CAPSULE®
ENVIRONMENTAL ENGINEERING, INC

March 26, 1997

Mr. Scott Seery, CHMM
Environmental Protection Division, Suite 250
Alameda County Environmental Health Department
1131 Harbor Bay Parkway
Alameda, California 94502

Dear Mr. Seery:

On behalf of the Ingersoll-Rand Equipment Sales, Capsule Environmental Engineering, Inc., and our project partner, Braun Intertec Corporation, would like to submit the enclosed report, Quarterly Report October 1996 (Quarterly Report). This report is part of Ingersoll-Rand's corrective action activities to address the underground storage tank leak at 1944 Marina Boulevard, San Leandro.

The Quarterly Report was prepared to summarize the monitoring and corrective action activities for the period from July through October. It contains the results of both the July and October 1996 sampling events.

If you have any questions, comments, or need additional information cited in the report, please contact John McDermott at (800) 328-8246.

Sincerely,

John McDermott
Hydrogeologist
Capsule Environmental Engineering, Inc.

Gerald E. Stuth, P.E.
Senior Project Manager
Braun Intertec Corporation

JJM:mmf
cc/enc: Kevin Graves/ Regional Water Quality Control Board, Oakland, CA
Robert Heindl/Ingersoll-Rand Equipment Sales, Bethlehem, PA (2 copies)
Bo Kim/Ingersoll-Rand Equipment Sales, San Leandro, CA (2 copies)
Michael Bakaldin/San Leandro Fire Department, San Leandro, CA

1970 Oakcrest Avenue, Suite 215 • St. Paul, MN 55113-2624 • (612) 636-2644 • Fax (612) 636-3106
Toll Free 1-800-328-8246

Quarterly Report
October 1996

Prepared For:

Ingersoll-Rand
Equipment Sales
San Leandro, California

March 20, 1997

QUARTERLY REPORT
OCTOBER 1996

Prepared For:

Ingersoll-Rand Equipment Sales
1944 Marina Boulevard
San Leandro, California 94577

March 20, 1997

Prepared By:

CAPSULE
ENVIRONMENTAL ENGINEERING INC
1970 Oakcrest Avenue, Suite 215
St. Paul, Minnesota 55113
(612) 636-2644

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1.0 INTRODUCTION

Ingersoll-Rand Company (I-R) has contracted with Capsule Environmental Engineering, Inc. (Capsule) to complete the implementation of the final corrective action design and related underground storage tank (UST) response activities for its equipment sales and maintenance facility at 1944 Marina Boulevard in San Leandro, California.

As part of these activities, Capsule prepares quarterly activities reports for the facility. The objectives of these reports are to:

- Provide a summary of corrective action activities including such work as the construction, sampling, and maintenance being conducted at the facility during the quarter
- Provide a benchmark of data and interpretation to evaluate the performance of corrective action activities
- Comply with Alameda County and City of San Leandro reporting requirements

The Quarterly Report October 1996 (October 1996 Report) provides the data and summary from the quarterly ground water monitoring events that were performed in July and October 1996. The two events are summarized in one report due to the timing of the previous quarterly submittal. Additionally, the October 1996 Report provides a brief summary of the continued operation of the redesigned soil vapor extraction (SVE) system, which was placed in service in early October 1995. The SVE system summary is for the period through October 1996.

1.1 SITE DESCRIPTION

I-R operates a construction equipment sales and maintenance facility at 1944 Marina Boulevard, San Leandro, Alameda County, California (see Figure 1). The eastern shore of San Francisco Bay is approximately 1.25 miles west of the facility. The local topography around the facility is fairly flat, sloping gently toward the bay. Facility land surface elevations range from 25 to 30 feet above sea level.

The facility is situated in an area of industrial and commercial development. It is bounded on the north by Southern Pacific railroad tracks and on the south by Marina Boulevard. Immediately to the west of the facility is a manufacturer of packaging materials. To the east is an office filing equipment manufacturer. The office equipment manufacturing facility closed during the first half of 1996. The facility has perimeter fencing.

The property's building has two tenants. The closed office filing equipment manufacturer occupies the eastern portion of the building. I-R occupies the western portion of the building, which consists of an office and parts distribution area attached to a large bayed service area. To the north and west of the building is an outdoor equipment storage yard. The stored

equipment includes both new and used construction machinery. Drilling rigs, compressors, compactors, and other construction equipment are commonly stored in this area while being readied for sale, repair, rental, and salvage.

1.2 UNDERGROUND STORAGE TANK (UST) ACTIVITIES CHRONOLOGY

A detailed UST chronology is provided in the Quarterly Report April 1995.

Generally, corrective action activities began with the submittal of a UST release report to the San Leandro Fire Department in 1989. Site investigation activities since 1989 include monitoring well and boring installation, ground water and soil sampling, and reporting.

In 1992, an SVE system consisting of one regenerative vacuum blower and four vent wells, VW-1 through VW-4, were installed and operated for several months. System operation was discontinued when water levels rose and the system collected condensate. It is reported that 800 pounds of product were removed from vent well VW-3 during initial operation.

In late 1994, five additional SVE vent wells, VW-5 through VW-9, were installed. These vent wells were installed to provide the SVE system with flexibility in vacuum configuration over a larger area including the downgradient property boundary.

Ground water sampling of monitoring wells was performed in November 1989; June and October of 1994; and quarterly during 1995 and 1996. Additionally, a sample was taken from MW-4 in November 1990. The results indicated and confirmed the presence of gasoline-related volatile organic compounds (VOCs) and several chlorinated VOCs in low concentrations in site monitoring wells.

In March 1995, Alameda County directed I-R to conduct additional ground water assessment work as part of remedial activities. The additional assessment work was conducted in June and July 1995. The work included push probe-type borings and ground water sampling. The assessment findings were reported in the October 1995 Quarterly Report.

In May 1995, SVE testing was conducted on all vent wells except VW-2. The testing results were used as the basis for a redesign of the SVE system. Construction of the redesigned system began in mid-September and was completed in early October. The original regenerative vacuum blower, which is connected to vent wells VW-1, VW-4, VW-5, VW-9, and three carbon vessels, describes the redesigned system.

The redesigned SVE system became operational during October 1995. The system is generally operated during the normal work week when facility personnel are available to perform permit-required daily air monitoring.

The facility received a December 8, 1995, letter from the State Water Resources Control Board, regarding interim guidance, in light of the October 1995 Lawrence Livermore National

Laboratory report on leaking USTs. Additional supplemental instructions, prepared by the San Francisco Bay Region, California Water Quality Control Board, to the December 8 letter were received by the facility on March 15, 1996.

In the spring of 1996, rainfall and high water levels adversely affected the operation of the SVE system. Daily air monitoring showed lower influent concentrations. Additionally, more water collected in the system and had to be handled.

2.0 GROUND WATER DATA SUMMARY

Both the July and October 1996 ground water sampling events included monitoring wells MW-3, MW-4, and vent well VW-8. The July 1996 event was performed on July 25, 1996. The October 1996 event occurred on October 22, 1996. During both sampling events, water levels were also measured in MW-1, MW-2, and VW-6. Figure 2 provides an overall site plan and sampling point locations.

The analytical results, the chain of custody forms, and stabilization tests for both the July and October 1996 events can be found in Appendix A.

The June and October 1994 and the January 1995 sampling events included upgradient wells MW-1 and MW-2. During a March 2, 1995, telephone conference with Alameda County Health Care Services, it was agreed that no additional quarterly sampling of MW-1 and MW-2 would be necessary. VW-8 sampling was added to the sampling schedule during the June 1995 event to provide additional data on ground water conditions downgradient of the facility.

2.1 GROUND WATER LEVEL DATA

Depth-to-water measurements were collected as part of both the July and October 1996 events. Field measurements recorded during the stabilization tests are attached in Appendix A. A summary of all water level data from wells and vent wells is provided in Table 1.

During the July 1996 event, water level elevations beneath the facility ranged between 10.79 to 12.34 feet above sea level. During the October 1996 event, water level elevations ranged between 10.06 and 11.49 feet above sea level. Water level fluctuations continued to be seasonal. Water levels rise during the wetter winter months and decline through the rest of the year.

During the period of record, the water levels have generally fluctuated from 2 to 3 feet.

Rainfall at the nearby San Leandro Marina rainfall gauge has varied from a low of 10.13 inches in the 1989 to 1990 water year to a high of 19.33 inches during the 1994 and 1995 water year (Alameda County, 1995). The May, June, July, August, September, and October 1996 rainfall was 1.42, 0.0, 0.0, 0.0, 0.0, and 0.47 inches, respectively.

2.1.1 Ground Water Gradient

The shallow ground water in the area of the facility responds directly to seasonal rainfall. Water levels rise in response to higher rainfall in the late winter and early spring, and decline through the lower rainfall periods of summer and fall.

As Figure 3 indicates, water level elevations in individual wells respond fairly uniformly. This uniform fluctuation results in generally consistent hydraulic gradients and ground water flow direction over time.

The general ground water flow direction remains to the southwest. Ground water contours for the July 1996 event are shown in Figure 4. Ground water contours for the October 1996 event are shown in Figure 5. From January through April, a flexure appears in the ground water contours. The flexure is a trough-like feature in the contours, trending generally northeast to southwest. The flexure is likely due to the water level rising into an area of higher permeability. The flexure dissipates as water levels decline throughout the late spring and early summer.

Overall, it is generally acknowledged that because of the interlayered nature of the shallow subsurface, it is likely contours are not as uniform as portrayed. Variations in soil particle size and permeability can cause local variations in flow direction.

2.1.2 Ground Water Flow Velocity

Ground water generally flows beneath the facility in a southwesterly direction. A ground water flow velocity estimate can be calculated from:

$$v = (k*i)/n$$

where,
v = ground water flow velocity (ft/day)
k = hydraulic conductivity (ft/day)
i = hydraulic gradient (ft/ft)
n = porosity (dimensionless)

The following list summarizes the variables and the information sources for an estimate of the variable value.

Variable	Estimate	Data Source
hydraulic conductivity (k)	9.0 ft/day[1]	IT Corporation, Data Summary Report, 1990
hydraulic gradient (I)	0.004	Capsule, Quarterly Monitoring Report, October 1996
porosity (n)	0.30 [2]	Freeze and Cherry (1979), Table 2.4

(1) From pumping test performed on MW-4
(2) The cited porosity range for sand was 25% to 40%. Based upon the silty and clay nature of the site's sand, 30% was selected.

Using the October 1996 data, a ground water velocity of 0.14 feet per day, or 44 feet per year was calculated from these estimates. This velocity is consistent with previous calculated estimates and is considered low. Appendix B presents the velocity calculations.
For comparison purposes, the estimates from the October 1995 measurement was also 44 feet per year.

2.2 GROUND WATER ANALYTICAL DATA

Water samples from the July and October 1996 events were analyzed using United States Environmental Protection Agency (EPA) Methods 8015, 8020, and 8260. The analytical results are presented in Table 2.

During the October 1996 analysis, the detection limits for MW-3 and MW-4 were ten times higher than previous detection limits. According to the laboratory, the higher detection limits were due to a "matrix interference." Clayton provided an explanation letter and reanalysis of duplicate samples. See the Clayton, December 9, 1996, letter and revised analyses in Appendix A. As explained in the Clayton letter, sampling holding times had been exceeded. Even though they were exceeded, the results are consistent with previous results and considered useable in data evaluation.

In the monitoring wells, no new aromatic or chlorinated VOCs were detected during the July or October 1996 events. Both MW-3 and MW-4 concentrations were generally lower or similar to previous July and October results. The sample collected from VW-8 detected similar gasoline constituents to July and October 1995 results.

Additional discussion is provided below on individual chlorinated and aromatic organic compounds.

In most instances, the laboratory-reported concentrations of the benzene, ethylbenzene, toluene, and xylene (BETX) compounds are not identical but very similar for EPA methods 8020 and 8260.

While the water samples were not collected from a public water source, the California maximum contaminant levels (MCLs) are presented for comparison purposes with the detected concentrations. The list of MCLs comes from the EPA, Region IX's publication Drinking Water Standards and Health Advisories Table, dated December 1995.

2.2.1 Chlorinated Organics

Chlorinated VOC detections have been found in monitoring wells.

2.2.1.1 Trichloroethene (TCE)

Throughout the MW-1 and MW-2 period of record, 1989 through 1994, these two upgradient wells consistently showed TCE detections ranging from 5 to 29 micrograms/liter (μg/l).

Department of Toxic Substance Control information indicates that TCE is a widely occurring VOC found in the shallow ground water in the San Leandro area (WCC, 1993). Given this

information and the occurrences in upgradient wells, it likely that the TCE-impacted ground water detected in MW-1 and MW-2 is flowing onto the facility from an upgradient source.

By agreement with Alameda County, these wells have not been sampled since the January 1995 event.

The July and October 1996 analytical results from MW-4, both detected a TCE concentration of 22 μg/l. TCE has been intermittently detected during the period of record, ranging from nondetection to 27 μg/l. MW-4 is on the downgradient side of the facility.

No TCE was detected in the sampling of MW-3 or VW-8.

The California MCL for trichloroethene is 0.005 milligrams/liter (mg/l) or 5 μg/l.

2.2.1.2 1,2-Dichloroethene

Cis-1,2-dichloroethene was detected during the July and October 1996 events at 5 μg/l in MW-4. Prior to July 1996, cis-1,2-dichloroethene had not been detected in MW-4.

Over the period of record, cis-1,2-dichloroethene has been detected in OB-1. Detections in OB-1 ranged from 6.7 μg/l to 12 μg/l. Potential sources of these low concentrations include breakdown products of TCE and as a manufacturing artifact of TCE.

Cis-1,2-dichloroethene was detected in VW-9 at 6 μg/l during the June 1995 sampling event.

The California MCL for cis-1,2-dichloroethylene is 0.006 mg/l or 6 μg/l.

Trans-1,2-dichloroethene was detected in MW-4 during the July and October 1996 events at 11 μg/l and 10μg/l. Over the period of record, trans-1,2-dichloroethene has been intermittently detected in MW-4, ranging from nondetection to 16 μg/l. Potential sources of these concentrations include breakdown products of TCE and as a manufacturing artifact of TCE.

The California MCL for trans-1,2-dichloroethylene is 0.010 mg/l or 10 μg/l.

2.2.1.3 Chlorobenzene

During the July and October 1996 events, chlorobenzene was detected in MW-3 at 11 μg/l and 12 μg/l. In previous sampling events, chlorobenzene results in MW-3 ranged from nondetection to 19 μg/l. Typical uses for the compound are as a solvent, in heat transfer, and in the production of pesticides. (Sax and Lewis, 1987)

The California MCL for monochlorobenzene (chlorobenzene) is 0.070 mg/l or 70 μg/l.

2.2.1.4 Dichlorobenzene Isomers

The three isomers of dichlorobenzene were detected in MW-3 in concentrations similar to previous amounts. The three isomers, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene, have a wide variety of uses including use as a solvent, in dye manufacturing, insecticides, and industrial odor control. The isomers 1,3- and 1,4-dichlorobenzene are generally used in fumigants and insecticides. (Sax and Lewis, 1987)

During the July and October 1996 events, 1,4-dichlorobenzene was detected in MW-3 at 15 μg/l and 13 μg/l. Previous detections ranged from 11 μg/l to 18 μg/l. Isomer 1,3-dichlorobenzene was detected at 7 μg/l and 6 μg/l in MW-3. Previous detections ranged from 5 μg/l to 19 μg/l. Isomer 1,2-dichlorobenzene was detected at 62 μg/l and 69 μg/l in MW-3. Previous detections ranged from 42 μg/l to 64 μg/l.

Isomer 1,4-dichlorobenzene has a California MCL, which is .005 mg/l or 5 μg/l and 1,2-dichlorobenzene has a California MCL, which is 0.6 mg/l or 600 μg/l. There is no California MCL for 1,3-dichlorobenzene. There is a California action level of 130 μg/l for a single isomer of either 1,2 or 1,3. There is also a California action level of 130 μg/l for a sum of these two isomers.

2.2.1.5 1,2 Dichloroethane

During the July and October 1996 events, 1,2 dichloroethane was not detected. Previously there have been two occurrences in MW-4, one during June 1994 and the other during June 1995. Both results were 11 μg/l.

As a note of clarification, reports prior to the January 1996 quarterly report mistakenly stated that the 1,2 dichloroethane detections were in MW-3, when they were actually from MW-4.

Typical uses for the compound include use as a solvent and as a lead scavenger in anti-knock gasoline.

During the July and October 1996 events, 1,2 dichloroethane was not detected in a ground water sample collected from VW-8. The June 1995 event indicated 6 μg/l. Since the June 1995 result, five successive quarterly results have not detected 1,2 dichloroethane.

The California MCL for 1,2 dichloroethane is 0.0005 mg/l or 0.5 μg/l.

2.2.2 Aromatic Organics

During the July and October 1996 events, several gasoline component VOCs continued to be detected in samples from monitoring wells MW-3, MW-4, and VW-8. Each detected VOC is discussed in the following sections.

2.2.2.1 Benzene

During the July and October 1996 events, benzene was detected in MW-3 at 10 μg/l and 3.1 μg/l. These concentrations are comparable to low (10 μg/l or less) values observed during previous June and October events. For the period of record, benzene concentrations ranged from 3.1 μg/l to 1,200 μg/l.

Benzene concentrations in MW-3 respond seasonally. Benzene concentration increases have occurred in the January to April time periods for both 1995 and 1996. During the June and October time periods for 1995 and 1996, benzene concentrations in MW-3 decreased. Overall, these changes are attributed to increased precipitation, higher late winter water table, and the accompanying flushing of residual gasoline from soils in the area of MW-3, which is near the former gasoline UST site.

As Figure 6 indicates, MW-3 benzene values decreased for the January to April 1996 period compared to the January to April 1995 period. The SVE system became operational during October 1995.

Benzene was detected in MW-4 at 110 μg/l and 140 μg/l during the July and October 1996 events. These values are similar or lower than previous concentrations for the period of record. The 110 μg/l is a period of record low. Concentrations for the period of record ranged from 110 μg/l to 600 μg/l. A questionable sample from late 1990 reported 1,500 μg/l. The original October 1996 result was reported as 210 μg/l and is considered questionable. As discussed in the December 9, 1996, Clayton letter accompanying the revised results, there was carryover in the laboratory from highly contaminated samples run prior to the San Leandro samples.

Benzene was detected in VW-8 at 74 μg/l and 180 μg/l for the July and October 1996 events. Since sampling began in June 1995, benzene concentrations in VW-8 have ranged from nondetection to 290 μg/l.

The California MCL for benzene is 0.001 mg/l or 1 μg/l.

2.2.2.2 Ethylbenzene

Ethylbenzene is another gasoline constituent detected in MW-3, MW-4, and VW-8.

The ethylbenzene concentrations detected in MW-3 were 35 μg/l and 13 μg/l for the July and October 1996 sampling events. The 13 μg/l is a period of record low for MW-3. For the period of record, MW-3 ethylbenzene concentrations ranged from nondetection to 720 μg/l.

During the July and October 1996 sampling events, the ethylbenzene concentration in MW-4 was 170 μg/l and 240 μg/l. The 170 μg/l was a period of record low for MW-4.

Ethylbenzene was also detected in VW-8 at a concentration of 52 μg/l and 190 μg/l for the July and October events. Since sampling began at VW-8 in July 1995, ethylbenzene concentrations ranged from 0.6 μg/l to 230 μg/l.

The California MCL for ethylbenzene is 0.7 mg/l or 700 μg/l.

2.2.2.3 Toluene

Toluene has been detected in MW-3, MW-4, and VW-8. Toluene is a constituent of gasoline.

The July and October 1996 concentrations in MW-3 were nondetect for toluene. Previous toluene detections in MW-3 ranged from 4 μg/l to 1,700 μg/l. Seasonal fluctuations in toluene concentrations are similar to fluctuations for benzene and xylene concentrations. Overall, there has been a downward trend in toluene concentrations.

The July and October 1996 concentrations in MW-4 were 0.6 μg/l and 1.2 μg/l. Previous MW-4 toluene concentrations ranged from 3.6 μg/l to 110 μg/l. The 0.6 μg/l detected during the July 1996 event was the lowest observed in the period of record.

The VW-8 toluene concentrations for the July and October 1996 events were 3 μg/l and 3.9 μg/l. VW-8 toluene concentrations have ranged from 0.3 μg/l to 570 μg/l for the period of record, which began in June 1995.

The California MCL for toluene is 0.150 mg/l or 150 μg/l.

2.2.2.4 Isomers of Xylene

In the past, the three isomers of xylene have been detected in water samples from MW-3, MW-4, and VW-8. The three isomers are all constituents of gasoline.

During the July and October 1996 sampling events, o-xylene was detected at 7.8 μg/l and 4 μg/l in MW-3. These are periods of record lows. MW-3 concentrations of o-xylene ranged from 4 μg/l to 940 μg/l. P and m-xylenes were detected at 36 μg/l and 16 μg/l for the July and October 1996 events. These are periods of record lows. MW-3 concentrations of p and m-xylenes ranged from 16 μg/l to 2,100 μg/l.

In MW-4, o-xylene was detected at 12 μg/l and 9.3 μg/l for the July and October 1996 events. MW-4 concentrations ranged from 10 μg/l to 320 μg/l for o-xylene. P and m-xylenes were detected at 110 μg/l and 170 μg/l for the July and October 1996 events. The 110 μg/l was a period of record low. MW-4 concentrations ranged from 110 μg/l to 730 μg/l. Xylene isomers were also detected in VW-8.

O-xylene concentrations for VW-8 were 0.9 μg/l and 1.0 μg/l for the July and October 1996 events. For the period of record, which began in June 1995, results ranged from <0.4 μg/l to 130 μg/l. P and m-xylenes were detected in VW-8 at 3.6 μg/l and 6.8 μg/l for the July and October 1996 events. P and m-xylene concentrations ranged from <0.4 μg/l to 210 μg/l for the period of record, which began in June 1995.

The California MCL for xylenes is 1.75 mg/l or 1,750 μg/l for either a single isomer or the sum of the isomers.

2.2.2.5 Naphthalene

During the July and October 1996 events, naphthalene was detected in MW-3, MW-4, and VW-8. Naphthalene is a constituent of gasoline.

For the July and October 1996 events, naphthalene was detected at 10 μg/l and 6 μg/l in MW-3. These values are the lowest detected concentrations for the period of record. MW-3 concentrations ranged from <5 μg/l to 150 μg/l.

MW-4 concentrations for the July and October 1996 events were 32 μg/l and 36 μg/l. These values are period of record lows for MW-4. Concentrations ranged from 32 μg/l to 120 μg/l.

Naphthalene was detected in VW-8 at <5 μg/l and 6 μg/l for the July and October 1996 sampling events. VW-8 results ranged from <5 μg/l and 46 μg/l for the sampling period which began in June 1995.

There is no California MCL for naphthalene.

2.2.2.6 Trimethylbenzene

Both 1,2,4 and 1,3,5 trimethylbenzene were detected in MW-3, MW-4, and VW-8. These compounds are both constituents of gasoline.

The compound 1,2,4 trimethylbenzene was detected at 140 μg/l and 95 μg/l in MW-3 during the July and October 1996 sampling events. For the period of record MW-3 concentrations ranged from 54 μg/l to 650 μg/l. 1,3,5 trimethylbenzene was detected at 35 μg/l and 23 μg/l in MW-3 for the July and October events. MW-3 concentrations ranged from 22 μg/l to 160 μg/l. As with the BETX compounds, the fluctuating trimethylbenzene concentrations appear to be the response to residual gasoline constituent flushing from the soil near the MW-3 area.

During the July and October 1996 sampling events, 1,2,4 trimethylbenzene was detected at 180 μg/l and 240 μg/l in MW-4. These are both periods of record lows. MW-4 concentrations ranged from 180 μg/l to 600 μg/l. In MW-4, 1,3,5 trimethylbenzene was

detected at 44 μg/l and 50 μg/l. These are also periods of record lows. MW-4 concentrations ranged from 44 μg/l to 130 μg/l.

During the July and October 1996 sampling events, 1,2,4 trimethylbenzene was not detected in VW-8. Previous results ranged from <5 μg/l to 270 μg/l. 1,3,5 trimethylbenzene was not detected during either the July or October 1996 events. Previous concentrations ranged from <5 μg/l to 93 μg/l.

There is no California MCL for trimethylbenzene.

2.2.2.7 Other Gasoline Components

Throughout the period of record, a number of other gasoline-related VOCs have also been detected in MW-3, MW-4, and OB-1. Concentrations of n-butylbenzene, isopropylbenzene (cumene), sec-butylbenzene, and n-propylbenzene have been detected during sampling events.

During the July and October 1996 sampling events, these VOCs were detected in concentrations similar to those of previous sampling. Individual concentrations were generally less than 60 μg/l.

2.2.2.8 Total Petroleum Hydrocarbons (TPH) as Gasoline

TPH, as gasoline, was detected at 2,100 μg/l and 1,800 μg/l in MW-3 during the July and October 1996 sampling events. Detections ranged from 1,600 μg/l to 14,000 μg/l. Fluctuating TPH concentrations in MW-3 appear to be seasonally related. Higher concentrations appear in the wetter months. MW-3 is located near the former tank area.

The TPH concentrations in MW-4 for the July and October 1996 sampling events were 4,300 μg/l and 4,800 μg/l. Both concentrations are periods of record lows. For the period of record, MW-4 concentrations ranged from 5,900 μg/l to 9,700 μg/l.

The VW-8 TPH concentrations were 800 μg/l and 2,300 μg/l. Previous results ranged from <5 μg/l to 5,300 μg/l for the period of record that began in June 1995. The <5 μg/l value is suspect. As described in previous reports, there is a laboratory-described "heterogeneity" with this sample.

3.0 SVE SYSTEM ACTIVITY SUMMARY

This portion of the report summarizes the activities and status of the SVE system operation.

3.1 SVE System Background

A SVE system was originally installed in 1992. Operational difficulties due to high water levels limited the effectiveness of the system. During late 1994, additional SVE vents were installed. In early 1995, the system was redesigned. Construction of the redesigned SVE system was accomplished during September 1995.

Startup and operation of the redesigned SVE system began the week of October 2, 1995. Vent wells VW-1, VW-4, VW-5, and VW-9 are the currently used extraction points. Extracted air passes through three carbon vessels in series to remove the VOCs from the SVE system discharge.

On October 3, 1995, a 4-liter charcoal tube air sample was collected from the blower discharge prior to the first carbon vessel. The sample was submitted to the laboratory for chemical analysis of BETX and total hydrocarbons (THC) as gasoline. Based upon a THC (as gasoline) result of 880,000 $\mu g/m^3$ and a blower discharge of 118 cubic feet per minute, the mass removal rate of the system on October 3 was calculated to be 1.58 gallons of gasoline per day.

The SVE system operates continuously during the normal, five-day work week. The SVE system is typically not operated on weekends. The air permit requires daily air discharge monitoring. The facility is closed on weekends, so personnel are not available to perform the required air monitoring.

3.2 SVE System Operations During the Period

From April 3 to October 31, 1996, the SVE system was operated 131 days. There were 153 weekdays available for operation for the period. The unavailability of personnel to perform the required daily air monitoring and high water in vent wells were the major limiting factors on operation.

As an air permit condition, daily readings are taken from the system with a photoionization detection meter (PID). Table 3 provides a summary of the daily PID readings from the SVE system. Figure 7 shows the time series of OVM readings. PID readings were very low for mid-February to mid-April. These low levels likely result from higher winter water levels that submerge residual gasoline constituents in voids within the soil matrix near the water table. With falling water levels through April and May 1996, SVE readings increased through mid-July. From mid-July through October, PID readings decreased.

4.0 CONCLUSIONS

The conclusions combine observations, data, and evaluation for the July and October 1996 sampling events and past site work. Publicly available hydrogeologic and ground water contamination studies were also used in the evaluation. The conclusions also draw upon the SVE system operational data.

The shallow geologic setting beneath the facility is a sequence of fill, silts, clays, and sands that have been mapped as fluvial deposits. The depth to ground water varies seasonally. Over the last nine quarters of monitoring, the water table has fluctuated approximately 3 feet. During this period, water levels were at their highest in early 1995.

Water levels declined throughout the period. Declines ranged from approximately 1.3 feet to 2.4 feet. The declines were not as great as the decline observed during the same period as 1995.

The shallow ground water flows through a sequence of saturated sands, silts, and clays. Ground water gradients for the period were approximately 0.004. This is similar to past estimates. Ground water flow is to the southwest and its velocity is estimated at 44 feet per year.

The ground water fluctuations in facility monitoring wells are part of a seasonal trend of higher late winter and early spring elevations, and declining water levels for the rest of the year.

Seasonally, ground water levels in individual facility monitoring wells respond fairly uniformly.

Gasoline constituents and some chlorinated VOCs continue to be detected in monitoring wells.

Gasoline constituents were detected in three ground water sampling points downgradient of the facility.

Both chlorinated and gasoline constituent VOCs continue to be detected in the wells near the facility's downgradient boundary.

BETX constituents from the monitoring well MW-3, near the former UST, are generally lower than readings for a similar period in 1995.

Overall, many VOCs were at or near periods of record lows.

Daily SVE influent monitoring continues to show declining concentrations from the October 1995 startup of the redesigned system through October 1996.

As of October 1996, daily influent readings appear to be approaching one part per million. This declining, curving (asymptotic) behavior of daily SVE readings, as shown in Figure 7, is typical of SVE systems that are nearing completion.

5.0 ACTIVITIES STATUS SUMMARY

The following corrective action activities are either in progress or planned for the coming months.

- Continue to operate, monitor, and maintain the SVE system
- Collect SVE system air samples for analysis and mass removal calculations
- Continue ground water monitoring

6.0 RECOMMENDATIONS

6.1 RECOMMENDATION 1

The SVE system should continue to operate to maximize the removal of remaining gasoline constituents from the soil. Continued daily air monitoring will provide another quarter to observe the asymptotic trend that appears to be developing.

The system should be operated as much as possible, recognizing the operational constraints of the air permit conditions, including the requirement to do daily monitoring of the system effluent. This requirement limits system operation to the business work week.

6.2 RECOMMENDATION 2

Continue with ground water monitoring and reporting. The ground water data from wells such as MW-3 have shown downward concentration trends.

The redesigned SVE system began operation in October of 1995. The MW-3 results from the January through October 1995 period showed higher levels than the same period in 1996. Data from the January through April 1997 period should provide additional data to confirm that the observed decrease has been primarily due to the SVE system operation.

7.0 REFERENCES

Alameda County, 1995, faxed precipitation data from the Alameda County Flood Control and Water Conservation District, Water Resources Section, Oakland, California.

Hickenbottom, K. and Muir, K., Geohydrology and Ground Water-Quality Overview of the East Bay Plain Area, Alameda County, California 2005 (j) Report, Alameda County Flood Control and Water Conservation District, Oakland, California.

IT Corporation, 1990, Ingersoll-Rand Corporation Data Summary Report, Subject Site: 1944 Marina Boulevard, San Leandro, California, Martinez, California.

IT Environmental Services, 1989, Problem Assessment Report, prepared for: Ingersoll-Rand Incorporated, Martinez, California.

Sax, N.I, and R. J. Lewis, 1987, Hawley's Condensed Chemical Dictionary, Van Nostrand Reinhold, New York.

Woodward-Clyde Consultants, 1993, Hydrogeology of Central San Leandro and Remedial Investigation of Regional Ground Water Contamination San Leandro Plume, San Leandro, California, prepared for the California Environmental Protection Agency, Oakland, California.

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

August 21, 1996

Mr. John McDermott
CAPSULE ENVIRONMENTAL ENGINEERING, INC.
1970 Oakcrest Avenue, Suite 213
St. Paul, Minnesota 55113-2624

Clayton Project No. 70664.00

Subject: Analytical Reports for Groundwater Monitoring and Sampling at the Ingersoll-Rand Facility in San Leandro, California

Dear Mr. McDermott:

Clayton Environmental Consultants, Inc. is pleased to transmit the attached analytical reports for the groundwater samples collected on July 25, 1996 at the Ingersoll-Rand facility located at 1944 Marina Boulevard in San Leandro, California.

Upon arrival at the site on July 25, 1996, Clayton measured the depth to groundwater in monitoring wells MW-1 through MW-4 and VW-6 and VW-8. Stagnant water in the monitoring wells MW-3, MW-4, and VW-8 was purged using a 2-inch submersible pump. Approximately four to five times the well volume was pumped from each well to ensure water representative of the aquifer was present in the wells. Well volumes were calculated using depth to groundwater and total well depth measurements which were recorded to the nearest 0.01 foot upon arrival at the site. The purging was continued until sufficient volume of water had been purged for pH, temperature, and electrical conductivity to stabilize.

The following parameters were noted during the sampling activities:

- Monitoring well identification
- Static water level
- Well depth
- Condition of water before purging (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

The water sample was collected using a new disposable bailer. All other equipment coming into contact with groundwater was thoroughly cleaned and decontaminated before use. Details of the groundwater monitoring and sampling event are, including depth to water measurements, provided in the water sampling field survey forms (Appendix A).

Groundwater samples were transferred into clean laboratory-supplied containers that were closed, labeled, placed immediately into an ice chest, and transported to Clayton's state-certified laboratory for analysis. In addition one trip blank and one trip blank was furnished in accordance with your quality assurance/quality control (QA/QC) program.

Groundwater samples were collected in such a manner to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. To document and trace samples from time of collection, a signed chain-of-custody record was completed by the sampler and accompanied the samples through the laboratory analyses. The completed chain-of-custody was included with the analytical report from the laboratory.

The groundwater generated during the sampling activities was placed in a Department of Transportation (DOT) approved 55-gallon drum. This drum was labeled and was left onsite.

The groundwater samples were analyzed using the following United States Environmental Protection Agency (USEPA) methods:

- USEPA Method 8015-M for total petroleum hydrocarbons as gasoline (TPH-G)
- USEPA Method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX)
- USEPA Method 8260 for volatile organic compounds (VOCs)

The analytical reports are included as Appendix B to this report

Should you have any questions regarding the sampling event, please contact us at (510) 426-2600.

Sincerely,

Richard J. Silva, R.E.A.
Geologist

RJS/rs
Enclosures

APPENDIX A

FIELD SURVEY FORMS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 10664.cc **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: MW-1 **Sampling Team:** R. SILVA

Sampling Method: NOT APPLICABLE

Field Conditions: CLEAR SKIES, WARM, SLIGHT BREEZE

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet **Time:** 1107 **Depth to Water Before Pumping:** 12.61 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 70664.00 **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: MW-2 **Sampling Team:** R-SILVA

Sampling Method: NOT APPLICABLE

Field Conditions: CLEAR SKIES, WARM, SLIGHT BREEZE

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet **Time:** 1113 **Depth to Water Before Pumping:** 13.59 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 7064.00 **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: MW-3 **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, WARM, WINDY

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 20.26 feet **Time:** 1120 **Depth to Water Before Pumping:** 15.94 feet

Height of Water Column		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
4.32 feet	*	.16	(.65)	=	2.81 gal	*	4	=	11.24 gal

Depth Purging From: 19 feet **Time Purging Begins:** 1345

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1348	3-GAL	7.0	914	20.3	CLEAR
1351	6-GAL	6.8	932	20.1	CLEAR
1354	9-GAL	6.6	938	20.0	CLEAR, PURGED DRY
1405	12-GAL	6.5	954	20.2	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 7066.4.00 **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: MW-4 **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, WARM, SLIGHT BREEZE

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 28.90 feet **Time:** 1125 **Depth to Water Before Pumping:** 18.13 feet

Height of Water Column		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
10.77 feet	*	.16	(.65)	=	7.00 gal	*	4	=	28.0 gal

Depth Purging From: 28 feet **Time Purging Begins:** 1241

Notes on Initial Discharge: GRAYISH, SILTY

Time	Volume Purged	pH	Conductivity	T	Notes
1249	10-GAL	6.3	1144	19.4	CLEAR
1257	20-GAL	5.9	1162	19.1	CLEAR
1301	25-GAL	5.7	1161	19.1	CLEAR
1305	30-GAL	5.9	1155	19.1	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 7664.00 **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: VW-6 **Sampling Team:** R. SILVA

Sampling Method: NOT APPLICABLE

Field Conditions: CLEAR SKIES, WARM, SLIGHT BREEZE

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet **Time:** 1130 **Depth to Water Before Pumping:** 21.17 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 70664.00 **Site:** INGERSOLL-RAND **Date:** JULY 25, 1996

Well #: VW-E **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, WARM, SLIGHT BREEZE

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 25.32 feet **Time:** 1137 **Depth to Water Before Pumping:** 22.97 feet

Height of Water Column		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
2.35 feet	*	.16	.65	=	1.53 gal	*	4	=	6.12 gal

Depth Purging From: 25 feet **Time Purging Begins:** 1209

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1211	2-GAL	7.3	735	19.7	CLEAR
1213	4-GAL	6.9	737	19.2	CLEAR
1215	6-GAL	6.7	733	19.1	CLEAR
1217	7-GAL	6.6	742	19.1	CLEAR

APPENDIX B

ANALYTICAL REPORTS

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

August 8, 1996

Mr. Rick Day
CLAYTON ENVIRONMENTAL CONS.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 70664.00
Clayton Project No.: 96073.47

Dear Mr. Day:

Attached is our analytical laboratory report for the samples received on July 25, 1996. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after September 7, 1996, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Michael Lynch for

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/tjb

Attachments

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-3	Date Sampled:	07/25/96
Lab Number:	9607347-01C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	10	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	13	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	11	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	62	5
1,3-Dichlorobenzene	541-73-1	7	5
1,4-Dichlorobenzene	106-46-7	15	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-3	Date Sampled:	07/25/96
Lab Number:	9607347-01C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	35	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	7	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	10	5
n-Propylbenzene	103-65-1	26	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-3	Date Sampled:	07/25/96
Lab Number:	9607347-01C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	140	5
1,3,5-Trimethylbenzene	108-67-8	35	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	7	5
p,m-Xylenes	--	36	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	98	86 - 115
Dibromofluoromethane	1868-53-7	102	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	95	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-4	Date Sampled:	07/25/96
Lab Number:	9607347-02C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	110	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	8	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	5	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-4	Date Sampled:	07/25/96
Lab Number:	9607347-02C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	11	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	170	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	53	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	32	5
n-Propylbenzene	103-65-1	39	5
sec-Butylbenzene	135-98-8	6	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	22	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-4	Date Sampled:	07/25/96
Lab Number:	9607347-02C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	180	5
1,3,5-Trimethylbenzene	108-67-8	44	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	11	5
p,m-Xylenes	--	110	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	93	86 - 118
1,2-Dichloroethane-d4	17060-07-0	97	76 - 114
Toluene-d8	2037-26-5	95	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	VW-8	Date Sampled:	07/25/96
Lab Number:	9607347-03C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	72	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	VW-8	Date Sampled:	07/25/96
Lab Number:	9607347-03C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	52	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	10	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	10	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	VW-8	Date Sampled:	07/25/96
Lab Number:	9607347-03C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	98	86 - 115
Dibromofluoromethane	1868-53-7	98	86 - 118
1,2-Dichloroethane-d4	17060-07-0	96	76 - 114
Toluene-d8	2037-26-5	95	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	FIELD BLANK	Date Sampled:	07/25/96
Lab Number:	9607347-04C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	FIELD BLANK	Date Sampled:	07/25/96
Lab Number:	9607347-04C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	FIELD BLANK	Date Sampled:	07/25/96
Lab Number:	9607347-04C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	98	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	93	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	TRIP BLANK (HCL) 0061296	Date Sampled:	07/25/96
Lab Number:	9607347-05C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	TRIP BLANK (HCL) 0061296	Date Sampled:	07/25/96
Lab Number:	9607347-05C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	TRIP BLANK (HCL) 0061296	Date Sampled:	07/25/96
Lab Number:	9607347-05C	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	100	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	95	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9607347-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9607347-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9607347-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	07/26/96
Preparation Method:	EPA 5030A	Date Analyzed:	07/26/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
Trichlorofluoromethane	75-69-4	ND	5
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	101	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	95	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-3	Date Sampled:	07/25/96
Lab Number:	9607347-01A	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	08/05/96
Preparation Method:	EPA 5030	Date Analyzed:	08/05/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	9.0	0.4
Ethylbenzene	100-41-4	27	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	7.8	0.4
p,m-Xylenes	--	30	0.4
Gasoline	--	2100	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	105	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	MW-4	Date Sampled:	07/25/96
Lab Number:	9607347-02A	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	08/05/96
Preparation Method:	EPA 5030	Date Analyzed:	08/05/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	110	0.4
Ethylbenzene	100-41-4	170	0.3
Toluene	108-88-3	0.6	0.3
o-Xylene	95-47-6	12	0.4
p,m-Xylenes	--	95	0.4
Gasoline	--	4300	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	106	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	VW-8	Date Sampled:	07/25/96
Lab Number:	9607347-03A	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	08/05/96
Preparation Method:	EPA 5030	Date Analyzed:	08/05/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	74	0.4
Ethylbenzene	100-41-4	48	0.3
Toluene	108-88-3	3.0	0.3
o-Xylene	95-47-6	0.9	0.4
p,m-Xylenes	--	3.6	0.4
Gasoline	--	800	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	95	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	FIELD BLANK	Date Sampled:	07/25/96
Lab Number:	9607347-04A	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	08/01/96
Preparation Method:	EPA 5030	Date Analyzed:	08/01/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	96	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	TRIP BLANK (HCL) 0061296	Date Sampled:	07/25/96
Lab Number:	9607347-05A	Date Received:	07/25/96
Sample Matrix/Media:	WATER	Date Prepared:	08/01/96
Preparation Method:	EPA 5030	Date Analyzed:	08/01/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	91	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 70664.00
Clayton Project No. 96073.47

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9607347-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	07/31/96
Preparation Method:	EPA 5030	Date Analyzed:	07/31/96
Method Reference:	EPA 8015/8020	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	95	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Clayton
ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested: STANDARD TAT
Rush Charges Authorized? ☐ Yes ☒ No
☐ Phone or ☐ Fax Results

For Clayton Use Only
Clayton Lab Project No.
9607347

REPORT RESULTS TO
Name: RICK DAY
Company: CLAYTON
Mailing Address:
City, State, Zip:
Telephone No.: FAX No.:
Client Job No.: 70664.00
Dept.:

SEND INVOICE TO
Purchase Order No.:
Name: CAPSULE ENVIRONMENTAL ENGINEERING
Company: INGERSOLL-RAND
Dept.:
Address:
City, State, Zip:

Special instructions and/or specific regulatory requirements:
(method, limit of detection, etc.)

* Explanation of Preservative: P=HCl

Samples are: (check if applicable)
☐ Drinking Water
☒ Groundwater
☐ Wastewater

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added.*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-GAS/BTEX	EPA 8260	FOR LAB USE ONLY
MW-3	7-25-96		H_2O	40 mls	2	XP		-01AB
MW-3	↓		↓	40 mls	2		XP	↓ CD
MW-4				40 mls	2	XP		-02AB
MW-4				40 mls	2		XP	↓ CD
VW-8				40 mls	2	XP		-03AB
VW-8				40 mls	2		XP	↓ CD
FIELD BLANKS				40 mls	2	XP		-04AB
FIELD BLANKS				40 mls	2		XP	↓ CD
TRIP BLANKS #0061296				40 mls	2	XP		-05AB
TRIP BLANKS #0061296	↓		↓	40 mls	2		XP	↓ CD

CHAIN OF CUSTODY

Collected by: RICHARD SILVA (print)
Collector's Signature: Richard Silva
Relinquished by: Richard Silva — Date/Time 7-25-96 4:55 pm
Received by: — Date/Time
Relinquished by: — Date/Time
Received by: — Date/Time
Method of Shipment:
Received at Lab by: — Date/Time 7/25/96 4:55
Authorized by: _____ Date _____
(Client Signature **MUST** Accompany Request)
Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

Detroit Regional Lab
22345 Roethel Drive
Novi, MI 48375
(800) 806-5887
(810) 344-1770
FAX (810) 344-2655

Atlanta Regional Lab
400 Chastain Center Blvd., N.W., Suite 490
Kennesaw, GA 30144
(800) 252-9919
(770) 499-7500
FAX (770) 423-4990

San Francisco Regional Lab
1252 Quarry Lane
Pleasanton, CA 94566
(800) 294-1755
(510) 426-2657
FAX (510) 426-0106

Seattle Regional Lab
4636 E. Marginal Way S., Suite 215
Seattle, WA 98134
(800) 568-7755
(206) 763-7364
FAX (206) 763-4189

DISTRIBUTION:
White = Clayton Laboratory
Yellow = Clayton Accounting
Pink = Client Copy

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

November 8, 1996

Mr. John McDermott
CAPSULE ENVIRONMENTAL ENGINEERING, INC.
1970 Oakcrest Avenue, Suite 213
St. Paul, Minnesota 55113-2624

Clayton Project No. 97070.00

Subject: Analytical Reports for Groundwater Monitoring and Sampling at the Ingersoll-Rand Facility in San Leandro, California

Dear Mr. McDermott:

Clayton Environmental Consultants, Inc. is pleased to transmit the attached analytical reports for the groundwater samples collected on October 22, 1996 at the Ingersoll-Rand facility located at 1944 Marina Boulevard in San Leandro, California.

Upon arrival at the site on October 22, 1996, Clayton measured the depth to groundwater in monitoring wells MW-1 through MW-4 and VW-6 and VW-8. Stagnant water in the monitoring wells MW-3, MW-4, and VW-8 was purged using a 2-inch submersible pump. Approximately four to five times the well volume was pumped from each well to ensure water representative of the aquifer was present in the wells. Well volumes were calculated using depth to groundwater and total well depth measurements which were recorded to the nearest 0.01 foot upon arrival at the site. The purging was continued until sufficient volume of water had been purged for pH, temperature, and electrical conductivity to stabilize.

The following parameters were noted during the sampling activities:

- Monitoring well identification
- Static water level
- Well depth
- Condition of water before purging (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

FIELD DAY

11/15 Noted MW-3 & 4 detection limits ten times past, 16:00 called Rich Silva to advise him of the

The water sample was collected using a new disposable bailer. All other equipment coming into contact with groundwater was thoroughly cleaned and decontaminated before use. Details of the groundwater monitoring and sampling event are, including depth to water measurements, provided in the water sampling field survey forms (Appendix A).

Groundwater samples were transferred into clean laboratory-supplied containers that were closed, labeled, placed immediately into an ice chest, and transported to Clayton's state-certified laboratory for analysis. In addition one trip blank and one trip blank was furnished in accordance with your quality assurance/quality control (QA/QC) program.

Groundwater samples were collected in such a manner to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. To document and trace samples from time of collection, a signed chain-of-custody record was completed by the sampler and accompanied the samples through the laboratory analyses. The completed chain-of-custody was included with the analytical report from the laboratory.

The groundwater generated during the sampling activities was placed in a Department of Transportation (DOT) approved 55-gallon drum. This drum was labeled and was left onsite.

The groundwater samples were analyzed using the following United States Environmental Protection Agency (USEPA) methods:

- USEPA Method 8015-M for total petroleum hydrocarbons as gasoline (TPH-G)
- USEPA Method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX)
- USEPA Method 8260 for volatile organic compounds (VOCs)

The analytical reports are included as Appendix B to this report

Should you have any questions regarding the sampling event, please contact us at (510) 426-2600.

Sincerely,

Richard J. Silva, R.E.A.
Geologist

RJS/rs
Enclosures

APPENDIX A

FIELD SURVEY FORMS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** OCT. 22, 1996

Well #: MW-1 **Sampling Team:** R. SILVA

Sampling Method: CLEAR 5

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet **Time:** 1030 **Depth to Water Before Pumping:** 13.46 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** OCT. 22, 1996

Well #: MW-2 **Sampling Team:** R. SILVA

Sampling Method: _____

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

_____

Describe Equipment D-Con Before Sampling This Well: _____

_____

_____

Total Depth of Well: _____ feet **Time:** 1058 **Depth to Water Before Pumping:** 14.03 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** Oct. 22, 1996

Well #: MW-3 **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 20.25 feet **Time:** 1034 **Depth to Water Before Pumping:** 16.51 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
3.74 feet	*	.16	(.65)	=	2.43 gal	*	4	=	9.72 gal

Depth Purging From: 20 feet **Time Purging Begins:** 1300

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1303	3-GAL	7.6	837	20.5	CLEAR
1306	(⊗) 6-GAL	7.6	851	20.7	CLEAR
1319	9-GAL	7.6	822	20.4	CLEAR
1323	(⊗) 11-GAL	7.7	838	20.6	CLEAR

(⊗) PURGED DRY

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** Oct. 22, 1996

Well #: MW-4 **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 27.88 feet **Time:** 1044 **Depth to Water Before Pumping:** 18.86 feet

Height of Water Column		Diameter 2-inch (.16)	Diameter 4-inch (.65)		Volume		Purge Factor		Volume To Purge
9.02 feet	*		(.65)	=	5.86 gal	*	4	=	23.44 gal

Depth Purging From: 27 feet **Time Purging Begins:** 1110

Notes on Initial Discharge: LIGHT GRAY, TURBID

Time	Volume Purged	pH	Conductivity	T	Notes
1124	10-GAL	7.6	950	19.5	CLEAR
1128	15-GAL	7.7	987	19.3	CLEAR
1132	20-GAL	7.5	994	19.3	CLEAR
1136	25-GAL	7.5	1021	19.2	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** OCT. 22, 1996

Well #: VW-6 **Sampling Team:** R. SILVA

Sampling Method: _____

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet **Time:** 1049 **Depth to Water Before Pumping:** 21.83 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____ gal

Depth Purging From: _____ feet **Time Purging Begins:** _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Project #: 97070.00 **Site:** INGERSOLL-RAND **Date:** OCT. 22, 1996

Well #: VW-8 **Sampling Team:** R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLEAR SKIES, COOL, SLIGHT BREEZE, ~65°F

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 25.33 feet **Time:** 1039 **Depth to Water Before Pumping:** 23.67 feet

Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
1.66 feet	*	.16	(.65)	=	1.08 gal	*	4	=	4.32 gal

Depth Purging From: 24 feet **Time Purging Begins:** 1217

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1221	2-GAL	7.6	721	19.4	CLEAR
1224	3-GAL	7.5	739	19.6	CLEAR
1228	4-GAL	7.4	753	19.6	CLEAR
1232	5-GAL	7.6	742	19.5	CLEAR

APPENDIX B

ANALYTICAL REPORTS

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

November 6, 1996

Mr. Richard Silva
CLAYTON ENVIRONMENTAL CONS.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 97070.00
Clayton Project No.: 96102.94

Dear Mr. Silva:

Attached is our analytical laboratory report for the samples received on October 22, 1996. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after December 6, 1996, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/tjb

Attachments

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	200
Benzene	71-43-2	ND	50
Bromobenzene	108-86-1	ND	50
Bromochloromethane	74-97-5	ND	50
Bromodichloromethane	75-27-4	ND	50
Bromoform	75-25-2	ND	50
Bromomethane	74-83-9	ND	50
2-Butanone	78-93-3	ND	200
n-Butylbenzene	104-51-8	ND	50
Carbon disulfide	75-15-0	ND	50
Carbon tetrachloride	56-23-5	ND	50
Chlorobenzene	108-90-7	ND	50
Chloroethane	75-00-3	ND	50
2-Chloroethylvinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	50
Chloromethane	74-87-3	ND	50
2-Chlorotoluene	95-49-8	ND	50
4-Chlorotoluene	106-43-4	ND	50
Dibromochloromethane	124-48-1	ND	50
1,2-Dibromo-3-chloropropane	96-12-8	ND	50
1,2-Dibromoethane	106-93-4	ND	50
Dibromomethane	74-95-3	ND	50
1,2-Dichlorobenzene	95-50-1	60	50
1,3-Dichlorobenzene	541-73-1	ND	50
1,4-Dichlorobenzene	106-46-7	ND	50
Dichlorodifluoromethane	75-71-8	ND	50
1,1-Dichloroethane	75-34-3	ND	50
1,2-Dichloroethane	107-06-2	ND	50
1,1-Dichloroethene	75-35-4	ND	50
cis-1,2-Dichloroethene	156-59-2	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	50
1,2-Dichloropropane	78-87-5	ND	50
1,3-Dichloropropane	142-28-9	ND	50
2,2-Dichloropropane	594-20-7	ND	50
1,1-Dichloropropene	563-58-6	ND	50
cis-1,3-dichloropropene	10061-01-5	ND	50
trans-1,3-dichloropropene	10061-02-6	ND	50
Ethylbenzene	100-41-4	ND	50
Freon 113	76-13-1	ND	50
Hexachlorobutadiene	87-68-3	ND	50
2-Hexanone	591-78-6	ND	200
Isopropylbenzene	98-82-8	ND	50
p-Isopropyltoluene	99-87-6	ND	50
Methylene chloride	75-09-2	ND	50
4-Methyl-2-pentanone	108-10-1	ND	200
Naphthalene	91-20-3	ND	50
n-Propylbenzene	103-65-1	ND	50
sec-Butylbenzene	135-98-8	ND	50
Styrene	100-42-5	ND	50
tert-Butylbenzene	98-06-6	ND	50
1,1,1,2-Tetrachloroethane	630-20-6	ND	50
1,1,2,2-Tetrachloroethane	79-34-5	ND	50
Tetrachloroethene	127-18-4	ND	50
Toluene	108-88-3	ND	50
1,2,3-Trichlorobenzene	87-61-6	ND	50
1,2,4-Trichlorobenzene	120-82-1	ND	50
1,1,1-Trichloroethane	71-55-6	ND	50
1,1,2-Trichloroethane	79-00-5	ND	50
Trichloroethene	79-01-6	ND	50
Trichlorofluoromethane	75-69-4	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	50
1,2,4-Trimethylbenzene	95-63-6	90	50
1,3,5-Trimethylbenzene	108-67-8	ND	50
Vinyl acetate	108-05-4	ND	100
Vinyl chloride	75-01-4	ND	50
o-Xylene	95-47-6	ND	50
p,m-Xylenes	--	ND	50
Surrogates		**Recovery (%)**	**QC Limits (%)**
4-Bromofluorobenzene	460-00-4	99	86 - 115
Dibromofluoromethane	1868-53-7	90	86 - 118
1,2-Dichloroethane-d4	17060-07-0	91	76 - 114
Toluene-d8	2037-26-5	103	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Note: Detection limits increased due to matrix interference.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	300	200
Benzene	71-43-2	210	50
Bromobenzene	108-86-1	ND	50
Bromochloromethane	74-97-5	ND	50
Bromodichloromethane	75-27-4	ND	50
Bromoform	75-25-2	ND	50
Bromomethane	74-83-9	ND	50
2-Butanone	78-93-3	ND	200
n-Butylbenzene	104-51-8	ND	50
Carbon disulfide	75-15-0	ND	50
Carbon tetrachloride	56-23-5	ND	50
Chlorobenzene	108-90-7	ND	50
Chloroethane	75-00-3	ND	50
2-Chloroethylvinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	50
Chloromethane	74-87-3	ND	50
2-Chlorotoluene	95-49-8	ND	50
4-Chlorotoluene	106-43-4	ND	50
Dibromochloromethane	124-48-1	ND	50
1,2-Dibromo-3-chloropropane	96-12-8	ND	50
1,2-Dibromoethane	106-93-4	ND	50
Dibromomethane	74-95-3	ND	50
1,2-Dichlorobenzene	95-50-1	ND	50
1,3-Dichlorobenzene	541-73-1	ND	50
1,4-Dichlorobenzene	106-46-7	ND	50
Dichlorodifluoromethane	75-71-8	ND	50
1,1-Dichloroethane	75-34-3	ND	50
1,2-Dichloroethane	107-06-2	ND	50
1,1-Dichloroethene	75-35-4	ND	50
cis-1,2-Dichloroethene	156-59-2	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	50
1,2-Dichloropropane	78-87-5	ND	50
1,3-Dichloropropane	142-28-9	ND	50
2,2-Dichloropropane	594-20-7	ND	50
1,1-Dichloropropene	563-58-6	ND	50
cis-1,3-dichloropropene	10061-01-5	ND	50
trans-1,3-dichloropropene	10061-02-6	ND	50
Ethylbenzene	100-41-4	240	50
Freon 113	76-13-1	ND	50
Hexachlorobutadiene	87-68-3	ND	50
2-Hexanone	591-78-6	ND	200
Isopropylbenzene	98-82-8	ND	50
p-Isopropyltoluene	99-87-6	ND	50
Methylene chloride	75-09-2	ND	50
4-Methyl-2-pentanone	108-10-1	ND	200
Naphthalene	91-20-3	ND	50
n-Propylbenzene	103-65-1	ND	50
sec-Butylbenzene	135-98-8	ND	50
Styrene	100-42-5	ND	50
tert-Butylbenzene	98-06-6	ND	50
1,1,1,2-Tetrachloroethane	630-20-6	ND	50
1,1,2,2-Tetrachloroethane	79-34-5	ND	50
Tetrachloroethene	127-18-4	ND	50
Toluene	108-88-3	ND	50
1,2,3-Trichlorobenzene	87-61-6	ND	50
1,2,4-Trichlorobenzene	120-82-1	ND	50
1,1,1-Trichloroethane	71-55-6	ND	50
1,1,2-Trichloroethane	79-00-5	ND	50
Trichloroethene	79-01-6	ND	50
Trichlorofluoromethane	75-69-4	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	50
1,2,4-Trimethylbenzene	95-63-6	240	50
1,3,5-Trimethylbenzene	108-67-8	50	50
Vinyl acetate	108-05-4	ND	100
Vinyl chloride	75-01-4	ND	50
o-Xylene	95-47-6	ND	50
p,m-Xylenes	--	170	50
Surrogates		**Recovery (%)**	**QC Limits (%)**
4-Bromofluorobenzene	460-00-4	101	86 - 115
Dibromofluoromethane	1868-53-7	87	86 - 118
1,2-Dichloroethane-d4	17060-07-0	92	76 - 114
Toluene-d8	2037-26-5	102	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Note: Detection limits increased due to matrix interference.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	200
Benzene	71-43-2	170	50
Bromobenzene	108-86-1	ND	50
Bromochloromethane	74-97-5	ND	50
Bromodichloromethane	75-27-4	ND	50
Bromoform	75-25-2	ND	50
Bromomethane	74-83-9	ND	50
2-Butanone	78-93-3	ND	200
n-Butylbenzene	104-51-8	ND	50
Carbon disulfide	75-15-0	ND	50
Carbon tetrachloride	56-23-5	ND	50
Chlorobenzene	108-90-7	ND	50
Chloroethane	75-00-3	ND	50
2-Chloroethylvinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	50
Chloromethane	74-87-3	ND	50
2-Chlorotoluene	95-49-8	ND	50
4-Chlorotoluene	106-43-4	ND	50
Dibromochloromethane	124-48-1	ND	50
1,2-Dibromo-3-chloropropane	96-12-8	ND	50
1,2-Dibromoethane	106-93-4	ND	50
Dibromomethane	74-95-3	ND	50
1,2-Dichlorobenzene	95-50-1	ND	50
1,3-Dichlorobenzene	541-73-1	ND	50
1,4-Dichlorobenzene	106-46-7	ND	50
Dichlorodifluoromethane	75-71-8	ND	50
1,1-Dichloroethane	75-34-3	ND	50
1,2-Dichloroethane	107-06-2	ND	50
1,1-Dichloroethene	75-35-4	ND	50
cis-1,2-Dichloroethene	156-59-2	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	50
1,2-Dichloropropane	78-87-5	ND	50
1,3-Dichloropropane	142-28-9	ND	50
2,2-Dichloropropane	594-20-7	ND	50
1,1-Dichloropropene	563-58-6	ND	50
cis-1,3-dichloropropene	10061-01-5	ND	50
trans-1,3-dichloropropene	10061-02-6	ND	50
Ethylbenzene	100-41-4	160	50
Freon 113	76-13-1	ND	50
Hexachlorobutadiene	87-68-3	ND	50
2-Hexanone	591-78-6	ND	200
Isopropylbenzene	98-82-8	ND	50
p-Isopropyltoluene	99-87-6	ND	50
Methylene chloride	75-09-2	ND	50
4-Methyl-2-pentanone	108-10-1	ND	200
Naphthalene	91-20-3	ND	50
n-Propylbenzene	103-65-1	ND	50
sec-Butylbenzene	135-98-8	ND	50
Styrene	100-42-5	ND	50
tert-Butylbenzene	98-06-6	ND	50
1,1,1,2-Tetrachloroethane	630-20-6	ND	50
1,1,2,2-Tetrachloroethane	79-34-5	ND	50
Tetrachloroethene	127-18-4	ND	50
Toluene	108-88-3	ND	50
1,2,3-Trichlorobenzene	87-61-6	ND	50
1,2,4-Trichlorobenzene	120-82-1	ND	50
1,1,1-Trichloroethane	71-55-6	ND	50
1,1,2-Trichloroethane	79-00-5	ND	50
Trichloroethene	79-01-6	ND	50
Trichlorofluoromethane	75-69-4	ND	50

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	50
1,2,4-Trimethylbenzene	95-63-6	ND	50
1,3,5-Trimethylbenzene	108-67-8	ND	50
Vinyl acetate	108-05-4	ND	100
Vinyl chloride	75-01-4	ND	50
o-Xylene	95-47-6	ND	50
p,m-Xylenes	--	ND	50
Surrogates		**Recovery (%)**	**QC Limits (%)**
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	97	86 - 118
1,2-Dichloroethane-d4	17060-07-0	102	76 - 114
Toluene-d8	2037-26-5	103	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Note: Detection limits increased due to matrix interference.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04C	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		**Recovery (%)**	**QC Limits (%)**
4-Bromofluorobenzene	460-00-4	99	86 - 115
Dibromofluoromethane	1868-53-7	98	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	104	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	TRIP BLANKS (HCL)#0101696	Date Sampled:	10/22/96
Lab Number:	9610294-05B	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	11/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	11/05/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	TRIP BLANKS (HCL)#0101696	Date Sampled:	10/22/96
Lab Number:	9610294-05B	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	11/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	11/05/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	TRIP BLANKS (HCL)#0101696	Date Sampled:	10/22/96
Lab Number:	9610294-05B	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	11/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	11/05/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	87	86 - 115
Dibromofluoromethane	1868-53-7	92	86 - 118
1,2-Dichloroethane-d4	17060-07-0	93	76 - 114
Toluene-d8	2037-26-5	94	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	10/30/96
Preparation Method:	EPA 5030A	Date Analyzed:	10/30/96
Method Reference:	EPA 8260A	Analyst:	JP

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	10
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	90	86 - 115
Dibromofluoromethane	1868-53-7	95	86 - 118
1,2-Dichloroethane-d4	17060-07-0	99	76 - 114
Toluene-d8	2037-26-5	101	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01A	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	3.1	0.4
Ethylbenzene	100-41-4	13	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	4.0	0.4
p,m-Xylenes	--	16	0.4
Gasoline	--	1800	50
Surrogates		**Recovery (%)**	**QC Limits (%)**
a,a,a-Trifluorotoluene	98-08-8	110	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02A	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	140	0.4
Ethylbenzene	100-41-4	220	0.3
Toluene	108-88-3	1.2	0.3
o-Xylene	95-47-6	9.3	0.4
p,m-Xylenes	--	170	0.4
Gasoline	--	4800	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	101	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03A	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	180	0.4
Ethylbenzene	100-41-4	190	0.3
Toluene	108-88-3	3.9	0.3
o-Xylene	95-47-6	1.0	0.4
p,m-Xylenes	--	6.8	0.4
Gasoline	--	2300	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	106	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04A	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	101	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	TRIP BLANKS (HCL)#0101696	Date Sampled:	10/22/96
Lab Number:	9610294-05A	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	101	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	10/23/96
Preparation Method:	EPA 5030	Date Analyzed:	10/23/96
Method Reference:	EPA 8015/8020	Analyst:	DL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	102	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Clayton ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	
Batch No.	9610294
Ind. Code	W.P.
Date Logged In 10/22	By CL

REPORT RESULTS TO

Name: RICHARD SILVA | Title:
Company: CLAYTON | Dept.:
Mailing Address:
City, State, Zip:
Telephone No.: | Telefax No.:

SEND INVOICE TO

Purchase Order No: | Client Job No.: 97070.00
Name: CAPSULE ENVIRONMENTAL ENGINEERING
Company: INGERSOLL-RAND | Dept.:
Address:
City, State, Zip:

Date Results Req.: STANDARD TAT | Rush Charges Authorized? ☐ Yes ☒ No | Phone / Fax Results ☐ ☐

Special Instructions: (method, limit of detection, etc.)

* Explanation of Preservative: P = HCl

Samples are: (check if applicable)
☐ Drinking Water
☐ Collected in the State of New York

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added *)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-GAS/BTEX EPA 8260										FOR LAB USE ONLY
MW-3	10-22-96	H_2O	40 MLS	2	XP										01 A,B
MW-3			40 MLS	2		XP									C,D
MW-4			40 MLS	2	XP										02 A,B
MW-4			40 MLS	2		XP									C,D
VW-8			40 MLS	2	XP										03 A,B
VW-8			40 MLS	2		XP									C,D
FIELD BLANKS			40 MLS	2	XP										04 A,B
FIELD BLANKS			40 MLS	2		XP									C,D
TRIP BLANKS # 0101696			40 MLS	1	XP										05 A,B
TRIP BLANKS # 0101696			40 MLS	1		XP									B,D

CHAIN OF CUSTODY

Collected by: RICHARD SILVA (print) | Collector's Signature: Richard Silva
Relinquished by: Richard Silva | Date/Time 10-22-96 4:30PM | Received by: | Date/Time
Relinquished by: | Date/Time | Received at Lab by: | Date/Time 10/22/96 4:30
Method of Shipment: | Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive Novi, MI 48375 (810) 344-1770	Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (908) 225-6040	400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144 (404) 499-7500	1252 Quarry Lane Pleasanton, CA 94566 (510) 426-2657

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

2/92

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

December 16, 1996

Mr. John McDermott
CAPSULE ENVIRONMENTAL ENGINEERING, INC.
1970 Oakcrest Avenue, Suite 213
St. Paul, Minnesota 55113-2624

Clayton Project No. 97070.00

Subject: Revised Analytical Reports for Groundwater Monitoring and Sampling at the Ingersoll-Rand Facility in San Leandro, California

Dear Mr. McDermott:

Clayton Environmental Consultants, Inc. is pleased to transmit the attached revised analytical reports for the groundwater samples collected on October 22, 1996 at the Ingersoll-Rand facility located at 1944 Marina Boulevard in San Leandro, California.

Should you have any questions regarding the sampling event, please contact us at (510) 426-2600.

Sincerely,

Richard J. Silva, R.E.A.
Geologist

RJS/rs
Enclosures

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

December 9, 1996

Mr. Richard Silva
CLAYTON ENVIRONMENTAL CONS.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 97070.00
Clayton Project No.: 96102.94
ADDITIONAL REPORT

Dear Mr. Silva:

Attached is our additional laboratory report for the samples received on October 22, 1996, and originally reported on November 6, 1996. As requested by Mr. John McDermott of Capsule Environmental, Inc., samples MW-3, MW-4, VW-8 and Field Blank were reanalyzed for method EPA 8260 using the duplicate sample bottles.

The detection limits on the original analysis were increased due to matrix interference. As discussed with Ms. Suzanne Haus on December 5, 1996, it was discovered that this interference was caused by carryover from highly contaminated samples run prior to the ones noted above. The samples were not reanalyzed earlier since the holding times had expired when this problem was discovered.

We appreciate the opportunity to assist you, and apologize for any inconvience this may have caused. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/tjb
Attachments

Clayton
ENVIRONMENTAL
CONSULTANTS

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	10	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	12	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	69	5
1,3-Dichlorobenzene	541-73-1	6	5
1,4-Dichlorobenzene	106-46-7	13	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	13	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	6	5
n-Propylbenzene	103-65-1	18	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-3	Date Sampled:	10/22/96
Lab Number:	9610294-01D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	95	5
1,3,5-Trimethylbenzene	108-67-8	23	5
Vinyl acetate	108-05-4	ND	5
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	14	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	97	86 - 115
Dibromofluoromethane	1868-53-7	93	86 - 118
1,2-Dichloroethane-d4	17060-07-0	87	76 - 114
Toluene-d8	2037-26-5	92	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Sample analyzed past recommended holding times for this analysis.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	130	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	5	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	10	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	200	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	5
Isopropylbenzene	98-82-8	56	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	36	5
n-Propylbenzene	103-65-1	38	5
sec-Butylbenzene	135-98-8	6	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	22	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	MW-4	Date Sampled:	10/22/96
Lab Number:	9610294-02D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	220	5
1,3,5-Trimethylbenzene	108-67-8	47	5
Vinyl acetate	108-05-4	ND	5
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	6	5
p,m-Xylenes	--	140	5
Surrogates		**Recovery (%)**	**QC Limits (%)**
4-Bromofluorobenzene	460-00-4	106	86 - 115
Dibromofluoromethane	1868-53-7	93	86 - 118
1,2-Dichloroethane-d4	17060-07-0	83	76 - 114
Toluene-d8	2037-26-5	94	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Sample analyzed past recommended holding times for this analysis.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	170	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	190	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	11	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	6	5
n-Propylbenzene	103-65-1	35	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	VW-8	Date Sampled:	10/22/96
Lab Number:	9610294-03D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	5
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	100	86 - 115
Dibromofluoromethane	1868-53-7	94	86 - 118
1,2-Dichloroethane-d4	17060-07-0	85	76 - 114
Toluene-d8	2037-26-5	94	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Sample analyzed past recommended holding times for this analysis.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	FIELD BLANKS	Date Sampled:	10/22/96
Lab Number:	9610294-04D	Date Received:	10/22/96
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	5
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	98	86 - 115
Dibromofluoromethane	1868-53-7	95	86 - 118
1,2-Dichloroethane-d4	17060-07-0	86	76 - 114
Toluene-d8	2037-26-5	98	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Sample analyzed past recommended holding times for this analysis.

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06B	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
2-Chloroethylvinyl ether	110-75-8	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06B	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Analytical Results
for
Clayton Environmental Consultants, Inc.
Client Reference: 97070.00
Clayton Project No. 96102.94

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9610294-06B	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	12/05/96
Preparation Method:	EPA 5030A	Date Analyzed:	12/05/96
Method Reference:	EPA 8260A	Analyst:	NAN

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	5
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	89	86 - 115
Dibromofluoromethane	1868-53-7	96	86 - 118
1,2-Dichloroethane-d4	17060-07-0	88	76 - 114
Toluene-d8	2037-26-5	94	88 - 110

ND: Not detected at or above limit of detection
--: Information not available or not applicable

CAPSULE
ENVIRONMENTAL ENGINEERING INC.

PROJECT CALCULATION SHEET

Project Name: San Leandro
Project Number: 001-327
Task Number: 430
Re: GW Velocity Calculation

By: John M
Date: 3/19/97
Page: 1 of 1
cc:

Calculate an estimate of the groundwater velocity beneath San Leandro faculty, using

$$V = \frac{K \times i}{n}$$

V = gw velocity
K = hydraulic conductivity
i = gradient
n = porosity

estimate of

K = 9 ft/day (from pumping test)

$$i = \frac{11.25 - 11.0 \text{ ft}}{70 \text{ ft}} = \frac{.25 \text{ ft}}{70 \text{ ft}} = 0.0036 \approx 0.004$$

n = 30% (from literature)

$$V = \frac{(9 \text{ ft/day}) \times (0.004)}{.30} = 0.12 \text{ ft/day}$$

$$V = \frac{0.12 \text{ ft}}{\text{day}} \times \frac{365 \text{ day}}{\text{yr}} = \boxed{44 \text{ ft/yr}}$$

Checked by: _____
Date: _____

Table 1
Water Level Summary Table

Project Ingersoll Rand Company San Leandro CA water level data
Date prepared April 15 1995
Latest update March 19 1997
Prepared by JJM

Well	Date of measurement	Measuring point elevation (feet)	Depth to water (feet)	Water level elevation (feet)
MW-1	13-Dec-89	24 78	14 01	10 77
	16-Nov-90	24 97	14 84	10 13
	03-Apr-92	24 97	12 10	12 87
	21-Jun-94	24 95	12 98	11 97
	20-Oct-94	24 95	13 84	11 11
	25-Jan-95	24 95	10 32	14 63
	25-Apr-95	24 95	10 82	14 13
	30-Jun-95	24 95	11 92	13 03
	18-Oct-95	24 95	13 22	11 73
	30-Jan-96	24 95	10 99	13 96
	26-Apr-96	24 95	11 18	13 77
	25-Jul-96	24 95	12 61	12 34
	22-Oct-96	24 95	13 46	11 49
	20-Jan-97	24 95	9 95	15 00
MW-2	13-Dec-89	24 70	14 57	10 13
	16-Nov-90	24 64	15 05	9 59
	03-Apr-92	24 64	13 60	11 04
	21-Jun-94	24 68	13 86	10 82
	20-Oct-94	24 68	14 31	10 37
	25-Jan-95	24 68	12 01	12 67
	25-Apr-95	24 68	12 54	12 14
	30-Jun-95	24 68	13 22	11 46
	18-Oct-95	24 68	13 86	10 82
	30-Jan-96	24 68	12 49	12 19
	26-Apr-96	24 68	12 76	11 92
	25-Jul-96	24 68	13 59	11 09
	22-Oct-96	24 68	14 03	10 65
	20-Jan-97	24 68	12 11	12 57
MW-3	13-Dec-89	27 33	17 13	10 20
	16-Nov-90	27 51	17 67	9 84
	03-Apr-92	27 57	15 90	11 67
	21-Jun-94	27 51	16 28	11 23
	20-Oct-94	27 51	16 82	10 69
	25-Jan-95	27 51	14 25	13 26
	25-Apr-95	27 51	14 60	12 91
	30-Jun-95	27 51	15 44	12 07
	18-Oct-95	27 51	16 33	11 18
	30-Jan-96	27 51	14 81	12 70
	26-Apr-96	27 51	14 90	12 61
	25-Jul-96	27 51	15 94	11 57
	22-Oct-96	27 51	16 51	11 00
	20-Jan-97	27 51	14 08	13 43
MW-4	16-Nov-90	28 92	20 28	8 64
	03-Apr-92	28 92	18 25	10 67
	21-Jun-94	28 92	18 46	10 46
	20-Oct-94	28 92	19 20	9 72
	25-Jan-95	28 92	15 94	12 98
	25-Apr-95	28 92	16 52	12 40
	30-Jun-95	28 92	17 53	11 39
	18-Oct-95	28 92	18 63	10 29
	30-Jan-96	28 92	16 67	12 25
	26-Apr-96	28 92	16 79	12 13
	25-Jul-96	28 92	18 13	10 79
	22-Oct-96	28 92	18 86	10 06
	20-Jan-97	28 92	15 98	12 94
OB-1	21-Jun-94	30 28	19 56	10 72
	20-Oct-94	30 28	20 28	10.00
	25-Jan-95	30 28	16 95	13 33
	25-Apr-95	30 28	17 53	12 75
	30-Jun-95	30 28	18 57	11 71
VW-5	30-Jun-95	33 16	21 65	11 51
VW-6	30-Jun-95	31 92	20 62	11 30
	18-Oct-95	31 92	21 61	10 31
	30-Jan-96	31 92	19 79	12 13
	26-Apr-96	31 92	19 98	11 94
	25-Jul-96	31 92	21 17	10 75
	22-Oct-96	31 92	21 83	10 09
	20-Jan-97	31 92	19 21	12 71
VW-8	30-Jun-95	33 78	22 32	11 46
	18-Oct-95	33 78	23 45	10 33
	30-Jan-96	33 78	21 38	12 40
	26-Apr-96	33 78	21 53	12 25
	25-Jul-96	33 78	22 97	10 81
	22-Oct-96	33 78	23 67	10 11
	20-Jan-97	33 78	20 67	13 11
VW-9	30-Jun-95	34 58	22 98	11 60

Notes
water level elevations in feet above sea level
elev source for December 13 1989 PAR 1989
elev source for Nov 16, 1990 ELG Surveying letter 11/21/90
elev source for April 3, 1992 Report on Further Delineation June 1992
elev source for June 21 1994 and later dates Moran Engineering map, 6/94
elev source for vent wells Moran Engineering map, 7/95
OB-1 measurements discontinued following June 30, 1995 measurement

FILE H:\SLWATLEV WB1

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	acetone (ug/l)	benzene (ug/l)	bromo-benzene (ug/l)	bromo-chloro methane (ug/l)	bromo dichloro-methane (ug/l)	bromo-form (ug/l)	bromo-methane (ug/l)	2-buta-none (ug/l)	n-butyl-benzene (ug/l)	carbon disulfide (ug/l)	carbon tetra-chloride (ug/l)	chloro-benzene (ug/l)	chloro-ethane (ug/l)	chloro-form (ug/l)	chloro-methane (ug/l)	2-chloro-toluene (ug/l)	4-chloro-toluene (ug/l)	dibromo-chloro-methane (ug/l)	1,2-dibromo 3-chloro-propane (ug/l)	1,2 di-bromo methane (ug/l)	dibromo-methane (ug/l)	1,2-di-chloro-benzene (ug/l)	1,3-di-chloro-benzene (ug/l)	1,4-di-chloro-benzene (ug/l)	dichloro-difluoro-methane (ug/l)	1,1-di-chloro-ethane (ug/l)	1,2-di-chloro-ethane (ug/l)	1,1-di-chloro-ethene (ug/l)	cis-1,2-dichloro-ethene (ug/l)	trans-1,2-dichloro-ethene (ug/l)	1,2-dichloro-propane (ug/l)	1,3-dichloro-propane (ug/l)	2,2-dichloro-propane (ug/l)	1,1-dichloro-propene (ug/l)
MW-1	17-Nov-89	IT	PAL	8010/8020		ND																																
	21-Jun-94	CEC	ARC	8260		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																			
	21-Jun-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																			
	20-Oct-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		40.4																																	
	25-Jan-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		40.4																																	
MW-2	17-Nov-89	IT	PAL	8010/8020		ND																																	
	21-Jun-94	CEC	ARC	8260		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																			
	21-Jun-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																			
	20-Oct-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		40.4																																	
	25-Jan-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		40.4																																	
MW-3	17-Nov-89	IT	PAL																																				
	21-Jun-94	CEC	ARC	8260		2	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	42	6.6	13	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																			
	21-Jun-94	CEC	CEC	8260	<20	34	<5	<5	<5	<5	<5	<20	7	<5	<5	19	<5	<5	<5	<5	<5	<5	<5	<5	<5	45	7	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																			
	20-Oct-94	CEC	CEC	8260	50	9	<5	<5	<5	<5	<5	<20	131	<5	<5	19	<5	<5	<5	<5	<5	<5	<5	<5	<5	64	9	18	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		8.9																																	
	25-Jan-95	CEC	CEC	8260	<100	970	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
	25-Jan-95	CEC	CEC	8015/8020		950																																	
	26-Apr-95	CEC	CEC	8260	<20	1100	<5	<5	<5	<5	<5	<20	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	43	6	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		1200																																	
	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	58	9	17	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		16																																	
	18-Oct-95	CEC	CEC	8260	<20	11	<5	<5	<5	<5	<5	<20	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	64	9	16	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	18-Oct-95	CEC	CEC	8015/8020		12																																	
	30-Jan-96	CEC	CEC	8260	<20	260	<5	<5	<5	<5	<5	<20	20	<5	<5	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	42	5	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		290																																	
	26-Apr-96	CEC	CEC	8260	<20	330	<5	<5	<5	<5	<5	<20	22	<5	<5	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	57	7	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-96	CEC	CEC	8015/8020		210																																	
	25-Jul-96	CEC	CEC	8260	<20	10	<5	<5	<5	<5	<5	<20	13	<5	<5	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	62	7	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		9																																	
	22-Oct-96	CEC	CEC	8260	<200	<50	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	22-Oct-96	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	10	<5	<5	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	69	6	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		31																																	
MW-4	16-Nov-90	IT	MCL	5030		1500																																	
	21-Jun-94	CEC	ARC	8260		370	<1.0	<1.0	<1.0	<1.0	<1.0		19		<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	>1.0 & <5.0	16	<1.0	<1.0	>1.0 & <5.0	<1.0
	21-Jun-94	CEC	ARC	8015																																			
	21-Jun-94	CEC	CEC	8260	<100	470	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	7	<5	<5	<5	<5	<5	<5	<5	12	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																			
	20-Oct-94	CEC	CEC	8260	160	260	<5	<5	<5	<5	<5	<20	17	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		360																																	
	25-Jan-95	CEC	CEC	8260	<100	400	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
	25-Jan-95	CEC	CEC	8015/8020		470																																	
	26-Apr-95	CEC	CEC	8260	<20	470	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		500																																	
	30-Jun-95	CEC	CEC	8260	<20	600	<5	<5	<5	<5	<5	<20	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		360																																	
	18-Oct-95	CEC	CEC	8260	<20	400	<5	<5	<5	<5	<5	<20	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	18-Oct-95	CEC	CEC	8015/8020		280																																	
	30-Jan-96	CEC	CEC	8260	<20	180	<5	<5	<5	<5	<5	<20	22	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		170																																	
	26-Apr-96	CEC	CEC	8260	<20	160	<5	<5	<5	<5	<5	<20	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-96	CEC	CEC	8015/8020		190																																	
	25-Jul-96	CEC	CEC	8260	<20	110	<5	<5	<5	<5	<5	<20	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	11	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		110																																	
	22-Oct-96	CEC	CEC	8260	300	210	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	5	10	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8260	<20	130	<5	<5	<5	<5	<5	<20	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		140																																	
OB-1	21-Jun-94	CEC	ARC	8260		83	<1.0	<1.0	<1.0	<1.0	<1.0		>1.0 & <5.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	6.7	12	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																			
	21-Jun-94	CEC	CEC	8260	<20	130	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9	14	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																			
	20-Oct-94	CEC	CEC	8260	120	48	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9	10	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		48																																	
	25-Jan-95	CEC	CEC	8260	<20	160	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	10	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		280																																	
	26-Apr-95	CEC	CEC	8260	<20	190	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	15	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		200																																	
	30-Jun-95	CEC	CEC	8260	<20	160	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	12	15	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		140																																	

ARC - Aspen Research Laboratories
CEC - Clayton Environmental Consultants
IT - Intermatrix Technology Corporation
MCL - Mobile Chem Labs Inc
PAL - Precision Analytical Laboratory Inc

FILE H:\QUATTRO\S_WATNEW.WB
prepared by JJM 1/96
updated 12/96

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	cis-1,3-dichloropropene (ug/l)	trans-1,3-dichloropropene (ug/l)	ethylbenzene (ug/l)	freon 113 (ug/l)	hexachlorobutadiene (ug/l)	2-hexanone (ug/l)	isopropylbenzene (ug/l)	p-isopropyltoluene (ug/l)	methylene chloride (ug/l)	4-methyl-2-pentanone (ug/l)	MTBE (ug/l)	naphthalene (ug/l)	n-propylbenzene (ug/l)	sec-butylbenzene (ug/l)	styrene (ug/l)	tert-butylbenzene (ug/l)	1,1,2-tetrachloroethane (ug/l)	1,1,2,2-tetrachloroethane (ug/l)	tetrachloroethene (ug/l)	toluene (ug/l)	1,2,3-trichlorobenzene (ug/l)	1,2,4-trichlorobenzene (ug/l)	1,1,1-trichloroethane (ug/l)	1,1,2-trichloroethane (ug/l)	trichloroethene (ug/l)	trichlorofluoromethane (ug/l)	1,2,3-trichloropropane (ug/l)	1,2,4-trimethylbenzene (ug/l)	1,3,5-trimethylbenzene (ug/l)	vinyl acetate (ug/l)	vinyl chloride (ug/l)	xylenes (ug/l)	o-xylene (ug/l)	p,m xylenes (ug/l)	TPH gasoline (ug/l)	TPH EPA 8015 gasoline (ug/l)	TPH diesel (ug/l)
MW-1	17-Nov-89		PAL	8010/8020			ND									<1.0	<1.0	<1.0						ND					29							ND				ND		
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>10 & <50	<1.0	<1.0	<1.0	<1.0	<1.0	18	<1.0	<1.0		<1.0			<1.0	<1.0			<50	
	21-Jun-94	CEC	ARC	8015																																					
	21-Jun-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	20	<5	<5	<5	<5	<10	<5		<5	<5			<5C	
	21-Jun-94	CEC	CEC	8015																																					
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.3	<5	<5	<5	11	<5	<5	<5	<5	<10	<5		<0.4	<0.4			<5C	
	20-Oct-94	CEC	CEC	8015/8020			<0.3									<5	<5	<5							<0.3	<5	<5	<5	16	<5	<5	<5	<5	<10	<5		<0.4	<0.4			<5C	
	25-Jan-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20																											
	25-Jan-95	CEC	CEC	8015/8020			<0.3																		<0.3																
MW-2	17-Nov-89		PAL	8010/8020			ND									<1.0	<1.0	<1.0						ND					10							ND				ND		
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>10 & <50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>10 & <50	<1.0	<1.0		<1.0			<1.0	<1.0			<5C	
	21-Jun-94	CEC	ARC	8015																																					
	21-Jun-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<10	<5		<5	<5			<5C	
	21-Jun-94	CEC	CEC	8015																																					
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.3	<5	<5	<5	<5	<5	6	<5	<5	<10	<5		<0.4	<0.4			<5C	
	20-Oct-94	CEC	CEC	8015/8020			<0.3									<5	<5	<5							<0.3	<5	<5	<5	<5	<5		<5	<5	<10	<5		<0.4	<0.4			<5C	
	25-Jan-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20																											
	25-Jan-95	CEC	CEC	8015/8020			<0.3																		<0.3																
MW-3	17-Nov-89		PAL	8010/8020			120									18		33	>10 & <50	<1.0	<1.0	<1.0	<1.0	<1.0	>10 & <50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	63			31	100		2700
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0			<1.0		13	>10 & <50	<1.0																													
	21-Jun-94	CEC	ARC	8015																																					
	21-Jun-94	CEC	CEC	8260	<5	<5	170	<5	<5	<20	17	<5	<5	<5		<5	<5	43	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		120	22	<10	<5	40	150		2900
	21-Jun-94	CEC	CEC	8015																																					
	20-Oct-94	CEC	CEC	8260	<5	<5	90	<5	<5	<20	20	<5	<5	<5		29	<5	43	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		150	46	<10	<5	68	140		2600
	20-Oct-94	CEC	CEC	8015/8020			96																		44															69	160		
	25-Jan-95	CEC	CEC	8260	<30	<30	80	<30	<30	<100	<30	<30	<30	<100		100	<30	<30	<30	<30	<30	<30	<30	<30	410	<30	<30	<30	<30	<30	350	60	<30	<30		620	1000			760	1100		7100
	25-Jan-95	CEC	CEC	8015/8020			86																		340															900	2100		
	26-Apr-95	CEC	CEC	8260	<5	<5	640	<5	<5	<20	29	<5	<5	<20		150	83	5	<5	62	<5	<5	<5	<5	1600	<5	<5	<5	<5	<5	650	160	<10	<5		940	1500			14000	
	26-Apr-95	CEC	CEC	8015/8020			720																		1700															26	41		
	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5		14	<5	23	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	54	40	<10	<5		33	99			1600	
	30-Jun-95	CEC	CEC	8015/8020			20																		1.7															23	77		
	18-Oct-95	CEC	CEC	8260	<5	<5	46	<5	<5	<20	9	<5	<5	<5		14	23	6	<5	<5	<5	<5	<5	<5	45	<5	<5	<5	<5	<5	110	28	<10	<5		24	83			2000	
	18-Oct-95	CEC	CEC	8015/8020			46																		1.5															570	630		
	30-Jan-96	CEC	CEC	8260	<5	<5	160	<5	<5	<20	17	<5	<5	<20		85	57	5	<5	<5	<5	<5	<5	<5	46	<5	<5	<5	<5	<5	390	110	<10	<5		590	740			6400	
	30-Jan-96	CEC	CEC	8015/8020			150																		48															600	1200		
	26-Apr-96	CEC	CEC	8260	<5	<5	270	<5	<5	<20	19	<5	<5	<20	<5	89	66	7	<5	<5	<5	<5	<5	<5	140	<5	<5	<5	<5	<5	440	110	<10	<5		320	640			5200	
	26-Apr-96	CEC	CEC	8015/8020			170																		100															7	36		
	25-Jul-96	CEC	CEC	8260	<5	<5	35	<5	<5	<20	7	<5	<5	<20	<5	10	26	6	<5	<5	<5	<5	<5	<5	45	<5	<5	<5	<5	<5	140	35	<10	<5		7.8	30			2100	
	25-Jul-96	CEC	CEC	8015/8020			27																		<0.3															<50	<50		
	22-Oct-96	CEC	CEC	8260	<50	<50	<50	<50	<50	<200	<50	<50	<50	<200		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	90	<50	<100	<50		<50	<50				
	22-Oct-96	CEC	CEC	8260	<5	<5	13	<5	<5	<20	<5	<5	<5	<20		6	18	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	95	23	<5	<5		<5	14			1800	
	22-Oct-96	CEC	CEC	8015/8020			13																		<0.3															4.0	16		
MW-4	16-Nov-90	IT	MCL	5030			720																		2000															27000			32000
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	230		<1.0		43	>10 & <50	<1.0			46	54	>10 & <50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0	<1.0	<1.0		>10 & <50				44	270		8000
	21-Jun-94	CEC	ARC	8015																																					
	21-Jun-94	CEC	CEC	8260	<30	<30	360	<30	<30	<100	50	<30	<30	<100		<30	60	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	530	110	<50	<30		50	530			7600	
	21-Jun-94	CEC	CEC	8015																																					
	20-Oct-94	CEC	CEC	8260	<5	<5	240	<5	<5	<5	66	<5	<5	<20		96	78	8	<5	<5	<5	<5	<5	<5	34	<5	<5	<5	<5	<5	330	27	<5	<5		110	330			7600	
	20-Oct-94	CEC	CEC	8015/8020			270																		33															120	520		
	25-Jan-95	CEC	CEC	8260	<30	<30	420	<30	<30	<30	<100	40	<30	<30		120	100	<30	<30	<30	<30	<30	<30	<30	90	<30	<30	<30	<30	<30	650	120	<50	<30		310	550			9700	
	25-Jan-95	CEC	CEC	8015/8020			520																		110															320	730		
	26-Apr-95	CEC	CEC	8260	<5	<5	390	<5	<5	<20	51	<5	<5	<20		54	61	6	<5	<5	<5	<5	<5	<5	17	<5	<5	<5	<5	<5	490	81	<10	<5		60	430			6100	
	26-Apr-95	CEC	CEC	8015/8020			250																		11															24	210		
	30-Jun-95	CEC	CEC	8260	<5	<5	570	<5	<5	<5	60	<5	<5	<20		96	110	10	<5	<5	<5	<5	<5	<5	19	<5	<5	<5	<5	<5	690	130	<10	<5		74	520			7800	
	30-Jun-95	CEC	CEC	8015/8020			380																		18															53	400		
	18-Oct-95	CEC	CEC	8260	<5	<5	490	<5	<5	<5	53	<5	<5	<20		65	110	13	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	530	91	<10	<5		17	250			5900	
	18-Oct-95	CEC	CEC	8015/8020			330																		5.4															10	190		
	30-Jan-96	CEC	CEC	8260	<5	<5	280	<5	<5	<5	34	<5	<5	<20		85	89	10	<5	<5	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	500	120	<10	<5		110	330			5900	
	30-Jan-96	CEC	CEC	8015/8020			310																		12															110	380		
	26-Apr-96	CEC	CEC	8260	<5	<5	240	<5	<5	<5	56	<5	<5	<20	<5	45	61	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	270	69	<10	<5		15	160			5400	
	26-Apr-96	CEC	CEC	8015/8020			230																		3.6															17	170		
	25-Jul-96	CEC	CEC	8260	<5	<5	170	<5	<5	<5	53	<5	<5	<20	<5	32	39	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	180	44	<10	<5		11	110			4300	
	25-Jul-96	CEC	CEC	8015/8020			170																		0.6															12	95		
	22-Oct-96	CEC	CEC	8260	<50	<50	240	<50	<50	<200	<50	<50	<50	<200		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	240	50	<100	<50		<50	170				
	22-Oct-96	CEC	CEC	8260	<5	<5	200	<5	<5	<5	56	<5	<5	<20		36	38	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	220	47	<5	<5		6	140			4800	
	22-Oct-96	CEC	CEC	8015/8020			220																		1.2															9.3	170		
OB-1	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	10		<1.0		28	<1.0	<1.0			>10 & <50	54	<10 & >50	<1.0	<1.0	<1.0	<1.0	<1.0	>10 & <50	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0	>10 & <50	<1.0		<1.0		>10 & <50	66			2800
	21-Jun-94	CEC	ARC	8015																																					
	21-Jun-94	CEC	CEC	8260	<5	<5	10	<5	<5	<20	39	<5	<5	<20		<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	42	<5	<5	<10	<5		<5	7			1600	
	21-Jun-94	CEC	CEC	8015																																					
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	30	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	66	<5	<5	<10	<5		<5	<5			2600	
	20-Oct-94	CEC	CEC	8015/8020			5.2																		3.3															0.9	5		
	25-Jan-95	CEC	CEC	8260	<5	<5	32	<5	<5	<20	30	44	<5	<20		<5	11	<5	<5	<5	<5	<5	<5	<5	39	<5	23	<5	<5	<5	27	<5	<5	<10	<5		21	45			3900	
	25-Jan-95	CEC	CEC	8015/8020			24																		29															15	35		
	26-Apr-95	CEC	CEC	8260	<5	<5	10	<5	<5	<20	38	<5	<5	<20		<5	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	57	<5	<5	5	<5	<10	<5		<5	8		
	26-Apr-95	CEC	CEC	8015/8020			7.4																		3.4															2	6.2		2400
	30-Jun-95	CEC	CEC	8260	<5	<5	17	<5	<5	<20	48	<5	<5	<20		<5	11	<5	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	55	<5	<5	8	<5	<10	<5		3.1	13		
	30-Jun-95	CEC	CEC	8015/8020			15																		7																		2600

ARC - Ascen Research Laboratories
CEC - Clayton Environmental Consultants
IT - International Technology Corporation

MCL - Mobile Chem Labs Inc
PAL - Precision Analytical Laboratory Inc.

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prepared by JJM 1/95
updated 12/96

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	acetone (ug/l)	benzene (ug/l)	bromo-benzene (ug/l)	bromo-chloro methane (ug/l)	bromo dichloro-methane (ug/l)	bromo-form (ug/l)	bromo-methane (ug/l)	2-buta-none (ug/l)	n-butyl-benzene (ug/l)	carbon disulfide (ug/l)	carbon tetra-chloride (ug/l)	chloro-benzene (ug/l)	chloro-ethane (ug/l)	chloro-form (ug/l)	chloro-methane (ug/l)	2-chloro-toluene (ug/l)	4-chloro-toluene (ug/l)	dibromo-chloro-methane (ug/l)	1,2-dibromo 3-chloro-propane (ug/l)	1 2 di-bromo methane (ug/l)	dibromo-methane (ug/l)	1,2-di-chloro-benzene (ug/l)	1 3-di-chloro-benzene (ug/l)	1 4-di-chloro-benzene (ug/l)	dichloro-difluoro-methane (ug/l)	1 1-di-chloro-ethane (ug/l)	1,2-di-chloro-ethane (ug/l)	1 1-di-chloro-ethene (ug/l)	cis-1,2-dichloro-ethene (ug/l)	trans-1 2-dichloro-ethene (ug/l)	1,2-dichloro-propane (ug/l)	1,3-dichloro-propane (ug/l)	2,2-dichloro-propane (ug/l)	1 1-dichloro-propene (ug/l)
VW-5	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		<0 4																																
VW-6	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		<0 4																																
VW-8	28-Jul-95	CEC	CEC	8260	<20	280	<5	<5	<5	<5	<5	<20	9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5
	28-Jul-95	CEC	CEC	8015/8020		280																																
	19-Oct-95	CEC	CEC	8260	<20	290	<5	<5	<5	<5	<5	<20	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	19-Oct-95	CEC	CEC	8015/8020		*5																																
	30-Jan-96	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		18																																
	25-Apr-96	CEC	CEC	8260	<20	41	<5	<5	<5	<5	<5	<20	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Apr-96	CEC	CEC	8015/8020		34																																
	25-Jul-96	CEC	CEC	8260	<20	72	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		74																																
	22-Oct-96	CEC	CEC	8260	<200	170	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	22-Oct-96	CEC	CEC	8260	<20	170	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		180																																
VW-9	28-Jul-95	CEC	CEC	8260	<20	6600	<5	<5	<5	<5	<5	<20	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	33	<5	6	<5	<5	<5	<5	<5	<5
	28-Jul-95	CEC	CEC	8015/8020		7500																																

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prepared by JJM 1/95
updated 12/96

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Semore collection by	Lab	EPA Method	cis-1,3-dichloropropene (ug/l)	trans-1,3-dichloropropene (ug/l)	ethylbenzene (ug/l)	freon 113 (ug/l)	hexachlorobutadiene (ug/l)	2-hexanone (ug/l)	isopropylbenzene (ug/l)	p-isopropyltoluene (ug/l)	methylene chloride (ug/l)	4-methyl-2-pentanone (ug/l)	MTBE (ug/l)	naphthalene (ug/l)	n-propylbenzene (ug/l)	sec-butylbenzene (ug/l)	styrene (ug/l)	tert-butylbenzene (ug/l)	1,1,1,2-tetrachloroethane (ug/l)	1,1,2,2-tetrachloroethane (ug/l)	tetrachloroethene (ug/l)	toluene (ug/l)	1,2,3-trichlorobenzene (ug/l)	1,2,4-trichlorobenzene (ug/l)	1,1,1-trichloroethane (ug/l)	1,1,2-trichloroethane (ug/l)	trichloroethene (ug/l)	trichlorofluoroethane (ug/l)	1,2,3-trichloropropane (ug/l)	1,2,4-trimethylbenzene (ug/l)	1,3,5-trimethylbenzene (ug/l)	vinyl acetate (ug/l)	vinyl chloride (ug/l)	xylenes (ug/l)	o-xylene (ug/l)	p,m xylenes (ug/l)	TPH gasoline (ug/l)	TPH EPA 8015 gasoline (ug/l)	TPH diesel (ug/l)
VW-5	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<0.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5		<0.4	<0.4		<50	
	30-Jun-95	CEC	CEC	8015/8020			<0.3																																		
VW-6	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<0.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5		<0.4	<0.4		<50	
	30-Jun-95	CEC	CEC	8015/8020			<0.3																																		
VW-8	28-Jul-95	CEC	CEC	8260	<5	<5	210	<5	<5	<20	21	<5	<5	<20		46	57	5	<5	<5	<5	<5	<5	44	<5	<5	<5	<5	<5	<5	<5	270	61	<10	<5		130	210			
	28-Jul-95	CEC	CEC	8015/8020			230																	570													89	180		5300	
	18-Oct-95	CEC	CEC	8260	<5	<5	200	<5	<5	<20	17	<5	<5	<20		32	45	<5	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<5	<5	170	21	<10	<5		31	69			
	18-Oct-95	CEC	CEC	8015/8020			0.6																	0.3													<0.4	<0.4		500	
	30-Jan-96	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5				<5	<5			
	30-Jan-96	CEC	CEC	8015/8020			7.2																	1.5													2.6	2.9		50	
	26-Apr-96	CEC	CEC	8260	<5	<5	91	<5		<20	9	<5	<5	<20	<30	18	25	<5	<5	<5	<5	<5	<5	41	<5	<5	<5	<5	<5	<5	<5	91	93	<10	<5		49	120			
	26-Apr-96	CEC	CEC	8015/8020			58																	31				10									35	80		1400	
	25-Jul-96	CEC	CEC	8260	<5	<5	52	<5	<5	<20	<5	<5	<5	<20	<5	<5	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10			<5	<5			
	25-Jul-96	CEC	CEC	8015/8020			48																	3													0.9	3.6		800	
	22-Oct-96	CEC	CEC	8260	<50	<50	160	<50	<50	<200	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<100	<50		<50	<50			
	22-Oct-96	CEC	CEC	8260	<5	<5	190	<5	<5	<20	11	<5	<5	<20		6	35	<5	<5	<5	<5	<5	<5	3.9													<5	<5			
	22-Oct-96	CEC	CEC	8015/8020			190																														1.0	6.8		2300	
VW-9	28-Jul-95	CEC	CEC	8260	<5	<5	970	<5	<5	<20	48	<5	<5	<20		240	120	9	<5	<5	<5	<5	<5	2800	<5	<5	<5	<5	<5	<5	<5	650	190	<10	<5		1100	1900			
	28-Jul-95	CEC	CEC	8015/8020			1100																	3500													1200	2400		32000	

ARC - Aspen Research Laboratories
CEC - Clayton Environmental Consultants
IT - International Technology Corporation

MCL - Mobile Chem Labs Inc
PAL - Precision Analytical Laboratory, Inc.

FILE: H:\QUATTRO\SLWATNEW\WB1
prepared by: JJM, 1/95
updated 12/96

Table 3 **Record of Daily Monitoring** **Soil Vapor Extraction System** **IRES/San Leandro, California**

Note Photoionization detection (PID) readings, in ppm, using OVM 580M

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
10/5/95	4:00 PM	177.0	1.1	0.3	0.0	
10/6/95	3:30 PM	172.0	1.1	0.0	0.0	
10/9/95	3:00 PM	158.0	1.9	0.3	0.0	
10/10/95	6:00 AM	165.0	1.9	0.3	0.0	
10/11/95	8:00 AM	158.0	1.9	0.3	0.0	
10/12/95	5:00 PM	154.0	1.1	0.3	0.0	
10/13/95	4:45 PM	152.0	1.9	0.3	0.0	
10/14/95	11:00 AM	148.0	1.9	0.3	0.0	
10/16/95	12:00 PM	148.0	1.9	0.3	0.0	
10/17/95	1:25 PM	147.0	1.3	0.3	0.0	
10/18/95	12:00 PM	146.0	1.2	0.3	0.0	
10/19/95	5:00 PM	126.0	1.9	0.3	0.0	
10/20/95	5:00 PM	130.0	1.9	0.4	0.0	
10/21/95	7:39 AM	132.0	1.5	0.4	0.0	
10/22/95						Sunday off
10/23/95	8:25 AM	125.0	2.3	0.3	0.0	
10/24/95	12:00 PM	115.0	1.9	0.2	0.0	
10/25/95	5:00 PM	112.0	2.3	0.1	0.0	
10/26/95	12:00 PM	110.0	2.4	2.2	1.2	
10/27/95	12:00 PM	111.0	2.3	2.2	1.2	
10/28/95	3:30 PM	109.0	2.7	2.2	1.7	
10/30/95	5:00 PM	101.0	2.6	3.1	3.0	
10/31/95	1:00 PM	103.0	2.6	3.5	2.6	
11/1/95						
11/7/95		89.0	2.0	0.2	0.0	with Toxi RAE
11/7/95		101.0	2.7	2.6	1.0	with Toxi RAE
11/8/95		109.0	2.8	0.5	3.0	with Toxi RAE
11/9/95						Shut down 11-9 to 11-14 to test meter
11/14/95		69.0	0.8	0.2	0.2	with Mini RAE
11/15/95		68.2	0.6	0.4	0.2	with Mini RAE
11/16/95		69.1	0.8	0.4	0.2	outside = 12.0
11/17/95						shut down 11-17 to 11-22 to test meters
11/22/95		70.2	0.7	0.4	0.2	outside = 2.0
11/23/95						shut off 11-23 to 11-27 for holiday
11/27/95	3:00 PM	71.5	0.8	0.6	0.3	outside = 2.1
11/28/95	5:00 PM	72.0	0.7	0.4	0.2	outside = 2.0
11/29/95	8:25 AM	71.1	0.8	0.4	0.2	outside = 2.1
11/30/95	4:15 PM	70.2	0.8	0.5	0.1	outside = 2.0
12/1/95	5:25 PM	69.8	0.6	0.4	0.2	outside = 2.1
12/2/95	1:52 PM	70.2	0.8	0.4	0.1	outside = 2.0
12/4/95	4:00 PM	70.2	0.9	0.5	0.2	outside = 2.5
12/5/95	5:00 PM	69.5	0.8	0.6	0.2	outside = 2.6
12/6/95	5:00 PM	70.5	0.7	0.4	0.2	outside = 2.4
12/7/95	12:50 PM	69.8	0.8	0.5	0.1	outside = 2.5
12/8/95	5:00 PM	70.2	0.7	0.4	0.2	outside = 2.4
12/13/95	12:25 PM	69.2	0.9	0.6	0.2	outside = 2.6
12/14/95	5:00 PM	70.3	0.8	0.4	0.2	outside = 2.5
12/15/95	5:00 PM	70.5	0.9	0.6	0.3	outside = 2.2
12/18/95	5:00 PM	69.8	1.7	0 3	0.0	
12/19/95	4:30 PM	68.8	1.6	0.2	0.0	
12/20/95	12:25 PM	67.0	1.3	0.5	0.0	
12/21/95	11:30 AM	69.8	1.7	0.7	0.1	
12/22/95	2:30 PM	67.0	2.3	0.2	0.0	
12/26/95	3:35 PM	63.2	1.3	0.1	0.0	
12/27/95	4:10 PM	59 9	0.8	0.1	0 0	
12/28/95	5:00 PM	58.7	0.6	0.0	0.0	
12/29/95	5:10 PM	58.3	0.4	0.0	0.0	
12/30/95						Shut down 12-30 to 1-9 no one to monitor
1/9/96		58.8	0.8	0.1	0.0	

Table 3 **Record of Daily Monitoring Soil Vapor Extraction System IRES/San Leandro, California**

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
1/10/96		56.8	0.6	0.1	0.0	
1/11/96		55.9	0.5	0.1	0.0	
1/12/96		55.2	0.5	0.1	0.0	
1/13/96		52.5	0.3	0.0	0.0	
1/14/96		51.6	0.3	0.0	0.0	
1/15/96		50.1	0.3	0.0	0.0	
1/22/96		51.6	0.3	0.0	0.0	
1/23/96		50.1	0.3	0.0	0.0	
1/24/96		49.2	0.3	0.0	0.0	
1/25/96		49.0	0.3	0.0	0.0	
1/26/96		48.7	0.2	0.0	0.0	
1/29/96		48.6	0.2	0.0	0.0	
1/30/96		47.9	0.2	0.0	0.0	
1/31/96						unit shut off for quarterly sampling
2/1/96		48.2	0.2	0.0	0.0	
2/2/96		48.7	0.2	0.0	0.0	
2/5/96		49.1	0.2	0.0	0.0	
2/6/96		48.7	0.2	0.0	0.0	
2/9/96						not reading
2/20/96						drained 18 gal.of water
2/21/96						water being exited out of exhaust
2/21/96		3.0	0.0	0.0	0.0	
2/22/96		3.0	0.0	0.0	0.0	
2/23/96		2.8	0.0	0.0	0.0	
2/24/96		2.6	0.0	0.0	0.0	
2/26/96		2.7	0.0	0.0	0.0	
2/27/96		2.9	0.0	0.0	0.0	
2/28/96		2.6	0.0	0.0	0.0	
2/29/96						drained water; tank 1/2 full.
3/1/96		2.4	0.0	0.0	0.0	
3/4/96		1.9	0.0	0.0	0.0	
3/5/96		2.0	0.0	0.0	0.0	
3/6/96		1.8	0.0	0.0	0.0	
3/7/96						drained water, tank 1/3 full
3/20/96		0.0	0.0	0.0	0.0	
3/21/96						no reading; drained water, 1/3 full
3/22/96		1.5	0.0	0.0	0.0	drained water
3/26/96		1.6	0.0	0.0	0.0	
3/27/96		1.7	0.0	0.0	0.0	
4/3/96		1.2	0.0	0.0	0.0	
4/4/96		1.4	0.0	0.0	0.0	
4/8/96		1.6	0.0	0.0	0.0	
4/9/96		2.8	0.0	0.0	0.0	
4/10/96		2.6	0.0	0.0	0.0	
4/11/96		2.9	0.0	0.0	0.0	
4/12/96		2.7	0.0	0.0	0.0	
4/15/96						system off; no readings
4/16/96						system off; no readings
4/17/96						system off; no readings
4/18/96						system off; no readings
4/19/96		6.9	0.0	0.0	0.0	
4/22/96		7.6	0.0	0.0	0.0	
4/23/96		8.4	0.0	0.0	0.0	
4/24/96		8.2	0.0	0.0	0.0	
4/25/96		7.6	0.0	0.0	0.0	drained water; 1/3 tank of water
4/26/96		7.1	0.0	0.0	0.0	
4/29/96		9.1	0.0	0.0	0.0	
4/30/96		9.1	0.0	0.0	0.0	
5/1/96		9.8	0.0	0.0	0.0	
5/2/96		9.6	0.0	0.0	0.0	
5/3/96		10.2	0.0	0.0	0.0	
5/6/96						system off, no readings
5/7/96		13.6	0.0	0.0		
5/8/96		14.4	0.0	0.0	0.0	
5/9/96		14.3	0.0	0.0	0.0	

Table 3 **Record of Daily Monitoring** **Soil Vapor Extraction System** **IRES/San Leandro, California**

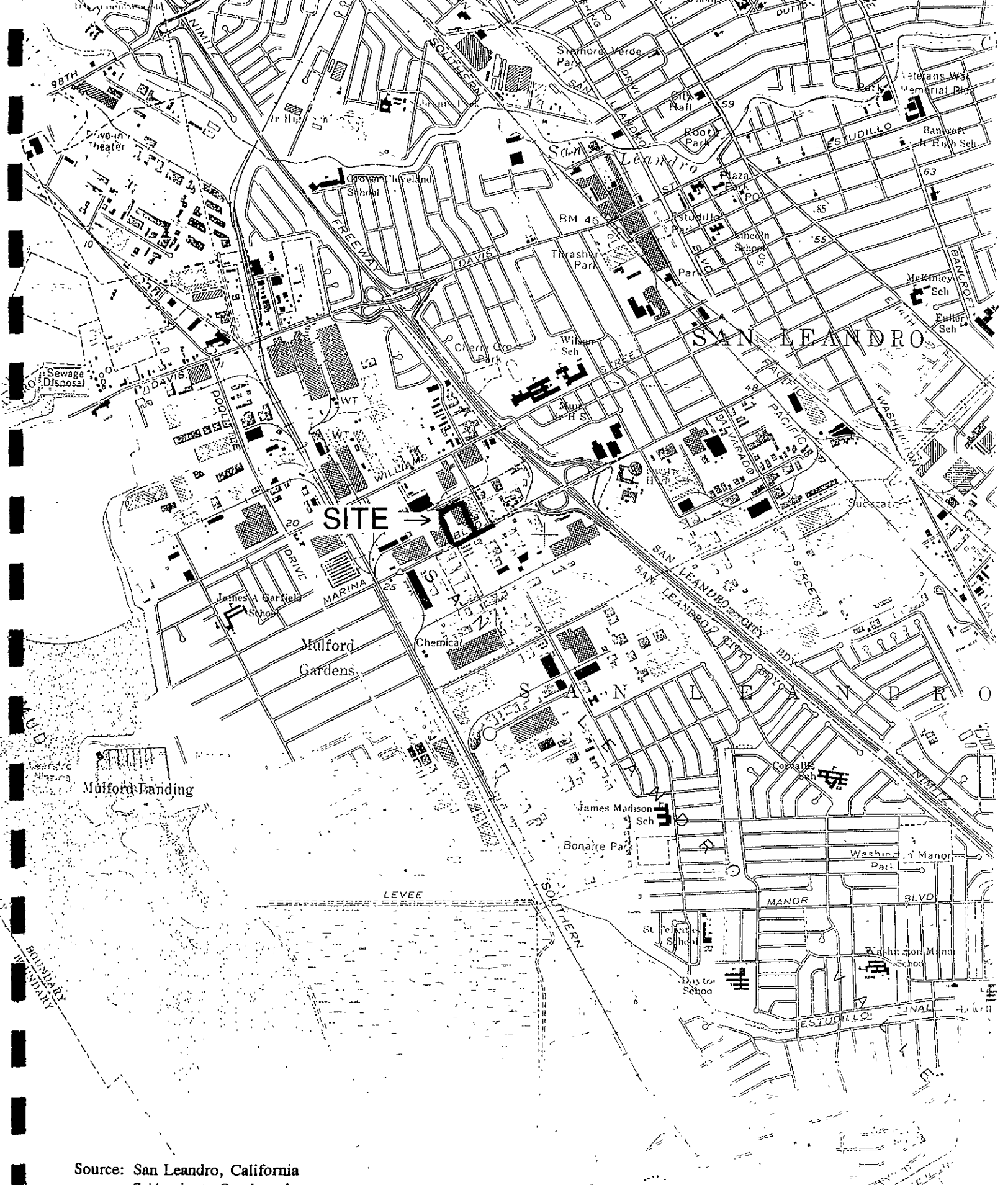
Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
5/10/96		14.4	0.0	0.0	0.0	
5/13/96						system off, no readings
5/14/96						system off, no readings
5/15/96		11.1	0.0	0.0	0.0	raining
5/16/96		10.4	0.0	0.0	0.0	raining
5/17/96						no readings
5/20/96						no readings
5/21/96						no readings
5/22/96						no readings
5/23/96						no readings
5/24/96						no readings
5/27/96						no readings
5/28/96						no readings
5/29/96						no readings
5/30/96						no readings
5/31/96						no readings
6/3/96		13.2	0.0	0.0	0.0	
6/4/96		13.6	0.0	0.0	0.0	
6/5/96		13.0	0.0	0.0	0.0	
6/6/96		13.5	0.0	0.0	0.0	
6/7/96		13.4	0.0	0.0	0.0	
6/10/96		15.5	0.0	0.0	0.0	
6/11/96		15.3	0.0	0.0	0.0	
6/12/96		16.0	0.0	0.0	0.0	
6/13/96		15.3	0.0	0.0	0.0	
6/14/96		15.1	0.0	0.0	0.0	
6/17/96		10.2	0.0	0.0	0.0	
6/18/96		12.5	0.0	0.0	0.0	
6/19/96		16.6	0.0	0.0	0.0	
6/20/96		17.2	0.0	0.0	0.0	
6/21/96		17.2	0.0	0.0	0.0	
6/24/96		19.1	0.0	0.0	0.0	
6/25/96		18.2	0.0	0.0	0.0	
6/26/96		17.2	0.0	0.0	0.0	
6/27/96		16.6	0.0	0.0	0.0	
6/28/96		16.1	0.0	0.0	0.0	
7/1/96		15.1	0.0	0.0	0.0	
7/2/96		16.9	0.0	0.0	0.0	
7/3/96		17.1	0.0	0.0	0.0	
7/8/96		18.6	0.0	0.0	0.0	
7/9/96		17.9	0.0	0.0	0.0	
7/10/96		19.1	0.0	0.0	0.0	
7/11/96		16.9	0.0	0.0	0.0	
7/12/96		16.9	0.0	0.0	0.0	
7/15/96		17.4	0.0	0.0	0.0	
7/16/96		16.4	0.0	0.0	0.0	
7/17/96		16.6	0.0	0.0	0.0	
7/18/96		17.2	0.0	0.0	0.0	
7/19/96		16.6	0.0	0.0	0.0	
7/22/96		14.3	0.0	0.0	0.0	
7/23/96		13.6	0.0	0.0	0.0	
7/24/96		13.2	0.0	0.0	0.0	
7/25/96		16.2	0.0	0.0	0.0	
7/26/96		15.1	0.0	0.0	0.0	
7/29/96		14.7	0.0	0.0	0.0	
7/30/96		14.3	0.0	0.0	0.0	
7/31/96		13.7	0.0	0.0	0.0	
8/1/96		14.5	0.0	0.0	0.0	
8/2/96		13.2	0.0	0.0	0.0	
8/5/96		14.5	0.0	0.0	0.0	
8/6/96		11.4	0.0	0.0	0.0	
8/7/96		8.0	0.0	0.0	0.0	
8/8/96		9.7	0.0	0.0	0.0	
8/9/96		11.0	0.0	0 0	0.0	
8/12/96		10.6	0.0	0.0	0.0	

Table 3 **Record of Daily Monitoring** **Soil Vapor Extraction System** **IRES/San Leandro, California**

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
8/13/96		10.4	0.0	0.0	0.0	
8/14/96		10.1	0.0	0.0	0.0	
8/15/96		10.2	0.0	0.0	0.0	
8/16/96		10.3	0.0	0.0	0.0	
8/19/96		9.7	0.0	0.0	0.0	
8/20/96		9.3	0.0	0.0	0.0	
8/21/96		9.4	0.0	0.0	0.0	
8/22/96		8.6	0.0	0.0	0.0	
8/23/96		8.8	0.0	0.0	0.0	
8/26/96		2.7	0.0	0.0	0.0	
8/27/96		0.1	0.0	0.0	0.0	
8/28/96		3.1	0.0	0.0	0.0	
8/29/96		2.1	0.0	0.0	0.0	
8/30/96		2.5	0.0	0.0	0.0	
9/2/96		3.9	0.0	0.0	0.0	
9/3/96		3.8	0.0	0.0	0.0	
9/4/96		4.2	0.0	0.0	0.0	
9/5/96		4.7	0.0	0.0	0.0	
9/6/96		4.5	0.0	0.0	0.0	
9/7/96						no reading (weekend)
9/8/96						no reading (weekend)
9/9/96		3.8	0.0	0.0	0.0	
9/10/96		3.9	0.0	0.0	0.0	
9/11/96		4.2	0.0	0.0	0.0	
9/12/96		4.8	0.0	0.0	0.0	
9/13/96		3.7	0.0	0.0	0.0	
9/16/96		3.7	0.0	0.0	0.0	
9/17/96		4.3	0.0	0.0	0.0	
9/18/96		3.1	0.0	0.0	0.0	
9/19/96		4.2	0.0	0.0	0.0	
9/20/96		3.6	0.0	0.0	0.0	
9/23/96		4.0	0.0	0.0	0.0	
9/24/96		4.8	0.0	0.0	0.0	
9/25/96		4.6	0.0	0.0	0.0	
9/26/96		3.8	0.0	0.0	0.0	
9/27/96		3.8	0.0	0.0	0.0	
9/30/96		4.5	0.0	0.0	0.0	
10/1/96		4.3	0.0	0.0	0.0	
10/2/96		3.6	0.0	0.0	0.0	
10/3/96		3.8	0.0	0.0	0.0	
10/4/96		2.7	0.0	0.0	0.0	
10/7/96		2.5	0.0	0.0	0.0	
10/8/96		3.6	0.0	0.0	0.0	
10/9/96		3.8	0.0	0.0	0.0	
10/10/96		4.5	0.0	0.0	0.0	
10/11/96		4.3	0.0	0.0	0.0	
10/14/96		4.2	0.0	0.0	0.0	
10/15/96		3.8	0.0	0.0	0.0	
10/16/96		3.4	0.0	0.0	0.0	
10/17/96		3.9	0.0	0.0	0.0	
10/18/96		3.7	0.0	0.0	0.0	
10/21/96		3.1	0.0	0.0	0.0	
10/22/96		2.4	0.0	0.0	0.0	
10/23/96		2.5	0.0	0.0	0.0	
10/24/96		1.7	0.0	0.0	0.0	
10/25/96		1.9	0.0	0.0	0.0	
10/28/96		2.8	0.0	0.0	0.0	
10/29/96		2.7	0.0	0.0	0.0	Rainy Day
10/30/96		2.3	0.0	0.0	0.0	Rainy Day
10/31/96		1.9	0.0	0.0	0.0	
11/1/96		1.6	0.0	0.0	0.0	
11/4/96						OVM meter broken

Prepared by: John McDermott, Feb. 1996
Updated by: Julie Theisen, Nov. 1996

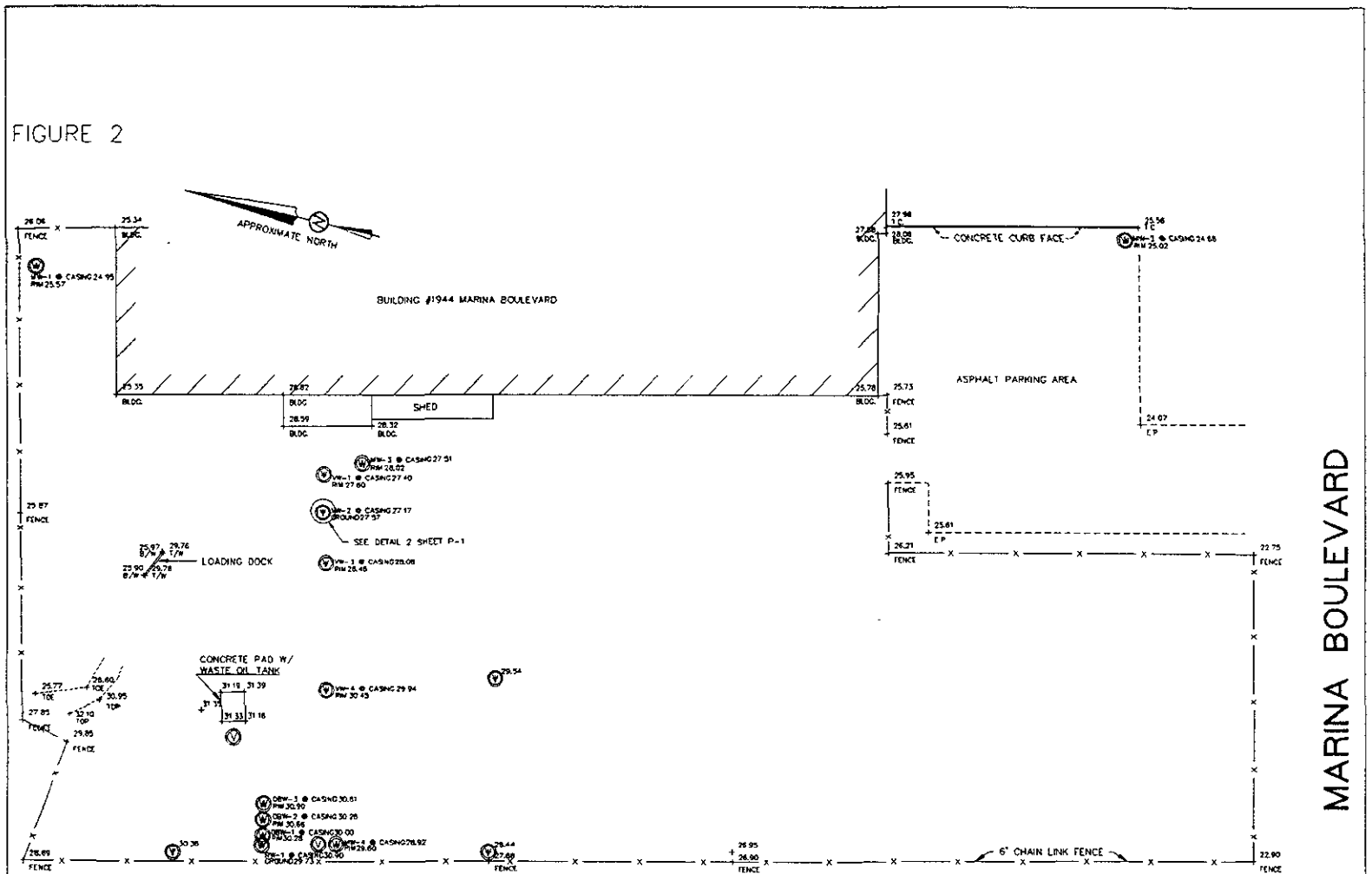
Location: i \final96\RM\Reports**100061.04**



Source: San Leandro, California
7 ½ minute Quadrangle
U.S. Geological Survey
Photo revised 1980

Figure 1 - Site Location Map
San Leandro, California

FIGURE 2



LEGEND	
T C	TOP OF CURB
	BUILDING LINE
T/W	TOP OF WALL
B/W	BASE OF WALL
-x-	FENCE LINE
MW	WELL EXISTING
V	SOIL VAPOR VENT
E P	EDGE OF PAVEMENT
TOP	TOP OF BANK
TOE	TOE OF SLOPE

BASIS OF ELEVATIONS: CITY OF SAN LEANDRO BENCHMARK ONCH NAIL ON TOP OF CURB AT STORM WATER INLET SOUTHEAST CORNER OF THE INTERSECTION OF MARINA BOULEVARD AND MERCED STREET, ELEVATION = 22.98'

ALL CASING ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF PVC PIPING

ALL RIM ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF STEEL RIM UNLESS OTHERWISE NOTED

* DENOTES APPROXIMATE LOCATION OF VW - 5 THRU 9

CAPSULE
ENVIRONMENTAL ENGINEERING, INC
1979 OAKCREST AVE., SUITE 235
ST PAUL, MINNESOTA 55113
(612) 636-2644

TITLE SITE MAP

INGERSOLL-RAND CORPORATION
SAN LEANDRO, CALIFORNIA

REVISION	DATE	DESCRIPTION

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO	DRAWING NO.	Sheet
NTS	MEC		02/16/94	001-142	FIG 2	OF

Water Level Elevations

San Leandro, California

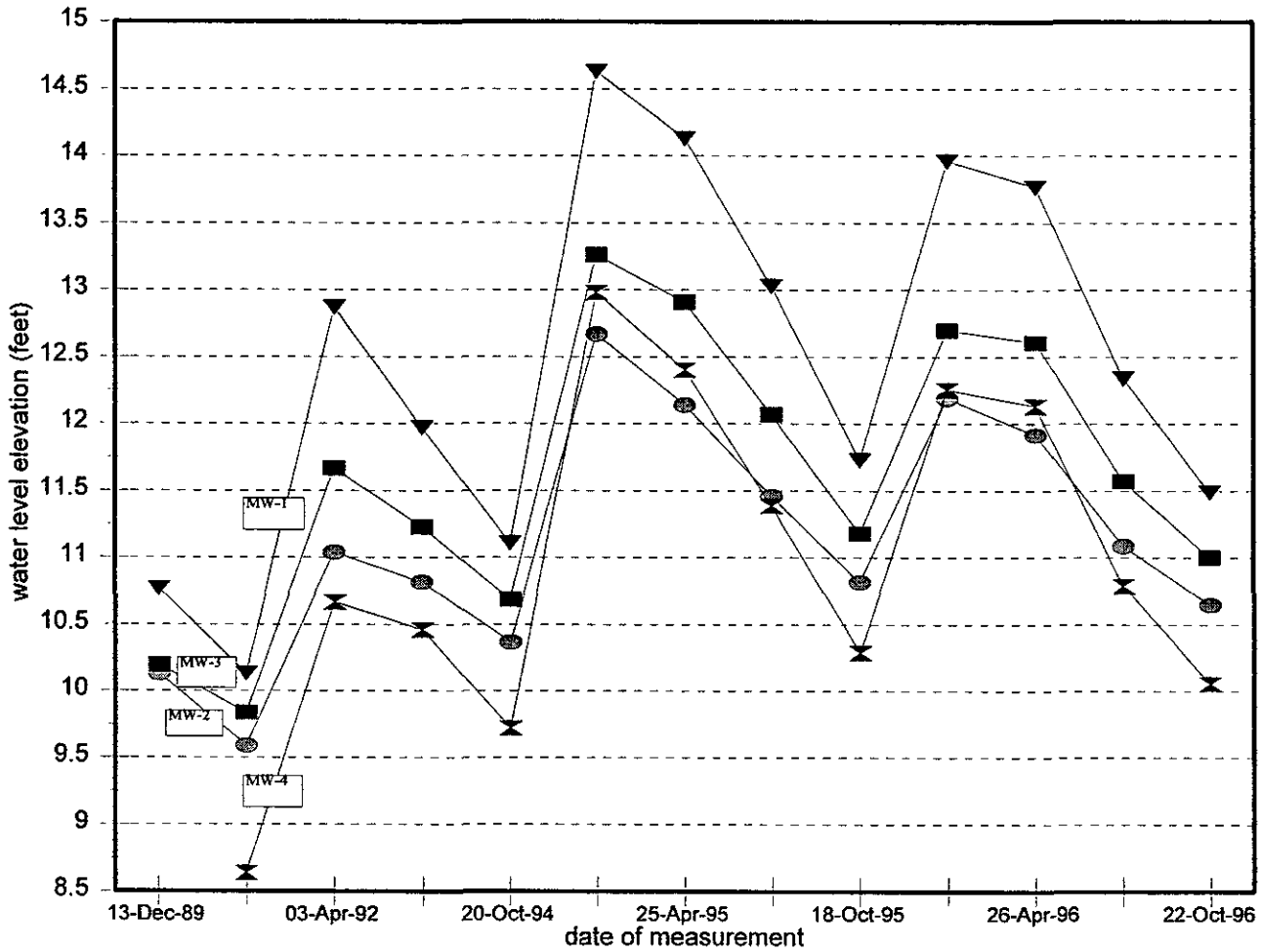
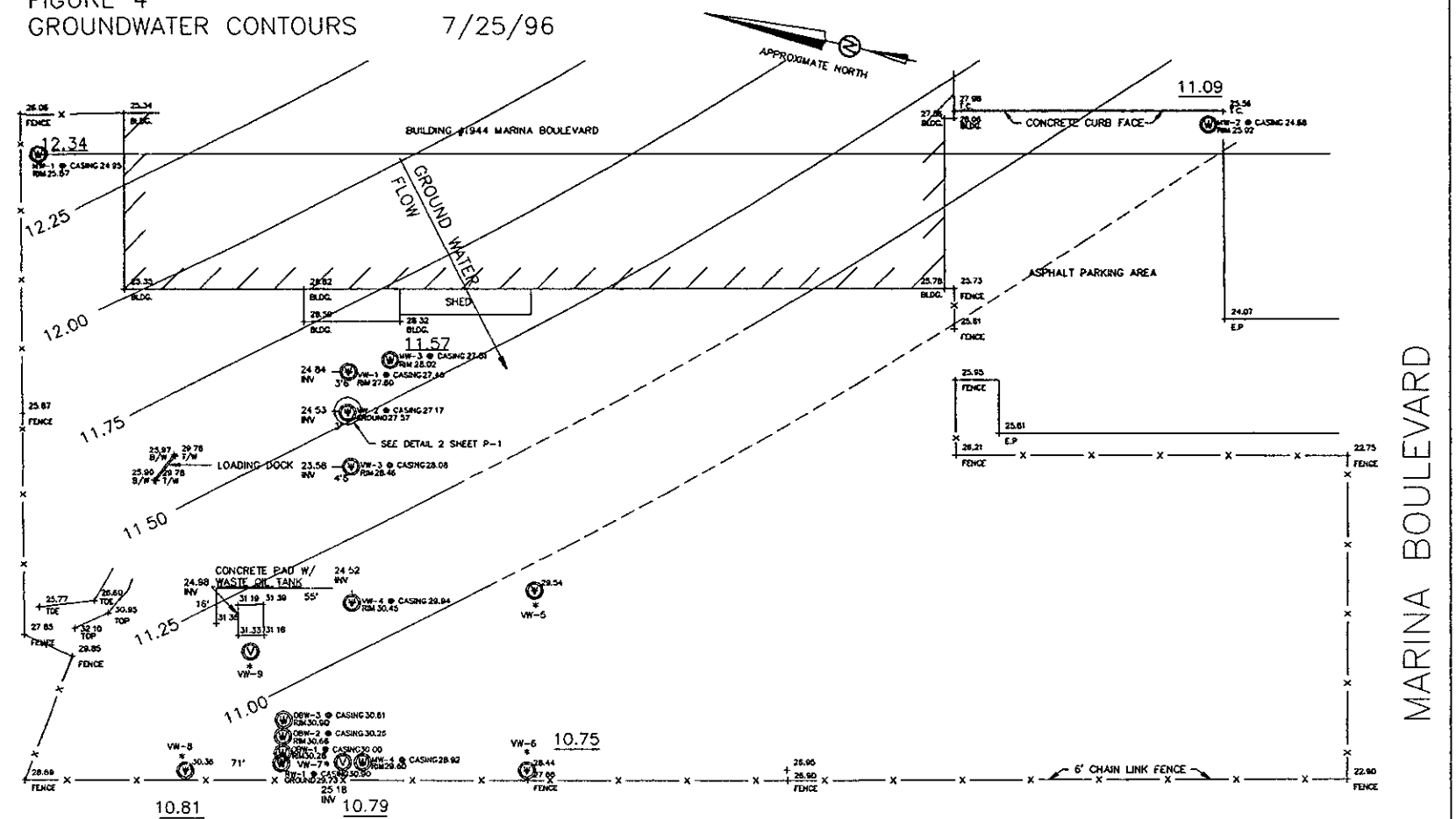


Figure 3

File H:\QUATTRO\SLWATLEV WB1 Graph1

FIGURE 4
GROUNDWATER CONTOURS 7/25/96



LEGEND	
T C	TOP OF CURB
⁄ ⁄	BUILDING LINE
T/W	TOP OF WALL
B/W	BASE OF WALL
- x -	FENCE LINE
Ⓦ	WELL EXISTING
Ⓥ	SOIL VAPOR VENT
E.P.	EDGE OF PAVEMENT
TOP	TOP OF BANK
TOE	TOE OF SLOPE

11.57 Ⓥ GROUND WATER ELEVATION, (FEET ABOVE SEA LEVEL)

11.75 GROUND WATER CONTOUR (FEET ABOVE SEA LEVEL)

BASIS OF ELEVATIONS CITY OF SAN LEANDRO BENCHMARK, CINCH NAIL ON TOP OF CURB AT STORM WATER INLET SOUTHEAST CORNER OF THE INTERSECTION OF MARINA BOULEVARD AND MERCED STREET, ELEVATION = 22.96'

ALL CASING ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF PVC PIPING.

ALL RIM ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF STEEL RIM UNLESS OTHERWISE NOTED

* DENOTES APPROXIMATE LOCATION OF VW - 5 THRU 9.

Approximate Scale 1" = 85'

WELL LOCATION SURVEY
INGERSOLL-RAND EQUIPMENT CORPORATION
LOCATED AT 1944 MARINA BOULEVARD
CITY OF SAN LEANDRO, COUNTY OF ALAMEDA, CALIFORNIA
JUNE 1994

MORAN ENGINEERING
CIVIL ENGINEERS \ LAND SURVEYORS
463 KENTUCKY AVENUE
BERKELEY, CALIFORNIA
94707
(510) 527-7744

CAPSULE
ENVIRONMENTAL ENGINEERING, INC.
1979 OAKCREST AVE., SUITE 216
ST PAUL, MINNESOTA 55113
(612) 636-2644

TITLE GROUND WATER CONTOUR MAP 7/25/96
INGERSOLL-RAND CORPORATION
SAN LEANDRO, CALIFORNIA

REVISION	DATE	DESCRIPTION

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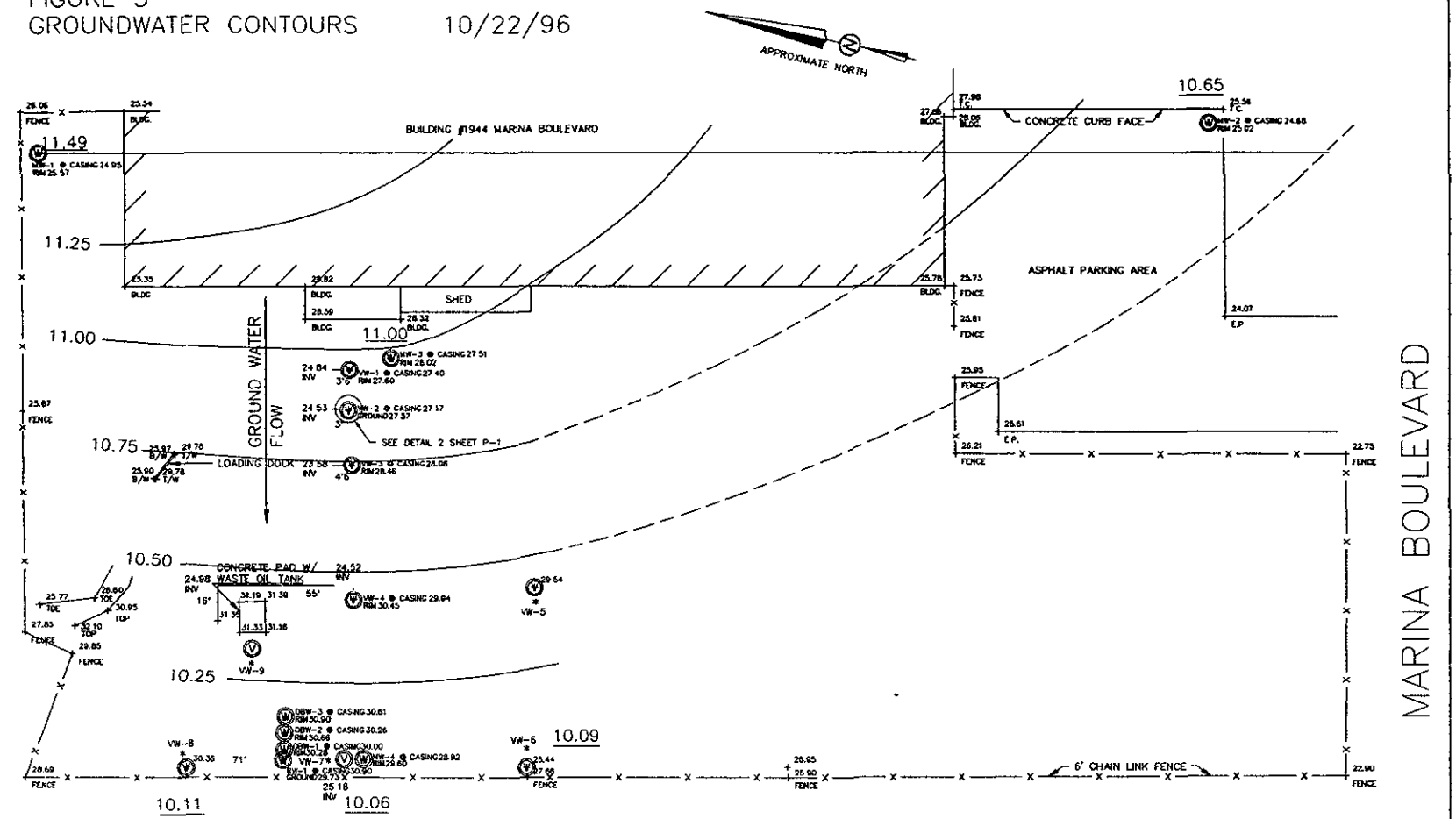
NTS	MEC/LJM		03/19/97	001-327		OF

FIGURE 5
GROUNDWATER CONTOURS 10/22/96



LEGEND	
T C	TOP OF CURB
⌒	BUILDING LINE
T/W	TOP OF WALL
B/W	BASE OF WALL
-x-	FENCE LINE
Ⓦ	WELL EXISTING
Ⓥ	SOIL VAPOR VENT
E P	EDGE OF PAVEMENT
TOP	TOP OF BANK
TOE	TOE OF SLOPE

10.06 Ⓥ GROUND WATER ELEVATION, (FEET ABOVE SEA LEVEL)

10.50 GROUND WATER CONTOUR (FEET ABOVE SEA LEVEL)

BASIS OF ELEVATIONS: CITY OF SAN LEANDRO BENCHMARK, CINCH NAIL ON TOP OF CURB AT STORM WATER INLET SOUTHEAST CORNER OF THE INTERSECTION OF MARINA BOULEVARD AND MERCED STREET, ELEVATION = 22.95'

ALL CASING ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF PVC PIPING.

ALL RIM ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF STEEL RIM UNLESS OTHERWISE NOTED.

* DENOTES APPROXIMATE LOCATION OF VW - 5 THRU 9

Approximate Scale, 1" = 85'

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TITLE GROUND WATER CONTOUR MAP 10/22/96
INGERSOLL-RAND CORPORATION
SAN LEANDRO, CALIFORNIA

REVISION	DATE	DESCRIPTION

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	DRAWING NO.	Sheet
NTS	MEC/LJM		03/19/97	001-327		OF

MW-3 Benzene Concentrations

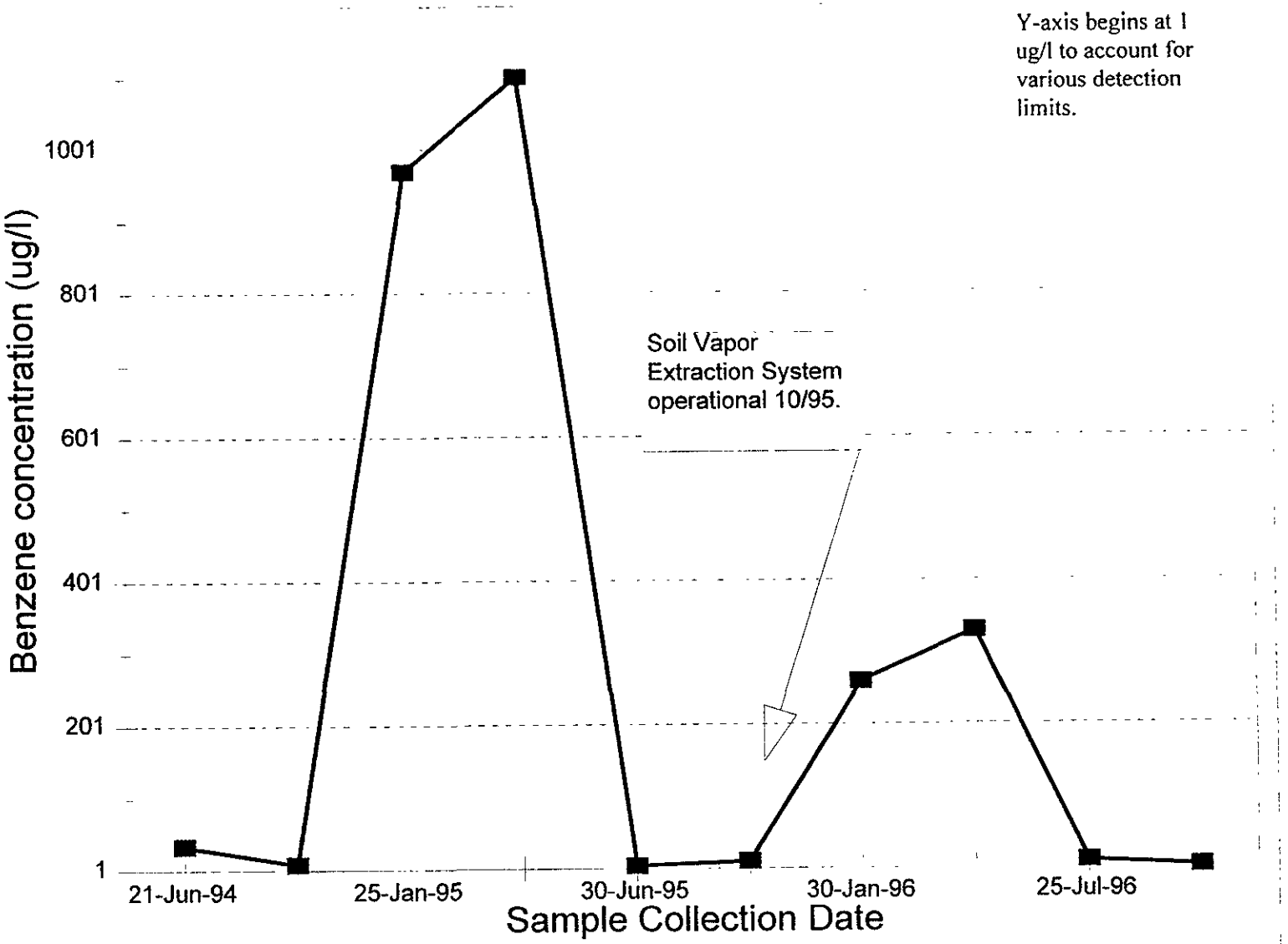

Figure 6

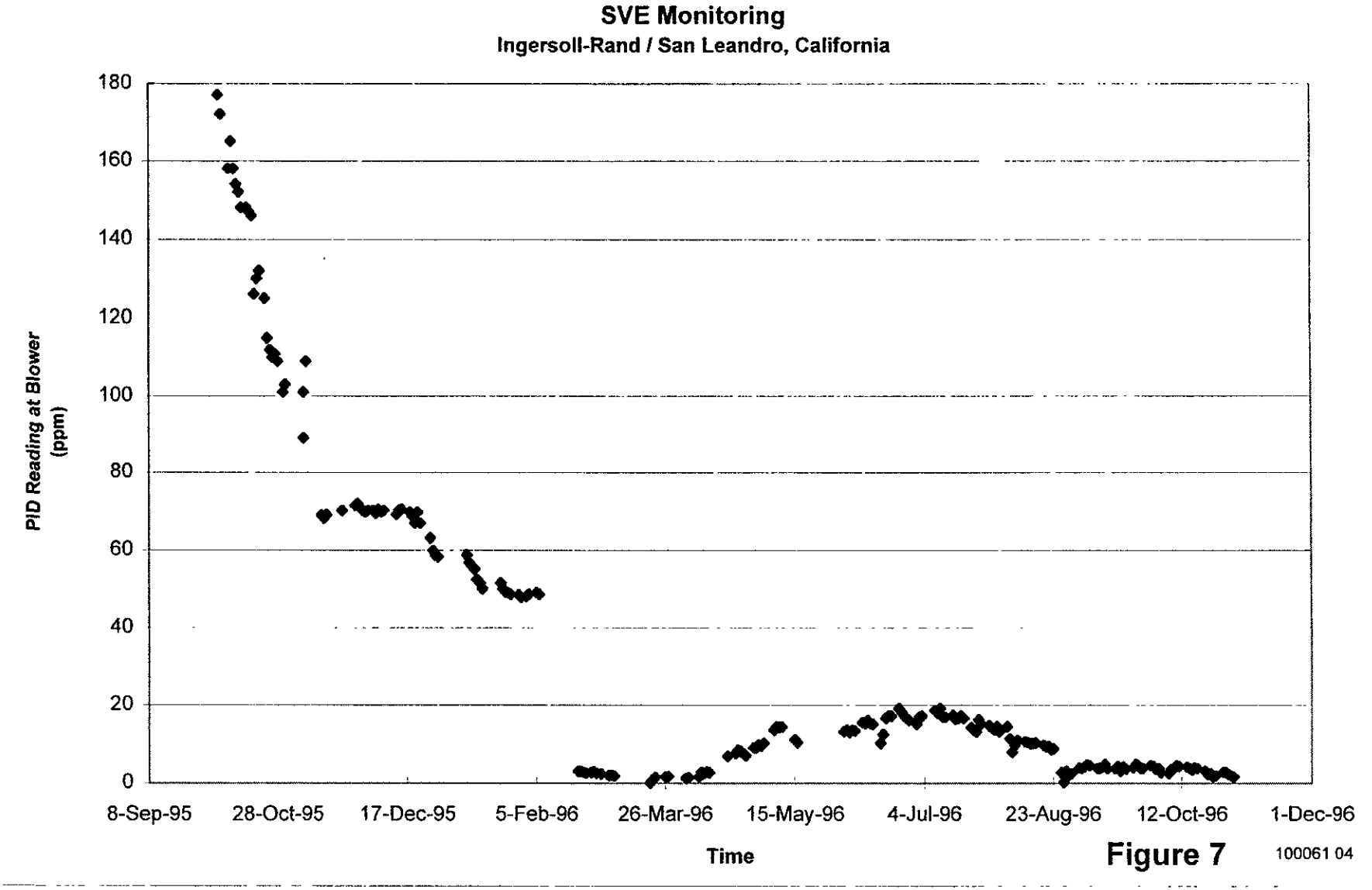

Figure 7

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