Slic # 0744
SSH

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the IT group

February 28, 2002

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
ATTN: Steven Hariri

2002 MAR -5 P 1:58

**RE: REQUEST TO MODIFY GROUNDWATER SAMPLING METHODOLOGY**
**5030 FIRESTONE BOULEVARD AND 9301 RAYO AVENUE**
**SOUTH GATE, CA**
**SLIC NO. 744**

Dear Mr. Hariri:

On behalf of the Jervis B. Webb Company of California, IT Corporation is submitting this letter to request the Los Angeles Regional Water Quality Control Board's (RWQCB) approval to substitute "passive diffusion bag" (PDB) as the sampling methodology to be used at the referenced site in South Gate, CA.

As discussed in the attached groundwater sampling report, the PDB sample results collected in January 2002 showed strong similarity when compared to the historic TCE concentrations observed at the Site. Likewise, the Interstate Technology Regulatory Cooperation (ITRC) Diffusion Sampler Team has reported good correlation (less than 11 percent difference) in TCE concentration from groundwater samples collected using the PDF method versus conventional sampling (see web site www.itrcweb.org).

We are also requesting RWQCB approval to cease future analyses of metals, which are not measurable by the PDB method. Metals analyses have been performed for each of the last three sampling events.

Please contact the undersigned at (949) 660-7511 at your convenience to discuss this matter in further detail.

Sincerely,
IT Corporation

Gary Cronk

Gary Cronk, P.E.
Senior Project Manager

Cc: Mike Farley

Encl. 1st Semi-Annual Groundwater Sampling Report

Slic # 0744
SSH

February 28, 2002

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
ATTN: Steven Hariri

2002 MAR -5 P 1:58

**RE: SEMI-ANNUAL GROUNDWATER SAMPLING REPORT**
**FIRST SEMESTER 2002**
**5030 FIRESTONE BOULEVARD AND 9301 RAYO AVENUE**
**SOUTH GATE, CA (THE "SITE")**
**SLIC NO. 744**

Dear Mr. Hariri:

On behalf of the Jervis B. Webb Company of California, IT Corporation is submitting this letter report to summarize the first semi-annual 2002 groundwater monitoring and sampling performed at the Site in South Gate, CA. A site location map is provided in Figure 1.

## WORK PERFORMED THIS SAMPLING EVENT

The current groundwater sampling requirements of the Los Angeles Regional Water Quality Control Board (RWQCB) include sampling at five wells (MW-1 to MW-5) and analysis for volatile organics (EPA 8260B) and six metals (arsenic, barium, total chromium, hexavalent chromium, molybdenum, and zinc). A site plan showing the location of the groundwater monitoring wells is provided in Figure 2.

This report presents the first semi-annual groundwater sampling results of 2002. Groundwater sampling for this event was performed on January 17, 2002. Conventional groundwater purging and sampling methodology (three well casing purge) was performed concurrently with the "Passive Diffusion Bag" (PDB) sampling method in order to directly compare VOC results from the two methods and determine whether the PDB method provides representative groundwater analytical data for this site.

## BACKGROUND

The soil and groundwater conditions at the Site have been extensively investigated over the past four years. Initial investigations of the Site were conducted by Erler and Kalinowski, Inc. (EKI) in February 1998. Between 1998 and 2001, a comprehensive and systematic investigation of the Site was completed, including nine CPT borings, 37 soil gas probe locations, 19 soil borings, nine PIPP groundwater samples, and five groundwater monitoring wells. The EKI investigations included collection and chemical analysis of 78 soil samples.

EKI operated a soil vapor extraction system at the Site from March 2000 until October 2001 and removed at least 177 pounds of volatile organic compounds (VOCs) from the soil, primarily trichloroethylene (TCE). In September, 2001, IT Corporation advanced five soil borings to determine the extent of soil cleanup accomplished using the SVE system. In all, IT Corporation tested an additional 40 soil samples for VOCs. IT Corporation subsequently submitted a Soil Closure Report dated October 3, 2001 to the RWQCB. The RWQCB issued a soil closure letter for the Site on January 23, 2002.

EKI conducted quarterly groundwater sampling at the Site from March 1998 until June of 2001. Tables 1 through 4 of this report summarize the current and historic groundwater elevation measurements and groundwater quality data.

The RWQCB authorized a reduction in sampling frequency from quarterly to semi-annually on November 8, 2001. The first semi-annual sampling event was performed in January 2002 and the results of that sampling are summarized in this report.

## GROUNDWATER LEVEL MONITORING

Ambient groundwater levels were measured on January 14, 2002, in each monitoring well prior to sampling. Table 1 summarizes the groundwater elevations from the current monitoring event. The current water levels indicate that the water table has generally dropped in elevation since the last sampling event in June 2001. Four of the five wells have decreased in water level since June 2001. The greatest drop in water level was observed in well MW-1, with an decrease of 0.50 feet.

A current groundwater level contour map (Figure 3) was constructed using the January 14, 2002 water level data. This contour map indicates an extremely mild groundwater gradient (0.0052 ft/ft) towards the south-southeast during this sampling event. The groundwater flow direction has remained consistent throughout the 4 years of groundwater monitoring at the site.

## GROUNDWATER SAMPLING

**Passive Diffusion Bag Sampling.** During the January 2002 sampling event, groundwater was sampled using a "Passive Diffusion Bag" (PDB) technique simultaneously with the conventional three casing-volume purging and sampling. The PDB technique consists of sampling with a sealed 24-inch long polyethylene bag filled with deionized water. The PDB is lowered into the monitoring well to a target depth and the semi-permeable bag allows water in the bag to equilibrate with groundwater in the well. The Interstate Technology Regulatory Cooperation (ITRC) Diffusion Sampler Team was recently established to provide a central location for exchange of information regarding use of diffusion samplers. The ITRC reports good correlation (less than 11 percent difference) in TCE concentration from groundwater samples collected using the PDF method versus conventional sampling. The ITRC also reports that PDB sampling can provide a precise vertical contaminant concentration profile when used at various depths in the well.

On January 14, 2002, two PDB sample bags were suspended in each well at the Site; one bag was suspended at the middle section of the well screen (about 52-54 feet) and the other bag was suspended near the bottom of the well screen (about 68-69 feet). The bags were left in the well for approximately 72 hours to equilibrate with the ambient groundwater. On January 17, 2002, the PDB sample bags were removed from each well, and the water within the bag was transferred to sample containers and submitted to EMAX Laboratories, Inc. in Torrance, CA for VOC analysis using standard chain of custody procedures. The chain of custody forms are included in Appendix A.

**Conventional Sampling.** Immediately following the removal of the PDB sample bags on January 17, 2002, conventional groundwater purging and sampling methodology was also performed. Each well was purged of three well volumes of water (approximately 45-50 gallons) using a vacuum truck with a dedicated stinger. The pH, specific conductance, temperature, and turbidity of the groundwater were measured periodically during the purging of each well. The water removed from each well was relatively clear and free of suspended solids. A summary of the well purge data is provided in Table 4. The field groundwater sample collection logs are included in Appendix B.

After allowing sufficient time for the water level in the well to recover, a groundwater sample was collected using a clean disposable bailer. The groundwater was transferred from the bailer to the sample bottle using a bottom-emptying device on the bailer to minimize aeration of the samples. Samples were dispensed into 250 ml polyethylene containers, 500 ml polyethylene containers, and 40-ml glass VOA bottles with zero headspace.

## LABORATORY ANALYSIS

The sample containers were labeled, documented on the chain-of-custody form, and placed in a pre-cooled ice chest maintained at approximately 4 degrees Centigrade. The samples were delivered to EMAX Laboratories, Inc., a California DHS-certified laboratory for analysis. The following chemical analyses were performed on samples collected from each of the wells: volatile organic compounds by EPA Method 8260B; dissolved metals (arsenic, barium, chromium, molybdenum, and zinc) by EPA Method 6010B; and dissolved hexavalent chromium by EPA Method 7199. The groundwater samples were filtered by the laboratory prior to analysis of the samples for dissolved metals.

## ANALYTICAL RESULTS AND DISCUSSION

**VOCs.** Analytical results for the January 17, 2002 groundwater sampling event are summarized in Table 1. For comparison purposes, the current and the historical groundwater analytical data from previous sampling events are provided in Table 2. The analytical results from the most recent sampling event showed an areal distribution of TCE (trichloroethylene) similar to that observed during the past four years of sampling. A TCE iso-concentration contour map based on the January 2002 sampling results is shown in Figure 4. Very little change in the contaminant plume size or shape is evident since the last sampling event in June 2001.

PCE (tetrachloroethene) was non-detectable in all wells during this sampling event. Low levels of several chlorinated VOC degradation compounds were also detected in the five wells, including cis-1,2-DCE (high of 96 ug/l in MW-1), trans-1,2-DCE (high of 14 ug/l in MW-3), 1,1-DCE (high of 47 ug/l in MW-1), and 1,1-DCA (high of 49 ug/l in MW-1). Levels of, 1,2-DCA and 1,2-DCP in all monitoring wells were non-detectable. Other VOCs found in trace levels this event included benzene (18 ug/l in MW-3). Vinyl chloride chlorobenzene, chloroform, 1,2-DCB, and 1,1,2-TCA were not detected during this sampling event.

**Comparison of PDB and Conventional Sample Results.** Table 2 shows TCE analytical results for both conventional and the PDB sampling methods. Overall, the PDB sample results were somewhat higher in concentration than the corresponding conventional samples, but are consistent with the historic TCE concentrations observed at the Site.

Review of the laboratory QA/QC data (Appendix A) indicate there were no laboratory problems or inconsistencies. The general groundwater field sampling techniques have remained consistent. However, there are some differences between the previous four years of sampling and the latest sampling event. These differences include new sampling personnel and a different well purging method. The effect on groundwater quality caused by vacuum truck purging versus use of a submersible pump is not known.

**Metals.** A summary of the metal analytical results is provided in Table 3. Dissolved metals detected this event included arsenic (high of 0.244 mg/l in MW-1), barium (high of 0.134 mg/l in MW-4), molybdenum (high of 1.39 mg/l in MW-2), zinc (high of 0.018 mg/l in MW-2), and total chromium (all non-detectable (<0.02 mg/l)). Hexavalent chromium was detected in the four of the wells with a high concentration of 0.22 mg/l in MW-2. The highest hexavalent chromium level was detected along the upgradient boundary of the Site. Hexavalent chromium has not been detected at the Site previously. This may be due to the change in laboratory method from EPA 218.4 to EPA 7199.

## GROUNDWATER AND SOIL DISPOSAL

Groundwater was purged from the wells using a vacuum truck by Island Environmental Services, Inc. The purged groundwater (250 gallons) was transported to the U.S. Filter Recovery Services facility in Los Angeles, CA on January 17, 2002, for treatment and disposal. Another 450 gallons of groundwater stored in drums from previous events were removed by vacuum truck on January 11, 2002, and also transported to U.S. Filter facility for treatment and disposal.

On January 14, 2002, a total of 26 drums of soil cuttings (generated from the confirmation borings and well abandonment) were hauled away by Joe Torres Trucking for treatment at American Remedial Technologies in Lynwood, CA. Copies of the waste manifests are provided in Appendix C.

## WORK PROPOSED FOR NEXT QUARTER

The next semi-annual groundwater sampling event is planned for late June 2002. A groundwater sampling report will be prepared and submitted to the RWQCB by approximately July 30, 2002.

## CERTIFICATION STATEMENT

All field work and the engineering and geologic evaluations in this report were performed under the direct supervision of a California Registered Professional (Civil) Engineer with at least five years of hydrogeologic experience. This certification is made in compliance with the State Water Resources Control Board Resolution No. 92-49 (Water Code Section 13304) and the California Business and Professions Code Sections 6735, 7835, and 7835.1.

Gary Cronk
California Professional Engineer No. 41973

REGISTERED PROFESSIONAL ENGINEER
GARY D. CRONK
No. C041973
Exp. 03/30/04
CIVIL
STATE OF CALIFORNIA

Should you have any questions, please contact the undersigned directly at (949) 660-7511.

Sincerely,
IT Corporation

Gary Cronk, P.E.
Sr. Project Manager

cc: Mike Farley, Jervis B. Webb

Encl. Figure 1: Site Location Map
Figure 2: Groundwater Monitoring Well Locations
Figure 3: Groundwater Elevation Contour Map
Figure 4: TCE Iso-Concentration Contour Map

Table 1: Groundwater Level Elevations
Table 2: Results of VOCs Detected in Groundwater Sampling
Table 3: Metal Analytical Results for Groundwater Samples
Table 4. Groundwater Well Purging Data

Appendix A: Laboratory Analytical Reports and Chain of Custody Forms
Appendix B: Groundwater Sample Collection Log
Appendix C: Waste Manifests

File: Jervis B. Webb/1stGWReport2002.doc

# FIGURES

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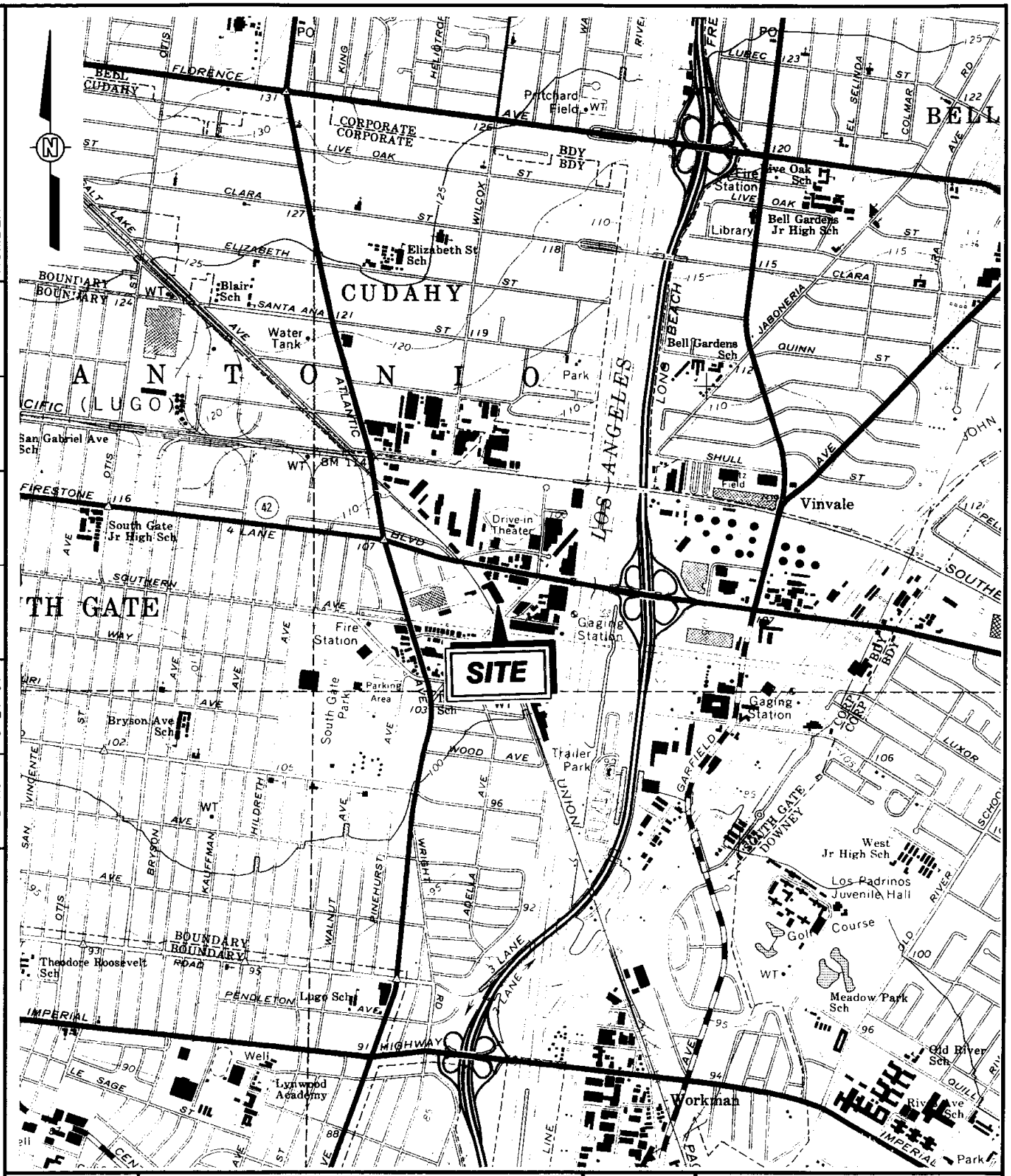

SCALE

0 2000 4000 FEET

IT CORPORATION

JERVIS B. WEBB OF CALIFORNIA

REFERENCE:
7.5 MINUTE USGS TOPOGRAPHIC MAP OF SOUTH GATE, CALIFORNIA QUADRANGLE
DATE: 1964, PHOTOREVISED: 1981
SCALE= 1:2400

**FIGURE 1**
**SITE LOCATION MAP**

5030 FIRESTONE BOULEVARD
9301 RAYO AVENUE
SOUTH GATE, CALIFORNIA

| DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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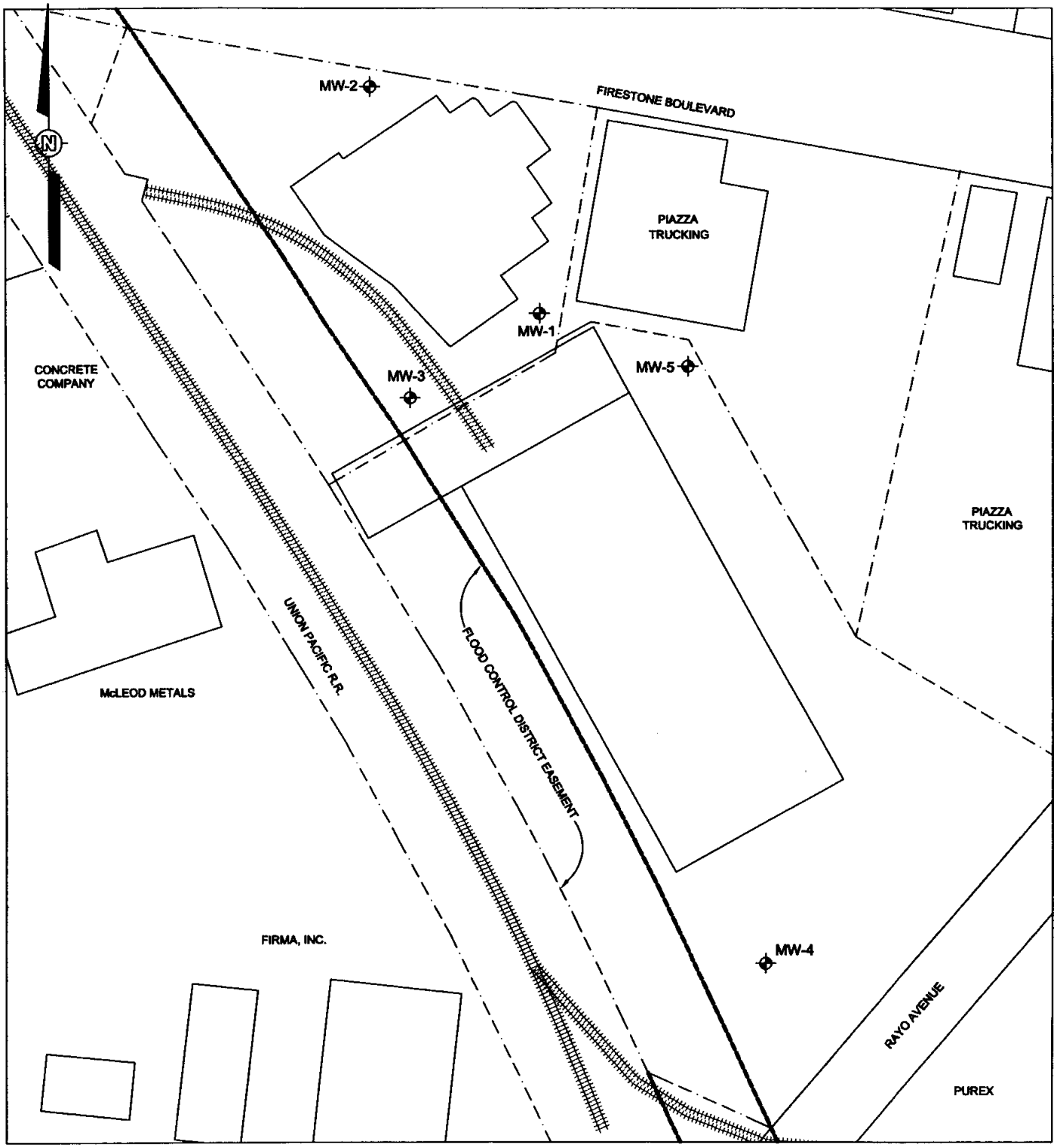


APPROXIMATE SCALE

0 100 200 FEET

## LEGEND

- MW-1 — Groundwater Monitoring Well
- Flood Control District Easement
- Property Line
- Sewer (not confirmed)
- Union Pacific Rail Road

NOTE: All locations are approximate.

REFERENCES: EKI, 1998a, Figure 2.
EKI, 1999, Figure 2.

IT CORPORATION

JERVIS B. WEBB
OF CALIFORNIA

**FIGURE 2**

**MONITORING WELL LOCATIONS**

5030 FIRESTONE BOULEVARD
9301 RAYO AVENUE
SOUTH GATE, CALIFORNIA

| DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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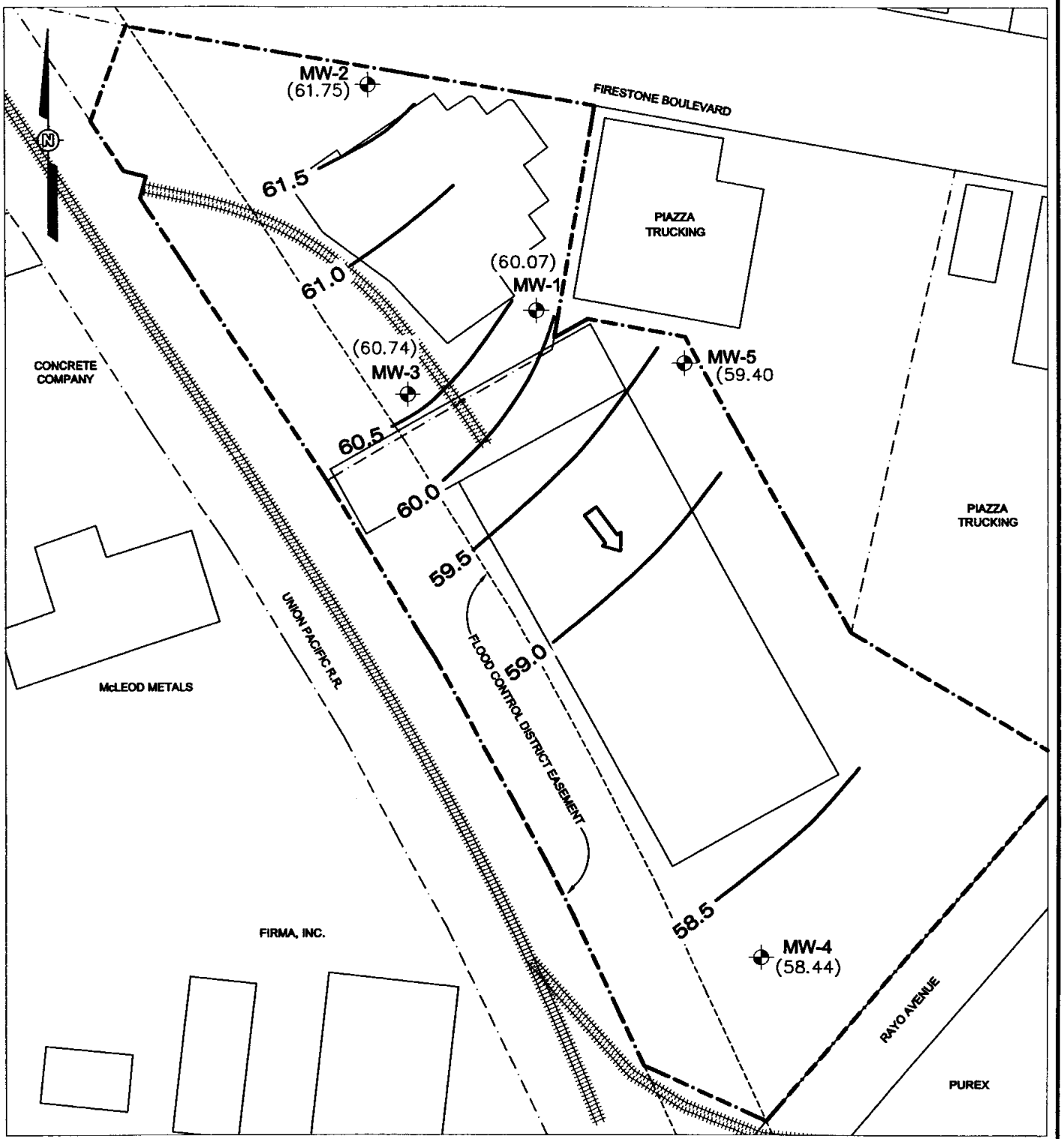


## LEGEND

- MW-1 — Groundwater Monitoring Well
- Contour Representing the Elevation of the Groundwater Table in Feet Above Mean Sea Level (msl)
- Flood Control District Easement
- Property Line/Site Boundary
- Union Pacific Rail Road
- Groundwater Flow Direction

NOTE: All locations are approximate.

REFERENCES: EKI, 1998a, Figure 2.
EKI, 1999, Figure 2.

SCALE

0 100 200 FEET

IT CORPORATION

JERVIS B. WEBB
OF CALIFORNIA

**FIGURE 3**
**GROUNDWATER CONTOUR MAP**
**JANUARY 2002**

5030 FIRESTONE BOULEVARD
9301 RAYO AVENUE
SOUTH GATE, CALIFORNIA

| DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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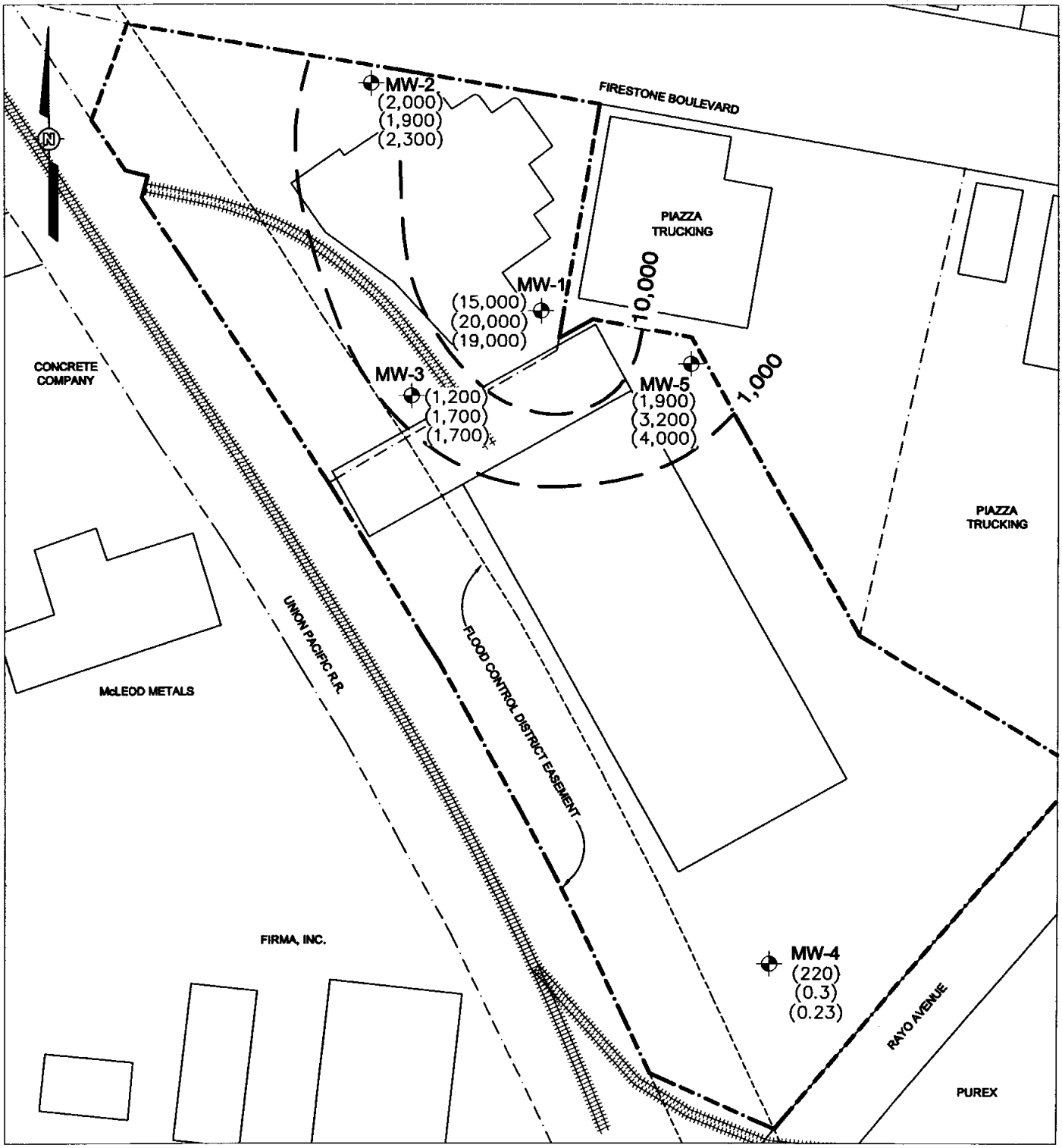


## LEGEND

- MW-1 — Groundwater Monitoring Well
- (2,000) — Concentration using Conventional Method
- (1,900) — Concentration by PDB Method - Bottom of well
- (2,300) — Concentration by PDB Method - Middle of well
- Isoconcentration Contour for Trichloroethene (Micorgrams per Liter)
- Flood Control District Easement
- Property Line/Site Boundary
- Union Pacific Rail Road

NOTE: All locations are approximate.

REFERENCES: EKI, 1998a, Figure 2.
EKI, 1999, Figure 2.

SCALE

0 100 200 FEET

IT CORPORATION

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OF CALIFORNIA

**FIGURE 4**
**TCE-ISOCONCENTRATION MAP**
**JANUARY 2002**

5030 FIRESTONE BOULEVARD
9301 RAYO AVENUE
SOUTH GATE, CALIFORNIA

# TABLES

# Table 1.
## *Groundwater Elevations in Monitoring Wells*
**5030 Firestone Boulevard and 9301 Rayo Avenue**
**South Gate, California**

| Well ID | Date | Elevation of Top-of-Casing (ft msl) | Depth to Water (ft bgs) | Elevation of Water Surface (ft msl) | Comments |
|---|---|---|---|---|---|
| MW-1 | 2/27/98 | 106.09 | 44.79 | 61.30 | |
| | 3/2/98 | 106.09 | 44.82 | 61.27 | |
| | 3/4/98 | 106.09 | 44.58 | 61.51 | |
| | 4/8/98 | 106.09 | 44.57 | 61.52 | |
| | 5/20/98 | 106.09 | 43.99 | 62.10 | |
| | 10/8/98 | 106.09 | 43.38 | 62.71 | |
| | 11/5/98 | 106.09 | 43.14 | 62.95 | |
| | 12/21/98 | 106.09 | 43.37 | 62.72 | |
| | 1/19/99 | 106.09 | 43.26 | 62.83 | |
| | 2/3/99 | 106.09 | 42.98 | 63.11 | |
| | 3/30/99 | 106.09 | 43.22 | 62.87 | |
| | 6/1/99 | 106.09 | 43.48 | 62.61 | |
| | 7/29/99 | 106.09 | 43.82 | 62.27 | |
| | 9/1/99 | 106.09 | 43.76 | 62.33 | |
| | 9/23/99 | 106.09 | 44.03 | 62.06 | |
| | 10/18/99 | 106.09 | 44.43 | 61.66 | |
| | 12/8/99 | 106.09 | 44.55 | 61.54 | |
| | 1/27/00 | 106.09 | 44.40 | 61.69 | |
| | 2/28/00 | 106.09 | 44.34 | 61.75 | |
| | 3/15/00 | 106.09 | 44.06 | 62.03 | |
| | 4/13/00 | 106.09 | 44.73 | 61.36 | |
| | 5/18/00 | 106.09 | 44.58 | 61.51 | |
| | 6/20/00 | 106.09 | 44.60 | 61.49 | |
| | 7/13/00 | 106.09 | 45.17 | 60.92 | |
| | 8/17/00 | 106.09 | 45.30 | 60.79 | |
| | 9/7/00 | 106.09 | 45.15 | 60.94 | |
| | 10/26/00 | 106.09 | 45.87 | 60.22 | |
| | 11/21/00 | 106.09 | 45.60 | 60.49 | |
| | 12/5/00 | 106.09 | 45.72 | 60.37 | |
| | 1/4/01 | 106.09 | 45.67 | 60.42 | |
| | 2/22/01 | 106.09 | 45.43 | 60.66 | |
| | 3/8/01 | 106.09 | 45.09 | 61.00 | |
| | 4/24/01 | 106.09 | 45.75 | 60.34 | |
| | 6/5/01 | 106.09 | 45.52 | 60.57 | |
| | 1/14/02 | 106.09 | 46.02 | 60.07 | |

# Table 1. (Continued...)
## *Groundwater Elevations in Monitoring Wells*
### 5030 Firestone Boulevard and 9301 Rayo Avenue
### South Gate, California

| Well ID | Date | Elevation of Top-of-Casing (ft msl) | Depth to Water (ft bgs) | Elevation of Water Surface (ft msl) | Comments |
|---|---|---|---|---|---|
| MW-2 | 2/27/98 | 106.65 | 44.02 | 62.63 | |
| | 3/2/98 | 106.65 | 44.06 | 62.59 | |
| | 3/4/98 | 106.65 | 44.13 | 62.52 | |
| | 4/8/98 | 106.65 | NR | -- | Truck parked on well |
| | 5/20/98 | 106.65 | 43.51 | 63.14 | |
| | 10/8/98 | 106.65 | 42.84 | 63.81 | |
| | 11/5/98 | 106.65 | 42.64 | 64.01 | |
| | 12/21/98 | 106.65 | 42.69 | 63.96 | |
| | 1/19/99 | 106.65 | 42.66 | 63.99 | |
| | 2/3/99 | 106.65 | 42.55 | 64.10 | |
| | 3/30/99 | 106.65 | 42.63 | 64.02 | |
| | 6/1/99 | 106.65 | 42.91 | 63.74 | |
| | 7/29/99 | 106.65 | 43.13 | 63.52 | |
| | 9/1/99 | 106.65 | 43.14 | 63.51 | |
| | 9/23/99 | 106.65 | 43.35 | 63.30 | |
| | 10/18/99 | 106.65 | 43.60 | 63.05 | |
| | 12/8/99 | 106.65 | 43.62 | 63.03 | |
| | 1/27/00 | 106.65 | 43.86 | 62.79 | |
| | 2/28/00 | 106.65 | 43.86 | 62.79 | |
| | 3/15/00 | 106.65 | 43.62 | 63.03 | |
| | 4/13/00 | 106.65 | 43.92 | 62.73 | |
| | 5/18/00 | 106.65 | 43.50 | 63.15 | |
| | 6/20/00 | 106.65 | 43.48 | 63.17 | |
| | 7/13/00 | 106.65 | 43.29 | 63.36 | |
| | 8/17/00 | 106.65 | 43.38 | 63.27 | |
| | 9/7/00 | 106.65 | 44.30 | 62.35 | |
| | 10/26/00 | 106.65 | 44.74 | 61.91 | |
| | 11/21/00 | 106.65 | 44.52 | 62.13 | |
| | 12/5/00 | 106.65 | 44.51 | 62.14 | |
| | 1/4/01 | 106.65 | 44.55 | 62.10 | |
| | 2/22/01 | 106.65 | 43.91 | 62.74 | |
| | 3/8/01 | 106.65 | 43.25 | 63.40 | |
| | 4/24/01 | 106.65 | 44.64 | 62.01 | |
| | 6/5/01 | 106.65 | 44.50 | 62.15 | |
| | 1/14/02 | 106.65 | 44.90 | 61.75 | |

# Table 1. (Continued...)
## *Groundwater Elevations in Monitoring Wells*
**5030 Firestone Boulevard and 9301 Rayo Avenue**
**South Gate, California**

| Well ID | Date | Elevation of Top-of-Casing (ft msl) | Depth to Water (ft bgs) | Elevation of Water Surface (ft msl) | Comments |
|---|---|---|---|---|---|
| MW-3 | 2/27/98 | 105.87 | 44.55 | 61.32 | |
| | 3/2/98 | 105.87 | 44.56 | 61.31 | |
| | 3/4/98 | 105.87 | 44.40 | 61.47 | |
| | 4/8/98 | 105.87 | 44.39 | 61.48 | |
| | 5/20/98 | 105.87 | 43.80 | 62.07 | |
| | 10/8/98 | 105.87 | 43.26 | 62.61 | |
| | 11/5/98 | 105.87 | 43.60 | 62.27 | |
| | 12/21/98 | 105.87 | 43.33 | 62.54 | |
| | 1/19/99 | 105.87 | 43.18 | 62.69 | |
| | 2/3/99 | 105.87 | 42.97 | 62.90 | |
| | 3/30/99 | 105.87 | 43.19 | 62.68 | |
| | 6/1/99 | 105.87 | 43.58 | 62.29 | |
| | 7/29/99 | 105.87 | 43.85 | 62.02 | |
| | 9/1/99 | 105.87 | 43.90 | 61.97 | |
| | 9/23/99 | 105.87 | 44.10 | 61.77 | |
| | 10/18/99 | 105.87 | 44.37 | 61.50 | |
| | 12/8/99 | 105.87 | 44.64 | 61.23 | |
| | 1/27/00 | 105.87 | 44.69 | 61.18 | |
| | 2/28/00 | 105.87 | 44.75 | 61.12 | |
| | 3/15/00 | 105.87 | 44.41 | 61.46 | |
| | 4/13/00 | 105.87 | 44.86 | 61.01 | |
| | 5/18/00 | 105.87 | 44.94 | 60.93 | |
| | 6/20/00 | 105.87 | 44.88 | 60.99 | |
| | 7/13/00 | 105.87 | 45.25 | 60.62 | |
| | 8/17/00 | 105.87 | 45.06 | 60.81 | |
| | 9/7/00 | 105.87 | 44.83 | 61.04 | |
| | 10/26/00 | 105.87 | 45.94 | 59.93 | |
| | 11/21/00 | 105.87 | 46.00 | 59.87 | |
| | 12/5/00 | 105.87 | 45.77 | 60.10 | |
| | 1/4/01 | 105.87 | 45.89 | 59.98 | |
| | 2/22/01 | 105.87 | 45.53 | 60.34 | |
| | 3/8/01 | 105.87 | 45.21 | 60.66 | |
| | 4/24/01 | 105.87 | 45.72 | 60.15 | |
| | 6/5/01 | 105.87 | 45.74 | 60.13 | |
| | 1/14/02 | 105.87 | 45.13 | 60.74 | |

# Table 1. (Continued...)
## *Groundwater Elevations in Monitoring Wells*
### 5030 Firestone Boulevard and 9301 Rayo Avenue
### South Gate, California

| Well ID | Date | Elevation of Top-of-Casing (ft msl) | Depth to Water (ft bgs) | Elevation of Water Surface (ft msl) | Comments |
|---|---|---|---|---|---|
| MW-4 | 11/3/98 | 104.72 | 42.77 | 61.95 | |
| | 11/5/98 | 104.72 | 42.64 | 62.08 | |
| | 12/21/98 | 104.72 | 42.93 | 61.79 | |
| | 1/19/99 | 104.72 | 42.80 | 61.92 | |
| | 2/3/99 | 104.72 | 42.63 | 62.09 | |
| | 3/30/99 | 104.72 | 42.89 | 61.83 | |
| | 6/1/99 | 104.72 | 43.28 | 61.44 | |
| | 7/29/99 | 104.72 | 43.63 | 61.09 | |
| | 9/1/99 | 104.72 | 43.70 | 61.02 | |
| | 9/23/99 | 104.72 | 43.96 | 60.76 | |
| | 10/18/99 | 104.72 | 44.22 | 60.50 | |
| | 12/8/99 | 104.72 | 44.48 | 60.24 | |
| | 1/27/00 | 104.72 | 44.70 | 60.02 | |
| | 2/28/00 | 104.72 | NR | -- | Truck parked on well. |
| | 3/15/00 | 104.72 | 44.37 | 60.35 | |
| | 4/13/00 | 104.72 | NR | -- | Truck parked on well. |
| | 5/18/00 | 104.72 | 44.81 | 59.91 | |
| | 6/20/00 | 104.72 | 44.94 | 59.78 | |
| | 7/13/00 | 104.72 | 45.10 | 59.62 | |
| | 8/17/00 | 104.72 | 45.36 | 59.36 | |
| | 9/7/00 | 104.72 | 45.31 | 59.41 | |
| | 10/26/00 | 104.72 | 45.89 | 58.83 | |
| | 11/21/00 | 104.72 | 45.86 | 58.86 | |
| | 12/5/00 | 104.72 | 45.71 | 59.01 | |
| | 1/4/01 | 104.72 | 45.79 | 58.93 | |
| | 2/22/01 | 104.72 | 45.49 | 59.23 | |
| | 3/8/01 | 104.72 | 45.62 | 59.10 | |
| | 4/24/01 | 104.72 | 45.68 | 59.04 | |
| | 6/5/01 | 104.72 | 45.80 | 58.92 | |
| | 1/14/02 | 104.72 | 46.23 | 58.49 | |

# Table 1. (Continued...)
## *Groundwater Elevations in Monitoring Wells*
### 5030 Firestone Boulevard and 9301 Rayo Avenue
### South Gate, California

| Well ID | Date | Elevation of Top-of-Casing (ft msl) | Depth to Water (ft bgs) | Elevation of Water Surface (ft msl) | Comments |
|---|---|---|---|---|---|
| MW-5 | 11/3/98 | 106.13 | 43.32 | 62.81 | |
| | 11/5/98 | 106.13 | 43.30 | 62.83 | |
| | 12/21/98 | 106.13 | 43.58 | 62.55 | |
| | 1/19/99 | 106.13 | 43.46 | 62.67 | |
| | 2/3/99 | 106.13 | 43.20 | 62.93 | |
| | 3/30/99 | 106.13 | 43.49 | 62.64 | |
| | 6/1/99 | 106.13 | 43.88 | 62.25 | |
| | 7/29/99 | 106.13 | 44.19 | 61.94 | |
| | 9/1/99 | 106.13 | 44.22 | 61.91 | |
| | 9/23/99 | 106.13 | 44.48 | 61.65 | |
| | 10/18/99 | 106.13 | 44.72 | 61.41 | |
| | 12/8/99 | 106.13 | 44.98 | 61.15 | |
| | 1/27/00 | 106.13 | 45.17 | 60.96 | |
| | 2/28/00 | 106.13 | 45.15 | 60.98 | |
| | 3/15/00 | 106.13 | 44.87 | 61.26 | |
| | 4/13/00 | 106.13 | 45.22 | 60.91 | |
| | 5/18/00 | 106.13 | 45.29 | 60.84 | |
| | 6/20/00 | 106.13 | 45.30 | 60.83 | |
| | 7/13/00 | 106.13 | 45.63 | 60.50 | |
| | 8/17/00 | 106.13 | 45.85 | 60.28 | |
| | 9/7/00 | 106.13 | 45.69 | 60.44 | |
| | 10/26/00 | 106.13 | 46.35 | 59.78 | |
| | 11/21/00 | 106.13 | 46.33 | 59.80 | |
| | 12/5/00 | 106.13 | 46.16 | 59.97 | |
| | 1/4/01 | 106.13 | 46.26 | 59.87 | |
| | 2/22/01 | 106.13 | 46.00 | 60.13 | |
| | 3/8/01 | 106.13 | 45.95 | 60.18 | |
| | 4/24/01 | 106.13 | 46.19 | 59.94 | |
| | 6/5/01 | 106.13 | 46.30 | 59.83 | |
| | 1/14/02 | 106.13 | 46.73 | 59.40 | |

NOTES

ft msl = feet above mean sea level
ft bgs = feet below ground surface
NR = Not Recorded
-- = Not Applicable

1. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-1, MW-2, and MW-3 were surveyed on 6 March 1998 by Rattray & Associates, Inc.
2. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-4 and MW-5 were surveyed on 21 December 1998 by Rattray & Associates, Inc.

# Table 2.
## *Results of VOCs Detected in Groundwater Samples*
**5030 Firestone Boulevard and 9301 Rayo Avenue**
**South Gate, California**

| Well ID | Sample Number | Sample Date | Analyte Concentration (µg/L) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | Toluene | 1,1-DCA | 1,1-DCE | 1,2-DCA | c-1,2-DCE | t-1,2-DCE | PCE | TCE |
| MW-1 | MW-1 | 3/4/98 | <100 | <100 | <100 | **220** | <100 | **130** | <100 | **140** | **24,000** |
| | MW-1-DUP | 3/4/98 | <100 | <100 | <100 | **210** | <100 | **150** | <100 | **160** | **25,000** |
| | MW-1 | 5/20/98 | <125 | <125 | <125 | **160** | <125 | **130** | <125 | <125 | **24,000** |
| | MW-1 | 11/5/98 | <125 | <125 | <125 | **140** | <125 | **160** | <125 | **170** | **28,000** |
| | MW-1 | 2/3/99 | <125 | <125 | <125 | **130** | <125 | **160** | <125 | **160** | **27,000** |
| | MW-1 | 6/1/99 | <100 | <100 | <100 | **140** | <100 | **190** | <100 | **160** | **28,000** |
| | MW-1 | 9/1/99 | <100 | <100 | **140** | **220** | <100 | **200** | <100 | **190** | **32,000** |
| | MW-1 | 12/8/99 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | <250 | **30,000** |
| | MW-1-A[3] | 12/8/99 | <100 | <100 | **110** | **150** | <100 | **200** | <100 | **160** | **33,000** |
| | MW-1 | 3/15/00 | <100 | <100 | <100 | **160** | <100 | **230** | <100 | **150** | **30,000** |
| | MW-1 | 6/20/00 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | **24,000** |
| | MW-1 | 9/7/00 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | **21,000** |
| | MW-1 | 12/5/00 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | **30,000** |
| | MW-1 | 3/8/01 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | **23,000** |
| | MW-1 | 6/5/01 | <125 | <125 | <125 | <125 | <125 | <125 | <125 | **150** | **31,000** |
| | MW-1 | 1/17/02 | <200 | <200 | **49J** | **47J** | <200 | **520J** | <200 | **65J** | **15,000** |
| | MW-1 (PDB-1A) | 1/17/02 | <200 | <200 | **62J** | **120J** | <200 | **150J** | <200 | **61J** | **20,000** |
| | MW-1 (PDB-1B) | 1/17/02 | <200 | <200 | **64J** | **120J** | <200 | **150J** | <200 | **84J** | **19,000** |
| MW-2 | MW-2 | 3/4/98 | <10 | <10 | **13** | **34** | <10 | **65** | <10 | <10 | **2,700** |
| | MW-2 | 5/20/98 | <10 | <10 | **14** | **38** | <10 | **68** | <10 | <10 | **3,000** |
| | MW-2 | 11/5/98 | <10 | <10 | **13** | **36** | <10 | **68** | <10 | <10 | **3,200** |
| | MW-2 | 2/3/99 | <10 | <10 | **13** | **36** | <10 | **70** | <10 | <10 | **3,200** |
| | MW-2 | 6/1/99 | <10 | <10 | **12** | **34** | <10 | **68** | <10 | <10 | **2,800** |
| | MW-2 | 9/1/99 | <10 | <10 | **16** | **49** | <10 | **72** | <10 | <10 | **3,100** |
| | MW-2 | 12/8/99 | <13 | <13 | <13 | <13 | <13 | **57** | <13 | <13 | **2,400** |
| | MW-2-A[3] | 12/8/99 | <10 | <10 | **12** | **22** | <10 | **63** | <10 | <10 | **2,600** |
| | MW-2 | 3/15/00 | <10 | <10 | <10 | <10 | <10 | **74** | <10 | <10 | **2,800** |
| | MW-2 | 6/20/00 | <10 | <10 | <10 | <10 | <10 | **46** | <10 | <10 | **2,000** |
| | MW-2 | 9/7/00 | <10 | <10 | <10 | <10 | <10 | **42** | <10 | <10 | **1,800** |
| | MW-2 | 12/5/00 | <10 | <10 | <10 | <10 | <10 | **50** | <10 | <10 | **2,300** |
| | MW-2 | 3/8/01 | <10 | <10 | <10 | <10 | <10 | **44** | <10 | <10 | **1,800** |
| | MW-2-DUP | 3/8/01 | <10 | <10 | <10 | <10 | <10 | **42** | <10 | <10 | **1,600** |
| | MW-2 | 6/5/01 | <10 | <10 | <10 | <10 | <10 | **47** | <10 | <10 | **2,300** |
| | MW-2 | 1/17/02 | <50 | <50 | <50 | **25J** | <50 | **59J** | <50 | <50 | **2,000** |
| | MW-2 (PDB-2A) | 1/17/02 | <50 | <50 | <50 | **32J** | <50 | **46J** | <50 | <50 | **1,900** |
| | MW-2 (PDB-2B) | 1/17/02 | <50 | <50 | <50 | **38J** | <50 | **52** | <50 | <50 | **2,300** |

# Table 2. (Continued...)
## *Results of VOCs Detected in Groundwater Samples*
### 5030 Firestone Boulevard and 9301 Rayo Avenue
### South Gate, California

| Well ID | Sample Number | Sample Date | Analyte Concentration (µg/L) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | Toluene | 1,1-DCA | 1,1-DCE | 1,2-DCA | c-1,2-DCE | t-1,2-DCE | PCE | TCE |
| MW-3 | MW-3 | 3/4/98 | <10 | **13** | **14** | **82** | <10 | **200** | <10 | <10 | **2,800** |
| | MW-3 | 5/20/98 | <10 | <10 | **13** | **58** | <10 | **230** | **15** | <10 | **2,800** |
| | MW-3 | 11/5/98 | <10 | <10 | **11** | **66** | <10 | **240** | **18** | <10 | **2,300** |
| | MW-3 | 2/3/99 | <10 | <10 | **11** | **64** | <10 | **220** | **18** | <10 | **2,000** |
| | MW-3 | 6/1/99 | <10 | <10 | **11** | **66** | <10 | **240** | **18** | <10 | **1,900** |
| | MW-3 | 9/1/99 | <10 | <10 | **13** | **80** | <10 | **270** | **20** | <10 | **2,600** |
| | MW-3 | 12/8/99 | <13 | <13 | <13 | <13 | <13 | **220** | <13 | <13 | **2,500** |
| | MW-3-A[3] | 12/8/99 | <10 | <10 | **13** | **55** | <10 | **240** | **19** | <10 | **2,900** |
| | MW-3 | 3/15/00 | <10 | <10 | **11** | **61** | <10 | **300** | **20** | <10 | **3,100** |
| | MW-3 | 6/20/00 | <10 | <10 | **10** | <10 | <10 | **170** | **14** | <10 | **1,900** |
| | MW-3-DUP | 6/20/00 | <10 | <10 | **11** | <10 | <10 | **200** | **16** | <10 | **2,100** |
| | MW-3 | 9/7/00 | <10 | <10 | <10 | <10 | <10 | **160** | <10 | <10 | **1,700** |
| | MW-3-DUP | 9/7/00 | <10 | <10 | <10 | <10 | <10 | **160** | <10 | <10 | **1,700** |
| | MW-3 | 12/5/00 | <10 | <10 | <10 | <10 | <10 | **200** | <10 | <10 | **2,400** |
| | MW-3-DUP | 12/5/00 | <10 | <10 | <10 | <10 | <10 | **210** | <10 | <10 | **2,500** |
| | MW-3 | 3/8/01 | <10 | <10 | <10 | **55** | <10 | **200** | <10 | <10 | **1,700** |
| | MW-3 | 6/5/01 | <10 | <10 | <10 | <10 | <10 | **210** | <10 | <10 | **2,300** |
| | MW-3 | 1/17/02 | **18J** | <50 | <50 | **40J** | <50 | **130** | **14J** | <50 | **1,200** |
| | MW-3 (PDB-3A) | 1/17/02 | <50 | <50 | <50 | **18J** | <50 | **140** | **15J** | <50 | **1,700** |
| | MW-3 (PDB-3B) | 1/17/02 | **13J** | <50 | <50 | **54** | <50 | **150** | **17J** | <50 | **1,700** |
| MW-4 | MW-4 | 11/5/98 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | **0.67** | <0.5 | <0.5 | **6.7** |
| | MW-4 | 2/3/99 | <0.5 | <0.5 | <0.5 | <0.5 | **2.1** | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 6/1/99 | <0.5 | <0.5 | <0.5 | <0.5 | **65** | **1.1** | <0.5 | <0.5 | 0.90 |
| | MW-4 | 9/1/99 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 12/8/99 | **1.2** | <0.5 | <0.5 | <0.5 | <0.5 | **4.1** | 1.0 | <0.5 | **17** |
| | MW-4-A[3] | 12/8/99 | **1.2** | <0.5 | <0.5 | <0.5 | <0.5 | **4.6** | 1.1 | <0.5 | **18** |
| | MW-4 | 3/15/00 | **77** | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.68 |
| | MW-4 | 6/20/00 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 9/7/00 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 12/5/00 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 3/8/01 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 6/5/01 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | MW-4 | 1/17/02 | **0.28J** | <1 | <1 | **1.4** | <1 | **61** | 6.7 | <1 | **220** |
| | MW-4 (PDB-4A) | 1/17/02 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 0.30J |
| | MW-4 (PDB-4B) | 1/17/02 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 0.23J |

# Table 2. (Continued...)

## *Results of VOCs Detected in Groundwater Samples*

**5030 Firestone Boulevard and 9301 Rayo Avenue**
**South Gate, California**

| Well ID | Sample Number | Sample Date | Analyte Concentration (µg/L) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | Toluene | 1,1-DCA | 1,1-DCE | 1,2-DCA | c-1,2-DCE | t-1,2-DCE | PCE | TCE |
| MW-5 | MW-5 | 11/5/98 | <25 | <25 | <25 | **42** | <25 | **380** | **30** | <25 | **5,000** |
| | MW-5-DUP | 11/5/98 | <25 | <25 | <25 | **40** | <25 | **360** | **29** | <25 | **4,800** |
| | MW-5 | 2/3/99 | <25 | <25 | <25 | **49** | <25 | **420** | **35** | <25 | **5,100** |
| | MW-5-DUP | 2/3/99 | <25 | <25 | <25 | **45** | <25 | **370** | **31** | <25 | **4,500** |
| | MW-5 | 6/1/99 | <25 | <25 | <25 | **52** | **35** | **420** | **36** | <25 | **5,500** |
| | MW-5-DUP | 6/1/99 | <25 | <25 | <25 | **56** | **39** | **430** | **35** | <25 | **5,300** |
| | MW-5 | 9/1/99 | <25 | <25 | <25 | **40** | <25 | **420** | **45** | <25 | **5,500** |
| | MW-5-DUP | 9/1/99 | <25 | <25 | <25 | **69** | <25 | **440** | **45** | <25 | **6,000** |
| | MW-5 | 12/8/99 | <50 | <50 | <50 | <50 | <50 | **390** | <50 | <50 | **5,100** |
| | MW-5-A[3] | 12/8/99 | <25 | <25 | <25 | <25 | <25 | **410** | **25** | <25 | **5,300** |
| | MW-5-DUP | 12/8/99 | <50 | <50 | <50 | <50 | <50 | **360** | <50 | <50 | **5,000** |
| | MW-5-DUP-A[3] | 12/8/99 | <25 | <25 | <25 | <25 | <25 | **410** | **26** | <25 | **5,300** |
| | MW-5 | 3/15/00 | <50 | <50 | <50 | <50 | <50 | **440** | <50 | <50 | **5,500** |
| | MW-5-DUP | 3/15/00 | <50 | <50 | <50 | <50 | <50 | **450** | <50 | <50 | **5,800** |
| | MW-5 | 6/20/00 | <25 | <25 | <25 | <25 | <25 | **350** | <25 | <25 | **4,400** |
| | MW-5 | 9/7/00 | <10 | <10 | <10 | <10 | <10 | **280** | <10 | <10 | **3,700** |
| | MW-5 | 12/5/00 | <10 | <10 | <10 | <10 | <10 | **190** | <10 | <10 | **4,700** |
| | MW-5 | 3/8/01 | <25 | 140 | <25 | <25 | <25 | **260** | <25 | <25 | **3,600** |
| | MW-5 | 6/5/01 | <25 | <25 | <25 | <25 | <25 | **340** | <25 | <25 | **5,400** |
| | MW-5-DUP | 6/5/01 | <25 | <25 | <25 | <25 | <25 | **350** | <25 | <25 | **5,400** |
| | MW-5 | 1/17/02 | <50 | <50 | <50 | **13J** | <50 | **120** | **13J** | <50 | **1,900** |
| | MW-5 (PDB-5A) | 1/17/02 | <50 | <50 | <50 | **22J** | <50 | **140** | **18J** | <50 | **3,200** |
| | MW-5 (PDB-5B) | 1/17/02 | <50 | <50 | <50 | **37J** | <50 | **270** | **29J** | <50 | **4,000** |
| **CA MCL** | | | **1.0** | **150** | **5.0** | **6.0** | **0.5** | **6.0** | **10** | **5.0** | **5.0** |

Notes:

1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
1,2-DCA = 1,2-dichloroethane
c-1,2-DCE = cis-1,2-dicloroethene
t-1,2-DCE = trans-1,2-dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
VOCs = volatile organic compounds
µg/L = micrograms per liter
J = value between Reporting Limit and Method Detection Limit
B = found in associated method blank

1. Current analyses performed by EMAX Laboratories, Inc., in Torrance, California using EPA Method 8260 for VOCs.
2. < indicates that the analyte was not detected at a concentration above the indicated method detection limit.
3. Samples collected on 8 December 1999 were initially analyzed on 9 December 1999 and were re-analyzed on 17 December 1999 in an attempt to achieve lower method detection limits.
4. CA MCL = California Maximum Contaminant Level
5. **Bold** denotes exceedance of MCL
6. PDB-1A = bottom of well casing (about 68-69 feet)
   PDB-1B = middle of well casing (about 52-54 feet

# Table 3.
## *Metal Results for Groundwater Samples*
### 5030 Firestone Boulevard and 9301 Rayo Avenue
### South Gate, California

| Well ID | Sample Number | Sample Date | Analyte Concentration (mg/L) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Arsenic | Barium | Chromium | Chromium VI | Molybdenum | Zinc | TDS |
| MW-1 | MW-1-0520 | 5/20/98 | -- | -- | -- | -- | -- | -- | 1,500 |
| | MW-1 | 3/8/01 | **0.32** | 0.13 | <0.01 | <0.01 | 0.47 | 0.016 | -- |
| | MW-1 | 6/5/01 | **0.32** | 0.25 | <0.01 | <0.01 | 0.45 | 0.024 | -- |
| | MW-1 | 1/17/02 | **0.244** | 0.0523 | <0.02 | 0.09 | 0.545 | 0.00393 | -- |
| MW-2 | MW-2-0520 | 5/20/98 | -- | -- | -- | -- | -- | -- | 2,500 |
| | MW-2 | 3/8/01 | 0.0066 | 0.019 | <0.01 | <0.01 | 1.1 | 0.015 | -- |
| | MW-2-DUP | 3/8/01 | 0.0056 | 0.019 | <0.01 | <0.01 | 1.1 | 0.014 | -- |
| | MW-2 | 6/5/01 | 0.039 | 0.090 | <0.01 | <0.01 | 0.95 | 0.0.16 | -- |
| | MW-2 | 1/17/02 | **0.0847** | 0.0702 | <0.02 | **0.22** | 1.39 | 0.0183 | -- |
| MW-3 | MW-3-0520 | 5/20/98 | -- | -- | -- | -- | -- | -- | 1,100 |
| | MW-3 | 3/8/01 | **0.080** | 0.15 | <0.01 | <0.01 | 0.71 | 0.012 | -- |
| | MW-3 | 6/5/01 | **0.11** | 0.32 | <0.01 | <0.01 | 0.79 | 0.023 | -- |
| | MW-3 | 1/17/02 | **0.095** | 0.0472 | <0.02 | **0.15** | 1.06 | <0.02 | -- |
| MW-4 | MW-4 | 3/8/01 | 0.0079 | 0.027 | <0.01 | <0.01 | <0.05 | 0.025 | -- |
| | MW-4 | 6/5/01 | 0.027 | 0.030 | <0.01 | <0.01 | <0.05 | 0.020 | -- |
| | MW-4 | 1/17/02 | **0.0504** | 0.134 | <0.02 | **0.16** | 0.564 | 0.0063 | -- |
| MW-5 | MW-5 | 3/8/01 | **0.19** | 0.15 | <0.01 | <0.01 | 0.84 | 0.014 | -- |
| | MW-5 | 6/5/01 | **0.15** | 0.16 | <0.01 | <0.01 | 1.1 | 0.011 | -- |
| | MW-5-DUP | 6/5/01 | **0.19** | 0.31 | <0.01 | <0.01 | 0.92 | 0.017 | -- |
| | MW-5 | 1/17/02 | 0.025 | 0.0356 | <0.02 | <0.2 | 0.0179 | 0.00674 | -- |
| CA MCL | | | **0.05** | **2** | **0.1** | **0.1** | **NE** | **5*** | |

TDS – total dissolved solids
mg/L – milligrams per liter
-- indicates not analyzed

1. The following analyses were performed by EMAX Laboratories, Inc., in Torrance, California:
   Dissolved Metals (Arsenic, Barium, Chromium, Molybdenum, and Zinc) by EPA Method 6010B
   Dissolved Hexavalent Chromium by EPA Method 7199 in ug/l
2. < indicates that the analyte was not detected at a concentration above the indicated method detection limit.
3. CA MCL = California Maximum Contaminant Level
4. NE = Not Established
5. * = Secondary MCL
6. **Bold** denotes exceedance of MCL

# Table 4.

## *Groundwater Well Purging Data*

**5030 Firestone Boulevard and 9301 Rayo Avenue**
**South Gate, California**

| Well ID | Date | Purge Volume (gal) | pH (units) | Specific Conductance (micromhos/cm) | Temperature (° Celcius) | Turbidity (NTUs) |
|---|---|---|---|---|---|---|
| MW-1 | 1/17/02 | 48 | 8.95 | 2,100 | 18.1 | 1 |
| MW-2 | 1/17/02 | 50 | 7.89 | 3,270 | 18.4 | 999 |
| MW-3 | 1/17/02 | 50 | 7.92 | 2,640 | 18.4 | 75 |
| MW-4 | 1/17/02 | 46 | 6.77 | 5,000 | 19.7 | 7 |
| MW-5 | 1/17/02 | 45 | 8.81 | 4,980 | 19.3 | 2 |

Note: All wells were purged using a vacuum truck

# APPENDIX A

# LABORATORY ANALYTICAL REPORTS

# AND

# CHAIN OF CUSTODY FORMS

FILE COPY

FEB 1 2002

# TABLE OF CONTENTS

**CLIENT:** IT CORPORATION

**PROJECT:** JERVIS WEBB SOUTH GATE

**SDG:** 02A068


| SECTION | | PAGE |
|---|---|---|
| Cover Letter, COC/Sample Receipt Form | | 1000 - 1002 |
| GC/MS-VOA | SW 5030B/8260B | 2000 - 2051 |
| GC/MS-SVOA | ** | 3000 - |
| GC-VOA | ** | 4000 - |
| GC-SVOA | ** | 5000 - |
| HPLC | ** | 6000 - |
| METALS | ** | 7000 - |
| WET | ** | 8000 - |
| OTHERS | ** | 9000 - |


** - Not Requested

EMAX
LABORATORIES, INC.
1835 205th Street
Torrance, CA 90501
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 01-28-2002
EMAX Batch No.: 02A068

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: Jervis Webb South Gate

---

Enclosed is the Laboratory report for samples received on 01/17/02. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| PDS-1A | A068-01 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-1B | A068-02 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-2A | A068-03 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-2B | A068-04 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-3A | A068-05 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-3B | A068-06 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-4A | A068-07 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-4B | A068-08 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-5A | A068-09 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS |
| PDS-5B | A068-10 | 01/17/02 | WATER | 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

1000

the i group

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

# CHAIN-OF-CUSTODY RECORD

LABORATORY COPY
A 14007

VW04408 02A068

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| IT'S LAB COORDINATOR: Dwayne Ishida | LAB COORDINATOR'S PHONE: 949-261-6441 | LAB COORDINATOR'S FAX: 949-474-8309 | LABORATORY SERVICE ID: EMAX | LABORATORY CONTACT: | MAIL REPORT (COMPANY NAME): IT Corp. |
| PROJECT NAME: Ferris Webb | PROJECT LOCATION: South Gate | PROJECT NUMBER: | LABORATORY PHONE: | LABORATORY FAX: | RECIPIENT NAME: Ramil Reyes |
| PROJECT CONTACT: Ramil Reyes | PROJECT PHONE NUMBER: 949-660-5494 | PROJECT FAX: 949-474-8309 | LABORATORY ADDRESS: 1835 205th St. | | ADDRESS: 3347 Michelson Dr. |
| PROJECT ADDRESS: 5030 Firestone | CITY, STATE AND ZIP CODE: South Gate, CA | CLIENT: Ferris Webb | CITY, STATE AND ZIP CODE: Torrance, CA 90501 | | CITY, STATE AND ZIP CODE: Irvine, CA 92612 |
| PROJECT MANAGER: Gary Crunk | PROJECT MANAGER'S PHONE: 949-660-7511 | PROJECT MANAGER'S FAX: 949-474-8309 | | | |

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: 8260B VOCs | D. Metals (As, Ba, Cr, Mo, Zn) Cr VI | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PDS-1A | W | 1/17 | ~~0400~~ 0805 | HCL | 3 | | Standard | X | | | | | | | |
| 2 | PDS-1B | ↓ | ↓ | 0907 | ↓ | ↓ | | ↓ | ↓ | | | | | | | |
| 3 | PDS-2A | | | 0835 | | | | | | | | | | | | |
| 4 | PDS-2B | | | 0837 | | | | | | | | | | | | |
| 5 | PDS-3A | | | 0850 | | | | | | | | | | | | |
| 6 | PDS-3B | | | 0852 | | | | | | | | | | | | |
| 7 | PDS-4A | | | 0940 | | | | | | | | | | | | |
| 8 | PDS-4B | | | 0942 | | | | | | | | | | | | |
| 9 | PDS-5A | | | 0920 | | | | | | | | | | | | |
| 10 | PDS-5B | ↓ | ↓ | 0927 | ↓ | ↓ | | ↓ | ↓ | | | | | | | |

SAMPLES COLLECTED BY: RR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT: 4.0°C

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Ramil Reyes 1515 | [illegible] | 1-17-02 | | |
| [illegible] | [illegible] | 1-17-02 | 4:35 pm | |
| | | | | |
| | | | | |

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

680000

# SAMPLE RECEIPT FORM

| Type of Delivery | Delivered By/Airbill | | |
|---|---|---|---|
| ☐ EMAX Courier | | ECN | 02 A06 B |
| ☑ Client Delivery | SEE C.O.C. | Recepient | SITNIKOV |
| ☐ Third Party | | Date | 01.17.02. |
| | | Time | 4:35 PM. |

**COC Inspection**

| | | |
|---|---|---|
| ☑ Client Name | ☐ Sampler Name | ☑ Sampling Date/Time/Location |
| ☑ Address | ☑ Courier Signature/Date/Time | ☑ Analysis Required |
| ☑ Client PM/FC | ☑ TAT | ☑ Matrix |
| ☑ Tel #/Fax # | ☑ Sample ID | ☑ Preservative (if any) |
| Safety Issues ☑ None | ☐ High Concentrations expected | ☐ Superfund Site Samples |

Comments:

**Packaging Inspection**

| | | | | |
|---|---|---|---|---|
| Container | ☑ Cooler ONE | ☐ Box | ☐ RAD Screening | |
| Condition | ☐ Custody Seal | ☑ Intact | ☐ Damaged | ☐ |
| Packaging | ☑ Bubble Pack | ☐ Styrofoam | ☑ Sufficient | ☑ PLASTIC BAGS |
| Temperatures | ☑ Cooler 1 4.0°C | ☐ Cooler 2 ____ | ☐ Cooler 3 ____ | ☐ Cooler 4 ____ |

Comments:

**Sample Inspection**

| | | | | |
|---|---|---|---|---|
| Container | ☐ Custody Seal | ☑ Intact | ☑ Appropriate | ☐ Damaged |
| Identity | ☑ Client ID | ☑ Sampling Date/Time/Location | | ☑ Analysis |
| Preservation | ☐ NaOH[pH>/=12] | ☐ HNO3[pH<2] | ☐ H2SO4 [pH<2] | ☑ Holding Time OK |
| Sample | ☑ Sufficient | ☑ Appropriate | ☐ RAD Screening | ☐ See Comment |

Comment:

| Sample Control # | Client ID | Discrepancy | Corrective Action |
|---|---|---|---|
| -10 | PDS-58 | VIAL 2-3 W/BUBBLE <6MM. | Analyze vials with no bubble first. |

REVIEWS

Sample Labeling [signature] Date 01.17.02.

SRF [signature] Date 1/18/02

PM [signature] Date 01/17/02

1002

LABORATORY REPORT FOR

IT CORPORATION

JERVIS WEBB SOUTH GATE

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 02A068

2000

# CASE NARRATIVE

**CLIENT:** **IT CORPORATION**
**PROJECT:** **JERVIS WEBB SOUTH GATE**
**SDG:** **02A068**

**SW 5030B/8260B**
**VOLATILE ORGANICS BY GC/MS**

Ten (10) water samples were received on 01/17/02 for Volatile Organic Analysis by Method 8260B in accordance with USEPA SW846, 3rd edition.

1. Holding Time: Analytical holding time was met.

2. Tuning and Calibration: Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

3. Method Blank: Method blanks were free of contamination at reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate: All recoveries were within QC limit.

5. Surrogate Recovery: Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate: No sample was designated for spike.

7. Sample Analysis: Samples were analyzed according to the prescribed QC procedures. All requirements were met.

   Most of the samples were diluted prior to analysis due to expected high target analyte concentration. Some samples were further diluted to have TCE quantitated within the calibration range.

LAB CHRONICLE
SW8260B

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE

SDG NO. : 02A068
Instrument ID : T-001

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | DCC Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | V001A24Q | 1 | NA | 01/24/0213:20 | 01/24/0213:20 | RAV331 | RAV324 | V001A24 | Method Blank |
| LCS1W | V001A24L | 1 | NA | 01/24/0210:21 | 01/24/0210:21 | RAV326 | RAV324 | V001A24 | Lab Control Sample (LCS) |
| LCD1W | V001A24C | 1 | NA | 01/24/0210:57 | 01/24/0210:57 | RAV327 | RAV324 | V001A24 | LCS Duplicate |
| PDS-1ADL | A068-01T | 1000 | NA | 01/24/0215:46 | 01/24/0215:46 | RAV335 | RAV324 | V001A24 | Diluted Sample |
| PDS-1BDL | A068-02T | 1000 | NA | 01/24/0216:22 | 01/24/0216:22 | RAV336 | RAV324 | V001A24 | Diluted Sample |
| PDS-4A | A068-07R | 1 | NA | 01/24/0216:58 | 01/24/0216:58 | RAV337 | RAV324 | V001A24 | Field Sample |
| PDS-4B | A068-08R | 1 | NA | 01/24/0217:34 | 01/24/0217:34 | RAV338 | RAV324 | V001A24 | Field Sample |
| PDS-2BDL | A068-04T | 200 | NA | 01/24/0218:47 | 01/24/0218:47 | RAV340 | RAV324 | V001A24 | Diluted Sample |
| PDS-3ADL | A068-05T | 200 | NA | 01/24/0219:23 | 01/24/0219:23 | RAV341 | RAV324 | V001A24 | Diluted Sample |
| MBLK2W | V001A26Q | 1 | NA | 01/25/0202:32 | 01/25/0202:32 | RAV353 | RAV348 | V001A26 | Method Blank |
| LCS2W | V001A26L | 1 | NA | 01/25/0200:44 | 01/25/0200:44 | RAV350 | RAV348 | V001A26 | Lab Control Sample (LCS) |
| LCD2W | V001A26C | 1 | NA | 01/25/0201:20 | 01/25/0201:20 | RAV351 | RAV348 | V001A26 | LCS Duplicate |
| PDS-1B | A068-02 | 200 | NA | 01/25/0203:08 | 01/25/0203:08 | RAV354 | RAV348 | V001A26 | Field Sample |
| PDS-2A | A068-03 | 50 | NA | 01/25/0203:44 | 01/25/0203:44 | RAV355 | RAV348 | V001A26 | Field Sample |
| PDS-2B | A068-04 | 50 | NA | 01/25/0204:20 | 01/25/0204:20 | RAV356 | RAV348 | V001A26 | Field Sample |
| PDS-3A | A068-05 | 50 | NA | 01/25/0204:57 | 01/25/0204:57 | RAV357 | RAV348 | V001A26 | Field Sample |
| PDS-3B | A068-06 | 50 | NA | 01/25/0205:33 | 01/25/0205:33 | RAV358 | RAV348 | V001A26 | Field Sample |
| PDS-5A | A068-09 | 50 | NA | 01/25/0206:09 | 01/25/0206:09 | RAV359 | RAV348 | V001A26 | Field Sample |
| PDS-5B | A068-10 | 50 | NA | 01/25/0206:45 | 01/25/0206:45 | RAV360 | RAV348 | V001A26 | Field Sample |
| PDS-5ADL | A068-09T | 200 | NA | 01/25/0207:21 | 01/25/0207:21 | RAV361 | RAV348 | V001A26 | Diluted Sample |
| PDS-5BDL | A068-10T | 200 | NA | 01/25/0207:57 | 01/25/0207:57 | RAV362 | RAV348 | V001A26 | Diluted Sample |
| PDS-1A | A068-01 | 200 | NA | 01/25/0208:33 | 01/25/0208:33 | RAV363 | RAV348 | V001A26 | Field Sample |

FN - Filename
DCC - Daily Continuing Calibration
% Moist - Percent Moisture

2002

000093

# SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| rroject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 08:33 |
| ample ID: | PDS-1A | Date Analyzed: | 01/25/02 08:33 |
| ab Samp ID: | A068-01 | Dilution Factor: | 200 |
| ab File ID: | RAV363 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| ,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | 62J | 200 | 23 |
| ,1-DICHLOROETHENE | 120J | 200 | 29 |
| ,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| -HEXANONE | ND | 2000 | 200 |
| -METHYL-2-PENTANONE | ND | 2000 | 200 |
| CETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| ROMODICHLOROMETHANE | ND | 200 | 29 |
| ROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| ARBON TETRACHLORIDE | ND | 200 | 34 |
| HLOROBENZENE | ND | 200 | 24 |
| HLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | 43J | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| IS-1,2-DICHLOROETHENE | 150J | 200 | 26 |
| IS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| /P-XYLENES | ND | 400 | 49 |
| TBE | ND | 200 | 26 |
| ETHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| ETRACHLOROETHENE | 61J | 200 | 35 |
| OLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| RICHLOROETHENE | 19000E | 200 | 31 |
| INYL ACETATE | ND | 400 | 140 |
| INYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 92 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

.L. : Reporting limit
. : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| .ient | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 15:46 |
| ample ID: | PDS-1ADL | Date Analyzed: | 01/24/02 15:46 |
| ab Samp ID: | A068-01T | Dilution Factor: | 1000 |
| ab File ID: | RAV335 | Matrix : | WATER |
| Ext Btch ID: | V001A24 | % Moisture : | NA |
| alib. Ref.: | RAV324 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 1000 | 130 |
| ,1,2,2-TETRACHLOROETHANE | ND | 1000 | 280 |
| 1,1,2-TRICHLOROETHANE | ND | 1000 | 230 |
| 1,1-DICHLOROETHANE | ND | 1000 | 120 |
| ,1-DICHLOROETHENE | ND | 1000 | 140 |
| ,2-DICHLOROETHANE | ND | 1000 | 170 |
| 1,2-DICHLOROPROPANE | ND | 1000 | 170 |
| 2-BUTANONE | ND | 10000 | 1800 |
| -HEXANONE | ND | 10000 | 1000 |
| -METHYL-2-PENTANONE | ND | 10000 | 1000 |
| CETONE | ND | 10000 | 1900 |
| BENZENE | ND | 1000 | 180 |
| ROMOCHLOROMETHANE | ND | 1000 | 140 |
| ROMODICHLOROMETHANE | ND | 1000 | 150 |
| ROMOFORM | ND | 1000 | 220 |
| BROMOMETHANE | ND | 2000 | 130 |
| CARBON DISULFIDE | ND | 1000 | 130 |
| ARBON TETRACHLORIDE | ND | 1000 | 170 |
| HLOROBENZENE | ND | 1000 | 120 |
| HLOROETHANE | ND | 2000 | 180 |
| CHLOROFORM | ND | 1000 | 120 |
| HLOROMETHANE | ND | 2000 | 400 |
| IS-1,2-DICHLOROETHENE | ND | 1000 | 130 |
| IS-1,3-DICHLOROPROPENE | ND | 1000 | 170 |
| DIBROMOCHLOROMETHANE | ND | 1000 | 190 |
| ETHYLBENZENE | ND | 1000 | 110 |
| P-XYLENES | ND | 2000 | 240 |
| TBE | ND | 1000 | 130 |
| ETHYLENE CHLORIDE | ND | 2000 | 120 |
| O-XYLENE | ND | 1000 | 110 |
| STYRENE | ND | 1000 | 110 |
| ETRACHLOROETHENE | ND | 1000 | 180 |
| OLUENE | ND | 1000 | 120 |
| TRANS-1,2-DICHLOROETHENE | ND | 1000 | 150 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1000 | 180 |
| RICHLOROETHENE | 20000 | 1000 | 150 |
| INYL ACETATE | ND | 2000 | 690 |
| INYL CHLORIDE | ND | 1000 | 250 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 03:08 |
| Sample ID: | PDS-1B | Date Analyzed: | 01/25/02 03:08 |
| Lab Samp ID: | A068-02 | Dilution Factor: | 200 |
| Lab File ID: | RAV354 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | 64J | 200 | 23 |
| 1,1-DICHLOROETHENE | 120J | 200 | 29 |
| 1,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| 2-HEXANONE | ND | 2000 | 200 |
| 4-METHYL-2-PENTANONE | ND | 2000 | 200 |
| ACETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| BROMODICHLOROMETHANE | ND | 200 | 29 |
| BROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| CARBON TETRACHLORIDE | ND | 200 | 34 |
| CHLOROBENZENE | ND | 200 | 24 |
| CHLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| CIS-1,2-DICHLOROETHENE | 150J | 200 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| M/P-XYLENES | ND | 400 | 49 |
| MTBE | ND | 200 | 26 |
| METHYLENE CHLORIDE | 51JB | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| TETRACHLOROETHENE | 84J | 200 | 35 |
| TOLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 20000E | 200 | 31 |
| VINYL ACETATE | ND | 400 | 140 |
| VINYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 104 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

R.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 16:22 |
| Sample ID: | PDS-1BDL | Date Analyzed: | 01/24/02 16:22 |
| Lab Samp ID: | A068-02T | Dilution Factor: | 1000 |
| Lab File ID: | RAV336 | Matrix : | WATER |
| Ext Btch ID: | V001A24 | % Moisture : | NA |
| Calib. Ref.: | RAV324 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1000 | 130 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1000 | 280 |
| 1,1,2-TRICHLOROETHANE | ND | 1000 | 230 |
| 1,1-DICHLOROETHANE | ND | 1000 | 120 |
| 1,1-DICHLOROETHENE | ND | 1000 | 140 |
| 1,2-DICHLOROETHANE | ND | 1000 | 170 |
| 1,2-DICHLOROPROPANE | ND | 1000 | 170 |
| 2-BUTANONE | ND | 10000 | 1800 |
| 2-HEXANONE | ND | 10000 | 1000 |
| 4-METHYL-2-PENTANONE | ND | 10000 | 1000 |
| ACETONE | ND | 10000 | 1900 |
| BENZENE | ND | 1000 | 180 |
| BROMOCHLOROMETHANE | ND | 1000 | 140 |
| BROMODICHLOROMETHANE | ND | 1000 | 150 |
| BROMOFORM | ND | 1000 | 220 |
| BROMOMETHANE | ND | 2000 | 130 |
| CARBON DISULFIDE | ND | 1000 | 130 |
| CARBON TETRACHLORIDE | ND | 1000 | 170 |
| CHLOROBENZENE | ND | 1000 | 120 |
| CHLOROETHANE | ND | 2000 | 180 |
| CHLOROFORM | ND | 1000 | 120 |
| CHLOROMETHANE | ND | 2000 | 400 |
| CIS-1,2-DICHLOROETHENE | ND | 1000 | 130 |
| CIS-1,3-DICHLOROPROPENE | ND | 1000 | 170 |
| DIBROMOCHLOROMETHANE | ND | 1000 | 190 |
| ETHYLBENZENE | ND | 1000 | 110 |
| M/P-XYLENES | ND | 2000 | 240 |
| MTBE | ND | 1000 | 130 |
| METHYLENE CHLORIDE | ND | 2000 | 120 |
| O-XYLENE | ND | 1000 | 110 |
| STYRENE | ND | 1000 | 110 |
| TETRACHLOROETHENE | ND | 1000 | 180 |
| TOLUENE | ND | 1000 | 120 |
| TRANS-1,2-DICHLOROETHENE | ND | 1000 | 150 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1000 | 180 |
| TRICHLOROETHENE | 19000 | 1000 | 150 |
| VINYL ACETATE | ND | 2000 | 690 |
| VINYL CHLORIDE | ND | 1000 | 250 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 100 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| roject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 03:44 |
| Sample ID: | PDS-2A | Date Analyzed: | 01/25/02 03:44 |
| ab Samp ID: | A068-03 | Dilution Factor: | 50 |
| ab File ID: | RAV355 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| ,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| ,1-DICHLOROETHENE | 32J | 50 | 7.2 |
| ,2-DICHLOROETHANE | ND | 50 | 8.6 |
| ,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| -METHYL-2-PENTANONE | ND | 500 | 50 |
| CETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| ROMODICHLOROMETHANE | ND | 50 | 7.4 |
| ROMOFORM | ND | 50 | 11 |
| ROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| HLOROBENZENE | ND | 50 | 6 |
| HLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| IS-1,2-DICHLOROETHENE | 46J | 50 | 6.6 |
| IS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| IBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| TBE | ND | 50 | 6.5 |
| ETHYLENE CHLORIDE | 12J | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| ETRACHLOROETHENE | ND | 50 | 8.8 |
| OLUENE | ND | 50 | 5.8 |
| RANS-1,2-DICHLOROETHENE | ND | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 1900 | 50 | 7.8 |
| INYL ACETATE | ND | 100 | 34 |
| INYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 104 | 73-129 |
| TOLUENE-D8 | 104 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2008

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 04:20 |
| Sample ID: | PDS-2B | Date Analyzed: | 01/25/02 04:20 |
| Lab Samp ID: | A068-04 | Dilution Factor: | 50 |
| Lab File ID: | RAV356 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| 1,1-DICHLOROETHENE | 38J | 50 | 7.2 |
| 1,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| 4-METHYL-2-PENTANONE | ND | 500 | 50 |
| ACETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| BROMODICHLOROMETHANE | ND | 50 | 7.4 |
| BROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | 21J | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| CHLOROBENZENE | ND | 50 | 6 |
| CHLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| CIS-1,2-DICHLOROETHENE | 52 | 50 | 6.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| MTBE | ND | 50 | 6.5 |
| METHYLENE CHLORIDE | 11JB | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| TETRACHLOROETHENE | ND | 50 | 8.8 |
| TOLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | ND | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 2300E | 50 | 7.8 |
| VINYL ACETATE | ND | 100 | 34 |
| VINYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 104 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2009

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 18:47 |
| Sample ID: | PDS-2BDL | Date Analyzed: | 01/24/02 18:47 |
| Lab Samp ID: | A068-04T | Dilution Factor: | 200 |
| Lab File ID: | RAV340 | Matrix : | WATER |
| Ext Btch ID: | V001A24 | % Moisture : | NA |
| Calib. Ref.: | RAV324 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | ND | 200 | 23 |
| 1,1-DICHLOROETHENE | ND | 200 | 29 |
| 1,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| 2-HEXANONE | ND | 2000 | 200 |
| 4-METHYL-2-PENTANONE | ND | 2000 | 200 |
| ACETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| BROMODICHLOROMETHANE | ND | 200 | 29 |
| BROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| CARBON TETRACHLORIDE | ND | 200 | 34 |
| CHLOROBENZENE | ND | 200 | 24 |
| CHLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| CIS-1,2-DICHLOROETHENE | 55J | 200 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| M/P-XYLENES | ND | 400 | 49 |
| MTBE | ND | 200 | 26 |
| METHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| TETRACHLOROETHENE | ND | 200 | 35 |
| TOLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 2300 | 200 | 31 |
| VINYL ACETATE | ND | 400 | 140 |
| VINYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 63-132 |
| BROMOFLUOROBENZENE | 104 | 73-129 |
| TOLUENE-D8 | 100 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 04:57 |
| Sample ID: | PDS-3A | Date Analyzed: | 01/25/02 04:57 |
| Lab Samp ID: | A068-05 | Dilution Factor: | 50 |
| Lab File ID: | RAV357 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| 1,1-DICHLOROETHENE | 18J | 50 | 7.2 |
| 1,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| 4-METHYL-2-PENTANONE | ND | 500 | 50 |
| ACETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| BROMODICHLOROMETHANE | ND | 50 | 7.4 |
| BROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| CHLOROBENZENE | ND | 50 | 6 |
| CHLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| CIS-1,2-DICHLOROETHENE | 140 | 50 | 6.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| MTBE | ND | 50 | 6.5 |
| METHYLENE CHLORIDE | 12JB | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| TETRACHLOROETHENE | ND | 50 | 8.8 |
| TOLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | 15J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 2300E | 50 | 7.8 |
| VINYL ACETATE | ND | 100 | 34 |
| VINYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 91 | 63-132 |
| BROMOFLUOROBENZENE | 101 | 73-129 |
| TOLUENE-D8 | 102 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2011

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 19:23 |
| ample ID: | PDS-3ADL | Date Analyzed: | 01/24/02 19:23 |
| ab Samp ID: | A068-05T | Dilution Factor: | 200 |
| ab File ID: | RAV341 | Matrix : | WATER |
| Ext Btch ID: | V001A24 | % Moisture : | NA |
| Calib. Ref.: | RAV324 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| ,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | ND | 200 | 23 |
| ,1-DICHLOROETHENE | 56J | 200 | 29 |
| ,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| -HEXANONE | ND | 2000 | 200 |
| -METHYL-2-PENTANONE | ND | 2000 | 200 |
| ACETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| ROMODICHLOROMETHANE | ND | 200 | 29 |
| ROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| ARBON TETRACHLORIDE | ND | 200 | 34 |
| HLOROBENZENE | ND | 200 | 24 |
| HLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| IS-1,2-DICHLOROETHENE | 160J | 200 | 26 |
| IS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| /P-XYLENES | ND | 400 | 49 |
| ITBE | ND | 200 | 26 |
| ETHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| ETRACHLOROETHENE | ND | 200 | 35 |
| OLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| RICHLOROETHENE | 1700 | 200 | 31 |
| INYL ACETATE | ND | 400 | 140 |
| INYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 92 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
I : Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2012

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 05:33 |
| ample ID: | PDS-3B | Date Analyzed: | 01/25/02 05:33 |
| ab Samp ID: | A068-06 | Dilution Factor: | 50 |
| ab File ID: | RAV358 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| alib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| .,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| ,1-DICHLOROETHENE | 54 | 50 | 7.2 |
| ,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| -HEXANONE | ND | 500 | 50 |
| -METHYL-2-PENTANONE | ND | 500 | 50 |
| .CETONE | ND | 500 | 95 |
| BENZENE | 13J | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| ROMODICHLOROMETHANE | ND | 50 | 7.4 |
| ROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| ARBON TETRACHLORIDE | ND | 50 | 8.4 |
| HLOROBENZENE | ND | 50 | 6 |
| HLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| IS-1,2-DICHLOROETHENE | 150 | 50 | 6.6 |
| IS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| /P-XYLENES | ND | 100 | 12 |
| TBE | ND | 50 | 6.5 |
| .ETHYLENE CHLORIDE | ND | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| ETRACHLOROETHENE | ND | 50 | 8.8 |
| OLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | 17J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| RICHLOROETHENE | 1700 | 50 | 7.8 |
| INYL ACETATE | ND | 100 | 34 |
| .INYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 85 | 63-132 |
| BROMOFLUOROBENZENE | 103 | 73-129 |
| TOLUENE-D8 | 104 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 16:58 |
| ample ID: | PDS-4A | Date Analyzed: | 01/24/02 16:58 |
| ab Samp ID: | A068-07R | Dilution Factor: | 1 |
| ab File ID: | RAV337 | Matrix : | WATER |
| Ext Btch ID: | V001A24 | % Moisture : | NA |
| Calib. Ref.: | RAV324 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| ,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| ,1-DICHLOROETHENE | ND | 1 | .15 |
| ,2-DICHLOROETHANE | ND | 1 | .17 |
| ,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| -HEXANONE | ND | 10 | 1 |
| -METHYL-2-PENTANONE | ND | 10 | 1 |
| CETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| ROMODICHLOROMETHANE | ND | 1 | .15 |
| ROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| ARBON TETRACHLORIDE | ND | 1 | .17 |
| HLOROBENZENE | ND | 1 | .12 |
| HLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| IS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| IS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| IBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| 1/P-XYLENES | ND | 2 | .24 |
| TBE | ND | 1 | .13 |
| ETHYLENE CHLORIDE | .66J | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| ETRACHLOROETHENE | ND | 1 | .18 |
| OLUENE | ND | 1 | .12 |
| RANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| RICHLOROETHENE | .3J | 1 | .15 |
| INYL ACETATE | ND | 2 | .69 |
| INYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 84 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2014

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| rroject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 17:34 |
| ample ID | : PDS-4B | Date Analyzed: | 01/24/02 17:34 |
| ab Samp ID | : A068-08R | Dilution Factor: | 1 |
| ab File ID | : RAV338 | Matrix | : WATER |
| Ext Btch ID | : V001A24 | % Moisture | : NA |
| Calib. Ref. | : RAV324 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| ,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| ,1-DICHLOROETHENE | ND | 1 | .15 |
| ,2-DICHLOROETHANE | ND | 1 | .17 |
| ı,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| ⁻-HEXANONE | ND | 10 | 1 |
| -METHYL-2-PENTANONE | ND | 10 | 1 |
| CETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| ROMODICHLOROMETHANE | ND | 1 | .15 |
| ROMOFORM | ND | 1 | .22 |
| ʁROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| ⁻ARBON TETRACHLORIDE | ND | 1 | .17 |
| HLOROBENZENE | ND | 1 | .12 |
| HLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| IS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| IS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| ʊIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| "/P-XYLENES | ND | 2 | .24 |
| TBE | ND | 1 | .13 |
| ETHYLENE CHLORIDE | .52JB | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| ETRACHLOROETHENE | ND | 1 | .18 |
| OLUENE | ND | 1 | .12 |
| ıRANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| ⁻RICHLOROETHENE | .23J | 1 | .15 |
| INYL ACETATE | ND | 2 | .69 |
| INYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 85 | 63-132 |
| ʁROMOFLUOROBENZENE | 103 | 73-129 |
| TOLUENE-D8 | 104 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
ʊ.O. : Diluted out

2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 06:09 |
| ample ID: | PDS-5A | Date Analyzed: | 01/25/02 06:09 |
| ab Samp ID: | A068-09 | Dilution Factor: | 50 |
| ab File ID: | RAV359 | Matrix | : WATER |
| Ext Btch ID: | V001A26 | % Moisture | : NA |
| Calib. Ref.: | RAV348 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| ,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| ,1-DICHLOROETHENE | 22J | 50 | 7.2 |
| ,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| -HEXANONE | ND | 500 | 50 |
| -METHYL-2-PENTANONE | ND | 500 | 50 |
| CETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| ROMODICHLOROMETHANE | ND | 50 | 7.4 |
| ROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| ARBON TETRACHLORIDE | ND | 50 | 8.4 |
| HLOROBENZENE | ND | 50 | 6 |
| HLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| IS-1,2-DICHLOROETHENE | 140 | 50 | 6.6 |
| IS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| /P-XYLENES | ND | 100 | 12 |
| TBE | ND | 50 | 6.5 |
| ETHYLENE CHLORIDE | ND | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| ETRACHLOROETHENE | ND | 50 | 8.8 |
| OLUENE | ND | 50 | 5.8 |
| RANS-1,2-DICHLOROETHENE | 18J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| RICHLOROETHENE | 2300E | 50 | 7.8 |
| INYL ACETATE | ND | 100 | 34 |
| INYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 81 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 108 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| rroject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 07:21 |
| ample ID | : PDS-5ADL | Date Analyzed: | 01/25/02 07:21 |
| ab Samp ID | : A068-09T | Dilution Factor: | 200 |
| ab File ID | : RAV361 | Matrix | : WATER |
| Ext Btch ID | : V001A26 | % Moisture | : NA |
| Calib. Ref. | : RAV348 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| ,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | ND | 200 | 23 |
| ,1-DICHLOROETHENE | ND | 200 | 29 |
| ,2-DICHLOROETHANE | ND | 200 | 34 |
| ,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| -HEXANONE | ND | 2000 | 200 |
| -METHYL-2-PENTANONE | ND | 2000 | 200 |
| CETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| ROMODICHLOROMETHANE | ND | 200 | 29 |
| ROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| CARBON TETRACHLORIDE | ND | 200 | 34 |
| HLOROBENZENE | ND | 200 | 24 |
| HLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| IS-1,2-DICHLOROETHENE | 230 | 200 | 26 |
| IS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| M/P-XYLENES | ND | 400 | 49 |
| TBE | ND | 200 | 26 |
| ETHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| ETRACHLOROETHENE | ND | 200 | 35 |
| OLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 3200 | 200 | 31 |
| INYL ACETATE | ND | 400 | 140 |
| INYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 92 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 102 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| ıient | : IT CORPORATION | Date Collected: | 01/17/02 |
| ,roject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 06:45 |
| Sample ID: | PDS-5B | Date Analyzed: | 01/25/02 06:45 |
| ab Samp ID: | A068-10 | Dilution Factor: | 50 |
| ab File ID: | RAV360 | Matrix : | WATER |
| Ext Btch ID: | V001A26 | % Moisture : | NA |
| Calib. Ref.: | RAV348 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| ,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| ,1-DICHLOROETHENE | 37J | 50 | 7.2 |
| ,2-DICHLOROETHANE | ND | 50 | 8.6 |
| ,,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| -METHYL-2-PENTANONE | ND | 500 | 50 |
| CETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| ROMODICHLOROMETHANE | ND | 50 | 7.4 |
| ROMOFORM | ND | 50 | 11 |
| ROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| HLOROBENZENE | ND | 50 | 6 |
| HLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| IS-1,2-DICHLOROETHENE | 270 | 50 | 6.6 |
| IS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| IBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| TBE | ND | 50 | 6.5 |
| ETHYLENE CHLORIDE | ND | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| ETRACHLOROETHENE | ND | 50 | 8.8 |
| OLUENE | ND | 50 | 5.8 |
| RANS-1,2-DICHLOROETHENE | 29J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 3900E | 50 | 7.8 |
| NYL ACETATE | ND | 100 | 34 |
| NYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2-DICHLOROETHANE-D4 | 87 | 63-132 |
| ROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 105 | 75-122 |

L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2018

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| rroject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 07:57 |
| ^ample ID | : PDS-5BDL | Date Analyzed: | 01/25/02 07:57 |
| ab Samp ID | : A068-10T | Dilution Factor: | 200 |
| ab File ID | : RAV362 | Matrix | : WATER |
| Ext Btch ID | : V001A26 | % Moisture | : NA |
| Calib. Ref. | : RAV348 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| ,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | ND | 200 | 23 |
| ,1-DICHLOROETHENE | ND | 200 | 29 |
| ,2-DICHLOROETHANE | ND | 200 | 34 |
| ı,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| ?-HEXANONE | ND | 2000 | 200 |
| -METHYL-2-PENTANONE | ND | 2000 | 200 |
| CETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| ;ROMODICHLOROMETHANE | ND | 200 | 29 |
| ;ROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| ^ARBON TETRACHLORIDE | ND | 200 | 34 |
| :HLOROBENZENE | ND | 200 | 24 |
| ;HLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| ;IS-1,2-DICHLOROETHENE | 290 | 200 | 26 |
| :IS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| ɔIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| ⁴/P-XYLENES | ND | 400 | 49 |
| ITBE | ND | 200 | 26 |
| !ETHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| ETRACHLOROETHENE | ND | 200 | 35 |
| OLUENE | ND | 200 | 23 |
| ıRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 4000 | 200 | 31 |
| INYL ACETATE | ND | 400 | 140 |
| INYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 94 | 63-132 |
| BROMOFLUOROBENZENE | 101 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2019

# QC SUMMARY

2020

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | NA |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/24/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/24/02 13:20 |
| ample ID | : MBLK1W | Date Analyzed: | 01/24/02 13:20 |
| ab Samp ID | : V001A24Q | Dilution Factor: | 1 |
| ab File ID | : RAV331 | Matrix | : WATER |
| Ext Btch ID | : V001A24 | % Moisture | : NA |
| alib. Ref. | : RAV324 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| ,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| ,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| ,1-DICHLOROETHENE | ND | 1 | .15 |
| ,2-DICHLOROETHANE | ND | 1 | .17 |
| 1,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| -HEXANONE | ND | 10 | 1 |
| -METHYL-2-PENTANONE | ND | 10 | 1 |
| CETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| ROMODICHLOROMETHANE | ND | 1 | .15 |
| ROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| ARBON TETRACHLORIDE | ND | 1 | .17 |
| HLOROBENZENE | ND | 1 | .12 |
| HLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| HLOROMETHANE | ND | 2 | .4 |
| IS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| IS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| DIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| /P-XYLENES | ND | 2 | .24 |
| TBE | ND | 1 | .13 |
| ETHYLENE CHLORIDE | .39J | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| ETRACHLOROETHENE | ND | 1 | .18 |
| OLUENE | ND | 1 | .12 |
| TRANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| RICHLOROETHENE | ND | 1 | .15 |
| INYL ACETATE | ND | 2 | .69 |
| INYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| ,2-DICHLOROETHANE-D4 | 86 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 107 | 75-122 |

.L. : Reporting limit
: Out of QC
E : Exceeded calibration range
B : Found in associated method blank
: Value between R.L. and MDL
: Value from dilution analysis
D.O. : Diluted out

2021

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

LIENT: IT CORPORATION
ROJECT: JERVIS WEBB SOUTH GATE
BATCH NO.: 02A068
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| ATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| AB SAMP ID: | V001A24Q | V001A24L | V001A24C | | |
| AB FILE ID: | RAV331 | RAV326 | RAV327 | | |
| DATE EXTRACTED: | 01/24/0213:20 | 01/24/0210:21 | 01/24/0210:57 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 01/24/0213:20 | 01/24/0210:21 | 01/24/0210:57 | DATE RECEIVED: | 01/24/02 |
| REP. BATCH: | V001A24 | V001A24 | V001A24 | | |
| ALIB. REF: | RAV324 | RAV324 | RAV324 | | |

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 | 10 | 9.35 | 94 | 10 | 10.3 | 103 | 10 | 52-144 | 20 |
| Benzene | ND | 10 | 9.94 | 99 | 10 | 10.3 | 103 | 4 | 67-126 | 20 |
| Chlorobenzene | ND | 10 | 9.58 | 96 | 10 | 9.85 | 99 | 3 | 71-127 | 20 |
| Toluene | ND | 10 | 9.8 | 98 | 10 | 10.1 | 101 | 3 | 69-125 | 20 |
| Trichloroethene | ND | 10 | 8.74 | 87 | 10 | 9.16 | 92 | 5 | 67-128 | 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-Dichloroethane-d4 | 10 | 10.1 | 101 | 10 | 9.93 | 99 | 63-132 |
| Bromofluorobenzene | 10 | 9.98 | 100 | 10 | 9.8 | 98 | 73-129 |
| Toluene-d8 | 10 | 9.7 | 97 | 10 | 9.92 | 99 | 75-122 |

2022

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/25/02 |
| Batch No. | : 02A068 | Date Extracted: | 01/25/02 02:32 |
| Sample ID | : MBLK2W | Date Analyzed: | 01/25/02 02:32 |
| Lab Samp ID | : V001A26Q | Dilution Factor: | 1 |
| Lab File ID | : RAV353 | Matrix | : WATER |
| Ext Btch ID | : V001A26 | % Moisture | : NA |
| Calib. Ref. | : RAV348 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| 1,1-DICHLOROETHENE | ND | 1 | .15 |
| 1,2-DICHLOROETHANE | ND | 1 | .17 |
| 1,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| 2-HEXANONE | ND | 10 | 1 |
| 4-METHYL-2-PENTANONE | ND | 10 | 1 |
| ACETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| BROMODICHLOROMETHANE | ND | 1 | .15 |
| BROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| CARBON TETRACHLORIDE | ND | 1 | .17 |
| CHLOROBENZENE | ND | 1 | .12 |
| CHLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| CIS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| CIS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| DIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| M/P-XYLENES | ND | 2 | .24 |
| MTBE | ND | 1 | .13 |
| METHYLENE CHLORIDE | .26J | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| TETRACHLOROETHENE | ND | 1 | .18 |
| TOLUENE | ND | 1 | .12 |
| TRANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| TRICHLOROETHENE | ND | 1 | .15 |
| VINYL ACETATE | ND | 2 | .69 |
| VINYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 83 | 63-132 |
| BROMOFLUOROBENZENE | 104 | 73-129 |
| TOLUENE-D8 | 105 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2023

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

LIENT: IT CORPORATION
ROJECT: JERVIS WEBB SOUTH GATE
BATCH NO.: 02A068
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| ATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2W | | | | |
| AB SAMP ID: | V001A26Q | V001A26L | V001A26C | | |
| AB FILE ID: | RAV353 | RAV350 | RAV351 | | |
| DATE EXTRACTED: | 01/25/0202:32 | 01/25/0200:44 | 01/25/0201:20 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 01/25/0202:32 | 01/25/0200:44 | 01/25/0201:20 | DATE RECEIVED: | 01/25/02 |
| PREP. BATCH: | V001A26 | V001A26 | V001A26 | | |
| ALIB. REF: | RAV348 | RAV348 | RAV348 | | |

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 | 10 | 9.84 | 98 | 10 | 10 | 100 | 2 | 52-144 | 20 |
| Benzene | ND | 10 | 10.8 | 108 | 10 | 10.8 | 108 | 0 | 67-126 | 20 |
| Chlorobenzene | ND | 10 | 10 | 100 | 10 | 10 | 100 | 0 | 71-127 | 20 |
| Toluene | ND | 10 | 10.6 | 106 | 10 | 10.5 | 105 | 0 | 69-125 | 20 |
| Trichloroethene | ND | 10 | 9.87 | 99 | 10 | 9.78 | 98 | 1 | 67-128 | 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-Dichloroethane-d4 | 10 | 8.78 | 88 | 10 | 9.01 | 90 | 63-132 |
| Bromofluorobenzene | 10 | 10.4 | 104 | 10 | 10.1 | 101 | 73-129 |
| Toluene-d8 | 10 | 10.3 | 103 | 10 | 10.2 | 102 | 75-122 |

2024

# INITIAL CALIBRATIONS

2025

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLV587
nstrument ID: T-001
: Column: DB624 ID: 0.53 (mm)

Contract: JERVIS WEBB SOUTH GATE
SAS No.: SDG No.: 02A068
BFB Injection Date : 12/21/01
BFB Injection Time : 12:45
Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 21.70 |
| 75 | 30.0 - 60.0% of mass 95 | 52.60 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.78 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 82.36 |
| 175 | 5.0 - 9.0% of mass 174 | 6.55( 7.9)1 |
| 176 | 95.0 - 101.0% of mass 174 | 80.45( 97.7)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.06( 7.5)2 |

1-Value is % mass 174 2-Value is % mass 176

HIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD0.3 | V001L211 | RLV588 | 12/21/01 | 13:20 |
| 2 | VSTD0.5 | V001L212 | RLV589 | 12/21/01 | 13:57 |
| 3 | VSTD01 | V001L213 | RLV590 | 12/21/01 | 14:33 |
| 4 | VSTD02 | V001L214 | RLV591 | 12/21/01 | 15:10 |
| 5 | VSTD05 | V001L215 | RLV592 | 12/21/01 | 15:46 |
| 6 | VSTD010 | V001L216 | RLV593 | 12/21/01 | 16:23 |
| 7 | VSTD020 | V001L217 | RLV594 | 12/21/01 | 16:59 |
| 8 | VSTD030 | V001L218 | RLV595 | 12/21/01 | 17:36 |
| 9 | VSTD040 | V001L219 | RLV596 | 12/21/01 | 18:12 |
| 10 | VSTD010 | IV001L211 | RLV598 | 12/21/01 | 19:25 |



FORM V VOA OLM02.0

2026

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files
.3 =RLV588.D .5 =RLV589.D 1 =RLV590.D
2 =RLV591.D 5 =RLV592.D 10 =RLV593.D

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| | | KETONES/AA | 0.6 | 1.0 | 2.0 | 4.0 | 10 | 20 |
| 1) | I | 1,4-DIFLUOROBENZENE | ---------- | ---------- | ---------- | ISTD | ---------- | ---------- |
| 2) | T | Dichlorodifluoromet | 0.668 | 0.582 | 0.535 | 0.604 | 0.505 | 0.489 |
| 3) | T,P | Chloromethane | 0.273 | 0.255 | 0.241 | 0.268 | 0.229 | 0.215 |
| 4) | T,C | Vinyl Chloride | 0.371 | 0.326 | 0.324 | 0.380 | 0.322 | 0.313 |
| 5) | T | Bromomethane | 0.329 | 0.314 | 0.266 | 0.324 | 0.269 | 0.250 |
| 6) | T | Chloroethane | 0.240 | 0.228 | 0.223 | 0.249 | 0.218 | 0.202 |
| 7) | T | Trichlorofluorometh | 0.940 | 0.816 | 0.786 | 0.893 | 0.769 | 0.741 |
| 8) | T | Acrolein | | | | | 0.002 | 0.002 |
| 9) | C,T | 1,1-Dichloroethene | 0.711 | 0.666 | 0.659 | 0.704 | 0.631 | 0.619 |
| 10) | | 112Trichloro122trif | 0.703 | 0.647 | 0.650 | 0.682 | 0.617 | 0.593 |
| 11) | T | Acetone | | | 0.027 | 0.026 | 0.019 | 0.018 |
| 12) | | Iodomethane | 0.406 | 0.367 | 0.311 | 0.396 | 0.349 | 0.347 |
| 13) | T | Carbon Disulfide | 0.550 | 0.507 | 0.496 | 0.583 | 0.588 | 0.615 |
| 14) | T | Methylene Chloride | 0.348 | 0.278 | 0.262 | 0.250 | 0.215 | 0.209 |
| 15) | T | Acrylonitrile | | 0.011 | 0.011 | 0.012 | 0.010 | 0.010 |
| 16) | T | trans-1,2-Dichloroe | 0.604 | 0.543 | 0.540 | 0.583 | 0.539 | 0.544 |
| 17) | T | MTBE | 0.311 | 0.246 | 0.227 | 0.247 | 0.211 | 0.212 |
| 18) | P,T | 1,1-Dichloroethane | 0.693 | 0.652 | 0.621 | 0.665 | 0.612 | 0.593 |
| 19) | T | Vinyl Acetate | 0.175 | 0.149 | 0.147 | 0.153 | 0.128 | 0.133 |
| 20) | T | 2,2-Dichloropropane | 0.626 | 0.601 | 0.575 | 0.626 | 0.603 | 0.587 |
| 21) | T | cis-1,2-Dichloroeth | 0.579 | 0.543 | 0.542 | 0.565 | 0.520 | 0.511 |
| 22) | T | 2-Butanone | | | | 0.035 | 0.029 | 0.023 |
| 23) | T | Bromochloromethane | 0.126 | 0.129 | 0.118 | 0.134 | 0.116 | 0.116 |
| 24) | C,T | Chloroform | 0.684 | 0.624 | 0.592 | 0.617 | 0.583 | 0.567 |
| 25) | T | 1,1,1-Trichloroetha | 0.677 | 0.630 | 0.647 | 0.691 | 0.696 | 0.676 |
| 26) | S | 1,2-Dichloroethane- | | | 0.186 | 0.177 | 0.161 | 0.158 |
| 27) | I | CHLOROBENZENE-D5 | ---------- | ---------- | ---------- | ISTD | ---------- | ---------- |
| 28) | T | 11-Dichloropropene | 0.367 | 0.345 | 0.363 | 0.378 | 0.360 | 0.341 |
| 29) | T | Carbon Tetrachlorid | 0.770 | 0.756 | 0.855 | 0.895 | 0.947 | 0.922 |
| 30) | M,T | Benzene | 1.769 | 1.658 | 1.637 | 1.616 | 1.518 | 1.411 |
| 31) | T | 1,2-Dichloroethane | 0.353 | 0.373 | 0.345 | 0.356 | 0.332 | 0.316 |
| 32) | M,T | Trichloroethene | 0.965 | 0.813 | 0.847 | 0.844 | 0.856 | 0.821 |
| 33) | C,T | 1,2-Dichloropropane | 0.497 | 0.468 | 0.455 | 0.458 | 0.439 | 0.418 |
| 34) | T | Dibromomethane | 0.186 | 0.189 | 0.195 | 0.192 | 0.186 | 0.184 |
| 35) | | Bromodichloromethan | 0.455 | 0.407 | 0.440 | 0.481 | 0.502 | 0.506 |
| 36) | T | 2-ChloroethylVinylE | | 0.028 | 0.039 | 0.032 | 0.034 | 0.048 |
| 37) | T | cis-1,3-Dichloropro | 0.376 | 0.385 | 0.397 | 0.449 | 0.452 | 0.458 |
| 38) | T | 4-Methyl-2-Pentanon | 0.088 | 0.078 | 0.087 | 0.083 | 0.074 | 0.070 |

2027

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

AVE RSD = 10

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound KETONES/AA | 20 40 | 30 60 | 40 80 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| 1) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | |
| 2) | T | Dichlorodifluoromet | 0.495 | 0.469 | 0.440 | 0.532 | 13.72 |
| 3) | T,P | Chloromethane | 0.202 | 0.194 | 0.182 | 0.229 | 14.41 |
| 4) | T,C | Vinyl Chloride | 0.307 | 0.302 | 0.282 | 0.325 | 9.70# |
| 5) | T | Bromomethane | 0.244 | 0.254 | 0.241 | 0.277 | 12.91 |
| 6) | T | Chloroethane | 0.198 | 0.191 | 0.177 | 0.214 | 11.11 |
| 7) | T | Trichlorofluorometh | 0.747 | 0.712 | 0.674 | 0.787 | 10.82 |
| 8) | T | Acrolein | 0.002 | 0.002 | 0.002 | 0.002 | 10.91 |
| 9) | C,T | 1,1-Dichloroethene | 0.606 | 0.584 | 0.549 | 0.637 | 8.42# |
| 10) | | 112Trichloro122trif | 0.591 | 0.564 | 0.537 | 0.620 | 8.80 |
| 11) | T | Acetone | 0.016 | 0.015 | 0.014 | 0.019 | 26.86 |
| 12) | | Iodomethane | 0.340 | 0.340 | 0.331 | 0.354 | 8.63 |
| 13) | T | Carbon Disulfide | 0.645 | 0.642 | 0.628 | 0.584 | 9.53 |
| 14) | T | Methylene Chloride | 0.194 | 0.196 | 0.186 | 0.238 | 22.24 |
| 15) | T | Acrylonitrile | 0.011 | 0.011 | 0.010 | 0.011 | 6.86 |
| 16) | T | trans-1,2-Dichloroe | 0.497 | 0.499 | 0.481 | 0.537 | 7.47 |
| 17) | T | MTBE | 0.198 | 0.203 | 0.199 | 0.228 | 15.88 |
| 18) | P,T | 1,1-Dichloroethane | 0.562 | 0.562 | 0.546 | 0.612 | 8.33 |
| 19) | T | Vinyl Acetate | 0.130 | 0.131 | 0.133 | 0.142 | 10.86 |
| 20) | T | 2,2-Dichloropropane | 0.577 | 0.560 | 0.542 | 0.588 | 4.84 |
| 21) | T | cis-1,2-Dichloroeth | 0.473 | 0.472 | 0.458 | 0.518 | 8.35 |
| 22) | T | 2-Butanone | 0.021 | 0.020 | 0.019 | 0.024 | 25.57 |
| 23) | T | Bromochloromethane | 0.113 | 0.111 | 0.110 | 0.119 | 7.11 |
| 24) | C,T | Chloroform | 0.529 | 0.526 | 0.519 | 0.582 | 9.33# |
| 25) | T | 1,1,1-Trichloroetha | 0.682 | 0.653 | 0.637 | 0.665 | 3.62 |
| 26) | S | 1,2-Dichloroethane- | 0.150 | 0.151 | 0.149 | 0.162 | 8.91 |
| 27) | I | CHLOROBENZENE-D5 | ----------ISTD---------- | | | | |
| 28) | T | 11-Dichloropropene | 0.338 | 0.317 | 0.308 | 0.346 | 6.72 |
| 29) | T | Carbon Tetrachlorid | 0.954 | 0.904 | 0.901 | 0.878 | 8.14 |
| 30) | M,T | Benzene | 1.354 | 1.316 | 1.277 | 1.506 | 11.56 |
| 31) | T | 1,2-Dichloroethane | 0.300 | 0.294 | 0.288 | 0.329 | 9.22 |
| 32) | M,T | Trichloroethene | 0.807 | 0.767 | 0.754 | 0.830 | 7.37 |
| 33) | C,T | 1,2-Dichloropropane | 0.403 | 0.391 | 0.389 | 0.435 | 8.57# |
| 34) | T | Dibromomethane | 0.181 | 0.173 | 0.175 | 0.185 | 3.98 |
| 35) | | Bromodichloromethan | 0.521 | 0.514 | 0.529 | 0.484 | 8.58 |
| 36) | T | 2-ChloroethylVinylE | 0.047 | 0.033 | 0.034 | 0.037 | 19.36 |
| 37) | T | cis-1,3-Dichloropro | 0.467 | 0.454 | 0.464 | 0.433 | 8.44 |
| 38) | T | 4-Methyl-2-Pentanon | 0.072 | 0.069 | 0.071 | 0.077 | 9.54 |

Pu 12/28/01

2028

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files

| | | | | | |
|---|---|---|---|---|---|
| .3 | =RLV588.D | .5 | =RLV589.D | 1 | =RLV590.D |
| 2 | =RLV591.D | 5 | =RLV592.D | 10 | =RLV593.D |

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| | | KETONES/M+P-XYLENE | 0.6 | 1.0 | 2.0 | 4.0 | 10 | 20 |
| 39) | S | Toluene-d8 | | 1.744 | 1.690 | 1.551 | 1.576 | 1.471 |
| 40) | C,T | Toluene | 1.289 | 1.117 | 1.149 | 1.102 | 1.089 | 1.023 |
| 41) | T | trans-1,3-Dichlorop | 0.211 | 0.209 | 0.219 | 0.245 | 0.251 | 0.264 |
| 42) | T | Ethyl methacrylate | 0.158 | 0.192 | 0.187 | 0.196 | 0.186 | 0.181 |
| 43) | T | 1,1,2-trichloroetha | 0.235 | 0.210 | 0.209 | 0.213 | 0.198 | 0.190 |
| 44) | T | Tetrachloroethene | 0.966 | 0.834 | 0.846 | 0.823 | 0.831 | 0.763 |
| 45) | T | 1,3-Dichloropropane | 0.385 | 0.356 | 0.347 | 0.353 | 0.327 | 0.307 |
| 46) | T | 2-Hexanone | 0.078 | 0.076 | 0.057 | 0.058 | 0.049 | 0.046 |
| 47) | T | Dibromochloromethan | 0.187 | 0.188 | 0.198 | 0.234 | 0.252 | 0.262 |
| 48) | T | 1,2-Dibromoethane | 0.230 | 0.223 | 0.238 | 0.255 | 0.237 | 0.237 |
| 49) | P,M | Chlorobenzene | 1.256 | 1.188 | 1.149 | 1.179 | 1.092 | 1.039 |
| 50) | T | 1-Chlorohexane | 1.121 | 1.057 | 1.038 | 1.021 | 1.020 | 0.956 |
| 51) | T | 1112-Tetrachloroeth | 0.348 | 0.330 | 0.354 | 0.395 | 0.423 | 0.420 |
| 52) | C,T | Ethylbenzene | 2.433 | 2.317 | 2.272 | 2.246 | 2.207 | 2.084 |
| 53) | T | M/P-Xylenes | 1.811 | 1.708 | 1.639 | 1.665 | 1.650 | 1.546 |
| 54) | T | O-Xylene | 1.704 | 1.622 | 1.554 | 1.501 | 1.492 | 1.417 |
| 55) | T | Styrene | 0.961 | 0.950 | 0.914 | 0.961 | 0.942 | 0.916 |
| 56) | I | 1,2-DICHLOROBENZENE-D | ---------- | ---------- | ---------- | ISTD | ---------- | ---------- |
| 57) | P,T | Bromoform | | 0.214 | 0.235 | 0.256 | 0.289 | 0.325 |
| 58) | T | Isopropyl Benzene | 6.945 | 6.438 | 6.743 | 6.507 | 6.758 | 6.250 |
| 59) | S | Bromofluorobenzene | | | 1.769 | 1.548 | 1.556 | 1.486 |
| 60) | T | Bromobenzene | 1.357 | 1.252 | 1.346 | 1.318 | 1.294 | 1.221 |
| 61) | P,T | 1,1,2,2-Tetrachloro | 0.514 | 0.506 | 0.504 | 0.523 | 0.516 | 0.490 |
| 62) | T | 123-Trichloropropan | 0.720 | 0.645 | 0.587 | 0.560 | 0.538 | 0.529 |
| 63) | T | 1,4-Dichloro-2-bute | | | 0.055 | 0.086 | 0.080 | 0.078 |
| 64) | T | n-Propylbenzene | 1.786 | 1.701 | 1.774 | 1.728 | 1.830 | 1.672 |
| 65) | T | 2-Chlorotoluene | 1.381 | 1.303 | 1.374 | 1.330 | 1.351 | 1.273 |
| 66) | T | 4-Chlorotoluene | 1.329 | 1.213 | 1.304 | 1.188 | 1.222 | 1.162 |
| 67) | T | 135-Trimethylbenzen | 4.606 | 4.246 | 4.195 | 4.112 | 4.296 | 4.053 |
| 68) | T | tert-Butylbenzene | 5.773 | 5.369 | 5.517 | 5.367 | 5.489 | 5.099 |
| 69) | T | 124-Trimethylbenzen | 4.104 | 3.655 | 3.827 | 3.771 | 3.780 | 3.601 |
| 70) | T | Sec-Butylbenzene | 8.054 | 7.661 | 7.922 | 7.705 | 8.048 | 7.322 |
| 71) | T | 1,3-Dichlorobenzene | 2.640 | 2.393 | 2.441 | 2.413 | 2.370 | 2.226 |
| 72) | T | 1,4-Dichlorobenzene | 2.644 | 2.185 | 2.217 | 2.252 | 2.190 | 2.059 |
| 73) | T | p-Isopropyltoluene | 5.694 | 5.319 | 5.552 | 5.389 | 5.615 | 5.167 |
| 74) | T | 1,2-Dichlorobenzene | 1.958 | 1.778 | 1.755 | 1.781 | 1.680 | 1.551 |
| 75) | T | n-Butylbenzene | 5.348 | 4.778 | 4.955 | 4.852 | 4.990 | 4.598 |
| 76) | T | 1,2-Dibromo-3-Chlor | | | 0.044 | 0.055 | 0.058 | 0.059 |
| 77) | T | 124-Trichlorobenzen | 1.232 | 0.917 | 0.944 | 0.973 | 0.917 | 0.857 |

2029

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound | 20 | 30 | 40 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| | | KETONES/M+P-XYLENE | 40 | 60 | 80 | | |
| 39) | S | Toluene-d8 | 1.448 | 1.418 | 1.386 | 1.536 | 8.41 |
| 40) | C,T | Toluene | 1.006 | 0.947 | 0.929 | 1.072 | 10.37# |
| 41) | T | trans-1,3-Dichlorop | 0.276 | 0.272 | 0.278 | 0.247 | 11.30 |
| 42) | T | Ethyl methacrylate | 0.193 | 0.182 | 0.187 | 0.185 | 5.97 |
| 43) | T | 1,1,2-trichloroetha | 0.187 | 0.178 | 0.177 | 0.200 | 9.48 |
| 44) | T | Tetrachloroethene | 0.783 | 0.716 | 0.715 | 0.809 | 9.53 |
| 45) | T | 1,3-Dichloropropane | 0.303 | 0.286 | 0.286 | 0.328 | 10.55 |
| 46) | T | 2-Hexanone | 0.050 | 0.048 | 0.047 | 0.057 | 21.80 |
| 47) | T | Dibromochloromethan | 0.290 | 0.290 | 0.301 | 0.245 | 18.47 |
| 48) | T | 1,2-Dibromoethane | 0.242 | 0.235 | 0.235 | 0.237 | 3.66 |
| 49) | P,M | Chlorobenzene | 1.001 | 0.958 | 0.930 | 1.088 | 10.38 |
| 50) | T | 1-Chlorohexane | 0.976 | 0.904 | 0.895 | 0.999 | 7.35 |
| 51) | T | 1112-Tetrachloroeth | 0.425 | 0.420 | 0.420 | 0.393 | 9.73 |
| 52) | C,T | Ethylbenzene | 2.039 | 1.919 | 1.864 | 2.153 | 8.80# |
| 53) | T | M/P-Xylenes | 1.478 | 1.411 | 1.365 | 1.586 | 9.24 |
| 54) | T | O-Xylene | 1.350 | 1.327 | 1.292 | 1.473 | 9.46 |
| 55) | T | Styrene | 0.888 | 0.881 | 0.861 | 0.919 | 3.99 |
| 56) | I | 1,2-DICHLOROBENZENE-D | ---------- | ---------- | ISTD | ---------- | |
| 57) | P,T | Bromoform | 0.380 | 0.390 | 0.398 | 0.311 | 23.52 |
| 58) | T | Isopropyl Benzene | 6.162 | 6.015 | 5.406 | 6.358 | 7.37 |
| 59) | S | Bromofluorobenzene | 1.442 | 1.471 | 1.360 | 1.519 | 8.46 |
| 60) | T | Bromobenzene | 1.206 | 1.214 | 1.135 | 1.260 | 5.86 |
| 61) | P,T | 1,1,2,2-Tetrachloro | 0.489 | 0.486 | 0.450 | 0.497 | 4.44 |
| 62) | T | 123-Trichloropropan | 0.475 | 0.466 | 0.402 | 0.547 | 17.64 |
| 63) | T | 1,4-Dichloro-2-bute | 0.088 | 0.081 | 0.080 | 0.078 | 13.91 |
| 64) | T | n-Propylbenzene | 1.687 | 1.614 | 1.485 | 1.697 | 6.07 |
| 65) | T | 2-Chlorotoluene | 1.226 | 1.212 | 1.120 | 1.285 | 6.73 |
| 66) | T | 4-Chlorotoluene | 1.105 | 1.093 | 1.018 | 1.182 | 8.49 |
| 67) | T | 135-Trimethylbenzen | 3.928 | 3.813 | 3.451 | 4.078 | 8.02 |
| 68) | T | tert-Butylbenzene | 5.009 | 4.899 | 4.462 | 5.220 | 7.56 |
| 69) | T | 124-Trimethylbenzen | 3.399 | 3.405 | 3.107 | 3.628 | 8.06 |
| 70) | T | Sec-Butylbenzene | 7.276 | 6.990 | 6.306 | 7.476 | 7.65 |
| 71) | T | 1,3-Dichlorobenzene | 2.128 | 2.150 | 2.002 | 2.307 | 8.49 |
| 72) | T | 1,4-Dichlorobenzene | 1.961 | 1.988 | 1.863 | 2.151 | 10.58 |
| 73) | T | p-Isopropyltoluene | 5.144 | 4.978 | 4.531 | 5.265 | 6.89 |
| 74) | T | 1,2-Dichlorobenzene | 1.491 | 1.496 | 1.374 | 1.651 | 11.23 |
| 75) | T | n-Butylbenzene | 4.595 | 4.377 | 4.069 | 4.729 | 7.89 |
| 76) | T | 1,2-Dibromo-3-Chlor | 0.069 | 0.071 | 0.072 | 0.061 | 16.67 |
| 77) | T | 124-Trichlorobenzen | 0.856 | 0.823 | 0.805 | 0.925 | 13.86 |

PCL 12/28/01

2030

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files
.3 =RLV588.D .5 =RLV589.D 1 =RLV590.D
2 =RLV591.D 5 =RLV592.D 10 =RLV593.D

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| 78) | T | Hexachlorobutadiene | 2.126 | 1.851 | 1.895 | 1.929 | 2.009 | 1.761 |
| 79) | T | Naphthalene | 0.765 | 0.610 | 0.580 | 0.622 | 0.543 | 0.520 |
| 80) | T | 123-Trichlorobenzen | 0.822 | 0.696 | 0.691 | 0.740 | 0.686 | 0.628 |

avg = 10%, RSD

10/18/01

2031

(#) = Out of Range ### Number of calibration levels exceeded format ###
VO01L21.M Thu Dec 27 10:23:19 2001 Page 3

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound | 20 | 30 | 40 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| 78) | T | Hexachlorobutadiene | 1.861 | 1.728 | 1.664 | 1.869 | 7.65 |
| 79) | T | Naphthalene | 0.503 | 0.476 | 0.470 | 0.566 | 16.38 |
| 80) | T | 123-Trichlorobenzen | 0.623 | 0.594 | 0.595 | 0.675 | 11.04 |

2032

(#) = Out of Range ### Number of calibration levels exceeded format ###

# SECOND SOURCE VERIFICATION

2033

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D
Acq On : 21 Dec 2001 7:25 pm
Sample : IVO01L211
Misc : 10/20PPB 8260/KETONES 25mL
MS Integration Params: 524TAIL.P

Vial: 13
Operator: CR
Inst : TO01
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 98 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.499 | 6 | 100 | 0.02 |
| 3 | T,P | Chloromethane | 0.229 | 0.201 | 12 | 92 | 0.02 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.316 | 3 | 99 | 0.02 |
| 5 | T | Bromomethane | 0.277 | 0.268 | 3 | 105 | 0.02 |
| 6 | T | Chloroethane | 0.214 | 0.205 | 4 | 99 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.740 | 6 | 98 | 0.02 |
| 8 | T | Acrolein | 0.002 | 0.003 | -50# | 139 | 0.00 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.623 | 2 | 99 | 0.02 |
| 10 | | 112Trichloro122trifluoroeth | 0.620 | 0.613 | 1 | 101 | 0.00 |
| 11 | T | Acetone | 0.019 | 0.017 | 11 | 93 | 0.00 |
| 12 | | Iodomethane | 0.354 | 0.370 | -5 | 104 | 0.02 |
| 13 | T | Carbon Disulfide | 0.584 | 0.610 | -4 | 97 | 0.00 |
| 14 | T | Methylene Chloride | 0.238 | 0.212 | 11 | 100 | 0.00 |
| 15 | T | Acrylonitrile | 0.011 | 0.011 | 0 | 108 | 0.02 |
| 16 | T | trans-1,2-Dichloroethene | 0.537 | 0.526 | 2 | 95 | 0.02 |
| 17 | T | MTBE | 0.228 | 0.215 | 6 | 99 | 0.00 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.590 | 4 | 98 | 0.00 |
| 19 | T | Vinyl Acetate | 0.142 | 0.136 | 4 | 100 | 0.00 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.584 | 1 | 98 | 0.00 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.510 | 2 | 98 | 0.02 |
| 22 | T | 2-Butanone | 0.024 | 0.023 | 4 | 98 | 0.00 |
| 23 | T | Bromochloromethane | 0.119 | 0.122 | -3 | 103 | 0.00 |
| 24 | C,T | Chloroform | 0.582 | 0.564 | 3 | 97 | 0.00 |
| 25 | T | 1,1,1-Trichloroethane | 0.665 | 0.695 | -5 | 101 | 0.02 |
| 26 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.166 | -2 | 103 | 0.00 |
| 27 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 94 | 0.00 |
| 28 | T | 11-Dichloropropene | 0.346 | 0.361 | -4 | 99 | 0.02 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.985 | -12 | 100 | 0.00 |
| 30 | M,T | Benzene | 1.506 | 1.474 | 2 | 98 | 0.00 |
| 31 | T | 1,2-Dichloroethane | 0.329 | 0.344 | -5 | 102 | 0.00 |
| 32 | M,T | Trichloroethene | 0.830 | 0.851 | -3 | 97 | 0.00 |
| 33 | C,T | 1,2-Dichloropropane | 0.435 | 0.444 | -2 | 100 | 0.00 |
| 34 | T | Dibromomethane | 0.185 | 0.198 | -7 | 101 | 0.00 |
| 35 | | Bromodichloromethane | 0.484 | 0.547 | -13 | 101 | 0.00 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.028 | 24# | 55 | 0.00 |

2034

(#) = Out of Range

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D  Vial: 13
Acq On : 21 Dec 2001 7:25 pm  Operator: CR
Sample : IVO01L211  Inst : TO01
Misc : 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.489 | -13 | 100 | 0.00 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.075 | 3 | 100 | 0.02 |
| 39 | S | Toluene-d8 | 1.536 | 1.543 | -0 | 98 | 0.00 |
| 40 | C,T | Toluene | 1.072 | 1.066 | 1 | 98 | 0.00 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.284 | -15 | 101 | 0.00 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.195 | -5 | 101 | 0.00 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.207 | -3 | 102 | 0.00 |
| 44 | T | Tetrachloroethene | 0.809 | 0.811 | -0 | 100 | 0.00 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.332 | -1 | 101 | 0.00 |
| 46 | T | 2-Hexanone | 0.057 | 0.052 | 9 | 105 | 0.02 |
| 47 | T | Dibromochloromethane | 0.245 | 0.287 | -17 | 103 | 0.00 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.255 | -8 | 101 | 0.00 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.054 | 3 | 95 | 0.02 |
| 50 | T | 1-Chlorohexane | 0.999 | 0.987 | 1 | 97 | 0.00 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.434 | -10 | 97 | 0.00 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.103 | 2 | 95 | 0.00 |
| 53 | T | M/P-Xylenes | 1.586 | 1.533 | 3 | 93 | 0.00 |
| 54 | T | O-Xylene | 1.473 | 1.426 | 3 | 94 | 0.00 |
| 55 | T | Styrene | 0.919 | 0.936 | -2 | 96 | 0.00 |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 93 | 0.00 |
| 57 | P,T | Bromoform | 0.311 | 0.351 | -13 | 100 | 0.00 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.410 | -1 | 95 | 0.00 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.523 | -0 | 95 | 0.00 |
| 60 | T | Bromobenzene | 1.260 | 1.254 | 0 | 95 | 0.00 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.513 | -3 | 97 | 0.00 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.546 | 0 | 96 | 0.00 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.080 | -3 | 95 | 0.00 |
| 64 | T | n-Propylbenzene | 1.697 | 1.729 | -2 | 96 | 0.00 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.277 | 1 | 93 | -0.02 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.162 | 2 | 93 | 0.00 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.015 | 2 | 92 | 0.00 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.221 | -0 | 95 | 0.00 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 3.552 | 2 | 92 | 0.00 |
| 70 | T | Sec-Butylbenzene | 7.476 | 7.501 | -0 | 95 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.303 | 0 | 96 | 0.00 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 2.105 | 2 | 95 | -0.02 |

2035

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D  Vial: 13
Acq On : 21 Dec 2001 7:25 pm  Operator: CR
Sample : IVO01L211  Inst : TO01
Misc : 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 5.288 | -0 | 95 | 0.00 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.623 | 2 | 97 | 0.00 |
| 75 | T | n-Butylbenzene | 4.729 | 4.665 | 1 | 94 | -0.02 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.065 | -7 | 102 | -0.02 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.926 | -0 | 100 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.892 | -1 | 100 | 0.00 |
| 79 | T | Naphthalene | 0.566 | 0.548 | 3 | 98 | -0.02 |
| 80 | T | 123-Trichlorobenzene | 0.675 | 0.673 | 0 | 100 | -0.02 |

2036

(#) = Out of Range  SPCC's out = 0 CCC's out = 0 AW 12/28/01

# DAILY CALIBRATION

2037

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ab Name: EMAX Inc
ab Code: EMXT Case No.:
Lab File ID: RAV323
nstrument ID: T-001
: Column: DB624 ID: 0.53 (mm)

Contract: JERVIS WEBB SOUTH GATE
SAS No.: SDG No.: 02A068
BFB Injection Date : 01/24/02
BFB Injection Time : 08:45
Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 21.08 |
| 75 | 30.0 - 60.0% of mass 95 | 50.93 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.23 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 81.55 |
| 175 | 5.0 - 9.0% of mass 174 | 6.56( 8.0)1 |
| 176 | 95.0 - 101.0% of mass 174 | 78.71( 96.5)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.06( 7.7)2 |

1-Value is % mass 174 2-Value is % mass 176

HIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD010 | VSTD010 | RAV324 | 01/24/02 | 09:08 |
| 2 | LCS1W | V001A24L | RAV326 | 01/24/02 | 10:21 |
| 3 | LCD1W | V001A24C | RAV327 | 01/24/02 | 10:57 |
| 4 | MBLK1W | V001A24Q | RAV331 | 01/24/02 | 13:20 |
| 5 | PDS-1ADL | A068-01T | RAV335 | 01/24/02 | 15:46 |
| 6 | PDS-1BDL | A068-02T | RAV336 | 01/24/02 | 16:22 |
| 7 | PDS-4A | A068-07R | RAV337 | 01/24/02 | 16:58 |
| 8 | PDS-4B | A068-08R | RAV338 | 01/24/02 | 17:34 |
| 9 | PDS-2BDL | A068-04T | RAV340 | 01/24/02 | 18:47 |
| 10 | PDS-3ADL | A068-05T | RAV341 | 01/24/02 | 19:23 |



FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: EMAX Inc
b Code: EMXT
ab File ID: RAV324
Instrument ID: T-001
C Column: DB624 ID: 0.53 (mm)

Project:JERVIS WEBB SOUTH GATE
SDG No.: 02A068
Date Analyzed: 01/24/02
Time Analyzed: 09:08
Heated Purge: (Y/N)

| | | IS1(DBF) | | IS2(CBZ) | | IS3(DCB) | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 2957539 | 11.55 | 1850003 | 17.57 | 674645 | 23.96 |
| | UPPER LIMIT | 5915078 | 12.05 | 3700006 | 18.07 | 1349290 | 24.46 |
| | LOWER LIMIT | 1478770 | 11.05 | 925002 | 17.07 | 337323 | 23.46 |
| | SAMPLE ID | | | | | | |
| | MBLK1W | 2738637 | 11.55 | 1601589 | 17.59 | 549951 | 23.96 |
| 2 | LCS1W | 2905633 | 11.56 | 1912583 | 17.59 | 731528 | 23.98 |
| 3 | LCD1W | 2792688 | 11.55 | 1795765 | 17.59 | 698638 | 23.98 |
| | PDS-1ADL | 2648295 | 11.55 | 1666094 | 17.57 | 610575 | 23.95 |
| | PDS-1BDL | 2721854 | 11.55 | 1712726 | 17.57 | 630894 | 23.96 |
| 6 | PDS-4A | 2759015 | 11.53 | 1725698 | 17.57 | 624610 | 23.96 |
| 7 | PDS-4B | 2797096 | 11.53 | 1688906 | 17.57 | 592456 | 23.96 |
| 8 | PDS-2BDL | 2736291 | 11.53 | 1757468 | 17.57 | 612265 | 23.96 |
| | PDS-3ADL | 2849678 | 11.56 | 1751985 | 17.59 | 641193 | 23.96 |

IS1 (DFB) = 1,4-Difluorobenzene
2 (CBZ) = Chlorobenzene-d5
3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
EA LOWER LIMIT = - 50% of internal standard area
EA UPPER LIMIT = + 50% of surrogate area
EA LOWER LIMIT = - 50% of surrogate area

# Column used to flag internal standard area values with an asterisk
Values outside of QC limits.



FORM VIII VOA-8260 1/2000

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV324.D  Vial: 2
Acq On : 24 Jan 2002 9:08 am  Operator: CR
Sample : CVO01L2151  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 132 | 0.02 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.335 | 37# | 91 | 0.02 |
| 3 | T,P | Chloromethane | 0.229 | 0.205 | 10 | 126 | 0.02 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.303 | 7 | 128 | 0.00 |
| 5 | T | Bromomethane | 0.277 | 0.259 | 6 | 137 | 0.02 |
| 6 | T | Chloroethane | 0.214 | 0.219 | -2 | 143 | 0.02 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.638 | 19 | 114 | 0.00 |
| 8 | T | Acrolein | 0.002 | 0.005 | -150# | 325# | 0.00 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.619 | 3 | 132 | 0.02 |
| 10 | | 112Trichloro122trifluoroeth | 0.620 | 0.529 | 15 | 118 | 0.00 |
| 11 | T | Acetone | 0.019 | 0.020 | -5 | 150 | 0.00 |
| 12 | | Iodomethane | 0.354 | 0.309 | 13 | 118 | 0.02 |
| 13 | T | Carbon Disulfide | 0.584 | 0.579 | 1 | 125 | 0.02 |
| 14 | T | Methylene Chloride | 0.238 | 0.236 | 1 | 150 | 0.02 |
| 15 | T | Acrylonitrile | 0.011 | 0.012 | -9 | 165 | 0.00 |
| 16 | T | trans-1,2-Dichloroethene | 0.537 | 0.574 | -7 | 140 | 0.00 |
| 17 | T | MTBE | 0.228 | 0.213 | 7 | 133 | 0.00 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.626 | -2 | 140 | 0.00 |
| 19 | T | Vinyl Acetate | 0.142 | 0.134 | 6 | 134 | 0.02 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.574 | 2 | 129 | 0.02 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.517 | 0 | 134 | 0.02 |
| 22 | T | 2-Butanone | 0.024 | 0.028 | -17 | 160 | 0.02 |
| 23 | T | Bromochloromethane | 0.119 | 0.113 | 5 | 128 | 0.02 |
| 24 | C,T | Chloroform | 0.582 | 0.556 | 4 | 130 | 0.02 |
| 25 | T | 1,1,1-Trichloroethane | 0.665 | 0.605 | 9 | 118 | 0.00 |
| 26 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.148 | 9 | 124 | 0.02 |
| 27 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 129 | 0.00 |
| 28 | T | 11-Dichloropropene | 0.346 | 0.355 | -3 | 134 | 0.00 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.815 | 7 | 114 | 0.00 |
| 30 | M,T | Benzene | 1.506 | 1.608 | -7 | 147 | 0.00 |
| 31 | T | 1,2-Dichloroethane | 0.329 | 0.294 | 11 | 120 | 0.00 |
| 32 | M,T | Trichloroethene | 0.830 | 0.778 | 6 | 122 | 0.00 |
| 33 | C,T | 1,2-Dichloropropane | 0.435 | 0.471 | -8 | 145 | 0.00 |
| 34 | T | Dibromomethane | 0.185 | 0.188 | -2 | 132 | 0.00 |
| 35 | | Bromodichloromethane | 0.484 | 0.479 | 1 | 122 | 0.00 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.082 | -122# | 221# | 0.02 |

(#) = Out of Range

2040

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV324.D  Vial: 2
Acq On : 24 Jan 2002 9:08 am  Operator: CR
Sample : CVO01L2151  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.460 | -6 | 130 | 0.02 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.068 | 12 | 124 | 0.02 |
| 39 | S | Toluene-d8 | 1.536 | 1.548 | -1 | 136 | 0.00 |
| 40 | C,T | Toluene | 1.072 | 1.095 | -2 | 138 | 0.00 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.247 | 0 | 121 | 0.00 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.197 | -6 | 140 | 0.00 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.198 | 1 | 134 | 0.02 |
| 44 | T | Tetrachloroethene | 0.809 | 0.681 | 16 | 115 | 0.00 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.332 | -1 | 140 | 0.00 |
| 46 | T | 2-Hexanone | 0.057 | 0.060 | -5 | 168 | 0.02 |
| 47 | T | Dibromochloromethane | 0.245 | 0.222 | 9 | 109 | 0.00 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.229 | 3 | 125 | 0.00 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.053 | 3 | 131 | 0.00 |
| 50 | T | 1-Chlorohexane | 0.999 | 1.006 | -1 | 136 | 0.00 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.376 | 4 | 116 | 0.00 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.089 | 3 | 129 | 0.00 |
| 53 | T | M/P-Xylenes | 1.586 | 1.521 | 4 | 127 | 0.00 |
| 54 | T | O-Xylene | 1.473 | 1.412 | 4 | 129 | 0.00 |
| 55 | T | Styrene | 0.919 | 0.944 | -3 | 133 | 0.02 |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 126 | 0.00 |
| 57 | P,T | Bromoform | 0.311 | 0.236 | 24# | 91 | 0.00 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.341 | 0 | 128 | 0.00 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.548 | -2 | 131 | 0.00 |
| 60 | T | Bromobenzene | 1.260 | 1.124 | 11 | 116 | 0.00 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.535 | -8 | 138 | -0.02 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.485 | 11 | 115 | 0.00 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.082 | -5 | 133 | 0.00 |
| 64 | T | n-Propylbenzene | 1.697 | 1.736 | -2 | 131 | 0.00 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.251 | 3 | 124 | 0.00 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.155 | 2 | 125 | 0.00 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.056 | 1 | 126 | 0.00 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.211 | 0 | 129 | 0.00 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 3.666 | -1 | 128 | 0.00 |
| 70 | T | Sec-Butylbenzene | 7.476 | 7.902 | -6 | 136 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.111 | 8 | 119 | 0.00 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 1.980 | 8 | 121 | 0.00 |

2041

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV324.D  Vial: 2
Acq On : 24 Jan 2002 9:08 am  Operator: CR
Sample : CVO01L2151  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 5.406 | -3 | 132 | 0.00 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.505 | 9 | 122 | 0.00 |
| 75 | T | n-Butylbenzene | 4.729 | 5.306 | -12 | 145 | 0.00 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.045 | 26# | 95 | -0.02 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.805 | 13 | 118 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.543 | 17 | 110 | 0.00 |
| 79 | T | Naphthalene | 0.566 | 0.543 | 4 | 132 | 0.00 |
| 30 | T | 123-Trichlorobenzene | 0.675 | 0.592 | 12 | 119 | 0.00 |

2042

(#) = Out of Range  SPCC's out = 0 CCC's out = 0

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ıb Name: EMAX Inc
ıb Code: EMXT Case No.:
Lab File ID: RAV347
Instrument ID: T-001
GC Column: DB624 ID: 0.53 (mm)

Contract: JERVIS WEBB SOUTH GATE
SAS No.: SDG No.: 02A068
BFB Injection Date : 01/24/02
BFB Injection Time : 22:58
Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.74 |
| 75 | 30.0 - 60.0% of mass 95 | 49.79 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.28 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 79.24 |
| 175 | 5.0 - 9.0% of mass 174 | 6.29( 7.9)1 |
| 176 | 95.0 - 101.0% of mass 174 | 77.11( 97.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.53( 7.2)2 |

1-Value is % mass 174 2-Value is % mass 176

ıHIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD010 | VSTD010 | RAV348 | 01/24/02 | 23:32 |
| 2 | MBLK2W | V001A26Q | RAV353 | 01/25/02 | 02:32 |
| 3 | LCS2W | V001A26L | RAV350 | 01/25/02 | 00:44 |
| 4 | LCD2W | V001A26C | RAV351 | 01/25/02 | 01:20 |
| 5 | PDS-1B | A068-02 | RAV354 | 01/25/02 | 03:08 |
| 6 | PDS-2A | A068-03 | RAV355 | 01/25/02 | 03:44 |
| 7 | PDS-2B | A068-04 | RAV356 | 01/25/02 | 04:20 |
| 8 | PDS-3A | A068-05 | RAV357 | 01/25/02 | 04:57 |
| 9 | PDS-3B | A068-06 | RAV358 | 01/25/02 | 05:33 |
| 10 | PDS-5A | A068-09 | RAV359 | 01/25/02 | 06:09 |
| 11 | PDS-5B | A068-10 | RAV360 | 01/25/02 | 06:45 |
| 12 | PDS-5ADL | A068-09T | RAV361 | 01/25/02 | 07:21 |
| 13 | PDS-5BDL | A068-10T | RAV362 | 01/25/02 | 07:57 |
| 14 | PDS-1A | A068-01 | RAV363 | 01/25/02 | 08:33 |



FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: EMAX Inc
b Code: EMXT
..b File ID: RAV348
Instrument ID: T-001
GC Column: DB624 ID: 0.53 (mm)

Project:JERVIS WEBB SOUTH GATE
SDG No.: 02A068
Date Analyzed: 01/24/02
Time Analyzed: 23:32
Heated Purge: (Y/N)

| | | IS1(DBF) | | IS2(CBZ) | | IS3(DCB) | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 2810268 | 11.55 | 1713053 | 17.59 | 603304 | 23.98 |
| | UPPER LIMIT | 5620536 | 12.05 | 3426106 | 18.09 | 1206608 | 24.48 |
| | LOWER LIMIT | 1405134 | 11.05 | 856527 | 17.09 | 301652 | 23.48 |
| | SAMPLE ID | | | | | | |
| | MBLK2W | 2754058 | 11.54 | 1666255 | 17.59 | 572260 | 23.98 |
| 2 | LCS2W | 2721662 | 11.56 | 1675606 | 17.59 | 591381 | 23.98 |
| 3 | LCD2W | 2633871 | 11.55 | 1641196 | 17.59 | 600093 | 23.98 |
| | PDS-1B | 2468859 | 11.55 | 1523271 | 17.59 | 531227 | 23.98 |
| | PDS-2A | 2476653 | 11.55 | 1508898 | 17.59 | 518930 | 23.98 |
| 6 | PDS-2B | 2466585 | 11.56 | 1518213 | 17.60 | 524024 | 23.96 |
| 7 | PDS-3A | 2362458 | 11.56 | 1450310 | 17.59 | 521473 | 23.98 |
| 8 | PDS-3B | 2583087 | 11.55 | 1537383 | 17.59 | 534901 | 23.96 |
| | PDS-5A | 2305754 | 11.56 | 1331753 | 17.60 | 466779 | 23.96 |
| | PDS-5B | 2459916 | 11.55 | 1466448 | 17.59 | 522947 | 23.98 |
| 11 | PDS-5ADL | 2659979 | 11.55 | 1646616 | 17.59 | 603022 | 23.96 |
| 12 | PDS-5BDL | 2493137 | 11.56 | 1580773 | 17.59 | 571828 | 23.98 |
| | PDS-1A | 2853293 | 11.56 | 1763476 | 17.60 | 626194 | 23.98 |

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
EA UPPER LIMIT = + 50% of surrogate area
EA LOWER LIMIT = - 50% of surrogate area

# Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.



FORM VIII VOA-8260 1/2000

2044

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV348.D  Vial: 3
Acq On : 24 Jan 2002 11:32 pm  Operator: CR
Sample : CVO01L2153  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 126 | 0.02 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.330 | 38# | 85 | 0.04 |
| 3 | T,P | Chloromethane | 0.229 | 0.204 | 11 | 119 | 0.02 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.294 | 10 | 118 | 0.00 |
| 5 | T | Bromomethane | 0.277 | 0.253 | 9 | 127 | 0.02 |
| 6 | T | Chloroethane | 0.214 | 0.211 | 1 | 131 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.641 | 19 | 109 | 0.00 |
| 8 | T | Acrolein | 0.002 | 0.005 | -150# | 316# | -0.02 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.618 | 3 | 125 | 0.00 |
| 0 | | 112Trichloro122trifluoroeth | 0.620 | 0.540 | 13 | 114 | 0.02 |
| 11 | T | Acetone | 0.019 | 0.017 | 11 | 119 | 0.00 |
| 2 | | Iodomethane | 0.354 | 0.321 | 9 | 116 | 0.00 |
| 3 | T | Carbon Disulfide | 0.584 | 0.585 | -0 | 120 | 0.00 |
| 14 | T | Methylene Chloride | 0.238 | 0.218 | 8 | 131 | 0.00 |
| 15 | T | Acrylonitrile | 0.011 | 0.012 | -9 | 148 | 0.00 |
| 6 | T | trans-1,2-Dichloroethene | 0.537 | 0.566 | -5 | 131 | 0.00 |
| 17 | T | MTBE | 0.228 | 0.193 | 15 | 114 | 0.00 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.615 | -0 | 130 | 0.00 |
| 9 | T | Vinyl Acetate | 0.142 | 0.116 | 18 | 109 | 0.02 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.511 | 13 | 110 | 0.02 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.499 | 4 | 123 | 0.00 |
| 2 | T | 2-Butanone | 0.024 | 0.024 | 0 | 131 | 0.02 |
| 23 | T | Bromochloromethane | 0.119 | 0.106 | 11 | 115 | 0.02 |
| 24 | C,T | Chloroform | 0.582 | 0.543 | 7 | 120 | 0.02 |
| 5 | T | 1,1,1-Trichloroethane | 0.665 | 0.615 | 8 | 114 | 0.00 |
| 6 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.138 | 15 | 110 | 0.02 |
| 7 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 120 | 0.02 |
| 8 | T | 11-Dichloropropene | 0.346 | 0.372 | -8 | 130 | 0.00 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.860 | 2 | 111 | 0.00 |
| 0 | M,T | Benzene | 1.506 | 1.634 | -8 | 138 | 0.00 |
| 1 | T | 1,2-Dichloroethane | 0.329 | 0.288 | 12 | 109 | 0.00 |
| 32 | M,T | Trichloroethene | 0.830 | 0.828 | 0 | 121 | 0.00 |
| 3 | C,T | 1,2-Dichloropropane | 0.435 | 0.465 | -7 | 133 | 0.02 |
| 4 | T | Dibromomethane | 0.185 | 0.187 | -1 | 121 | 0.00 |
| 35 | | Bromodichloromethane | 0.484 | 0.485 | -0 | 114 | 0.00 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.078 | -111# | 195 | 0.02 |

2045

(#) = Out of Range

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV348.D  Vial: 3
Acq On : 24 Jan 2002 11:32 pm  Operator: CR
Sample : CVO01L2153  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.449 | -4 | 117 | 0.02 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.070 | 9 | 119 | 0.02 |
| 39 | S | Toluene-d8 | 1.536 | 1.584 | -3 | 129 | 0.02 |
| 40 | C,T | Toluene | 1.072 | 1.137 | -6 | 133 | 0.00 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.232 | 6 | 105 | 0.00 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.191 | -3 | 126 | 0.00 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.192 | 4 | 120 | 0.02 |
| 44 | T | Tetrachloroethene | 0.809 | 0.733 | 9 | 115 | 0.02 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.328 | 0 | 127 | 0.00 |
| 46 | T | 2-Hexanone | 0.057 | 0.050 | 12 | 128 | 0.04 |
| 47 | T | Dibromochloromethane | 0.245 | 0.227 | 7 | 103 | 0.02 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.232 | 2 | 117 | 0.02 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.083 | 0 | 125 | 0.02 |
| 50 | T | 1-Chlorohexane | 0.999 | 1.070 | -7 | 134 | 0.02 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.384 | 2 | 109 | 0.02 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.213 | -3 | 127 | 0.00 |
| 53 | T | M/P-Xylenes | 1.586 | 1.583 | 0 | 122 | 0.02 |
| 54 | T | O-Xylene | 1.473 | 1.458 | 1 | 123 | 0.02 |
| 55 | T | Styrene | 0.919 | 0.970 | -6 | 127 | 0.02 |
| | | | | | | | |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 113 | 0.02 |
| 57 | P,T | Bromoform | 0.311 | 0.244 | 22# | 85 | 0.02 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.920 | -9 | 125 | 0.02 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.579 | -4 | 120 | 0.00 |
| 60 | T | Bromobenzene | 1.260 | 1.163 | 8 | 107 | 0.02 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.543 | -9 | 125 | 0.00 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.526 | 4 | 112 | 0.02 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.071 | 9 | 103 | 0.02 |
| 64 | T | n-Propylbenzene | 1.697 | 1.909 | -12 | 128 | 0.00 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.337 | -4 | 118 | 0.02 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.221 | -3 | 118 | 0.00 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.501 | -10 | 125 | 0.02 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.734 | -10 | 127 | 0.02 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 4.020 | -11 | 126 | 0.00 |
| 70 | T | Sec-Butylbenzene | 7.476 | 8.635 | -16 | 133 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.200 | 5 | 111 | 0.02 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 2.033 | 5 | 111 | 0.00 |

2046

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A24\RAV348.D  Vial: 3
Acq On : 24 Jan 2002 11:32 pm  Operator: CR
Sample : CVO01L2153  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 5.962 | -13 | 130 | 0.02 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.530 | 7 | 111 | 0.02 |
| 75 | T | n-Butylbenzene | 4.729 | 5.761 | -22# | 141 | 0.00 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.046 | 25# | 88 | 0.00 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.853 | 8 | 112 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.649 | 12 | 105 | 0.02 |
| 79 | T | Naphthalene | 0.566 | 0.579 | -2 | 125 | 0.00 |
| 80 | T | 123-Trichlorobenzene | 0.675 | 0.637 | 6 | 114 | 0.00 |

2047

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# ANALYTICAL LOG

2048

# ANALYSIS LOG FOR VOLATILES

)P ☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

rt Date 12/21/01

Book # A01-009

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RLU586 | BFB01L40 | 1 | 1ul | 25ml | NA | NA | NA | |
| *02 | 587 | BFB01L41 ✓ | 2 | 1ul | | | | | 12/21/01 CM |
| *03 | 588 | V001L211 ✓ | 3 | 0.15ul | | | | | 0.3/0.6/1.5 ppb 8260/KET. |
| *04 | 589 | 2 ✓ | 4 | 0.25ul | | | | | 0.5/1.0 ppb |
| *05 | 590 | 3 ✓ | 5 | 0.5ul | | | | | 1.0/2.0 ppb |
| *06 | 591 | 4 ✓ | 6 | 1.0ul | | | | | 2.0/4.0 ppb |
| *07 | 592 | 5 ✓ | 7 | 2.5ul | | | | | 5/10 ppb |
| *08 | 593 | 6 ✓ | 8 | 5.0ul | | | | | 10/20 ppb |
| *09 | 594 | 7 ✓ | 9 | 10.0ul | | | | | 20/40 ppb |
| *10 | 595 | 8 ✓ | 10 | 15.0ul | | | | | 30/60 ppb |
| *11 | 596 | 9 ✓ | 11 | 20.0ul | | | | | 40/80 ppb |
| *12 | 597 | IS/SS CHECK | 12 | 2.5ml | | | | | |
| *13 | 598 | IV001L211 ✓ | 13 | 5ul | | | | | 10/20 ppb * |
| *14 | 599 | 2 | 14 | 5ul | | | | | 10/20 ppb |
| *15 | | | | | | | | | |
| *16 | | | | | | | | | |
| *17 | | | | | | | | | |
| *18 | | | | | | | | | |
| *19 | | | | | | | | | |
| *20 | | | | | | | | | |
| *21 | | | | | | | | | |
| *22 | | | | | | | | | |
| *23 | | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | CM | 12/21/01 | | |
| *27 | | | | | | | | | |

BATCH *

2049

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Date | 12/21/01 |
| ICAL ID | V001L21.M |

| Standards | | |
|---|---|---|
| Name | ID | Conc. (mg/L) |
| DCC | SU1C-06-35-3 | 50/100 |
| KET/AA | | |
| BFB | SU1C-06-30-1 | 50 |
| IS/Surr | SU1C-06-31-1 | 50 |
| Gases | SU1C-06-35-1 | 50 |
| LCS | SU1C-06-35-2 SU1C-06-36-1 | 50/100 |
| IS | SU1C-06-6-1 | 50 |
| SS | SU1C-06-6-2 | 50 |
| Solvent | ID | |
| Methanol | | |
| | | |
| Cartridge | 01L21 | |

Comments

* NOT VALID FOR PROJECT THAT HAS ACROLEIN

Analyzed By: CM

This page is checked during data review.

000140

# ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

Start Date 1/24/02

Book # A01-009

BATCH * V001A24

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RAU323 | BFB01A024 | – | 1ul | 25ml | NA | NA | NA | 8:45AM |
| *02 | 324 | CU001L2151 | 1 | 5ul | | 1 | | | 10 ppb |
| *03 | 325 | CU001L2152 | 2 | 5ul | | 1 | | | 10 ppb |
| *04 | 326 | V001A24L | 3 | 5ul | | 1 | | | 10 ppb |
| *05 | 327 | C | 4 | 5ul | | 1 | | | 10 ppb |
| *06 | 328 | B | 5 | 25ml | | 1 | | | |
| *07 | 329 | 02A097-01R | 6 | 25ml | | 1 | L20 | | |
| *08 | 330 | 02A092-01R | 7 | | | 1 | | | |
| *09 | 331 | V001A24Q | 8 | | | 1 | | | |
| *10 | 332 | 02A098-02T | 9 | 100ul | | 250 | | | |
| *11 | 333 | 02A076-05T | 10 | 1ml | | 25 | | | |
| *12 | 334 | 02A098-02I | 11 | 10ul | | 2500 | | | |
| *13 | 335 | 02A068-01T | 12 | 25ul | | 1000 | | | |
| *14 | 336 | -02T | 13 | 25ul | | 1000 | | | |
| *15 | 337 | -07R | 14 | 25ml | | 1 | | | |
| *16 | 338 | -05R | 15 | 25ml | | 1 | | | |
| *17 | 339 | -03T | 16 | 125ul ~~25ml~~ | 1/25/02 | 1 | | | |
| *18 | 340 | -04T | 17 | 125ul | | 2000 | | | |
| *19 | 341 | -05T | 18 | 125ul | | 200 | | | |
| *20 | 342 | -06T | 19 | 125ul | | 200 | | | 7:59 PM |
| *21 | 343 | RINSE | 20 | 25ml | | 200 | | | |
| *22 | 344 | DI H2O | 21 | 25ml | | 1 | | | |
| *23 | 345 | DI H2O | 22 | 25ml | | 1 | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | | | | |
| *27 | | | | | | | | | |

2050

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Date | 12/21/02 |
| ICAL ID | V001L21 |

| Standards | | |
|---|---|---|
| Name | ID | Conc. (mg/L) |
| DCC | SU1C-06-35-3 | 50/100 |
| KET/AA | | |
| BFB | SU1C-06-30-1 | 50 |
| IS/Surr | SU1C-06-31-1 | 50 |
| Gases | SU1C-06-35-1 | 50 |
| LCS | SU1C-06-35-2<br>SU1C-06-36-1 | 50/100 |
| | | |
| | | |

| Solvent | ID |
|---|---|
| Methanol | |
| | |
| Cartridge | 02A21 |

Comments

Analyzed By: CN

This page is checked during data review.

CN 1/24/02

000141

# ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

Start Date 1/24/02

**Book #** A01-009

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RAV346 | BFB01A25 | 23 | 1ul | 25ml | NA | NA | NA | |
| *02 | 347 | BFB01A26 | 24 | 1ul | | | | | |
| *03 | 348 | CV001L2153 | 25 | 5ul | | | | | 10 ppb |
| *04 | 349 | CV001L2154 | 26 | 5ul | | | | | 10 ppb |
| *05 | 350 | V001A26 2 | 27 | 5ul | | | | | 10 ppb |
| *06 | 351 | C | 28 | 5ul | | | | | 10 ppb |
| *07 | 352 | B | 29 | 25ml | | | | | |
| *08 | 353 | Q | 30 | 25ml | | | | | |
| *09 | 354 | 02A068-02T | 31 | 125ul | | 200 | 12.0 | | |
| *10 | 355 | -03T | 32 | 500ul | | 50 | | | |
| *11 | 356 | -04T | 1 | 500ul | | 50 | | | |
| *12 | 357 | -05T | 2 | 500ul | | 50 | | | |
| *13 | 358 | -06T | 3 | 500ul | | 50 | | | |
| *14 | 359 | -09T | 4 | 500ul | | 50 | | | |
| *15 | 360 | -10T | 5 | 500ul | | 50 | | | |
| *16 | 361 | -09T | 6 | 125ul | | 200 | | | |
| *17 | 362 | -10T | 7 | 125ul | | 200 | | | |
| *18 | 363 | -01T | 8 | 125ul | | 200 | | | |
| *19 | ~~364~~ | | | | | | | | |
| *20 | | | | | | | | | |
| *21 | | | | | | | | | |
| *22 | | | | | | | | | |
| *23 | | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | | | | |
| *27 | | | | | | | | | |

1/24/02

BATCH * V001A26

2051

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Date | 12/21/02 |
| ICAL ID | V001L21 |

Standards

| Name | ID | Conc. (mg/L) |
|---|---|---|
| DCC | SVIC-06-35-3 | 50/100 |
| KET/AA | | |
| BFB | SVIC-06-30-1 | 50 |
| IS/Surr | SVIC-06-31-1 | 50 |
| Gases | SVIC-06-35-1 | 50 |
| LCS | SVIC-06-35-2<br>SVIC-06-36-1 | 50/100 |
| | | |
| | | |

| Solvent | ID |
|---|---|
| Methanol | |
| | |
| Cartridge | 02A24 |

Comments

Analyzed By: CA

This page is checked during data review.

000142

FILE COPY

# TABLE OF CONTENTS

**CLIENT:** **IT CORPORATION**

FEB 1 2002

**PROJECT:** **JERVIS WEBB SOUTH GATE**

**SDG:** **02A067**


| SECTION | | PAGE |
|---|---|---|
| Cover Letter, COC/Sample Receipt Form | | 1000 – 1002 |
| GC/MS-VOA | SW 5030B/8260B | 2000 – 2045 |
| GC/MS-SVOA | ** | 3000 – |
| GC-VOA | ** | 4000 – |
| GC-SVOA | ** | 5000 – |
| HPLC | ** | 6000 – |
| METALS | METHOD 3010A/6010B<br>METHOD 7199 | 7000 – 7026<br>7027 – 7044 |
| WET | ** | 8000 – |
| OTHERS | ** | 9000 – |


** - Not Requested

EMAX
LABORATORIES, INC.
1835 205th Street
Torrance, CA 90501
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 01-31-2002
EMAX Batch No.: 02A067

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: Jervis Webb South Gate

---

Enclosed is the Laboratory report for samples received on 01/17/02. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| MW-1 | A067-01 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS<br>METALS DISSOLVED BY ICP<br>CHROMIUM HEXAVALENT |
| MW-2 | A067-02 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS<br>METALS DISSOLVED BY ICP<br>CHROMIUM HEXAVALENT |
| MW-3 | A067-03 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS<br>METALS DISSOLVED BY ICP<br>CHROMIUM HEXAVALENT |
| MW-4 | A067-04 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS<br>METALS DISSOLVED BY ICP<br>CHROMIUM HEXAVALENT |
| MW-5 | A067-05 | 01/17/02 | WATER | VOLATILE ORGANICS BY GC/MS<br>METALS DISSOLVED BY ICP<br>CHROMIUM HEXAVALENT |

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

the i group

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

# CHAIN-OF-CUSTODY RECORD

H4 / VW04-08 02A067

LABORATORY COPY

A 14008

FORM 0019 REV. 9-99

| | | | | | |
|---|---|---|---|---|---|
| LAB COORDINATOR: Dwayne Ishida | LAB COORDINATOR'S PHONE: 949-261-6441 | LAB COORDINATOR'S FAX: 949-474-9309 | LABORATORY SERVICE ID: EMAX | LABORATORY CONTACT: | MAIL REPORT (COMPANY NAME): IT Corp. |
| PROJECT NAME: Jervis Webb | PROJECT LOCATION: South Gate | PROJECT NUMBER: 831461 | LABORATORY PHONE: | LABORATORY FAX: | RECIPIENT NAME: Ramil Reyes |
| PROJECT CONTACT: Ramil Reyes | PROJECT PHONE NUMBER: 949-660-5494 | PROJECT FAX: 949-474-9309 | LABORATORY ADDRESS: 1835 205th St. | | ADDRESS: 3347 Michelson Dr. |
| PROJECT ADDRESS: 5030 Firestone | CITY, STATE AND ZIP CODE: South Gate, CA | CLIENT: Jervis Webb | CITY, STATE AND ZIP CODE: Torrance, CA 90501 | | CITY, STATE AND ZIP CODE: Irvine, CA 92612 |
| PROJECT MANAGER: Gary Cronk | PROJECT MANAGER'S PHONE: 949-660-7511 | PROJECT MANAGER'S FAX: 949-474-9309 | | | |

| Item | Sample Identifier | Matrix | Date | Time | Preserved | # of Cont. | QC Level | T.A.T. | Analyses: 8260 B VOCs | D. Metals (As, Ba, Cr, Mo, Zn) | Cr VI (24 hr.) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW-1 | W | 1/17 | ~~1335~~ 1430 | HCL | 3 | | Standard | X | | | |
| | MW-1 | | | | — | 2 | | 24 hr. | | X | X | * filter in lab – Metals + Cr VI |
| | MW-2 | | | 1335 | HCL | 3 | | Standard | X | | | |
| | MW-2 | | | | — | 2 | | 24 hr. | | X | X | |
| | MW-3 | | | 1415 | HCL | 3 | | Standard | X | | | |
| | MW-3 | | | | — | 2 | | 24 hr. | | X | X | |
| | MW-4 | | | 1500 | HCL | 3 | | Standard | X | | | |
| | MW-4 | | | ~~1445~~ | — | 2 | | 24 hr. | | X | X | |
| | MW-5 | | | 1445 | HCL | 3 | | Standard | X | | | |
| | MW-5 | | | | — | 2 | | 24 hr. | | X | X | |

SAMPLES COLLECTED BY: RR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT: T=4.0C

| RELINQUISHED BY | RECEIVED BY | DATE | TIME | SAMPLE'S CONDITION UPON RECEIPT |
|---|---|---|---|---|
| Ramil Reyes 1515 | [illegible] | | | |
| [illegible] | [illegible] | 1-17-02 | 4:35p | |

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

# SAMPLE RECEIPT FORM

| Type of Delivery | Delivered By/Airbill | | |
|---|---|---|---|
| ☐ EMAX Courier | | ECN | 02A067 |
| ☐ Client Delivery | | Recepient | I. PATEL |
| ☑ Third Party | Road Runner Courier | Date | 1-17-02 |
| | | Time | 4:35 PM |

## COC Inspection

| | | |
|---|---|---|
| ☑ Client Name | ☑ Sampler Name | ☑ Sampling Date/Time/Location |
| ☑ Address | ☑ Courier Signature/Date/Time | ☑ Analysis Required |
| ☑ Client PM/FC | ☑ TAT | ☑ Matrix |
| ☑ Tel #/Fax # | ☑ Sample ID | ☑ Preservative (if any) |
| Safety Issues ☑ None | ☐ High Concentrations expected | ☐ Superfund Site Samples |

Comments:

## Packaging Inspection

| | | | | |
|---|---|---|---|---|
| Container | ☑ Cooler one | ☐ Box | ☐ RAD Screening | |
| Condition | ☐ Custody Seal | ☑ Intact | ☐ Damaged | ☐ |
| Packaging | ☐ Bubble Pack | ☐ Styrofoam | ☑ Sufficient | ☑ PLASTIC BAG |
| Temperatures | ☑ Cooler 1 4.0 C | ☐ Cooler 2 ____ | ☐ Cooler 3 ____ | ☐ Cooler 4 ____ |

Comments:

## Sample Inspection

| | | | | |
|---|---|---|---|---|
| Container | ☐ Custody Seal | ☑ Intact | ☐ Appropriate | ☐ Damaged |
| Identity | ☑ Client ID | ☑ Sampling Date/Time/Location | | ☐ Analysis |
| Preservation | ☐ NaOH[pH>/=12] | ☐ HNO3[pH<2] | ☐ H2SO4 [pH<2] | ☑ Holding Time OK |
| Sample | ☑ Sufficient | ☑ Appropriate | ☐ RAD Screening | ☐ See Comment |

Comment:

| Sample Control # | Client ID | Discrepancy | Corrective Action |
|---|---|---|---|
| -03 | MW-3 | VOC VIAL 2-3 Rec'd w/ Bubble >6mm | |
| -04 | MW-4 | Time 14:45 Metals & | |
| | | Cr+6 Containers | |
| -05 | MW-5 | Time 1500 on metals & | |
| | | Cr+6 Containers | |
| | | VOC VIAL 1-3 Rec'd w/ Bubble <6mm | |

REVIEWS
Sample Labeling [signature] Date 1-17-02

SRF [signature] Date 1/18/02

PM ____ Date ____

1002

000146

# LABORATORY REPORT FOR

# IT CORPORATION

# JERVIS WEBB SOUTH GATE

## SW 5030B/8260B
## VOLATILE ORGANICS BY GC/MS

**SDG#: 02A067**

2000

## CASE NARRATIVE

**CLIENT:** **IT CORPORATION**

**PROJECT:** **JERVIS WEBB SOUTH GATE**

**SDG:** **02A067**

### SW 5030B/8260B
### VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 01/17/02 for Volatile Organic Analyses by Method 8260B in accordance with USEPA SW846, 3rd ed.

1. Holding Time

   Analytical holding time was met.

2. Tuning and Calibration

   Tuning and calibration were carried out at 12 hour interval. All QC requirements were met.

3. Method Blank

   Method blanks were free of contamination at reporting limit level.

4. Lab Control Sample/Lab Control Sample Duplicate

   All recoveries were within QC limit.

5. Surrogate Recovery

   Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

7. Sample Analysis

   Samples were analyzed according to the prescribed QC procedures. All requirements were met.

   Samples with expected high target analyte concentrations were diluted prior to analysis. Sample A067-01 and –02 were further diluted to have TCE quantitated within calibration range.

LAB CHRONICLE
SW8260B

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE

SDG NO. : 02A067
Instrument ID : T-001

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | DCC Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | V001A20Q | 1 | NA | 01/23/0203:49 | 01/23/0203:49 | RAV276 | RAV271 | V001A20 | Method Blank |
| LCS1W | V001A20L | 1 | NA | 01/23/0202:01 | 01/23/0202:01 | RAV273 | RAV271 | V001A20 | Lab Control Sample (LCS) |
| LCD1W | V001A20C | 1 | NA | 01/23/0202:37 | 01/23/0202:37 | RAV274 | RAV271 | V001A20 | LCS Duplicate |
| MW-4 | A067-04 | 1 | NA | 01/23/0207:25 | 01/23/0207:25 | RAV282 | RAV271 | V001A20 | Field Sample |
| MW-1DL | A067-01T | 1000 | NA | 01/23/0208:02 | 01/23/0208:02 | RAV283 | RAV271 | V001A20 | Diluted Sample |
| MW-2DL | A067-02T | 200 | NA | 01/23/0208:38 | 01/23/0208:38 | RAV284 | RAV271 | V001A20 | Diluted Sample |
| MW-1 | A067-01 | 200 | NA | 01/23/0210:27 | 01/23/0210:27 | RAV287 | RAV271 | V001A20 | Field Sample |
| MW-2 | A067-02 | 50 | NA | 01/23/0211:03 | 01/23/0211:03 | RAV288 | RAV271 | V001A20 | Field Sample |
| MW-3 | A067-03 | 50 | NA | 01/23/0211:37 | 01/23/0211:37 | RAV289 | RAV271 | V001A20 | Field Sample |
| MW-5 | A067-05 | 50 | NA | 01/23/0212:14 | 01/23/0212:14 | RAV290 | RAV271 | V001A20 | Field Sample |
| MBLK2W | V001A27Q | 1 | NA | 01/25/0215:05 | 01/25/0215:05 | RAV370 | RAV365 | V001A27 | Method Blank |
| LCS2W | V001A27L | 1 | NA | 01/25/0213:15 | 01/25/0213:15 | RAV367 | RAV365 | V001A27 | Lab Control Sample (LCS) |
| LCD2W | V001A27C | 1 | NA | 01/25/0213:52 | 01/25/0213:52 | RAV368 | RAV365 | V001A27 | LCS Duplicate |
| MW-4DL | A067-04T | 25 | NA | 01/25/0215:41 | 01/25/0215:41 | RAV371 | RAV365 | V001A27 | Diluted Sample |

FN - Filename
DCC - Daily Continuing Calibration
% Moist - Percent Moisture

# SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/23/02 10:27 |
| Sample ID: MW-1 | Date Analyzed: 01/23/02 10:27 |
| Lab Samp ID: A067-01 | Dilution Factor: 200 |
| Lab File ID: RAV287 | Matrix : WATER |
| Ext Btch ID: V001A20 | % Moisture : NA |
| Calib. Ref.: RAV271 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | 49J | 200 | 23 |
| 1,1-DICHLOROETHENE | 47J | 200 | 29 |
| 1,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| 2-HEXANONE | ND | 2000 | 200 |
| 4-METHYL-2-PENTANONE | ND | 2000 | 200 |
| ACETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| BROMODICHLOROMETHANE | ND | 200 | 29 |
| BROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| CARBON TETRACHLORIDE | ND | 200 | 34 |
| CHLOROBENZENE | ND | 200 | 24 |
| CHLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| CIS-1,2-DICHLOROETHENE | 96J | 200 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| M/P-XYLENES | ND | 400 | 49 |
| MTBE | ND | 200 | 26 |
| METHYLENE CHLORIDE | 440B | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| TETRACHLOROETHENE | 65J | 200 | 35 |
| TOLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 13000E | 200 | 31 |
| VINYL ACETATE | ND | 400 | 140 |
| VINYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 90 | 63-132 |
| BROMOFLUOROBENZENE | 101 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A067 | Date Extracted: | 01/23/02 08:02 |
| Sample ID: | MW-1DL | Date Analyzed: | 01/23/02 08:02 |
| Lab Samp ID: | A067-01T | Dilution Factor: | 1000 |
| Lab File ID: | RAV283 | Matrix : | WATER |
| Ext Btch ID: | V001A20 | % Moisture : | NA |
| Calib. Ref.: | RAV271 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1000 | 130 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1000 | 280 |
| 1,1,2-TRICHLOROETHANE | ND | 1000 | 230 |
| 1,1-DICHLOROETHANE | ND | 1000 | 120 |
| 1,1-DICHLOROETHENE | ND | 1000 | 140 |
| 1,2-DICHLOROETHANE | ND | 1000 | 170 |
| 1,2-DICHLOROPROPANE | ND | 1000 | 170 |
| 2-BUTANONE | ND | 10000 | 1800 |
| 2-HEXANONE | ND | 10000 | 1000 |
| 4-METHYL-2-PENTANONE | ND | 10000 | 1000 |
| ACETONE | ND | 10000 | 1900 |
| BENZENE | ND | 1000 | 180 |
| BROMOCHLOROMETHANE | ND | 1000 | 140 |
| BROMODICHLOROMETHANE | ND | 1000 | 150 |
| BROMOFORM | ND | 1000 | 220 |
| BROMOMETHANE | ND | 2000 | 130 |
| CARBON DISULFIDE | ND | 1000 | 130 |
| CARBON TETRACHLORIDE | ND | 1000 | 170 |
| CHLOROBENZENE | ND | 1000 | 120 |
| CHLOROETHANE | ND | 2000 | 180 |
| CHLOROFORM | ND | 1000 | 120 |
| CHLOROMETHANE | ND | 2000 | 400 |
| CIS-1,2-DICHLOROETHENE | 520J | 1000 | 130 |
| CIS-1,3-DICHLOROPROPENE | ND | 1000 | 170 |
| DIBROMOCHLOROMETHANE | ND | 1000 | 190 |
| ETHYLBENZENE | ND | 1000 | 110 |
| M/P-XYLENES | ND | 2000 | 240 |
| MTBE | ND | 1000 | 130 |
| METHYLENE CHLORIDE | ND | 2000 | 120 |
| O-XYLENE | ND | 1000 | 110 |
| STYRENE | ND | 1000 | 110 |
| TETRACHLOROETHENE | ND | 1000 | 180 |
| TOLUENE | ND | 1000 | 120 |
| TRANS-1,2-DICHLOROETHENE | ND | 1000 | 150 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1000 | 180 |
| TRICHLOROETHENE | 15000 | 1000 | 150 |
| VINYL ACETATE | ND | 2000 | 690 |
| VINYL CHLORIDE | ND | 1000 | 250 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 92 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/23/02 11:03 |
| Sample ID: MW-2 | Date Analyzed: 01/23/02 11:03 |
| Lab Samp ID: A067-02 | Dilution Factor: 50 |
| Lab File ID: RAV288 | Matrix : WATER |
| Ext Btch ID: V001A20 | % Moisture : NA |
| Calib. Ref.: RAV271 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| 1,1-DICHLOROETHENE | 25J | 50 | 7.2 |
| 1,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| 4-METHYL-2-PENTANONE | ND | 500 | 50 |
| ACETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| BROMODICHLOROMETHANE | ND | 50 | 7.4 |
| BROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| CHLOROBENZENE | ND | 50 | 6 |
| CHLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| CIS-1,2-DICHLOROETHENE | 49J | 50 | 6.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| MTBE | ND | 50 | 6.5 |
| METHYLENE CHLORIDE | 120B | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| TETRACHLOROETHENE | ND | 50 | 8.8 |
| TOLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | ND | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 1900 | 50 | 7.8 |
| VINYL ACETATE | ND | 100 | 34 |
| VINYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 98 | 63-132 |
| BROMOFLUOROBENZENE | 101 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| Batch No. | : 02A067 | Date Extracted: | 01/23/02 08:38 |
| Sample ID: | MW-2DL | Date Analyzed: | 01/23/02 08:38 |
| Lab Samp ID: | A067-02T | Dilution Factor: | 200 |
| Lab File ID: | RAV284 | Matrix : | WATER |
| Ext Btch ID: | V001A20 | % Moisture : | NA |
| Calib. Ref.: | RAV271 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 200 | 26 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 200 | 56 |
| 1,1,2-TRICHLOROETHANE | ND | 200 | 45 |
| 1,1-DICHLOROETHANE | ND | 200 | 23 |
| 1,1-DICHLOROETHENE | ND | 200 | 29 |
| 1,2-DICHLOROETHANE | ND | 200 | 34 |
| 1,2-DICHLOROPROPANE | ND | 200 | 34 |
| 2-BUTANONE | ND | 2000 | 360 |
| 2-HEXANONE | ND | 2000 | 200 |
| 4-METHYL-2-PENTANONE | ND | 2000 | 200 |
| ACETONE | ND | 2000 | 380 |
| BENZENE | ND | 200 | 36 |
| BROMOCHLOROMETHANE | ND | 200 | 28 |
| BROMODICHLOROMETHANE | ND | 200 | 29 |
| BROMOFORM | ND | 200 | 43 |
| BROMOMETHANE | ND | 400 | 26 |
| CARBON DISULFIDE | ND | 200 | 26 |
| CARBON TETRACHLORIDE | ND | 200 | 34 |
| CHLOROBENZENE | ND | 200 | 24 |
| CHLOROETHANE | ND | 400 | 36 |
| CHLOROFORM | ND | 200 | 23 |
| CHLOROMETHANE | ND | 400 | 81 |
| CIS-1,2-DICHLOROETHENE | 59J | 200 | 26 |
| CIS-1,3-DICHLOROPROPENE | ND | 200 | 33 |
| DIBROMOCHLOROMETHANE | ND | 200 | 39 |
| ETHYLBENZENE | ND | 200 | 22 |
| M/P-XYLENES | ND | 400 | 49 |
| MTBE | ND | 200 | 26 |
| METHYLENE CHLORIDE | ND | 400 | 24 |
| O-XYLENE | ND | 200 | 23 |
| STYRENE | ND | 200 | 22 |
| TETRACHLOROETHENE | ND | 200 | 35 |
| TOLUENE | ND | 200 | 23 |
| TRANS-1,2-DICHLOROETHENE | ND | 200 | 30 |
| TRANS-1,3-DICHLOROPROPENE | ND | 200 | 36 |
| TRICHLOROETHENE | 2000 | 200 | 31 |
| VINYL ACETATE | ND | 400 | 140 |
| VINYL CHLORIDE | ND | 200 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 96 | 63-132 |
| BROMOFLUOROBENZENE | 99 | 73-129 |
| TOLUENE-D8 | 101 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/23/02 11:37 |
| Sample ID: MW-3 | Date Analyzed: 01/23/02 11:37 |
| Lab Samp ID: A067-03 | Dilution Factor: 50 |
| Lab File ID: RAV289 | Matrix : WATER |
| Ext Btch ID: V001A20 | % Moisture : NA |
| Calib. Ref.: RAV271 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| 1,1-DICHLOROETHENE | 40J | 50 | 7.2 |
| 1,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| 4-METHYL-2-PENTANONE | ND | 500 | 50 |
| ACETONE | ND | 500 | 95 |
| BENZENE | 18J | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| BROMODICHLOROMETHANE | ND | 50 | 7.4 |
| BROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| CHLOROBENZENE | ND | 50 | 6 |
| CHLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| CIS-1,2-DICHLOROETHENE | 130 | 50 | 6.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| MTBE | ND | 50 | 6.5 |
| METHYLENE CHLORIDE | 13JB | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| TETRACHLOROETHENE | ND | 50 | 8.8 |
| TOLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | 14J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 1200 | 50 | 7.8 |
| VINYL ACETATE | ND | 100 | 34 |
| VINYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 85 | 63-132 |
| BROMOFLUOROBENZENE | 107 | 73-129 |
| TOLUENE-D8 | 104 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2008

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/23/02 07:25 |
| Sample ID: MW-4 | Date Analyzed: 01/23/02 07:25 |
| Lab Samp ID: A067-04 | Dilution Factor: 1 |
| Lab File ID: RAV282 | Matrix : WATER |
| Ext Btch ID: V001A20 | % Moisture : NA |
| Calib. Ref.: RAV271 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| 1,1-DICHLOROETHENE | 1.4 | 1 | .15 |
| 1,2-DICHLOROETHANE | ND | 1 | .17 |
| 1,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| 2-HEXANONE | ND | 10 | 1 |
| 4-METHYL-2-PENTANONE | ND | 10 | 1 |
| ACETONE | ND | 10 | 1.9 |
| BENZENE | .28J | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| BROMODICHLOROMETHANE | ND | 1 | .15 |
| BROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| CARBON TETRACHLORIDE | ND | 1 | .17 |
| CHLOROBENZENE | ND | 1 | .12 |
| CHLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| CIS-1,2-DICHLOROETHENE | 55E | 1 | .13 |
| CIS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| DIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| M/P-XYLENES | ND | 2 | .24 |
| MTBE | ND | 1 | .13 |
| METHYLENE CHLORIDE | .96JB | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| TETRACHLOROETHENE | ND | 1 | .18 |
| TOLUENE | ND | 1 | .12 |
| TRANS-1,2-DICHLOROETHENE | 6.7 | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| TRICHLOROETHENE | 170E | 1 | .15 |
| VINYL ACETATE | ND | 2 | .69 |
| VINYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 99 | 63-132 |
| BROMOFLUOROBENZENE | 101 | 73-129 |
| TOLUENE-D8 | 99 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2009

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/25/02 15:41 |
| Sample ID: MW-4DL | Date Analyzed: 01/25/02 15:41 |
| Lab Samp ID: A067-04T | Dilution Factor: 25 |
| Lab File ID: RAV371 | Matrix : WATER |
| Ext Btch ID: V001A27 | % Moisture : NA |
| Calib. Ref.: RAV365 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 25 | 3.3 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 25 | 7 |
| 1,1,2-TRICHLOROETHANE | ND | 25 | 5.7 |
| 1,1-DICHLOROETHANE | ND | 25 | 2.9 |
| 1,1-DICHLOROETHENE | ND | 25 | 3.6 |
| 1,2-DICHLOROETHANE | ND | 25 | 4.3 |
| 1,2-DICHLOROPROPANE | ND | 25 | 4.3 |
| 2-BUTANONE | ND | 250 | 45 |
| 2-HEXANONE | ND | 250 | 25 |
| 4-METHYL-2-PENTANONE | ND | 250 | 25 |
| ACETONE | ND | 250 | 48 |
| BENZENE | ND | 25 | 4.5 |
| BROMOCHLOROMETHANE | ND | 25 | 3.6 |
| BROMODICHLOROMETHANE | ND | 25 | 3.7 |
| BROMOFORM | ND | 25 | 5.4 |
| BROMOMETHANE | ND | 50 | 3.3 |
| CARBON DISULFIDE | ND | 25 | 3.3 |
| CARBON TETRACHLORIDE | ND | 25 | 4.2 |
| CHLOROBENZENE | ND | 25 | 3 |
| CHLOROETHANE | ND | 50 | 4.5 |
| CHLOROFORM | ND | 25 | 2.9 |
| CHLOROMETHANE | ND | 50 | 10 |
| CIS-1,2-DICHLOROETHENE | 61 | 25 | 3.3 |
| CIS-1,3-DICHLOROPROPENE | ND | 25 | 4.1 |
| DIBROMOCHLOROMETHANE | ND | 25 | 4.8 |
| ETHYLBENZENE | ND | 25 | 2.8 |
| M/P-XYLENES | ND | 50 | 6.1 |
| MTBE | ND | 25 | 3.3 |
| METHYLENE CHLORIDE | ND | 50 | 3 |
| O-XYLENE | ND | 25 | 2.9 |
| STYRENE | ND | 25 | 2.8 |
| TETRACHLOROETHENE | ND | 25 | 4.4 |
| TOLUENE | ND | 25 | 2.9 |
| TRANS-1,2-DICHLOROETHENE | 6.7J | 25 | 3.8 |
| TRANS-1,3-DICHLOROPROPENE | ND | 25 | 4.5 |
| TRICHLOROETHENE | 220 | 25 | 3.9 |
| VINYL ACETATE | ND | 50 | 17 |
| VINYL CHLORIDE | ND | 25 | 6.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 94 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : IT CORPORATION | Date Collected: 01/17/02 |
| Project : JERVIS WEBB SOUTH GATE | Date Received: 01/17/02 |
| Batch No. : 02A067 | Date Extracted: 01/23/02 12:14 |
| Sample ID: MW-5 | Date Analyzed: 01/23/02 12:14 |
| Lab Samp ID: A067-05 | Dilution Factor: 50 |
| Lab File ID: RAV290 | Matrix : WATER |
| Ext Btch ID: V001A20 | % Moisture : NA |
| Calib. Ref.: RAV271 | Instrument ID : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 50 | 6.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 50 | 14 |
| 1,1,2-TRICHLOROETHANE | ND | 50 | 11 |
| 1,1-DICHLOROETHANE | ND | 50 | 5.8 |
| 1,1-DICHLOROETHENE | 13J | 50 | 7.2 |
| 1,2-DICHLOROETHANE | ND | 50 | 8.6 |
| 1,2-DICHLOROPROPANE | ND | 50 | 8.6 |
| 2-BUTANONE | ND | 500 | 90 |
| 2-HEXANONE | ND | 500 | 50 |
| 4-METHYL-2-PENTANONE | ND | 500 | 50 |
| ACETONE | ND | 500 | 95 |
| BENZENE | ND | 50 | 8.9 |
| BROMOCHLOROMETHANE | ND | 50 | 7.1 |
| BROMODICHLOROMETHANE | ND | 50 | 7.4 |
| BROMOFORM | ND | 50 | 11 |
| BROMOMETHANE | ND | 100 | 6.5 |
| CARBON DISULFIDE | ND | 50 | 6.5 |
| CARBON TETRACHLORIDE | ND | 50 | 8.4 |
| CHLOROBENZENE | ND | 50 | 6 |
| CHLOROETHANE | ND | 100 | 9 |
| CHLOROFORM | ND | 50 | 5.8 |
| CHLOROMETHANE | ND | 100 | 20 |
| CIS-1,2-DICHLOROETHENE | 120 | 50 | 6.6 |
| CIS-1,3-DICHLOROPROPENE | ND | 50 | 8.3 |
| DIBROMOCHLOROMETHANE | ND | 50 | 9.7 |
| ETHYLBENZENE | ND | 50 | 5.5 |
| M/P-XYLENES | ND | 100 | 12 |
| MTBE | ND | 50 | 6.5 |
| METHYLENE CHLORIDE | 14JB | 100 | 6.1 |
| O-XYLENE | ND | 50 | 5.7 |
| STYRENE | ND | 50 | 5.5 |
| TETRACHLOROETHENE | ND | 50 | 8.8 |
| TOLUENE | ND | 50 | 5.8 |
| TRANS-1,2-DICHLOROETHENE | 13J | 50 | 7.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 50 | 8.9 |
| TRICHLOROETHENE | 1900 | 50 | 7.8 |
| VINYL ACETATE | ND | 100 | 34 |
| VINYL CHLORIDE | ND | 50 | 13 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 97 | 63-132 |
| BROMOFLUOROBENZENE | 100 | 73-129 |
| TOLUENE-D8 | 98 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

# QC SUMMARY

2012

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/23/02 |
| Batch No. | : 02A067 | Date Extracted: | 01/23/02 03:49 |
| Sample ID: | MBLK1W | Date Analyzed: | 01/23/02 03:49 |
| Lab Samp ID: | V001A20Q | Dilution Factor: | 1 |
| Lab File ID: | RAV276 | Matrix : | WATER |
| Ext Btch ID: | V001A20 | % Moisture : | NA |
| Calib. Ref.: | RAV271 | Instrument ID : | T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| 1,1-DICHLOROETHENE | ND | 1 | .15 |
| 1,2-DICHLOROETHANE | ND | 1 | .17 |
| 1,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| 2-HEXANONE | ND | 10 | 1 |
| 4-METHYL-2-PENTANONE | ND | 10 | 1 |
| ACETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| BROMODICHLOROMETHANE | ND | 1 | .15 |
| BROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| CARBON TETRACHLORIDE | ND | 1 | .17 |
| CHLOROBENZENE | ND | 1 | .12 |
| CHLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| CIS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| CIS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| DIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| M/P-XYLENES | ND | 2 | .24 |
| MTBE | ND | 1 | .13 |
| METHYLENE CHLORIDE | .96J | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| TETRACHLOROETHENE | ND | 1 | .18 |
| TOLUENE | ND | 1 | .12 |
| TRANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| TRICHLOROETHENE | ND | 1 | .15 |
| VINYL ACETATE | ND | 2 | .69 |
| VINYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 88 | 63-132 |
| BROMOFLUOROBENZENE | 103 | 73-129 |
| TOLUENE-D8 | 103 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2013

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
BATCH NO.: 02A067
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | V001A20Q | V001A20L | V001A20C | | |
| LAB FILE ID: | RAV276 | RAV273 | RAV274 | | |
| DATE EXTRACTED: | 01/23/0203:49 | 01/23/0202:01 | 01/23/0202:37 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 01/23/0203:49 | 01/23/0202:01 | 01/23/0202:37 | DATE RECEIVED: | 01/23/02 |
| PREP. BATCH: | V001A20 | V001A20 | V001A20 | | |
| CALIB. REF: | RAV271 | RAV271 | RAV271 | | |

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 | 10 | 9.98 | 100 | 10 | 9.77 | 98 | 2 | 52-144 | 20 |
| Benzene | ND | 10 | 10.4 | 104 | 10 | 10.6 | 106 | 2 | 67-126 | 20 |
| Chlorobenzene | ND | 10 | 9.69 | 97 | 10 | 9.57 | 96 | 1 | 71-127 | 20 |
| Toluene | ND | 10 | 10.1 | 101 | 10 | 10.2 | 102 | 1 | 69-125 | 20 |
| Trichloroethene | ND | 10 | 9.47 | 95 | 10 | 9.72 | 97 | 3 | 67-128 | 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-Dichloroethane-d4 | 10 | 8.99 | 90 | 10 | 9.03 | 90 | 63-132 |
| Bromofluorobenzene | 10 | 10.4 | 104 | 10 | 10.2 | 102 | 73-129 |
| Toluene-d8 | 10 | 10.2 | 102 | 10 | 10.3 | 103 | 75-122 |

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | NA |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/25/02 |
| Batch No. | : 02A067 | Date Extracted: | 01/25/02 15:05 |
| Sample ID | : MBLK2W | Date Analyzed: | 01/25/02 15:05 |
| Lab Samp ID | : V001A27Q | Dilution Factor: | 1 |
| Lab File ID | : RAV370 | Matrix | : WATER |
| Ext Btch ID | : V001A27 | % Moisture | : NA |
| Calib. Ref. | : RAV365 | Instrument ID | : T-001 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | ND | 1 | .13 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .28 |
| 1,1,2-TRICHLOROETHANE | ND | 1 | .23 |
| 1,1-DICHLOROETHANE | ND | 1 | .12 |
| 1,1-DICHLOROETHENE | ND | 1 | .15 |
| 1,2-DICHLOROETHANE | ND | 1 | .17 |
| 1,2-DICHLOROPROPANE | ND | 1 | .17 |
| 2-BUTANONE | ND | 10 | 1.8 |
| 2-HEXANONE | ND | 10 | 1 |
| 4-METHYL-2-PENTANONE | ND | 10 | 1 |
| ACETONE | ND | 10 | 1.9 |
| BENZENE | ND | 1 | .18 |
| BROMOCHLOROMETHANE | ND | 1 | .14 |
| BROMODICHLOROMETHANE | ND | 1 | .15 |
| BROMOFORM | ND | 1 | .22 |
| BROMOMETHANE | ND | 2 | .13 |
| CARBON DISULFIDE | ND | 1 | .13 |
| CARBON TETRACHLORIDE | ND | 1 | .17 |
| CHLOROBENZENE | ND | 1 | .12 |
| CHLOROETHANE | ND | 2 | .18 |
| CHLOROFORM | ND | 1 | .12 |
| CHLOROMETHANE | ND | 2 | .4 |
| CIS-1,2-DICHLOROETHENE | ND | 1 | .13 |
| CIS-1,3-DICHLOROPROPENE | ND | 1 | .17 |
| DIBROMOCHLOROMETHANE | ND | 1 | .19 |
| ETHYLBENZENE | ND | 1 | .11 |
| M/P-XYLENES | ND | 2 | .24 |
| MTBE | ND | 1 | .13 |
| METHYLENE CHLORIDE | ND | 2 | .12 |
| O-XYLENE | ND | 1 | .12 |
| STYRENE | ND | 1 | .11 |
| TETRACHLOROETHENE | ND | 1 | .18 |
| TOLUENE | ND | 1 | .12 |
| TRANS-1,2-DICHLOROETHENE | ND | 1 | .15 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | .18 |
| TRICHLOROETHENE | ND | 1 | .15 |
| VINYL ACETATE | ND | 2 | .69 |
| VINYL CHLORIDE | ND | 1 | .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 92 | 63-132 |
| BROMOFLUOROBENZENE | 102 | 73-129 |
| TOLUENE-D8 | 102 | 75-122 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2015

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
BATCH NO.: 02A067
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2W | | | | |
| LAB SAMP ID: | V001A27Q | V001A27L | V001A27C | | |
| LAB FILE ID: | RAV370 | RAV367 | RAV368 | | |
| DATE EXTRACTED: | 01/25/0215:05 | 01/25/0213:15 | 01/25/0213:52 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 01/25/0215:05 | 01/25/0213:15 | 01/25/0213:52 | DATE RECEIVED: | 01/25/02 |
| PREP. BATCH: | V001A27 | V001A27 | V001A27 | | |
| CALIB. REF: | RAV365 | RAV365 | RAV365 | | |

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 | 10 | 9.57 | 96 | 10 | 9.72 | 97 | 1 | 52-144 | 20 |
| Benzene | ND | 10 | 10.1 | 101 | 10 | 10 | 100 | 1 | 67-126 | 20 |
| Chlorobenzene | ND | 10 | 9.8 | 98 | 10 | 9.64 | 96 | 2 | 71-127 | 20 |
| Toluene | ND | 10 | 10 | 100 | 10 | 10 | 100 | 0 | 69-125 | 20 |
| Trichloroethene | ND | 10 | 8.94 | 89 | 10 | 8.98 | 90 | 1 | 67-128 | 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-Dichloroethane-d4 | 10 | 9.55 | 96 | 10 | 9.16 | 92 | 63-132 |
| Bromofluorobenzene | 10 | 10.4 | 104 | 10 | 10.4 | 104 | 73-129 |
| Toluene-d8 | 10 | 9.75 | 97 | 10 | 9.82 | 98 | 75-122 |

# DAILY CALIBRATION

2017

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

ıb Name: EMAX Inc — Contract: JERVIS WEBB SOUTH GATE

Lab Code: EMXT Case No.: — SAS No.: SDG No.: 02A067

Lab File ID: RAV270 — BFB Injection Date : 01/23/02

ıstrument ID: T-001 — BFB Injection Time : 00:15

: Column: DB624 ID: 0.53 (mm) — Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 20.01 |
| 75 | 30.0 - 60.0% of mass 95 | 50.10 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.55 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 77.50 |
| 175 | 5.0 - 9.0% of mass 174 | 6.24( 8.0)1 |
| 176 | 95.0 - 101.0% of mass 174 | 76.97( 99.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.56( 7.2)2 |

1-Value is % mass 174 — 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD010 | VSTD010 | RAV271 | 01/23/02 | 00:49 |
| 2 | MBLK1W | VO01A20Q | RAV276 | 01/23/02 | 03:49 |
| 3 | LCS1W | VO01A20L | RAV273 | 01/23/02 | 02:01 |
| 4 | LCD1W | VO01A20C | RAV274 | 01/23/02 | 02:37 |
| 5 | MW-4 | A067-04 | RAV282 | 01/23/02 | 07:25 |
| 6 | MW-1DL | A067-01T | RAV283 | 01/23/02 | 08:02 |
| 7 | MW-2DL | A067-02T | RAV284 | 01/23/02 | 08:38 |
| 8 | MW-1 | A067-01 | RAV287 | 01/23/02 | 10:27 |
| 9 | MW-2 | A067-02 | RAV288 | 01/23/02 | 11:03 |
| 0 | MW-3 | A067-03 | RAV289 | 01/23/02 | 11:37 |
| 11 | MW-5 | A067-05 | RAV290 | 01/23/02 | 12:14 |

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: EMAX Inc
b Code: EMXT
Lab File ID: RAV271
Instrument ID: MSVOA1
Column: DB624 ID: 0.53 (mm)

Project:JERVIS WEBB SOUTH GATE
SDG No.: 02A067
Date Analyzed: 01/23/02
Time Analyzed: 00:49
Heated Purge: (Y/N)

| | IS1(DBF) | | IS2(CBZ) | | IS3(DCB) | |
|---|---|---|---|---|---|---|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12 HOUR STD | 2640839 | 11.53 | 1645776 | 17.57 | 579184 | 23.96 |
| UPPER LIMIT | 5281678 | 12.03 | 3291552 | 18.07 | 1158368 | 24.46 |
| LOWER LIMIT | 1320420 | 11.03 | 822888 | 17.07 | 289592 | 23.46 |
| SAMPLE ID | | | | | | |
| 1 MBLK1W | 2666008 | 11.54 | 1651987 | 17.57 | 589568 | 23.96 |
| LCS1W | 2577109 | 11.54 | 1614719 | 17.57 | 570101 | 23.96 |
| LCD1W | 2625824 | 11.53 | 1600944 | 17.57 | 581794 | 23.96 |
| 4 MW-4 | 2737174 | 11.54 | 1778644 | 17.57 | 659135 | 23.96 |
| 5 MW-1DL | 2962183 | 11.53 | 1863817 | 17.57 | 683503 | 23.96 |
| MW-2DL | 2803209 | 11.56 | 1784092 | 17.57 | 660102 | 23.96 |
| MW-1 | 3388545 | 11.56 | 2055216 | 17.62 | 735950 | 23.96 |
| 8 MW-2 | 3137823 | 11.54 | 1983131 | 17.57 | 708850 | 23.96 |
| 9 MW-3 | 2839161 | 11.56 | 1729397 | 17.57 | 577956 | 23.96 |
| MW-5 | 2761302 | 11.54 | 1809899 | 17.57 | 668212 | 23.96 |

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 50% of surrogate area
RT LOWER LIMIT = - 50% of surrogate area

# Column used to flag internal standard area values with an asterisk
Values outside of QC limits.



FORM VIII VOA-8260 1/2000

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A22\RAV271.D  Vial: 3
Acq On : 23 Jan 2002 12:49 am  Operator: CR
Sample : CVO01L2145  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 118 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.353 | 34# | 85 | 0.02 |
| 3 | T,P | Chloromethane | 0.229 | 0.215 | 6 | 118 | 0.00 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.312 | 4 | 118 | 0.00 |
| 5 | T | Bromomethane | 0.277 | 0.267 | 4 | 126 | 0.00 |
| 6 | T | Chloroethane | 0.214 | 0.221 | -3 | 129 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.674 | 14 | 107 | 0.00 |
| 8 | T | Acrolein | 0.002 | 0.005 | -150# | 285# | -0.02 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.638 | -0 | 122 | 0.00 |
| 10 | | 112Trichloro122trifluoroeth | 0.620 | 0.553 | 11 | 110 | 0.00 |
| 11 | T | Acetone | 0.019 | 0.017 | 11 | 112 | -0.02 |
| 12 | | Iodomethane | 0.354 | 0.340 | 4 | 115 | 0.00 |
| 13 | T | Carbon Disulfide | 0.584 | 0.635 | -9 | 122 | 0.00 |
| 14 | T | Methylene Chloride | 0.238 | 0.234 | 2 | 132 | 0.00 |
| 15 | T | Acrylonitrile | 0.011 | 0.012 | -9 | 147 | -0.02 |
| 16 | T | trans-1,2-Dichloroethene | 0.537 | 0.577 | -7 | 125 | 0.00 |
| 17 | T | MTBE | 0.228 | 0.194 | 15 | 108 | 0.00 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.613 | -0 | 122 | -0.02 |
| 19 | T | Vinyl Acetate | 0.142 | 0.116 | 18 | 103 | 0.00 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.519 | 12 | 105 | 0.00 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.502 | 3 | 116 | 0.00 |
| 22 | T | 2-Butanone | 0.024 | 0.024 | 0 | 124 | 0.00 |
| 23 | T | Bromochloromethane | 0.119 | 0.108 | 9 | 110 | 0.00 |
| 24 | C,T | Chloroform | 0.582 | 0.548 | 6 | 114 | 0.00 |
| 25 | T | 1,1,1-Trichloroethane | 0.665 | 0.618 | 7 | 108 | 0.00 |
| 26 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.142 | 12 | 106 | 0.00 |
| 27 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 115 | 0.00 |
| 28 | T | 11-Dichloropropene | 0.346 | 0.367 | -6 | 124 | -0.02 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.854 | 3 | 106 | -0.02 |
| 30 | M,T | Benzene | 1.506 | 1.593 | -6 | 130 | -0.02 |
| 31 | T | 1,2-Dichloroethane | 0.329 | 0.281 | 15 | 102 | -0.02 |
| 32 | M,T | Trichloroethene | 0.830 | 0.802 | 3 | 112 | 0.00 |
| 33 | C,T | 1,2-Dichloropropane | 0.435 | 0.459 | -6 | 126 | 0.00 |
| 34 | T | Dibromomethane | 0.185 | 0.183 | 1 | 114 | 0.00 |
| 35 | | Bromodichloromethane | 0.484 | 0.487 | -1 | 110 | -0.02 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.077 | -108# | 185 | 0.00 |

(#) = Out of Range

2020

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A22\RAV271.D  Vial: 3
Acq On : 23 Jan 2002 12:49 am  Operator: CR
Sample : CVO01L2145  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.447 | -3 | 112 | 0.00 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.069 | 10 | 113 | 0.02 |
| 39 | S | Toluene-d8 | 1.536 | 1.562 | -2 | 122 | 0.00 |
| 40 | C,T | Toluene | 1.072 | 1.109 | -3 | 125 | 0.00 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.237 | 4 | 103 | -0.02 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.186 | -1 | 117 | -0.02 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.190 | 5 | 115 | 0.00 |
| 44 | T | Tetrachloroethene | 0.809 | 0.719 | 11 | 108 | 0.00 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.325 | 1 | 121 | -0.02 |
| 46 | T | 2-Hexanone | 0.057 | 0.048 | 16 | 118 | 0.02 |
| 47 | T | Dibromochloromethane | 0.245 | 0.225 | 8 | 98 | 0.00 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.228 | 4 | 110 | 0.00 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.065 | 2 | 118 | 0.00 |
| 50 | T | 1-Chlorohexane | 0.999 | 1.081 | -8 | 130 | 0.00 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.382 | 3 | 104 | 0.00 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.179 | -1 | 120 | -0.02 |
| 53 | T | M/P-Xylenes | 1.586 | 1.594 | -1 | 118 | 0.00 |
| 54 | T | O-Xylene | 1.473 | 1.460 | 1 | 118 | -0.02 |
| 55 | T | Styrene | 0.919 | 0.968 | -5 | 121 | 0.00 |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 108 | 0.00 |
| 57 | P,T | Bromoform | 0.311 | 0.255 | 18 | 85 | 0.00 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.931 | -9 | 120 | 0.00 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.593 | -5 | 116 | -0.02 |
| 60 | T | Bromobenzene | 1.260 | 1.151 | 9 | 102 | 0.00 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.545 | -10 | 120 | -0.02 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.471 | 14 | 96 | 0.00 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.078 | 0 | 108 | 0.00 |
| 64 | T | n-Propylbenzene | 1.697 | 1.929 | -14 | 125 | -0.02 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.349 | -5 | 115 | 0.00 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.243 | -5 | 116 | -0.02 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.513 | -11 | 120 | 0.00 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.785 | -11 | 123 | 0.00 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 4.033 | -11 | 121 | -0.02 |
| 70 | T | Sec-Butylbenzene | 7.476 | 8.771 | -17 | 129 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.249 | 3 | 109 | 0.00 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 2.062 | 4 | 108 | -0.02 |

(#) = Out of Range

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A22\RAV271.D  Vial: 3
Acq On : 23 Jan 2002 12:49 am  Operator: CR
Sample : CVO01L2145  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 6.046 | -15 | 126 | 0.00 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.542 | 7 | 107 | 0.00 |
| 75 | T | n-Butylbenzene | 4.729 | 5.821 | -23# | 137 | 0.00 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.051 | 16 | 92 | 0.00 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.857 | 7 | 108 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.619 | 13 | 99 | 0.00 |
| 79 | T | Naphthalene | 0.566 | 0.580 | -2 | 121 | 0.00 |
| 80 | T | 123-Trichlorobenzene | 0.675 | 0.625 | 7 | 108 | 0.00 |

(#) = Out of Range  SPCC's out = 0 CCC's out = 0

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ab Name: EMAX Inc
ab Code: EMXT Case No.:
Lab File ID: RAV364
Instrument ID: T-001
C Column: DB624 ID: 0.53 (mm)

Contract: JERVIS WEBB SOUTH GATE
SAS No.: SDG No.: 02A067
BFB Injection Date : 01/25/02
BFB Injection Time : 11:40
Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 22.45 |
| 75 | 30.0 - 60.0% of mass 95 | 52.39 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.45 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 82.83 |
| 175 | 5.0 - 9.0% of mass 174 | 6.65( 8.0)1 |
| 176 | 95.0 - 101.0% of mass 174 | 80.38( 97.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.61( 7.0)2 |

1-Value is % mass 174 2-Value is % mass 176

HIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD010 | VSTD010 | RAV365 | 01/25/02 | 12:02 |
| 2 | MBLK2W | VO01A27Q | RAV370 | 01/25/02 | 15:05 |
| 3 | LCS2W | VO01A27L | RAV367 | 01/25/02 | 13:15 |
| 4 | LCD2W | VO01A27C | RAV368 | 01/25/02 | 13:52 |
| 5 | MW-4DL | A067-04T | RAV371 | 01/25/02 | 15:41 |

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RAV365
Instrument ID: MSVOA1
GC Column: DB624 ID: 0.53 (mm)

Project: JERVIS WEBB SOUTH GATE
SDG No.: 02A067
Date Analyzed: 01/25/02
Time Analyzed: 12:02
Heated Purge: (Y/N)

| | | IS1(DBF) | | IS2(CBZ) | | IS3(DCB) | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 3295772 | 11.55 | 2074696 | 17.59 | 694423 | 23.96 |
| | UPPER LIMIT | 6591544 | 12.05 | 4149392 | 18.09 | 1388846 | 24.46 |
| | LOWER LIMIT | 1647886 | 11.05 | 1037348 | 17.09 | 347212 | 23.46 |
| | SAMPLE ID | | | | | | |
| 1 | MBLK2W | 3302219 | 11.56 | 2022344 | 17.59 | 719023 | 23.98 |
| 2 | LCS2W | 3039194 | 11.56 | 2007221 | 17.59 | 703479 | 23.98 |
| 3 | LCD2W | 3152065 | 11.55 | 2066910 | 17.57 | 744086 | 23.96 |
| 4 | MW-4DL | 2924634 | 11.55 | 1825181 | 17.59 | 643291 | 23.98 |

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

# Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.



FORM VIII VOA-8260 1/2000

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A25\RAV365.D  Vial: 2
Acq On : 25 Jan 2002 12:02 pm  Operator: CR
Sample : CVO01L2155  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 147 | 0.02 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.291 | 45# | 88 | 0.04 |
| 3 | T,P | Chloromethane | 0.229 | 0.179 | 22# | 122 | 0.02 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.270 | 17 | 127 | 0.02 |
| 5 | T | Bromomethane | 0.277 | 0.240 | 13 | 142 | 0.02 |
| 6 | T | Chloroethane | 0.214 | 0.198 | 7 | 144 | 0.02 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.570 | 28# | 113 | 0.02 |
| 8 | T | Acrolein | 0.002 | 0.005 | -150# | 411# | 0.00 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.582 | 9 | 138 | 0.02 |
| 10 | | 112Trichloro122trifluoroeth | 0.620 | 0.490 | 21# | 122 | 0.04 |
| 11 | T | Acetone | 0.019 | 0.019 | 0 | 154 | 0.00 |
| 12 | | Iodomethane | 0.354 | 0.313 | 12 | 133 | 0.02 |
| 13 | T | Carbon Disulfide | 0.584 | 0.531 | 9 | 127 | 0.02 |
| 14 | T | Methylene Chloride | 0.238 | 0.224 | 6 | 158 | 0.02 |
| 15 | T | Acrylonitrile | 0.011 | 0.012 | -9 | 179 | 0.02 |
| 16 | T | trans-1,2-Dichloroethene | 0.537 | 0.546 | -2 | 148 | 0.02 |
| 17 | T | MTBE | 0.228 | 0.211 | 7 | 146 | 0.02 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.600 | 2 | 149 | 0.02 |
| 19 | T | Vinyl Acetate | 0.142 | 0.131 | 8 | 145 | 0.02 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.534 | 9 | 134 | 0.02 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.504 | 3 | 145 | 0.02 |
| 22 | T | 2-Butanone | 0.024 | 0.027 | -13 | 174 | 0.04 |
| 23 | T | Bromochloromethane | 0.119 | 0.110 | 8 | 140 | 0.02 |
| 24 | C,T | Chloroform | 0.582 | 0.544 | 7 | 141 | 0.02 |
| 25 | T | 1,1,1-Trichloroethane | 0.665 | 0.581 | 13 | 127 | 0.02 |
| 26 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.147 | 9 | 137 | 0.04 |
| 27 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 145 | 0.02 |
| 28 | T | 11-Dichloropropene | 0.346 | 0.341 | 1 | 145 | 0.00 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.770 | 12 | 121 | 0.00 |
| 30 | M,T | Benzene | 1.506 | 1.544 | -3 | 158 | 0.00 |
| 31 | T | 1,2-Dichloroethane | 0.329 | 0.288 | 12 | 132 | 0.02 |
| 32 | M,T | Trichloroethene | 0.830 | 0.751 | 10 | 132 | 0.02 |
| 33 | C,T | 1,2-Dichloropropane | 0.435 | 0.463 | -6 | 160 | 0.02 |
| 34 | T | Dibromomethane | 0.185 | 0.188 | -2 | 147 | 0.02 |
| 35 | | Bromodichloromethane | 0.484 | 0.487 | -1 | 139 | 0.00 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.080 | -116# | 242# | 0.02 |

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A25\RAV365.D  Vial: 2
Acq On : 25 Jan 2002 12:02 pm  Operator: CR
Sample : CVO01L2155  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.458 | -6 | 145 | 0.02 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.073 | 5 | 151 | 0.04 |
| 39 | S | Toluene-d8 | 1.536 | 1.547 | -1 | 152 | 0.02 |
| 40 | C,T | Toluene | 1.072 | 1.080 | -1 | 153 | 0.02 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.241 | 2 | 132 | 0.00 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.196 | -6 | 156 | 0.00 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.194 | 3 | 148 | 0.02 |
| 44 | T | Tetrachloroethene | 0.809 | 0.656 | 19 | 124 | 0.02 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.334 | -2 | 157 | 0.00 |
| 46 | T | 2-Hexanone | 0.057 | 0.054 | 5 | 168 | 0.04 |
| 47 | T | Dibromochloromethane | 0.245 | 0.225 | 8 | 124 | 0.02 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.234 | 1 | 143 | 0.00 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.041 | 4 | 145 | 0.02 |
| 50 | T | 1-Chlorohexane | 0.999 | 0.962 | 4 | 146 | 0.02 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.371 | 6 | 128 | 0.02 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.064 | 4 | 143 | 0.00 |
| 53 | T | M/P-Xylenes | 1.586 | 1.497 | 6 | 140 | 0.00 |
| 54 | T | O-Xylene | 1.473 | 1.396 | 5 | 143 | 0.00 |
| 55 | T | Styrene | 0.919 | 0.941 | -2 | 149 | 0.02 |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 130 | 0.00 |
| 57 | P,T | Bromoform | 0.311 | 0.260 | 16 | 104 | 0.00 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.691 | -5 | 139 | 0.02 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.659 | -9 | 145 | 0.00 |
| 60 | T | Bromobenzene | 1.260 | 1.185 | 6 | 126 | 0.02 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.587 | -18 | 155 | 0.00 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.544 | 1 | 133 | 0.00 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.083 | -6 | 137 | 0.00 |
| 64 | T | n-Propylbenzene | 1.697 | 1.812 | -7 | 140 | 0.00 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.308 | -2 | 133 | 0.00 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.191 | -1 | 133 | 0.00 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.195 | -3 | 134 | 0.02 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.281 | -1 | 134 | 0.00 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 3.766 | -4 | 136 | 0.00 |
| 70 | T | Sec-Butylbenzene | 7.476 | 7.852 | -5 | 139 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.126 | 8 | 124 | 0.00 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 1.982 | 8 | 125 | 0.00 |

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\02A25\RAV365.D  Vial: 2
Acq On : 25 Jan 2002 12:02 pm  Operator: CR
Sample : CVO01L2155  Inst : TO01
Misc : DCC 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 5.378 | -2 | 135 | 0.02 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.504 | 9 | 126 | 0.02 |
| 75 | T | n-Butylbenzene | 4.729 | 5.153 | -9 | 145 | 0.00 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.046 | 25# | 101 | 0.00 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.814 | 12 | 123 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.490 | 20# | 110 | 0.00 |
| 79 | T | Naphthalene | 0.566 | 0.542 | 4 | 135 | 0.00 |
| 80 | T | 123-Trichlorobenzene | 0.675 | 0.589 | 13 | 122 | 0.00 |

(#) = Out of Range  SPCC's out = 0 CCC's out = 0

# INITIAL CALIBRATIONS

2028

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

ab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RLV587
Instrument ID: T-001
C Column: DB624 ID: 0.53 (mm)

Contract: JERVIS WEBB SOUTH GATE
SAS No.: SDG No.: 02A067
BFB Injection Date : 12/21/01
BFB Injection Time : 12:45
Heated Purge: (Y/N) N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 21.70 |
| 75 | 30.0 - 60.0% of mass 95 | 52.60 |
| 95 | Base peak, 100% relative abundance | 100.00 |
| 96 | 5.0 - 9.0% of mass 95 | 8.78 |
| 173 | Less than 2.0% of mass 174 | 0.00( 0.0)1 |
| 174 | Greater than 50% of mass 95 | 82.36 |
| 175 | 5.0 - 9.0% of mass 174 | 6.55( 7.9)1 |
| 176 | 95.0 - 101.0% of mass 174 | 80.45( 97.7)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.06( 7.5)2 |

1-Value is % mass 174 2-Value is % mass 176

HIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 1 | VSTD0.3 | V001L211 | RLV588 | 12/21/01 | 13:20 |
| 2 | VSTD0.5 | V001L212 | RLV589 | 12/21/01 | 13:57 |
| 3 | VSTD01 | V001L213 | RLV590 | 12/21/01 | 14:33 |
| 4 | VSTD02 | V001L214 | RLV591 | 12/21/01 | 15:10 |
| 5 | VSTD05 | V001L215 | RLV592 | 12/21/01 | 15:46 |
| 6 | VSTD010 | V001L216 | RLV593 | 12/21/01 | 16:23 |
| 7 | VSTD020 | V001L217 | RLV594 | 12/21/01 | 16:59 |
| 8 | VSTD030 | V001L218 | RLV595 | 12/21/01 | 17:36 |
| 9 | VSTD040 | V001L219 | RLV596 | 12/21/01 | 18:12 |
| 10 | VSTD010 | IV001L211 | RLV598 | 12/21/01 | 19:25 |

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files
.3 =RLV588.D .5 =RLV589.D 1 =RLV590.D
2 =RLV591.D 5 =RLV592.D 10 =RLV593.D

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| | | KETONES/AA | 0.6 | 1.0 | 2.0 | 4.0 | 10 | 20 |
| 1) | I | 1,4-DIFLUOROBENZENE | ---------- | ---------- | ---------- | ISTD | ---------- | ---------- |
| 2) | T | Dichlorodifluoromet | 0.668 | 0.582 | 0.535 | 0.604 | 0.505 | 0.489 |
| 3) | T,P | Chloromethane | 0.273 | 0.255 | 0.241 | 0.268 | 0.229 | 0.215 |
| 4) | T,C | Vinyl Chloride | 0.371 | 0.326 | 0.324 | 0.380 | 0.322 | 0.313 |
| 5) | T | Bromomethane | 0.329 | 0.314 | 0.266 | 0.324 | 0.269 | 0.250 |
| 6) | T | Chloroethane | 0.240 | 0.228 | 0.223 | 0.249 | 0.218 | 0.202 |
| 7) | T | Trichlorofluorometh | 0.940 | 0.816 | 0.786 | 0.893 | 0.769 | 0.741 |
| 8) | T | Acrolein | | | | | 0.002 | 0.002 |
| 9) | C,T | 1,1-Dichloroethene | 0.711 | 0.666 | 0.659 | 0.704 | 0.631 | 0.619 |
| 10) | | 112Trichloro122trif | 0.703 | 0.647 | 0.650 | 0.682 | 0.617 | 0.593 |
| 11) | T | Acetone | | | 0.027 | 0.026 | 0.019 | 0.018 |
| 12) | | Iodomethane | 0.406 | 0.367 | 0.311 | 0.396 | 0.349 | 0.347 |
| 13) | T | Carbon Disulfide | 0.550 | 0.507 | 0.496 | 0.583 | 0.588 | 0.615 |
| 14) | T | Methylene Chloride | 0.348 | 0.278 | 0.262 | 0.250 | 0.215 | 0.209 |
| 15) | T | Acrylonitrile | | 0.011 | 0.011 | 0.012 | 0.010 | 0.010 |
| 16) | T | trans-1,2-Dichloroe | 0.604 | 0.543 | 0.540 | 0.583 | 0.539 | 0.544 |
| 17) | T | MTBE | 0.311 | 0.246 | 0.227 | 0.247 | 0.211 | 0.212 |
| 18) | P,T | 1,1-Dichloroethane | 0.693 | 0.652 | 0.621 | 0.665 | 0.612 | 0.593 |
| 19) | T | Vinyl Acetate | 0.175 | 0.149 | 0.147 | 0.153 | 0.128 | 0.133 |
| 20) | T | 2,2-Dichloropropane | 0.626 | 0.601 | 0.575 | 0.626 | 0.603 | 0.587 |
| 21) | T | cis-1,2-Dichloroeth | 0.579 | 0.543 | 0.542 | 0.565 | 0.520 | 0.511 |
| 22) | T | 2-Butanone | | | | 0.035 | 0.029 | 0.023 |
| 23) | T | Bromochloromethane | 0.126 | 0.129 | 0.118 | 0.134 | 0.116 | 0.116 |
| 24) | C,T | Chloroform | 0.684 | 0.624 | 0.592 | 0.617 | 0.583 | 0.567 |
| 25) | T | 1,1,1-Trichloroetha | 0.677 | 0.630 | 0.647 | 0.691 | 0.696 | 0.676 |
| 26) | S | 1,2-Dichloroethane- | | | 0.186 | 0.177 | 0.161 | 0.158 |
| 27) | I | CHLOROBENZENE-D5 | ---------- | ---------- | ---------- | ISTD | ---------- | ---------- |
| 28) | T | 11-Dichloropropene | 0.367 | 0.345 | 0.363 | 0.378 | 0.360 | 0.341 |
| 29) | T | Carbon Tetrachlorid | 0.770 | 0.756 | 0.855 | 0.895 | 0.947 | 0.922 |
| 30) | M,T | Benzene | 1.769 | 1.658 | 1.637 | 1.616 | 1.518 | 1.411 |
| 31) | T | 1,2-Dichloroethane | 0.353 | 0.373 | 0.345 | 0.356 | 0.332 | 0.316 |
| 32) | M,T | Trichloroethene | 0.965 | 0.813 | 0.847 | 0.844 | 0.856 | 0.821 |
| 33) | C,T | 1,2-Dichloropropane | 0.497 | 0.468 | 0.455 | 0.458 | 0.439 | 0.418 |
| 34) | T | Dibromomethane | 0.186 | 0.189 | 0.195 | 0.192 | 0.186 | 0.184 |
| 35) | | Bromodichloromethan | 0.455 | 0.407 | 0.440 | 0.481 | 0.502 | 0.506 |
| 36) | T | 2-ChloroethylVinylE | | 0.028 | 0.039 | 0.032 | 0.034 | 0.048 |
| 37) | T | cis-1,3-Dichloropro | 0.376 | 0.385 | 0.397 | 0.449 | 0.452 | 0.458 |
| 38) | T | 4-Methyl-2-Pentanon | 0.088 | 0.078 | 0.087 | 0.083 | 0.074 | 0.070 |

GH 12/28/01

2030

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

AVE RSD = 10

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound KETONES/AA | 20 40 | 30 60 | 40 80 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| 1) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | |
| 2) | T | Dichlorodifluoromet | 0.495 | 0.469 | 0.440 | 0.532 | 13.72 |
| 3) | T,P | Chloromethane | 0.202 | 0.194 | 0.182 | 0.229 | 14.41 |
| 4) | T,C | Vinyl Chloride | 0.307 | 0.302 | 0.282 | 0.325 | 9.70# |
| 5) | T | Bromomethane | 0.244 | 0.254 | 0.241 | 0.277 | 12.91 |
| 6) | T | Chloroethane | 0.198 | 0.191 | 0.177 | 0.214 | 11.11 |
| 7) | T | Trichlorofluorometh | 0.747 | 0.712 | 0.674 | 0.787 | 10.82 |
| 8) | T | Acrolein | 0.002 | 0.002 | 0.002 | 0.002 | 10.91 |
| 9) | C,T | 1,1-Dichloroethene | 0.606 | 0.584 | 0.549 | 0.637 | 8.42# |
| 10) | | 112Trichloro122trif | 0.591 | 0.564 | 0.537 | 0.620 | 8.80 |
| 11) | T | Acetone | 0.016 | 0.015 | 0.014 | 0.019 | 26.86 |
| 12) | | Iodomethane | 0.340 | 0.340 | 0.331 | 0.354 | 8.63 |
| 13) | T | Carbon Disulfide | 0.645 | 0.642 | 0.628 | 0.584 | 9.53 |
| 14) | T | Methylene Chloride | 0.194 | 0.196 | 0.186 | 0.238 | 22.24 |
| 15) | T | Acrylonitrile | 0.011 | 0.011 | 0.010 | 0.011 | 6.86 |
| 16) | T | trans-1,2-Dichloroe | 0.497 | 0.499 | 0.481 | 0.537 | 7.47 |
| 17) | T | MTBE | 0.198 | 0.203 | 0.199 | 0.228 | 15.88 |
| 18) | P,T | 1,1-Dichloroethane | 0.562 | 0.562 | 0.546 | 0.612 | 8.33 |
| 19) | T | Vinyl Acetate | 0.130 | 0.131 | 0.133 | 0.142 | 10.86 |
| 20) | T | 2,2-Dichloropropane | 0.577 | 0.560 | 0.542 | 0.588 | 4.84 |
| 21) | T | cis-1,2-Dichloroeth | 0.473 | 0.472 | 0.458 | 0.518 | 8.35 |
| 22) | T | 2-Butanone | 0.021 | 0.020 | 0.019 | 0.024 | 25.57 |
| 23) | T | Bromochloromethane | 0.113 | 0.111 | 0.110 | 0.119 | 7.11 |
| 24) | C,T | Chloroform | 0.529 | 0.526 | 0.519 | 0.582 | 9.33# |
| 25) | T | 1,1,1-Trichloroetha | 0.682 | 0.653 | 0.637 | 0.665 | 3.62 |
| 26) | S | 1,2-Dichloroethane- | 0.150 | 0.151 | 0.149 | 0.162 | 8.91 |
| 27) | I | CHLOROBENZENE-D5 | ----------ISTD---------- | | | | |
| 28) | T | 11-Dichloropropene | 0.338 | 0.317 | 0.308 | 0.346 | 6.72 |
| 29) | T | Carbon Tetrachlorid | 0.954 | 0.904 | 0.901 | 0.878 | 8.14 |
| 30) | M,T | Benzene | 1.354 | 1.316 | 1.277 | 1.506 | 11.56 |
| 31) | T | 1,2-Dichloroethane | 0.300 | 0.294 | 0.288 | 0.329 | 9.22 |
| 32) | M,T | Trichloroethene | 0.807 | 0.767 | 0.754 | 0.830 | 7.37 |
| 33) | C,T | 1,2-Dichloropropane | 0.403 | 0.391 | 0.389 | 0.435 | 8.57# |
| 34) | T | Dibromomethane | 0.181 | 0.173 | 0.175 | 0.185 | 3.98 |
| 35) | | Bromodichloromethan | 0.521 | 0.514 | 0.529 | 0.484 | 8.58 |
| 36) | T | 2-ChloroethylVinylE | 0.047 | 0.033 | 0.034 | 0.037 | 19.36 |
| 37) | T | cis-1,3-Dichloropro | 0.467 | 0.454 | 0.464 | 0.433 | 8.44 |
| 38) | T | 4-Methyl-2-Pentanon | 0.072 | 0.069 | 0.071 | 0.077 | 9.54 |

RU 12/28/01

2031

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files

| | | | | | |
|---|---|---|---|---|---|
| .3 | =RLV588.D | .5 | =RLV589.D | 1 | =RLV590.D |
| 2 | =RLV591.D | 5 | =RLV592.D | 10 | =RLV593.D |

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| | | KETONES/M+P-XYLENE | 0.6 | 1.0 | 2.0 | 4.0 | 10 | 20 |
| 39) | S | Toluene-d8 | | 1.744 | 1.690 | 1.551 | 1.576 | 1.471 |
| 40) | C,T | Toluene | 1.289 | 1.117 | 1.149 | 1.102 | 1.089 | 1.023 |
| 41) | T | trans-1,3-Dichlorop | 0.211 | 0.209 | 0.219 | 0.245 | 0.251 | 0.264 |
| 42) | T | Ethyl methacrylate | 0.158 | 0.192 | 0.187 | 0.196 | 0.186 | 0.181 |
| 43) | T | 1,1,2-trichloroetha | 0.235 | 0.210 | 0.209 | 0.213 | 0.198 | 0.190 |
| 44) | T | Tetrachloroethene | 0.966 | 0.834 | 0.846 | 0.823 | 0.831 | 0.763 |
| 45) | T | 1,3-Dichloropropane | 0.385 | 0.356 | 0.347 | 0.353 | 0.327 | 0.307 |
| 46) | T | 2-Hexanone | 0.078 | 0.076 | 0.057 | 0.058 | 0.049 | 0.046 |
| 47) | T | Dibromochloromethan | 0.187 | 0.188 | 0.198 | 0.234 | 0.252 | 0.262 |
| 48) | T | 1,2-Dibromoethane | 0.230 | 0.223 | 0.238 | 0.255 | 0.237 | 0.237 |
| 49) | P,M | Chlorobenzene | 1.256 | 1.188 | 1.149 | 1.179 | 1.092 | 1.039 |
| 50) | T | 1-Chlorohexane | 1.121 | 1.057 | 1.038 | 1.021 | 1.020 | 0.956 |
| 51) | T | 1112-Tetrachloroeth | 0.348 | 0.330 | 0.354 | 0.395 | 0.423 | 0.420 |
| 52) | C,T | Ethylbenzene | 2.433 | 2.317 | 2.272 | 2.246 | 2.207 | 2.084 |
| 53) | T | M/P-Xylenes | 1.811 | 1.708 | 1.639 | 1.665 | 1.650 | 1.546 |
| 54) | T | O-Xylene | 1.704 | 1.622 | 1.554 | 1.501 | 1.492 | 1.417 |
| 55) | T | Styrene | 0.961 | 0.950 | 0.914 | 0.961 | 0.942 | 0.916 |
| 56) | I | 1,2-DICHLOROBENZENE-D | ---------- | ---------- | ISTD | ---------- | ---------- | |
| 57) | P,T | Bromoform | | 0.214 | 0.235 | 0.256 | 0.289 | 0.325 |
| 58) | T | Isopropyl Benzene | 6.945 | 6.438 | 6.743 | 6.507 | 6.758 | 6.250 |
| 59) | S | Bromofluorobenzene | | | 1.769 | 1.548 | 1.556 | 1.486 |
| 60) | T | Bromobenzene | 1.357 | 1.252 | 1.346 | 1.318 | 1.294 | 1.221 |
| 61) | P,T | 1,1,2,2-Tetrachloro | 0.514 | 0.506 | 0.504 | 0.523 | 0.516 | 0.490 |
| 62) | T | 123-Trichloropropan | 0.720 | 0.645 | 0.587 | 0.560 | 0.538 | 0.529 |
| 63) | T | 1,4-Dichloro-2-bute | | | 0.055 | 0.086 | 0.080 | 0.078 |
| 64) | T | n-Propylbenzene | 1.786 | 1.701 | 1.774 | 1.728 | 1.830 | 1.672 |
| 65) | T | 2-Chlorotoluene | 1.381 | 1.303 | 1.374 | 1.330 | 1.351 | 1.273 |
| 66) | T | 4-Chlorotoluene | 1.329 | 1.213 | 1.304 | 1.188 | 1.222 | 1.162 |
| 67) | T | 135-Trimethylbenzen | 4.606 | 4.246 | 4.195 | 4.112 | 4.296 | 4.053 |
| 68) | T | tert-Butylbenzene | 5.773 | 5.369 | 5.517 | 5.367 | 5.489 | 5.099 |
| 69) | T | 124-Trimethylbenzen | 4.104 | 3.655 | 3.827 | 3.771 | 3.780 | 3.601 |
| 70) | T | Sec-Butylbenzene | 8.054 | 7.661 | 7.922 | 7.705 | 8.048 | 7.322 |
| 71) | T | 1,3-Dichlorobenzene | 2.640 | 2.393 | 2.441 | 2.413 | 2.370 | 2.226 |
| 72) | T | 1,4-Dichlorobenzene | 2.644 | 2.185 | 2.217 | 2.252 | 2.190 | 2.059 |
| 73) | T | p-Isopropyltoluene | 5.694 | 5.319 | 5.552 | 5.389 | 5.615 | 5.167 |
| 74) | T | 1,2-Dichlorobenzene | 1.958 | 1.778 | 1.755 | 1.781 | 1.680 | 1.551 |
| 75) | T | n-Butylbenzene | 5.348 | 4.778 | 4.955 | 4.852 | 4.990 | 4.598 |
| 76) | T | 1,2-Dibromo-3-Chlor | | | 0.044 | 0.055 | 0.058 | 0.059 |
| 77) | T | 124-Trichlorobenzen | 1.232 | 0.917 | 0.944 | 0.973 | 0.917 | 0.857 |

AU 12/28/01

2032

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound | 20 | 30 | 40 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| | | KETONES/M+P-XYLENE | 40 | 60 | 80 | | |
| 39) | S | Toluene-d8 | 1.448 | 1.418 | 1.386 | 1.536 | 8.41 |
| 40) | C,T | Toluene | 1.006 | 0.947 | 0.929 | 1.072 | 10.37# |
| 41) | T | trans-1,3-Dichlorop | 0.276 | 0.272 | 0.278 | 0.247 | 11.30 |
| 42) | T | Ethyl methacrylate | 0.193 | 0.182 | 0.187 | 0.185 | 5.97 |
| 43) | T | 1,1,2-trichloroetha | 0.187 | 0.178 | 0.177 | 0.200 | 9.48 |
| 44) | T | Tetrachloroethene | 0.783 | 0.716 | 0.715 | 0.809 | 9.53 |
| 45) | T | 1,3-Dichloropropane | 0.303 | 0.286 | 0.286 | 0.328 | 10.55 |
| 46) | T | 2-Hexanone | 0.050 | 0.048 | 0.047 | 0.057 | 21.80 |
| 47) | T | Dibromochloromethan | 0.290 | 0.290 | 0.301 | 0.245 | 18.47 |
| 48) | T | 1,2-Dibromoethane | 0.242 | 0.235 | 0.235 | 0.237 | 3.66 |
| 49) | P,M | Chlorobenzene | 1.001 | 0.958 | 0.930 | 1.088 | 10.38 |
| 50) | T | 1-Chlorohexane | 0.976 | 0.904 | 0.895 | 0.999 | 7.35 |
| 51) | T | 1112-Tetrachloroeth | 0.425 | 0.420 | 0.420 | 0.393 | 9.73 |
| 52) | C,T | Ethylbenzene | 2.039 | 1.919 | 1.864 | 2.153 | 8.80# |
| 53) | T | M/P-Xylenes | 1.478 | 1.411 | 1.365 | 1.586 | 9.24 |
| 54) | T | O-Xylene | 1.350 | 1.327 | 1.292 | 1.473 | 9.46 |
| 55) | T | Styrene | 0.888 | 0.881 | 0.861 | 0.919 | 3.99 |
| 56) | I | 1,2-DICHLOROBENZENE-D | ISTD | | | | |
| 57) | P,T | Bromoform | 0.380 | 0.390 | 0.398 | 0.311 | 23.52 |
| 58) | T | Isopropyl Benzene | 6.162 | 6.015 | 5.406 | 6.358 | 7.37 |
| 59) | S | Bromofluorobenzene | 1.442 | 1.471 | 1.360 | 1.519 | 8.46 |
| 60) | T | Bromobenzene | 1.206 | 1.214 | 1.135 | 1.260 | 5.86 |
| 61) | P,T | 1,1,2,2-Tetrachloro | 0.489 | 0.486 | 0.450 | 0.497 | 4.44 |
| 62) | T | 123-Trichloropropan | 0.475 | 0.466 | 0.402 | 0.547 | 17.64 |
| 63) | T | 1,4-Dichloro-2-bute | 0.088 | 0.081 | 0.080 | 0.078 | 13.91 |
| 64) | T | n-Propylbenzene | 1.687 | 1.614 | 1.485 | 1.697 | 6.07 |
| 65) | T | 2-Chlorotoluene | 1.226 | 1.212 | 1.120 | 1.285 | 6.73 |
| 66) | T | 4-Chlorotoluene | 1.105 | 1.093 | 1.018 | 1.182 | 8.49 |
| 67) | T | 135-Trimethylbenzen | 3.928 | 3.813 | 3.451 | 4.078 | 8.02 |
| 68) | T | tert-Butylbenzene | 5.009 | 4.899 | 4.462 | 5.220 | 7.56 |
| 69) | T | 124-Trimethylbenzen | 3.399 | 3.405 | 3.107 | 3.628 | 8.06 |
| 70) | T | Sec-Butylbenzene | 7.276 | 6.990 | 6.306 | 7.476 | 7.65 |
| 71) | T | 1,3-Dichlorobenzene | 2.128 | 2.150 | 2.002 | 2.307 | 8.49 |
| 72) | T | 1,4-Dichlorobenzene | 1.961 | 1.988 | 1.863 | 2.151 | 10.58 |
| 73) | T | p-Isopropyltoluene | 5.144 | 4.978 | 4.531 | 5.265 | 6.89 |
| 74) | T | 1,2-Dichlorobenzene | 1.491 | 1.496 | 1.374 | 1.651 | 11.23 |
| 75) | T | n-Butylbenzene | 4.595 | 4.377 | 4.069 | 4.729 | 7.89 |
| 76) | T | 1,2-Dibromo-3-Chlor | 0.069 | 0.071 | 0.072 | 0.061 | 16.67 |
| 77) | T | 124-Trichlorobenzen | 0.856 | 0.823 | 0.805 | 0.925 | 13.86 |

PCL 12/18/01

2033

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration

Calibration Files

| | | | | | |
|---|---|---|---|---|---|
| .3 | =RLV588.D | .5 | =RLV589.D | 1 | =RLV590.D |
| 2 | =RLV591.D | 5 | =RLV592.D | 10 | =RLV593.D |

| | | Compound | .3 | .5 | 1 | 2 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|
| 78) | T | Hexachlorobutadiene | 2.126 | 1.851 | 1.895 | 1.929 | 2.009 | 1.761 |
| 79) | T | Naphthalene | 0.765 | 0.610 | 0.580 | 0.622 | 0.543 | 0.520 |
| 80) | T | 123-Trichlorobenzen | 0.822 | 0.696 | 0.691 | 0.740 | 0.686 | 0.628 |

avg = 10% RSD

12/28/01

2034

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:18:43 2001
Response via : Initial Calibration

Calibration Files
20 =RLV594.D 30 =RLV595.D 40 =RLV596.D
= = =

| | | Compound | 20 | 30 | 40 | Avg | %RSD |
|---|---|---|---|---|---|---|---|
| 78) | T | Hexachlorobutadiene | 1.861 | 1.728 | 1.664 | 1.869 | 7.65 |
| 79) | T | Naphthalene | 0.503 | 0.476 | 0.470 | 0.566 | 16.38 |
| 80) | T | 123-Trichlorobenzen | 0.623 | 0.594 | 0.595 | 0.675 | 11.04 |

2035 12/28/01

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report TO01

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Initial Calibration
Total Cpnds : 80

| PK# | | Compound Name | QIon | Exp_RT | Rel_RT | Cal | #Qual | A/H | ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 114 | 11.64 | 1.000 | A | 2 | A | B |
| 2 | T | Dichlorodifluoromethane | 85 | 3.23 | 0.278 | A | 2 | A | B |
| 3 | T | Chloromethane | 50 | 3.58 | 0.308 | A | 1 | A | B |
| 4 | T | Vinyl Chloride | 62 | 3.77 | 0.324 | A | 1 | A | B |
| 5 | T | Bromomethane | 94 | 4.38 | 0.377 | A | 1 | A | B |
| 6 | T | Chloroethane | 64 | 4.59 | 0.394 | A | 2 | A | B |
| 7 | T | Trichlorofluoromethane | 101 | 5.10 | 0.438 | A | 1 | A | B |
| 8 | T | Acrolein | 56 | 5.84 | 0.502 | A | 1 | A | B |
| 9 | T | 1,1-Dichloroethene | 61 | 6.03 | 0.518 | A | 2 | A | B |
| 10 | | 112Trichloro122trifluoroethane | 151 | 6.11 | 0.525 | A | 1 | A | B |
| 11 | T | Acetone | 43 | 6.15 | 0.528 | A | 1 | A | B |
| 12 | | Iodomethane | 142 | 6.28 | 0.539 | A | 1 | A | B |
| 13 | T | Carbon Disulfide | 76 | 6.42 | 0.551 | A | 1 | A | B |
| 14 | T | Methylene Chloride | 84 | 6.91 | 0.594 | A | 2 | A | B |
| 15 | T | Acrylonitrile | 53 | 7.34 | 0.631 | A | 2 | A | B |
| 16 | T | trans-1,2-Dichloroethene | 61 | 7.43 | 0.638 | A | 2 | A | B |
| 17 | T | MTBE | 73 | 7.49 | 0.643 | A | 1 | A | B |
| 18 | T | 1,1-Dichloroethane | 63 | 8.19 | 0.703 | A | 2 | A | B |
| 19 | T | Vinyl Acetate | 43 | 8.33 | 0.716 | A | 1 | A | B |
| 20 | T | 2,2-Dichloropropane | 77 | 9.26 | 0.795 | A | 2 | A | B |
| 21 | T | cis-1,2-Dichloroethene | 61 | 9.24 | 0.793 | A | 2 | A | B |
| 22 | T | 2-Butanone | 43 | 9.30 | 0.799 | A | 1 | A | B |
| 23 | T | Bromochloromethane | 128 | 9.69 | 0.832 | A | 2 | A | B |
| 24 | T | Chloroform | 83 | 9.85 | 0.846 | A | 2 | A | B |
| 25 | T | 1,1,1-Trichloroethane | 97 | 10.18 | 0.875 | A | 2 | A | B |
| 26 | S | 1,2-Dichloroethane-d4 | 65 | 10.76 | 0.924 | A | 1 | A | B |
| 27 | I | CHLOROBENZENE-D5 | 117 | 17.68 | 1.000 | A | 2 | A | B |
| 28 | T | 11-Dichloropropene | 77 | 10.51 | 0.594 | A | 2 | A | B |
| 29 | T | Carbon Tetrachloride | 119 | 10.51 | 0.594 | A | 1 | A | B |
| 30 | T | Benzene | 78 | 10.92 | 0.618 | A | 2 | A | B |
| 31 | T | 1,2-Dichloroethane | 62 | 10.90 | 0.616 | A | 2 | A | B |
| 32 | T | Trichloroethene | 130 | 12.13 | 0.686 | A | 3 | A | B |
| 33 | T | 1,2-Dichloropropane | 63 | 12.57 | 0.711 | A | 2 | A | B |
| 34 | T | Dibromomethane | 93 | 12.77 | 0.722 | A | 2 | A | B |
| 35 | | Bromodichloromethane | 83 | 13.10 | 0.741 | A | 2 | A | B |
| 36 | T | 2-ChloroethylVinylEther | 63 | 13.70 | 0.774 | A | 2 | A | B |
| 37 | T | cis-1,3-Dichloropropene | 75 | 14.00 | 0.792 | A | 3 | A | B |
| 38 | T | 4-Methyl-2-Pentanone | 43 | 14.31 | 0.809 | A | 3 | A | B |
| 39 | S | Toluene-d8 | 98 | 14.58 | 0.824 | A | 1 | A | B |
| 40 | T | Toluene | 92 | 14.70 | 0.831 | A | 1 | A | B |
| 41 | T | trans-1,3-Dichloropropene | 75 | 15.16 | 0.857 | A | 3 | A | B |
| 42 | T | Ethyl methacrylate | 69 | 15.36 | 0.869 | A | 2 | A | B |
| 43 | T | 1,1,2-trichloroethane | 97 | 15.55 | 0.879 | A | 3 | A | B |
| 44 | T | Tetrachloroethene | 164 | 15.87 | 0.898 | A | 3 | A | B |
| 45 | T | 1,3-Dichloropropane | 76 | 15.90 | 0.899 | A | 2 | A | B |
| 46 | T | 2-Hexanone | 43 | 16.08 | 0.909 | A | 2 | A | B |
| 47 | T | Dibromochloromethane | 129 | 16.41 | 0.928 | A | 2 | A | B |

2036

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 49 | P,M | Chlorobenzene | 112 | 17.75 | 1.003 | A | 3 | A | B |
| 50 | T | 1-Chlorohexane | 91 | 17.70 | 1.001 | A | 3 | A | B |
| 51 | T | 1112-Tetrachloroethane | 131 | 17.93 | 1.014 | A | 3 | A | B |
| 52 | T | Ethylbenzene | 91 | 18.01 | 1.019 | A | 1 | A | B |
| 53 | T | M/P-Xylenes | 91 | 18.28 | 1.034 | A | 1 | A | B |
| 54 | T | O-Xylene | 91 | 19.18 | 1.085 | A | 1 | A | B |
| 55 | T | Styrene | 104 | 19.23 | 1.087 | A | 2 | A | B |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 152 | 24.08 | 1.000 | A | 1 | A | B |
| 57 | T | Bromoform | 173 | 19.64 | 0.816 | A | 2 | A | B |
| 58 | T | Isopropyl Benzene | 105 | 20.05 | 0.833 | A | 3 | A | B |
| 59 | S | Bromofluorobenzene | 95 | 20.40 | 0.847 | A | 2 | A | B |
| 60 | T | Bromobenzene | 156 | 20.75 | 0.862 | A | 2 | A | B |
| 61 | T | 1,1,2,2-Tetrachloroethane | 83 | 20.75 | 0.862 | A | 1 | A | B |
| 62 | T | 123-Trichloropropane | 75 | 20.83 | 0.865 | A | 2 | A | B |
| 63 | T | 1,4-Dichloro-2-butene | 53 | 20.87 | 0.867 | A | 1 | A | B |
| 64 | T | n-Propylbenzene | 120 | 21.01 | 0.873 | A | 1 | A | B |
| 65 | T | 2-Chlorotoluene | 126 | 21.22 | 0.881 | A | 1 | A | B |
| 66 | T | 4-Chlorotoluene | 126 | 21.47 | 0.892 | A | 1 | A | B |
| 67 | T | 135-Trimethylbenzene | 105 | 21.45 | 0.891 | A | 3 | A | B |
| 68 | T | tert-Butylbenzene | 119 | 22.21 | 0.922 | A | 2 | A | B |
| 69 | T | 124-Trimethylbenzene | 105 | 22.33 | 0.927 | A | 1 | A | B |
| 70 | T | Sec-Butylbenzene | 105 | 22.74 | 0.945 | A | 1 | A | B |
| 71 | T | 1,3-Dichlorobenzene | 146 | 23.01 | 0.956 | A | 3 | A | B |
| 72 | T | 1,4-Dichlorobenzene | 146 | 23.23 | 0.965 | A | 2 | A | B |
| 73 | T | p-Isopropyltoluene | 119 | 23.11 | 0.960 | A | 2 | A | B |
| 74 | T | 1,2-Dichlorobenzene | 146 | 24.12 | 1.002 | A | 2 | A | B |
| 75 | T | n-Butylbenzene | 91 | 24.12 | 1.002 | A | 2 | A | B |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 157 | 25.76 | 1.070 | A | 3 | A | B |
| 77 | T | 124-Trichlorobenzene | 180 | 27.18 | 1.129 | A | 2 | A | B |
| 78 | T | Hexachlorobutadiene | 225 | 27.49 | 1.142 | A | 3 | A | B |
| 79 | T | Naphthalene | 128 | 27.59 | 1.146 | A | 1 | A | B |
| 80 | T | 123-Trichlorobenzene | 180 | 28.00 | 1.163 | A | 3 | A | B |

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

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VO01L21.M Thu Dec 27 10:23:32 2001

12/28/01

# SECOND SOURCE VERIFICATION

2038

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D
Acq On : 21 Dec 2001 7:25 pm
Sample : IVO01L211
Misc : 10/20PPB 8260/KETONES 25mL
MS Integration Params: 524TAIL.P

Vial: 13
Operator: CR
Inst : TO01
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0 | 98 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 0.532 | 0.499 | 6 | 100 | 0.02 |
| 3 | T,P | Chloromethane | 0.229 | 0.201 | 12 | 92 | 0.02 |
| 4 | T,C | Vinyl Chloride | 0.325 | 0.316 | 3 | 99 | 0.02 |
| 5 | T | Bromomethane | 0.277 | 0.268 | 3 | 105 | 0.02 |
| 6 | T | Chloroethane | 0.214 | 0.205 | 4 | 99 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.787 | 0.740 | 6 | 98 | 0.02 |
| 8 | T | Acrolein | 0.002 | 0.003 | -50# | 139 | 0.00 |
| 9 | C,T | 1,1-Dichloroethene | 0.637 | 0.623 | 2 | 99 | 0.02 |
| 10 | | 112Trichloro122trifluoroeth | 0.620 | 0.613 | 1 | 101 | 0.00 |
| 11 | T | Acetone | 0.019 | 0.017 | 11 | 93 | 0.00 |
| 12 | | Iodomethane | 0.354 | 0.370 | -5 | 104 | 0.02 |
| 13 | T | Carbon Disulfide | 0.584 | 0.610 | -4 | 97 | 0.00 |
| 14 | T | Methylene Chloride | 0.238 | 0.212 | 11 | 100 | 0.00 |
| 15 | T | Acrylonitrile | 0.011 | 0.011 | 0 | 108 | 0.02 |
| 16 | T | trans-1,2-Dichloroethene | 0.537 | 0.526 | 2 | 95 | 0.02 |
| 17 | T | MTBE | 0.228 | 0.215 | 6 | 99 | 0.00 |
| 18 | P,T | 1,1-Dichloroethane | 0.612 | 0.590 | 4 | 98 | 0.00 |
| 19 | T | Vinyl Acetate | 0.142 | 0.136 | 4 | 100 | 0.00 |
| 20 | T | 2,2-Dichloropropane | 0.588 | 0.584 | 1 | 98 | 0.00 |
| 21 | T | cis-1,2-Dichloroethene | 0.518 | 0.510 | 2 | 98 | 0.02 |
| 22 | T | 2-Butanone | 0.024 | 0.023 | 4 | 98 | 0.00 |
| 23 | T | Bromochloromethane | 0.119 | 0.122 | -3 | 103 | 0.00 |
| 24 | C,T | Chloroform | 0.582 | 0.564 | 3 | 97 | 0.00 |
| 25 | T | 1,1,1-Trichloroethane | 0.665 | 0.695 | -5 | 101 | 0.02 |
| 26 | S | 1,2-Dichloroethane-d4 | 0.162 | 0.166 | -2 | 103 | 0.00 |
| 27 | I | CHLOROBENZENE-D5 | 1.000 | 1.000 | 0 | 94 | 0.00 |
| 28 | T | 11-Dichloropropene | 0.346 | 0.361 | -4 | 99 | 0.02 |
| 29 | T | Carbon Tetrachloride | 0.878 | 0.985 | -12 | 100 | 0.00 |
| 30 | M,T | Benzene | 1.506 | 1.474 | 2 | 98 | 0.00 |
| 31 | T | 1,2-Dichloroethane | 0.329 | 0.344 | -5 | 102 | 0.00 |
| 32 | M,T | Trichloroethene | 0.830 | 0.851 | -3 | 97 | 0.00 |
| 33 | C,T | 1,2-Dichloropropane | 0.435 | 0.444 | -2 | 100 | 0.00 |
| 34 | T | Dibromomethane | 0.185 | 0.198 | -7 | 101 | 0.00 |
| 35 | | Bromodichloromethane | 0.484 | 0.547 | -13 | 101 | 0.00 |
| 36 | T | 2-ChloroethylVinylEther | 0.037 | 0.028 | 24# | 55 | 0.00 |

(#) = Out of Range

2039 12/28/01

# Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D
Acq On : 21 Dec 2001 7:25 pm
Sample : IVO01L211
Misc : 10/20PPB 8260/KETONES 25mL
MS Integration Params: 524TAIL.P

Vial: 13
Operator: CR
Inst : TO01
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 37 | T | cis-1,3-Dichloropropene | 0.433 | 0.489 | -13 | 100 | 0.00 |
| 38 | T | 4-Methyl-2-Pentanone | 0.077 | 0.075 | 3 | 100 | 0.02 |
| 39 | S | Toluene-d8 | 1.536 | 1.543 | -0 | 98 | 0.00 |
| 40 | C,T | Toluene | 1.072 | 1.066 | 1 | 98 | 0.00 |
| 41 | T | trans-1,3-Dichloropropene | 0.247 | 0.284 | -15 | 101 | 0.00 |
| 42 | T | Ethyl methacrylate | 0.185 | 0.195 | -5 | 101 | 0.00 |
| 43 | T | 1,1,2-trichloroethane | 0.200 | 0.207 | -3 | 102 | 0.00 |
| 44 | T | Tetrachloroethene | 0.809 | 0.811 | -0 | 100 | 0.00 |
| 45 | T | 1,3-Dichloropropane | 0.328 | 0.332 | -1 | 101 | 0.00 |
| 46 | T | 2-Hexanone | 0.057 | 0.052 | 9 | 105 | 0.02 |
| 47 | T | Dibromochloromethane | 0.245 | 0.287 | -17 | 103 | 0.00 |
| 48 | T | 1,2-Dibromoethane | 0.237 | 0.255 | -8 | 101 | 0.00 |
| 49 | P,M | Chlorobenzene | 1.088 | 1.054 | 3 | 95 | 0.02 |
| 50 | T | 1-Chlorohexane | 0.999 | 0.987 | 1 | 97 | 0.00 |
| 51 | T | 1112-Tetrachloroethane | 0.393 | 0.434 | -10 | 97 | 0.00 |
| 52 | C,T | Ethylbenzene | 2.153 | 2.103 | 2 | 95 | 0.00 |
| 53 | T | M/P-Xylenes | 1.586 | 1.533 | 3 | 93 | 0.00 |
| 54 | T | O-Xylene | 1.473 | 1.426 | 3 | 94 | 0.00 |
| 55 | T | Styrene | 0.919 | 0.936 | -2 | 96 | 0.00 |
| 56 | I | 1,2-DICHLOROBENZENE-D4 | 1.000 | 1.000 | 0 | 93 | 0.00 |
| 57 | P,T | Bromoform | 0.311 | 0.351 | -13 | 100 | 0.00 |
| 58 | T | Isopropyl Benzene | 6.358 | 6.410 | -1 | 95 | 0.00 |
| 59 | S | Bromofluorobenzene | 1.519 | 1.523 | -0 | 95 | 0.00 |
| 60 | T | Bromobenzene | 1.260 | 1.254 | 0 | 95 | 0.00 |
| 61 | P,T | 1,1,2,2-Tetrachloroethane | 0.497 | 0.513 | -3 | 97 | 0.00 |
| 62 | T | 123-Trichloropropane | 0.547 | 0.546 | 0 | 96 | 0.00 |
| 63 | T | 1,4-Dichloro-2-butene | 0.078 | 0.080 | -3 | 95 | 0.00 |
| 64 | T | n-Propylbenzene | 1.697 | 1.729 | -2 | 96 | 0.00 |
| 65 | T | 2-Chlorotoluene | 1.285 | 1.277 | 1 | 93 | -0.02 |
| 66 | T | 4-Chlorotoluene | 1.182 | 1.162 | 2 | 93 | 0.00 |
| 67 | T | 135-Trimethylbenzene | 4.078 | 4.015 | 2 | 92 | 0.00 |
| 68 | T | tert-Butylbenzene | 5.220 | 5.221 | -0 | 95 | 0.00 |
| 69 | T | 124-Trimethylbenzene | 3.628 | 3.552 | 2 | 92 | 0.00 |
| 70 | T | Sec-Butylbenzene | 7.476 | 7.501 | -0 | 95 | 0.00 |
| 71 | T | 1,3-Dichlorobenzene | 2.307 | 2.303 | 0 | 96 | 0.00 |
| 72 | T | 1,4-Dichlorobenzene | 2.151 | 2.105 | 2 | 95 | -0.02 |

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\01L21\RLV598.D  Vial: 13
Acq On : 21 Dec 2001 7:25 pm  Operator: CR
Sample : IV001L211  Inst : TO01
Misc : 10/20PPB 8260/KETONES 25mL  Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO01L21.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 27 10:14:49 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 73 | T | p-Isopropyltoluene | 5.265 | 5.288 | -0 | 95 | 0.00 |
| 74 | T | 1,2-Dichlorobenzene | 1.651 | 1.623 | 2 | 97 | 0.00 |
| 75 | T | n-Butylbenzene | 4.729 | 4.665 | 1 | 94 | -0.02 |
| 76 | T | 1,2-Dibromo-3-Chloropropane | 0.061 | 0.065 | -7 | 102 | -0.02 |
| 77 | T | 124-Trichlorobenzene | 0.925 | 0.926 | -0 | 100 | 0.00 |
| 78 | T | Hexachlorobutadiene | 1.869 | 1.892 | -1 | 100 | 0.00 |
| 79 | T | Naphthalene | 0.566 | 0.548 | 3 | 98 | -0.02 |
| 80 | T | 123-Trichlorobenzene | 0.675 | 0.673 | 0 | 100 | -0.02 |

2041

(#) = Out of Range  SPCC's out = 0 CCC's out = 0 MM 12/28/01

# ANALYTICAL LOG

2042

# ANALYSIS LOG FOR VOLATILES

☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

ate 12/21/01

**Book #** A01-009

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RLU586 | BFB01L40 | 1 | 1ul | 25ml | NA | NA | NA | |
| *02 | 587 | BFB01L41 ' | 2 | 1ul | | | | | 12/21/01 CM |
| *03 | 588 | V001L211 ' | 3 | 0.15ul | | | | | 0.3/0.6/1.5 ppb 8260/KET. |
| *04 | 589 | 2 ' | 4 | 0.25ul | | | | | 0.5/1.0 ppb |
| *05 | 590 | 3 ' | 5 | 0.5ul | | | | | 1.0/2.0 ppb |
| *06 | 591 | 4 ' | 6 | 1.0ul | | | | | 2.0/4.0 ppb |
| *07 | 592 | 5 ' | 7 | 2.5ul | | | | | 5/10 ppb |
| *08 | 593 | 6 ' | 8 | 5.0ul | | | | | 10/20 ppb |
| *09 | 594 | 7 ' | 9 | 10.0ul | | | | | 20/40 ppb |
| *10 | 595 | 8 ' | 10 | 15.0ul | | | | | 30/60 ppb |
| *11 | 596 | 9 ' | 11 | 20.0ul | | | | | 40/80 ppb |
| *12 | 597 | IS/SS CHECK | 12 | 25ml | | | | | |
| *13 | 598 | IV001L211 ' | 13 | 5ul | | | | | 10/20 ppb * |
| *14 | 599 | 2 | 14 | 5ul | | | | | 10/20 ppb |
| *15 | | | | | | | | | |
| *16 | | | | | | | | | |
| *17 | | | | | | | | | |
| *18 | | | | | | | | | |
| *19 | | | | | | | | | |
| *20 | | | | | | | | | |
| *21 | | | | | | | | | |
| *22 | | | | | | | | | |
| *23 | | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | CM | 12/21/01 | | |
| *27 | | | | | | | | | |

2043

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Date | 12/21/01 |
| ICAL ID | V001L21.M |

| Standards | | |
|---|---|---|
| Name | ID | Conc. (mg/L) |
| DCC | SU1C-06-35-3 | 50/100 |
| KBT/AA | | |
| BFB | SU1C-06-30-1 | 50 |
| IS/Surr | SU1C-06-31-1 | 50 |
| Gases | SU1C-06-35-1 | 50 |
| LCS | SU1C-06-35-2 SU1C-06-36-1 | 50/100 |
| IS | SU1C-06-6-1 | 50 |
| SS | SU1C-06-6-2 | 50 |
| Solvent | ID | |
| Methanol | | |
| | | |
| Cartridge | 01L21 | |

Comments

* NOT VALID FOR PROJECT THAT HAS ACROLEIN

Analyzed By: CM

This page is checked during data review.

000190

# ANALYSIS LOG FOR VOLATILES

☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

te 1/23/02

Book # A01-009

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RAU269 | BFB 07A 19 | 23 | 1 ul | 25 ml | NA | NA | NA | |
| *02 | 270 | BFB01A20 | 24 | 1 ul | | | | | 12:15 AM |
| *03 | 271 | CV001L2145 | 25 | 5 ul | | | | | 10 ppb |
| *04 | 272 | CV001L2146 | 26 | 5 ul | | | | | 10 ppb |
| *05 | 273 | V001A20L | 27 | 5 ul | | | | | 10 ppb |
| *06 | 274 | C | 28 | 5 ul | | | | | 10 ppb |
| *07 | 275 | B | 29 | 25 ml | | | | | |
| *08 | 276 | Q | 30 | 25 ml | | | | | |
| *09 | 277 | 02A 073-04 | 31 | 25 ml | | 1 | L20 | | RL at 25X |
| *10 | 278 | -01 | 32 | | | 1 | | | |
| *11 | 279 | -02 | 1 | | | 1 | | | |
| *12 | 280 | -03 | 2 | | | 1 | | | |
| *13 | 281 | -05 | 3 | | | 1 | | | |
| *14 | 282 | 02A 067-04 | 4 | | | 1 | | | |
| *15 | 283 | -01T | 5 | 25 ul | | 1000 | | | |
| *16 | 284 | -02T | 6 | 125 ul | | 200 | | | |
| *17 | 285 | -03T | 7 | 125 ul | | 200 | | | |
| *18 | 286 | -05T | 8 | 125 ul | | 200 | | | |
| *19 | 287 | -01 | 9 | 125 ul | | 200 | | | |
| *20 | 288 | -02 | 10 | 500 ul | | 50 | | | |
| *21 | 289 | -03 | 11 | 500 ul | | 50 | | | |
| *22 | 290 | -05 | 12 | 500 ul | | 50 | | | 12:14 PM |
| *23 | ~~291~~ | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | | | | |
| *27 | | | | | | | | | |

cu 1/23/02

2044

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | | |
|---|---|---|
| Date | 12/21/01 | |
| ICAL ID | V001L21 | |
| Standards | | |
| Name | ID | Conc. (mg/L) |
| DCC | SU1C-06-25-3 | 50/100 |
| KET/AA | | |
| BFB | SU1C-06-30-1 | 50 |
| IS/Surr | SU1C-06-31-1 | 50 |
| Gases | SU1C-06-35-1 | 50 |
| LCS | SU1C-06-35-2<br>SU1C-06-36-1 | 50/100 |
| | | |
| | | |
| Solvent | ID | |
| Methanol | | |
| | | |
| Cartridge | 02A22 | |

Comments

Analyzed By: cu

000191

# ANALYSIS LOG FOR VOLATILES



)P ☑ EMAX-8260 ☐ EMAX-524 ☐ EMAX-CLP-VOA ☐

rt Date 1/25/02

**Book #** A01-009

| Sample Prep. ID | Data File Name | Lab Sample ID | Sparger # | Sample Amount | Purge Vol (ml) | DF | Matrix pH-W | Matrix S | Notes |
|---|---|---|---|---|---|---|---|---|---|
| *01 | RAU364 | BFB01A27 | — | 1ul | 25ml | NA | NA | NA | |
| *02 | 365 | CU001L2155 | 1 | 5ul | | | | | 10 ppb |
| *03 | 366 | CU001L2156 | 2 | 5ul | | | | | 10 ppb |
| *04 | 367 | V001A27-L | 3 | 5ul | | | | | 10 ppb |
| *05 | 368 | C | 4 | 5ul | | | | | 10 ppb |
| *06 | 369 | B | 5 | 25ml | | | | | |
| *07 | 370 | Q | 6 | 25ml | | | | | |
| *08 | 371 | 02A067-04T | 7 | 1ml | | 25 | <2.0 | | |
| *09 | 372 | 02A059-05R | 8 | 25ml | | 1 | | | |
| *10 | 373 | -09R | 9 | | | 1 | | | |
| *11 | | | | | | | | | |
| *12 | | | | | | | | | |
| *13 | | | | | | | | | |
| *14 | | | | | | | | | |
| *15 | | | | | | | | | |
| *16 | | | | | | | | | |
| *17 | | | | | | | | | |
| *18 | | | | | | | | | |
| *19 | | | | | | | | | |
| *20 | | | | | | | | | |
| *21 | | | | | | | | | |
| *22 | | | | | | | | | |
| *23 | | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |
| *26 | | | | | | | | | |
| *27 | | | | | | | | | |

RATCH * V001A27

2045

per IN PROGRESS 1/25/02 [illegible]

| Instrument No. | 01 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Date | 12/21/02 |
| ICAL ID | V001L21 |

| Standards | | |
|---|---|---|
| Name | ID | Conc. (mg/L) |
| DCC | SUIC-06-35-3 | 50/100 |
| KET/AA | | |
| BFB | SUIC-06-30-1 | 50 |
| IS/Surr | SUIC-06-35-1 | 50 |
| Gases | SUIC-06-35-1 | 50 |
| LCS | SUIC-06-35-2<br>SUIC-06-36-1 | 50/100 |
| | | |
| | | |

| Solvent | ID |
|---|---|
| Methanol | |
| | |
| Cartridge | 02A25 |

Comments

Analyzed By: [illegible]

This page is checked during data review.

LABORATORY REPORT FOR

IT CORPORATION

JERVIS WEBB SOUTH GATE

DISSOLVED METALS / HEX. CHROMIUM

SDG#: 02A067

7000

# DISSOLVED METALS

7001

## CASE NARRATIVE

**CLIENT:** **IT CORPORATION**

**PROJECT:** **JERVIS WEBB SOUTH GATE**

**EMAX SDG:** **02A067**

### METHOD 3010A/6010B
### DISSOLVED METALS BY ICP

Five (5) water samples were received on 01/17/02 for Dissolved Metals Analyses by Method 3010A/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

   Analyses met holding time criteria.

2. Method Blank

   Method blank was free of contamination at reporting limit level.

3. Lab Control Sample/Lab Control Sample Duplicate

   Lab control results were within the control limits.

4. Serial Dilution

   Sample A067-01 and A067-05 were analyzed for serial dilution. %Differences were within QC limit. Analytical spike was analyzed and QC criteria were met.

5. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was analyzed for this SDG.

6. Sample Analysis

   Sample analyses were performed within the QC requirements. All requirements were met.

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE

SDG NO. : 02A067
Instrument ID : T-I07

| SAMPLE ID | CONTROL NO | DLF | MOIST | WATER Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH |
|---|---|---|---|---|---|---|---|---|
| MBLK1W | IPA031WB | 1 | NA | 01/18/0214:47 | 01/18/0214:00 | I07A036009 | I07A036007 | IPA031W |
| LCS1W | IPA031WL | 1 | NA | 01/18/0214:52 | 01/18/0214:00 | I07A036010 | I07A036007 | IPA031W |
| LCD1W | IPA031WC | 1 | NA | 01/18/0214:57 | 01/18/0214:00 | I07A036011 | I07A036007 | IPA031W |
| MW-1 | A067-01 | 1 | NA | 01/18/0215:01 | 01/18/0214:00 | I07A036012 | I07A036007 | IPA031W |
| MW-2 | A067-02 | 1 | NA | 01/18/0215:06 | 01/18/0214:00 | I07A036013 | I07A036007 | IPA031W |
| MW-3 | A067-03 | 1 | NA | 01/18/0215:11 | 01/18/0214:00 | I07A036014 | I07A036007 | IPA031W |
| MW-4 | A067-04 | 1 | NA | 01/18/0215:16 | 01/18/0214:00 | I07A036015 | I07A036007 | IPA031W |
| MW-5 | A067-05 | 1 | NA | 01/18/0215:20 | 01/18/0214:00 | I07A036016 | I07A036007 | IPA031W |
| MW-5DL | A067-05T | 5 | NA | 01/18/0215:25 | 01/18/0214:00 | I07A036017 | I07A036007 | IPA031W |
| MW-5AS | A067-05A | 1 | NA | 01/18/0215:30 | 01/18/0214:00 | I07A036018 | I07A036007 | IPA031W |

LAB CHRONICLE
DISSOLVED ARSENIC BY TRACE ICP

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE

SDG NO. : 02A067
Instrument ID : T-I31

| SAMPLE ID | CONTROL NO | DLF | MOIST | WATER Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH |
|---|---|---|---|---|---|---|---|---|
| MBLK1W | IPA031WB | 1 | NA | 01/18/0216:07 | 01/18/0214:00 | I31A020010 | I31A020008 | IPA031W |
| LCS1W | IPA031WL | 1 | NA | 01/18/0216:12 | 01/18/0214:00 | I31A020011 | I31A020008 | IPA031W |
| LCD1W | IPA031WC | 1 | NA | 01/18/0216:17 | 01/18/0214:00 | I31A020012 | I31A020008 | IPA031W |
| MW-1AS | A067-01A | 1 | NA | 01/18/0216:22 | 01/18/0214:00 | I31A020013 | I31A020008 | IPA031W |
| MW-1 | A067-01 | 1 | NA | 01/18/0216:28 | 01/18/0214:00 | I31A020014 | I31A020008 | IPA031W |
| MW-1DL | A067-01T | 5 | NA | 01/18/0216:33 | 01/18/0214:00 | I31A020015 | I31A020008 | IPA031W |
| MW-2 | A067-02 | 1 | NA | 01/18/0216:38 | 01/18/0214:00 | I31A020016 | I31A020008 | IPA031W |
| MW-3 | A067-03 | 1 | NA | 01/18/0216:44 | 01/18/0214:00 | I31A020017 | I31A020008 | IPA031W |
| MW-4 | A067-04 | 1 | NA | 01/18/0216:49 | 01/18/0214:00 | I31A020018 | I31A020008 | IPA031W |
| MW-5 | A067-05 | 1 | NA | 01/18/0216:54 | 01/18/0214:00 | I31A020019 | I31A020008 | IPA031W |

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| Sample ID: | MW-1 | Date Analyzed: | 01/18/02 15:01 |
| Lab Samp ID: | A067-01 | Dilution Factor: | 1 |
| Lab File ID: | I07A036012 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| Calib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Barium | .0523 | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| Molybdenum | .545 | .1 | .0065 |
| Zinc | .00393J | .02 | .0032 |

RL: Reporting Limit

7005

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | 01/17/02 |
| roject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| ample ID: | MW-2 | Date Analyzed: | 01/18/02 15:06 |
| ab Samp ID: | A067-02 | Dilution Factor: | 1 |
| Lab File ID: | I07A036013 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| alib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| arium | .0702 | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| olybdenum | 1.39 | .1 | .0065 |
| inc | .0183J | .02 | .0032 |

RL: Reporting Limit

7006

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| Sample ID: | MW-3 | Date Analyzed: | 01/18/02 15:11 |
| Lab Samp ID: | A067-03 | Dilution Factor: | 1 |
| Lab File ID: | I07A036014 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| Calib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Barium | .0472 | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| Molybdenum | 1.06 | .1 | .0065 |
| Zinc | ND | .02 | .0032 |

RL: Reporting Limit

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| Sample ID: | MW-4 | Date Analyzed: | 01/18/02 15:16 |
| Lab Samp ID: | A067-04 | Dilution Factor: | 1 |
| Lab File ID: | I07A036015 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| Calib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Barium | .134 | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| Molybdenum | .564 | .1 | .0065 |
| Zinc | .0063J | .02 | .0032 |

RL: Reporting Limit

7008

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| Client | : IT CORPORATION | Date Collected: | 01/17/02 |
| Project | : JERVIS WEBB SOUTH GATE | Date Received: | 01/17/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| Sample ID: | MW-5 | Date Analyzed: | 01/18/02 15:20 |
| Lab Samp ID: | A067-05 | Dilution Factor: | 1 |
| Lab File ID: | I07A036016 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| Calib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Barium | .0356 | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| Molybdenum | .0179J | .1 | .0065 |
| Zinc | .00674J | .02 | .0032 |

RL: Reporting Limit

7009

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|---|---|---|---|
| lient | : IT CORPORATION | Date Collected: | NA |
| rroject | : JERVIS WEBB SOUTH GATE | Date Received: | 01/18/02 |
| SDG NO. | : 02A067 | Date Extracted: | 01/18/02 14:00 |
| ample ID: | MBLK1W | Date Analyzed: | 01/18/02 14:47 |
| ab Samp ID: | IPA031WB | Dilution Factor: | 1 |
| ab File ID: | I07A036009 | Matrix : | WATER |
| Ext Btch ID: | IPA031W | % Moisture : | NA |
| alib. Ref.: | I07A036007 | Instrument ID : | EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| arium | ND | .01 | .001 |
| Chromium | ND | .02 | .0044 |
| olybdenum | ND | .1 | .0065 |
| inc | ND | .02 | .0032 |

RL: Reporting Limit

7010

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
SDG NO.: 02A067
METHOD: METHOD 3010A/6010B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| CONTROL NO.: | IPA031WB | IPA031WL | IPA031WC | | |
| LAB FILE ID: | I07A036009 | I07A036010 | I07A036011 | | |
| DATIME EXTRCTD: | 01/18/0214:00 | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | NA |
| DATIME ANALYZD: | 01/18/0214:47 | 01/18/0214:52 | 01/18/0214:57 | DATE RECEIVED: | 01/18/02 |
| PREP. BATCH: | IPA031W | IPA031W | IPA031W | | |
| CALIB. REF: | I07A036007 | I07A036007 | I07A036007 | | |

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 % |
|---|---|---|---|---|---|---|---|---|---|---|
| Barium | ND | 1 | .962 | 96 | 1 | .971 | 97 | 1 | 80-120 | 20 |
| Chromium | ND | 1 | .964 | 96 | 1 | .96 | 96 | 0 | 80-120 | 20 |
| Molybdenum | ND | 1 | .896 | 90 | 1 | .901 | 90 | 0 | 80-120 | 20 |
| Zinc | ND | 1 | .938 | 94 | 1 | .945 | 95 | 1 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
SDG NO.: 02A067
METHOD: METHOD 3010A/6010B

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | | |
| SAMPLE ID: | MW-5 | | | |
| CONTROL NO.: | A067-05 | A067-05A | | |
| LAB FILE ID: | I07A036016 | I07A036018 | | |
| DATIME EXTRCTD: | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | 01/17/02 |
| DATIME ANALYZD: | 01/18/0215:20 | 01/18/0215:30 | DATE RECEIVED: | 01/17/02 |
| PREP. BATCH: | IPA031W | IPA031W | | |
| CALIB. REF: | I07A036007 | I07A036007 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/L) | SPIKE AMT (mg/L) | AS RSLT (mg/L) | AS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Barium | .0356 | 1 | .892 | 86 | 75-125 |
| Chromium | ND | 1 | .878 | 88 | 75-125 |
| Molybdenum | .0179J | 1 | .835 | 82 | 75-125 |
| Zinc | .00674J | 1 | .917 | 91 | 75-125 |

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
BATCH NO.: 02A067
METHOD: METHOD 3010A/6010B

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 5 | | |
| SAMPLE ID: | MW-5 | MW-5DL | | |
| EMAX SAMP ID: | A067-05 | A067-05T | | |
| LAB FILE ID: | I07A036016 | I07A036017 | | |
| DATE EXTRACTED: | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | 01/17/02 |
| DATE ANALYZED: | 01/18/0215:20 | 01/18/0215:25 | DATE RECEIVED: | 01/17/02 |
| PREP. BATCH: | IPA031W | IPA031W | | |
| CALIB. REF: | I07A036007 | I07A036007 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/L) | SERIAL DIL RSLT (mg/L) | DIF RSLT % | QC LIMIT ( % ) |
|---|---|---|---|---|
| Barium | .0356 | .0359J | NA | 10 |
| Chromium | ND | ND | 0 | 10 |
| Molybdenum | .0179J | ND | NA | 10 |
| Zinc | .00674J | ND | NA | 10 |

7013

METHOD 3010A/6010B
DISSOLVED ARSENIC BY TRACE ICP

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE
Batch No. : 02A067

Matrix : WATER
Instrument ID : T-131

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | IPA031WB | ND | 1 | NA | .01 | .0029 | 01/18/0216:07 | 01/18/0214:00 | I31A020010 | I31A020008 | IPA031W | NA | 01/18/02 |
| LCS1W | IPA031WL | .942 | 1 | NA | .01 | .0029 | 01/18/0216:12 | 01/18/0214:00 | I31A020011 | I31A020008 | IPA031W | NA | 01/18/02 |
| LCD1W | IPA031WC | .958 | 1 | NA | .01 | .0029 | 01/18/0216:17 | 01/18/0214:00 | I31A020012 | I31A020008 | IPA031W | NA | 01/18/02 |
| MW-1AS | A067-01A | 1.24 | 1 | NA | .01 | .0029 | 01/18/0216:22 | 01/18/0214:00 | I31A020013 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-1 | A067-01 | .244 | 1 | NA | .01 | .0029 | 01/18/0216:28 | 01/18/0214:00 | I31A020014 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-1DL | A067-01T | .234 | 5 | NA | .05 | .0145 | 01/18/0216:33 | 01/18/0214:00 | I31A020015 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-2 | A067-02 | .0847 | 1 | NA | .01 | .0029 | 01/18/0216:38 | 01/18/0214:00 | I31A020016 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-3 | A067-03 | .095 | 1 | NA | .01 | .0029 | 01/18/0216:44 | 01/18/0214:00 | I31A020017 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-4 | A067-04 | .0504 | 1 | NA | .01 | .0029 | 01/18/0216:49 | 01/18/0214:00 | I31A020018 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |
| MW-5 | A067-05 | .025 | 1 | NA | .01 | .0029 | 01/18/0216:54 | 01/18/0214:00 | I31A020019 | I31A020008 | IPA031W | 01/17/02 | 01/17/02 |

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

LIENT: IT CORPORATION
ROJECT: JERVIS WEBB SOUTH GATE
OG NO.: 02A067
ETHOD: METHOD 3010A/6010B

| | | | | | |
|---|---|---|---|---|---|
| ATRIX: | WATER | | | % MOISTURE: | NA |
| ILTN FACTR: | 1 | 1 | 1 | | |
| AMPLE ID: | MBLK1W | | | | |
| ONTROL NO.: | IPA031WB | IPA031WL | IPA031WC | | |
| AB FILE ID: | I31A020010 | I31A020011 | I31A020012 | | |
| ATIME EXTRCTD: | 01/18/0214:00 | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | NA |
| ATIME ANALYZD: | 01/18/0216:07 | 01/18/0216:12 | 01/18/0216:17 | DATE RECEIVED: | 01/18/02 |
| REP. BATCH: | IPA031W | IPA031W | IPA031W | | |
| ALIB. REF: | I31A020008 | I31A020008 | I31A020008 | | |

CCESSION:

| ARAMETER | 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 % |
|---|---|---|---|---|---|---|---|---|---|---|
| rsenic | ND | 1 | .942 | 94 | 1 | .958 | 96 | 2 | 80-120 | 20 |

7015

000208

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: IT CORPORATION
PROJECT: JERVIS WEBB SOUTH GATE
SDG NO.: 02A067
METHOD: METHOD 3010A/6010B

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | | |
| SAMPLE ID: | MW-1 | | | |
| CONTROL NO.: | A067-01 | A067-01A | | |
| LAB FILE ID: | I31A020014 | I31A020013 | | |
| DATIME EXTRCTD: | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | 01/17/02 |
| DATIME ANALYZD: | 01/18/0216:28 | 01/18/0216:22 | DATE RECEIVED: | 01/17/02 |
| PREP. BATCH: | IPA031W | IPA031W | | |
| CALIB. REF: | I31A020008 | I31A020008 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (mg/L) | SPIKE AMT (mg/L) | AS RSLT (mg/L) | AS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Arsenic | .244 | 1 | 1.24 | 99 | 75-125 |

7016

000209

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

.IENT: IT CORPORATION
ROJECT: JERVIS WEBB SOUTH GATE
ATCH NO.: 02A067
ETHOD: METHOD 3010A/6010B

==========

| | | | | |
|---|---|---|---|---|
| ATRIX: | WATER | | % MOISTURE: | NA |
| ILUTION FACTOR: | 1 | 5 | | |
| AMPLE ID: | MW-1 | MW-1DL | | |
| MAX SAMP ID: | A067-01 | A067-01T | | |
| AB FILE ID: | I31A020014 | I31A020015 | | |
| ATE EXTRACTED: | 01/18/0214:00 | 01/18/0214:00 | DATE COLLECTED: | 01/17/02 |
| ATE ANALYZED: | 01/18/0216:28 | 01/18/0216:33 | DATE RECEIVED: | 01/17/02 |
| REP. BATCH: | IPA031W | IPA031W | | |
| ALIB. REF: | I31A020008 | I31A020008 | | |

CCESSION:

| ARAMETER | SMPL RSLT (mg/L) | SERIAL DIL RSLT (mg/L) | DIF RSLT % | QC LIMIT ( % ) |
|---|---|---|---|---|
| rsenic | .244 | .234 | 4 | 10 |

7017

000210

# ANALYSIS RUN LOG FOR ICP

SOP ☐ EMAX-6010 ☐ EMAX-200.7 ☐ EMAX-CLP-TAL Method File 6010B1 Autosampler Table SEQ Book# A24-015

Start Date 01/18/02 Time 14:04 End Date 1/18/02 Time 15:39 Instrument No. 024

ANALYTICAL BATCH* 107A036

| Data File Name | Prep. Batch | Lab Sample ID | DF | Matrix | Notes |
|---|---|---|---|---|---|
| *01 | | S0 | | | |
| *02 | | S3 | | | |
| *03 | | ICV | | | |
| *04 | | ICB | | | |
| *05 | | ICSA1 | | | |
| *06 | | ICSAB1 | | | |
| *07 | | CCV1 | | | |
| *08 | | CCB1 | | | |
| *09 | 1PA031V | 1PA031WB | 1 | W | |
| *10 | | WL | 1 | | |
| *11 | | WC | 1 | | |
| *12 | | A067-01 | 1 | | |
| *13 | | -02 | 1 | | |
| *14 | | -03 | 1 | | |
| *15 | | -04 | 1 | | |
| *16 | | -05 | 1 | | |
| *17 | | -05T | 5 | | |
| *18 | | -05A | 1 | | |
| *19 | | CCV2 | 1 | | |
| *20 | | CCB2 | 1 | | |
| *21 | | | | | |
| *22 | | | | | |
| *23 | | | | | |
| *24 | | | | | |
| *25 | | | | | |

ACF 1/21/02

ANALYTICAL BATCH *

| Data File Name | Prep. Batch | Lab Sample ID | DF | Matrix | Notes |
|---|---|---|---|---|---|
| *26 | | | | | |
| *27 | | | | | |
| *28 | | | | | |
| *29 | | | | | |
| *30 | | | | | |
| *31 | | | | | |
| *32 | | | | | |
| *33 | | | | | |
| *34 | | | | | |
| *35 | | | | | |
| *36 | | | | | |
| *37 | | | | | |
| *38 | | | | | |
| *39 | | | | | |
| *40 | | | | | |
| *41 | | | | | |
| *42 | | | | | |
| *43 | | | | | |
| *44 | | | | | |
| *45 | | | | | |
| *46 | | | | | |
| *47 | | | | | |
| *48 | | | | | |
| *49 | | | | | |
| *50 | | | | | |

ACF 1/22/02

| Std. | ID |
|---|---|
| S0 | SM1B04.61.02 |
| S1 | NA |
| S2 | ↓ |
| S3 | SM1B04.64.02 |
| S4 | NA |
| S5 | ↓ |
| S6 | ↓ |
| ICV | SM1B04.55.01 |
| ICVH | NA |
| CCV | SM1B04.66.02 |
| ICSA | .65.02 |
| ICSAB | .61.05 |
| CRI | |

Comments:

ok

Analyzed By ACF

This page is checked during data review.

EMAX LABORATORIES, INC., 1835 205th Street, Torrance, CA 90501

7018

SEQUENCE FILE : I07A036

| 4-18 | 19-33 | 34-43 | 44-53 | 54-63 |
|---|---|---|---|---|
| LFID | LSID | TIME | DATE | DF |
| I07A036001 | S0 | 14:04 | 01/18/02 | 1 |
| I07A036002 | S3 | 14:09 | 01/18/02 | 1 |
| I07A036003 | ICV | 14:14 | 01/18/02 | 1 |
| I07A036004 | ICB | 14:19 | 01/18/02 | 1 |
| I07A036005 | ICSAI | 14:24 | 01/18/02 | 1 |
| I07A036006 | ICSABI | 14:31 | 01/18/02 | 1 |
| I07A036007 | CCV1 | 14:38 | 01/18/02 | 1 |
| I07A036008 | CCB1 | 14:42 | 01/18/02 | 1 |
| I07A036009 | IPA031WB | 14:47 | 01/18/02 | 1 |
| I07A036010 | IPA031WL | 14:52 | 01/18/02 | 1 |
| I07A036011 | IPA031WC | 14:57 | 01/18/02 | 1 |
| I07A036012 | A067-01 | 15:01 | 01/18/02 | 1 |
| I07A036013 | A067-02 | 15:06 | 01/18/02 | 1 |
| I07A036014 | A067-03 | 15:11 | 01/18/02 | 1 |
| I07A036015 | A067-04 | 15:16 | 01/18/02 | 1 |
| I07A036016 | A067-05 | 15:20 | 01/18/02 | 1 |
| I07A036017 | A067-05T | 15:25 | 01/18/02 | 5 |
| I07A036018 | A067-05A | 15:30 | 01/18/02 | 1 |
| I07A036019 | CCV2 | 15:35 | 01/18/02 | 1 |
| I07A036020 | CCB2 | 15:39 | 01/18/02 | 1 |

SDG : 2A067 UNIT : % ICP CHECK : I07A036 DATE : 01/18/02 INST : EMAXTI07

| ANALYTE | Al | Sb | As | Ba | Be | B | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Mo | Ni | K | Se | Ag | Na | Sr | Tl | Sn | Ti | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICV | 96 | 94 | 95 | 99 | 99 | 100 | 95 | 97 | 98 | 97 | 97 | 96 | 96 | 100 | 97 | 97 | 95 | 101 | 96 | 96 | 102 | 97 | 96 | 98 | 100 | 98 | 95 |
| ICB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICSAI | 101 | ---- | ---- | ---- | ---- | ---- | ---- | 93 | ---- | ---- | ---- | 87 | ---- | 90 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICSABI | 95 | 86 | 105 | 92 | 87 | 94 | 94 | 87 | 85 | 82 | 101 | 81 | 79* | 85 | 81 | 86 | 84 | 95 | 84 | 96 | 121* | 94 | 92 | 92 | -3* | 91 | 93 |
| CCV1 | 102 | 100 | 98 | 101 | 100 | 100 | 99 | 99 | 100 | 99 | 101 | 102 | 101 | 100 | 100 | 99 | 99 | 103 | 98 | 98 | 104 | 101 | 100 | 98 | 100 | 100 | 99 |
| CCB1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WL | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WC | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-02 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-03 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-04 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05T | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05A | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV2 | 98 | 98 | 97 | 101 | 100 | 100 | 97 | 98 | 99 | 98 | 99 | 100 | 96 | 98 | 99 | 98 | 99 | 92 | 98 | 98 | 96 | 100 | 99 | 97 | 100 | 99 | 98 |
| CCB2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

True Concentration , MDL , and QC limit of each parameter are listed in a table attached next to all the ICP check forms

* : Out of QC Limit

7020

SDG : 02A067 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : I07A036 (WATER) DATE : 01/18/02 INST : EMAXTI07

| ANALYTE | Al | Sb | As | Ba | Be | B | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Mo | Ni | K | Se | Ag | Na | Sr | Tl | Sn | Ti | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S3 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICV | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICB | <MDL | <MDL | <MDL | <MDL | .940 | <MDL | <MDL | 57.7 | <MDL | <MDL | -7.72 | <MDL | -14.1 | 43.1 | <MDL | 8.88 | <MDL | <MDL | <MDL | <MDL | <MDL | 1.22 | <MDL | <MDL | <MDL | <MDL | <MDL |
| ICSAI | ---- | <MDL | 187 | 2.93 | <MDL | -20.0 | -4.28 | ---- | -13.7 | <MDL | <MDL | ---- | -66.6 | ---- | -28.7 | 24.5 | <MDL | <MDL | <MDL | <MDL | <MDL | 23.5 | 467 | <MDL | -30.7 | -3.59 | 20.8 |
| ICSABI | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCB1 | 48.1 | <MDL | <MDL | 2.16 | 2.24 | <MDL | 1.88 | 149 | <MDL | <MDL | -6.81 | 27.5 | <MDL | 149 | <MDL | 9.63 | <MDL | <MDL | <MDL | <MDL | 283 | 2.47 | <MDL | <MDL | 2.33 | 2.90 | 8.29 |
| IPA031WB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WL | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WC | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-02 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-03 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-04 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05T | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05A | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCB2 | <MDL | <MDL | <MDL | 1.53 | 1.48 | 8.41 | <MDL | 142 | <MDL | <MDL | -7.49 | 6.44 | -13.4 | 87.4 | <MDL | 5.93 | <MDL | <MDL | <MDL | <MDL | 341 | 2.49 | <MDL | <MDL | <MDL | <MDL | <MDL |

True Concentration , MDL , and QC limit of each parameter are listed in a table attached next to all the ICP check forms

* : Out of QC Limit

<MDL : Concentration is less than MDL

# ANALYSIS RUN LOG FOR ICP

SOP ☑ EMAX-6010 ☐ EMAX-200.7 ☐ EMAX-CLP-TAL Method File 6010B Autosampler Table ICP Book# A31-012

Start Date 01/18/02 Time 15:20 End Date 01/18/02 Time 17:05 Instrument No. 031

ANALYTICAL BATCH* T31A020

| Data File Name | Prep. Batch | Lab Sample ID | DF | Matrix | Notes |
|---|---|---|---|---|---|
| *01 | | S0 | | | |
| *02 | | S2 | | | |
| *03 | | S5 | | | |
| *04 | | ICV | | | |
| *05 | | ICB | | | |
| *06 | | ICSAI | | | |
| *07 | | ICSABI | | | |
| *08 | | CCV1 | | | |
| *09 | | CCB1 | | | |
| *10 | IPA031W | IPA031WB | 1 | W | |
| *11 | | WL | 1 | | |
| *12 | | WC | 1 | | |
| *13 | | A067-01A | 1 | | AS |
| *14 | | -01 | 1 | | |
| *15 | | -01T | 5 | | |
| *16 | | -02 | 1 | | |
| *17 | | -03 | 1 | | |
| *18 | | -04 | 1 | | |
| *19 | | -05 | 1 | | |
| *20 | | CCV2 | 1 | | |
| *21 | | CCB2 | 1 | | |
| *22 | IPA008S | IPA008SB | 1 | S | |
| *23 | | SL | 1 | | |
| *24 | | SC | 1 | | RZ 01/18/02 |
| *25 | | MDLV3050 | 1 | | |

ANALYTICAL BATCH* _____

| Data File Name | Prep. Batch | Lab Sample ID | DF | Matrix | Notes |
|---|---|---|---|---|---|
| *26 | IPA008S | MDLV3050 | 1 | S | |
| *27 | | CCV3 | 1 | | |
| *28 | | CCB3 | 1 | | |
| *29 | | | | | |
| *30 | | | | | |
| *31 | | | | | |
| *32 | | | | | |
| *33 | | | | | |
| *34 | | | | | |
| *35 | | | | | |
| *36 | | | | | RZ 01/18/02 |
| *37 | | | | | |
| *38 | | | | | |
| *39 | | | | | |
| *40 | | | | | |
| *41 | | | | | |
| *42 | | | | | |
| *43 | | | | | |
| *44 | | | | | |
| *45 | | | | | |
| *46 | | | | | |
| *47 | | | | | |
| *48 | | | | | |
| *49 | | | | | |
| *50 | | | | | |

| Std. | ID |
|---|---|
| S0 | SMIB04-47-01 |
| S1 | N/A |
| S2 | SMIB04-61-04 |
| S3 | N/A |
| S4 | ↓ |
| S5 | SMIB04-64-04 |
| S6 | N/A |
| ICV | SMIB04-67-01 |
| ICVH | N/A |
| CCV | SMIB04-66-01 |
| ICSA | -64-03 |
| ICSAB | -47-02 |
| CRI | |

Comments: OK

Analyzed By RZ

This page is checked during data review.

EMAX LABORATORIES, INC., 1835 205th Street, Torrance, CA 90501

7022

SEQUENCE FILE : I31A020

| 4-18 | 19-33 | 34-43 | 44-53 | 54-63 |
|---|---|---|---|---|
| LFID | LSID | TIME | DATE | DF |
| I31A020001 | S0 | 15:20 | 01/18/02 | 1 |
| I31A020002 | S2 | 15:26 | 01/18/02 | 1 |
| I31A020003 | S5 | 15:31 | 01/18/02 | 1 |
| I31A020004 | ICV | 15:35 | 01/18/02 | 1 |
| I31A020005 | ICB | 15:40 | 01/18/02 | 1 |
| I31A020006 | ICSAI | 15:45 | 01/18/02 | 1 |
| I31A020007 | ICSABI | 15:51 | 01/18/02 | 1 |
| I31A020008 | CCV1 | 15:56 | 01/18/02 | 1 |
| I31A020009 | CCB1 | 16:01 | 01/18/02 | 1 |
| I31A020010 | IPA031WB | 16:07 | 01/18/02 | 1 |
| I31A020011 | IPA031WL | 16:12 | 01/18/02 | 1 |
| I31A020012 | IPA031WC | 16:17 | 01/18/02 | 1 |
| I31A020013 | A067-01A | 16:22 | 01/18/02 | 1 |
| I31A020014 | A067-01 | 16:28 | 01/18/02 | 1 |
| I31A020015 | A067-01T | 16:33 | 01/18/02 | 5 |
| I31A020016 | A067-02 | 16:38 | 01/18/02 | 1 |
| I31A020017 | A067-03 | 16:44 | 01/18/02 | 1 |
| I31A020018 | A067-04 | 16:49 | 01/18/02 | 1 |
| I31A020019 | A067-05 | 16:54 | 01/18/02 | 1 |
| I31A020020 | CCV2 | 17:00 | 01/18/02 | 1 |
| I31A020021 | CCB2 | 17:05 | 01/18/02 | 1 |

SDG : 02A067 UNIT : % TRACE ICP CHECK : I31A020 DATE : 01/18/02 INST : EMAXTI31

| ANALYTE | Al | As | Cd | Ca | Cu | Fe | Pb | Mg | Mn | Se | Tl | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICV | 103 | 97 | 94 | 103 | 93 | 99 | 90 | 104 | 91 | 96 | 90 | 95 | 93 |
| ICB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICSAI | 88 | ---- | ---- | 91 | ---- | 93 | ---- | 94 | ---- | ---- | ---- | ---- | ---- |
| ICSABI | 88 | 94 | 92 | 91 | 94 | 93 | 80 | 94 | 84 | 91 | 83 | 87 | 92 |
| CCV1 | 105 | 98 | 94 | 107 | 94 | 103 | 91 | 103 | 93 | 93 | 90 | 99 | 92 |
| CCB1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WL | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WC | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01A | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01T | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-02 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-03 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-04 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV2 | 104 | 101 | 97 | 106 | 97 | 104 | 94 | 101 | 97 | 97 | 93 | 103 | 95 |
| CCB2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

True Concentration , MDL , and QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7024

SDG : 02A067 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : I31A020 (WATER) DATE : 01/18/02 INST : EMAXTI31

| ANALYTE | Al | As | Cd | Ca | Cu | Fe | Pb | Mg | Mn | Se | Tl | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| S5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICV | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| ICB | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | 3.69 | <MDL | <MDL |
| ICSAI | ---- | <MDL | <MDL | ---- | -12.1 | ---- | -3.66 | ---- | -5.40 | 5.60 | 12.8 | -8.79 | 17.4 |
| ICSABI | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV1 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCB1 | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL |
| IPA031WB | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WL | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| IPA031WC | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01A | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-01T | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-02 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-03 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-04 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| A067-05 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCV2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| CCB2 | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | <MDL | 1.50 | <MDL |

True Concentration , MDL , and QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit
<MDL : Concentration is less than MDL

# DIGESTION LOG FOR ICP METALS

☐ EMAX-3005 ☐ EMAX-CLP-TAL ☐

SOP ☑ EMAX-3010 ☐ EMAX-3050 Matrix WATER Start Date 01-18-02 Time 8:05 Temp. 90°C End Date 01-18-02 Time 14:00 Temp 90°C Book # EIP-013

| Sample Prep ID | Lab Sample ID | Matrix Description: Color | Matrix Description: Texture / Clarity | Matrix Description: Artifacts | Sample Amount (~~g~~ ml) | pH | Extract Volume (ml) | Digestate Description: Color | Digestate Description: Clarity |
|---|---|---|---|---|---|---|---|---|---|
| *01 | IPA031-WB | | | | 50 | – | 50 | | |
| *02 | -WL | | | | 50 | – | 50 | | |
| *03 | -WC | | | | 50 | – | 50 | | |
| *04 | 02A067-01 | | | | 50 | <2 | 50 | | |
| *05 | -02 | | | | 50 | | 50 | | |
| *06 | -03 | | | | 50 | | 50 | | |
| *07 | -04 | | | | 50 | | 50 | | |
| *08 | -05 | | | | 50 | | 50 | | |
| *09 | | | | | | | | | |
| *10 | | | | | | | | | |
| *11 | | | | | | | | | |
| *12 | | | | | | | | | |
| *13 | | | | | | | | | |
| *14 | | | | | | | | | |
| *15 | | | | | | | | | |
| *16 | | | | | | | | | |
| *17 | | | | | | | | | |
| *18 | | | | | | | | | |
| *19 | | | | | | | | | |
| *20 | | | | | | | | | |
| *21 | | | | | | | | | |
| *22 | | | | | | | | | |
| *23 | | | | | | | | | |
| *24 | | | | | | | | | |
| *25 | | | | | | | | | |

01-18-02 MC

BATCH * IPA031-W

7026

| Standards | ID | Amount Added (ml) |
|---|---|---|
| LCS LCS 1 | SM1A-04-03-02 | 0.5ml |
| ~~MS~~ 2 | SM1A-04-03-03 | 0.5ml |
| 3 | SM1A-04-03-04 | 0.5ml |
| **Reagent** | **Lot# / ID** | **Amount Added (ml)** |
| $HNO_3$ | SW1A-02-841 | 1.5+1.5ml |
| HCl | SW1A-02-855 | 2.5ml |
| $H_2O_2$ | N/A | |
| | | |

| | |
|---|---|
| Digestate Location | ICP LAB |
| Extract Location | |

Legend:

| | | | |
|---|---|---|---|
| Texture | Cs = Coarse | Md = Medium | Fn = Fine |
| Clarity | Cr = Clear | Cy = Cloudy | Td = Turbid |
| Artifacts | Rk = rocks | Sl = Shale | Vg=Vegetation |
| Color | Bu = blue | Bk = Black | Bn = Brown |
| | Gn = Green | Og = Orange | Rd = Red |
| | Yw = Yellow | | |

Comments: cont lot # 443702

Prepared By: MC

Standard Added By: MC

Witnessed By: RZ

Checked By: RZ

Extracts Received By: RZ 01/18/02

EMAX LABORATORIES INC. 1835 205th Street Torrance, CA 90501

# HEXAVALENT CHROMIUM

7027

## CASE NARRATIVE

**CLIENT:** **IT CORPORATION**

**PROJECT:** **JERVIS WEBB SOUTH GATE**

**SDG:** **02A067**

## METHOD 7199
## HEXAVALENT CHROMIUM

Five (5) water samples were received on 01/17/02 for Hexavalent Chromium Analyses by Method 7199 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

   Analytical holding time was met.

2. Blank

   Method blank was free of contamination at reporting limit.

3. Lab Control Sample

   Lab control result was within the control limit.

4. Duplicate

   Sample A067-05 was analyzed for duplicate. %RPD was within QC limit.

5. Matrix Spike

   Sample A067-05 was spiked. %Recovery was within QC limit.

6. Sample Analysis

   Sample analyses were performed within QC requirements. All requirements were met.

LAB CHRONICLE
HEXAVALENT CHROMIUM

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE

SDG NO. : 02A067
Instrument ID : I59

| SAMPLE ID | CONTROL NO | DLF | MOIST | WATER Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH |
|---|---|---|---|---|---|---|---|---|
| MBLK1W | HCA004WB | 1 | NA | 01/17/0212:54 | NA | IA17016A | IA17006A | HCA004W |
| LCS1W | HCA004WL | 1 | NA | 01/17/0213:06 | NA | IA17017A | IA17006A | HCA004W |
| MW-1 | A067-01 | 1 | NA | 01/17/0217:05 | NA | IA17022A | IA17019A | HCA004W |
| MW-2 | A067-02 | 1 | NA | 01/17/0217:17 | NA | IA17023A | IA17019A | HCA004W |
| MW-3 | A067-03 | 1 | NA | 01/17/0217:29 | NA | IA17024A | IA17019A | HCA004W |
| MW-4 | A067-04 | 1 | NA | 01/17/0218:18 | NA | IA17026A | IA17019A | HCA004W |
| MW-5 | A067-05 | 1 | NA | 01/17/0218:32 | NA | IA17027A | IA17019A | HCA004W |
| MW-5DUP | A067-05D | 1 | NA | 01/17/0218:44 | NA | IA17028A | IA17019A | HCA004W |
| MW-5MS | A067-05M | 1 | NA | 01/17/0218:57 | NA | IA17029A | IA17019A | HCA004W |

# SAMPLE RESULTS

7030

METHOD 7199
HEXAVALENT CHROMIUM

Client : IT CORPORATION
Project : JERVIS WEBB SOUTH GATE
Batch No. : 02A067

Matrix : WATER
Instrument ID : I59

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | HCA004WB | ND | 1 | NA | .2 | .07 | 01/17/0212:54 | NA | IA17016A | IA17006A | HCA004W | NA | NA |
| LCS1W | HCA004WL | 2.14 | 1 | NA | .2 | .07 | 01/17/0213:06 | NA | IA17017A | IA17006A | HCA004W | NA | NA |
| MW-1 | A067-01 | .09J | 1 | NA | .2 | .07 | 01/17/0217:05 | NA | IA17022A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-2 | A067-02 | .22 | 1 | NA | .2 | .07 | 01/17/0217:17 | NA | IA17023A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-3 | A067-03 | .15J | 1 | NA | .2 | .07 | 01/17/0217:29 | NA | IA17024A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-4 | A067-04 | .16J | 1 | NA | .2 | .07 | 01/17/0218:18 | NA | IA17026A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-5 | A067-05 | ND | 1 | NA | .2 | .07 | 01/17/0218:32 | NA | IA17027A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-5DUP | A067-05D | ND | 1 | NA | .2 | .07 | 01/17/0218:44 | NA | IA17028A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |
| MW-5MS | A067-05M | 1.32 | 1 | NA | .2 | .07 | 01/17/0218:57 | NA | IA17029A | IA17019A | HCA004W | 01/17/02 | 01/17/02 |

RL : Reporting Limit

# QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

IENT: IT CORPORATION
OJECT: JERVIS WEBB SOUTH GATE
THOD: METHOD 7199
TRIX: WATER
MOISTURE: NA

TCH NO.: 02A067
MPLE ID: LCS1W
NTROL NO.: HCA004WL

DATE RECEIVED: NA
DATE EXTRACTED: NA
DATE ANALYZED: 01/17/02 13:06

CESSION:

| RAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | LCS RSLT (ug/L) | LCS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| xavalent Chromium | ND | 2.00 | 2.14 | 107 | 80-120 |

7033

000226

EMAX QUALITY CONTROL DATA
MS ANALYSIS

IENT: IT CORPORATION
OJECT: JERVIS WEBB SOUTH GATE
THOD: METHOD 7199
.TRIX: WATER
MOISTURE: NA

---

.TCH NO.: 02A067
.MPLE ID: MW-5MS
)NTROL NO.: A067-05M

DATE RECEIVED: 01/17/02
DATE EXTRACTED: NA
DATE ANALYZED: 01/17/02 18:57

:CESSION:

| ARAMETER | SMPL RSLT (ug/L) | SPIKE AMT (ug/L) | MS RSLT (ug/L) | MS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| exavalent Chromium | ND | 1.50 | 1.32 | 88 | 80-120 |

7034

000227

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

.IENT: IT CORPORATION
:OJECT: JERVIS WEBB SOUTH GATE
:THOD: METHOD 7199
\TRIX: WATER
MOISTURE: NA

\TCH NO.: 02A067 DATE RECEIVED: 01/17/02
\MPLE ID: MW-5DUP DATE EXTRACTED: NA
)NTROL NO.: A067-05D DATE ANALYZED: 01/17/02 18:44

:CESSION:

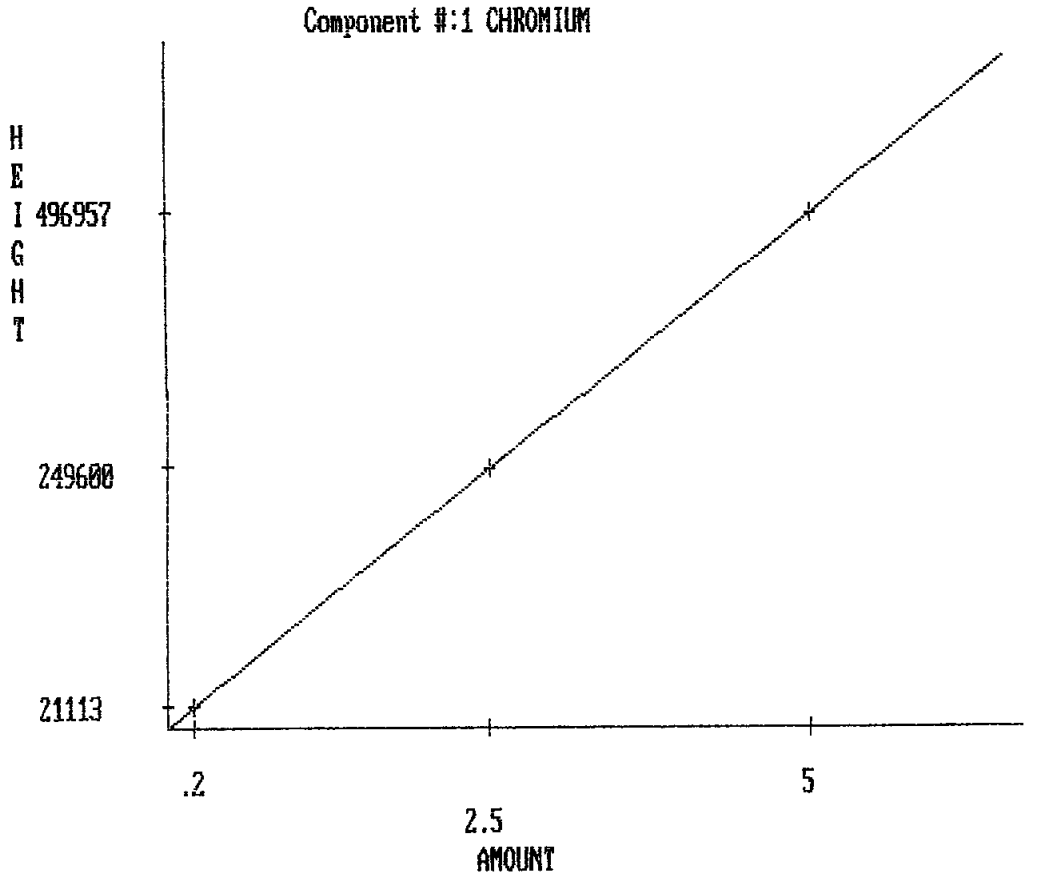
| \RAMETER | SAMPLE (ug/L) | DUP. SAMPLE (ug/L) | RPD ( % ) | RPD LIMIT ( % ) |
|---|---|---|---|---|
| exavalent Chromium | ND | ND | 0 | 20 |

7035

000228

# INITIAL CALIBRATION

Method IC59A17
Sample CHROMIUM
Operator BS
Run date 01-17-2002 10:44:36 Version: 38
Printed on 01-17-2002 AT 10:45:06
Straight Line Fit forced through Origin.




Component 1 = CHROMIUM
EXTERNAL STANDARD CALIBRATION

| LEVEL | AMOUNT | HEIGHT |
|---|---|---|
| 1 | 0.2000 | 21113 |
| 2 | 2.5000 | 249600 |
| 3 | 5.0000 | 496957 |

Y = SLOPE * X + INTERCEPT

Height = 9.9489E+04 * Amount + 0.0000E+00
Amount = 1.0051E-05 * Height + 0.0000E+00
R squared = 1.0000

7037

# SECOND SOURCE VERIFICATION

*Second Source Calibration Verification*
*Method 218.6*

ICV LIMITS: 90-110%

| ANALYTE | TV (ug/L) | IA17006A | %R |
|---|---|---|---|
| Chromium6 | 4 | 3.7979 | 95 |

ICB

| ANALYTE | RL(ug/l) | IA17007A |
|---|---|---|
| Chromium6 | 0.2 | ND |

# DAILY CALIBRATION

*Continuing Calibration Verification*
*and Third Source Standard*
*Method 218.6*

CCV
LIMITS: 95-105

| ANALYTE | TV (ug/L) | IA17-19A | %R | IA17-30A | %R |
|---|---|---|---|---|---|
| Chromium6 | 2.3 | 2.2476 | 97.7 | 2.3234 | 101 |

CCB

| ANALYTE | IA17-18A | IA17-31A |
|---|---|---|
| Chromium6 | ND | ND |

QCS: Third Source Limit: 95-105%

| ANALYTE | TV (ug/L) | IA17-8A | %R |
|---|---|---|---|
| Chromium6 | 2.25 | 2.1948 | 97.5 |

# ANALYSIS LOG

# ANALYSIS RUN LOG FOR IC - HEXAVALENT CHROMIUM

SOP ☑ EMAX-218.6 ☒ EMAX-7199 ☐ Start Date 1/17/02 Time 0942 Ending Date 1/17/02 Time 1921 Book # A59-002

BATCH * HCA004 W ** 7043

| Sample Prep ID | Data File Name | Lab Sample ID | DF | Matrix S | Matrix W | Notes |
|---|---|---|---|---|---|---|
| *01 | 1A17 00 1 | 1B | | | | |
| *02 | 2 | S-0 | | | | |
| *03 | 3 | S-1 | | | | |
| *04 | 4 | S-2 | | | | |
| *05 | 5 | S-3 | | | | |
| *06 | 6 | ICV | | | | |
| *07 | 7 | ICB | | | | |
| *08 | 8 | QCS | ✓ | | | |
| *09 | 9 | A062-05 | 1 | | | overrange * |
| *10 | 10 | -05 | 10 | | | |
| *11 | 11 | -05D | 10 | | | |
| *12 | 12 | -05M | 10 | | | |
| *13 | 13 | -06 | 5 | | | |
| *14 | 14 | -03 | 5 | | | |
| *15 | 15 | A062-04 | 5 | | | * |
| *16 | 16 | HCA004 WB | 1 | | | |
| *17 | 17 | WL | 1 | | | |
| *18 | 18 | CCB1 | 1 | | | |
| *19 | 19 | CCV1 | 1 | | | |
| *20 | 20 | A062-04 | 1 | | | * |
| *21 | 21 | -03 | 1 | | | * |
| *22 | 22 | A067-01 | | | | 218.6 |
| *23 | 23 | -02 | | | | |
| *24 | 24 | A067-03 | | | | |
| *25 | 25 | B | ✓ | | | |
| *26 | 26 | B | 1 | | ✓ | |

| Instrument Number | 59 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Method File | IC59A17.MET |
| ICAL ID | SW9B-02-94 |
| ICV ID | SW9B-02-95 |

| Standards | | | |
|---|---|---|---|
| Name | | ID | Conc. (ug/L) |
| ICAL | S1 | SW9B-02 94 | 0.2 |
| | S2 | ↓ | 2.5 |
| | S3 | ↓ | 5.0 |
| | S4 | | |
| | S5 | | |
| QCS | | SW9B-02-92 | 2.3 |

| | | |
|---|---|---|
| ICV | SW9B-02-95 | 4.0 |
| CCV | SW9B-02-93 | 2.3 |
| LCS | SW9B-02-96 | 2.6 |

Comments:

Analyzed By: [signature]

This page is checked during the data review process.

000236

# ANALYSIS RUN LOG FOR IC - HEXAVALENT CHROMIUM

SOP ☑ EMAX-218.6 ☐ EMAX-7199 ☐ Start Date 1/17/02 Time 0942 Ending Date 1/17/02 Time 1921 Book # A59-002

| Sample Prep ID | Data File Name | Lab Sample ID | DF | Matrix S | Matrix W | Notes |
|---|---|---|---|---|---|---|
| *01 | IA17 027 | A067-05 | 1 | | | |
| *02 | 28 | -05D | | | | |
| *03 | 29 | -05M | | | | |
| *04 | 30 | CCV2 | | | | |
| *05 | 31 | CCB2 | | | | |
| *06 | 32 | B | | | | |
| *07 | | | | | | 1/18/02 |
| *08 | | | | | | |
| *09 | | | | | | |
| *10 | | | | | | |
| *11 | | | | | | |
| *12 | | | | | | |
| *13 | | | | | | |
| *14 | | | | | | |
| *15 | | | | | | |
| *16 | | | | | | |
| *17 | | | | | | |
| *18 | | | | | | |
| *19 | | | | | | |
| *20 | | | | | | |
| *21 | | | | | | |
| *22 | | | | | | |
| *23 | | | | | | |
| *24 | | | | | | |
| *25 | | | | | | |
| *26 | | | | | | |

BATCH * HC A204 W **

7044

| Instrument Number | 59 |
|---|---|

| INITIAL CALIBRATION REFERENCE | |
|---|---|
| Method File | IC59A17.MET |
| ICAL ID | SW9B-02-9W |
| ICV ID | SW9B-02-9S |

| Standards | | | |
|---|---|---|---|
| Name | | ID | Conc. (ug/L) |
| ICAL | S1 | SAME AS | P 26 |
| | S2 | | |
| | S3 | | |
| | S4 | | |
| | S5 | | |
| | | | |
| ICV | | | |
| CCV | | | |
| LCS | | | |

Comments:

Analyzed By:

This page is checked during the data review process.

000237

# APPENDIX B

# GROUNDWATER SAMPLE COLLECTION LOG

INTERNATIONAL TECHNOLOGY CORPORATION

Page _____ of _____

# GROUND WATER SAMPLE COLLECTION LOG

Project Name: Jervis Webb
Project No.: 831461
Request-for-Analysis Control No.:
Chain-of-Custody Control No.:
Sample No.: MW-1

Sample Location or: MW-1
Well ID (attach map if necessary):
Date and Time Collected: 1-17-02 / 1430
Sample Collected by: RR
Checked by (Office)/Date:

## EQUIPMENT

Purging Method/Equipment: Vac Truck
Sampling Equipment/ID No.: Disposable Bailer

6″ Diameter = 1.5 gal/ft  (4″ Diameter = 0.67 gal/ft)  2″ Diameter = 0.17 gal/ft

## PURGING INFORMATION

Casing ID (a) (in.) 4  Unit Casing Volume (b) 0.67 ( )
Depth to Well Bottom (c) 70.13 ( )  Depth to Water (d) 46.47 ( )
Length of Static Water Column in Casing (e) = (c) − (d) = 70.13 − 46.47 = 23.66 ( )
Casing Water Volume (f) = (b) × (e) = 0.67 × 23.66 = 15.85 ( )
Casing Volumes = 3 × (f) = 47.55 ( )

| Volume Purged ( ) | Temp. ( ) | Conductance ( ) | DO | Time | Water Description (Color, Turbidity, Odor, Oil) | pH | Turb. |
|---|---|---|---|---|---|---|---|
| 15 | 18.1 | 1.65 | 9.24 | 1144 | No odor, clear | 9.02 | [illegible] |
| 30 | 18.0 | 1.81 | 9.26 | 1150 | " " | 8.99 | 7 |
| 48 | 18.1 | 2.10 | 9.14 | 1156 | " " | 8.95 | 1 |

Total Volume Purged: 48  Time: 1156  Purged Dry (Y/N): N

## SAMPLE PACKAGING

| Container(s) Type and Volume | Filtered (Y/N) | Preservatives | Parameters |
|---|---|---|---|
| 3 40mL VOAs | Y | HCl | 8260 B |
| 1 250mL | N | — | Cr VI |
| 1 500mL | N | — | D. Metals |

727-10-89

INTERNATIONAL TECHNOLOGY CORPORATION



# GROUND WATER SAMPLE COLLECTION LOG

Project Name: Jennis Webb
Project No.: 831461
Request-for-Analysis Control No.:
Chain-of-Custody Control No.:
Sample No.: MW-2

Sample Location or: MW-2
Well ID (attach map if necessary):
Date and Time Collected: 1-17-02 / 1335
Sample Collected by: RRR
Checked by (Office)/Date:

## EQUIPMENT

Purging Method/Equipment: Vac Truck
Sampling Equipment/ID No.: Disposable bailer

6″ Diameter = 1.5 gal/ft  4″ Diameter = 0.67 gal/ft  2″ Diameter = 0.17 gal/ft

## PURGING INFORMATION

Casing ID (a) (in.) 4  Unit Casing Volume (b) 0.67 ( )
Depth to Well Bottom (c) 70.20 ( )  Depth to Water (d) 45.13 ( )
Length of Static Water Column in Casing (e) = (c) − (d) = 70.20 − 45.13 = 25.07 ( )
Casing Water Volume (f) = (b) × (e) = 0.67 × 25.07 = 16.79 ( )
Casing Volumes = 3 × (f) = 50.37 ( )

| Volume Purged ( ) | Temp. ( ) | Conductance ( ) | DO | Time | Water Description (Color, Turbidity, Odor, Oil) | pH | Turb. |
|---|---|---|---|---|---|---|---|
| 17 | 19.0 | 3.58 | 9.60 | 1033 | no odor, slightly cloudy | 7.88 | 102 |
| 34 | 18.5 | 3.22 | 9.55 | 1045 | " , cloudy, slightly yellow | 7.92 | 635 |
| 50 | 18.4 | 3.27 | 9.58 | 1052 | " , cloudy, lt. brown | 7.89 | 999 |

Total Volume Purged: 50  Time: 1052  Purged Dry (Y/N): N

## SAMPLE PACKAGING

| Container(s) Type and Volume | Filtered (Y/N) | Preservatives | Parameters |
|---|---|---|---|
| 3 40 mL VOAs | Y | HCl | 8260B |
| 1 250 mL | N | = | Cr VI |
| 1 500 mL | N | = | D. Metals |

727-10-89

INTERNATIONAL TECHNOLOGY CORPORATION

Page _____ of _____

# GROUND WATER SAMPLE COLLECTION LOG

Project Name: Tennis Wells
Project No.: 831461
Request-for-Analysis Control No.:
Chain-of-Custody Control No.:
Sample No.: MW-3

Sample Location or: MW-3
Well ID (attach map if necessary):
Date and Time Collected: 1-17-02 / 1415
Sample Collected by: RR
Checked by (Office)/Date:

## EQUIPMENT

Purging Method/Equipment: Vac Truck
Sampling Equipment/ID No.: Disposable Bailer

6″ Diameter = 1.5 gal/ft  4″ Diameter = 0.67 gal/ft  2″ Diameter = 0.17 gal/ft

## PURGING INFORMATION

Casing ID (a) (in.) 4  Unit Casing Volume (b) 0.67 ( )
Depth to Well Bottom (c) 70.32 ( )  Depth to Water (d) 45.97 ( )
Length of Static Water Column in Casing (e) = (c) - (d) = 70.32 - 45.97 = 24.35 ( )
Casing Water Volume (f) = (b) × (e) = 0.67 × 24.35 = 16.31 ( )
Casing Volumes = 3 × (f) = 48.93 ( )

| Volume Purged ( ) | Temp. °C ( ) | Conductance (ms/cm) | DO mg/l | Time | Water Description (Color, Turbidity, Odor, Oil) | pH | Turb. |
|---|---|---|---|---|---|---|---|
| 17 | 18.3 | 1.50 | 9.25 | 1115 | no odor, clear | 7.97 | 25 |
| 34 | 18.4 | 2.33 | 9.06 | 1122 | " , slightly clear | 7.94 | 75 |
| 50 | 18.4 | 2.64 | 9.10 | 1126 | " " | 7.92 | 75 |

Total Volume Purged: 50  Time: 1126  Purged Dry (Y/N): N

## SAMPLE PACKAGING

| Container(s) Type and Volume | Filtered (Y/N) | Preservatives | Parameters |
|---|---|---|---|
| 3 40 mL VOAs | Y | HCL | 8260 |
| 1 250 mL | N | — | Cr VI |
| 1 500 mL | N | — | D. Metals |

727-10-89

INTERNATIONAL TECHNOLOGY CORPORATION

Page _____ of _____

# GROUND WATER SAMPLE COLLECTION LOG

Project Name: Travis Webb
Project No.: 631461
Request-for-Analysis Control No.:
Chain-of-Custody Control No.:
Sample No.: MW-4

Sample Location or: MW-4
Well ID (attach map if necessary): [illegible]
Date and Time Collected: 1-17-02 / 1500
Sample Collected by: KR
Checked by (Office)/Date:

## EQUIPMENT

Purging Method/Equipment: Vac Truck
Sampling Equipment/ID No.: Disposable Bailer

6″ Diameter = 1.5 gal/ft  4″ Diameter = 0.67 gal/ft  2″ Diameter = 0.17 gal/ft

## PURGING INFORMATION

Casing ID (a) (in.) 4  Unit Casing Volume (b) 0.67 ( )
Depth to Well Bottom (c) 69.40 ( )  Depth to Water (d) 46.53 ( )
Length of Static Water Column in Casing (e) = (c) − (d) = 69.40 − 46.53 = 22.87 ( )
Casing Water Volume (f) = (b) × (e) = 0.67 × 22.87 = 15.32 ( )
Casing Volumes = 3 × (f) = 45.96 ( )

| Volume Purged ( ) | Temp. ( ) | Conductance ( ) | DO | Time | Water Description (Color, Turbidity, Odor, Oil) | pH | Turb. |
|---|---|---|---|---|---|---|---|
| 15 | 19.9 | 4.31 | 9.56 | 1305 | no odor, clear | 6.81 | 17 |
| 30 | 19.9 | 4.96 | 9.51 | 1313 | " " | 6.80 | 0 |
| 46 | 19.7 | 5.00 | 9.47 | 1317 | " " | 6.77 | 7 |

Total Volume Purged: 46  Time: 1317  Purged Dry (Y/N): N

## SAMPLE PACKAGING

| Container(s) Type and Volume | Filtered (Y/N) | Preservatives | Parameters |
|---|---|---|---|
| 3 40 mL VOAs | Y | HCL | 8260B |
| 1 250 mL | N | — | Cr VI |
| 1 500 mL | N | — | D. Metals |

727-10-89

INTERNATIONAL TECHNOLOGY CORPORATION

Page _____ of _____

# GROUND WATER SAMPLE COLLECTION LOG

Project Name: Jervis Webb
Project No.: 631461
Request-for-Analysis Control No.:
Chain-of-Custody Control No.:
Sample No.: MW-5

Sample Location or: MW-5
Well ID (attach map if necessary):
Date and Time Collected: 1-17-02 / 1445
Sample Collected by: RR
Checked by (Office)/Date:

## EQUIPMENT

Purging Method/Equipment: Vac Truck
Sampling Equipment/ID No.: Disposable Bailer

6″ Diameter = 1.5 gal/ft  4″ Diameter = 0.67 gal/ft  2″ Diameter = 0.17 gal/ft

## PURGING INFORMATION

Casing ID (a) (in.) 4  Unit Casing Volume (b) 0.67 ( )
Depth to Well Bottom (c) 69.10 ( )  Depth to Water (d) 46.95 ( )
Length of Static Water Column in Casing (e) = (c) − (d) = 69.10 − 46.95 = 22.15 ( )
Casing Water Volume (f) = (b) × (e) = 0.67 × 22.15 = 14.84 ( )
Casing Volumes = 3 × (f) = 44.52 ( )

| Volume Purged ( ) | Temp. ( ) | Conductance ( ) | DO | Time | Water Description (Color, Turbidity, Odor, Oil) | pH | Turb. |
|---|---|---|---|---|---|---|---|
| 15 | 19.5 | 4.62 | 11.13 | 1235 | clear, no odor | 8.06 | 79 |
| 30 | 19.5 | 4.89 | 10.89 | 1240 | " " | 8.75 | 3 |
| 45 | 19.3 | 4.98 | 10.06 | 1245 | " " | 8.81 | 2 |

Total Volume Purged: 45  Time: 1245  Purged Dry (Y/N): N

## SAMPLE PACKAGING

| Container(s) Type and Volume | Filtered (Y/N) | Preservatives | Parameters |
|---|---|---|---|
| 3 40 mL VOAP | Y | HCL | 8260 B |
| 1 250 mL | N | = | Cr VI |
| 1 500 mL | N | = | D. Metals |

727-10-89

# APPENDIX C

# WASTE MANIFESTS

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 of page 6.**

Department of Toxic Substances Control
Sacramento, California

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD063798995 Manifest Document No. 01002
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
Jervis B Webb of California
34375 W. Twelve Mile Road, Farmington Hills, MI 48331-5624
4. Generator's Phone ( 248) 553-1201 Attn Michael Farley

A. State Manifest Document Number 99387598
B. State Generator's ID
C. State Transporter's ID [Reserved]
D. Transporter's Phone

5. Transporter 1 Company Name: Island Environmental
6. US EPA ID Number: CAR000053405
7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID [Reserved]
F. Transporter's Phone

9. Designated Facility Name and Site Address
US Filter Recovery Services (Calif.) Inc
5375 South Boyle Ave
Los Angeles, CA 90058
10. US EPA ID Number: CAD097030993

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 | |
|---|---|---|---|---|---|
| Hazardous waste, liquid, n.o.s. (trichloroethlene), 9, NA3082, III | 001 | TT | 00250 | G | State / EPA/Other |
| b. | | | | | State / EPA/Other |
| c. | | | | | State / EPA/Other |
| d. | | | | | State / EPA/Other |

J. Add USP Profile #P132543: groundwater with trichloroethlene
Send photocopy of TSDF signed manifest to: Steve Chandler, IT Corporation, 3347 Michelson Dr., Suite 200, Irvine, CA 92612

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

15. Special Handling Instructions and Additional Information
Caution: Wear appropriate protective clothing and respiratory protection when handling
**IN CASE OF EMERGENCY CONTACT: Chem-Tel, Inc. at 1-800-255-3924**
Site pick up address
5030 Firestone Blvd South Gate CA

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: STEVE CHANDLER Signature: Month 01 Day 17 Year 02

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

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 Signature Month Day Year

**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

00387598

DTSC 8022A (1/99)
PA 8700—22

Yellow: GENERATOR RETAINS

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 of page 6.**

Department of Toxic Substances Control
Sacramento, California

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

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD063798995
Manifest Document No.: 01001
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Jervis B. Webb of California
34375 W. Twelve Mile Road, Farmington Hills, MI 48331-5624
4. Generator's Phone ( (248) 553-1201 Attn: Michael Farley

5. Transporter 1 Company Name: Island Environmental
6. US EPA ID Number: CAR000053405

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

9. Designated Facility Name and Site Address
US Filter Recovery Services (Calif.) Inc.
5375 South Boyle Ave.
Los Angeles, CA 90058
10. US EPA ID Number: CAD097030993

| 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt/Vol |
|---|---|---|---|---|
| Hazardous waste, liquid, n.o.s. (trichorethlene), 9, NA3082, III | 001 | TT | 00450 | G |
| b. | | | | |
| c. | | | | |
| d. | | | | |

[illegible] groundwater with trichloroethlene
Send photocopy of TSDF signed manifest to: Steve Chandler, IT Corporation, 3347 Michelson Dr., Suite 200, Irvine, CA 92612

15. Special Handling Instructions and Additional Information
Caution: Wear appropriate protective clothing and respiratory protection when handling.
**IN CASE OF EMERGENCY CONTACT: Chem-Tel, Inc. at 1-800-255-3924**
Site pick up address: 5030 Firestone Blvd. South Gate CA
ERG #171

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 | Signature | Month | Day | Year |
|---|---|---|---|---|
| STEVE CHANDLER | [signature] | 01 | 11 | 02 |

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| JUAN RIVERA | [signature] | 10 | 11 | 02 |

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 this manifest except as noted in Item 19.

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

GENERATOR / TRANSPORTER / FACILITY

**DO NOT WRITE BELOW THIS LINE.**

DTSC 8022A (1/99)
EPA 8700—22

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

USFilter

USFilter Recovery Services (California), Inc.

# LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Pursuant to CCR Title 22, Section 66268.7(40 CFR 268.7(a), I hereby notify that this waste shipment contains one or more of the following wastes restricted under the land disposal restrictions for which applicable treatment standards are set forth in CCR Title 22, Section 66268.40 (40 CFR 268.40)

Manifest Num. 99387599 Generator Name: Jervis B. Webb of CA. EPA# CAD063798995

RCRA HAZARDOUS WASTE INFORMATION

| U.S.F. PROFILE NUMBER/ MANIFEST LINE ITEM NUMBER | List all D, F, K, U & P Codes | Subcategory (IF ANY) | WASTEWATER*/ NONWASTEWATER WW | NWW | California List ** Per CCR Title 22, Section 66268.32 | Hazardous Debris Subject To CCR Title 22, Sec 66268.45 |
|---|---|---|---|---|---|---|
| P132543 | D040 | na | XX | ☐ | ☐ For:_____ | ☐ |
| | | | ☐ | ☐ | ☐ For:_____ | ☐ |
| | | | ☐ | ☐ | ☐ For:_____ | ☐ |
| | | | ☐ | ☐ | ☐ For:_____ | ☐ |
| | | | ☐ | ☐ | ☐ For:_____ | ☐ |
| | | | ☐ | ☐ | ☐ For:_____ | ☐ |

**ADDITIONAL INFORMATION FOR D001, D002, D012-43, F001-5 & F039 WASTE STREAMS: (check one)**

XX There are no underlying hazardous constituents (UHCs) present

☐ There are underlying hazardous constituents (UHCs) present which do not meet treatment standards per CCR Title 22, Section 66268.48
(Use the attached UTS Table and check the appropriate constituent(s) present in the waste stream)

**DETERMINATION BASED UPON : (check one)**

☐ Knowledge of the process generating the waste and the raw materials used and the reaction products

XX Results from analytical testing Analytical results attached ☐ YES XX NO

**TERM DEFINITIONS:**

* ***WASTEWATER*** = per CCR Title 22, Section 66260.10, WASTE THAT CONTAINS LESS THAN 1% BY WEIGHT TOTAL TOXIC ORGANICS (TOCs) AND 1% BY WEIGHT TOTAL SUSPENDED SOLIDS (TSS).

*****CALIFORNIA LIST***= THE FOLLOWING HAZARDOUS WASTES ARE PROHIBITED FROM LAND DISPOSAL: per CCR Title 22, Section 66268.32

- Liquid hazardous waste with a pH less than or equal to 2.0
- Liquid hazardous waste containing PCB's at concentration of greater than or equal to 50 ppm
- Liquid hazardous waste, including free liquids associated with any solids/sludge, containing free cyanide at concentrations greater than or equal to 1,000 mg/L
- Liquid hazardous waste, including free liquids associated with any solids/sludge, containing metals at concentrations greater than or equal to the following:

| | | | |
|---|---|---|---|
| ARSENIC | 500 mg/L | MERCURY | 20 mg/L |
| CADMIUM | 100 mg/L | NICKEL | 134 mg/L |
| CHROMIUM | 500 mg/L | SELENIUM | 100 mg/L |
| LEAD | 500 mg/L | THALLIUM | 130 mg/L |

- Liquid hazardous waste, that contains HOC's in total concentration greater than or equal to 1,000 mg/L
- Non-liquid RCRA hazardous waste containing HOC's in total concentration greater than or equal to 1,000 mg/L

**CERTIFICATION**

**I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification. I believe that the information I have submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment**

Jervis B. Webb of CA — COMPANY NAME

AUTHORIZED SIGNATURE

1-11-02 — DATE

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator's US EPA ID No. CAD063796995 | Manifest Document No. 01003 | 2. Page 1 of 1 |
|---|---|---|---|

3. Generator's Name and Mailing Address
Jervis B. Webb of California
34375 W. Twelve Mile Road Farmington MI 48331-5624
4. Generator's Phone ( (248)553-1201 Attn Michael Farley

831461-01003

| 5. Transporter 1 Company Name | 6. US EPA ID Number | A. State Transporter's ID |
|---|---|---|
| Joe Torres Trucking | CAD980887046 | B. Transporter 1 Phone (661) 832-2635 |
| 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 | 10. US EPA ID Number | E. State Facility's ID |
| American Remedial Technologies<br>2680 Seminole Ave<br>Lynwood CA 90262 | NA | F. Facility's Phone (323) 357-1900 |

| 11. WASTE DESCRIPTION | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-regulated waste | 03 | DM | 7.25 | Y |
| b. [illegible] | 011 | DM | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

1 to ART Job / Approval #20022156 3198 soil with trace organics (TCE)
Send TSDF signed manifest to Steve Chandler IT Corporation 3347 Michelson Dr Suite 200 Irvine, CA 92612

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Caution Wear appropriate protective clothing and respiratory protection when handling

Site pick up address:
5030 Firestone Blvd South Gate CA

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 | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| STEVE CHANDLER | [signature] | 1 | 14 | 02 |

17. Transporter 1 Acknowledgement of Receipt of Materials

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

18. Transporter 2 Acknowledgement of Receipt of Materials

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

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 |
|---|---|---|---|---|
| | | | | |

GENERATOR

TRANSPORTER

FACILITY

NON HAZARDOUS WASTE

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# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator's US EPA ID No. CAD063798995 | Manifest Document No. 01002 | 2. Page 1 of 1 |
|---|---|---|---|

3. Generator's Name and Mailing Address
Jervis B. Webb of California
34375 W. Twelve Mile Road Farmington MI48331-5624
4. Generator's Phone (248) 553-1291 Attn: Michael Farley

831461-01002

| 5. Transporter 1 Company Name | 6. US EPA ID Number | |
|---|---|---|
| Joe Torres Trucking | CAD980887046 | A. State Transporter's ID |
| | | B. Transporter 1 Phone (661) 832-2635 |
| 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<br>American Remedial Technologies<br>2680 Seminole Ave<br>Lynwood CA 90262 | 10. US EPA ID Number<br>NA | E. State Facility's ID |
| | | F. Facility's Phone (323) 357-1900 |

| 11. WASTE DESCRIPTION | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-regulated waste | 0013 | DM | 3.25 | Y |
| b. | 0003 | DM | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

11a. ART Job / Approval #20022194 3198 soil with trace organics (TCE)
Send TSDF signed manifest to: Steve Chandler IT Corporation 3347 Michelson Dr., Suite 200, Irvine CA 92612.

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Caution: Wear appropriate protective clothing and respiratory protection when handling

Site pick up address:
5030 Firestone Blvd. South Gate CA

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 | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| Steve Chandler | [signature] | 1 | 14 | 02 |

17. Transporter 1 Acknowledgement of Receipt of Materials

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

18. Transporter 2 Acknowledgement of Receipt of Materials

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

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 |
|---|---|---|---|---|
| | | | | |

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