ND | 29 | 3.1 |
| 2-BUTANONE | ND | 290 | 8.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 290 | 4.2 |
| 2-HEXANONE | ND | 290 | 8.4 |
| 4-METHYL-2-PENTANONE | ND | 290 | 16 |
| ACETONE | ND | 290 | 17 |
| BENZENE | ND | 29 | 3 |
| BROMODICHLOROMETHANE | ND | 29 | 2.4 |
| BROMOFORM | ND | 29 | 3.4 |
| BROMOMETHANE | ND | 29 | 21 |
| CARBON DISULFIDE | ND | 29 | 1.9 |
| CARBON TETRACHLORIDE | ND | 29 | 3.1 |
| CHLOROBENZENE | ND | 29 | 2.7 |
| CHLOROETHANE | ND | 29 | 5.3 |
| CHLOROFORM | ND | 29 | 3 |
| CHLOROMETHANE | ND | 29 | 3 |
| CIS-1,2-DICHLOROETHENE | ND | 29 | 2.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 29 | 2.3 |
| DIBROMOCHLOROMETHANE | ND | 29 | 2.1 |
| ETHYLBENZENE | ND | 29 | 2.6 |
| MTBE | ND | 57 | 4.3 |
| METHYLENE CHLORIDE | ND | 29 | 17 |
| STYRENE | ND | 29 | 2 |
| TETRACHLOROETHENE | ND | 29 | 1.9 |
| TOLUENE | ND | 29 | 3.3 |
| TRANS-1,2-DICHLOROETHENE | ND | 29 | 2.7 |
| TRANS-1,3-DICHLOROPROPENE | ND | 29 | 2.6 |
| TRICHLOROETHENE | ND | 29 | 3.5 |
| VINYL ACETATE | ND | 290 | 4.8 |
| VINYL CHLORIDE | ND | 29 | 3.4 |
| XYLENES | ND | 29 | 6.5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 99 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 99 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 02:21 |
| Sample ID: | 18609-2896 | Date Analyzed: | 03/27/00 02:21 |
| Lab Samp ID: | C176-08 | Dilution Factor: | 50 |
| Lab File ID: | RCP445 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | 12.8 |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 290 | 19 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 290 | 42 |
| 1,1,2-TRICHLOROETHANE | ND | 290 | 38 |
| 1,1-DICHLOROETHANE | ND | 290 | 30 |
| 1,1-DICHLOROETHENE | ND | 290 | 28 |
| 1,2-DICHLOROETHANE | ND | 290 | 56 |
| 1,2-DICHLOROPROPANE | ND | 290 | 31 |
| 2-BUTANONE | ND | 2900 | 87 |
| 2-CHLOROETHYLVINYLETHER | ND | 2900 | 42 |
| 2-HEXANONE | ND | 2900 | 84 |
| 4-METHYL-2-PENTANONE | ND | 2900 | 160 |
| ACETONE | ND | 2900 | 170 |
| BENZENE | ND | 290 | 30 |
| BROMODICHLOROMETHANE | ND | 290 | 24 |
| BROMOFORM | ND | 290 | 34 |
| BROMOMETHANE | ND | 290 | 210 |
| CARBON DISULFIDE | ND | 290 | 19 |
| CARBON TETRACHLORIDE | ND | 290 | 31 |
| CHLOROBENZENE | ND | 290 | 27 |
| CHLOROETHANE | ND | 290 | 53 |
| CHLOROFORM | ND | 290 | 30 |
| CHLOROMETHANE | ND | 290 | 30 |
| CIS-1,2-DICHLOROETHENE | ND | 290 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 290 | 23 |
| DIBROMOCHLOROMETHANE | ND | 290 | 21 |
| ETHYLBENZENE | 26J | 290 | 26 |
| MTBE | ND | 570 | 43 |
| METHYLENE CHLORIDE | 260JB | 290 | 170 |
| STYRENE | ND | 290 | 20 |
| TETRACHLOROETHENE | ND | 290 | 19 |
| TOLUENE | ND | 290 | 33 |
| TRANS-1,2-DICHLOROETHENE | ND | 290 | 27 |
| TRANS-1,3-DICHLOROPROPENE | ND | 290 | 26 |
| TRICHLOROETHENE | ND | 290 | 35 |
| VINYL ACETATE | ND | 2900 | 48 |
| VINYL CHLORIDE | ND | 290 | 34 |
| XYLENES | 360 | 290 | 65 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 104 | 65-135 |
| TOLUENE-D8 | 97 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/24/00 09:58 |
| Sample ID: | 18609-2897 | Date Analyzed: | 03/24/00 09:58 |
| Lab Samp ID: | C176-09 | Dilution Factor: | 1 |
| Lab File ID: | RCH635 | Matrix | : SOIL |
| Ext Btch ID: | VOC5004 | % Moisture | : 12.9 |
| Calib. Ref.: | RCH629 | Instrument ID | : T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .85 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .75 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .63 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .85 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | 7.9J | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .49 |
| BROMOFORM | ND | 5.7 | .68 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 5.7 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .62 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1.1 |
| CHLOROFORM | ND | 5.7 | .6 |
| CHLOROMETHANE | ND | 5.7 | .61 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | 15 | 5.7 | .53 |
| MTBE | ND | 11 | .87 |
| METHYLENE CHLORIDE | 11B | 5.7 | 3.5 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .39 |
| TOLUENE | 1.8J | 5.7 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .52 |
| TRICHLOROETHENE | ND | 5.7 | .7 |
| VINYL ACETATE | ND | 57 | .95 |
| VINYL CHLORIDE | ND | 5.7 | .67 |
| XYLENES | 57 | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 106 | 52-149 |
| BROMOFLUOROBENZENE | 129 | 65-135 |
| TOLUENE-D8 | 105 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/24/00 10:36 |
| Sample ID: | 18609-2898 | Date Analyzed: | 03/24/00 10:36 |
| Lab Samp ID: | C176-10 | Dilution Factor: | 1 |
| Lab File ID: | RCH636 | Matrix : | SOIL |
| Ext Btch ID: | VOC5004 | % Moisture : | 11.8 |
| Calib. Ref.: | RCH629 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.7 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.7 | .84 |
| 1,1,2-TRICHLOROETHANE | ND | 5.7 | .74 |
| 1,1-DICHLOROETHANE | ND | 5.7 | .59 |
| 1,1-DICHLOROETHENE | ND | 5.7 | .54 |
| 1,2-DICHLOROETHANE | ND | 5.7 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.7 | .62 |
| 2-BUTANONE | ND | 57 | 1.7 |
| 2-CHLOROETHYLVINYLETHER | ND | 57 | .84 |
| 2-HEXANONE | ND | 57 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 57 | 3.2 |
| ACETONE | ND | 57 | 3.3 |
| BENZENE | ND | 5.7 | .6 |
| BROMODICHLOROMETHANE | ND | 5.7 | .48 |
| BROMOFORM | ND | 5.7 | .67 |
| BROMOMETHANE | ND | 5.7 | 4.1 |
| CARBON DISULFIDE | ND | 5.7 | .38 |
| CARBON TETRACHLORIDE | ND | 5.7 | .61 |
| CHLOROBENZENE | ND | 5.7 | .53 |
| CHLOROETHANE | ND | 5.7 | 1 |
| CHLOROFORM | ND | 5.7 | .59 |
| CHLOROMETHANE | ND | 5.7 | .6 |
| CIS-1,2-DICHLOROETHENE | ND | 5.7 | .52 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.7 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.7 | .42 |
| ETHYLBENZENE | 2.7J | 5.7 | .52 |
| MTBE | ND | 11 | .86 |
| METHYLENE CHLORIDE | 9B | 5.7 | 3.4 |
| STYRENE | ND | 5.7 | .39 |
| TETRACHLOROETHENE | ND | 5.7 | .38 |
| TOLUENE | ND | 5.7 | .65 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.7 | .54 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.7 | .51 |
| TRICHLOROETHENE | ND | 5.7 | .69 |
| VINYL ACETATE | ND | 57 | .94 |
| VINYL CHLORIDE | ND | 5.7 | .66 |
| XYLENES | 31 | 5.7 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 90 | 52-149 |
| BROMOFLUOROBENZENE | 112 | 65-135 |
| TOLUENE-D8 | 103 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 15:30 |
| Sample ID: | 18609-2899 | Date Analyzed: | 03/27/00 15:30 |
| Lab Samp ID: | C176-11 | Dilution Factor: | 1 |
| Lab File ID: | RCP457 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | 14.4 |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .4 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .86 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .77 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .61 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .56 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.2 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .64 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .86 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.3 |
| ACETONE | ND | 58 | 3.4 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .69 |
| BROMOMETHANE | ND | 5.8 | 4.2 |
| CARBON DISULFIDE | ND | 5.8 | .39 |
| CARBON TETRACHLORIDE | ND | 5.8 | .63 |
| CHLOROBENZENE | ND | 5.8 | .54 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| CHLOROFORM | ND | 5.8 | .61 |
| CHLOROMETHANE | ND | 5.8 | .62 |
| CIS-1,2-DICHLOROETHENE | ND | 5.8 | .54 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .47 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .43 |
| ETHYLBENZENE | ND | 5.8 | .54 |
| MTBE | ND | 12 | .88 |
| METHYLENE CHLORIDE | ND | 5.8 | 3.5 |
| STYRENE | ND | 5.8 | .4 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | ND | 5.8 | .67 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .53 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .97 |
| VINYL CHLORIDE | ND | 5.8 | .68 |
| XYLENES | 3.2J | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 100 | 52-149 |
| BROMOFLUOROBENZENE | 107 | 65-135 |
| TOLUENE-D8 | 101 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/26/00 17:31 |
| Sample ID: | 18609-2900 | Date Analyzed: | 03/27/00 17:31 |
| Lab Samp ID: | C176-12 | Dilution Factor: | 1 |
| Lab File ID: | RCP460 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | 13.2 |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.8 | .39 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.8 | .85 |
| 1,1,2-TRICHLOROETHANE | ND | 5.8 | .76 |
| 1,1-DICHLOROETHANE | ND | 5.8 | .6 |
| 1,1-DICHLOROETHENE | ND | 5.8 | .55 |
| 1,2-DICHLOROETHANE | ND | 5.8 | 1.1 |
| 1,2-DICHLOROPROPANE | ND | 5.8 | .63 |
| 2-BUTANONE | ND | 58 | 1.8 |
| 2-CHLOROETHYLVINYLETHER | ND | 58 | .85 |
| 2-HEXANONE | ND | 58 | 1.7 |
| 4-METHYL-2-PENTANONE | ND | 58 | 3.2 |
| ACETONE | 14J | 58 | 3.3 |
| BENZENE | ND | 5.8 | .61 |
| BROMODICHLOROMETHANE | ND | 5.8 | .49 |
| BROMOFORM | ND | 5.8 | .68 |
| BROMOMETHANE | ND | 5.8 | 4.1 |
| CARBON DISULFIDE | ND | 5.8 | .38 |
| CARBON TETRACHLORIDE | ND | 5.8 | .62 |
| CHLOROBENZENE | ND | 5.8 | .53 |
| CHLOROETHANE | ND | 5.8 | 1.1 |
| C[illegible]FORM | ND | 5.8 | .6 |
| C[illegible]METHANE | ND | 5.8 | .61 |
| CIS-1,2-DICHLOROETHENE | ND | 5.8 | .53 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.8 | .46 |
| DIBROMOCHLOROMETHANE | ND | 5.8 | .42 |
| ETHYLBENZENE | ND | 5.8 | .53 |
| MTBE | ND | 12 | .87 |
| METHYLENE CHLORIDE | ND | 5.8 | 3.5 |
| STYRENE | ND | 5.8 | .39 |
| TETRACHLOROETHENE | ND | 5.8 | .39 |
| TOLUENE | ND | 5.8 | .66 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.8 | .55 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.8 | .52 |
| TRICHLOROETHENE | ND | 5.8 | .71 |
| VINYL ACETATE | ND | 58 | .96 |
| VINYL CHLORIDE | ND | 5.8 | .67 |
| XYLENES | 3.7J | 5.8 | 1.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 100 | 52-149 |
| BROMOFLUOROBENZENE | 104 | 65-135 |
| TOLUENE-D8 | 98 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| ient | : IT CORPORATION | Date Collected: | NA |
| ɔject | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/26/00 |
| tch No. | : 00C176 | Date Extracted: | 03/26/00 17:16 |
| mple ID: | MBLK1S | Date Analyzed: | 03/26/00 17:16 |
| ɔ Samp ID: | VOC2802B | Dilution Factor: | 1 |
| ɔ File ID: | RCP431 | Matrix : | SOIL |
| t Btch ID: | VOC2802 | % Moisture : | NA |
| ib. Ref.: | RCP428 | Instrument ID : | T-002 |

| RAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1-DICHLOROETHANE | ND | 5 | .52 |
| 1-DICHLOROETHENE | ND | 5 | .48 |
| 2-DICHLOROETHANE | ND | 5 | .99 |
| 2-DICHLOROPROPANE | ND | 5 | .55 |
| BUTANONE | ND | 50 | 1.5 |
| CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| HEXANONE | ND | 50 | 1.5 |
| METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ETONE | ND | 50 | 2.9 |
| NZENE | ND | 5 | .53 |
| OMODICHLOROMETHANE | ND | 5 | .42 |
| OMOFORM | ND | 5 | .59 |
| OMOMETHANE | ND | 5 | 3.6 |
| RBON DISULFIDE | ND | 5 | .33 |
| RBON TETRACHLORIDE | ND | 5 | .54 |
| LOROBENZENE | ND | 5 | .46 |
| LOROETHANE | ND | 5 | .92 |
| LOROFORM | ND | 5 | .52 |
| LOROMETHANE | ND | 5 | .53 |
| S-1,2-DICHLOROETHENE | ND | 5 | .46 |
| S-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| BROMOCHLOROMETHANE | ND | 5 | .37 |
| HYLBENZENE | ND | 5 | .46 |
| BE | ND | 10 | .76 |
| THYLENE CHLORIDE | 4.2J | 5 | 3 |
| YRENE | ND | 5 | .34 |
| TRACHLOROETHENE | ND | 5 | .34 |
| LUENE | ND | 5 | .58 |
| ANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| ANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| ICHLOROETHENE | ND | 5 | .61 |
| NYL ACETATE | ND | 50 | .83 |
| NYL CHLORIDE | ND | 5 | .58 |
| LENES | ND | 5 | 1.1 |

| RROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2-DICHLOROETHANE-D4 | 96 | 52-149 |
| OMOFLUOROBENZENE | 108 | 65-135 |
| LUENE-D8 | 102 | 65-135 |

L: Project Reporting Limit
: Out side of QC Limit
: An estimated value between PRL and MDL
: Value exceed the upper level of the initial calibration
: Found in the associated blank
: Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/26/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/26/00 17:49 |
| Sample ID: | MBLK2S | Date Analyzed: | 03/26/00 17:49 |
| Lab Samp ID: | VOC2802Q | Dilution Factor: | 50 |
| Lab File ID: | RCP432 | Matrix : | SOIL |
| Ext Btch ID: | VOC2802 | % Moisture : | NA |
| Calib. Ref.: | RCP428 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 250 | 17 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 250 | 37 |
| 1,1,2-TRICHLOROETHANE | ND | 250 | 33 |
| 1,1-DICHLOROETHANE | ND | 250 | 26 |
| 1,1-DICHLOROETHENE | ND | 250 | 24 |
| 1,2-DICHLOROETHANE | ND | 250 | 49 |
| 1,2-DICHLOROPROPANE | ND | 250 | 27 |
| 2-BUTANONE | ND | 2500 | 76 |
| 2-CHLOROETHYLVINYLETHER | ND | 2500 | 37 |
| 2-HEXANONE | ND | 2500 | 74 |
| 4-METHYL-2-PENTANONE | ND | 2500 | 140 |
| ACETONE | ND | 2500 | 140 |
| BENZENE | ND | 250 | 26 |
| BROMODICHLOROMETHANE | ND | 250 | 21 |
| BROMOFORM | ND | 250 | 30 |
| BROMOMETHANE | ND | 250 | 180 |
| CARBON DISULFIDE | ND | 250 | 17 |
| CARBON TETRACHLORIDE | ND | 250 | 27 |
| CHLOROBENZENE | ND | 250 | 23 |
| CHLOROETHANE | ND | 250 | 46 |
| CHLOROFORM | ND | 250 | 26 |
| CHLOROMETHANE | ND | 250 | 26 |
| CIS-1,2-DICHLOROETHENE | ND | 250 | 23 |
| CIS-1,3-DICHLOROPROPENE | ND | 250 | 20 |
| DIBROMOCHLOROMETHANE | ND | 250 | 18 |
| ETHYLBENZENE | ND | 250 | 23 |
| MTBE | ND | 500 | 38 |
| METHYLENE CHLORIDE | 220J | 250 | 150 |
| STYRENE | ND | 250 | 17 |
| TETRACHLOROETHENE | ND | 250 | 17 |
| TOLUENE | ND | 250 | 29 |
| TRANS-1,2-DICHLOROETHENE | ND | 250 | 24 |
| TRANS-1,3-DICHLOROPROPENE | ND | 250 | 22 |
| TRICHLOROETHENE | ND | 250 | 31 |
| VINYL ACETATE | ND | 2500 | 41 |
| VINYL CHLORIDE | ND | 250 | 29 |
| XYLENES | ND | 250 | 57 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 52-149 |
| BROMOFLUOROBENZENE | 104 | 65-135 |
| TOLUENE-D8 | 98 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/27/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/27/00 12:58 |
| Sample ID: | MBLK3S | Date Analyzed: | 03/27/00 12:58 |
| Lab Samp ID: | VOC2902B | Dilution Factor: | 1 |
| Lab File ID: | RCP453 | Matrix : | SOIL |
| Ext Btch ID: | VOC2902 | % Moisture : | NA |
| Calib. Ref.: | RCP449 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 52-149 |
| BROMOFLUOROBENZENE | 106 | 65-135 |
| TOLUENE-D8 | 100 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/24/00 |
| Batch No. | : 00C176 | Date Extracted: | 03/24/00 08:43 |
| Sample ID: | MBLK4S | Date Analyzed: | 03/24/00 08:43 |
| Lab Samp ID: | VOC5004B | Dilution Factor: | 1 |
| Lab File ID: | RCH633 | Matrix : | SOIL |
| Ext Btch ID: | VOC5004 | % Moisture : | NA |
| Calib. Ref.: | RCH629 | Instrument ID : | T-041 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| CHLOROBENZENE | ND | 5 | .46 |
| CHLOROETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | 8 | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 52-149 |
| BROMOFLUOROBENZENE | 101 | 65-135 |
| TOLUENE-D8 | 94 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOC2802B | VOC2802L | VOC2802C | | |
| LAB FILE ID: | RCP431 | RCP429 | RCP430 | | |
| DATE EXTRACTED: | 03/26/0017:16 | 03/26/0016:11 | 03/26/0016:43 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/26/0017:16 | 03/26/0016:11 | 03/26/0016:43 | DATE RECEIVED: | 03/26/00 |
| PREP. BATCH: | VOC2802 | VOC2802 | VOC2802 | | |
| CALIB. REF: | RCP428 | RCP428 | RCP428 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 24.4 | 122 | 20 | 19.3 | 97 | 23 | 65-135 | 30 |
| Benzene | ND | 20 | 24.5 | 123 | 20 | 19.4 | 97 | 23 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 24.2 | 121 | 20 | 18.8 | 94 | 25 | 65-135 | 30 |
| Toluene | ND | 20 | 24.5 | 123 | 20 | 19.2 | 96 | 24 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 23.6 | 118 | 20 | 18.7 | 93 | 23 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.4 | 97 | 50 | 49 | 98 | 52-149 |
| Bromofluorobenzene | 50 | 53.3 | 107 | 50 | 53.2 | 106 | 65-135 |
| Toluene-d8 | 50 | 50.7 | 101 | 50 | 50.7 | 101 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

T: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK3S | | | | |
| LAB SAMP ID: | VOC2902B | VOC2902X | VOC2902C | | |
| LAB FILE ID: | RCP453 | RCP452 | RCP451 | | |
| DATE EXTRACTED: | 03/27/0012:58 | 03/27/0012:25 | 03/27/0011:47 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/27/0012:58 | 03/27/0012:25 | 03/27/0011:47 | DATE RECEIVED: | 03/27/00 |
| PREP. BATCH: | VOC2902 | VOC2902 | VOC2902 | | |
| CALIB. REF: | RCP449 | RCP449 | RCP449 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 18.8 | 94 | 20 | 18.1 | 91 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 18.8 | 94 | 20 | 18.5 | 93 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 18.8 | 94 | 20 | 18.1 | 91 | 3 | 65-135 | 30 |
| Toluene | ND | 20 | 18.8 | 94 | 20 | 18 | 90 | 4 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 18.4 | 92 | 20 | 17.9 | 90 | 2 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 48.1 | 96 | 50 | 48.3 | 97 | 52-149 |
| fluorobenzene | 50 | 52 | 104 | 50 | 53 | 106 | 65-135 |
| ene-d8 | 50 | 49.5 | 99 | 50 | 50.4 | 101 | 65-135 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00C176
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK4S | | | | |
| LAB SAMP ID: | VOC5004B | VOC5004L | VOC5004C | | |
| LAB FILE ID: | RCH633 | RCH631 | RCH632 | | |
| DATE EXTRACTED: | 03/24/0008:43 | 03/24/0007:27 | 03/24/0008:05 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 03/24/0008:43 | 03/24/0007:27 | 03/24/0008:05 | DATE RECEIVED: | 03/24/00 |
| PREP. BATCH: | VOC5004 | VOC5004 | VOC5004 | | |
| CALIB. REF: | RCH629 | RCH629 | RCH629 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 21.9 | 109 | 20 | 22.9 | 114 | 4 | 65-135 | 30 |
| Benzene | ND | 20 | 20.5 | 102 | 20 | 20.6 | 103 | 1 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 19.5 | 98 | 20 | 19.6 | 98 | 0 | 65-135 | 30 |
| Toluene | ND | 20 | 20.3 | 102 | 20 | 20.7 | 103 | 2 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 17.7 | 88 | 20 | 17.4 | 87 | 1 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorethane-d4 | 50 | 47.4 | 95 | 50 | 48 | 96 | 52-149 |
| Bromofluorobenzene | 50 | 52.6 | 105 | 50 | 52.5 | 105 | 65-135 |
| Toluene-d8 | 50 | 47.8 | 96 | 50 | 48.1 | 96 | 65-135 |

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2889 | Date Analyzed: | 03/26/00 16:32 |
| Lab Samp ID: | C176-01 | Dilution Factor: | 1 |
| Lab File ID: | I31C116015 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 10.1 |
| Calib. Ref.: | I31C116008 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 4.12 | 1.11 | .385 |
| Lead | 3.64 | 1.11 | .254 |
| Selenium | ND | 1.11 | .535 |
| Thallium | 1.28 | 1.11 | .941 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2890 | Date Analyzed: | 03/28/00 01:06 |
| Lab Samp ID: | C176-02 | Dilution Factor: | 1 |
| Lab File ID: | I31C117022 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 9.8 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 2.94 | 1.11 | .384 |
| Lead | 17.2 | 1.11 | .253 |
| Selenium | ND | 1.11 | .533 |
| Thallium | ND | 1.11 | .938 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2891 | Date Analyzed: | 03/28/00 01:11 |
| Lab Samp ID: | C176-03 | Dilution Factor: | 1 |
| Lab File ID: | I31C117023 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 13.2 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.94 | 1.15 | .399 |
| Lead | 4.72 | 1.15 | .263 |
| Selenium | ND | 1.15 | .554 |
| Thallium | ND | 1.15 | .975 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2892 | Date Analyzed: | 03/28/00 01:16 |
| Lab Samp ID: | C176-04 | Dilution Factor: | 1 |
| Lab File ID: | I31C117024 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 11.7 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 2.92 | 1.13 | .392 |
| Lead | 4.68 | 1.13 | .258 |
| Selenium | ND | 1.13 | .545 |
| Thallium | ND | 1.13 | .958 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2893 | Date Analyzed: | 03/28/00 01:20 |
| Lab Samp ID: | C176-05 | Dilution Factor: | 1 |
| Lab File ID: | I31C117025 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 12.1 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 4.17 | 1.14 | .394 |
| Lead | 5.66 | 1.14 | .259 |
| Selenium | ND | 1.14 | .547 |
| Thallium | ND | 1.14 | .962 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2894 | Date Analyzed: | 03/28/00 01:25 |
| Lab Samp ID: | C176-06 | Dilution Factor: | 1 |
| Lab File ID: | I31C117026 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 13.5 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.47 | 1.16 | .4 |
| Lead | 2.96 | 1.16 | .264 |
| Selenium | ND | 1.16 | .556 |
| Thallium | ND | 1.16 | .978 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2895 | Date Analyzed: | 03/28/00 01:29 |
| Lab Samp ID: | C176-07 | Dilution Factor: | 1 |
| Lab File ID: | I31C117027 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 12.8 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.88 | 1.15 | .397 |
| Lead | 3.75 | 1.15 | .261 |
| Selenium | ND | 1.15 | .552 |
| Thallium | ND | 1.15 | .97 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2896 | Date Analyzed: | 03/28/00 01:34 |
| Lab Samp ID: | C176-08 | Dilution Factor: | 1 |
| Lab File ID: | I31C117028 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 12.8 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.78 | 1.15 | .397 |
| Lead | 5 | 1.15 | .261 |
| Selenium | ND | 1.15 | .552 |
| Thallium | ND | 1.15 | .97 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2897 | Date Analyzed: | 03/28/00 01:39 |
| Lab Samp ID: | C176-09 | Dilution Factor: | 1 |
| Lab File ID: | I31C117029 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 12.9 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.79 | 1.15 | .397 |
| Lead | 3.66 | 1.15 | .262 |
| Selenium | ND | 1.15 | .552 |
| Thallium | ND | 1.15 | .971 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2898 | Date Analyzed: | 03/28/00 01:43 |
| Lab Samp ID: | C176-10 | Dilution Factor: | 1 |
| Lab File ID: | I31C117030 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 11.8 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 2.75 | 1.13 | .392 |
| Lead | 3.37 | 1.13 | .259 |
| Selenium | ND | 1.13 | .545 |
| Thallium | ND | 1.13 | .959 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2899 | Date Analyzed: | 03/28/00 01:48 |
| Lab Samp ID: | C176-11 | Dilution Factor: | 1 |
| Lab File ID: | I31C117031 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 14.4 |
| Calib. Ref.: | I31C117020 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.82 | 1.17 | .404 |
| Lead | 3.19 | 1.17 | .266 |
| Selenium | ND | 1.17 | .562 |
| Thallium | ND | 1.17 | .988 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 03/22/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/22/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | 18609-2900 | Date Analyzed: | 03/28/00 02:02 |
| Lab Samp ID: | C176-12 | Dilution Factor: | 1 |
| Lab File ID: | I31C117034 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | 13.2 |
| Calib. Ref.: | I31C117032 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | 3.65 | 1.15 | .399 |
| Lead | 3.22 | 1.15 | .263 |
| Selenium | ND | 1.15 | .554 |
| Thallium | ND | 1.15 | .975 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY TRACE-ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 03/24/00 |
| SDG NO. | : 00C176 | Date Extracted: | 03/24/00 13:45 |
| Sample ID: | MBLK1S | Date Analyzed: | 03/26/00 16:16 |
| Lab Samp ID: | IPC076SB | Dilution Factor: | 1 |
| Lab File ID: | I31C116012 | Matrix : | SOIL |
| Ext Btch ID: | IPC076S | % Moisture : | NA |
| Calib. Ref.: | I31C116008 | Instrument ID : | EMAXTI31 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Arsenic | ND | 1 | .346 |
| Lead | ND | 1 | .228 |
| Selenium | ND | 1 | .481 |
| Thallium | ND | 1 | .846 |

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION =====
PROJECT: MCAS EL TORO/18609/D.O. 70
SDG NO.: 00C176
METHOD: METHOD 3050B/6010B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| CONTROL NO.: | IPC076SB | IPC076SL | IPC076SC | | |
| LAB FILE ID: | I31C116012 | I31C116013 | I31C116014 | | |
| DATIME EXTRCTD: | 03/24/0013:45 | 03/24/0013:45 | 03/24/0013:45 | DATE COLLECTED: | NA |
| DATIME ANALYZD: | 03/26/0016:16 | 03/26/0016:21 | 03/26/0016:27 | DATE RECEIVED: | 03/24/00 |
| PREP. BATCH: | IPC076S | IPC076S | IPC076S | | |
| CALIB. REF: | I31C116008 | I31C116008 | I31C116008 | | |

ACCESSION:

| PARAMETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | 100 | 89.3 | 89 | 100 | 89.5 | 90 | 0 | 80-120 | 20 |
| Lead | ND | 100 | 87.2 | 87 | 100 | 87.5 | 88 | 0 | 80-120 | 20 |
| Selenium | ND | 100 | 90.2 | 90 | 100 | 90.9 | 91 | 1 | 80-120 | 20 |
| Thallium | ND | 100 | 91.6 | 92 | 100 | 92.2 | 92 | 1 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
SDG NO.: 00C176
METHOD: METHOD 3050B/6010B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 10.1 |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2889 | | | | |
| CONTROL NO.: | C176-01 | C176-01M | C176-01S | | |
| LAB FILE ID: | I31C116015 | I31C116018 | I31C116019 | | |
| DATIME EXTRCTD: | 03/24/0013:45 | 03/24/0013:45 | 03/24/0013:45 | DATE COLLECTED: | 03/22/00 |
| DATIME ANALYZD: | 03/26/0016:32 | 03/26/0016:49 | 03/26/0016:58 | DATE RECEIVED: | 03/22/00 |
| PREP. BATCH: | IPC076S | IPC076S | IPC076S | | |
| CALIB. REF: | I31C116008 | I31C116008 | I31C116008 | | |

ACCESSION:

| PARAMETER | SMPL RSLT mg/kg | SPIKE AMT mg/kg | MS RSLT mg/kg | MS % REC | SPIKE AMT mg/kg | MSD RSLT mg/kg | MSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.12 | 111 | 104 | 90 | 111 | 104 | 90 | 0 | 80-120 | 20 |
| Lead | 3.64 | 111 | 100 | 87 | 111 | 100 | 87 | 0 | 80-120 | 20 |
| Selenium | ND | 111 | 103 | 93 | 111 | 103 | 92 | 0 | 80-120 | 20 |
| Thallium | 1.28 | 111 | 103 | 92 | 111 | 102 | 90 | 1 | 80-120 | 20 |

COMPLETED 4/24/00

WBS 02009011

**the i group**

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

# CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 10834

FORM 0019 REV. 9-99

(Greaton)
UST 298 - Stock Pile

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: M. Concepcion ~~L. Brian Kowalski~~ | LAB COORDINATOR'S PHONE: 949-660-7550 | LAB COORDINATOR'S FAX: 949-475-5433 | LABORATORY SERVICE ID: 00D060 | LABORATORY CONTACT: EMAX | MAIL REPORT (COMPANY NAME): IT Group |
| PROJECT NAME: El Toro - DO 70 | PROJECT LOCATION: MCAS, El Toro, CA | PROJECT NUMBER: 918009 | LABORATORY PHONE: 310-618-8889 | LABORATORY FAX: 310-618-0818 | RECIPIENT NAME: Duwayne Ishida |
| PROJECT CONTACT: M. Concepcion | PROJECT PHONE NUMBER: 949-451-1667 | PROJECT FAX: 949-451-1662 | LABORATORY ADDRESS: 1630 Maple Ave. | ADDRESS: 3347 Michelson | |
| PROJECT ADDRESS: — | CITY, STATE AND ZIP CODE: — | CLIENT: SWDIV | CITY, STATE AND ZIP CODE: Torrance, CA | CITY, STATE AND ZIP CODE: Irvine, CA 92606 | |
| PROJECT MANAGER: B. Sedlak | PROJECT MANAGER'S PHONE: 949-660-5446 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

| Item | Sample Identifier | Matrix | 2000 Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: TPH-Gas | TPH-Diesel | 8260 | Metals (Total) | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18609-2958 | S | 4-12 | 0800 | 4°C | 2 | 3 | 5day | X | X | X | X | | | | | |
| 2 | 18609-2959 | S | 4-12 | 0805 | 4°C | 2 | 3 | 5day | X | X | X | X | | | | | |
| 3 | 18609-2960 | S | 4-12 | 0810 | 4°C | 2 | 3 | 5day | X | X | X | X | | | | | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

W/ W/H 4-12-00

SAMPLES COLLECTED BY: D. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Wayne Ryan | [illegible] | 4/12/00 | 1300 | |

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Manilla - Project Data Manager

**Project Information Section**
**For Project Personnel Only**
**Do Not Submit to Laboratory**

UST 298 - Stock Pile
(Greaton)

| Sample Point Location | Sample Type: G | C | F | QC |
|---|---|---|---|---|
| ① UST298-Stock Pile | X | | | |
| ② UST298-Stock Pile | X | | | |
| ③ UST298-Stock Pile | X | | | |

Comments
due 4/20/00
rec'd 4/28/00
to DR 4/21/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

AC

4963

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 04-26-2000
EMAX Batch No.: 00D060

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

---

Enclosed is the Laboratory report for samples received on 04/12/00. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| 18609-2958 | D060-01 | 04/12/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | Total Metals |
| | | | | Mercury |
| 18609-2959 | D060-02 | 04/12/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | Total Metals |
| | | | | Mercury |
| 18609-2960 | D060-03 | 04/12/00 | SOIL | Modified 8015 by Extraction |
| | | | | Modified 8015 by Purge & Trap |
| | | | | Volatile Organics by GC/MS |
| | | | | Total Metals |
| | | | | Mercury |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

ORIGINAL

Melanie Concepcion Gonzalez
IT/OHM
3347 Michelson Dr. #200
Irvine, CA 92612

Date: 05/15/2000

Ye Myint
630 Maple Ave
Torrance, CA 90503

Dear Ms. Gonzalez,

We have revised the analysis date on the reports for metals by GFAA for the following SDGs. The SDGs are: 00D021, 00D022, 00D050 And 00D060. Enclosed please find the copies of the revised reports. Please contact me at 310-618-8889 if you have any questions. Thank you.

Sincerely,

Ye Myint

METHOD
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

ıt : IT CORPORATION
ect : MCAS EL TORO/18609/D.O. 70
ı ko. : OOD060

Matrix : SOIL
Instrument ID : GCT050

| LE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SUR1 (%) | SUR2 (%) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1S | DSD022SB | ND | 134 | 125 | 1 | NA | 10 | 2.1 | 04/13/0016:56 | 04/13/0014:00 | TD06029A | TD06026A | DSD022S | NA | 04/13/00 |
| S | DSD022SL | 543 | 132 | 121 | 1 | NA | 10 | 2.1 | 04/13/0017:46 | 04/13/0014:00 | TD06030A | TD06026A | DSD022S | NA | 04/13/00 |
| S | DSD022SC | 562 | 133 | 125 | 1 | NA | 10 | 2.1 | 04/13/0018:36 | 04/13/0014:00 | TD06031A | TD06026A | DSD022S | NA | 04/13/00 |
| 9-2958 | D060-01 | 48 | 117 | 110 | 1 | 4.6 | 10.5 | 2.2 | 04/13/0021:54 | 04/13/0014:00 | TD06035A | TD06026A | DSD022S | 04/12/00 | 04/12/00 |
| 9-2959 | D060-02 | 18 | 121 | 115 | 1 | 4.6 | 10.5 | 2.2 | 04/13/0022:43 | 04/13/0014:00 | TD06036A | TD06026A | DSD022S | 04/12/00 | 04/12/00 |
| 9-2960 | D060-03 | 92 | 122 | 115 | 1 | 4.9 | 10.5 | 2.2 | 04/13/0023:33 | 04/13/0014:00 | TD06037A | TD06026A | DSD022S | 04/12/00 | 04/12/00 |

IMIT : (SOIL) 60-140 55-150
IMIT : (WATER) 65-135 60-145
1 : Bromobenzene
2 : Hexacosane
: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00D060
METHOD: METHOD M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | DSD022SB | DSD022SL | DSD022SC | | |
| LAB FILE ID: | TD06029A | TD06030A | TD06031A | | |
| DATE EXTRACTED: | 04/13/0014:00 | 04/13/0014:00 | 04/13/0014:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/13/0016:56 | 04/13/0017:46 | 04/13/0018:36 | DATE RECEIVED: | 04/13/00 |
| PREP. BATCH: | DSD022S | DSD022S | DSD022S | | |
| CALIB. REF: | TD06026A | TD06026A | TD06026A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel | ND | 500 | 543 | 109 | 500 | 562 | 112 | 3 | 51-153 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 100 | 132 | 132 | 100 | 133 | 133 | 60-140 |
| Hexacosane | 25 | 30.2 | 121 | 25 | 31.4 | 125 | 55-150 |

METHOD 5030B 5
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

nt : IT CORPORATION
ect : MCAS EL TORO/18609/D.O. 70
h No. : 00D060

Matrix : SOIL
Instrument ID : GCT039

| LE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | SURR (%) | DLF | MOIST | PRL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1S | VAD1939B | ND | 80 | 1 | NA | 1 | .088 | 04/14/0002:23 | 04/14/0002:23 | ED07052A | ED07051A | VAD1939 | NA | 04/14/00 |
| S | VAD1939L | 2.53 | 89 | 1 | NA | 1 | .088 | 04/14/0002:58 | 04/14/0002:58 | ED07053A | ED07051A | VAD1939 | NA | 04/14/00 |
| S | VAD1939C | 2.59 | 87 | 1 | NA | 1 | .088 | 04/14/0003:33 | 04/14/0003:33 | ED07054A | ED07051A | VAD1939 | NA | 04/14/00 |
| 9-2958 | D060-01 | ND | 78 | 1 | 4.6 | 1.05 | .0922 | 04/14/0004:08 | 04/14/0004:08 | ED07055A | ED07051A | VAD1939 | 04/12/00 | 04/12/00 |
| 9-2958MS | D060-01M | 2.55 | 84 | 1 | 4.6 | 1.05 | .0922 | 04/14/0005:19 | 04/14/0005:19 | ED07057A | ED07051A | VAD1939 | 04/12/00 | 04/12/00 |
| 9-2958MSD | D060-01S | 2.83 | 83 | 1 | 4.6 | 1.05 | .0922 | 04/14/0005:54 | 04/14/0005:54 | ED07058A | ED07051A | VAD1939 | 04/12/00 | 04/12/00 |
| 9-2959 | D060-02 | ND | 77 | 1 | 4.6 | 1.05 | .0922 | 04/14/0004:44 | 04/14/0004:44 | ED07056A | ED07051A | VAD1939 | 04/12/00 | 04/12/00 |
| 9-2960 | D060-03 | ND | 73 | 1 | 4.9 | 1.05 | .0925 | 04/14/0006:29 | 04/14/0006:29 | ED07059A | ED07051A | VAD1939 | 04/12/00 | 04/12/00 |

: Bromofluorobenzene
: Reporting Limit
: Value exceed the upper level of the initial calibration
: Value from dilution

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00D060
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VAD1939B | VAD1939L | VAD1939C | | |
| LAB FILE ID: | ED07052A | ED07053A | ED07054A | | |
| DATE EXTRACTED: | 04/14/0002:23 | 04/14/0002:58 | 04/14/0003:33 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/14/0002:23 | 04/14/0002:58 | 04/14/0003:33 | DATE RECEIVED: | 04/14/00 |
| PREP. BATCH: | VAD1939 | VAD1939 | VAD1939 | | |
| CALIB. REF: | ED07051A | ED07051A | ED07051A | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/kg) | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.75 | 2.53 | 92 | 2.75 | 2.59 | 94 | 2 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | BS RSLT (mg/kg) | BS % REC | SPIKE AMT (mg/kg) | BSD RSLT (mg/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .25 | .222 | 89 | .25 | .217 | 87 | 60-140 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00D060
METHOD: METHOD 5030B/M8015

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | 4.6 |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | 18609-2958 | | | | |
| LAB SAMP ID: | D060-01 | D060-01M | D060-01S | | |
| LAB FILE ID: | ED07055A | ED07057A | ED07058A | | |
| DATE EXTRACTED: | 04/14/0004:08 | 04/14/0005:19 | 04/14/0005:54 | DATE COLLECTED: | 04/12/00 |
| DATE ANALYZED: | 04/14/0004:08 | 04/14/0005:19 | 04/14/0005:54 | DATE RECEIVED: | 04/12/00 |
| PREP. BATCH: | VAD1939 | VAD1939 | VAD1939 | | |
| CALIB. REF: | ED07051A | ED07051A | ED07051A | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/kg) | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline | ND | 2.88 | 2.55 | 89 | 2.88 | 2.83 | 98 | 10 | 57-146 | 50 |

| SURROGATE PARAMETER | SPIKE AMT (mg/kg) | MS RSLT (mg/kg) | MS % REC | SPIKE AMT (mg/kg) | MSD RSLT (mg/kg) | MSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromofluorobenzene | .262 | .22 | 84 | .262 | .218 | 83 | 60-140 |

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 04/12/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/12/00 |
| Batch No. | : 000060 | Date Extracted: | 04/18/00 16:44 |
| Sample ID: | 18609-2958 | Date Analyzed: | 04/18/00 16:44 |
| Lab Samp ID: | D060-01 | Dilution Factor: | 1 |
| Lab File ID: | RDP319 | Matrix : | SOIL |
| Ext Btch ID: | VOD2002 | % Moisture : | 4.6 |
| Calib. Ref.: | RDP307 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.2 | .36 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.2 | .77 |
| 1,1,2-TRICHLOROETHANE | ND | 5.2 | .69 |
| 1,1-DICHLOROETHANE | ND | 5.2 | .55 |
| 1,1-DICHLOROETHENE | ND | 5.2 | .5 |
| 1,2-DICHLOROETHANE | ND | 5.2 | 1 |
| 1,2-DICHLOROPROPANE | ND | 5.2 | .57 |
| 2-BUTANONE | ND | 52 | 1.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 52 | .78 |
| 2-HEXANONE | ND | 52 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 52 | 2.9 |
| ACETONE | ND | 52 | 3 |
| BENZENE | ND | 5.2 | .55 |
| BROMODICHLOROMETHANE | ND | 5.2 | .44 |
| BROMOFORM | ND | 5.2 | .62 |
| BROMOMETHANE | ND | 5.2 | 3.8 |
| CARBON DISULFIDE | ND | 5.2 | .35 |
| CARBON TETRACHLORIDE | ND | 5.2 | .56 |
| CHLOROBENZENE | ND | 5.2 | .49 |
| CHLOROETHANE | ND | 5.2 | .97 |
| CHLOROFORM | ND | 5.2 | .55 |
| CHLOROMETHANE | ND | 5.2 | .55 |
| CIS-1,2-DICHLOROETHENE | ND | 5.2 | .48 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.2 | .42 |
| DIBROMOCHLOROMETHANE | ND | 5.2 | .38 |
| ETHYLBENZENE | ND | 5.2 | .48 |
| MTBE | ND | 10 | .79 |
| METHYLENE CHLORIDE | ND | 5.2 | 3.2 |
| STYRENE | ND | 5.2 | .36 |
| TETRACHLOROETHENE | ND | 5.2 | .35 |
| TOLUENE | ND | 5.2 | .6 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.2 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.2 | .47 |
| TRICHLOROETHENE | ND | 5.2 | .64 |
| VINYL ACETATE | ND | 52 | .87 |
| VINYL CHLORIDE | ND | 5.2 | .61 |
| XYLENES | ND | 5.2 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 111 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 106 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 04/12/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/12/00 |
| Batch No. | : 00D060 | Date Extracted: | 04/18/00 17:47 |
| Sample ID: | 18609-2959 | Date Analyzed: | 04/18/00 17:47 |
| Lab Samp ID: | D06C-02 | Dilution Factor: | 1 |
| Lab File ID: | RDP320 | Matrix : | SOIL |
| Ext Btch ID: | VOD2002 | % Moisture : | 4.6 |
| Calib. Ref.: | RDP307 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.2 | .36 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.2 | .77 |
| 1,1,2-TRICHLOROETHANE | ND | 5.2 | .69 |
| 1,1-DICHLOROETHANE | ND | 5.2 | .55 |
| 1,1-DICHLOROETHENE | ND | 5.2 | .5 |
| 1,2-DICHLOROETHANE | ND | 5.2 | 1 |
| 1,2-DICHLOROPROPANE | ND | 5.2 | .57 |
| 2-BUTANONE | ND | 52 | 1.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 52 | .78 |
| 2-HEXANONE | ND | 52 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 52 | 2.9 |
| ACETONE | ND | 52 | 3 |
| BENZENE | ND | 5.2 | .55 |
| BROMODICHLOROMETHANE | ND | 5.2 | .44 |
| BROMOFORM | ND | 5.2 | .62 |
| BROMOMETHANE | ND | 5.2 | 3.8 |
| CARBON DISULFIDE | ND | 5.2 | .35 |
| CARBON TETRACHLORIDE | ND | 5.2 | .56 |
| C[illegible]OBENZENE | ND | 5.2 | .49 |
| C[illegible]ETHANE | ND | 5.2 | .97 |
| CHLOROFORM | ND | 5.2 | .55 |
| CHLOROMETHANE | ND | 5.2 | .55 |
| CIS-1,2-DICHLOROETHENE | ND | 5.2 | .48 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.2 | .42 |
| DIBROMOCHLOROMETHANE | ND | 5.2 | .38 |
| ETHYLBENZENE | ND | 5.2 | .48 |
| MTBE | ND | 10 | .79 |
| METHYLENE CHLORIDE | ND | 5.2 | 3.2 |
| STYRENE | ND | 5.2 | .36 |
| TETRACHLOROETHENE | ND | 5.2 | .35 |
| TOLUENE | ND | 5.2 | .6 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.2 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.2 | .47 |
| TRICHLOROETHENE | ND | 5.2 | .64 |
| VINYL ACETATE | ND | 52 | .87 |
| VINYL CHLORIDE | ND | 5.2 | .61 |
| XYLENES | ND | 5.2 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 107 | 52-149 |
| BROMOFLUOROBENZENE | 99 | 65-135 |
| TOLUENE-D8 | 101 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 04/12/00 |
| Project : MCAS EL TORO/18609/D.O. 70 | Date Received: 04/12/00 |
| Batch No. : 00D060 | Date Extracted: 04/18/00 18:20 |
| Sample ID: 18609-2960 | Date Analyzed: 04/18/00 18:20 |
| Lab Samp ID: D060-03 | Dilution Factor: 1 |
| Lab File ID: RDP321 | Matrix : SOIL |
| Ext Btch ID: VOD2002 | % Moisture : 4.9 |
| Calib. Ref.: RDP307 | Instrument ID : T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5.3 | .36 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5.3 | .78 |
| 1,1,2-TRICHLOROETHANE | ND | 5.3 | .69 |
| 1,1-DICHLOROETHANE | ND | 5.3 | .55 |
| 1,1-DICHLOROETHENE | ND | 5.3 | .5 |
| 1,2-DICHLOROETHANE | ND | 5.3 | 1 |
| 1,2-DICHLOROPROPANE | ND | 5.3 | .58 |
| 2-BUTANONE | ND | 53 | 1.6 |
| 2-CHLOROETHYLVINYLETHER | ND | 53 | .78 |
| 2-HEXANONE | ND | 53 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 53 | 3 |
| ACETONE | ND | 53 | 3 |
| BENZENE | ND | 5.3 | .55 |
| BROMODICHLOROMETHANE | ND | 5.3 | .44 |
| BROMOFORM | ND | 5.3 | .62 |
| BROMOMETHANE | ND | 5.3 | 3.8 |
| CARBON DISULFIDE | ND | 5.3 | .35 |
| CARBON TETRACHLORIDE | ND | 5.3 | .56 |
| CHLOROBENZENE | ND | 5.3 | .49 |
| CHLOROETHANE | ND | 5.3 | .97 |
| CHLOROFORM | ND | 5.3 | .55 |
| CHLOROMETHANE | ND | 5.3 | .55 |
| CIS-1,2-DICHLOROETHENE | ND | 5.3 | .48 |
| CIS-1,3-DICHLOROPROPENE | ND | 5.3 | .42 |
| DIBROMOCHLOROMETHANE | ND | 5.3 | .39 |
| ETHYLBENZENE | ND | 5.3 | .48 |
| MTBE | ND | 11 | .79 |
| METHYLENE CHLORIDE | ND | 5.3 | 3.2 |
| STYRENE | ND | 5.3 | .36 |
| TETRACHLOROETHENE | ND | 5.3 | .36 |
| TOLUENE | ND | 5.3 | .61 |
| TRANS-1,2-DICHLOROETHENE | ND | 5.3 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5.3 | .47 |
| TRICHLOROETHENE | ND | 5.3 | .64 |
| VINYL ACETATE | ND | 53 | .87 |
| VINYL CHLORIDE | ND | 5.3 | .62 |
| XYLENES | ND | 5.3 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 111 | 52-149 |
| BROMOFLUOROBENZENE | 105 | 65-135 |
| TOLUENE-D8 | 107 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/18/00 |
| Batch No. | : 00D060 | Date Extracted: | 04/18/00 11:14 |
| Sample ID: | MBLK1S | Date Analyzed: | 04/18/00 11:14 |
| Lab Samp ID: | V0D2002B | Dilution Factor: | 1 |
| Lab File ID: | RDP310 | Matrix : | SOIL |
| Ext Btch ID: | V0D2002 | % Moisture : | NA |
| Calib. Ref.: | RDP307 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/kg) | PRL (ug/kg) | MDL (ug/kg) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 5 | .34 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | .74 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | .66 |
| 1,1-DICHLOROETHANE | ND | 5 | .52 |
| 1,1-DICHLOROETHENE | ND | 5 | .48 |
| 1,2-DICHLOROETHANE | ND | 5 | .99 |
| 1,2-DICHLOROPROPANE | ND | 5 | .55 |
| 2-BUTANONE | ND | 50 | 1.5 |
| 2-CHLOROETHYLVINYLETHER | ND | 50 | .74 |
| 2-HEXANONE | ND | 50 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 50 | 2.8 |
| ACETONE | ND | 50 | 2.9 |
| BENZENE | ND | 5 | .53 |
| BROMODICHLOROMETHANE | ND | 5 | .42 |
| BROMOFORM | ND | 5 | .59 |
| BROMOMETHANE | ND | 5 | 3.6 |
| CARBON DISULFIDE | ND | 5 | .33 |
| CARBON TETRACHLORIDE | ND | 5 | .54 |
| C[illegible]OBENZENE | ND | 5 | .46 |
| [illegible]OETHANE | ND | 5 | .92 |
| CHLOROFORM | ND | 5 | .52 |
| CHLOROMETHANE | ND | 5 | .53 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | .46 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | .4 |
| DIBROMOCHLOROMETHANE | ND | 5 | .37 |
| ETHYLBENZENE | ND | 5 | .46 |
| MTBE | ND | 10 | .76 |
| METHYLENE CHLORIDE | ND | 5 | 3 |
| STYRENE | ND | 5 | .34 |
| TETRACHLOROETHENE | ND | 5 | .34 |
| TOLUENE | ND | 5 | .58 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | .47 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | .45 |
| TRICHLOROETHENE | ND | 5 | .61 |
| VINYL ACETATE | ND | 50 | .83 |
| VINYL CHLORIDE | ND | 5 | .58 |
| XYLENES | ND | 5 | 1.1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 93 | 52-149 |
| BROMOFLUOROBENZENE | 90 | 65-135 |
| TOLUENE-D8 | 91 | 65-135 |

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00D060
METHOD: METHOD 5030A/8260A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| LAB SAMP ID: | VOD2002B | VOD2002L | VOD2002C | | |
| LAB FILE ID: | RDP310 | RDP308 | RDP309 | | |
| DATE EXTRACTED: | 04/18/0011:14 | 04/18/0010:08 | 04/18/0010:41 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 04/18/0011:14 | 04/18/0010:08 | 04/18/0010:41 | DATE RECEIVED: | 04/18/00 |
| PREP. BATCH: | VOD2002 | VOD2002 | VOD2002 | | |
| CALIB. REF: | RDP307 | RDP307 | RDP307 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/kg) | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 20 | 20.8 | 104 | 20 | 19.6 | 98 | 6 | 65-135 | 30 |
| Benzene | ND | 20 | 20.8 | 104 | 20 | 19.9 | 99 | 4 | 65-135 | 30 |
| Chlorobenzene | ND | 20 | 20.7 | 104 | 20 | 19.9 | 99 | 4 | 65-135 | 30 |
| Toluene | ND | 20 | 20.6 | 103 | 20 | 19.6 | 98 | 5 | 64-135 | 30 |
| Trichloroethene | ND | 20 | 20.4 | 102 | 20 | 19.5 | 98 | 5 | 61-135 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/kg) | BS RSLT (ug/kg) | BS % REC | SPIKE AMT (ug/kg) | BSD RSLT (ug/kg) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | 52.6 | 105 | 50 | 52.4 | 105 | 52-149 |
| Bromofluorobenzene | 50 | 49.5 | 99 | 50 | 48.6 | 97 | 65-135 |
| Toluene-d8 | 50 | 50.9 | 102 | 50 | 50.2 | 100 | 65-135 |

METHOD 3050B/6010B
METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 04/12/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/12/00 |
| SDG NO. | : 00D060 | Date Extracted: | 04/14/00 18:00 |
| Sample ID: | 18609-2958 | Date Analyzed: | 04/18/00 06:08 |
| Lab Samp ID: | D060-01 | Dilution Factor: | 1 |
| Lab File ID: | I07D049012 | Matrix : | SOIL |
| Ext Btch ID: | IPD040S | % Moisture : | 4.6 |
| Calib. Ref.: | I07D049007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Aluminum | 7000 | 52.4 | 2.88 |
| Antimony | ND | 10.5 | 3.61 |
| Barium | 49.5 | 1.05 | .0419 |
| Beryllium | ND | .21 | .0105 |
| Cadmium | ND | 1.05 | .21 |
| Calcium | 2450 | 524 | 4.57 |
| Chromium | 8.73 | 1.05 | .409 |
| Cobalt | 3.58 | 1.05 | .335 |
| Copper | 12.2 | 1.05 | .702 |
| Iron | 12700 | 21 | 2.06 |
| Magnesium | 3670 | 524 | 4.41 |
| Manganese | 173 | 2.1 | .629 |
| Molybdenum | ND | 2.1 | .881 |
| Nickel | 7.76 | 2.1 | .849 |
| Potassium | 944 | 524 | 112 |
| Silver | ND | 2.1 | .44 |
| Sodium | ND | 524 | 20.4 |
| V[illegible]um | 24.2 | 1.05 | .377 |
| Z[illegible] | 39.7 | 1.05 | .377 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY ICP

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 04/12/00 |
| Project : MCAS EL TORO/18609/D.O. 70 | Date Received: 04/12/00 |
| SDG NO. : 00D060 | Date Extracted: 04/14/00 18:00 |
| Sample ID: 18609-2959 | Date Analyzed: 04/18/00 06:13 |
| Lab Samp ID: D060-02 | Dilution Factor: 1 |
| Lab File ID: I07D049013 | Matrix : SOIL |
| Ext Btch ID: IPD040S | % Moisture : 4.6 |
| Calib. Ref.: I07D049007 | Instrument ID : EMAXTI07 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Aluminum | 5090 | 52.4 | 2.88 |
| Antimony | ND | 10.5 | 3.61 |
| Barium | 43.4 | 1.05 | .0419 |
| Beryllium | ND | .21 | .0105 |
| Cadmium | ND | 1.05 | .21 |
| Calcium | 2570 | 524 | 4.57 |
| Chromium | 6.04 | 1.05 | .409 |
| Cobalt | 3.31 | 1.05 | .335 |
| Copper | 8.97 | 1.05 | .702 |
| Iron | 9990 | 21 | 2.06 |
| Magnesium | 2480 | 524 | 4.41 |
| Manganese | 165 | 2.1 | .629 |
| Molybdenum | ND | 2.1 | .881 |
| Nickel | 6.07 | 2.1 | .849 |
| Potassium | 1030 | 524 | 112 |
| Silver | ND | 2.1 | .44 |
| Sodium | ND | 524 | 20.4 |
| Vanadium | 16.5 | 1.05 | .377 |
| Zinc | 36.7 | 1.05 | .377 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 04/12/00 |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/12/00 |
| SDG NO. | : 00D060 | Date Extracted: | 04/14/00 18:00 |
| Sample ID: | 18609-2960 | Date Analyzed: | 04/18/00 06:18 |
| Lab Samp ID: | D060-03 | Dilution Factor: | 1 |
| Lab File ID: | I07D049014 | Matrix : | SOIL |
| Ext Btch ID: | IPD040S | % Moisture : | 4.9 |
| Calib. Ref.: | I07D049007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Aluminum | 5570 | 52.6 | 2.89 |
| Antimony | ND | 10.5 | 3.62 |
| Barium | 41.8 | 1.05 | .0421 |
| Beryllium | ND | .21 | .0105 |
| Cadmium | ND | 1.05 | .21 |
| Calcium | 2150 | 526 | 4.58 |
| Chromium | 8.5 | 1.05 | .41 |
| Cobalt | 2.63 | 1.05 | .336 |
| Copper | 10.8 | 1.05 | .705 |
| Iron | 10500 | 21 | 2.07 |
| Magnesium | 2810 | 526 | 4.43 |
| Manganese | 147 | 2.1 | .631 |
| Molybdenum | ND | 2.1 | .883 |
| Nickel | 6.74 | 2.1 | .852 |
| Potassium | 878 | 526 | 113 |
| Silver | ND | 2.1 | .442 |
| Sodium | ND | 526 | 20.5 |
| Vanadium | 18.9 | 1.05 | .379 |
| Zinc | 37.1 | 1.05 | .379 |

RL: Reporting Limit

METHOD 3050B/6010B
METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : MCAS EL TORO/18609/D.O. 70 | Date Received: | 04/14/00 |
| SDG NO. | : 00D060 | Date Extracted: | 04/14/00 18:00 |
| Sample ID: | MBLK1S | Date Analyzed: | 04/18/00 05:52 |
| Lab Samp ID: | IPD040SB | Dilution Factor: | 1 |
| Lab File ID: | I07D049009 | Matrix : | SOIL |
| Ext Btch ID: | IPD040S | % Moisture : | NA |
| Calib. Ref.: | I07D049007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/kg) | RL (mg/kg) | MDL (mg/kg) |
|---|---|---|---|
| Aluminum | ND | 50 | 2.75 |
| Antimony | ND | 10 | 3.44 |
| Barium | ND | 1 | .04 |
| Beryllium | ND | .2 | .01 |
| Cadmium | ND | 1 | .2 |
| Calcium | ND | 500 | 4.36 |
| Chromium | ND | 1 | .39 |
| Cobalt | ND | 1 | .32 |
| Copper | ND | 1 | .67 |
| Iron | ND | 20 | 1.97 |
| Magnesium | ND | 500 | 4.21 |
| Manganese | ND | 2 | .6 |
| Molybdenum | ND | 2 | .84 |
| Nickel | ND | 2 | .81 |
| Potassium | ND | 500 | 107 |
| Silver | ND | 2 | .42 |
| Sodium | ND | 500 | 19.5 |
| Vanadium | ND | 1 | .36 |
| Zinc | ND | 1 | .36 |

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

IT: IT CORPORATION
CT: MCAS EL TORO/18609/D.O. 70
SDG NO.: 00D060
METHOD: METHOD 3050B/6010B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | SOIL | | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1S | | | | |
| CONTROL NO.: | IPD040SB | IPD040SL | IPD040SC | | |
| LAB FILE ID: | I07D049009 | I07D049010 | I07D049011 | | |
| DATIME EXTRCTD: | 04/14/0018:00 | 04/14/0018:00 | 04/14/0018:00 | DATE COLLECTED: | NA |
| DATIME ANALYZD: | 04/18/0005:52 | 04/18/0005:57 | 04/18/0006:02 | DATE RECEIVED: | 04/14/00 |
| PREP. BATCH: | IPD040S | IPD040S | IPD040S | | |
| CALIB. REF: | I07D049007 | I07D049007 | I07D049007 | | |

ACCESSION:

| PARAMETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | 1000 | 965 | 96 | 1000 | 932 | 93 | 3 | 80-120 | 20 |
| Antimony | ND | 500 | 454 | 91 | 500 | 439 | 88 | 3 | 80-120 | 20 |
| Barium | ND | 100 | 102 | 102 | 100 | 98.1 | 98 | 4 | 80-120 | 20 |
| Beryllium | ND | 100 | 97.6 | 98 | 100 | 94.3 | 94 | 3 | 80-120 | 20 |
| Cadmium | ND | 100 | 88.9 | 89 | 100 | 87 | 87 | 2 | 80-120 | 20 |
| Calcium | ND | 5000 | 4600 | 92 | 5000 | 4530 | 91 | 2 | 80-120 | 20 |
| Chromium | ND | 100 | 96 | 96 | 100 | 93.6 | 94 | 3 | 80-120 | 20 |
| Cobalt | ND | 100 | 94.8 | 95 | 100 | 92.5 | 92 | 3 | 80-120 | 20 |
| Copper | ND | 100 | 97 | 97 | 100 | 93.3 | 93 | 4 | 80-120 | 20 |
| Iron | ND | 1000 | 960 | 96 | 1000 | 933 | 93 | 3 | 80-120 | 20 |
| Magnesium | ND | 5000 | 4620 | 92 | 5000 | 4510 | 90 | 2 | 80-120 | 20 |
| Manganese | ND | 100 | 94 | 94 | 100 | 91.5 | 91 | 3 | 80-120 | 20 |
| Molybdenum | ND | 100 | 94.8 | 95 | 100 | 93.2 | 93 | 2 | 80-120 | 20 |
| Nickel | ND | 100 | 92.8 | 93 | 100 | 91.1 | 91 | 2 | 80-120 | 20 |
| Potassium | ND | 5000 | 4670 | 93 | 5000 | 4580 | 92 | 2 | 80-120 | 20 |
| Silver | ND | 100 | 94.2 | 94 | 100 | 91.6 | 92 | 3 | 80-120 | 20 |
| Sodium | ND | 5000 | 4930 | 99 | 5000 | 4710 | 94 | 4 | 80-120 | 20 |
| Vanadium | ND | 100 | 97.1 | 97 | 100 | 94.4 | 94 | 3 | 80-120 | 20 |
| Zinc | ND | 100 | 91.8 | 92 | 100 | 90.1 | 90 | 2 | 80-120 | 20 |

METHOD 3050B/7060A
ARSENIC BY GFAA

ient : IT CORPORATION
oject : MCAS EL TORO/18609/D.O. 70
tch No. : 00D060

Matrix : SOIL
Instrument ID : EMAXTI06

| MPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LK1S | GFD013SB | ND | 1 | NA | 1 | .133 | 04/19/0013:50 | 04/18/0022:30 | G06D032012 | G06D032010 | GFD013S | NA | 04/18/00 |
| S1S | GFD013SL | 2.09 | 1 | NA | 1 | .133 | 04/19/0013:53 | 04/18/0022:30 | G06D032013 | G06D032010 | GFD013S | NA | 04/18/00 |
| D1S | GFD013SC | 2.09 | 1 | NA | 1 | .133 | 04/19/0013:57 | 04/18/0022:30 | G06D032014 | G06D032010 | GFD013S | NA | 04/18/00 |
| 609-2958 | D060-01 | 3.61 | 1 | 4.6 | 1.05 | .139 | 04/19/0015:04 | 04/18/0022:30 | G06D032032 | G06D032022 | GFD013S | 04/12/00 | 04/12/00 |
| 609-2959 | D060-02 | 3.83 | 1 | 4.6 | 1.05 | .139 | 04/19/0015:08 | 04/18/0022:30 | G06D032033 | G06D032022 | GFD013S | 04/12/00 | 04/12/00 |
| 609-2960 | D060-03 | 3.28 | 1 | 4.9 | 1.05 | .14 | 04/19/0015:20 | 04/18/0022:30 | G06D032036 | G06D032034 | GFD013S | 04/12/00 | 04/12/00 |

: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

:: IT CORPORATION
:T: MCAS EL TORO/18609/D.O. 70
).: 000060
): METHOD 3050B/7060A

==========

| | | | | | |
|---|---|---|---|---|---|
| X: | SOIL | | | % MOISTURE: | NA |
| FACTR: | 1 | 1 | 1 | | |
| E ID: | MBLK1S | | | | |
| OL NO.: | GFD013SB | GFD013SL | GFD013SC | | |
| ILE ID: | G06D032012 | G06D032013 | G06D032014 | | |
| E EXTRCTD: | 04/18/0022:30 | 04/18/0022:30 | 04/18/0022:30 | DATE COLLECTED: | NA |
| E ANALYZD: | 04/19/0013:50 | 04/19/0013:53 | 04/19/0013:57 | DATE RECEIVED: | 04/18/00 |
| BATCH: | GFD013S | GFD013S | GFD013S | | |
| . REF: | G06D032010 | G06D032010 | G06D032010 | | |

SION:

| ETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| ic | ND | 2 | 2.09 | 104 | 2 | 2.09 | 105 | 0 | 80-120 | 20 |

7017

METHOD 3050B/7421
LEAD BY GFAA

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : OOD060

Matrix : SOIL
Instrument ID : EMAXTI03

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | GFD013SB | ND | 1 | NA | 1 | .065 | 04/19/0015:28 | 04/18/0022:30 | G03D031012 | G03D031010 | GFD013S | NA | 04/18/00 |
| LCS1S | GFD013SL | 1.09 | 1 | NA | 1 | .065 | 04/19/0015:32 | 04/18/0022:30 | G03D031013 | G03D031010 | GFD013S | NA | 04/18/00 |
| LCD1S | GFD013SC | 1.01 | 1 | NA | 1 | .065 | 04/19/0015:37 | 04/18/0022:30 | G03D031014 | G03D031010 | GFD013S | NA | 04/18/00 |
| 18609-2958 | D060-01 | 8.1 | 2 | 4.6 | 2.1 | .136 | 04/19/0016:44 | 04/18/0022:30 | G03D013030 | G03D031022 | GFD013S | 04/12/00 | 04/12/00 |
| 18609-2959 | D060-02 | 6.32 | 2 | 4.6 | 2.1 | .136 | 04/19/0016:53 | 04/18/0022:30 | G03D031032 | G03D031022 | GFD013S | 04/12/00 | 04/12/00 |
| 18609-2960 | D060-03 | 6.65 | 2 | 4.9 | 2.1 | .136 | 04/19/0017:10 | 04/18/0022:30 | G03D031036 | G03D031034 | GFD013S | 04/12/00 | 04/12/00 |

RL: Reporting Limit

Revised Report

7021

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

IENT: IT CORPORATION
OJECT: MCAS EL TORO/18609/D.O. 70
G NO.: 00D060
THOD: METHOD 3050B/7421

| | | | | | |
|---|---|---|---|---|---|
| TRIX: | SOIL | | | % MOISTURE: | NA |
| LTN FACTR: | 1 | 1 | 1 | | |
| MPLE ID: | MBLK1S | | | | |
| NTROL NO.: | GFD013SB | GFD013SL | GFD013SC | | |
| B FILE ID: | G03D031012 | G03D031013 | G03D031014 | | |
| TIME EXTRCTD: | 04/18/0022:30 | 04/18/0022:30 | 04/18/0022:30 | DATE COLLECTED: | NA |
| TIME ANALYZD: | 04/19/0015:28 | 04/19/0015:32 | 04/19/0015:37 | DATE RECEIVED: | 04/18/00 |
| EP. BATCH: | GFD013S | GFD013S | GFD013S | | |
| LIB. REF: | G03D031010 | G03D031010 | G03D031010 | | |

CCESSION:

| ARAMETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| ead | ND | 1 | 1.09 | 108 | 1 | 1.01 | 101 | 7 | 80-120 | 20 |

Revised Report

7022

METHOD 3050B/7740
SELENIUM BY GFAA

ient : IT CORPORATION
ject : MCAS EL TORO/18609/D.O. 70
tch No. : 00D060

Matrix : SOIL
Instrument ID : EMAXTI06

| MPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LK1S | GFD013SB | ND | 1 | NA | 1 | .123 | 04/19/0009:48 | 04/18/0022:30 | G06D031013 | G06D031011 | GFD013S | NA | 04/18/00 |
| S1S | GFD013SL | 1.91 | 1 | NA | 1 | .123 | 04/19/0009:51 | 04/18/0022:30 | G06D031014 | G06D031011 | GFD013S | NA | 04/18/00 |
| D1S | GFD013SC | 1.84 | 1 | NA | 1 | .123 | 04/19/0009:54 | 04/18/0022:30 | G06D031015 | G06D031011 | GFD013S | NA | 04/18/00 |
| 509-2958 | D060-01 | ND | 1 | 4.6 | 1.05 | .129 | 04/19/0010:42 | 04/18/0022:30 | G06D031030 | G06D031023 | GFD013S | 04/12/00 | 04/12/00 |
| 509-2959 | D060-02 | ND | 1 | 4.6 | 1.05 | .129 | 04/19/0010:45 | 04/18/0022:30 | G06D031031 | G06D031023 | GFD013S | 04/12/00 | 04/12/00 |
| 509-2960 | D060-03 | ND | 1 | 4.9 | 1.05 | .129 | 04/19/0010:48 | 04/18/0022:30 | G06D031032 | G06D031023 | GFD013S | 04/12/00 | 04/12/00 |

: Reporting Limit

7026

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

T: IT CORPORATION
CT: MCAS EL TORO/18609/D.O. 70
O.: 00D060
D: METHOD 3050B/7740

| | | | | | |
|---|---|---|---|---|---|
| X: | SOIL | | | % MOISTURE: | NA |
| FACTR: | 1 | 1 | 1 | | |
| E ID: | MBLK1S | | | | |
| OL NO.: | GFD013SB | GFD013SL | GFD013SC | | |
| ILE ID: | G06D031013 | G06D031014 | G06D031015 | | |
| E EXTRCTD: | 04/18/0022:30 | 04/18/0022:30 | 04/18/0022:30 | DATE COLLECTED: | NA |
| E ANALYZD: | 04/19/0009:48 | 04/19/0009:51 | 04/19/0009:54 | DATE RECEIVED: | 04/18/00 |
| BATCH: | GFD013S | GFD013S | GFD013S | | |
| . REF: | G06D031011 | G06D031011 | G06D031011 | | |

SION:

| ETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| ium | ND | 2 | 1.91 | 96 | 2 | 1.84 | 92 | 4 | 80-120 | 20 |

METHOD 3050B/7841
THALLIUM BY GFAA

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00D060

Matrix : SOIL
Instrument ID : EMAXTI03

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1S | GFD013SB | ND | 1 | NA | 1 | .077 | 04/19/0010:52 | 04/18/0022:30 | G03D030012 | G03D030010 | GFD013S | NA | 04/18/00 |
| LCS1S | GFD013SL | 1.78 | 1 | NA | 1 | .077 | 04/19/0010:56 | 04/18/0022:30 | G03D030013 | G03D030010 | GFD013S | NA | 04/18/00 |
| LCD1S | GFD013SC | 1.77 | 1 | NA | 1 | .077 | 04/19/0011:00 | 04/18/0022:30 | G03D030014 | G03D030010 | GFD013S | NA | 04/18/00 |
| 18609-2958 | D060-01 | ND | 1 | 4.6 | 1.05 | .0807 | 04/19/0012:00 | 04/18/0022:30 | G03D030030 | G03D030022 | GFD013S | 04/12/00 | 04/12/00 |
| 18609-2959 | D060-02 | ND | 1 | 4.6 | 1.05 | .0807 | 04/19/0012:03 | 04/18/0022:30 | G03D030031 | G03D030022 | GFD013S | 04/12/00 | 04/12/00 |
| 18609-2960 | D060-03 | ND | 1 | 4.9 | 1.05 | .081 | 04/19/0012:07 | 04/18/0022:30 | G03D030032 | G03D030022 | GFD013S | 04/12/00 | 04/12/00 |

RL: Reporting Limit

Revised Report

7031

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

.IENT: IT CORPORATION
ROJECT: MCAS EL TORO/18609/D.O. 70
G NO.: 00D060
THOD: METHOD 3050B/7841

==========

TRIX: SOIL % MOISTURE: NA

| | | | |
|---|---|---|---|
| ILTN FACTR: | 1 | 1 | 1 |
| AMPLE ID: | MBLK1S | | |
| ONTROL NO.: | GFD013SB | GFD013SL | GFD013SC |
| AB FILE ID: | G03D030012 | G03D030013 | G03D030014 |
| ATIME EXTRCTD: | 04/18/0022:30 | 04/18/0022:30 | 04/18/0022:30 |
| ATIME ANALYZD: | 04/19/0010:52 | 04/19/0010:56 | 04/19/0011:00 |
| REP. BATCH: | GFD013S | GFD013S | GFD013S |
| ALIB. REF: | G03D030010 | G03D030010 | G03D030010 |

DATE COLLECTED: NA
DATE RECEIVED: 04/18/00

CCESSION:

| ARAMETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| hallium | ND | 2 | 1.78 | 89 | 2 | 1.77 | 89 | 0 | 80-120 | 20 |

Revised Report

7032

METHOD 7471A
MERCURY BY COLD VAPOR

ient : IT CORPORATION
ject : MCAS EL TORO/18609/D.O. 70
tch No. : 00D060

Matrix : SOIL
Instrument ID : TI023

| MPLE ID | EMAX SAMPLE ID | RESULTS (mg/kg) | DLF | MOIST | RL (mg/kg) | MDL (mg/kg) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .K1S | HGD011SB | ND | 1 | NA | .1 | .02 | 04/14/0019:35 | 04/14/0012:00 | M00D018008 | M00D018006 | HGD011S | NA | 04/14/00 |
| S1S | HGD011SL | .826 | 1 | NA | .1 | .02 | 04/14/0019:37 | 04/14/0012:00 | M00D018009 | M00D018006 | HGD011S | NA | 04/14/00 |
| D1S | HGD011SC | .803 | 1 | NA | .1 | .02 | 04/14/0019:38 | 04/14/0012:00 | M00D018010 | M00D018006 | HGD011S | NA | 04/14/00 |
| 609-2950 | D050-01 | ND | 1 | 6.3 | .107 | .0213 | 04/14/0019:41 | 04/14/0012:00 | M00D018011 | M00D018006 | HGD011S | 04/11/00 | 04/11/00 |
| 609-2950MS | D050-01M | .847 | 1 | 6.3 | .107 | .0213 | 04/14/0019:42 | 04/14/0012:00 | M00D018012 | M00D018006 | HGD011S | 04/11/00 | 04/11/00 |
| 609-2950MSD | D050-01S | .877 | 1 | 6.3 | .107 | .0213 | 04/14/0019:44 | 04/14/0012:00 | M00D018013 | M00D018006 | HGD011S | 04/11/00 | 04/11/00 |
| .K2S | HGD012SB | ND | 1 | NA | .1 | .02 | 04/14/0020:33 | 04/14/0012:00 | M00D018039 | M00D018030 | HGD012S | NA | 04/14/00 |
| S2S | HGD012SL | .752 | 1 | NA | .1 | .02 | 04/14/0020:34 | 04/14/0012:00 | M00D018040 | M00D018030 | HGD012S | NA | 04/14/00 |
| D2S | HGD012SC | .708 | 1 | NA | .1 | .02 | 04/14/0020:37 | 04/14/0012:00 | M00D018041 | M00D018030 | HGD012S | NA | 04/14/00 |
| 609-2958 | D060-01 | ND | 1 | 4.6 | .105 | .021 | 04/14/0020:42 | 04/14/0012:00 | M00D018044 | M00D018042 | HGD012S | 04/12/00 | 04/12/00 |
| 609-2959 | D060-02 | ND | 1 | 4.6 | .105 | .021 | 04/14/0020:44 | 04/14/0012:00 | M00D018045 | M00D018042 | HGD012S | 04/12/00 | 04/12/00 |
| 609-2960 | D060-03 | ND | 1 | 4.9 | .105 | .021 | 04/14/0020:47 | 04/14/0012:00 | M00D018046 | M00D018042 | HGD012S | 04/12/00 | 04/12/00 |

: Reporting Limit

7038

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

:: IT CORPORATION
:T: MCAS EL TORO/18609/D.O. 70
).: 000060
): METHOD 7471A

(: SOIL % MOISTURE: NA

| | | | | | |
|---|---|---|---|---|---|
| FACTR: | 1 | 1 | 1 | | |
| : ID: | MBLK1S | | | | |
| )L NO.: | HGD011SB | HGD011SL | HGD011SC | | |
| ILE ID: | M00D018008 | M00D018009 | M00D018010 | | |
| : EXTRCTD: | 04/14/0012:00 | 04/14/0012:00 | 04/14/0012:00 | DATE COLLECTED: | NA |
| : ANALYZD: | 04/14/0019:35 | 04/14/0019:37 | 04/14/0019:38 | DATE RECEIVED: | 04/14/00 |
| BATCH: | HGD011S | HGD011S | HGD011S | | |
| . REF: | M00D018006 | M00D018006 | M00D018006 | | |

SION:

| ETER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| ry | ND | .820 | .826 | 101 | .806 | .803 | 100 | 3 | 77-120 | 25 |

7030

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

:  IT CORPORATION
T:  MCAS EL TORO/18609/D.O. 70
.:  00D060
:  METHOD 7471A

:  SOIL  % MOISTURE:  NA

| | | | | | |
|---|---|---|---|---|---|
| FACTR: | 1 | 1 | 1 | | |
| ID: | MBLK2S | | | | |
| L NO.: | HGD012SB | HGD012SL | HGD012SC | | |
| LE ID: | M00D018039 | M00D018040 | M00D018041 | | |
| EXTRCTD: | 04/14/0012:00 | 04/14/0012:00 | 04/14/0012:00 | DATE COLLECTED: | NA |
| ANALYZD: | 04/14/0020:33 | 04/14/0020:34 | 04/14/0020:37 | DATE RECEIVED: | 04/14/00 |
| BATCH: | HGD012S | HGD012S | HGD012S | | |
| REF: | M00D018030 | M00D018030 | M00D018030 | | |

ION:

| TER | BLNK RSLT mg/kg | SPIKE AMT mg/kg | BS RSLT mg/kg | BS % REC | SPIKE AMT mg/kg | BSD RSLT mg/kg | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| y | ND | .806 | .752 | 93 | .758 | .708 | 93 | 6 | 77-120 | 25 |

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

:  IT CORPORATION
T:  MCAS EL TORO/18609/D.O. 70
.:  00D060
:  METHOD 7471A

:  SOIL  % MOISTURE:  6.3

| | | | |
|---|---|---|---|
| FACTR: | 1 | 1 | 1 |
| ID: | 18609-2950 | | |
| L NO.: | D050-01 | D050-01M | D050-01S |
| LE ID: | M00D018011 | M00D018012 | M00D018013 |
| EXTRCTD: | 04/14/0012:00 | 04/14/0012:00 | 04/14/0012:00 |
| ANALYZD: | 04/14/0019:41 | 04/14/0019:42 | 04/14/0019:44 |
| BATCH: | HGD011S | HGD011S | HGD011S |
| REF: | M00D018006 | M00D018006 | M00D018006 |

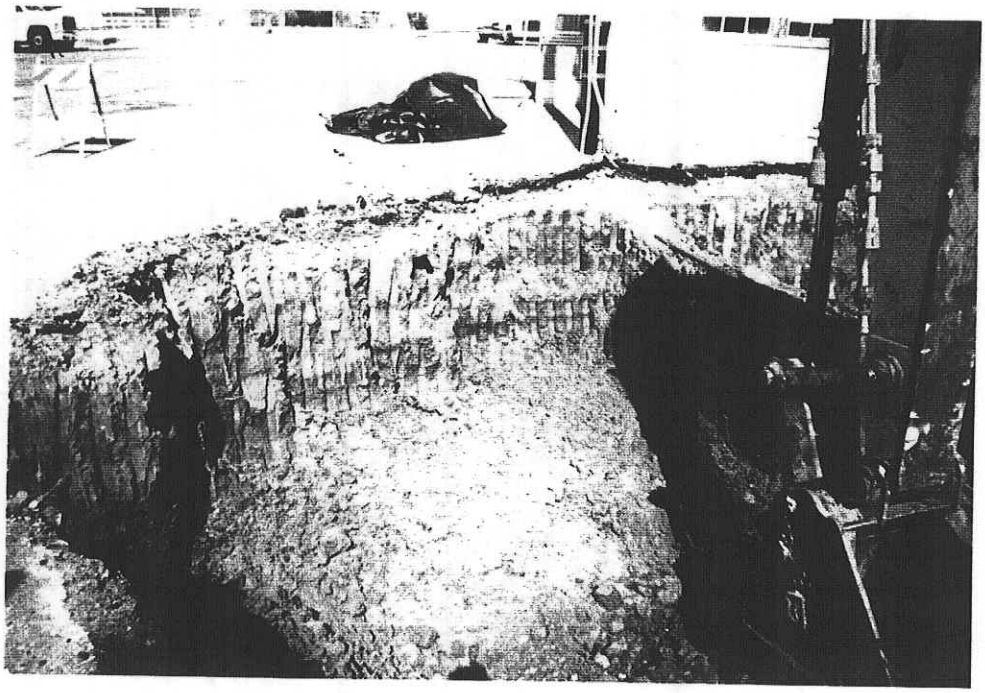
DATE COLLECTED: 04/11/00
DATE RECEIVED: 04/11/00

ION:

| TER | SMPL RSLT mg/kg | SPIKE AMT mg/kg | MS RSLT mg/kg | MS % REC | SPIKE AMT mg/kg | MSD RSLT mg/kg | MSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| y | ND | .833 | .847 | 102 | .877 | .877 | 100 | 3 | 77-120 | 25 |

# *Appendix H*
# *Site Photographs*

Photograph 1.
Former UST Site 298A and 298B
View of: Soil excavation activity
Marine Corps Air Station, El Toro
Date of Photograph: May 2000



Photograph 2.
Former UST Site 298A and 298B
View of: Backfill in progress
Marine Corps Air Station, El Toro
Date of Photograph: May 2000

Photograph 3.
Former UST Site 298A and 298B
View of: UST Site 298A and 298B after backfill completed
Marine Corps Air Station, El Toro
Date of Photograph: May 2000

# *Appendix I*
# *Waste Manifests*

CHEMICAL WASTE MANAGEMENT, INC.
KETTLEMAN HILLS FACILITY
Federal EPA ID: CAT000646117
State EPA ID: CAT000646117
35251 OLD SKYLINE ROAD
P.O. BOX 471
KETTLEMAN CITY, CA 93239
(559) 386-9711

MCAS EL TORO/CSO
ATTN: MANIFEST SECTION
CA6170023208
PO BOX 444
EAST IRVINE CA 92650

CERTIFICATE OF DISPOSAL

Chemical Waste Management, Inc. has received waste material from MCAS EL TORO/CSO on 04/14/00 as described on [State Manifest or Uniform] Hazardous Waste Manifest number NH14461500 Sequence number 01.

Profile Number: EA1704
CWM Tracking ID: NH1446150001
Process: LANDFILL
Treatment Date: 04/14/00

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Tracy Reddick

Certificate # 57614
04/19/00

Please contact
Tracy Reddick
(559) 386-6210 with any
questions.

# NON-HAZARDOUS WASTE MANIFEST

NH1996150

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.: CA6170023208

Manifest Document No.: -0401

2. Page 1 of 1

3. Generator's Name and Mailing Address

MCAS El Toro
Caretaker Site Office, P.O. Box 444 East Irvine CA 92650

918609-0401

4. Generator's Phone (858) 577-1102 Attn:

HAHQ360389 1

5. Transporter 1 Company Name: Ecology Control Industries, Inc.

6. US EPA ID Number: CAD982030173

A. State Transporter's ID

B. Transporter 1 Phone: (510) 235-1393

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address

Chemical Waste Management, Inc.
35251 Old Skyline Rd.
Kettleman City CA 93239

10. US EPA ID Number: CAT000646117

E. State Facility's ID: CAT000646117

F. Facility's Phone: (559) 386-9711

| 11. WASTE DESCRIPTION | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-regulated waste UST Site 298 | 2 | CM | 25 | Y |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

11a. Profile #EA1704, TPH impacted soil, send photocopy of TSDF signed manifest, weight ticket, and certificate of disposal to: Steve Chandler, IT Corporation, 3347 Michelson Dr., Suite 200, Irvine, CA 92612

BINS # 1-20-1033, & 1-20-396

H. Handling Codes for Wastes Listed Above: 03

15. Special Handling Instructions and Additional Information

Caution: Wear appropriate protective clothing and respiratory protection when handling.

Site pick up address:
MCAS El Toro TF-398

**GENERATOR**

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Scott Kehe — Signature — Date: Month 04 Day 14 Year 00

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Antonio Ponce — Signature — Date: Month 04 Day 14 Year 00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

**FACILITY**

19. Discrepancy Indication Space

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

Printed/Typed Name — Signature — Date: Month Day Year 04 14 00

NON-HAZARDOUS WASTE



PRINTED ON RECYCLED PAPER USING SOYBEAN INK

| WEIGHT (LB) | TIME | DATE | COMMODITY: HAZARDOUS WASTE |
|---|---|---|---|

GROSS: 13421 04/14/00 80820 lb 40.41 ton

TARE:

NET:

YARDAGE: 14325 04/14/00 40440 lb 20.22 ton

DEPUTY WEIGHMASTER

CHEMICAL WASTE MANAGEMENT, INC.
WEIGHMASTER weighed at
35251 Old Skyline Road
Kettleman City, CA

NO: 144615

WEIGHMASTER CERTIFICATE

This is to certify that the following describe commodity was weighed, measured, or cou by a WEIGHMASTER, whose signature is on certificate, who is a recognized authority o accuracy, as prescribed by CHAPTER 7 (commencing with § 12700) of Division 5 of the California Business & Professions Code, administered by the Division of Measuremer Standards of California Department of Food and Agriculture.

| GENERATOR | MANIFEST | PROFILE NO. |
|---|---|---|
| | | |
| TRACTOR LICENSE NO. | TRAILER #1 LICENSE NO. | TRAILER #2 LICENSE NO. |
| | | |

| SAMPLE # | BIN # | RECEIPT NO. |
|---|---|---|
| | | |

SITE DRIVER

DATE

START

FINISH

WASHOUT METER

FINISH

START

GALLONS USED

SAMPLE TIME:

LABORATORY IN:

RECEIVING OUT:

DRIVER

TRANSPORTER

RELEASING SIGNATURE

**MANDATORY ANALYSIS - ALL WASTES**

| | | | |
|---|---|---|---|
| PAINT FILTER TEST | NA | PASS | FAIL |
| PHYSICAL STATE | SOLID | | LIQUID |
| APPEARANCE | | | |
| pH | | | |
| WATER MIX | Δ T=°F | | SOL |
| FLAM POTENTIAL | NEG | POS | |
| CN-SCREEN | NEG | POS | PPM |
| S= SCREEN | NEG | POS | PPM |
| OXIDIZER | NEG | POS | |
| RADIO SCREEN | BKGD | POS | |
| ANALYST | | | |

**SUPPLEMENTAL ANALYSIS - TREATED WASTES**

| | | | |
|---|---|---|---|
| VISIBLE OIL | NEG | POS | % |
| PCB SCREEN | NA ND | POS | PPM |
| PERCENT SOLID | | | |
| DENSITY | | | LBS/GAL |
| CALCULATED QTY | | | |
| LWCT | Δ T = | | °F |
| SET | Δ T = | | °F |
| > 50% DEBRIS | YES | NO | |
| > 60 MM | YES | NO | |
| < 6.75 FT. | YES | NO | |
| CAN MAJORITY OF WASTE BE COATED ON ALL SIDES | YES | NO | INIT. |

MULTIPLE LOAD #

SEE MANIFEST

NO FINGERPRINT PER WAP

PROFILE EXPIRATION

TREATMENT CODE UNIT

TIME OUT

REC. TECH.

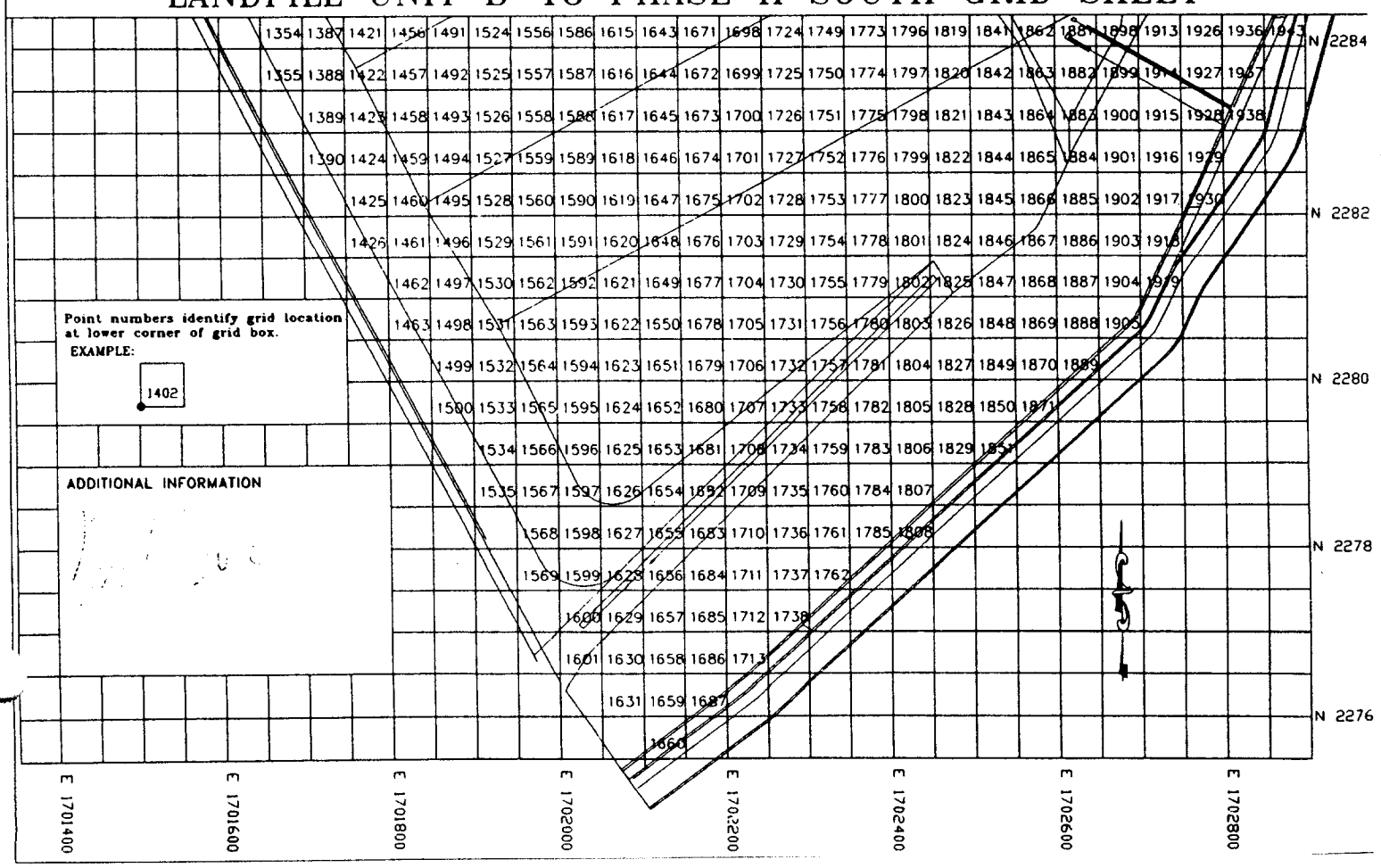
DATE

GRID POINT

ELEVATION

TIME AM

# LANDFILL UNIT B-18 PHASE II SOUTH GRID SHEET



# *Appendix J*
# *Soil Boring Logs*

# Geologic Log of Boring 298-SB-01

| | | | |
|---|---|---|---|
| Project **MCAS/EL TORO** | Northing - | Drilling Company BC2 ENVIRONMENTAL CORP. | |
| Project Number **918609** | Easting - | Drill Rig CME 75 H.T. | Begin Drilling 5/10/00 |
| Client SWDIV | TOC Elevation - | Driller Diego T. | End Drilling 5/10/00 |
| Location **EL TORO-UST 298** | TOP OF RIM - | Drill Method HOLLOW STEM AUGER | Well Completion Date 5/10/00 |
| Geologist A. Siddiqui | DIAGRAM NOT TO SCALE | | |
| Borehole Diameter 8-INCHES | Total Depth of Borehole 61.5 FEET | Depth to Water NOT ENCOUNTERED | |

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 in. | Recovery (inches) | BORING DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2957/2958 Sample collected at 20-21.5 feet bgs.** Silty SAND (SM): Dark brown (10YR 4/6), 80% fine to medium sand, 20% fines, slightly moist, medium dense, no odor. | 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40 | SM; SP-SM | | | | 8 12 15 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |



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# Geologic Log/Well Construction 298-SB-01

Project MCAS-EL TORO-UST 298 Project No. 918609

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 In. | Recovery (6 inches) | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2957 Sample collected at 40-41.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Dark yellowish brown (10YR 4/4), 90% fine sand, 10% fines, slightly moist, dense, no odor. | 40 | SP-SM | | | | 13 26 30 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 42 | | | | | | | |
| | 44 | | | | | | | |
| | 46 | | | | | | | |
| | 48 | | | | | | | |
| **18609-2960 Sample collected at 50-51.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 4/4), 70% fine sand, 30% low plastic fines, slightly moist, medium dense, no odor. | 50 | SM | | | | 16 19 20 | 6 6 6 | |
| | 52 | | | | | | | |
| | 54 | | | | | | | |
| | 56 | | | | | | | |
| | 58 | SP-SM | | | | | | |
| **18609-2961 Sample collected at 60-61.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Yellowish brown (10YR 5/4), 90% fine sand, 10% fine silt, slightly moist, medium dense. | 60 | | | | | 13 18 19 | 6 6 6 | |
| End of boring at 61.5 feet. | 62 | | | | | | | |
| | 64 | | | | | | | |
| | 66 | | | | | | | |
| | 68 | | | | | | | |
| | 70 | | | | | | | |
| | 72 | | | | | | | |
| | 74 | | | | | | | |
| | 76 | | | | | | | |
| | 78 | | | | | | | |
| | 80 | | | | | | | |

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# Geologic Log of Boring 298-SB-02

| | | | |
|---|---|---|---|
| Project **MCAS/EL TORO** | Northing - | Drilling Company BC2 ENVIRONMENTAL CORP. | |
| Project Number **918609** | Easting - | Drill Rig CME 75 H.T. | Begin Drilling 5/10/00 |
| Client SWDIV | TOC Elevation - | Driller Diego T. | End Drilling 5/10/00 |
| Location **EL TORO-UST 298** | TOP OF RIM - | Drill Method HOLLOW STEM AUGER | Well Completion Date 5/10/00 |
| Geologist A. Siddiqui | DIAGRAM NOT TO SCALE | | |
| Borehole Diameter 8-INCHES | Total Depth of Borehole 61.5 FEET | Depth to Water NOT ENCOUNTERED | |

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 in. | Recovery (inches) | BORING DETAIL |
|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | |
| | 2 | | | | | | | |
| | 4 | | | | | | | |
| | 6 | | | | | | | |
| | 8 | | | | | | | |
| | 10 | | | | | | | |
| | 12 | | | | | | | |
| | 14 | | | | | | | |
| | 16 | | | | | | | |
| | 18 | | | | | | | |
| **18609-2957/2962 Sample collected at 20-21.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Dark yellowish brown (10YR 4/4), 90% fine sand, 10% fines, slightly moist, medium dense, no odor. | 20 | SP-SM | | | | 12 14 18 | 6 6 6 | |
| | 22 | | | | | | | |
| | 24 | | | | | | | |
| | 26 | | | | | | | |
| | 28 | | | | | | | |
| | 30 | | | | | | | |
| | 32 | | | | | | | |
| | 34 | | | | | | | |
| | 36 | SP-SM | | | | | | |
| | 38 | | | | | | | |
| | 40 | | | | | | | |

GROUT (CEMENT-BENTONITE MIXTURE)

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# Geologic Log/Well Construction 298-SB-02

Project MCAS-EL TORO-UST 298 Project No. 918609

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 In. | Recovery (6 inches) | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2963 Sample collected at 40-41.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Dark yellowish brown (10YR 4/4), 90% fine sand, 10% fines, slightly medium moist, dense, no odor. | 40 | SP-SM | | | | 17 19 22 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 42 | | | | | | | |
| | 44 | | | | | | | |
| | 46 | SP | | | | | | |
| | 48 | | | | | | | |
| **18609-2964 Sample collected at 50-51.5 feet bgs.** Poorly graded SAND (SP): Dark yellowish brown (10YR 4/4), 95% fines and, 5% fines, slightly moist, medium dense, no odor. | 50 | | | | | 13 16 20 | 6 6 6 | |
| | 52 | | | | | | | |
| | 54 | | | | | | | |
| | 56 | SM | | | | | | |
| | 58 | | | | | | | |
| **18609-2965 Sample collected at 60-61.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 3/6), 80% fine sand, 20% fines, slightly moist, medium dense, no odor. | 60 | | | | | 15 15 18 | 6 6 6 | |
| End of boring at 61.5 feet. | 62 | | | | | | | |
| | 64 | | | | | | | |
| | 66 | | | | | | | |
| | 68 | | | | | | | |
| | 70 | | | | | | | |
| | 72 | | | | | | | |
| | 74 | | | | | | | |
| | 76 | | | | | | | |
| | 78 | | | | | | | |
| | 80 | | | | | | | |

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# Geologic Log of Boring 298-SB-03

| | | | |
|---|---|---|---|
| Project **MCAS/EL TORO** | Northing - | Drilling Company BC2 ENVIRONMENTAL CORP. | |
| Project Number **918609** | Easting - | Drill Rig CME 75 H.T. | Begin Drilling 5/10/00 |
| Client SWDIV | TOC Elevation - | Driller Diego T. | End Drilling 5/10/00 |
| Location **EL TORO-UST 298** | TOP OF RIM - | Drill Method HOLLOW STEM AUGER | Well Completion Date 5/10/00 |
| Geologist A. Siddiqui | DIAGRAM NOT TO SCALE | | |
| Borehole Diameter 8-INCHES | Total Depth of Borehole 61.5 FEET | Depth to Water NOT ENCOUNTERED | |

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 in. | Recovery (inches) | BORING DETAIL |
|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 2 | | | | | | | |
| | 4 | | | | | | | |
| | 6 | | | | | | | |
| | 8 | | | | | | | |
| | 10 | | | | | | | |
| | 12 | | | | | | | |
| | 14 | | | | | | | |
| | 16 | | | | | | | |
| | 18 | | | | | | | |
| **18609-2957/2967 Sample collected at 20-21.5 feet bgs.** Silty SAND (SM): Dark brown (10YR 4/4), 80% fine sand, 20% fines, slightly moist, medium dense, no odor. | 20 | SM | | | | 10 13 6 | 6 6 9 | |
| | 22 | | | | | | | |
| | 24 | | | | | | | |
| | 26 | | | | | | | |
| | 28 | | | | | | | |
| | 30 | | | | | | | |
| | 32 | | | | | | | |
| | 34 | SP | | | | | | |
| | 36 | | | | | | | |
| | 38 | | | | | | | |
| | 40 | | | | | | | |

OHM Remediation Services Corp.



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# Geologic Log/Well Construction 298-SB-03

Project MCAS-EL TORO-UST 298 Project No. 918609

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 In. | Recovery (6 inches) | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2968 Sample collected at 40-41.5 feet bgs.** Poorly graded SAND (SP): Yellowihs brown (10YR 5/4), 95% fine sand, 5% fines, slightly moist, medium dense, interbedded with thin laminated lenses of micaceous sandy silt, no odor. | 40 | SP | | | | 15 20 21 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 42 | | | | | | | |
| | 44 | | | | | | | |
| | 46 | | | | | | | |
| | 48 | | | | | | | |
| **18609-2969 Sample collected at 50-51.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 4/3) 75% fine sand, 25% low plastic fines, slightly moist, medium dense, hydrocarbon odor. | 50 | SM | | | | 14 19 23 | 6 6 6 | |
| | 52 | | | | | | | |
| | 54 | | | | | | | |
| | 56 | | | | | | | |
| | 58 | SM | | | | | | |
| **18609-2970 Sample collected at 60-61.5 feet bgs.** Silty SAND (SM): Yellowish brown (10YR 4/4), 75% fines and, 25% low plastic fines, slightly moist, hydrocarbon odor. | 60 | | | | | 18 20 21 | 6 6 6 | |
| End of boring at 61.5 feet. | 62 | | | | | | | |
| | 64 | | | | | | | |
| | 66 | | | | | | | |
| | 68 | | | | | | | |
| | 70 | | | | | | | |
| | 72 | | | | | | | |
| | 74 | | | | | | | |
| | 76 | | | | | | | |
| | 78 | | | | | | | |
| | 80 | | | | | | | |

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# Geologic Log of Boring 298-SB-04

| | | | |
|---|---|---|---|
| Project **MCAS/EL TORO** | Northing - | Drilling Company BC2 ENVIRONMENTAL CORP. | |
| Project Number **918609** | Easting - | Drill Rig CME 75 H.T. | Begin Drilling 5/10/00 |
| Client SWDIV | TOC Elevation - | Driller Diego T. | End Drilling 5/10/00 |
| Location **EL TORO-UST 298** | TOP OF RIM - | Drill Method HOLLOW STEM AUGER | Well Completion Date 5/10/00 |
| Geologist A. Siddiqui | DIAGRAM NOT TO SCALE | | |
| Borehole Diameter 8-INCHES | Total Depth of Borehole 61.5 FEET | Depth to Water NOT ENCOUNTERED | |

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 in. | Recovery (inches) | BORING DETAIL |
|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 2 | | | | | | | |
| | 4 | | | | | | | |
| | 6 | | | | | | | |
| | 8 | | | | | | | |
| | 10 | | | | | | | |
| | 12 | | | | | | | |
| | 14 | | | | | | | |
| | 16 | | | | | | | |
| | 18 | | | | | | | |
| **18609-2957/2973 Sample collected at 20-21.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Yellowish brown (10YR 5/4). 90% fine sand, 10% fines, slightly moist, medium dense, no odor. | 20 | SP-SM | | | | 12 15 17 | 6 | |
| | 22 | | | | | | | |
| | 24 | | | | | | | |
| | 26 | | | | | | | |
| | 28 | | | | | | | |
| | 30 | | | | | | | |
| | 32 | | | | | | | |
| | 34 | | | | | | | |
| | 36 | SP | | | | | | |
| | 38 | | | | | | | |
| | 40 | | | | | | | |

OHM Remediation Services Corp.



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# Geologic Log/Well Construction 298-SB-04

Project MCAS-EL TORO-UST 298 Project No. 918609

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 In. | Recovery (6 inches) | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2974 Sample collected at 40-41.5 feet bgs.** Poorly graded SAND (SP): Yellowish brown, (10YR 5/4), 100% fine sand, trace fines, slightly moist, medium dense, no odor. | 40 | SP | | | | 10 12 16 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 42 | | | | | | | |
| | 44 | | | | | | | |
| | 46 | SM | | | | | | |
| | 48 | | | | | | | |
| **18609-2975 Sample collected at 50-51.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 3/4), 70% fine sand, 31% low plastic fines, slightly moist, medium dense, no odor. | 50 | | | | | 14 17 17 | 6 6 6 | |
| | 52 | | | | | | | |
| | 54 | | | | | | | |
| | 56 | SM | | | | | | |
| | 58 | | | | | | | |
| **18609-2976 Sample collected at 60-61.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 3/6), 70% fine sand, 30% low plastic fines, slightly moist, medium dense, no odor. | 60 | | | | | 13 18 18 | 6 6 6 | |
| End of boring at 61.5 feet. | 62 | | | | | | | |
| | 64 | | | | | | | |
| | 66 | | | | | | | |
| | 68 | | | | | | | |
| | 70 | | | | | | | |
| | 72 | | | | | | | |
| | 74 | | | | | | | |
| | 76 | | | | | | | |
| | 78 | | | | | | | |
| | 80 | | | | | | | |

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# Geologic Log of Boring 298-SB-05

| | | | |
|---|---|---|---|
| Project **MCAS/EL TORO** | Northing - | Drilling Company BC2 ENVIRONMENTAL CORP. | |
| Project Number **918609** | Easting - | Drill Rig CME 75 H.T. | Begin Drilling 5/10/00 |
| Client SWDIV | TOC Elevation - | Driller Diego T. | End Drilling 5/10/00 |
| Location **EL TORO-UST 298** | TOP OF RIM - | Drill Method HOLLOW STEM AUGER | Well Completion Date 5/10/00 |
| Geologist A. Siddiqui | DIAGRAM NOT TO SCALE | | |
| Borehole Diameter 8-INCHES | Total Depth of Borehole 61.5 FEET | Depth to Water NOT ENCOUNTERED | |

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 in. | Recovery (inches) | BORING DETAIL |
|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 2 | | | | | | | |
| | 4 | | | | | | | |
| | 6 | | | | | | | |
| | 8 | | | | | | | |
| | 10 | | | | | | | |
| | 12 | | | | | | | |
| | 14 | | | | | | | |
| | 16 | | | | | | | |
| | 18 | | | | | | | |
| **18609-2957/2978 Sample collected at 20-21.5 feet bgs.** Poorly graded SAND (SP): Yellowish brown (10YR 5/4), 100% fine to medium sand, trace fines, slightly moist, medium dense, no odor. | 20 | SP | | | | 12 6 6 | 9 6 6 | |
| | 22 | | | | | | | |
| | 24 | | | | | | | |
| | 26 | | | | | | | |
| | 28 | | | | | | | |
| | 30 | | | | | | | |
| | 32 | | | | | | | |
| | 34 | SP | | | | | | |
| | 36 | | | | | | | |
| | 38 | | | | | | | |
| | 40 | | | | | | | |

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# Geologic Log/Well Construction 298-SB-05

Project MCAS-EL TORO-UST 298 Project No. 918609

| DESCRIPTION | Depth (feet) | Soil Group | Graphic Log | Samples | PID/FID (ppm) | Blows/6 In. | Recovery (6 inches) | WELL DETAIL |
|---|---|---|---|---|---|---|---|---|
| **18609-2979 Sample collected at 40-41.5 feet bgs.** Poorly graded SAND (SP): Same as above. Sandy SILT (ML): Dark yellowish brown (10YR 3/4), 80% low plastic fines, 20% fine sand, slightly moist, very stiff, no odor. | 40 | SP | | | | 14 14 19 | 6 6 6 | GROUT (CEMENT-BENTONITE MIXTURE) |
| | 42 | ML | | | | | | |
| | 44 | | | | | | | |
| | 46 | | | | | | | |
| | 48 | | | | | | | |
| **18609-2980 Sample collected at 50-51.5 feet bgs.** Silty SAND (SM): Dark yellowish brown (10YR 4/6), 75% fine sand, 25% low plastic fines, slightly moist, medium dense, interbedded with sandy silt, no odor. | 50 | SM | | | | 15 17 19 | 6 6 6 | |
| | 52 | | | | | | | |
| | 54 | | | | | | | |
| | 56 | | | | | | | |
| | 58 | SM | | | | | | |
| **18609-2981 Sample collected at 60-61.5 feet bgs.** Poorly graded SAND with SILT (SP-SM): Yellowish brown (10YR 5/4), 90% fine sand, 10% fine silt, slightly moist, medium dense. | 60 | | | | | 15 18 20 | 6 6 6 | |
| End of boring at 61.5 feet. | 62 | | | | | | | |
| | 64 | | | | | | | |
| | 66 | | | | | | | |
| | 68 | | | | | | | |
| | 70 | | | | | | | |
| | 72 | | | | | | | |
| | 74 | | | | | | | |
| | 76 | | | | | | | |
| | 78 | | | | | | | |
| | 80 | | | | | | | |

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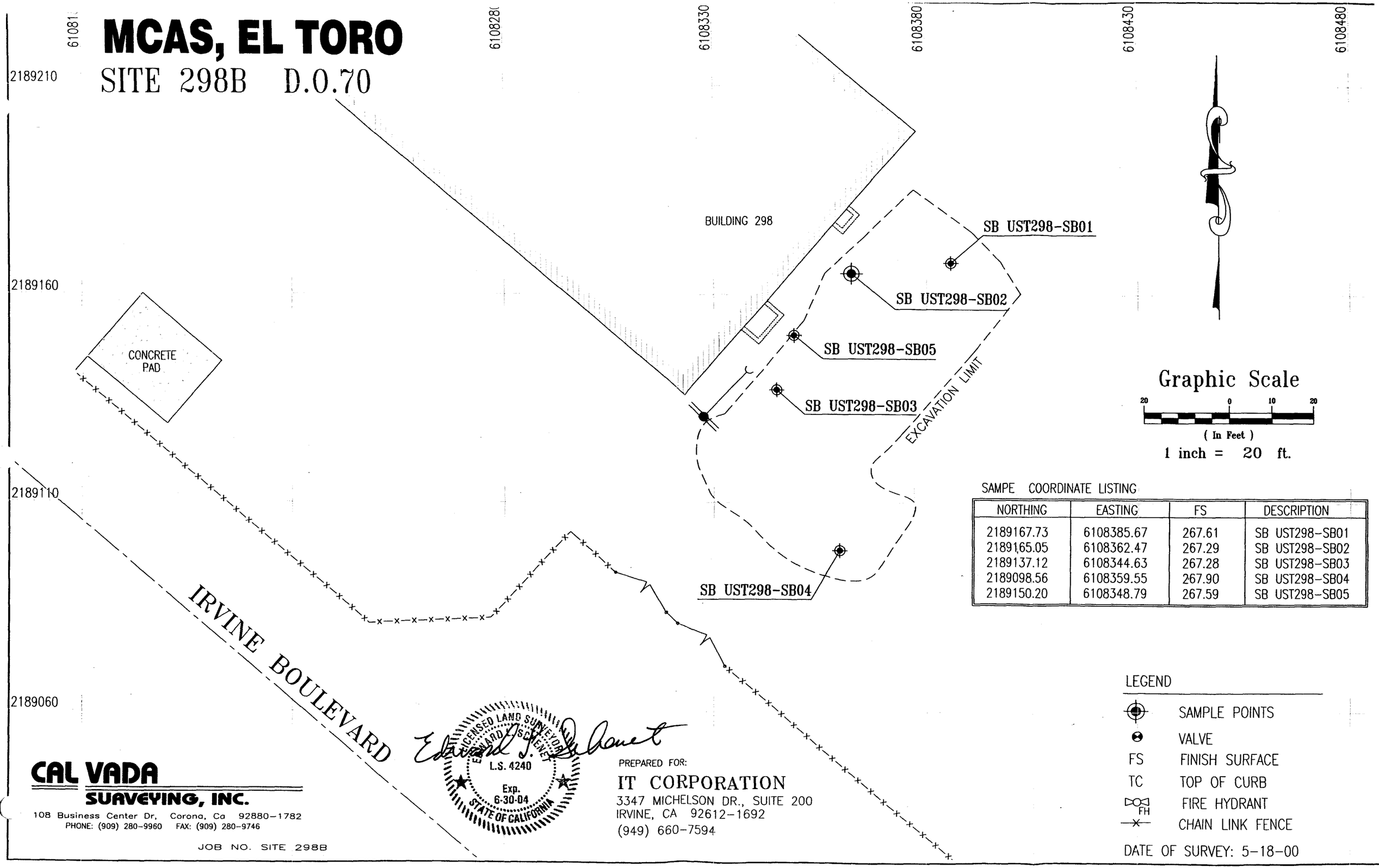
# *Appendix K*
# *Land Survey Data*

# MCAS, EL TORO

## SITE 298B D.0.70




SAMPE COORDINATE LISTING

| NORTHING | EASTING | FS | DESCRIPTION |
|---|---|---|---|
| 2189167.73 | 6108385.67 | 267.61 | SB UST298-SB01 |
| 2189165.05 | 6108362.47 | 267.29 | SB UST298-SB02 |
| 2189137.12 | 6108344.63 | 267.28 | SB UST298-SB03 |
| 2189098.56 | 6108359.55 | 267.90 | SB UST298-SB04 |
| 2189150.20 | 6108348.79 | 267.59 | SB UST298-SB05 |

LEGEND

- SAMPLE POINTS
- VALVE
- FS FINISH SURFACE
- TC TOP OF CURB
- FH FIRE HYDRANT
- CHAIN LINK FENCE

DATE OF SURVEY: 5-18-00

LICENSED LAND SURVEYOR EDWARD J. SCHENK L.S. 4240 Exp. 6-30-04 STATE OF CALIFORNIA


**CAL VADA SURVEYING, INC.**
108 Business Center Dr, Corona, Ca 92880-1782
PHONE: (909) 280-9960 FAX: (909) 280-9746


JOB NO. SITE 298B

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IRVINE, CA 92612-1692
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