SDMS DOCID# 1118319

Attachment 16

SUMMARY OF ADDITIONAL SITE CHARACTERIZATION ACTIVITIES

FORMER McKESSON FACILITY
9005 SORENSEN AVENUE
SANTA FE SPRINGS, CALIFORNIA

Prepared for:

McKesson Corporation
One Post Street
San Francisco, California 94104

Prepared by:

GeoSyntec Consultants
200 E. Del Mar, Suite 250
Pasadena, California 91105
(626) 449-0664

December 2001

GEOSYNTEC CONSULTANTS

1500 Newell Avenue, Suite 800
Walnut Creek, California 94596 • USA
Tel. (925) 943-3034 • Fax (925) 943-2366

20 December 2001

Ryan Kinsella
Project Manager
California Environmental Protection Agency
Department of Toxic Substances Control, Region 3
1011 North Grandview Avenue
Glendale, California 91201

Subject: Summary of Additional Site Characterization Activities Report
Former McKesson Facility
9005 Sorensen Avenue
Santa Fe Springs, California 90670

Dear Mr. Kinsella:

On behalf of McKesson Corp. (McKesson), GeoSyntec Consultants (GeoSyntec) is pleased to present this Summary of Additional Site Characterization Activities Report for the above referenced site.

If you have any questions or require further information, please call the undersigned at (925) 943-3034 or Ms. Jean Mescher of McKesson at either (415) 983-7598 or (608) 848-4134.

Sincerely,

John D. Gallinatti, R.G., C.E.G., C.HG.
Associate Hydrogeologist

for Lisa Van Tassell
Project Manager

Nancy T. Bice, R.G., C.E.G.
Principal Hydrogeologist

REGISTERED GEOLOGIST
NANCY TANNACI BICE
No. 1259
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Cc: Jean Mescher, McKesson

MCK0032493

HA0620/McK01-19_ltr

SUMMARY OF ADDITIONAL SITE CHARACTERIZATION ACTIVITIES

FORMER McKESSON FACILITY
9005 SORENSEN AVENUE
SANTA FE SPRINGS, CALIFORNIA

Prepared for:

McKesson Corporation
One Post Street
San Francisco, California 94104

Prepared by:

GeoSyntec Consultants
200 E. Del Mar, Suite 250
Pasadena, California 91105
(626) 449-0664

December 2001

TABLE OF CONTENTS

Page

1. INTRODUCTION 1

   1.1 Purpose and Scope 1
   1.2 Report Organization 2

2. BACKGROUND 3

3. SOIL GAS SURVEY 5

   3.1 Objective 5
   3.2 Scope of Work 5
      3.2.1 Soil Gas Probe Installation 5
      3.2.2 Soil Gas Sampling 5
   3.3 Results 6

4. VADOSE ZONE EXTRACTION TESTING 9

   4.1 Objectives 9
   4.2 Scope of Work 9
      4.2.1 SVE Step Tests 9
      4.2.2 SVE Transient Tests 10
   4.3 Results 11

5. MONITORING WELL INSTALLATION 13

   5.1 Objectives 13
   5.2 Scope of Work 13
      5.2.1 Monitoring Well Installation 13
      5.2.2 Monitoring Well Development 14

TABLE OF CONTENTS (continued)

5.2.3 Groundwater Depth Measurement and Elevation 14
5.2.4 Groundwater Sampling 14
5.3 Results 15
5.3.1 Hydraulic Capture of Groundwater Extraction System 15
5.3.2 Groundwater Quality 16

6. CONCLUSIONS 18

TABLE OF CONTENTS (continued)

REFERENCES

TABLES

Table 3-1 Summary of Soil Gas Survey Results
Table 3-2 Summary of Soil Gas Survey Results - Angeles Chemical Company November 2000

Table 4-1 Parameters Estimated From SVE Transient Tests

Table 5-1 Groundwater Depths and Elevations Summary
Table 5-2 Summary of Laboratory Analytical Results - VOCs
Table 5-3 Summary of Laboratory Analytical Results - Dissolved Metals
Table 5-4 Summary of Laboratory Analytical Results - Angeles Chemical Company October 2001

FIGURES

Figure 1-1 Site Location Map

Figure 2-1 Site Layout

Figure 3-1 Soil Gas Sample Locations
Figure 3-2 PCE Detected in Soil Gas at 5 feet
Figure 3-3 TCE Detected in Soil Gas at 5 feet
Figure 3-4 1,1,1-TCA Detected in Soil Gas at 5 feet
Figure 3-5 1,1-DCE Detected in Soil Gas at 5 feet
Figure 3-6 1,1-DCA Detected in Soil Gas at 5 feet
Figure 3-7 Cis-1,2-DCE Detected in Soil Gas at 5 feet
Figure 3-8 Vinyl Chloride Detected in Soil Gas at 5 feet

TABLE OF CONTENTS (continued)

Figure 3-9 PCE Detected in Soil Gas at 10 feet
Figure 3-10 TCE Detected in Soil Gas at 10 feet
Figure 3-11 1,1,1-TCA Detected in Soil Gas at 10 feet
Figure 3-12 1,1-DCE Detected in Soil Gas at 10 feet
Figure 3-13 1,1-DCA Detected in Soil Gas at 10 feet
Figure 3-14 Cis-1,2-DCE Detected in Soil Gas at 10 feet
Figure 3-15 Vinyl Chloride Detected in Soil Gas at 10 feet
Figure 3-16 PCE Detected in Soil Gas at 20 feet
Figure 3-17 TCE Detected in Soil Gas at 20 feet
Figure 3-18 1,1,1-TCA Detected in Soil Gas at 20 feet
Figure 3-19 1,1-DCE Detected in Soil Gas at 20 feet
Figure 3-20 1,1-DCA Detected in Soil Gas at 20 feet
Figure 3-21 Cis-1,2-DCE Detected in Soil Gas at 20 feet
Figure 3-22 Vinyl Chloride Detected in Soil Gas at 20 feet
Figure 3-23 Total HVOCs Detected in Soil Gas at 5 feet
Figure 3-24 Total HVOCs Detected in Soil Gas at 10ft
Figure 3-25 Total HVOCs Detected in Soil Gas at 20 feet

Figure 4-1 Vadose Zone Extraction Testing Locations
Figure 4-2 Vadose Zone Extraction Testing Results

Figure 5-1 Monitoring Well Location Map
Figure 5-2 A_1 Zone Potentiometric Surface Map - October 2001
Figure 5-3 Hydraulic Capture of Groundwater Extraction System
Figure 5-4 PCE Detected in the A_1 Groundwater Zone
Figure 5-5 TCE Detected in the A_1 Groundwater Zone
Figure 5-6 1,1,1-TCA Detected in the A_1 Groundwater Zone
Figure 5-7 1,1-DCE Detected in the A_1 Groundwater Zone
Figure 5-8 1,1-DCA Detected in the A_1 Groundwater Zone
Figure 5-9 Cis-1,2-DCE Detected in the A_1 Groundwater Zone
Figure 5-10 Vinyl Chloride Detected in the A_1 Groundwater Zone
Figure 5-11 Total HVOCs Detected in the A_1 Groundwater Zone

TABLE OF CONTENTS (continued)

APPENDICES

Appendix A Laboratory Analytical Reports – Soil Gas
Appendix B SVE Test Data
Appendix C Hollow-Stem Auger Boring Log
Appendix D Well Construction Diagram
Appendix E Laboratory Analytical Reports - Groundwater

1. INTRODUCTION

This report presents the results of the additional site characterization fieldwork completed at the former McKesson facility located at 9005 Sorensen Avenue in Santa Fe Springs, California (the Site) (Figure 1-1). The work was conducted in accordance with the "Workplan for Installation of an Additional Monitoring Well, Performing a Soil Gas Survey, and Vapor Extraction Radius of Influence Test, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California" dated May 2001 and prepared by Geomatrix Consultants (Geomatrix), and the "Response to DTSC Comments, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California " prepared by GeoSyntec Consultants (GeoSyntec), dated 4 October 2001, and orally approved by the California Department of Toxic Substances Control (DTSC) on 8 October 2001. This report was prepared by GeoSyntec on behalf of McKesson Corporation for submittal to the DTSC. This document was prepared by Ms. Lisa Van Tassell and reviewed by Mr. John Gallinatti, R.G., C.E.G., C.HG., and Ms. Nancy Bice, R.G., C.E.G., of GeoSyntec, in accordance with the internal review policy of the firm.

1.1 Purpose and Scope

The purpose of the additional site investigation activities was to collect additional data to support performance monitoring in assessing the effectiveness of the current remediation systems (groundwater extraction and soil vapor extraction) at the site. The results of the work were used to evaluate: i) the extent of hydraulic capture of groundwater Extraction Well EW-1 and the chemical quality of groundwater; ii) the current distribution of VOCs in the soil gas; and iii) the area of capture of the soil vapor extraction system. The specific site investigation activities performed to collect additional data included:

- A site-wide soil gas survey focused in and around the former storage tank source area;
- Vadose zone extraction system testing; and
- Installation of one A1-zone groundwater monitoring well downgradient of Extraction Well EW-1.

MCK0032500

In addition, groundwater data collected recently and soil gas data collected last year from the adjacent Angeles Chemical site were reviewed and incorporated into the analysis for this report.

1.2 Report Organization

The remainder of this Report is organized as follows:

- Section 2, "Background," presents a brief history of the Site;
- Section 3, "Soil Gas Survey," presents the analytical data collected to assess the distribution of VOCs in the soil gas;
- Section 4, "Vadose Zone Extraction Testing," presents the results of the soil vapor extraction (SVE) testing;
- Section 5, "Monitoring Well Installation," presents the evaluation of the extent of hydraulic capture provided by Extraction Well EW-1 and the data regarding the chemical quality of groundwater across the site; and
- Section 6, "Conclusions," summarizes the findings discussed in the Report.

In addition, extensive use is made in this report of tables and figures to present data and illustrate interpretations. The appendices at the end of this document contain detailed information regarding the laboratory analyses and field tests completed during the fieldwork.

2. BACKGROUND

The former McKesson Chemical Company operated a bulk chemical repackaging facility at 9005 Sorensen Avenue in the City of Santa Fe Springs, California (Figure 1-1) for approximately 10 years (1976 to 1986). The Site has been vacant since operations ceased in 1986. During site operations, chemicals (primarily chlorinated solvents) were stored in aboveground and underground storage tanks (Figure 2-1). The Site consists of approximately 4.3 acres and is located in an industrial area in which several of the surrounding facilities currently use or have used organic solvents. The former Angeles Chemical Company operated a chemical facility on the site adjacent and north of the former McKesson facility.

The geology underlying the Site consists of a sequence of silt and clay, silty-sand, and sand to a depth of at least 140 feet below ground surface (bgs). Groundwater has been identified in three zones; the perched zone, the A zone (subdivided into the A_1 and A_2 zones), and the B zone (Geomatrix, 1995). The three zones are categorized by the following depth intervals beneath the Site:

- the perched zone is approximately 15 to 30 feet bgs;
- the A_1 and A_2 zones are approximately 45 to 75 feet bgs and 90 to 120 feet bgs, respectively, separated by an approximately 15-foot thick silty-sand and silt and clay unit; and
- the B zone is greater than 135 feet bgs.

Extensive characterization has been performed at the Site since the late 1980's. The environmental investigations indicated the presence of halogenated and non-halogenated VOCs in the soil and groundwater, with the highest concentrations detected in the soil in the former aboveground and underground storage tank areas.

Remedial activities at the Site have included; removal of aboveground and underground storage tanks (1990 and 1995, respectively), soil vapor extraction, groundwater extraction, and a bioremediation pilot study. The current soil vapor extraction system consists of one extraction well (E1) and the extracted soil vapor is treated with a Catalytic Oxidizer and scrubber then discharged to the atmosphere. The groundwater extraction system consists of one extraction well (EW-1) and the extracted

groundwater is treated with an air stripper (off gas is treated along with the soil vapor) and discharged to the sanitary sewer. Nineteen groundwater monitoring wells have been installed for groundwater depth measurements and to monitor the quality of the groundwater beneath the Site. In comparison, to date, no remediation activities have been conducted at the Angeles site.

3. SOIL GAS SURVEY

3.1 Objectives

The objective of the site-wide soil gas survey was to assess the current distribution of VOCs in the soil vapor in order to confirm that all soil requiring remediation has been identified.

3.2 Scope of Work

3.2.1 Soil Gas Probe Installation

Twenty-five soil gas probes were advanced by Interphase Environmental of Los Angeles, California between 8 October and 12 October 2001 (Figure 3-1). As shown on Figure 3-1, the soil gas sample locations were based on a 50-foot grid pattern. Each soil gas probe was advanced using direct-push drilling methods (e.g., Geoprobe® sampling system). The steel sampling probes tipped with an expendable steel point were driven into the ground to the target depth. The probe was then withdrawn slightly to achieve separation from the expendable tip to allow gas flow into the hollow center of the probe. Gas samples were collected by attaching an adapter to an unused length of 0.25-inch polyethylene tubing that was lowered through the center of the hollow probe. The adapter was threaded into the deepest section of the probe and an O-ring provided an airtight seal. Following sample collection, the adapter was disconnected and the polyethylene tubing was removed.

Upon completion, each boring was backfilled with bentonite. In paved areas the surface was completed with an asphalt patch. No soil cuttings were generated during the advancement of the soil gas probes.

3.2.2 Soil Gas Sampling

Soil gas samples were collected at depths of approximately 5, 10, and 20 feet bgs from each soil gas location. At the start of soil gas sampling activities, a site-specific purge volume versus chemical concentration test was performed in accordance with the Los Angeles Regional Water Quality Control Board (RWQCB) Interim

Guidance for Active Soil Gas Investigations [RWQCB, 1997]. The results of the test indicated that five purge volumes should be removed at each sampling depth prior to sample collection.

Following purging activities, soil gas samples were collected in airtight glass syringes and analyzed on site by a State-certified mobile laboratory (Centrum Analytical of Riverside, California) for VOCs using EPA Method 8260. In conjunction with the samples analyzed by the on-site laboratory, seven (10% of the total number of soil gas samples) duplicate soil gas samples were collected and analyzed by an off-site State-certified laboratory (Performance Analytical of Simi Valley, California) for VOCs by EPA Method TO-15. The duplicate samples were collected in certified clean Summa canisters via the 0.25-inch polyethylene tubing installed within the bore of the probe.

Soil gas samples were preserved on ice prior to analysis in the mobile laboratory. The duplicate samples (collected in the Summa canisters) were transported to the laboratory under standard chain-of-custody procedures.

3.3 Results

The analytical results of the soil gas survey are summarized in Table 3-1 and the laboratory reports are included in Appendix A. The results of the soil gas survey identified seven primary VOCs, including:

- tetrachloroethene (PCE);
- trichloroethene (TCE);
- 1,1,1-trichloroethane (1,1,1-TCA);
- 1,1-dichloroethane (1,1-DCA);
- 1,1-dichloroethene (1,1-DCE);
- cis-1,2-dichloroethene (1,2-DCE); and
- vinyl chloride.

Other VOCs were detected in a small number of samples at low concentrations as shown in Table 3-1. Based on the results of the soil gas survey, relatively low concentrations of VOCs were detected in the samples collected at a depth of 5 feet bgs. None of the samples collected at this depth contained concentrations greater than 100 ug/L except PCE in soil gas sample SG-17 (120 ug/L), located in the northwest corner of the Site. VOC concentrations greater than 10 ug/L were detected in the former storage tank areas, as well as in samples SG-5, SG-17, and SG-22 collected to the south and west of the former tank areas.

The distribution of the seven VOCs detected at a depth of 5 feet bgs is illustrated in Figures 3-2 through 3-8. Also included on these figures are the analytical results of the soil gas survey completed at the Angeles Chemical Company (Angeles) in November 2000 [Blakely Environmental, 2001]. In general, the figures illustrate significantly higher VOC concentrations being detected in the soil gas samples collected at Angeles. The highest VOC concentrations detected at Angeles (1,1,1-TCA at 3,500 ug/L and 570 ug/L) were observed in soil gas samples SV-16 and SV-17 located next to the railroad tracks along the eastern side of the Angeles site.

The distribution of the seven VOCs detected at a depth of 10 feet bgs for both facilities is included in Figures 3-9 through 3-15. Soil gas samples at the Angeles site were collected at 8 and 20 feet bgs; therefore, the soil gas concentrations plotted at a depth of 5 feet at Angeles (Figures 3-2 through 3-8) are the same as those plotted at a depth of 10 feet bgs (Figures 3-9 through 3-15). The figures illustrate a similar distribution of VOCs at a depth of 10 feet as compared to 5 feet for the former McKesson facility, with slightly higher concentrations observed in the samples collected at 10 feet bgs.

The highest VOC concentrations (1,1,1-TCA at 7,200 ug/L and cis-1,2-DCE at 1,300 ug/L) in the samples collected at the former McKesson facility were identified in the former aboveground storage tank (AST) area in sample SG-21 and in the sample collected from SG-5 (located to the south of the former underground storage tank (UST) area), respectively. Cis-1,2-DCE is a biological breakdown product of PCE and TCE, which indicates that significant biodegradation is occurring at the former McKesson facility. Additionally, higher concentrations of 1,1-DCA and 1,1-DCE were detected in samples collected at 10 feet bgs. 1,1-DCA and 1,1-DCE are breakdown products of 1,1,1-TCA, which is another indication that biodegradation is occurring. This observed biodegradation could be occurring within the vadose zone soil or within the saturated

zone, with the resultant degradation products migrating into the vadose zone through off-gassing from the groundwater below.

The distribution of the seven VOCs detected at a depth of 20 feet bgs is illustrated in Figures 3-16 through 3-22. The figures illustrate that VOCs are present across the Site, with the highest concentration (1,1,1-TCA at 1,900 ug/L) detected in the former AST (SG-8) area. VOCs detected at the Angeles site at a depth of 20 feet show a similar distribution to the former McKesson facility; however, the concentrations observed at Angeles were greater by an order of magnitude. 1,1,1-TCA was detected at the highest concentrations at Angeles, ranging to 90,000 ug/L (SV-36).

Figure 3-25 illustrates the distribution of total halogenated VOCs detected in the soil gas at a depth of 20 feet. Based on this distribution, which mimics the distribution of VOCs in groundwater (Section 5.3.2), and the lack of significant VOC concentrations at shallower depths, it appears that the VOC concentrations observed at this depth are most likely a result of historical groundwater level fluctuations or off gassing from impacted groundwater and not a continuing source in the vadose zone at more shallow depths.

GeoSyntec performed a Quality Assurance/Quality Control (QA/QC) review of the analytical data included in Appendix A. The laboratory reports were reviewed to evaluate whether testing variables such as method detection limits, holding times, and temperature requirements were met. Additionally, results from the blank analysis (method blanks) and laboratory control samples (matrix spike and matrix spike duplicate) were reviewed. Based upon the results of the QA/QC review, the analytical data was deemed to be of acceptable quality.

4. VADOSE ZONE EXTRACTION TESTING

4.1 Objectives

Vadose zone extraction testing was conducted to collect additional data regarding the vadose zone and performance characteristics of the existing SVE system. The vadose zone extraction testing consisted of two types of tests: i) step-drawdown; and ii) transient response. The objectives of the vadose zone extraction system testing were as follows:

Step-Drawdown Testing

- Evaluate vacuum versus flow characteristics for vapor extraction well E-1; and
- Evaluate vacuum-distance relationships in the vadose zone at various flow rates.

Transient Response Testing

- Evaluate spatial variations in vacuum within the vadose zone;
- Evaluate the role of leakage from the ground surface to the vadose zone; and
- Evaluate the radius of influence (ROI) of the existing SVE system.

4.2 Scope of Work

4.2.1 SVE Step Tests

SVE step tests were performed at eight selected soil gas survey points (SG-1, SG-5, SG-6, SG-7, SG-11, SG-12, SG-15, and SG-21) and vadose zone monitoring well PSV-3 (Figure 4-1). The SVE step tests consisted of removing soil vapor from extraction well E-1, using the existing SVE system blower, at five different flow rates (or steps). The steps tested were 5, 10, 15, 20, and 25 standard cubic feet per

minute (scfm). Soil vapor extracted during vadose zone extraction testing was treated by the existing SVE system and discharged to the atmosphere.

Each of the eight step tests was performed following collection of the 20-foot soil gas sample. The installation of the soil gas survey points is discussed in Section 3.2.1. Prior to starting the SVE step tests, the polyethylene tubing used for the collection of soil gas samples was fitted with a vacuum-tight seal. Vadose zone monitoring well PSV-3, was fitted with a vacuum-tight cap and polyethylene tubing connected to the well casing. Prior to each SVE step test, a pressure transmitter (attached to a data logger) was connected to the polyethylene tubing.

At the beginning of each SVE step test, soil vapor was removed from extraction well E-1 at a flow rate of 25 scfm until the vacuum response at the monitoring point stabilized. Subsequently, the flow rate was decreased to 20 scfm and the vacuum response at the monitoring point was allowed to stabilize as in step 1. This procedure was repeated for the remaining steps (15, 10, and 5 scfm) unless a step was reached where the vacuum response at the monitoring point was not detected at a given flow rate. Following stabilization at each step, the vacuum response was automatically recorded by the data logger and manually recorded from a digital manometer.

4.2.2 SVE Transient Tests

SVE transient tests were performed at ten selected soil gas survey points (SG-1, SG-2, SG-5, SG-6, SG-7, SG-8, SG-11, SG-12, SG-15, and SG-21), perched monitoring well SB-37, and vadose zone monitoring well PSV-3 (Figure 4-1). The SVE transient tests consisted of removing soil vapor from extraction well E-1, using the existing SVE system blower, at a flow rate of 25 scfm. Soil vapor extracted during vadose zone extraction testing was treated by the existing SVE system and discharged to the atmosphere.

Each of the ten transient tests was performed following collection of the 20-foot soil gas sample. Prior to starting each SVE transient test, the polyethylene tubing used for the collection of soil gas samples was fitted with a vacuum-tight seal. Perched monitoring well SB-37 and vadose zone monitoring well PSV-3, were fitted with a vacuum-tight cap and polyethylene tubing connected to the well casing. Prior to

starting each SVE transient test, a pressure transmitter (attached to a data logger) was connected to the polyethylene tubing.

During each SVE transient test, soil vapor was removed from extraction well E-1 at a flow rate of 25 scfm until the vacuum response at the monitoring point stabilized. Following stabilization, the vacuum response at each monitoring point was automatically recorded by the data logger and manually recorded from a digital manometer.

4.3 Results

The SVE step test was conducted to assess vacuum versus flow characteristics at extraction well E-1 and to assess vacuum-distance relationships in the vadose zone under varied flow conditions. The SVE step test at extraction well E-1 was conducted at five flow rates ranging from 5 to 25 scfm. The observed vacuum at the five flow rates ranged from approximately 5 to 37 inches of water column (in. W.C). The relationship between the flow rates at the five steps and the observed vacuum at the extraction well is included in Appendix B. The vacuum response data collected at the monitoring points during the SVE step tests was also evaluated graphically using vacuum-distance relationships. A vacuum-distance relationship could not be established for the 5 scfm flow rate due to the lack of vacuum response at the monitoring points. The observed vacuum-distance relationships at the remaining four flow rates are included in Appendix B.

The SVE transient tests were conducted to assess the role of leakance and spatial variations in the vadose zone and to determine the intrinsic permeability (k) of the vadose zone. The SVE transient test data for monitoring points SG-1, SG-2, SG-8, SG-21, PSV-3b, and SB-37 were evaluated using AQTESOLV. A leaky aquifer solution was used to estimate transmissivity and the ratio (r/B) of the distance (r) from the pumping well (E-1) to the leakage factor (B) based on the vacuum response at the monitoring points. The intrinsic permeability was also evaluated using a variation of the Cooper-Jacob method for aquifer pump tests [Johnson et al., 1990]. A summary of the parameters T, r/B, and k from the SVE transient tests is included in Table 4-1.

The vacuum response data collected at each of the monitoring points was also evaluated graphically using vacuum-distance relationships. The vacuum-distance

relationships for the SVE transient tests using the leaky aquifer solution are included in Appendix B.

The radius of influence (ROI) of extraction well E-1 was evaluated by plotting the velocity of air flow resulting from the contribution of horizontal flow only (the total flow reduced by the contribution of flow from the leaky semi-confining layer) and the estimated vacuum response at radial distances of B, 2B and 3B as shown on Figure 4-2. At a radius of B, which is equal to approximately 42 feet, the horizontal flow velocity of air (HFV) is estimated to be 32.8 feet per day (ft/day). At a radius of 2B, or 84 feet, the HFV is estimated to be 6.8 ft/day and at a radius of 3B, or 126 feet, the HFV is estimated to be 1.8 ft/day. The corresponding vacuums observed at these radii during the SVE testing are 0.24, 0.08, and 0.01 in. W.C. Based on the results of the vadose zone testing (Figure 4-2) it appears that at a radial distance of approximately 126 feet (3B), Extraction Well E-1, operating at a flow rate of 25 scfm, provides significant vacuum and air flow velocity to effectively remove contaminants from the vadose zone. The results of the soil gas survey indicated remaining VOC detections were focused in the former AST and UST areas, which are within the ROI of 126 feet.

5. MONITORING WELL INSTALLATION

5.1 Objectives

The objectives of this component of the fieldwork were to i) evaluate the extent of hydraulic capture provided by the groundwater extraction system, and ii) assess the quality of A_1 zone groundwater downgradient of the extraction well.

5.2 Scope of Work

5.2.1 Monitoring Well Installation

An additional groundwater monitoring well (MW-05) was installed with a hollow-stem auger (HSA) drill rig downgradient of the current Extraction Well EW-1 (Figure 5-1). The monitoring well was installed by Layne Christensen Company (Layne) of Fontana, California, on 15 and 16 October 2001. Prior to well construction, an 8-inch soil boring was drilled to a total depth of 68.5 feet bgs. The soil boring was logged by field personnel using the Unified Soil Classification System (USCS). The completed boring log is included in Appendix C.

The monitoring well was constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) and screened with 0.010-inch slotted openings (Appendix D). The monitoring well was screened over 20 feet between depths of 48 feet bgs and 68 feet bgs as outlined in the Response to DTSC Comments (GeoSyntec, 2001). No. 2/16 sand was placed opposite the screen from 5 feet above and 0.5 foot below the screen. An approximately 3-foot thick hydrated bentonite pellet seal was placed above the sand filter pack. The remaining annular space was backfilled with a cement/bentonite grout to provide a surface seal. The well was completed with a locking cap and traffic-rated cover at the surface. Soil cuttings generated during the well installation were contained in 55-gallon drums. A composite sample was collected from the drums and analyzed, and the soil cuttings will be disposed of under manifest in accordance with local, State, and Federal waste disposal regulations.

5.2.2 Monitoring Well Development

During the well installation, first groundwater was encountered at a depth of 43.5 feet bgs. Following installation, the monitoring well was developed by block-surging followed by bailing. Field parameters including pH, temperature, specific conductivity, and turbidity were monitored during development. The monitoring well was considered developed when the aquifer parameters stabilized and the turbidity of the groundwater was less than 5.0 NTUs. Approximately 150 gallons were extracted during development. The extracted groundwater was temporarily contained in 55-gallon drums and transported to the groundwater treatment system where it was pumped through the system for treatment and discharged to the sanitary sewer.

5.2.3 Groundwater Depth Measurement and Elevation

On 23 October 2001, the depth to groundwater was measured in each of the site monitoring wells and Extraction Well EW-1. Groundwater levels were measured to the nearest 0.01 foot using an electric water level sounder. The electric sounder was decontaminated between each monitoring well.

5.2.4 Groundwater Sampling

Monitoring Well MW-05 was sampled on 23 October 2001 as part of the fourth quarter 2001 groundwater monitoring event. Prior to sampling, Monitoring Well MW-05 was purged using a 2-inch diameter Grundfos Rediflo-2 submersible electrical pump. The Grundfos pump was decontaminated before and after purging activities. The monitoring well was purged of a least three casing volumes of water and until field parameters; including pH, electrical conductivity, temperature, and turbidity had stabilized to within 10% of the previous reading. Purge and decontamination water was temporarily contained in 55-gallon drums and transported to the groundwater treatment system where it was pumped through the system for treatment and discharged to the sanitary sewer.

Monitoring Well MW-05 was sampled with a dedicated disposable bailer. Groundwater from the bailer was transferred into laboratory-prepared sample containers appropriate for the intended analysis. Sample containers were then placed in a cooler

with ice for transport to Associated Laboratories of Orange, California, a State certified laboratory, under standard chain-of-custody procedures. A trip blank provided by the laboratory accompanied the shipment. The groundwater samples and trip blank were submitted to the laboratory for analysis of VOCs and dissolved metals using EPA Methods 8260B and 6010, respectively.

5.3 Results

5.3.1 Hydraulic Capture of Groundwater Extraction System

The objective of the groundwater extraction and treatment system is to contain and capture impacted groundwater within the A_1 zone downgradient of the former storage tank areas. Monitoring Well MW-05 was installed downgradient of Extraction Well EW-1 to further evaluate the extent of the zone of capture.

The depth to groundwater was measured in each of the site monitoring wells on 23 October 2001 (Table 5-1). Groundwater Extraction Well EW-1 was pumping at an average rate of approximately 28 gallons per minute (gpm) during the month of October 2001. A potentiometric surface map (Figure 5-2) was prepared for the A_1 groundwater zone based on the October 2001 water level elevation measurements. Figure 5-2 illustrates that groundwater flow is to the southwest with a hydraulic gradient of approximately 0.006 foot/foot.

The measured groundwater elevations were used to evaluate the capture zone of the extraction system (Figure 5-3). As Figure 5-3 illustrates, a pumping rate of 28 gpm provides hydraulic containment of groundwater in the vicinity of Monitoring Well MW-05. It also appears that the bulk of the impacted groundwater migrating from the Site's former storage tank areas is being captured by the extraction system. However, should the flow rate from the extraction well drop significantly, or the horizontal gradient shift westerly, then capture of this groundwater could be compromised.

5.3.2 Groundwater Quality

The analytical results for the fourth quarter 2001 monitoring event (which include the results of Monitoring Well MW-05) are summarized in Tables 5-2 (VOCs) and 5-3 (dissolved metals). The laboratory report for Monitoring Well MW-05 is included in Appendix E. The laboratory reports for the other Site monitoring wells listed in the summary tables will be submitted as part of the fourth quarter 2001 groundwater monitoring report.

The analytical results for the groundwater monitoring event identified the same seven constituents (PCE, TCE, 1,1,1-TCA, 1,1-DCE, 1,1-DCA, cis-1,2-DCE, and vinyl chloride) in the groundwater as were identified in the soil gas survey. Methylene chloride was also detected in some of the monitoring wells as shown on Table 5-2. The distribution of the seven VOCs detected in the A_1 groundwater zone is included in Figures 5-5 through 5-10.

Also plotted on these figures are the analytical data collected from the monitoring wells at the Angeles site on 30 October 2001 (Table 5-4). At the Angeles site, free product containing significant concentrations of halogenated VOCs was collected from Monitoring Well AMW-6, indicating a release in this area. In addition to the halogenated VOCs detected, non-halogenated VOCs including benzene, toluene, ethylbenzene, and xylenes (BTEX) were also detected in AMW-6. The monitoring wells downgradient of AMW-6 (AMW-1, AMW-2, AMW-3) had lower detections of PCE and TCE; however, high concentrations of 1,1-DCE (1,120 to 4,090 ug/L), 1,1-DCA (1,030 to 8,190 ug/L), and cis-1,2-DCE (7,000 to 10,300 ug/L) were detected in these wells. These data suggest significant biodegradation of PCE, TCE, and 1,1,1-TCA at the Angeles site.

The highest VOC (PCE, TCE, and 1,1,1-TCA) concentrations at the former McKesson facility were detected in the monitoring wells located within the former AST area and are being captured by the groundwater extraction system. Biodegradation products (1,1-DCA, 1,1-DCE, cis-1,2-DCE) of PCE, TCE, and 1,1,1-TCA were detected at higher concentrations in monitoring wells downgradient of the former AST area (Figures 5-7 through 5-9). The very low VOC concentrations (<25 ug/L) detected in the monitoring wells screened in the A_2 groundwater zone indicate that VOCs have essentially remained in the A_1 zone.

Based on the initial sampling of Monitoring Well MW-05, only low concentrations of VOCs are present in A_1 zone groundwater downgradient of Extraction Well EW-1, suggesting that groundwater extraction from EW-1 has been effective in halting the migration of VOCs from the Site in this area. The VOC concentrations measured in MW-05 were significantly lower than those measured in monitoring wells downgradient of the former storage tank areas (SB-23 and SB-17). The highest VOC concentrations detected in MW-05 were vinyl chloride (330 ug/L), cis-1,2-DCE (280 ug/L), and 1,1-DCA (210 ug/L). Cis-1,2-DCE and 1,1-DCA are breakdown products of PCE and 1,1,1-TCA, respectively and vinyl chloride is a further breakdown product of both cis-1,2-DCE and 1,1-DCA. The higher concentrations of these breakdown products and lower concentrations of the parent products (PCE at 66 ug/L and 1,1,1-TCA at 23 ug/L), indicate that biodegradation also is occurring in the vicinity of Monitoring Well MW-05.

Filtered groundwater samples collected during the fourth quarter 2001 monitoring event were tested in the laboratory for 17 dissolved metals, as shown in Table 5-3. Six metals (arsenic, barium, copper, iron, nickel, and zinc) were detected at low concentrations in Monitoring Well MW-05 during this sampling event. None of the metals detected in MW-05 appeared to be elevated above naturally occurring levels.

6. CONCLUSIONS

The additional site characterization fieldwork described in this report was conducted in October 2001 for the former McKesson facility. The work included a site-wide soil gas survey, vadose zone extraction testing, and installation of a groundwater monitoring well downgradient of Extraction Well EW-1. Based on the results of the field activities described above, historical Site data, and data collected at the Angeles site, the following conclusions are presented:

- The results of the soil gas samples collected from 5 and 10 feet bgs indicate that only very low concentrations of VOCs remain in the soil gas in two areas beneath the former McKesson facility i) the former storage tank areas and ii) a small area near SG-5. In comparison to VOC concentrations present in the effluent at startup of the SVE system (Geomatrix, 1999) and to VOC concentrations in soil gas at the Angeles site (Blakely, 2001), significant reductions in the concentrations of VOCs have been achieved through remedial efforts at the former McKesson facility. VOC distributions observed in the soil gas at a depth of 20 feet bgs, which mimic those observed in groundwater, are most likely a result of historical groundwater level changes and off gassing from impacted groundwater and not a continuing source in the vadose zone at more shallow depths.

- This study also confirms that significant releases of chlorinated solvents to the soil and groundwater have occurred at the Angeles site and that previous assertions by Blakely Environmental that the former McKesson facility was a source of contaminants at the Angeles site have no technical merit.

- The results of the vadose zone extraction testing indicate that the SVE system continuously operating at 25 scfm is adequate to continue to remove VOC mass in the vadose zone. At this time it would not be beneficial to increase the flow rate (i.e., increase the ROI) of the extraction system because it would likely begin to pull in higher levels of contamination from the Angeles site.

- The groundwater extraction system appears to be sufficiently capturing and treating the impacted groundwater emanating from the source areas at the former McKesson facility. If there are changes in the flow rate or gradient in the future, modifications to the system may be appropriate. Therefore, as a contingency, GeoSyntec recommends evaluating the option of increasing the size of the capture zone through increasing the flow rate from EW-1 or extracting groundwater from an additional well such as SB-20.

- This latest investigation also confirms that heavily impacted groundwater is migrating on to the former McKesson facility from upgradient sources, including the adjacent Angeles Chemical site. Continued lack of remedial efforts at the Angeles site and other upgradient sources will continue to impede the success of the remedial efforts at the McKesson facility.

REFERENCES

Bear, Jacob. 1979. Hydraulics of Groundwater. McGraw-Hill, Inc.

Blakley Environmental Investigations, Inc., 10 January 2001. Report of Findings for Angeles Chemical Company, 8915 Sorensen Avenue, Santa Fe Springs, California.

Geomatrix Consultants, Inc., 9 November 1993. Results of Phase I Activities and Phase II Work Plan for On-Site Soil Remediation, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

Geomatrix Consultants, Inc., 11 July 1995. Interim Remedial Measure, Analysis of Alternatives and Work Plan for Design, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

Geomatrix Consultants, Inc., June 1999. Supplemental Evaluation, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

Geomatrix Consultants, Inc., November 2000. Revised IRM Implementation Report, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

Geomatrix Consultants, Inc., May 2001. Work Plan for Installation of an Additional Monitoring Well, Performing a Soil Gas Survey, and Vapor Extraction Radius of Influence Test, Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

GeoSyntec Consultants, October 2001. Response to DTSC Comments, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan. Former McKesson Facility, 9005 Sorensen Avenue, Santa Fe Springs, California.

Johnson, P.C., Kemblowski, M.W., Colthart, J.D., Byers, D.L., and Stanley, C.C. 1990. A Practical Approach to the Design, operation, and monitoring of in-situ venting systems.

Regional Water Quality Control Board, Los Angeles Region (RWQCB), 25 February 1997. Interim Guidance for Active Soil gas Investigation.

US EPA. May 1995. *How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers.* (EPA 510-B-94-003 and EPA 510-B-95-007).

Tables

MCK0032521

TABLES

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)
Page 1 of 8

Boring ID	SG-1-5	SG-1-10	SG-1-20	SG-2-5	SG-2-10	SG-2-20	SG-3-5	SG-3-10	SG-3-20	SG-4-5A	SG-4-5B
Sampling Depth (ft)	5	10	20	5	10	20	5	10	20	5	5
Sample Type											
Date	10/10/2001	10/10/2001	10/10/2001	10/10/2001	10/10/2001	10/10/2001	10/8/2001	10/8/2001	10/8/2001	10/8/2001	10/8/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	<1.0	<1.0	**800**	<1.0	<1.0	**47**	**4.9**	**4.4**	**190**	<1.0	**1.1**
1,2 - Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	**4.4**	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	<1.0	<1.0	**200**	**1.1**	<1.0	**35**	**4.1**	**1.2**	**180**	<1.0	<1.0
cis - 1,2 - Dichloroethene	<1.0	<1.0	**260**	<1.0	<1.0	**71**	**8.5**	**7**	**220**	<1.0	<1.0
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	**9.6**	**13**	**28**	**8.6**	**20**	**61**	**7.2**	**1.4**	**64**	**2.8**	**13**
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	**4.2**	**5.7**	**87**	**1.8**	**14**	**4.7**	**1.9**	<1.0	**18**	**3.4**	**8.6**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	**1.5**	**13**	**1.2**	**1.4**	**21**	**5**	**1.7**	**86**	<1.0	**3**
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	<5.0	**76**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MCK0032523

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-4-5C	SG-4-10	SG-4-20	SG-5-5	SG-5-10	SG-5-20	SG-5-20	SG-6-5	SG-6-10	SG-6-20	SG-7-5
Sampling Depth (ft)	5	10	20	5	10	20	20	5	10	20	5
Sample Type							Summa				
Date	10/8/2001	10/8/2001	10/8/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	<1.0	<1.0	<1.0	**4**	**1.6**	<4.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	<4.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<8.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	**1.1**	**4.7**	**260**	**1.6**	**280**	**280**	**220**	<1.0	<1.0	**3.1**	<1.0
1,2 - Dichloroethane	<1.0	<1.0	<1.0	<1.0	**29**	**18**	**12**	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	<1.0	<1.0	**420**	**2.6**	**170**	**260**	**170**	<1.0	<1.0	**43**	<1.0
cis - 1,2 - Dichloroethene	<1.0	<1.0	**290**	**1.8**	**1300**	**270**	<4.0	<1.0	<1.0	**13**	<1.0
trans - 1,2 - Dichloroethene	<1.0	<1.0	**1.4**	<1.0	**2.6**	**1.5**	**190**	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	**3.6**	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<4.0	<50	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	**18**	<1.0	**130**	**15**	**220**	**170**	**130**	**1.3**	**2.2**	**11**	**5.3**
Toluene	<1.0	<1.0	**25**	<1.0	**1.7**	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	**9.3**	**3.3**	**73**	**6.9**	**5.1**	**13**	**9**	**8.2**	<1.0	<1.0	**15**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**3.4**	<1.0	**150**	**4**	**92**	**88**	**67**	<1.0	<1.0	**5.9**	<1.0
Trichlorofluoromethane	<1.0	<1.0	**1.9**	<1.0	<1.0	**2.2**	<8.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	<5.0	**100**	<5.0	<5.0	**6.4**	<12.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	**78**	<1.0	**8.8**	**25**	**19**	<1.0	<1.0	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	**7.7**	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0

MCK0032524

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-7-10	SG-7-20	SG-8-5	SG-8-10	SG-8-20	SG-9-5	SG-9-10	SG-9-20	SG-9-20	SG-10-5	SG-10-10
Sampling Depth (ft)	10	20	5	10	20	5	10	20	20	5	10
Sample Type									Summa		
Date	10/11/2001	10/11/2001	10/10/2001	10/10/2001	10/10/2001	10/8/2001	10/8/2001	10/8/2001	10/8/2001	10/8/2001	10/8/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	**1.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Chloroform	<1.0	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<20	<1.0	<1.0
1,1 - Dichloroethane	<1.0	**49**	**5.3**	<1.0	**110**	**1.5**	<1.0	**85**	**76**	<1.0	<1.0
1,2 - Dichloroethane	<1.0	**5**	<1.0	<1.0	**10**	<1.0	<1.0	**10**	<10	<1.0	<1.0
1,1 - Dichloroethene	<1.0	**690**	**3.1**	<1.0	**360**	<1.0	<1.0	**480**	**390**	<1.0	<1.0
cis - 1,2 - Dichloroethene	<1.0	**13**	**3.6**	<1.0	**110**	**2.4**	<1.0	**52**	**46**	<1.0	<1.0
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<50	<50	<10	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0
Tetrachloroethene	**3.7**	**330**	**4.6**	<1.0	**510**	**2.9**	**4**	**400**	**650**	**5.8**	**5.5**
Toluene	<1.0	<1.0	<1.0	<1.0	**12**	<1.0	<1.0	<1.0	<10	<1.0	<1.0
1,1,1 - Trichloroethane	<1.0	**14**	**45**	**1.9**	**1900**	<1.0	<1.0	**16**	**14**	<1.0	<1.0
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Trichloroethene	<1.0	**230**	**1.3**	<1.0	**110**	**2**	**1.8**	**210**	**240**	**1.4**	**1.2**
Trichlorofluoromethane	<1.0	**12**	<1.0	<1.0	<1.0	<1.0	<1.0	**8.3**	<20	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	**14**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0

MCK0032525

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-10-20	SG-11-5	SG-11-10	SG-11-20	SG-12-5	SG-12-10	SG-12-20	SG-12-20	SG-13-5	SG-13-10	SG-13-20
Sampling Depth (ft)	20	5	10	20	5	10	20	20	5	10	20
Sample Type								Summa			
Date	10/8/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/9/2001	10/9/2001	10/9/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<8.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	**22**	<1.0	<1.0	**61**	<1.0	<1.0	**280**	**210**	<1.0	<1.0	**39**
1,2 - Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	**560**	**1.4**	<1.0	**660**	<1.0	<1.0	**350**	**250**	<1.0	<1.0	**5.4**
cis - 1,2 - Dichloroethene	**120**	<1.0	<1.0	**240**	<1.0	**1.2**	**190**	**140**	<1.0	<1.0	**29**
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<50	<4.0	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0
Tetrachloroethene	**100**	**4.5**	**1.7**	**140**	**1.1**	**1.3**	**59**	**89**	**1**	**1.7**	**1.4**
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**55**	**40**	<1.0	<1.0	**2.7**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
Trichloroethene	**61**	**1.2**	<1.0	**140**	<1.0	<1.0	**53**	**55**	<1.0	<1.0	<1.0
Trichlorofluoromethane	**12**	<1.0	<1.0	**7**	<1.0	<1.0	<1.0	<8.0	<1.0	<1.0	<1.0
Trichlorotrifluoroethane	**30**	<5.0	<5.0	<5.0	<5.0	<5.0	**130**	**96**	<5.0	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**110**	**82**	<1.0	<1.0	**1.9**
Xylenes, m-, p-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0

MCK0032526

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-13-20	SG-14-5	SG-14-10	SG-14-20	SG-15-5	SG-15-10	SG-15-20	SG-15-20	SG-16-5	SG-16-10	SG-16-10
Sampling Depth (ft)	20	5	10	20	5	10	20	20	5	10	10
Sample Type	Summa							Summa			Summa
Date	10/9/2001	10/11/2001	10/11/2001	10/11/2001	10/12/2001	10/12/2001	10/12/2001	10/12/2001	10/10/2001	10/10/2001	10/10/2001
EPA Method 8260B (ug/L)											
Benzene	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Carbon Tetrachloride	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Chloroethane	**0.54**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Chloroform	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.034**	<1.0	<1.0	<0.2
Dichlorodifluoromethane	<0.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.04	<1.0	<1.0	<0.4
1,1 - Dichloroethane	**42**	<1.0	<1.0	**2.5**	**1**	<1.0	<1.0	**0.18**	**1.3**	<1.0	**0.35**
1,2 - Dichloroethane	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
1,1 - Dichloroethene	**6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.14**	<1.0	<1.0	**0.46**
cis - 1,2 - Dichloroethene	**30**	<1.0	<1.0	**3.8**	**2.1**	<1.0	<1.0	**0.27**	<1.0	<1.0	<0.2
trans - 1,2 - Dichloroethene	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Ethylbenzene	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Methylene chloride	<0.4	<50	<50	<50	<50	<50	<50	<.02	<50	<50	**1.9**
1,1,1,2 - Tetrachloroethane	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
1,1,2,2 - Tetrachloroethane	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<.02	<2.0	<2.0	<0.2
Tetrachloroethene	<0.4	**14**	**3.2**	**1.5**	**3.7**	**1.6**	**4.1**	**3.5**	**71**	**35**	**27**
Toluene	<0.4	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	**1.3**	<1.0	<0.2
1,1,1 - Trichloroethane	**2.8**	**45**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.42**	**32**	**17**	**6.6**
1,1,2 - Trichloroethane	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2
Trichloroethene	<0.4	**1.9**	<1.0	<1.0	**1.6**	<1.0	<1.0	**0.28**	**2.7**	**2.1**	**2**
Trichlorofluoromethane	<0.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.04	<1.0	<1.0	<0.4
Trichlorotrifluoroethane	**1.6**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**0.12**	<5.0	<5.0	<0.6
Vinyl chloride	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.06	<1.0	<1.0	<0.2
Xylenes, m-, p-	<0.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**0.027**	<2.0	<2.0	**4.1**
Xylenes, o-	<0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<.02	<1.0	<1.0	<0.2

MCK0032527

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-16-20	SG-17-5	SG-17-10	SG-17-20	SG-18-5	SG-18-10	SG-18-20	SG-19-5	SG-19-10	SG-19-20	SG-20-5
Sampling Depth (ft)	20	5	10	20	5	10	20	5	10	20	5
Sample Type											
Date	10/10/2001	10/10/2001	10/10/2001	10/10/2001	10/12/2001	10/12/2001	10/12/2001	10/9/2001	10/9/2001	10/9/2001	10/9/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	<1.0	**6.3**	**6.2**	**19**	<1.0	<1.0	**24**	<1.0	<1.0	**3.9**	**15**
1,2 - Dichloroethane	<1.0	<1.0	<1.0	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	**2.1**	**7.3**	<1.0	**65**	**1.1**	<1.0	**160**	<1.0	<1.0	**11**	**6.3**
cis - 1,2 - Dichloroethene	<1.0	**4.7**	**3.8**	**14**	**1.9**	<1.0	**5.9**	<1.0	<1.0	**1.7**	<1.0
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	**15**	**120**	**8.4**	**130**	**5.2**	**2.9**	**150**	<1.0	<1.0	**22**	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	**9**	**24**	**5.3**	**11**	<1.0	<1.0	**11**	<1.0	<1.0	**1.8**	**2.7**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**1.5**	**15**	<1.0	**45**	**1.5**	**1.1**	**71**	<1.0	<1.0	**6.8**	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MCK0032528

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-20-10	SG-20-20	SG-21-5	SG-21-10	SG-21-20	SG-21-20	SG-22-5	SG-22-10	SG-22-20	SG-23-5	SG-23-10
Sampling Depth (ft)	10	20	5	10	20	20	5	10	20	5	10
Sample Type						Summa					
Date	10/9/2001	10/9/2001	10/11/2001	10/11/2001	10/11/2001	10/11/2001	10/8/2001	10/8/2001	10/8/2001	10/9/2001	10/9/2001
EPA Method 8260B (ug/L)											
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	**24**	**8.8**	<1.0	**330**	**13**	**5.5**	<1.0	<1.0	**7.2**	<1.0	<1.0
1,2 - Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	**7**	**3.9**	<1.0	**200**	**18**	**12**	**26**	<1.0	**380**	**1.4**	**1.7**
cis - 1,2 - Dichloroethene	**6.4**	**1.8**	<1.0	**3.6**	<1.0	**6.1**	<1.0	<1.0	<1.0	<1.0	<1.0
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	**17**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	**1500**	<50	**5.8**	<50	<50	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	**44**	**10**	**7.5**	**1200**	**120**	**120**	**7.4**	<1.0	**160**	<1.0	**2.6**
Toluene	**1.9**	<1.0	<1.0	**200**	<1.0	**2.8**	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	**3.2**	**2.3**	**9.6**	**7200**	**280**	**120**	**1**	<1.0	**6.2**	<1.0	<1.0
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	**2.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**5.1**	**2**	<1.0	**150**	**12**	**12**	**4.7**	<1.0	**61**	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	**62**	<1.0	<2.0	<1.0	<1.0	**11**	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	<5.0	<5.0	**270**	<5.0	<3.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	<2.0	**53**	<2.0	**1.7**	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	**4.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MCK0032529

Table 3-1
Summary of Soil Gas Survey Results
Former McKesson Facility
Santa Fe Springs, California
(October 2001)

Boring ID	SG-23-20	SG-24-5	SG-24-10	SG-24-20	SG-25-5	SG-25-10	SG-25-20
Sampling Depth (ft)	20	5	10	20	5	10	20
Sample Type							
Date	10/9/2001	10/9/2001	10/9/2001	10/9/2001	10/12/2001	10/12/2001	10/12/2001
EPA Method 8260B (ug/L)							
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethane	**47**	<1.0	<1.0	**300**	**1.5**	**4**	**390**
1,2 - Dichloroethane	**4.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1 - Dichloroethene	**310**	<1.0	<1.0	**300**	**9.2**	**8.9**	**210**
cis - 1,2 - Dichloroethene	**10**	<1.0	<1.0	**210**	<1.0	**1.4**	**290**
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<50	<50	<50	<50	<50	<50	<50
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2 - Tetrachloroethane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	**280**	<1.0	**1.3**	**38**	**20**	**17**	**53**
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1 - Trichloroethane	**15**	<1.0	<1.0	**75**	**86**	**59**	**100**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**150**	<1.0	<1.0	**43**	**1.5**	**2.9**	**51**
Trichlorofluoromethane	**2.8**	<1.0	<1.0	**3**	**1.4**	<1.0	<1.0
Trichlorotrifluoroethane	<5.0	<5.0	<5.0	**37**	**6.2**	**7.5**	**71**
Vinyl chloride	<1.0	<1.0	<1.0	**4.3**	<1.0	<1.0	<1.0
Xylenes, m-, p-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, o-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MCK0032530

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV1-10 1DV	SV1-10 3DV	SV1-10 5DV	SV1-20	SV2-8	SV2-20	SV3-8	SV3-20	SV4-8	SV4-20
Sampling Depth (ft)	10	10	10	20	8	20	8	20	8	20
Date	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000	11/27/2000
EPA Method 8260B (ug/L)										
Benzene	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	**13**
Carbon Tetrachloride	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	**11**
Chloroethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	**43**	<1.0	**38**
Chloroform	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
1,1 - Dichloroethane	**2.8**	**3.1**	**1.8**	**120**	**3.3**	**4.7**	<1.0	**270**	**3.2**	**1700**
1,2 - Dichloroethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
1,1 - Dichloroethene	<1.0	<1.0	<1.0	**35**	<1.0	**1.3**	<1.0	**75**	<1.0	**190**
cis - 1,2 - Dichloroethene	**2.4**	**2.9**	**2.0**	**370**	**3.2**	**14**	**3.0**	**520**	**7.0**	**2200**
trans - 1,2 - Dichloroethene	<1.0	<1.0	<1.0	<20	**1.4**	<1.0	<1.0	<20	<1.0	<10
Ethylbenzene	<1.0	<1.0	<1.0	<20	**3.6**	<1.0	<1.0	<20	**90**	**90**
Methylene chloride	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
1,1,1,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
1,1,2,2 - Tetrachloroethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	<1.0	<10
Tetrachloroethene	<1.0	<1.0	<1.0	**70**	**1.2**	<1.0	**2.4**	<20	<1.0	<10
Toluene	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<20	**400**	**400**
1,1,1 - Trichloroethane	<1.0	<1.0	<1.0	**3.3**	<1.0	<1.0	<1.0	<20	**3.1**	**65**
1,1,2 - Trichloroethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Trichloroethene	<1.0	<1.0	<1.0	**32**	<1.0	**1.1**	<1.0	<20	**1.8**	**15**
Trichlorofluoromethane	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Trichlorotrifluoroethane	<1.0	<1.0	<1.0	<20	<1.0	<5.0	<1.0	<5.0	<1.0	<10
Vinyl chloride	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	**24**
Xylenes, m-, p-	<1.0	<1.0	<1.0	<20	<1.0	**2.2**	<1.0	<2.0	**2.1**	**230**
Xylenes, o-	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	**43**

MCK0032531

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV5-8	SV5-20	SV6-8	SV6-20	SV7-8	SV7-20	SV8-8	SV8-20	SV9-8	SV9-20	SV10-8
Sampling Depth (ft)	8	20	8	20	8	20	8	20	8	20	8
Date	11/28/2000	11/28/2000	11/29/2000	11/29/2000	11/28/2000	11/28/2000	11/28/2000	11/28/2000	11/28/2000	11/28/2000	11/28/2000
EPA Method 8260B (ug/L)											
Benzene	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Carbon Tetrachloride	<1.0	<50	**2.5**	<100	<10	<500	<10	<500	<10	<500	<10
Chloroethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Chloroform	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Dichlorodifluoromethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
1,1 - Dichloroethane	**6.2**	**2000**	**15**	**6600**	<10	**8700**	**34**	**9200**	**13**	**5200**	**16**
1,2 - Dichloroethane	<1.0	<50	<1.0	<100	<1.0	<500	<10	<500	<10	<500	<10
1,1 - Dichloroethene	<1.0	**220**	**5.1**	**830**	<10	**1300**	**20**	**2100**	<10	**4800**	**19**
cis - 1,2 - Dichloroethene	**5.5**	**2300**	**27**	**7400**	**13**	**5400**	**25**	**3700**	**31**	**4600**	**87**
trans - 1,2 - Dichloroethene	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Ethylbenzene	<1.0	**110**	**8.4**	**600**	<10	**960**	**10**	**590**	**13**	**610**	<10
Methylene chloride	<1.0	<50	<1.0	<100	<10	<500	<10	<500	**13**	<500	**32**
1,1,1,2 - Tetrachloroethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
1,1,2,2 - Tetrachloroethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Tetrachloroethene	<1.0	<50	**6.9**	**70**	<10	<500	**42**	<500	**12**	<500	**54**
Toluene	<1.0	**1000**	**32**	**5300**	**27**	**2600**	**240**	**12000**	**120**	**2800**	**30**
1,1,1 - Trichloroethane	<1.0	**230**	**14**	**2200**	**25**	**790**	**140**	**2900**	**32**	**18000**	**160**
1,1,2 - Trichloroethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Trichloroethene	<1.0	<50	**1.3**	<100	<10	<500	**36**	<500	<10	<500	<10
Trichlorofluoromethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Trichlorotrifluoroethane	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Vinyl chloride	<1.0	<50	<1.0	<100	<10	<500	<10	<500	<10	<500	<10
Xylenes, m-, p-	<1.0	**310**	**22**	**1400**	**24**	**2200**	**30**	**1400**	**45**	**1700**	**11**
Xylenes, o-	<1.0	**70**	**5.8**	**330**	<10	**540**	<10	<500	**15**	<500	<10

MCK0032532

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV10-20	SV11-8	SV11-20	SV12-8	SV12-20	SV13-8	SV13-20	SV14-8	SV14-20	SV15-8	SV15-20
Sampling Depth (ft)	20	8	20	8	20	8	20	8	20	8	20
Date	11/28/2000	11/28/2000	11/28/2000	11/28/2000	11/28/2000	11/29/2000	11/29/2000	11/29/2000	11/27/2000	11/29/2000	11/29/2000
EPA Method 8260B (ug/L)											
Benzene	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Carbon Tetrachloride	<500	<1.0	<100	<1.0	**3700**	<10	<500	<1.0	<500	<1.0	<1000
Chloroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Chloroform	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Dichlorodifluoromethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
1,1 - Dichloroethane	**1000**	**52**	**520**	**4.2**	**780**	<10	<500	**2.0**	**790**	**9.9**	<1000
1,2 - Dichloroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
1,1 - Dichloroethene	**3900**	**13**	**3700**	**4.5**	**3800**	<10	**1600**	**3.2**	**4800**	**27**	**6000**
cis - 1,2 - Dichloroethene	**2200**	**70**	**3700**	**20**	**15000**	**11**	**3600**	**4.9**	**3100**	**16**	<1000
trans - 1,2 - Dichloroethene	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Ethylbenzene	<500	**6.6**	<100	<1.0	**140**	<10	<500	**3.8**	**900**	**8.1**	<1000
Methylene chloride	<500	**17**	<100	**26**	**4700**	<10	<500	<1.0	<500	**2.8**	<1000
1,1,1,2 - Tetrachloroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
1,1,2,2 - Tetrachloroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Tetrachloroethene	<500	**36**	<100	**1.3**	**1800**	<10	<500	**1.9**	**2000**	**8.1**	<1000
Toluene	<500	**46**	**150**	**2.6**	**1800**	**11**	**2500**	**13**	**5100**	**35**	**1900**
1,1,1 - Trichloroethane	**12000**	<1.0	**6900**	**6.6**	**23000**	<10	**6800**	**14**	**28000**	**130**	**39000**
1,1,2 - Trichloroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Trichloroethene	<500	**5.2**	<100	**4.4**	**630**	<10	**1300**	**7.2**	**2600**	**32**	**1200**
Trichlorofluoromethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Trichlorotrifluoroethane	<500	<1.0	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Vinyl chloride	<500	**1.6**	<100	<1.0	<100	<10	<500	<1.0	<500	<1.0	<1000
Xylenes, m-, p-	<500	**20**	**170**	**1.8**	**340**	**12**	**1000**	**11**	**2800**	**26**	**1100**
Xylenes, o-	<500	**4.9**	<100	<1.0	<100	<10	<500	**2.7**	**690**	**5.6**	<1000

MCK0032533

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV16-8	SV16-20	SV17-8	SV17-20	SV18-8	SV18-20	SV19-8	SV19-20	SV20-8	SV20-20	SV21-8
Sampling Depth (ft)	8	20	8	20	8	20	8	20	8	20	8
Date	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000	11/29/2000
EPA Method 8260B (ug/L)											
Benzene	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Carbon Tetrachloride	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Chloroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Chloroform	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Dichlorodifluoromethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
1,1 - Dichloroethane	<10	<1000	**66**	<2000	<100	**520**	<10	**1500**	<10	**1100**	<10
1,2 - Dichloroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
1,1 - Dichloroethene	**45**	**7200**	**150**	**4500**	<100	**1100**	**12**	**1500**	<10	**1100**	<10
cis - 1,2 - Dichloroethene	<10	<1000	<20	<2000	<100	**1000**	**17**	**3200**	**22**	**4500**	**12**
trans - 1,2 - Dichloroethene	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Ethylbenzene	**41**	<1000	**46**	<2000	<100	**330**	**29**	**390**	**18**	**1600**	<10
Methylene chloride	<10	<1000	**34**	<2000	<100	<200	<10	<200	<10	<200	<10
1,1,1,2 - Tetrachloroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
1,1,2,2 - Tetrachloroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Tetrachloroethene	**54**	<1000	**43**	<2000	<100	<200	**13**	**200**	**13**	**3100**	**30**
Toluene	**75**	**2600**	**240**	**2800**	**170**	**4000**	**250**	**5800**	**120**	**6300**	**200**
1,1,1 - Trichloroethane	**570**	**70000**	**3500**	**43000**	**720**	**5300**	**160**	**5600**	**76**	**4900**	**27**
1,1,2 - Trichloroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Trichloroethene	**31**	**2700**	**79**	<2000	<100	**240**	<10	**390**	**13**	**2200**	**11**
Trichlorofluoromethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Trichlorotrifluoroethane	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Vinyl chloride	<10	<1000	<20	<2000	<100	<200	<10	<200	<10	<200	<10
Xylenes, m-, p-	**140**	**1900**	**150**	<2000	<100	**830**	**74**	**1100**	**54**	**4800**	**67**
Xylenes, o-	**24**	<1000	**41**	<2000	<100	**250**	**25**	**240**	**14**	**1000**	**16**

MCK0032534

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV21-20	SV22-8	SV22-20	SV23-8	SV23-20	SV24-8	SV24-20	SV25-8	SV25-20	SV26-8	SV26-20
Sampling Depth (ft)	20	8	20	8	20	8	20	8	20	8	20
Date	11/29/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000
EPA Method 8260B (ug/L)											
Benzene	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Carbon Tetrachloride	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Chloroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Chloroform	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Dichlorodifluoromethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
1,1 - Dichloroethane	<1000	<10	**230**	**63**	**1800**	<10	**10000**	**11**	**860**	<10	<500
1,2 - Dichloroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
1,1 - Dichloroethene	<1000	<10	<200	**10**	**240**	<10	**2900**	**25**	**5000**	**11**	**4100**
cis - 1,2 - Dichloroethene	**4300**	**19**	**1400**	**210**	**2100**	**17**	**4000**	**15**	**2700**	**11**	**2900**
trans - 1,2 - Dichloroethene	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Ethylbenzene	<1000	<10	**370**	**14**	**320**	<10	**1700**	**18**	<250	<10	<500
Methylene chloride	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
1,1,1,2 - Tetrachloroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
1,1,2,2 - Tetrachloroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Tetrachloroethene	<1000	**13**	<200	<10	<200	<10	<200	<10	<250	<10	<500
Toluene	**8800**	**75**	**400**	**38**	**3500**	**24**	**12000**	**50**	<250	**20**	<500
1,1,1 - Trichloroethane	<1000	<10	<200	**48**	**360**	<10	**280**	<10	**12000**	**18**	**6700**
1,1,2 - Trichloroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Trichloroethene	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Trichlorofluoromethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Trichlorotrifluoroethane	<1000	<10	<200	<10	<200	<10	<200	<10	<250	<10	<500
Vinyl chloride	<1000	<10	<200	**33**	<200	<10	<200	<10	<250	<10	<500
Xylenes, m-, p-	**2500**	**33**	**440**	**87**	**1100**	**12**	**4500**	**29**	<250	**12**	<500
Xylenes, o-	<1000	<10	<200	**35**	**250**	<10	**1200**	<10	<250	<10	<500

MCK0032535

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV27-8	SV27-20	SV28-8	SV28-20	SV29-8	SV29-20	SV30-8	SV30-20	SV31-8	SV31-20	SV32-8
Sampling Depth (ft)	8	20	8	20	8	20	8	20	8	20	8
Date	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	11/30/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000
EPA Method 8260B (ug/L)											
Benzene	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Carbon Tetrachloride	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Chloroethane	<1.0	<500	<1.0	<100	<1.0	<100	**16**	<200	<20	<200	<1.0
Chloroform	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Dichlorodifluoromethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
1,1 - Dichloroethane	**2.2**	<500	**2.5**	**5400**	**4.7**	**5800**	**110**	**1600**	<20	<200	**10**
1,2 - Dichloroethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
1,1 - Dichloroethene	**4.9**	**2400**	**8.5**	**2200**	**3.9**	**1700**	**17**	**200**	<20	<200	**4.9**
cis - 1,2 - Dichloroethene	**10**	**3400**	**24**	**2000**	**8.4**	**2300**	**410**	**830**	**120**	**450**	**16**
trans - 1,2 - Dichloroethene	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Ethylbenzene	**1.3**	<500	**1.1**	**300**	**3.8**	**630**	**76**	**520**	<20	<200	**8.8**
Methylene chloride	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	**1.0**
1,1,1,2 - Tetrachloroethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
1,1,2,2 - Tetrachloroethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Tetrachloroethene	**1.0**	<500	**1.7**	<100	<1.0	<100	<10	<200	<20	<200	**2.2**
Toluene	**8.0**	<500	**6.8**	**300**	**7.9**	**1500**	**690**	**2900**	**260**	**950**	**45**
1,1,1 - Trichloroethane	**11**	**4200**	**19**	**650**	**5.3**	<100	**50**	**240**	**120**	**710**	**6.2**
1,1,2 - Trichloroethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Trichloroethene	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	**130**	**550**	**5.5**
Trichlorofluoromethane	<1.0	<500	<1.0	<100	<1.0	<100	<10	<200	<20	<200	<1.0
Trichlorotrifluoroethane	<1.0	<500	<1.0	<100	<1.0	**150**	<10	<200	<20	<200	<1.0
Vinyl chloride	<1.0	<500	<1.0	<100	<1.0	**140**	**730**	<200	<20	<200	<1.0
Xylenes, m-, p-	**4.1**	<500	**3.3**	**540**	**9.6**	**1700**	**250**	**1600**	**44**	**250**	**30**
Xylenes, o-	**1.2**	<500	**1.3**	**200**	**3.5**	**400**	**58**	**390**	<20	<200	**7.4**

MCK0032536

Table 3-2
Summary of Soil Gas Data
Angeles Chemical Company
Santa Fe Springs, California
(November 2000)

Boring ID	SV32-20	SV33-8	SV33-20	SV34-8	SV34-20	SV35-8	SV35-20	SV36-8	SV36-20
Sampling Depth (ft)	20	8	20	8	20	8	20	8	20
Date	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000	12/1/2000
EPA Method 8260B (ug/L)									
Benzene	**300**	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Carbon Tetrachloride	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Chloroethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Chloroform	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Dichlorodifluoromethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
1,1 - Dichloroethane	**7700**	**7.9**	**8100**	**20**	**4700**	**26**	**2900**	**27**	**2700**
1,2 - Dichloroethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
1,1 - Dichloroethene	**3200**	**2.9**	**1200**	<2.0	**580**	**2.9**	**380**	**13**	**9400**
cis - 1,2 - Dichloroethene	**5400**	**10**	**5700**	**19**	**5300**	**46**	**3300**	**71**	**1900**
trans - 1,2 - Dichloroethene	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Ethylbenzene	**2100**	**13**	**580**	**4.8**	**410**	**15**	**230**	**18**	<500
Methylene chloride	**3900**	**1.5**	<100	<2.0	<200	<1.0	<200	<10	<500
1,1,1,2 - Tetrachloroethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
1,1,2,2 - Tetrachloroethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Tetrachloroethene	**1600**	**9.0**	<100	<2.0	<200	**1.7**	<200	<10	850
Toluene	**33000**	**73**	**1600**	**13**	**2700**	**55**	**280**	**1300**	**1300**
1,1,1 - Trichloroethane	**10000**	**12**	**720**	**4.6**	**920**	**7.0**	<200	**22**	**90000**
1,1,2 - Trichloroethane	<100	**0.6**	<100	<2.0	<200	<1.0	<200	<10	<500
Trichloroethene	**2000**	**4.6**	<100	<2.0	<200	**1.0**	<200	**40**	**2700**
Trichlorofluoromethane	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Trichlorotrifluoroethane	<100	<1.0	**110**	<2.0	<200	<1.0	<200	<10	<500
Vinyl chloride	<100	<1.0	<100	<2.0	<200	<1.0	<200	<10	<500
Xylenes, m-, p-	**7300**	**51**	**920**	**9.4**	**900**	**37**	**480**	**45**	<500
Xylenes, o-	**1900**	**14**	**350**	**3.8**	**250**	**12**	<200	**13**	**980**

MCK0032537

Table 4-1
Parameters Estimated From SVE Transient Tests
Former McKesson Facility
Santa Fe Springs, California

Location	r (ft)	T (ft^2/d)	r/B	k (cm^2)
SG-1	38	124.1	1.0	1.9E-06
SG-2	34	129.0	1.2	2.5E-06
SG-8	34	219.2	0.6	2.6E-06
SG-21	35	129.6	1.0	2.4E-06
SB-37	44	220.3	0.65	1.8E-06
PSV-3b	15	143.2	0.6	2.0E-06

r = Radius from Extraction Well E-1

T = Transmissivity

B = Leakage Factor

r/B = Ratio of radius from Extraction Well E-1 to Leakage Factor

k = Soil permeability to air flow

TABLE 5-1
GROUNDWATER DEPTHS AND ELEVATIONS SUMMARY
GROUNDWATER MONITORING WELL NETWORK
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
(OCTOBER 2001)

Monitoring Well	Monitoring Point Elevation (ft MSL)[1]	Depth to Water October 2001 (ft btoc)[2]	Water Level Elevation (ft MSL)
EW-1	153.8	45.75	108.05
MW-01	150.69	39.82	110.87
MW-02	149.44	36.51	112.93
MW-03	151.18	40.82	110.36
MW-04	150.8	40.47	110.33
MW-05	152.51	42.47	110.04
SB-04	148.81	36.55	112.26
SB-07	149.9	39.22	110.68
SB-10	151.6	41.37	110.23
SB-17	150.83	40.56	110.27
SB-17A	151.76	41.74	110.02
SB-17B	151.71	41.70	110.01
SB-20	151.71	41.46	110.25
SB-23	151.01	40.52	110.49
SB-23A	150.62	40.10	110.52
SB-23B	150.66	40.70	109.96
SB-32	149.78	31.36	118.42
SB-36	149.41	37.73	111.68
SB-37	151.73	DRY	DRY

NOTES:
[1] Elevation in feet Mean Sea Level (MSL) established by BLC Surveying, Inc. on 8 November 2001.
[2] ft btoc - feet below top of casing. Groundwater elevations measured by GeoSyntec personnel on 23 October 2001.

Table 5-2
Laboratory Chemical Results -VOCs
Former McKesson Facility
Santa Fe Springs, California
Page 1 of 2

	PERCHED ZONE		A_1 ZONE													A_2 ZONE			
Sampling Point	SB-32	SB-37	MW-01	MW-02	MW-03	MW-04	MW-05	SB-4	SB-7	SB-10	SB-17	SB-20	SB-23	SB-36	EW-1	SB-17A	SB-17B	SB-23A	SB-23B
Sampling Date	10/23/01	10/24/01	10/24/01	10/23/01	10/26/01	10/23/01	10/23/01	10/24/01	10/26/01	10/26/01	10/24/01	10/24/01	10/24/01	10/26/01	10/24/01	10/26/01	10/26/01	10/26/01	10/26/01
EPA Method 8260																			
1,1,1,2-Tetrachloroethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	32	DRY	55	52	15	13	23	10	41	74	650	1,070	88,200	342	2,670	2.8 (Tr)	2.2 (Tr)	11	34
1,1,2,2-Tetrachloroethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichlorotrifluoroethane (Freon 113)	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	1,210	DRY	735	1,000	452	10	210	31	70	149	1,860	490	1,130	1,220	468	<5.0	<5.0	3.4 (Tr)	4.0 (Tr)
1,1-Dichloroethene	470	DRY	297	470	559	11	87	24	473	959	1,100	2,590	15,200	898	856	<5.0	<5.0	2.8 (Tr)	9.5
1,1-Dichloropropene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichloropropane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	18	<50	<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	<0.5	DRY	<50	<5.0	<5.0	<5.0	21	<5.0	<5.0	8.8	<500	<250	<500	8.6	169	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	7.0	<50	<5.0	<5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,3-Dichloropropane	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5,700	<2,850	<5700	<57	<570	<57	<57	<57	<57
1,4-Dioxane	<0.5	DRY	<570	<5.0	<57	<57	<57	<57	<57	<57	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
1-Chlorohexane	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
2,2-Dichloropropane	<0.5	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10,000	<5,000	<10,000	<100	<1,000	<100	<100	<100	<100
2-Butanone (MEK)	<100	DRY	<1000	<100	<100	<100	<100	<100	<100	<100	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
2-Chloroethylvinyl ether	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,000	<1,000	<2,000	<20	<200	<20	<20	<20	<20
2-Hexanone	<20	DRY	<200	<20	<20	<20	<20	<20	<20	<20	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
4-Chlorotoluene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	<500	<1,000	<10	<100	<10	<10	<10	<10
4-Methyl-2-Pentanone	<10	DRY	<100	<10	<10	<10	<10	<10	<10	<10	<10,000	<5,000	<10,000	<100	<1,000	<100	<100	<100	<100
Acetone	<100	DRY	<1000	<100	<100	<100	<100	<100	<100	<100	<5,000	<2,500	<5,000	<50	<500	<50	<50	<50	<50
Acetonitrile	<50	DRY	<500	<50	<50	<50	<50	<50	<50	<50	<20,000	<10,000	<20,000	<200	<2,000	<200	<200	<200	<200
Acrolein	<200	DRY	<2000	<200	<200	<200	<200	<200	<200	<200	<1,000	<500	<1,000	<10	<100	<10	<10	<10	<10
Acrylonitrile	<10	DRY	<100	<10	<10	<10	<10	<10	<10	<10	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Allyl chloride	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<100	<50	<100	19	<10	<1.0	<1.0	<1.0	<1.0
Benzene	12	DRY	<10	17	14	<1.0	4.5	<1.0	3.1	3.2	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Benzyl Chloride	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Bromobenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Bromochloromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Bromoform	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Bromomethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	<5.0	DRY	<50	<5.0	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Chloroethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Chloroform	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0

GeoSyntec Consultants
12/18/2001 11:11 AM

H40630 07\McK01 19_XL3.xls/Table 5-2

MCK0032540

Table 5-2
Laboratory Chemical Results -VOCs
Former McKesson Facility
Santa Fe Springs, California
Page 2 of 2

	PERCHED ZONE		A_1 ZONE													A_2 ZONE			
Sampling Point	**SB-32**	**SB-37**	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**SB-4**	**SB-7**	**SB-10**	**SB-17**	**SB-20**	**SB-23**	**SB-36**	**EW-1**	**SB-17A**	**SB-17B**	**SB-23A**	**SB-23B**
Sampling Date	**10/23/01**	**10/24/01**	**10/24/01**	**10/23/01**	**10/26/01**	**10/23/01**	**10/23/01**	**10/24/01**	**10/26/01**	**10/26/01**	**10/24/01**	**10/24/01**	**10/24/01**	**10/26/01**	**10/24/01**	**10/26/01**	**10/26/01**	**10/26/01**	**10/26/01**
EPA Method 8260																			
Chloromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Dibromomethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Ethyl benzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	**5.6**	<50	<5.0	<5.0	<5.0	<5.0
Ethyl methacrylate	<50	DRY	<500	<50	<50	<50	<50	<50	<50	<50	<5,000	<2,500	<5,000	<50	<500	<50	<50	<50	<50
Hexachlorobutadiene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Iodomethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	**10**	<50	<5.0	<5.0	<5.0	<5.0
Methacrylonitrile	<35	DRY	<350	<35	<35	<35	<35	<35	<35	<35	<3,500	<1,750	<3,500	<35	<350	<35	<35	<35	<35
Methyl methacrylate	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Methyl-tert-butylether (MTBE)	<1.0	DRY	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<50	<100	<1.0	<10	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	**34**	<5.0	<5.0	<500	<250	**4,650**	<5.0	**3,510**	<5.0	<5.0	<5.0	<5.0
Naphthalene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Pentachloroethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Propionitrile	<100	DRY	<1000	<100	<100	<100	<100	<100	<100	<100	<10,000	<5,000	<10,000	<100	<1,000	<100	<100	<100	<100
Styrene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	**48**	DRY	**132**	**100**	**134**	**20**	**66**	**86**	**465**	**1,270**	**576**	**1,760**	**4,330**	**1,790**	**1,430**	**4.5 (Tr)**	**4.7 (Tr)**	**19**	**23**
Toluene	<5.0	DRY	<50	<5.0	<5.0	<5.0	**38**	<5.0	<5.0	<5.0	**1,570**	<250	**4,080**	**10**	**257**	<5.0	<5.0	<5.0	<5.0
Trichloroethene	**44**	DRY	**130**	**170**	**78**	**8.6**	**30**	**37**	**245**	**382**	**1,700**	**1,500**	**23,100**	**664**	**586**	**1.1 (Tr)**	**22**	**11**	**22**
Trichlorofluoromethane	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	<50	DRY	<500	<50	<50	<50	<50	<50	<50	<50	<5,000	<2,500	<5,000	<50	<500	<50	<50	<50	<50
Vinyl chloride	**160**	DRY	<50	**4.7**	<5.0	<5.0	**330**	**11**	**5.4**	**9.7**	**5,580**	<250	**640**	**11**	**175**	<5.0	<5.0	<5.0	<5.0
Xylenes	**6.3**	DRY	<50	<5.0	**5.9**	<5.0	**6.8**	<5.0	<5.0	<5.0	<500	<250	<500	**39**	<50	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	**1,320**	DRY	**982**	**2050**	**2,070**	**19**	**280**	**103**	**280**	**344**	**4,280**	**1,100**	**3,460**	**1,750**	**683**	<5.0	<5.0	**2.8 (Tr)**	**14**
cis-1,3-Dichloropropene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
cis1,4-Dichloro-2-butene	<20	DRY	<200	<20	<20	<20	<20	<20	<20	<20	<2,000	<1,000	<2,000	<20	<200	<20	<20	<20	<20
n-Butylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
n-Propylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
p-Propylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
sec-butylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
tert-butylbenzene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	<5.0	DRY	<50	<5.0	**6.8**	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	<5.0	DRY	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<250	<500	<5.0	<50	<5.0	<5.0	<5.0	<5.0
trans-1,4-Dichloro-2-butene	<20	DRY	<200	<20	<20	<20	<20	<20	<20	<20	<2,000	<1,000	<2,000	<20	<200	<20	<20	<20	<20

NOTES:
All values are reported in micrograms per liter (µg/L) unless otherwise noted.

GeoSyntec Consultants
12/18/2001 11:12 AM

HA0610-07/McK01-19_XL3.xls/Table 5-2

MCK0032541

Table 5-3
Laboratory Chemical Results - Dissolved Metals
Former McKesson Facility
Santa Fe Springs, California

	PERCHED ZONE		A_1 ZONE													A_2 ZONE			
Sampling Point	**SB-32**	**SB-37**	**MW-01**	**MW-02**	**MW-03**	**MW-04**	**MW-05**	**SB-4**	**SB-7**	**SB-10**	**SB-17**	**SB-20**	**SB-23**	**SB-36**	**EW-1**	**SB-17A**	**SB-17B**	**SB-23A**	**SB-23B**
Sampling Date	**10/23/01**	**10/24/01**	**10/24/01**	**10/23/01**	**10/26/01**	**10/23/01**	**10/23/01**	**10/24/01**	**10/26/01**	**10/26/01**	**10/24/01**	**10/24/01**	**10/24/01**	**10/26/01**	**10/24/01**	**10/26/01**	**10/26/01**	**10/26/01**	**10/26/01**
Dissolved Metals																			
Antimony	<0.030	DRY	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Arsenic	**0.037**	DRY	<0.005	<0.005	**0.010**	<0.005	**0.022**	<0.005	<0.005	<0.005	**0.208**	<0.005	**0.015**	**0.006**	**0.035**	<0.005	<0.005	<0.005	<0.005
Barium	**0.235**	DRY	**0.041**	**0.020**	**0.069**	**0.016**	**0.044**	**0.018**	**0.051**	**0.044**	**0.179**	**0.030**	**0.011**	**0.068**	**0.090**	**0.019**	**0.055**	**0.024**	**0.038**
Beryllium	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.010	DRY	**0.011**	**0.012**	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	**0.013**	<0.010	<0.010	**0.018**	<0.010	**0.018**	<0.010	<0.010
Cobalt	**0.006**	DRY	<0.005	<0.005	**0.005**	<0.005	<0.005	<0.005	<0.005	**0.029**	<0.005	<0.005	<0.005	**0.009**	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.010	DRY	**0.010**	**0.010**	<0.010	**0.020**	**0.011**	**0.011**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.043	<0.010	**0.030**	**0.369**
Iron	**5.18**	DRY	**0.130**	**0.082**	**0.126**	**0.108**	**0.473**	**0.230**	**0.058**	**0.078**	**2.53**	**0.035**	**2.08**	**1.76**	**1.26**	**0.400**	**0.199**	**0.210**	**0.266**
Lead	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.005**
Mercury	<0.0004	DRY	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Nickel	**0.019**	DRY	**0.013**	<0.015	<0.015	**0.016**	**0.020**	<0.015	<0.015	**0.021**	**0.049**	<0.015	<0.015	**0.016**	<0.015	<0.015	**0.018**	**0.016**	<0.015
Selenium	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.006**	<0.005	**0.029**	**0.022**	<0.005
Silver	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Thallium	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vanadium	<0.005	DRY	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005
Zinc	**0.024**	DRY	**0.061**	**0.034**	**0.019**	**0.082**	**0.129**	**0.148**	**0.028**	**0.015**	**0.069**	**0.015**	**0.022**	**0.055**	**0.015**	**0.049**	**0.016**	**0.154**	**0.382**

NOTES:
All values are reported in milligrams per liter (mg/l) unless otherwise noted.

Table 5-4
Laboratory Chemical Results -VOCs
Former Angeles Facility[1]
Santa Fe Springs, California
(October 2001)

Sampling Point	MW-01	MW-02	MW-03	MW-04	MW-6[1]	MW-7
Sampling Date	10/30/01	10/30/01	10/30/01	10/30/01	10/30/01	10/30/01
EPA Method 8260						
1,1,1,2-Tetrachloroethane	ND	ND	ND	NS	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	NS	**28,100,000**	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	NS	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	NS	ND	ND
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	ND	ND	NS	ND	ND
1,1-Dichloroethane	**8,190**	**1,500**	**1,030**	NS	**592,000**	**2,670**
1,1-Dichloroethene	**1,200**	**1,120**	**4,090**	NS	**417,000**	**355**
1,1-Dichloropropene	ND	ND	ND	NS	ND	ND
1,2,3-Trichlorobenzene	ND	ND	ND	NS	ND	ND
1,2,3-Trichloropropane	ND	ND	ND	NS	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	NS	ND	ND
1,2,4-Trimethylbenzene	**1,590**	**18.9**	**345**	NS	**22,100,000**	**200**
1,2-Dibromo-3-chloropropane	ND	ND	ND	NS	ND	ND
1,2-Dibromoethane	ND	ND	ND	NS	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	NS	ND	ND
1,2-Dichloroethane	ND	ND	ND	NS	ND	ND
1,2-Dichloropropane	ND	ND	ND	NS	ND	ND
1,3,5-Trimethylbenzene	**470**	**62.9**	**145**	NS	**5,400,000**	**25**
1,3-Dichlorobenzene	ND	ND	ND	NS	ND	ND
1,3-Dichloropropane	ND	ND	ND	NS	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	NS	ND	ND
1,4-Dioxane	ND	ND	ND	NS	ND	ND
1-Chlorohexane	ND	ND	ND	NS	ND	ND
2,2-Dichloropropane	ND	ND	ND	NS	ND	ND
2-Butanone (MEK)	ND	ND	**500**	NS	ND	**980**
2-Chloroethylvinyl ether	ND	ND	ND	NS	ND	ND
2-Chlorotoluene	ND	ND	ND	NS	ND	ND
2-Hexanone	ND	ND	ND	NS	ND	ND
4-Chlorotoluene	ND	ND	ND	NS	ND	ND
4-Methyl-2-Pentanone	ND	ND	**4,130**	NS	ND	**625**
Acetone	ND	ND	ND	NS	ND	**1,190**
Acetonitrile	ND	ND	ND	NS	ND	ND
Acrolein	ND	ND	ND	NS	ND	ND
Acrylonitrile	ND	ND	ND	NS	ND	ND
Allyl chloride	ND	ND	ND	NS	ND	ND
Benzene	**125**	**105**	**110**	NS	**110,000**	**55**
Benzyl Chloride	ND	ND	ND	NS	ND	ND
Bromobenzene	ND	ND	ND	NS	ND	ND
Bromochloromethane	ND	ND	ND	NS	ND	ND
Bromodichloromethane	ND	ND	ND	NS	ND	ND
Bromoform	ND	ND	ND	NS	ND	ND
Bromomethane	ND	ND	ND	NS	ND	ND
Carbon Disulfide	ND	ND	ND	NS	ND	ND
Carbon tetrachloride	ND	ND	ND	NS	ND	ND
Chlorobenzene	ND	ND	ND	NS	ND	ND
Chloroethane	ND	ND	ND	NS	ND	ND
Chloroform	ND	ND	ND	NS	ND	ND
Chloromethane	ND	ND	ND	NS	ND	ND
Dibromochloromethane	ND	ND	ND	NS	ND	ND
Dibromomethane	ND	ND	ND	NS	ND	ND
Dichlorodifluoromethane	ND	ND	ND	NS	ND	ND
Ethyl benzene	**805**	**197**	**1,550**	NS	**4,320,000**	**107**

Table 5-4
Laboratory Chemical Results -VOCs
Former Angeles Facility[1]
Santa Fe Springs, California
(October 2001)

Sampling Point	MW-01	MW-02	MW-03	MW-04	MW-6[2]	MW-7
Sampling Date	10/30/01	10/30/01	10/30/01	10/30/01	10/30/01	10/30/01
EPA Method 8260						
Ethyl methacrylate	ND	ND	ND	NS	ND	ND
Hexachlorobutadiene	ND	ND	ND	NS	ND	ND
Iodomethane	ND	ND	ND	NS	ND	ND
Isopropylbenzene	ND	ND	ND	NS	**636,000**	ND
Methacrylonitrile	ND	ND	ND	NS	ND	ND
Methyl methacrylate	ND	ND	ND	NS	ND	ND
Methyl-tert-butylether (MTBE)	ND	ND	ND	NS	ND	ND
Methylene chloride	ND	ND	ND	NS	ND	ND
Naphthalene	**185**	**76**	ND	NS	**1,680,000**	**85**
Pentachloroethane	ND	ND	ND	NS	ND	ND
Propionitrile	ND	ND	ND	NS	ND	ND
Styrene	ND	ND	ND	NS	ND	ND
Tetrachloroethene	ND	**100**	**130**	NS	**531,000**	**10**
Toluene	**2,470**	**26**	**5,150**	NS	**9,010,000**	**975**
Trichloroethene	**139**	**170**	**100**	NS	**753,000**	**37**
Trichlorofluoromethane	ND	ND	ND	NS	ND	ND
Vinyl acetate	ND	ND	ND	NS	ND	ND
Vinyl chloride	**1,350**	**75**	ND	NS	ND	**188**
m&p- Xylenes	**1,900**	ND	**2,800**	NS	**6,950,000**	**227**
o-Xylenes	**870**	ND	**920**	NS	**3,120,000**	**14**
cis-1,2-Dichloroethene	**10,300**	**9,150**	**7,000**	NS	**1,060,000**	**194**
cis-1,3-Dichloropropene	ND	ND	ND	NS	ND	ND
cis1,4-Dichloro-2-butene	ND	ND	ND	NS	ND	ND
n-Butylbenzene	ND	ND	ND	NS	**1,400,000**	ND
n-Propylbenzene	ND	ND	ND	NS	**1,870,000**	ND
p-Propylbenzene	ND	ND	ND	NS	ND	ND
sec-butylbenzene	ND	ND	ND	NS	ND	ND
tert-butylbenzene	ND	ND	ND	NS	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	NS	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	NS	ND	ND
trans-1,4-Dichloro-2-butene	ND	ND	ND	NS	ND	ND

NOTES:

[1] The monitoring wells at the Angeles Chemical Company were sampled on 30 October 2001 by Blaine Tech Services, Inc of San Jose, California under the direction of Blakely Environmental Investigations, Inc.

[2] The laboratory analytical report for Monitoring Well MW-6 identified the sample matrix as product.

All values are reported in micrograms per liter (µg/L) unless otherwise noted.

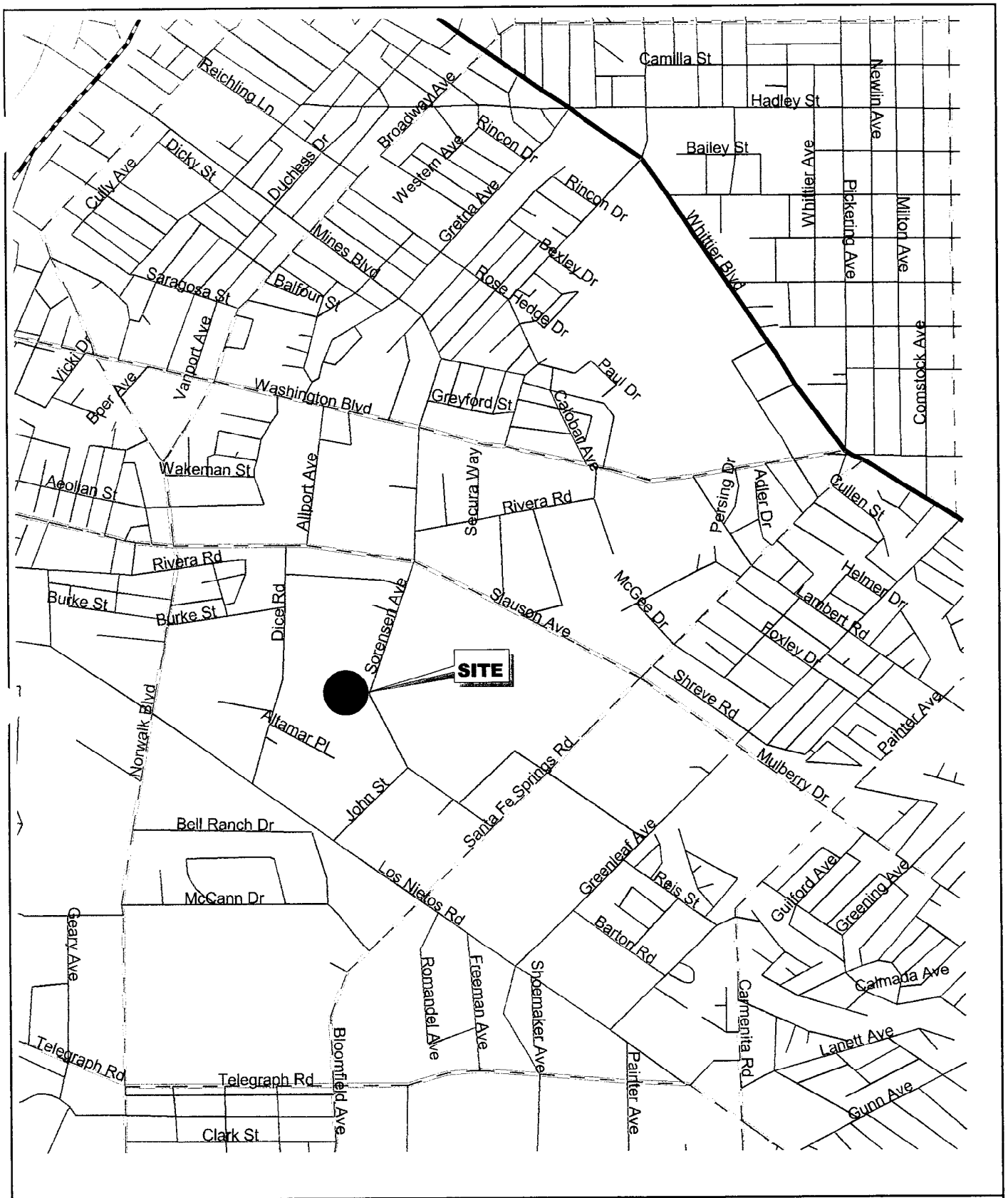
ND - Analyte not detected above laboratory Method Detection Limit (MDL).

NS - No analytical data was received for Monitoring Well MW-4.

MCK0032544

Figures

FIGURES



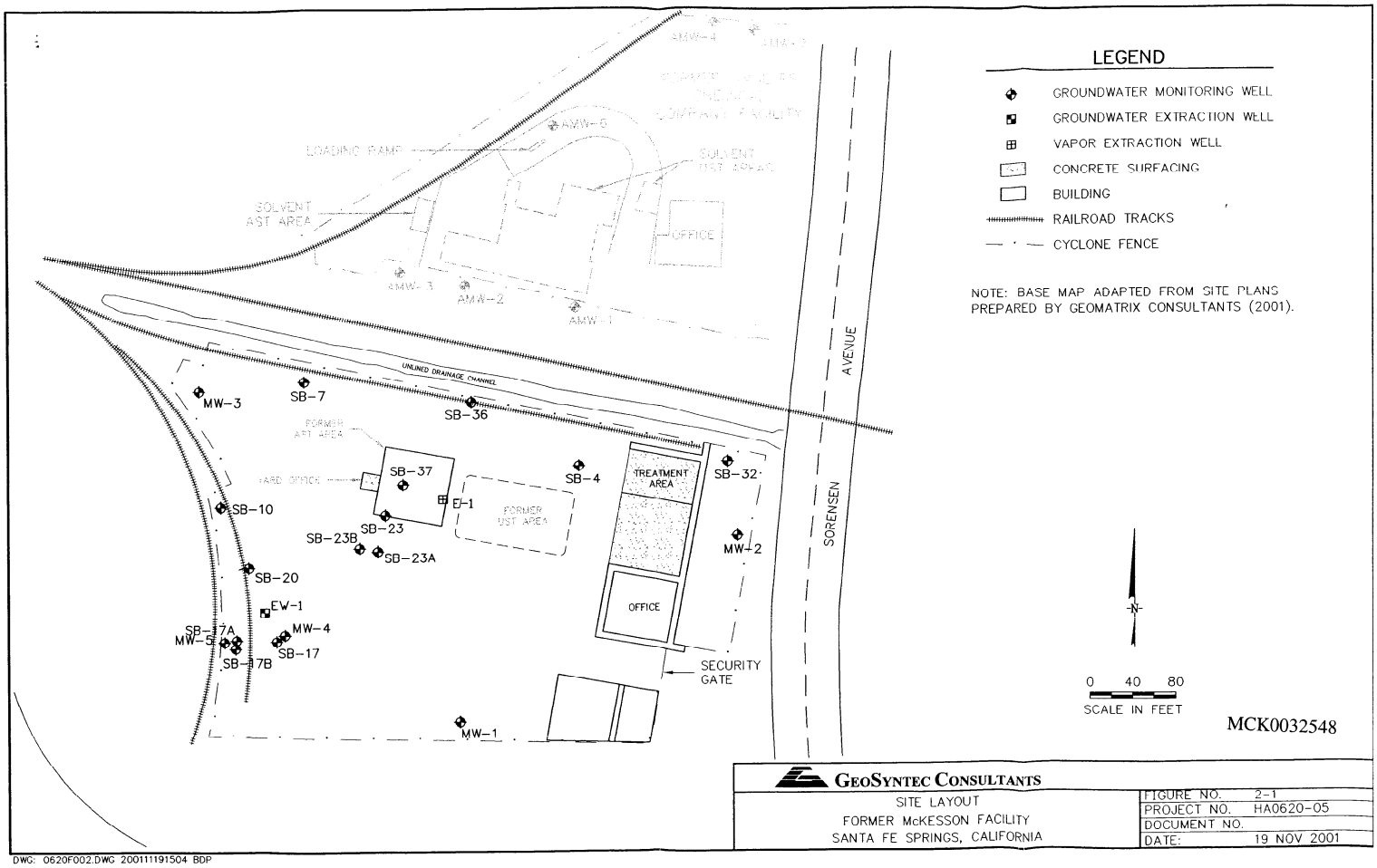
2000 0 2000 Feet

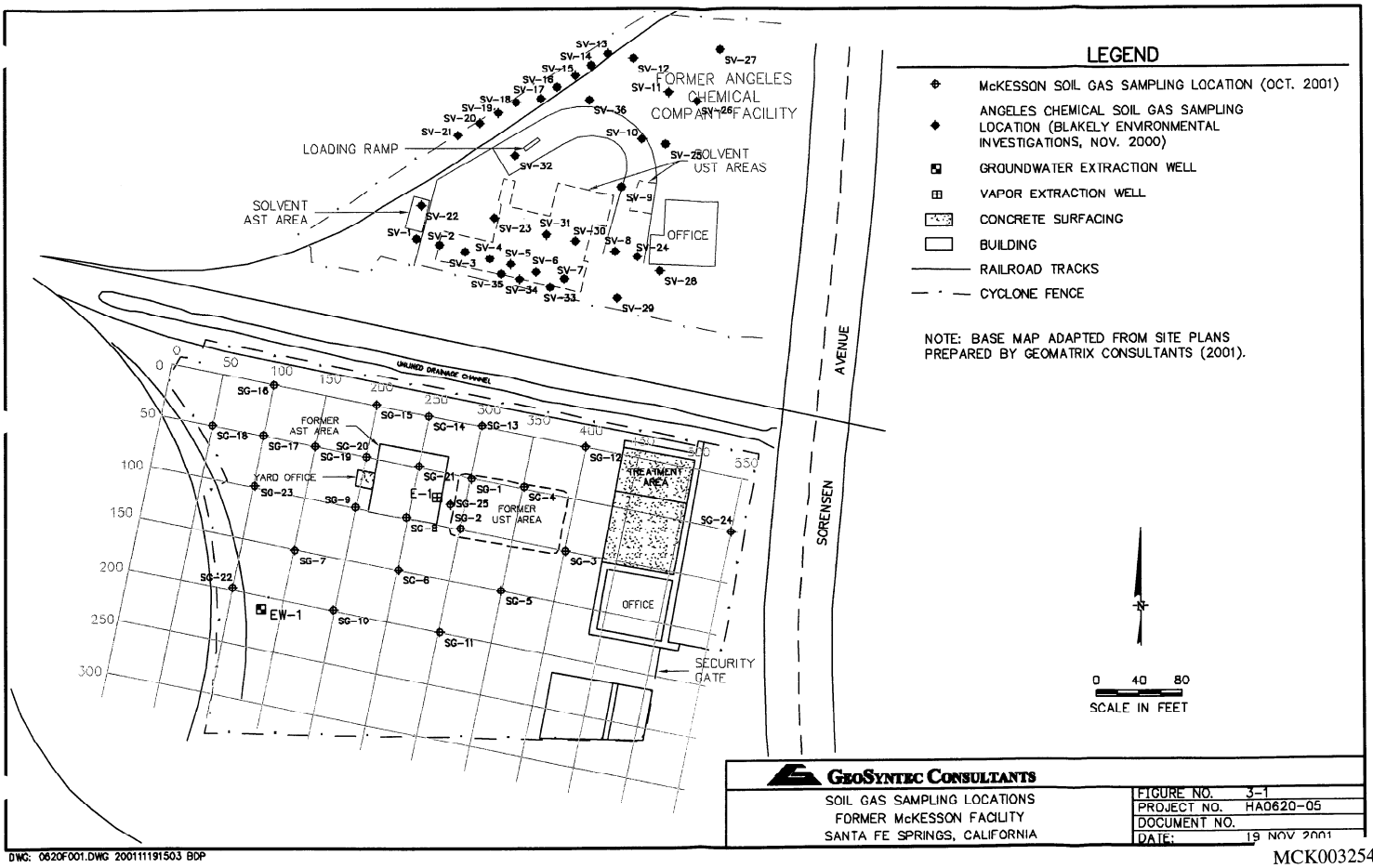
N

GeoSyntec Consultants

FIGURE 1-1
SITE LOCATION MAP
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

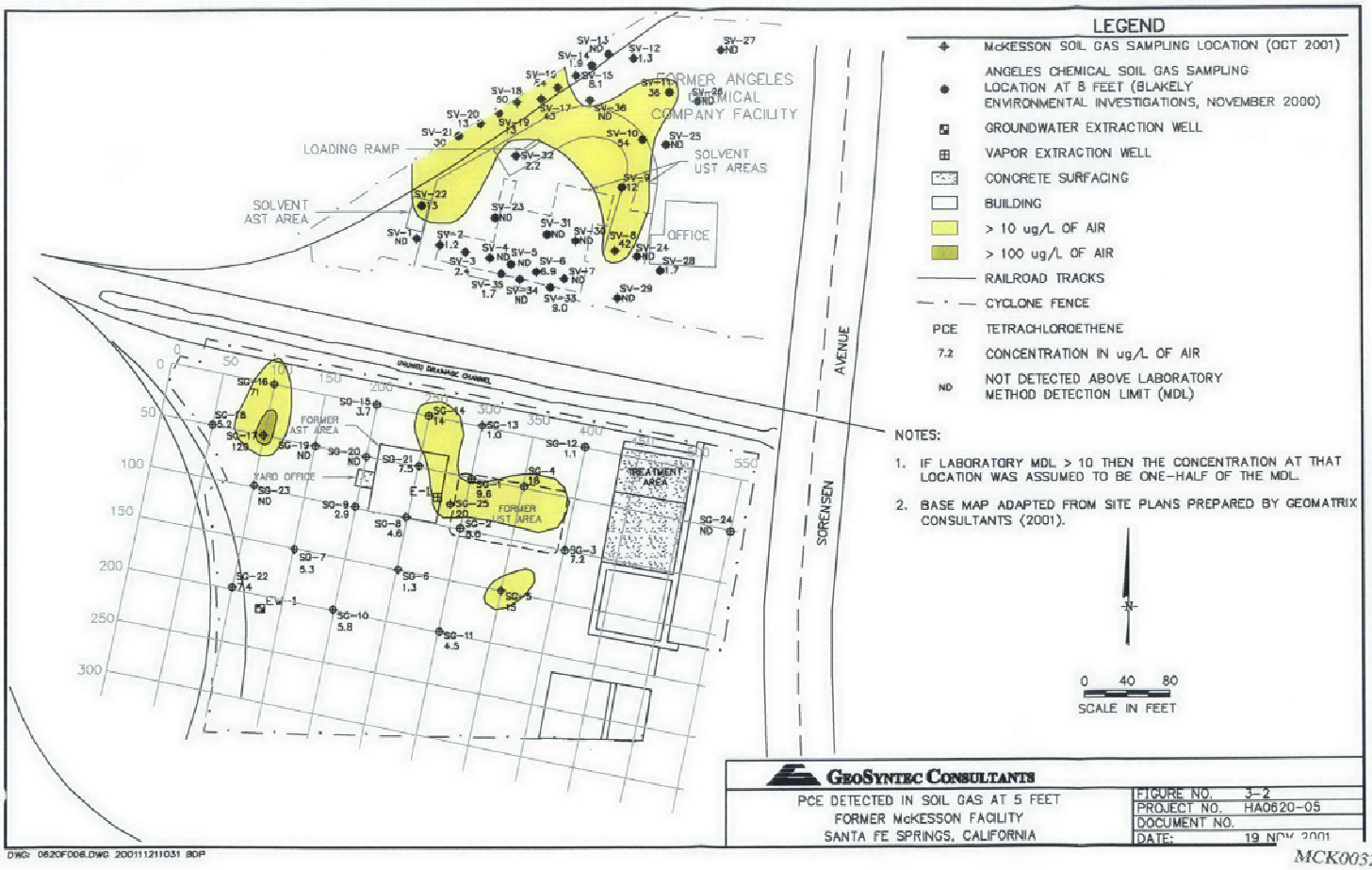
MCK0032547


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
RAILROAD TRACKS
CYCLONE FENCE
NOTE: BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
AMW-4
AMW-5
AMW-6
LOADING RAMP
SOLVENT AST AREA
OFFICE
AMW-3
AMW-2
AMW-1
UNLINED DRAINAGE CHANNEL
MW-3
SB-7
SB-36
FORMER AST AREA
YARD OFFICE
SB-37
EI-1
FORMER UST AREA
SB-4
TREATMENT AREA
SB-32
SB-10
SB-23
SB-23B
SB-23A
MW-2
SB-20
EW-1
MW-4
SB-17A
MW-5
SB-17
SB-17B
OFFICE
SECURITY GATE
MW-1
SORENSEN AVENUE
N
0 40 80
SCALE IN FEET
MCK0032548
GEOSYNTEC CONSULTANTS
SITE LAYOUT
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 2-1
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F002.DWG 200111191504 BDP

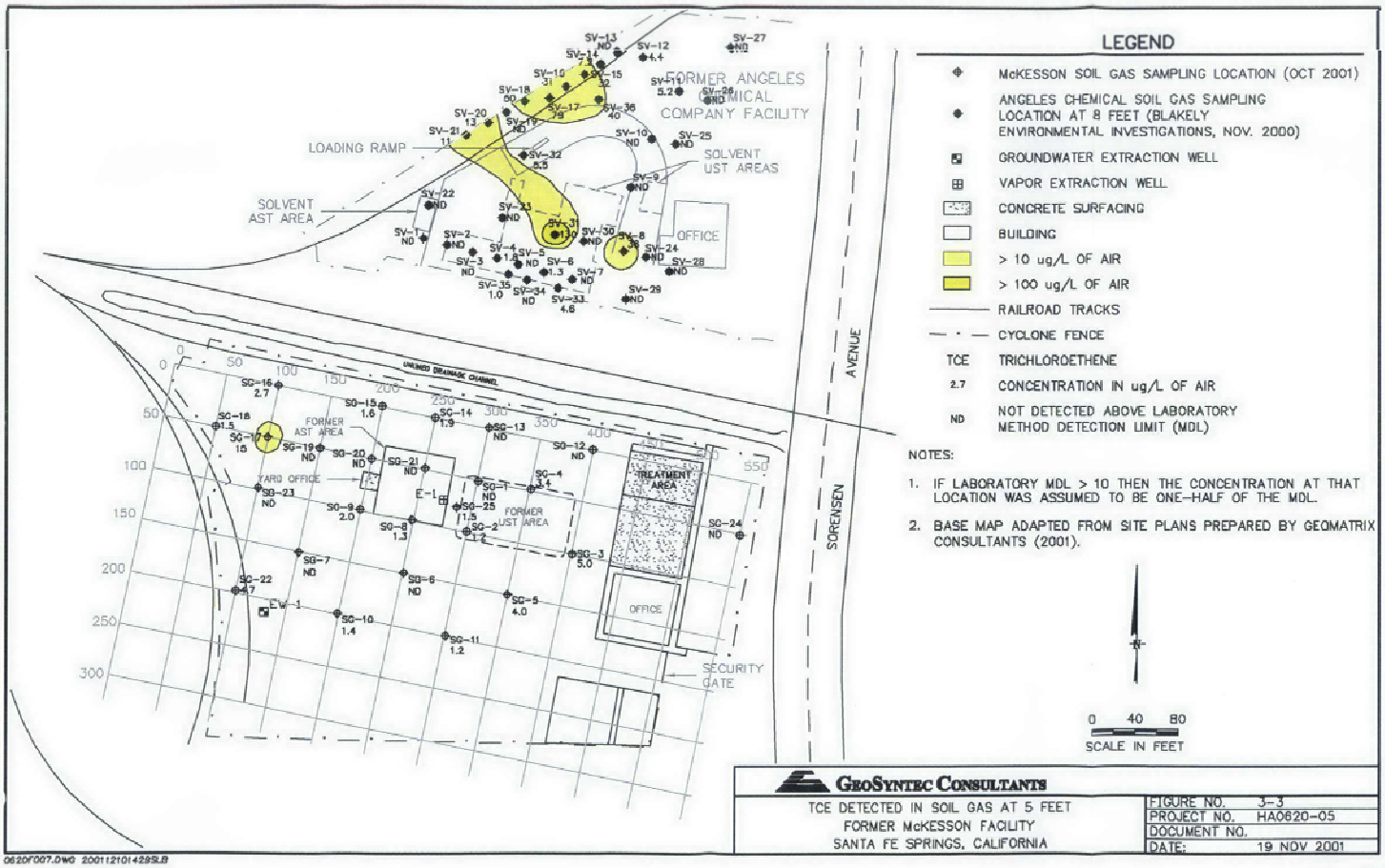


DWG: 0620F001.DWG 200111191503 BDP

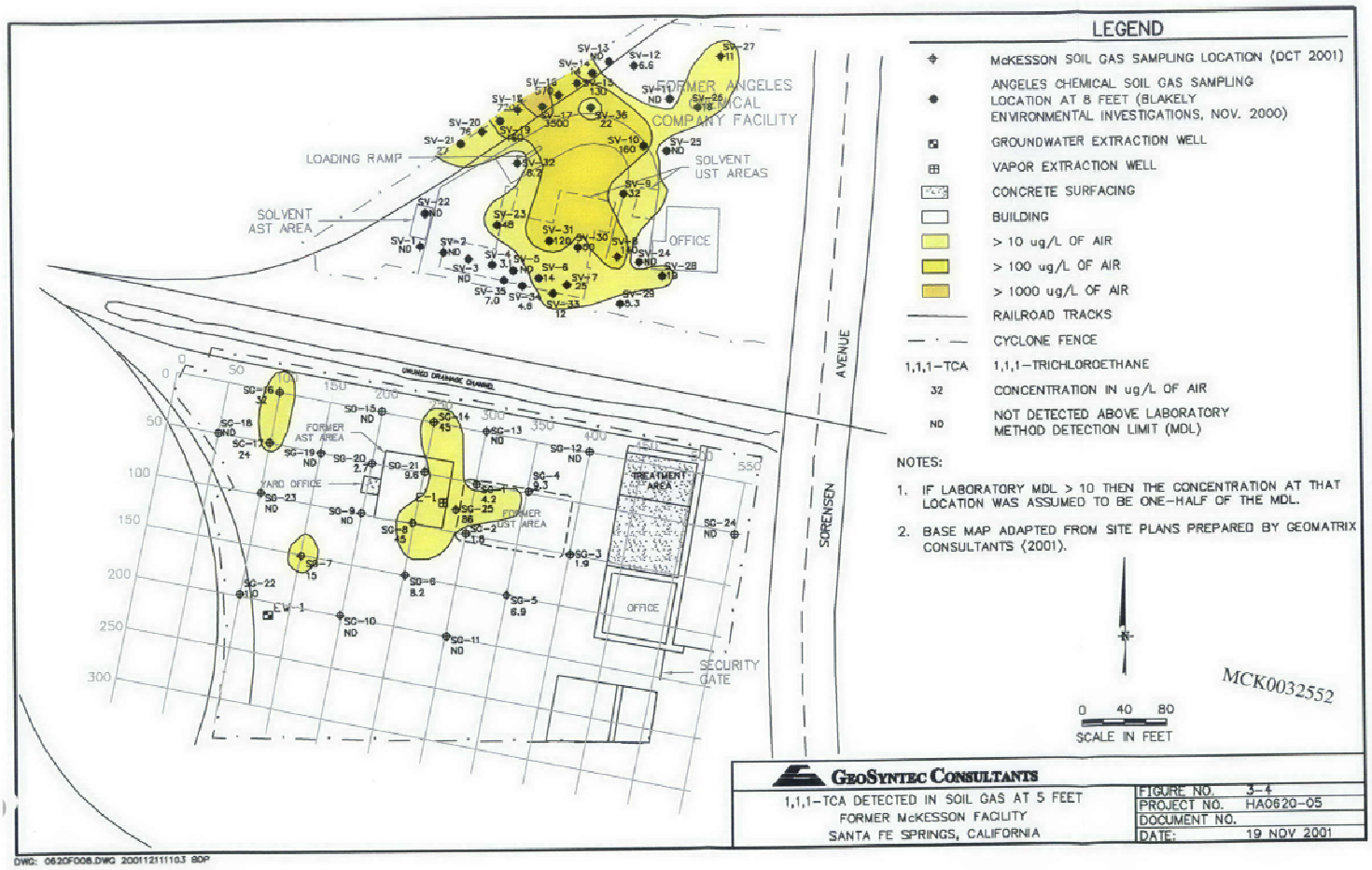
MCK0032549

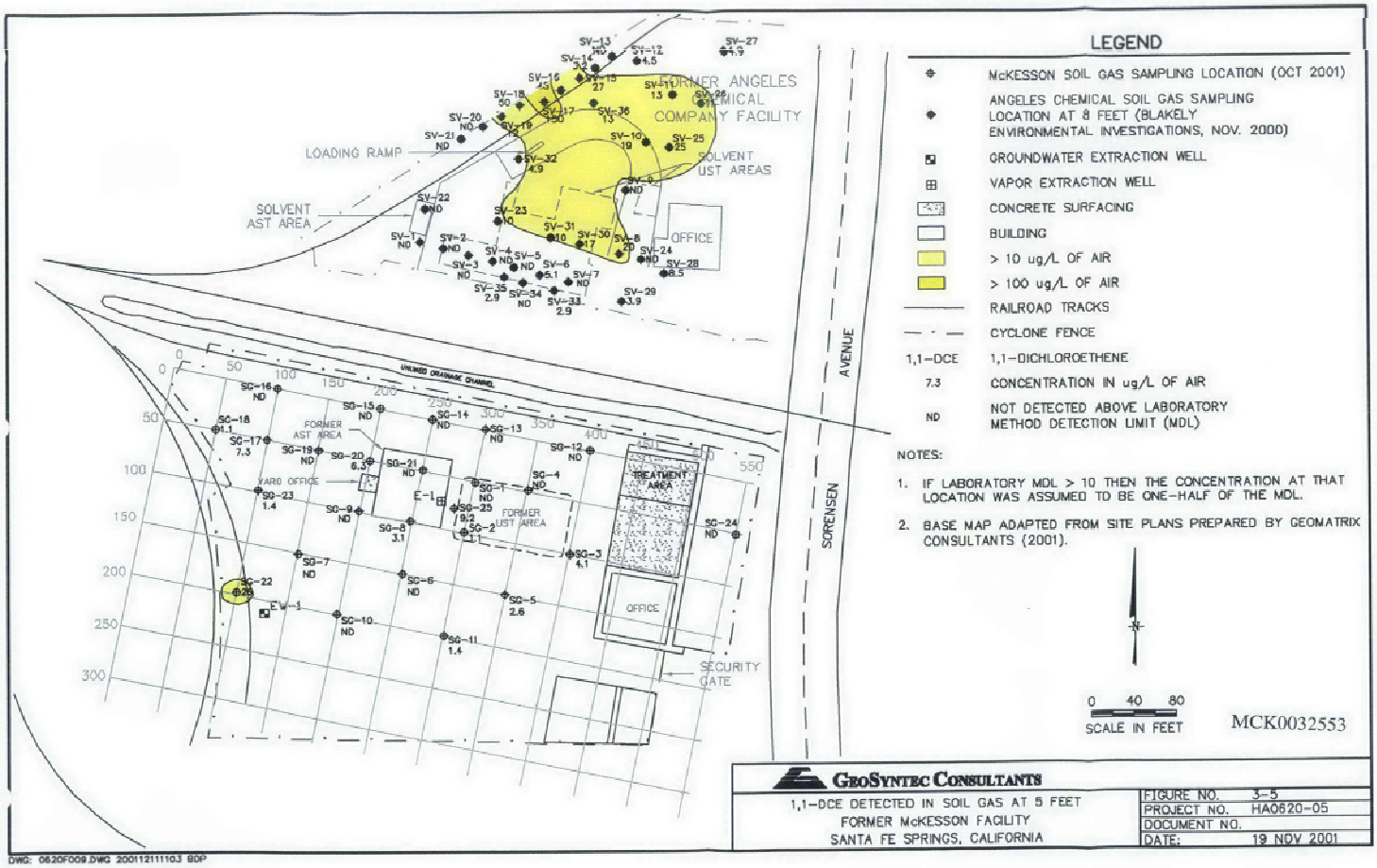

LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOVEMBER 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
PCE TETRACHLOROETHENE
7.2 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
N
0 40 80
SCALE IN FEET
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
SORENSEN AVENUE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
GEOSYNTEC CONSULTANTS
PCE DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-2
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F006.DWG 20011211031 BDP

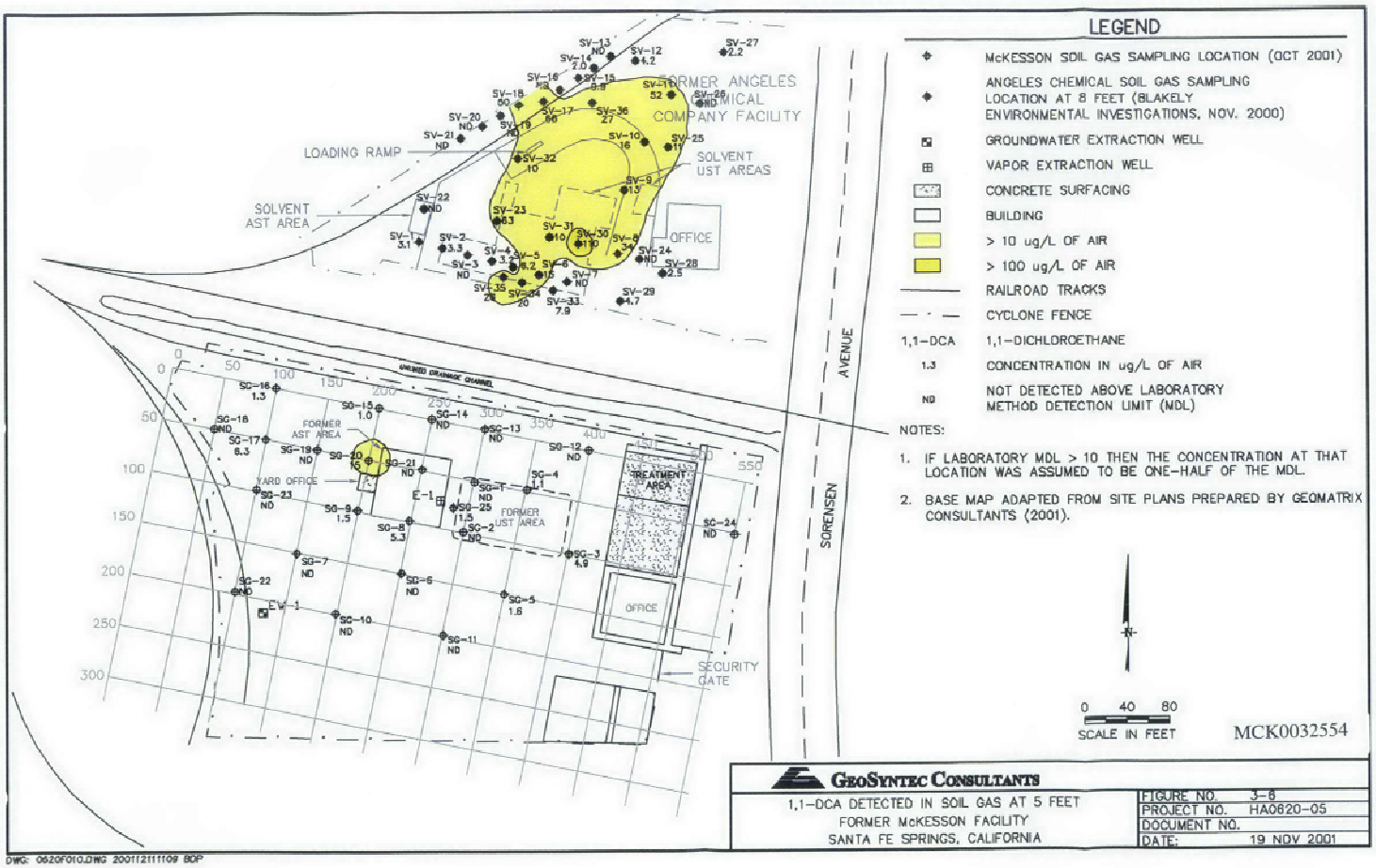
MCK0032550


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
TCE TRICHLOROETHENE
2.7 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
SORENSEN AVENUE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
TREATMENT AREA
FORMER UST AREA
SECURITY GATE
0 40 80
SCALE IN FEET
GEOSYNTEC CONSULTANTS
TCE DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-3
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
0620F007.DWG 20011210142951B

MCK0032551


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (DCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
> 1000 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
1,1,1-TCA 1,1,1-TRICHLOROETHANE
32 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
SORENSEN AVENUE
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
OFFICE
SECURITY GATE
EW-1
MCK0032552
0 40 80
SCALE IN FEET
GEOSYNTEC CONSULTANTS
1,1,1-TCA DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-4
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F008.DWG 20011211103 BOP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
1,1-DCE 1,1-DICHLOROETHENE
7.3 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT AST AREA
SOLVENT UST AREAS
OFFICE
SORENSEN AVENUE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
SECURITY GATE
SCALE IN FEET
MCK0032553
GEOSYNTEC CONSULTANTS
1,1-DCE DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-5
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F009.DWG 20011211103 BDP

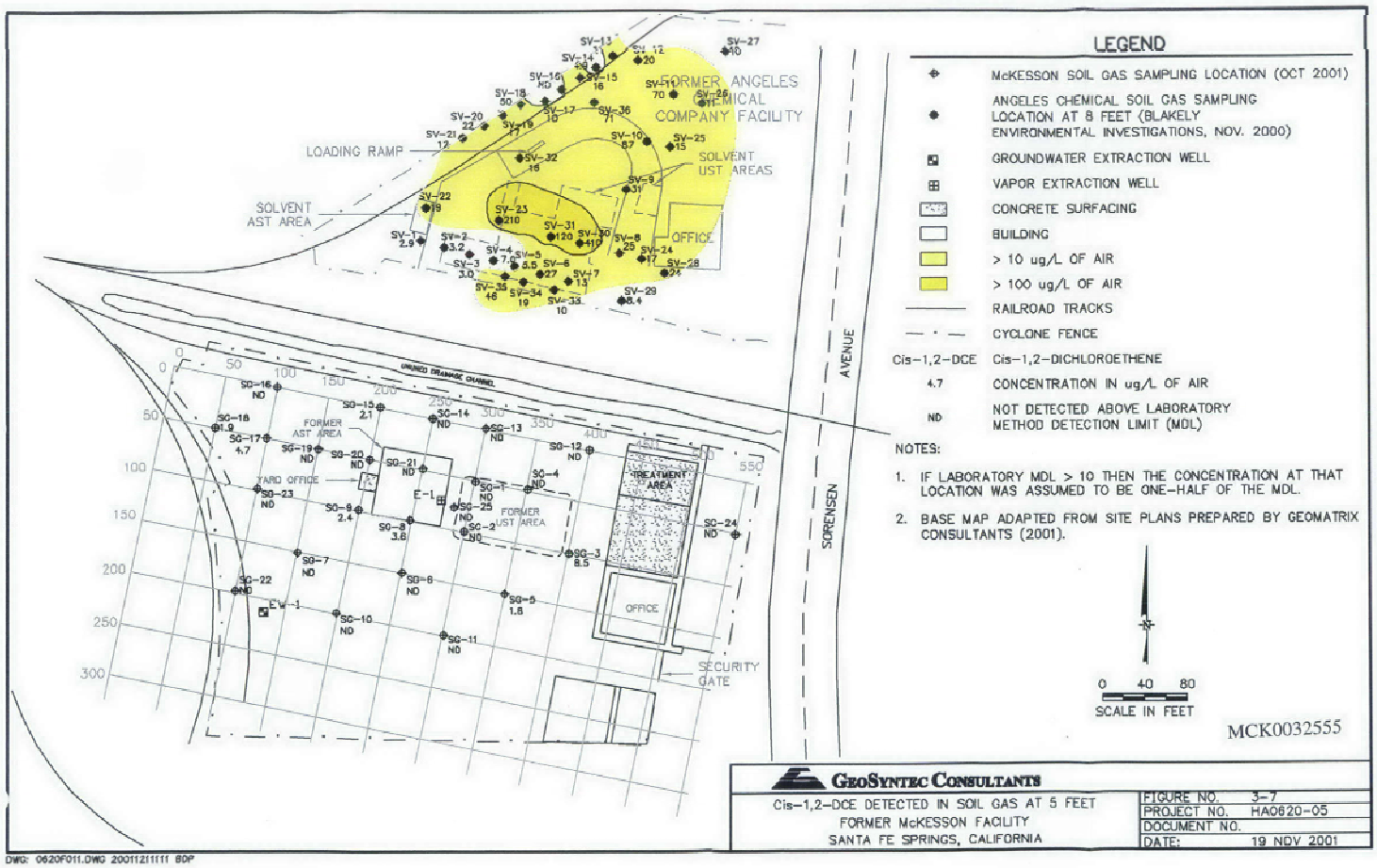


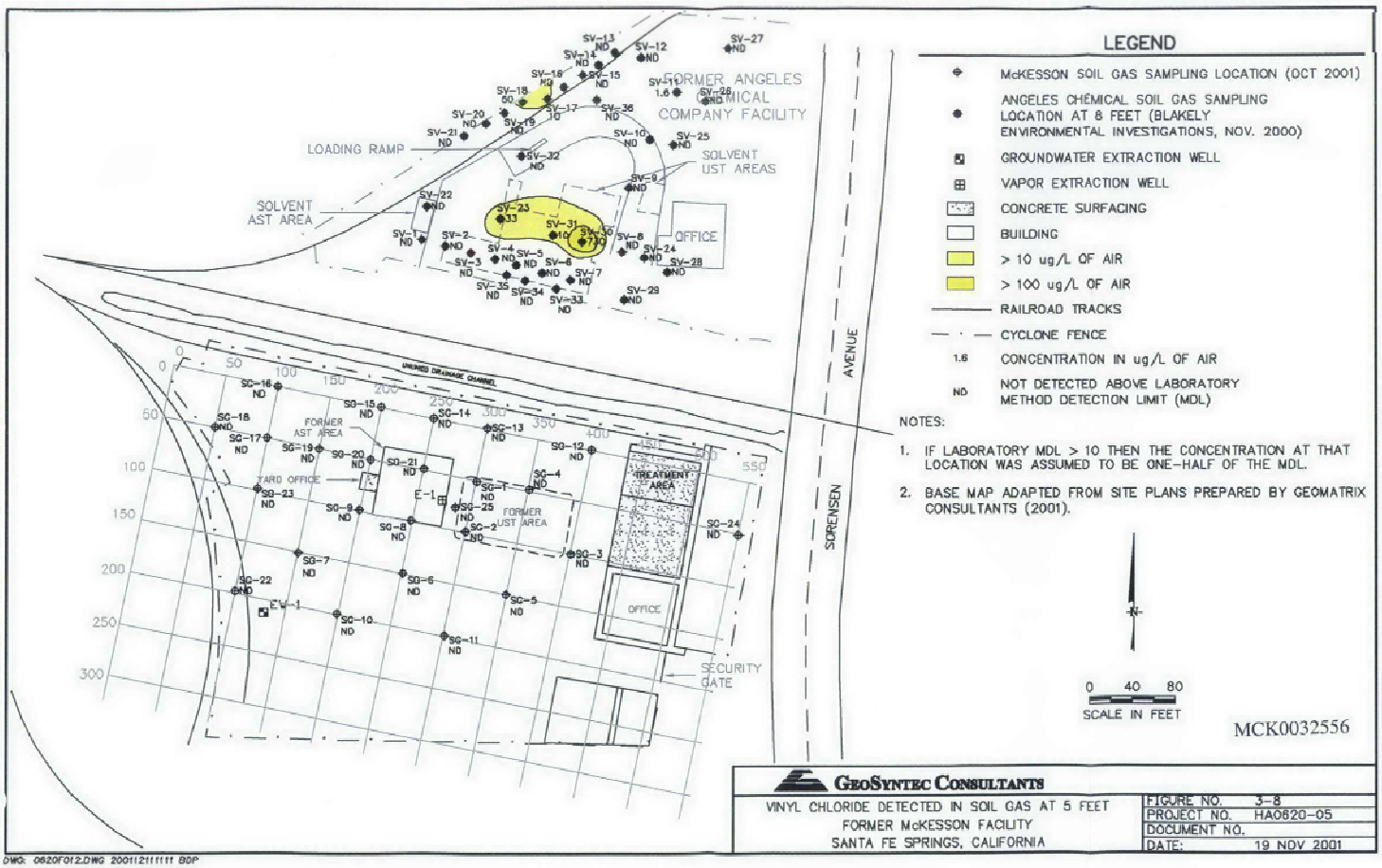
GEOSYNTEC CONSULTANTS

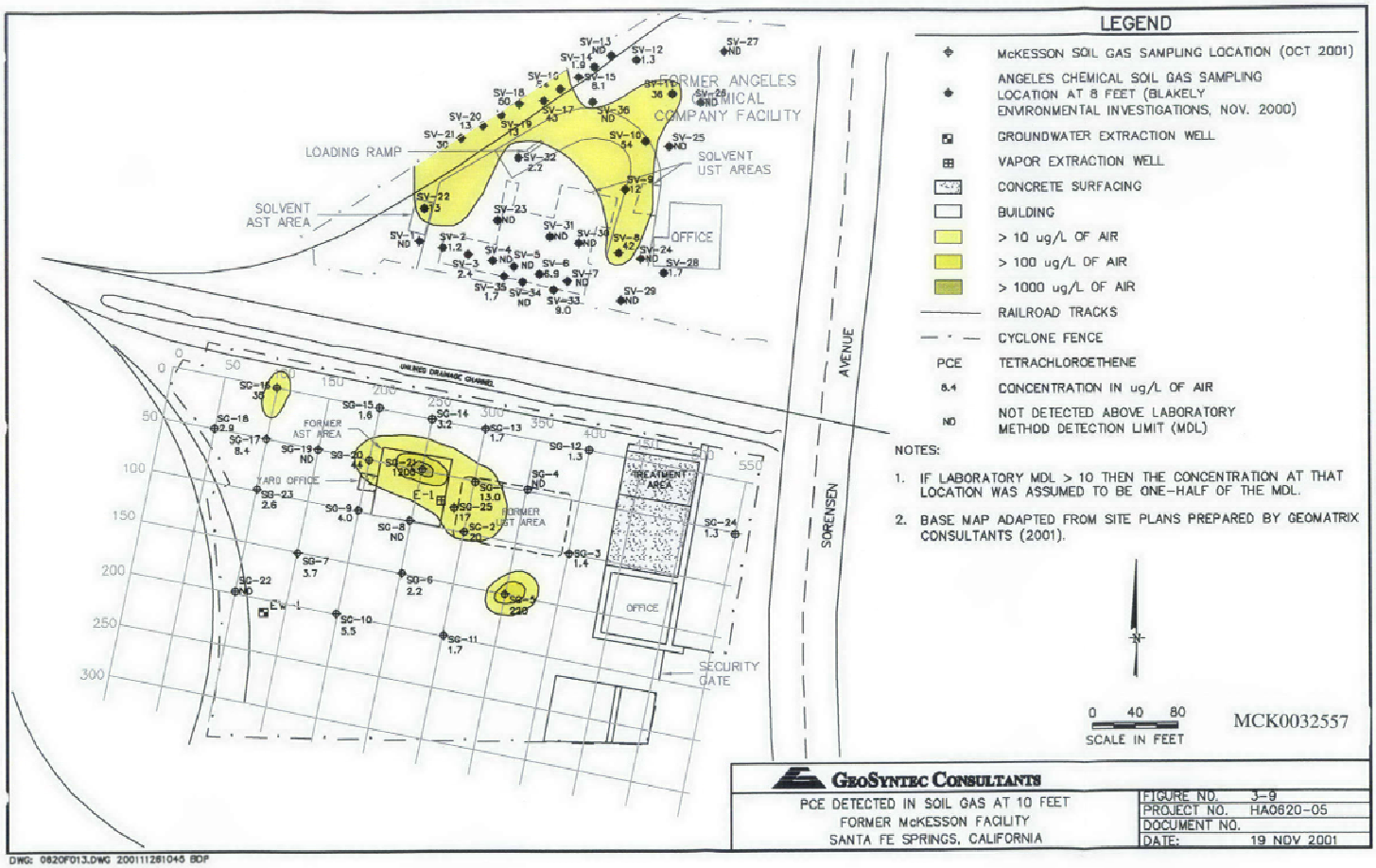
1,1-DCA DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-6
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

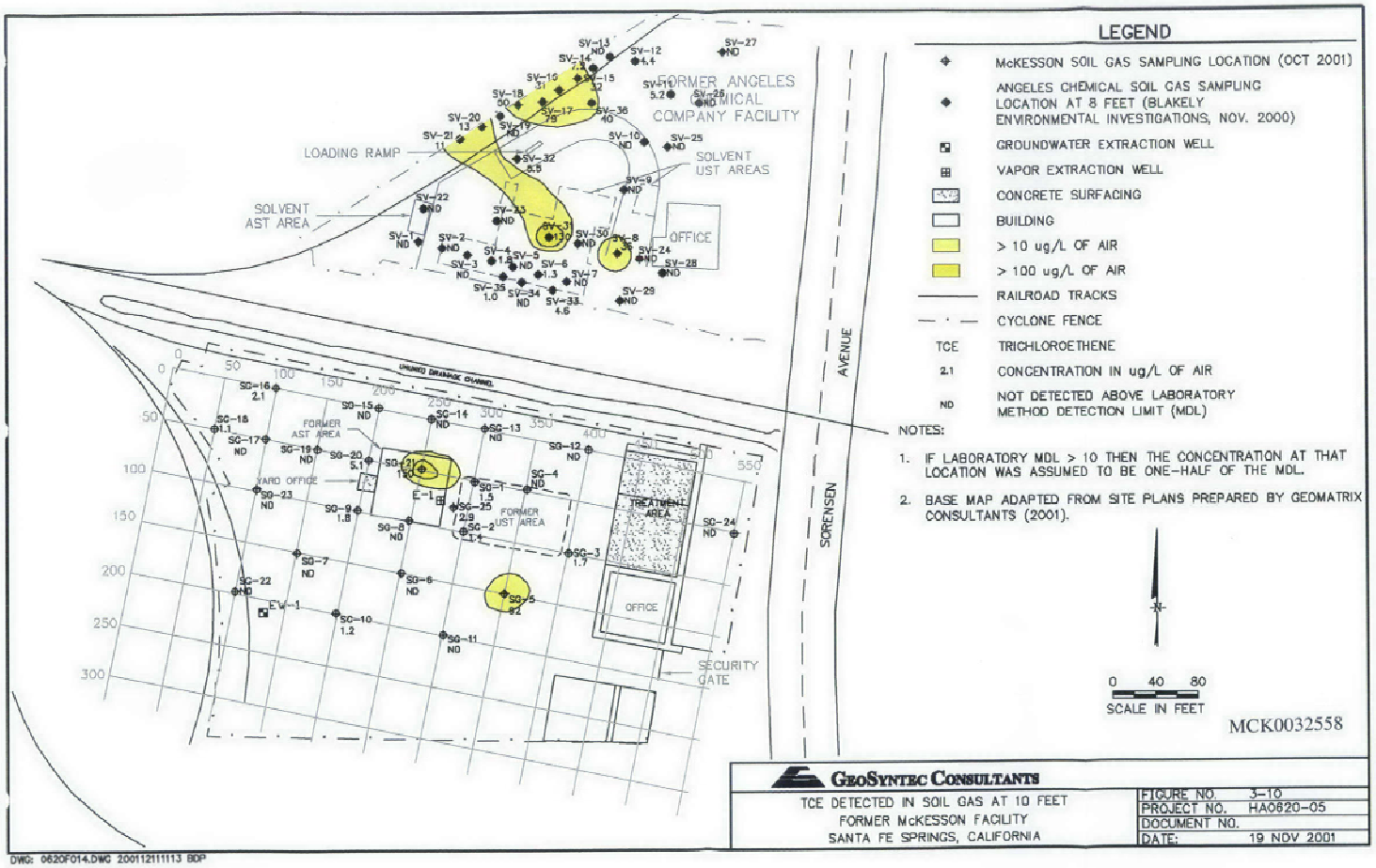
DWG: 0620F010.DWG 20011211109 BOP

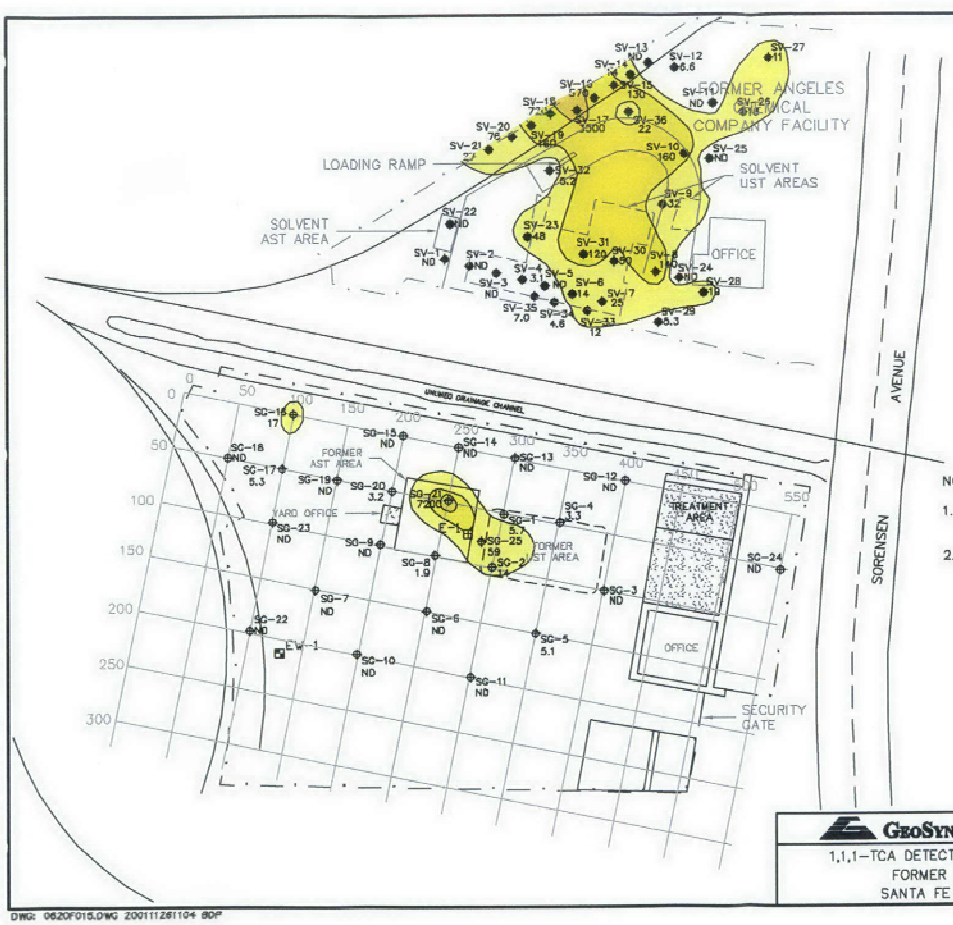

FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
OFFICE
SECURITY GATE
SORENSEN AVENUE
LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
Cis-1,2-DCE Cis-1,2-DICHLOROETHENE
4.7 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
0 40 80
SCALE IN FEET
MCK0032555
GEOSYNTEC CONSULTANTS
Cis-1,2-DCE DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-7
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F011.DWG 20011211111 BOP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
1.6 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
SORENSEN AVENUE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
SECURITY GATE
N
0 40 80
SCALE IN FEET
MCK0032556
GEOSYNTEC CONSULTANTS
VINYL CHLORIDE DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-8
PROJECT NO. HA0820-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0820F012.DWG 20011211111 BDP



DWG: 0620F013.DWG 200111261045 BDF


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
TCE TRICHLOROETHENE
2.1 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
FORMER UST AREA
TREATMENT AREA
OFFICE
SECURITY GATE
SORENSEN AVENUE
N
0 40 80
SCALE IN FEET
MCK0032558
GEOSYNTEC CONSULTANTS
TCE DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-10
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F014.DWG 200112111113 BDP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- > 1000 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE
- 1.1.1-TCA — 1.1.1-TRICHLOROETHANE
- 17 — CONCENTRATION IN ug/L OF AIR
- ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

N

0 40 80
SCALE IN FEET

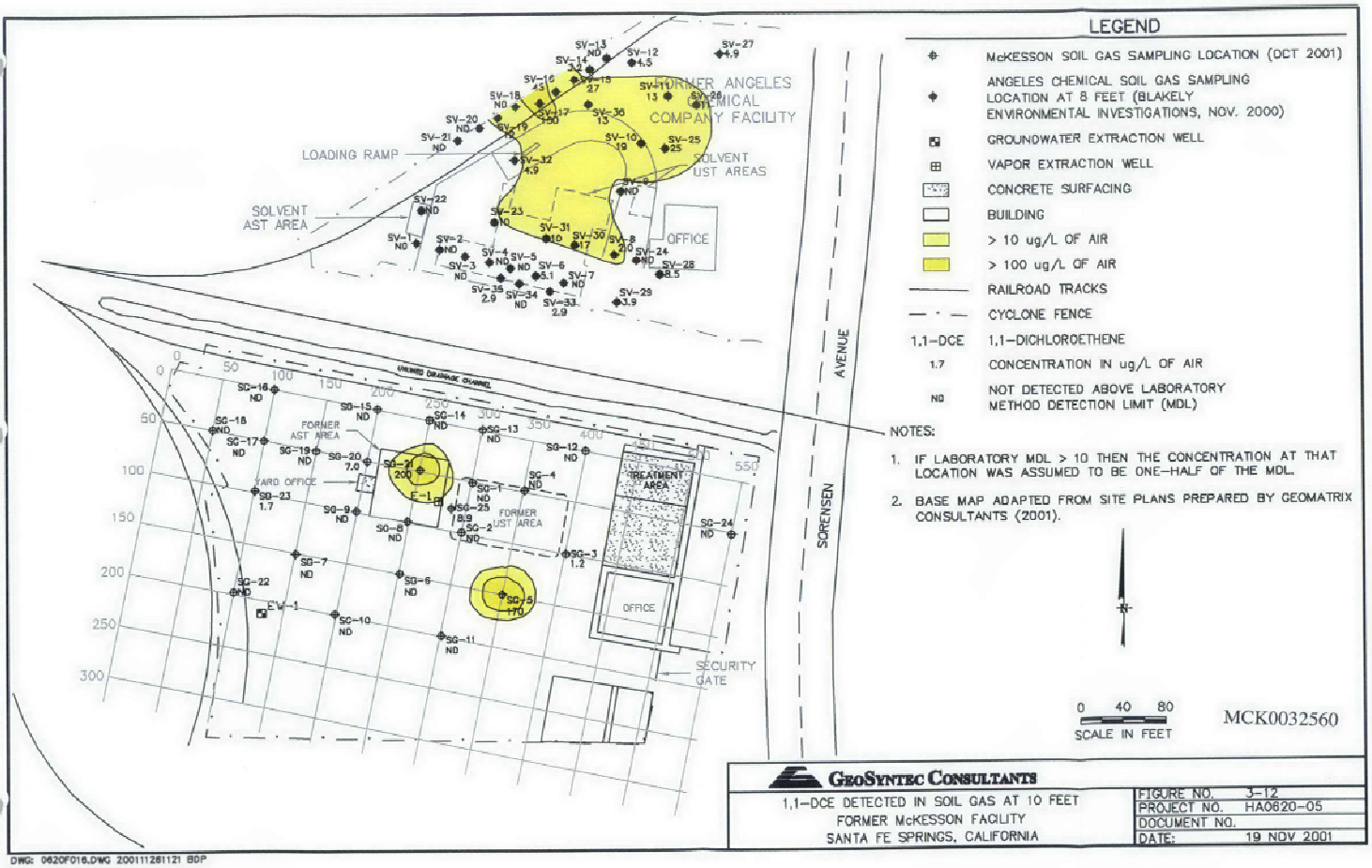
MCK0032559

GEOSYNTEC CONSULTANTS

1.1.1-TCA DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-11
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F015.DWG Z001112E1104 BOP

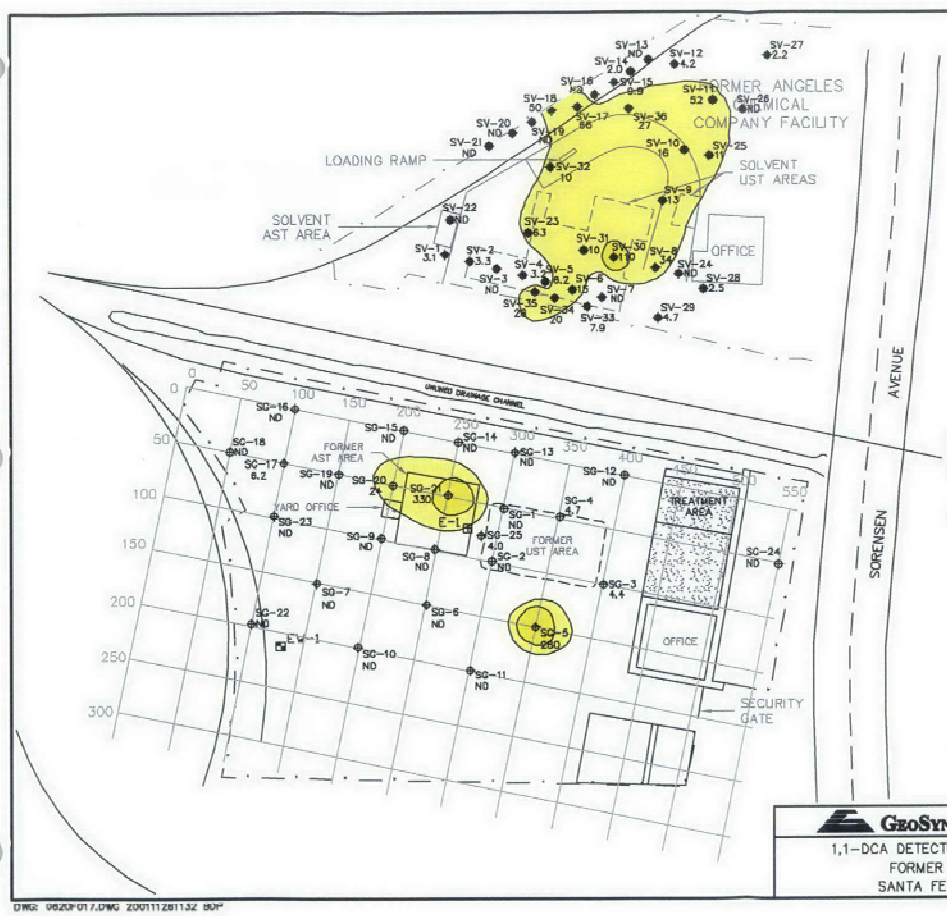


GEOSYNTEC CONSULTANTS

1,1-DCE DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-12
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F016.DWG 200111261121 BDP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVRIONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE
- 1,1-DCA — 1,1-DICHLOROETHANE
- 8.2 — CONCENTRATION IN ug/L OF AIR
- ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

0 40 80
SCALE IN FEET

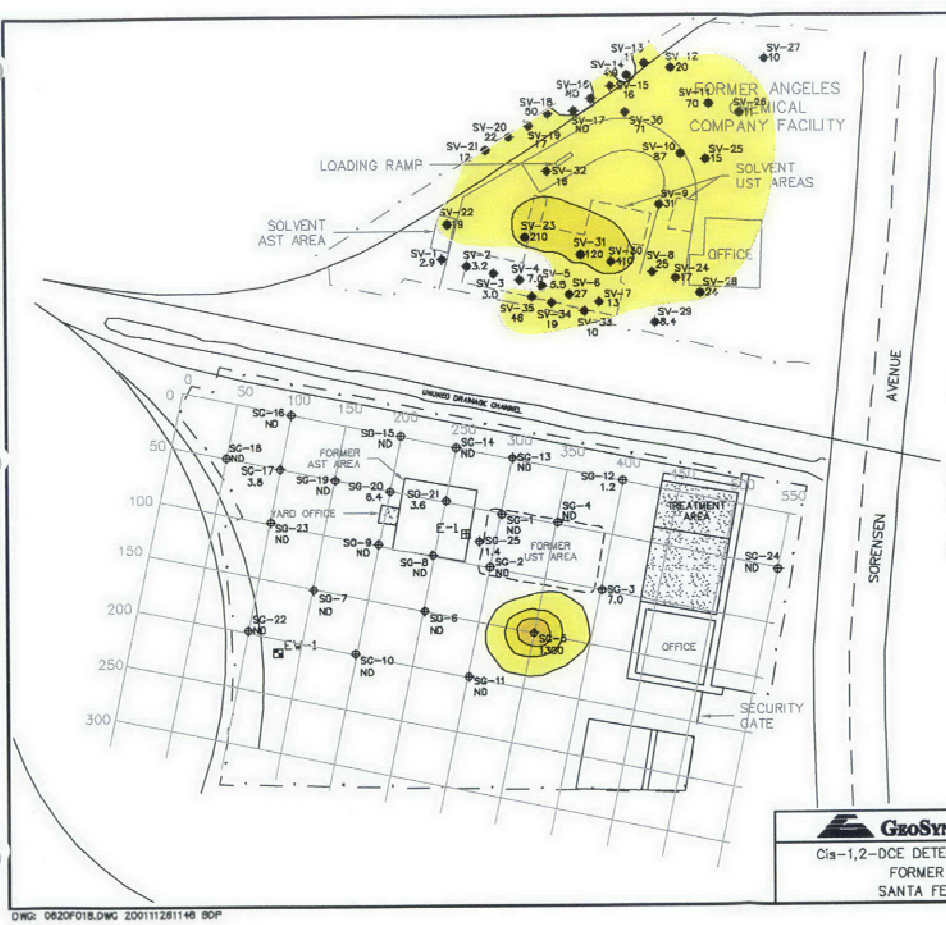
MCK0032561

GEOSYNTEC CONSULTANTS

1,1-DCA DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-13
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F017.DWG 20011128113Z BOP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- > 1000 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE

Cis-1,2-DCE — Cis-1,2-DICHLOROETHENE

4.7 — CONCENTRATION IN ug/L OF AIR

ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

N

0 40 80
SCALE IN FEET

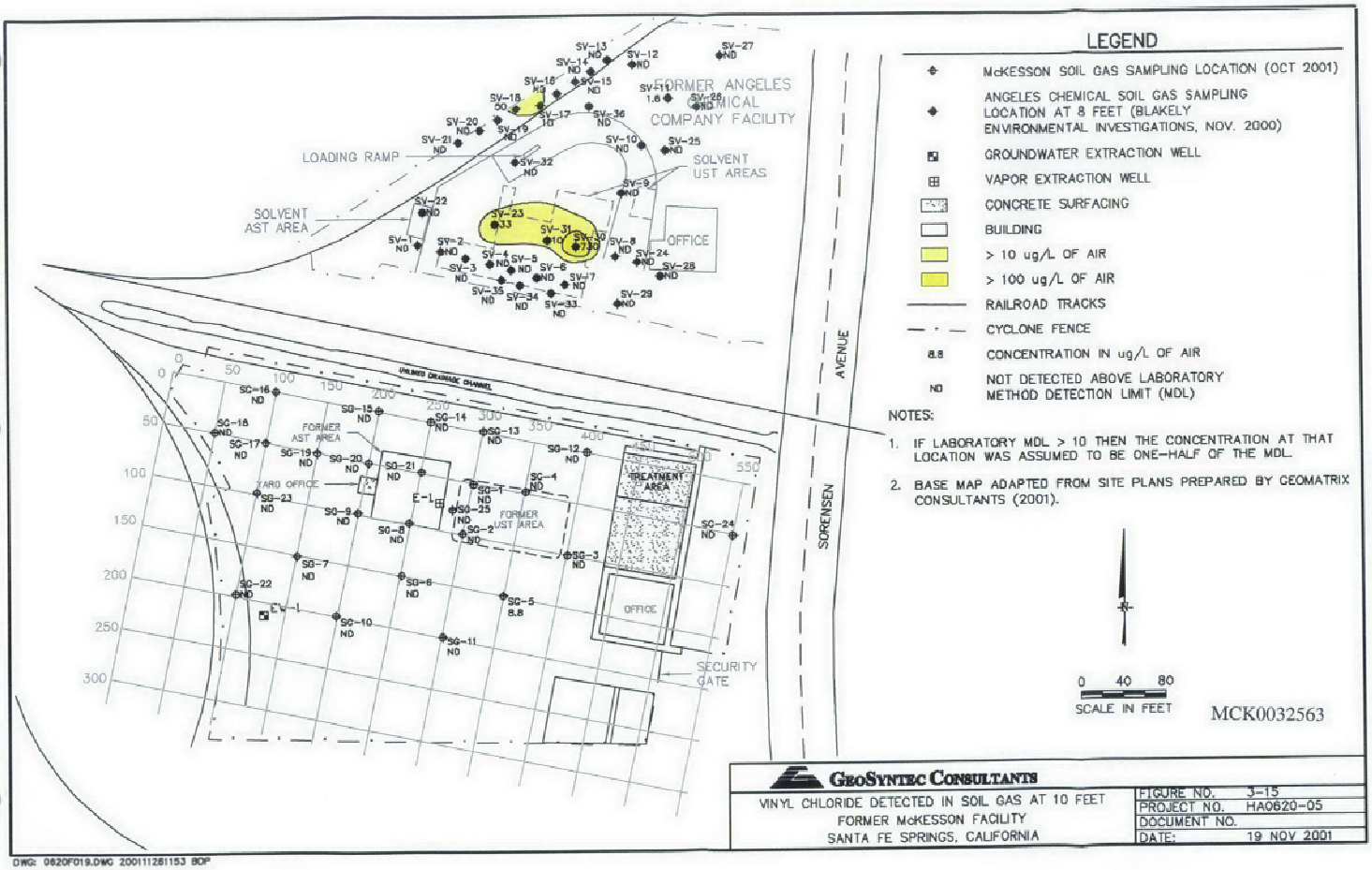
MCK0032562

GEOSYNTEC CONSULTANTS

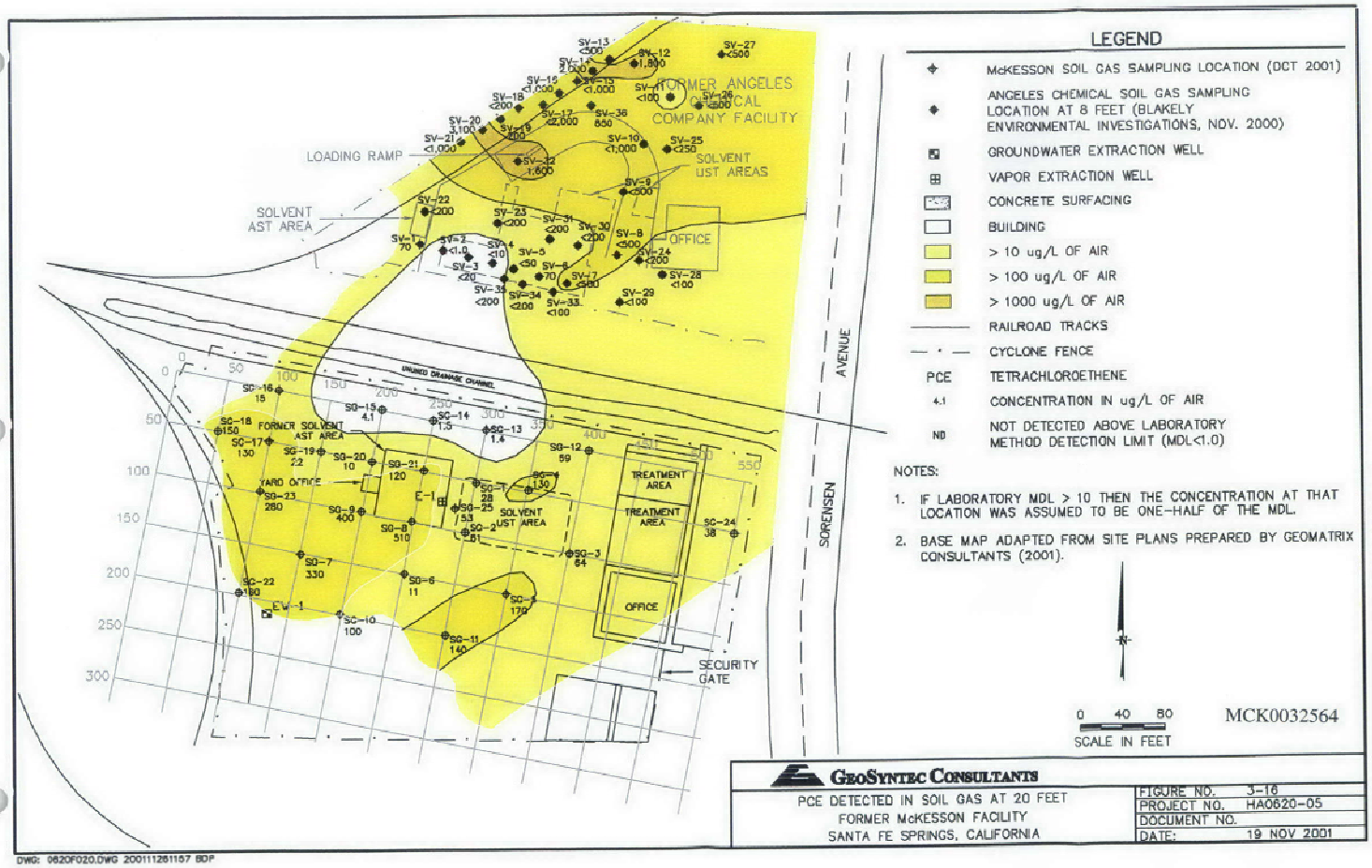
Cis-1,2-DCE DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

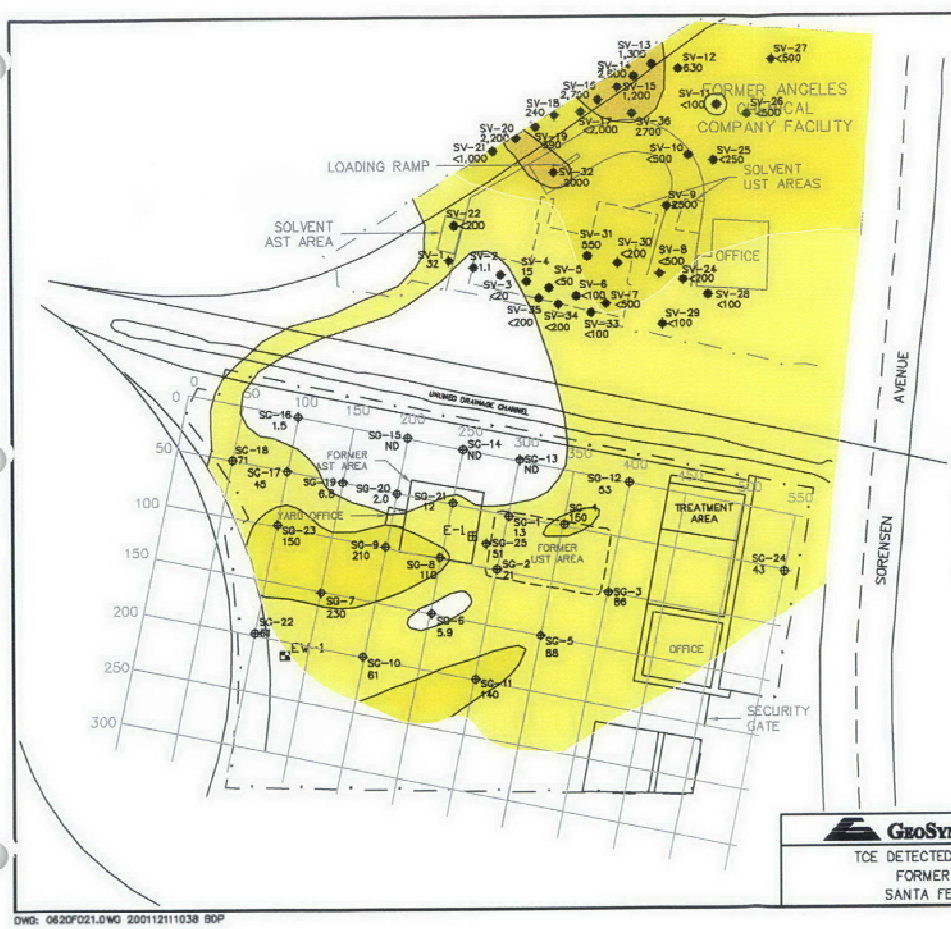
FIGURE NO.	3-14
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F018.DWG 20011121146 BDP



DWG: 0620F019.DWG 200111281153 BOP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
> 1000 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
PCE TETRACHLOROETHENE
4.1 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL<1.0)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
FORMER SOLVENT AST AREA
YARD OFFICE
SOLVENT UST AREA
TREATMENT AREA
TREATMENT AREA
OFFICE
SECURITY GATE
SORENSEN AVENUE
UNLINED DRAINAGE CHANNEL
SCALE IN FEET
0 40 80
MCK0032564
GEOSYNTEC CONSULTANTS
PCE DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-16
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F020.DWG 200111261157 BDP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- > 1000 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE
- TCE — TRICHLOROETHENE
- 1.5 — CONCENTRATION IN ug/L OF AIR
- ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL<1.0)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

N

0 40 80
SCALE IN FEET

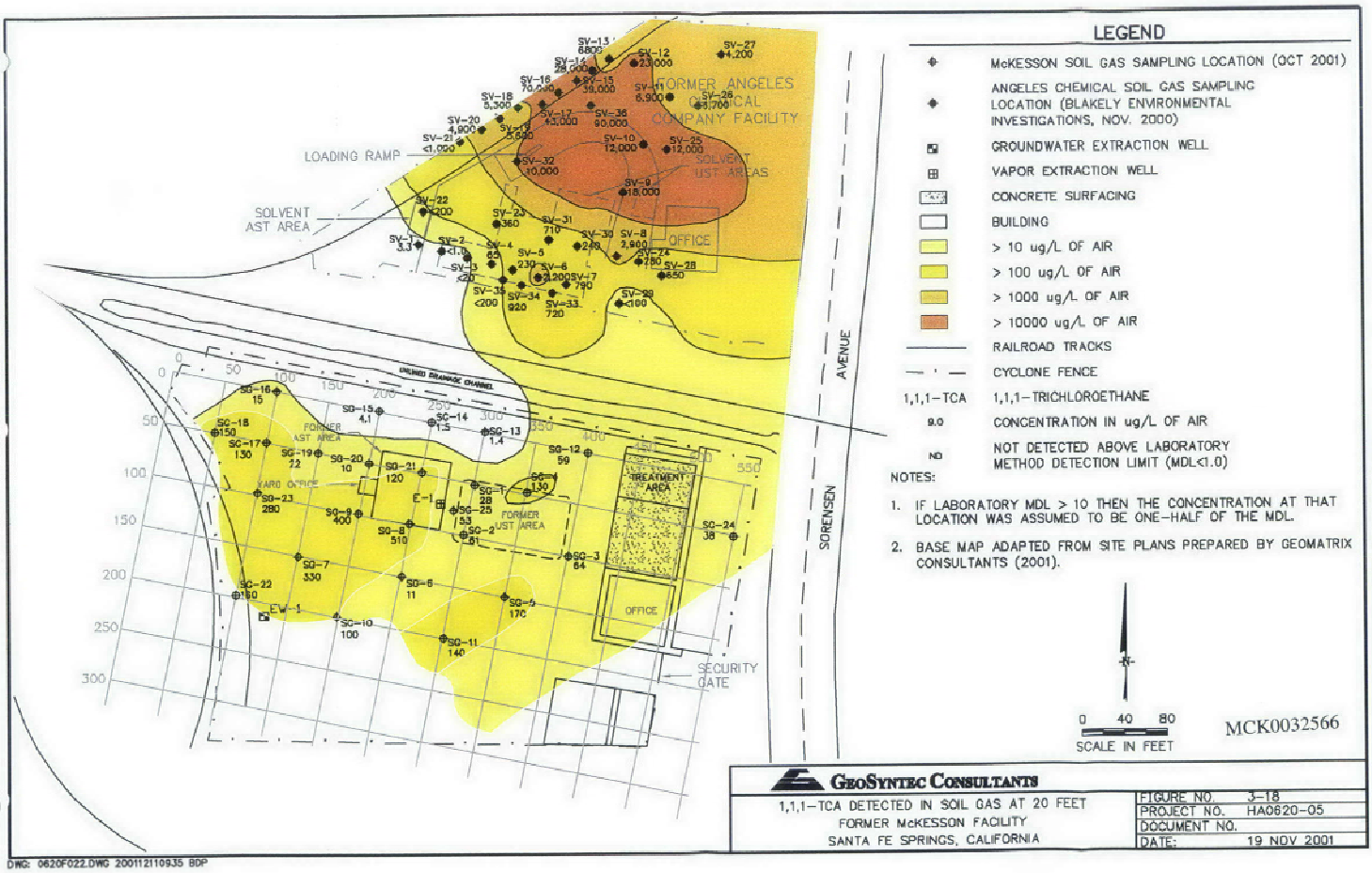
MCK0032565

GEOSYNTEC CONSULTANTS

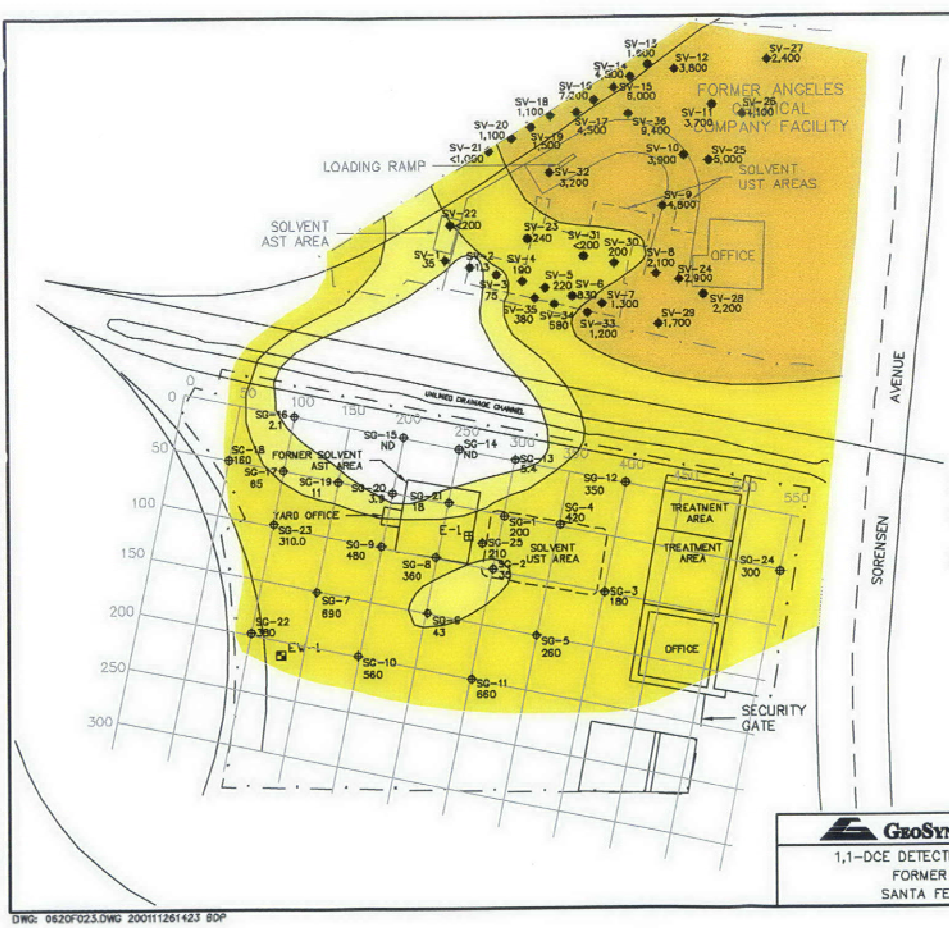
TCE DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-17
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F021.DWG 20011211038 BOP



DWG: 0620F022.DWG 200112110935 BDP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- > 1000 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE
- 1,1-DCE — 1,1-DICHLOROETHENE
- 2.1 — CONCENTRATION IN ug/L OF AIR
- ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL<1.0)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

0 40 80
SCALE IN FEET

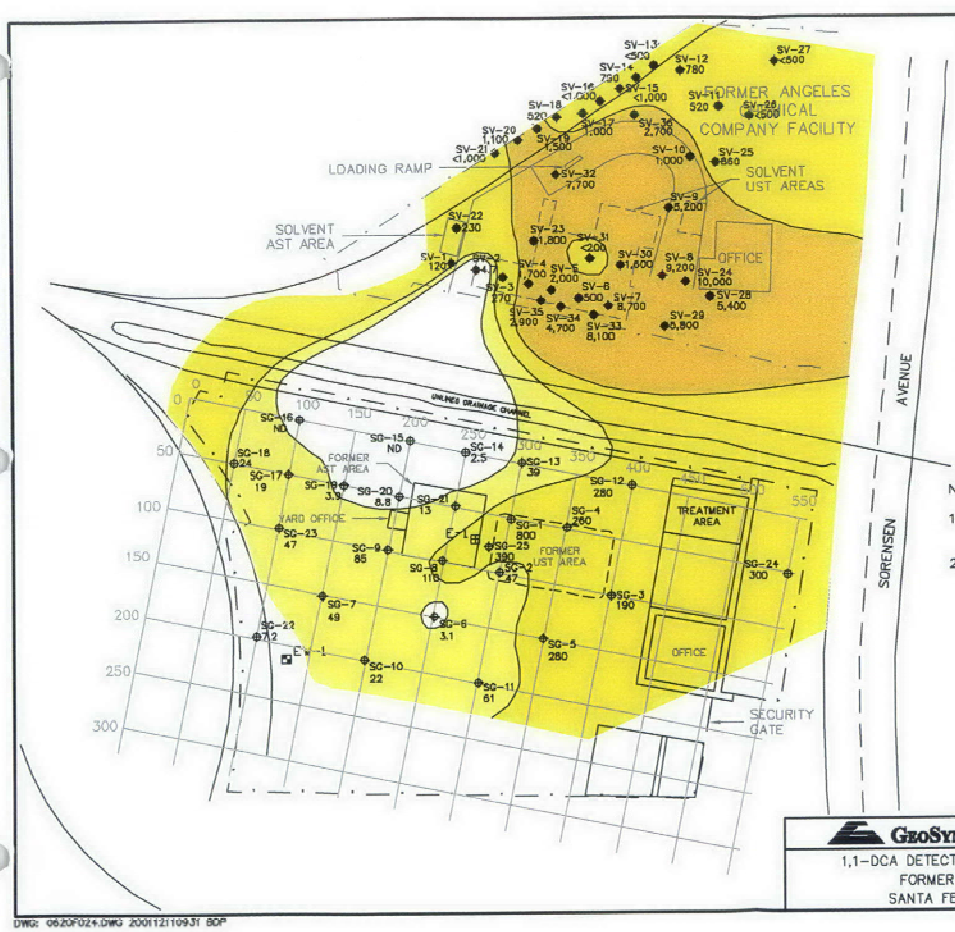
MCK0032567

GEOSYNTEC CONSULTANTS

1,1-DCE DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

FIGURE NO.	3-19
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F023.DWG 200111261423 BOP



LEGEND

- McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
- ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
- GROUNDWATER EXTRACTION WELL
- VAPOR EXTRACTION WELL
- CONCRETE SURFACING
- BUILDING
- > 10 ug/L OF AIR
- > 100 ug/L OF AIR
- > 1000 ug/L OF AIR
- RAILROAD TRACKS
- CYCLONE FENCE
- 1,1-DCA — 1,1-DICHLOROETHANE
- 2.5 — CONCENTRATION IN ug/L OF AIR
- ND — NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL<1.0)

NOTES:

1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).

N

0 40 80
SCALE IN FEET

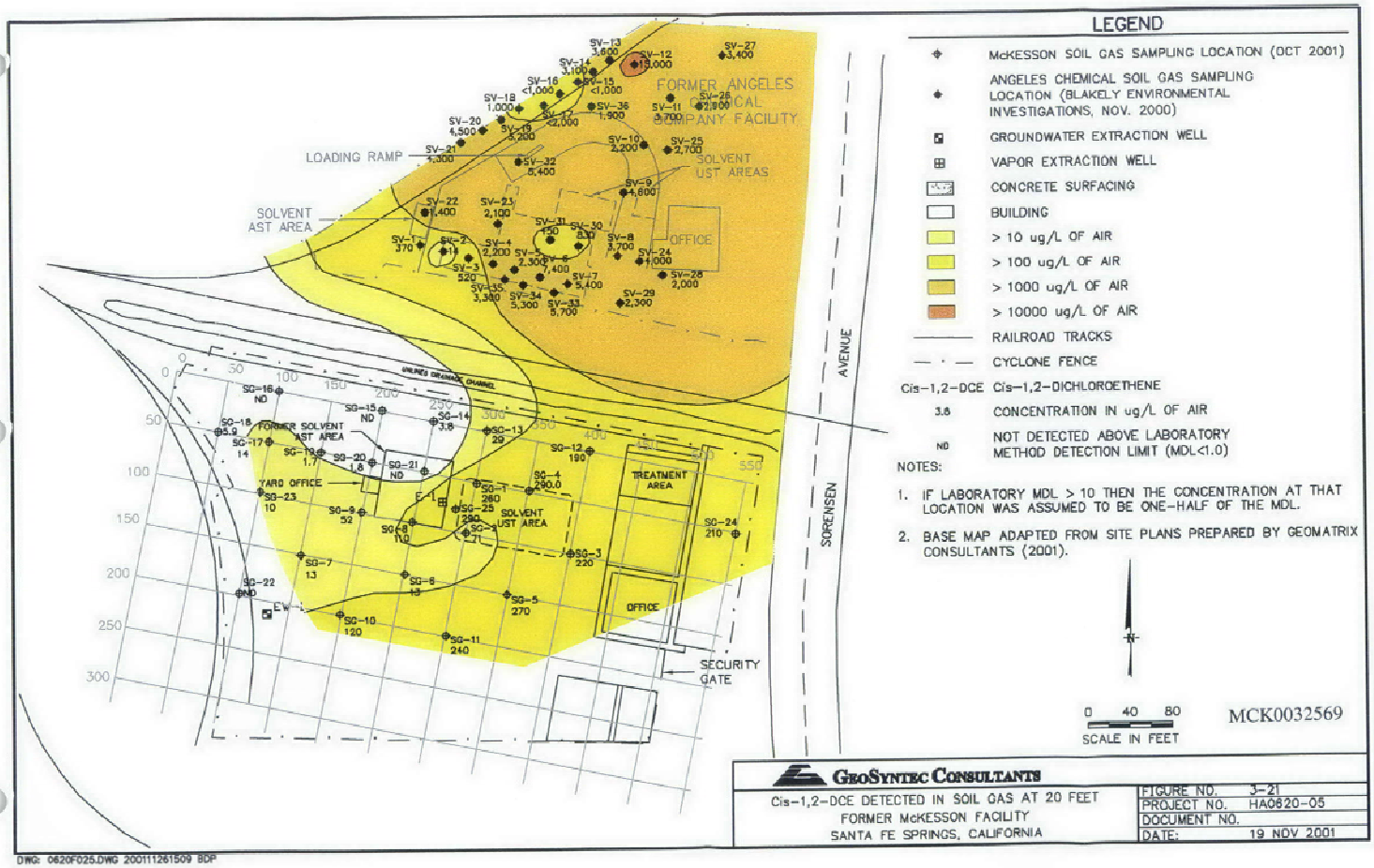
MCK0032568

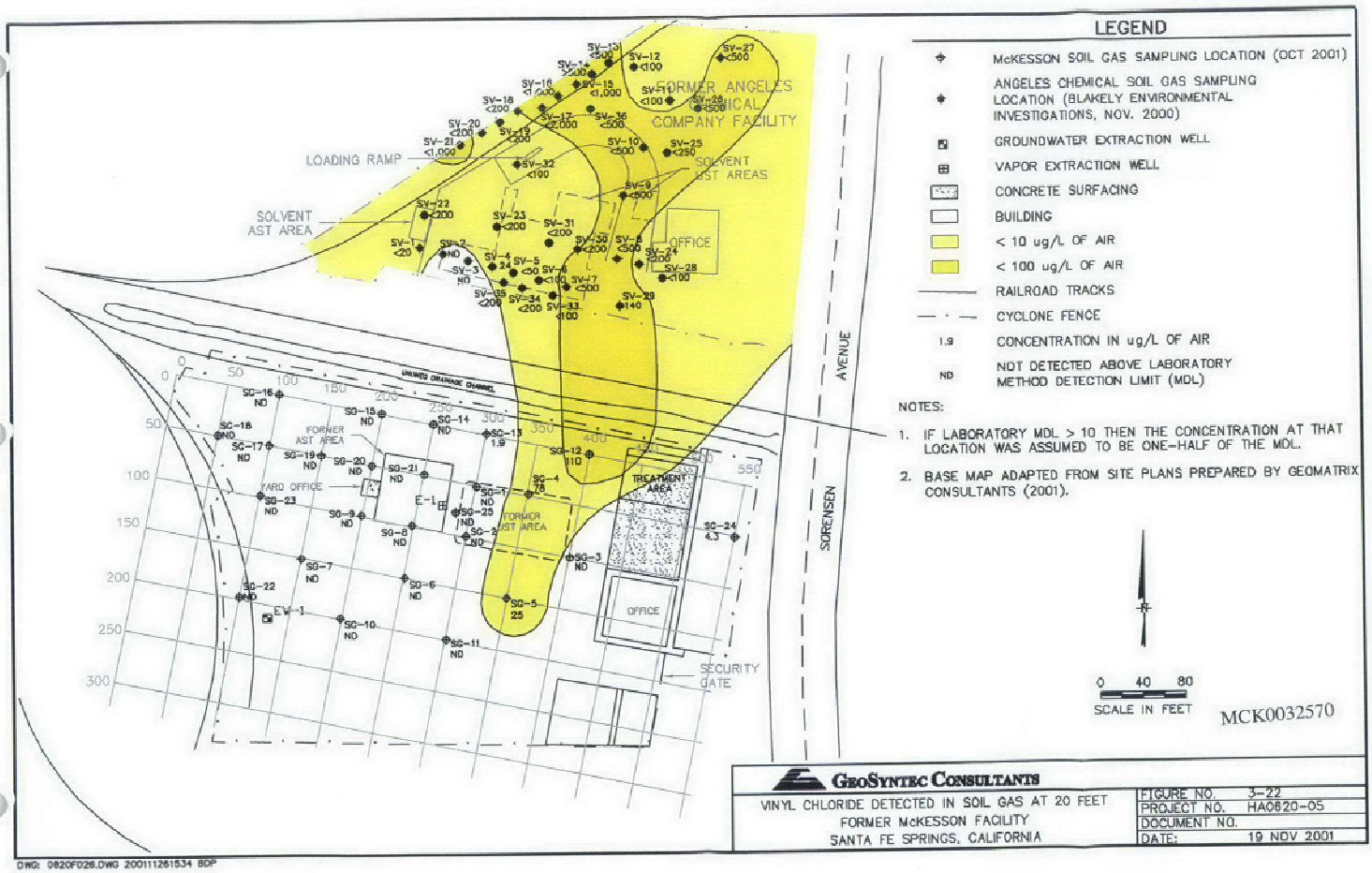
GEOSYNTEC CONSULTANTS

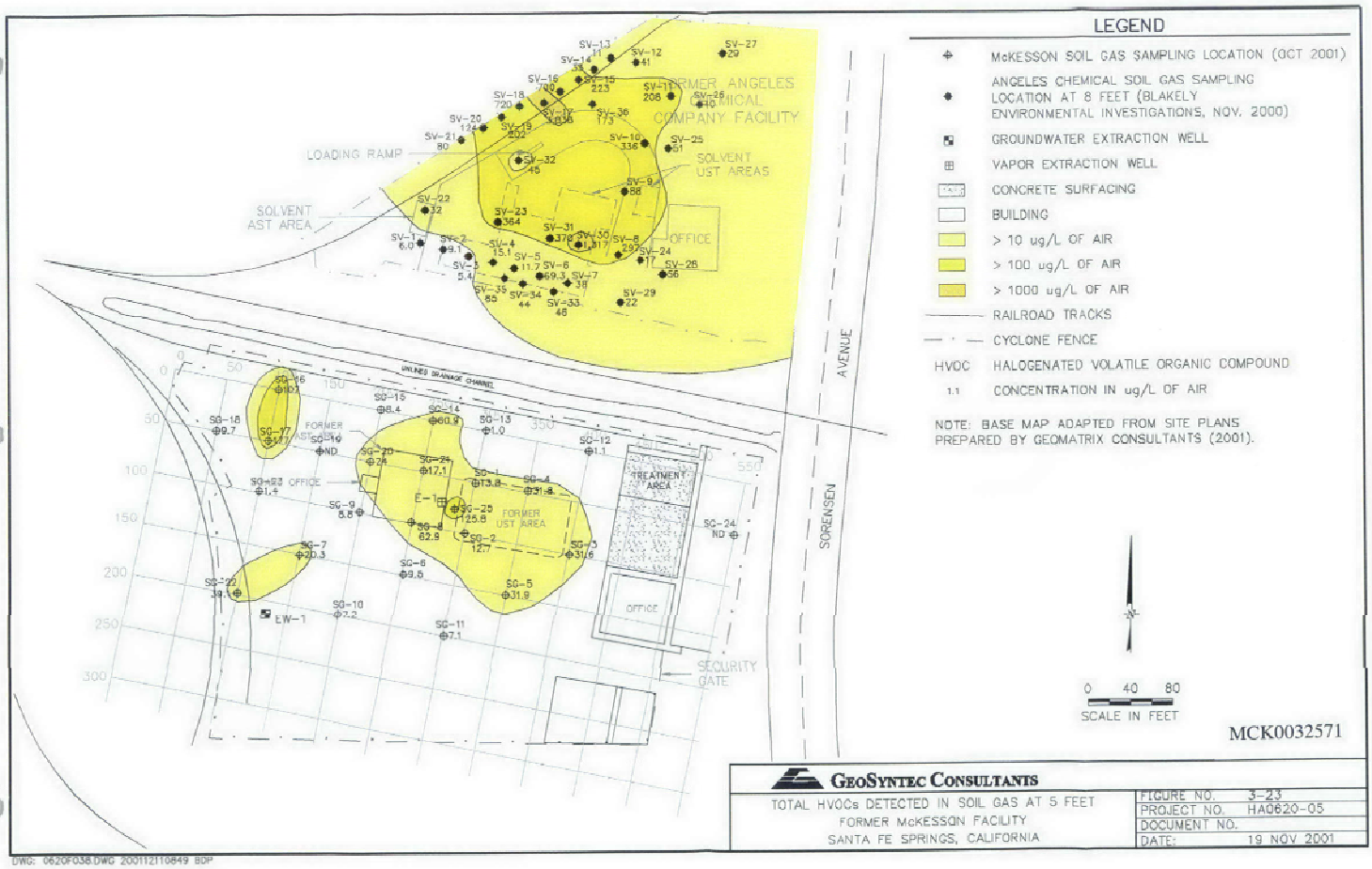
1,1-DCA DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

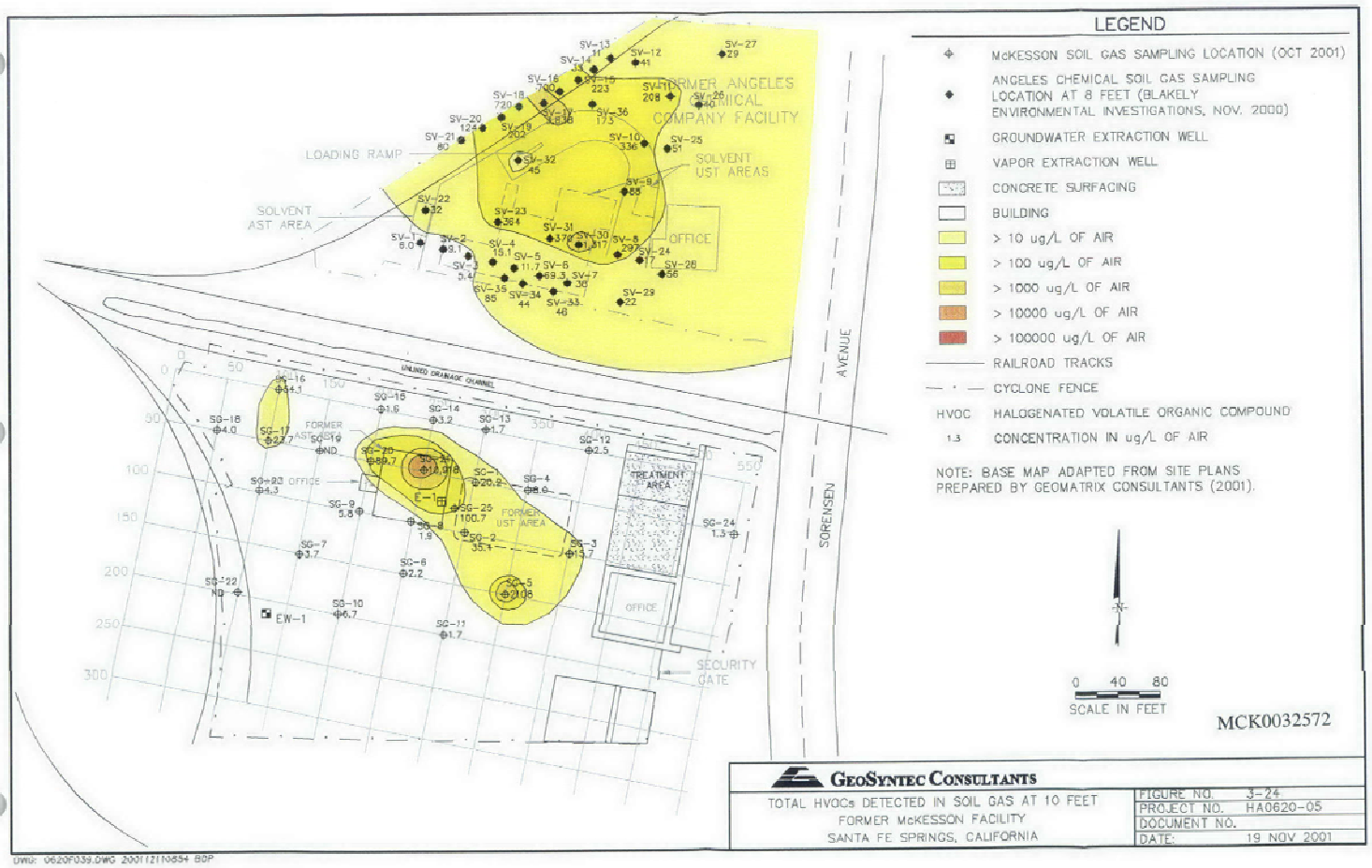
FIGURE NO.	3-20
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F024.DWG 20011211093I BOP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
> 1000 ug/L OF AIR
> 10000 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
Cis-1,2-DCE Cis-1,2-DICHLOROETHENE
3.6 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL<1.0)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
FORMER SOLVENT AST AREA
YARD OFFICE
TREATMENT AREA
SOLVENT UST AREA
SECURITY GATE
SORENSEN AVENUE
0 40 80
SCALE IN FEET
MCK0032569
GEOSYNTEC CONSULTANTS
Cis-1,2-DCE DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-21
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F025.DWG 200111261509 BDP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
< 10 ug/L OF AIR
< 100 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
1.9 CONCENTRATION IN ug/L OF AIR
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. IF LABORATORY MDL > 10 THEN THE CONCENTRATION AT THAT LOCATION WAS ASSUMED TO BE ONE-HALF OF THE MDL.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT AST AREA
SOLVENT AST AREAS
OFFICE
FORMER AST AREA
YARD OFFICE
TREATMENT AREA
SORENSEN AVENUE
SECURITY GATE
UNLINED DRAINAGE CHANNEL
0 40 80
SCALE IN FEET
MCK0032570
GEOSYNTEC CONSULTANTS
VINYL CHLORIDE DETECTED IN SOIL GAS AT 20 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-22
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F026.DWG 200111261534 BDP


LEGEND
McKESSON SOIL GAS SAMPLING LOCATION (OCT 2001)
ANGELES CHEMICAL SOIL GAS SAMPLING LOCATION AT 8 FEET (BLAKELY ENVIRONMENTAL INVESTIGATIONS, NOV. 2000)
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L OF AIR
> 100 ug/L OF AIR
> 1000 ug/L OF AIR
RAILROAD TRACKS
CYCLONE FENCE
HVOC HALOGENATED VOLATILE ORGANIC COMPOUND
1.1 CONCENTRATION IN ug/L OF AIR
NOTE: BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
UNLINED DRAINAGE CHANNEL
FORMER AST
FORMER UST AREA
TREATMENT AREA
EW-1
SECURITY GATE
SORENSEN AVENUE
0 40 80
SCALE IN FEET
MCK0032571
GEOSYNTEC CONSULTANTS
TOTAL HVOCs DETECTED IN SOIL GAS AT 5 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 3-23
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F038.DWG 200112110849 BDP

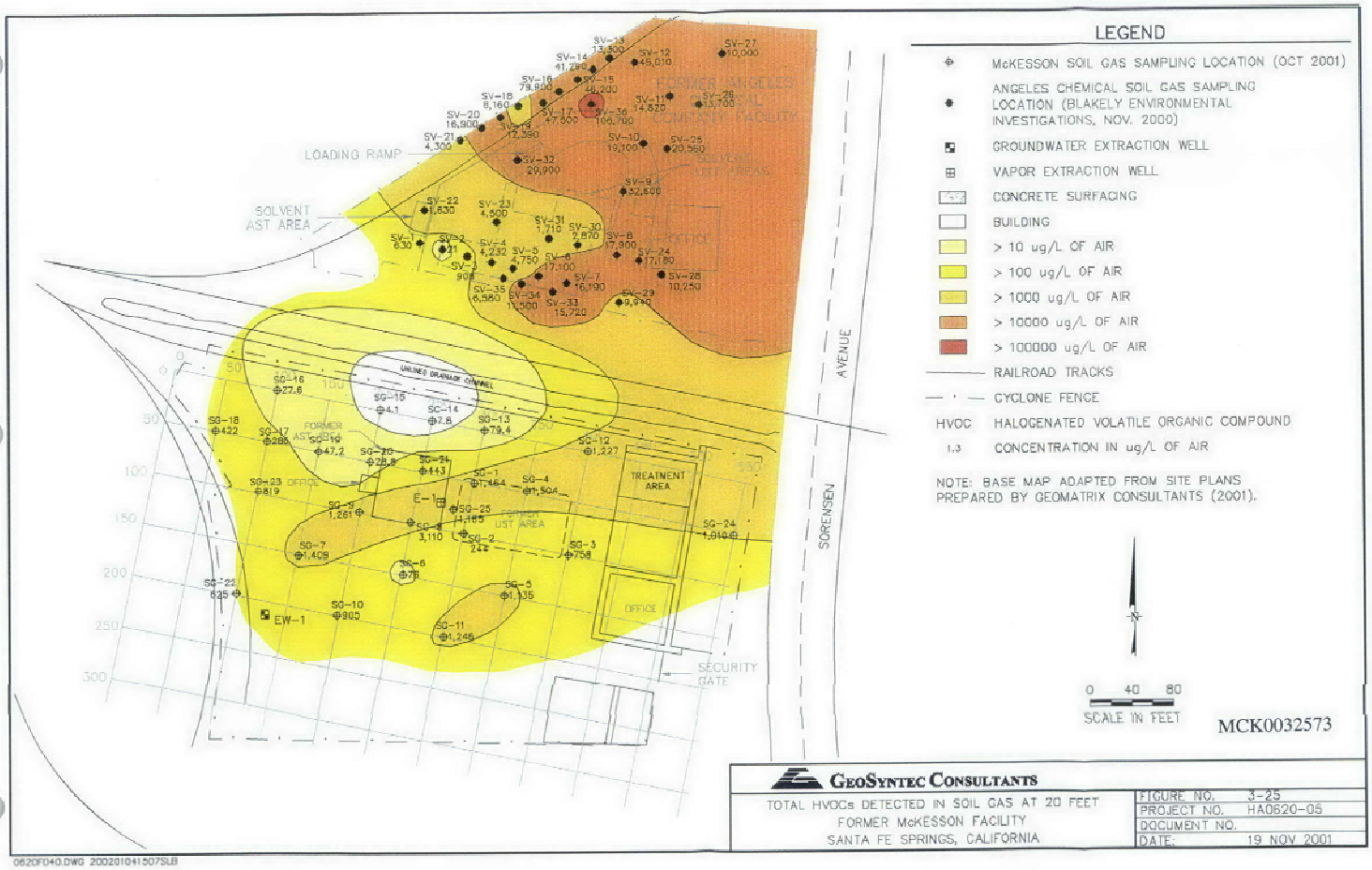


GEOSYNTEC CONSULTANTS

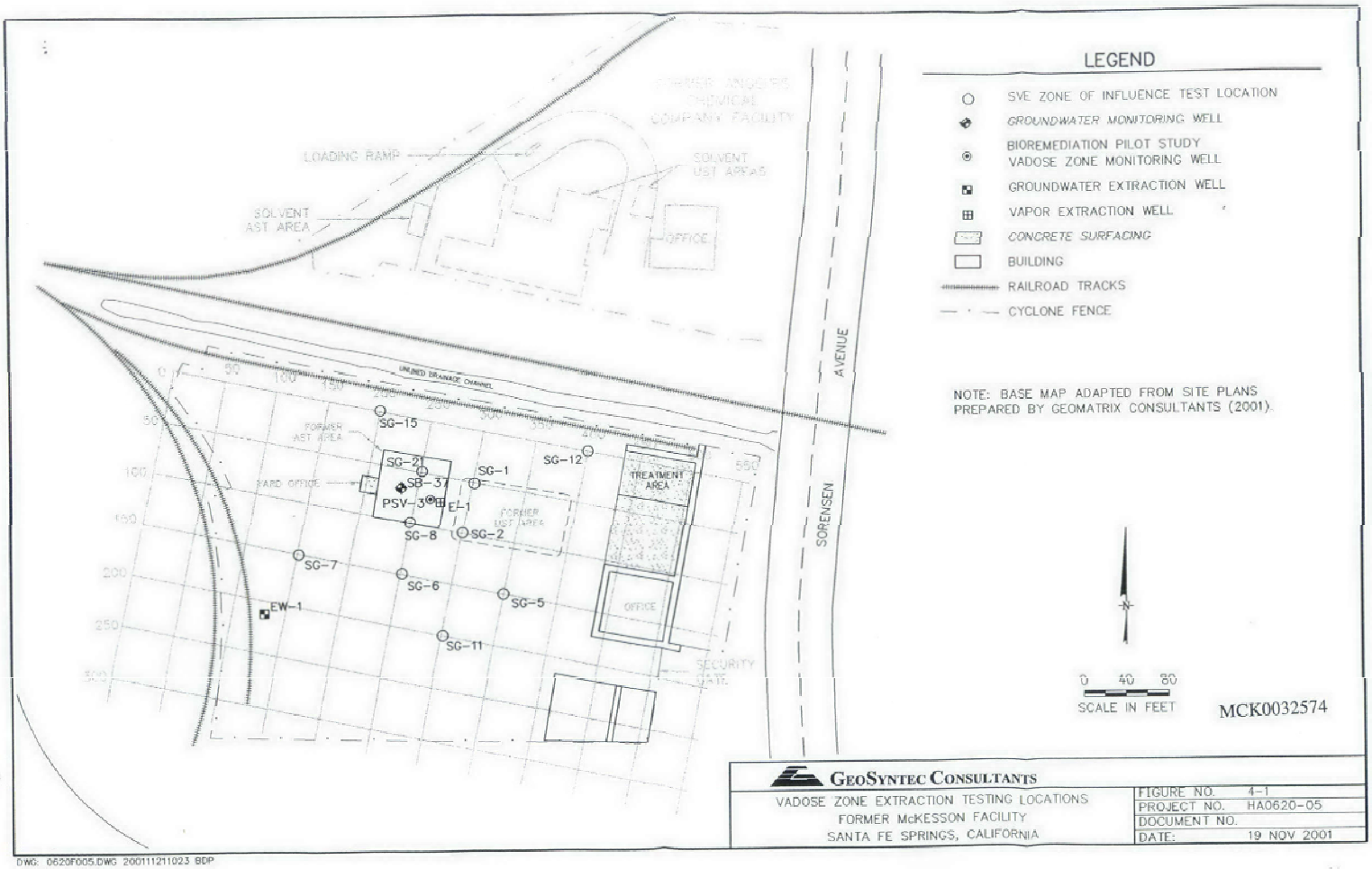
TOTAL HVOCs DETECTED IN SOIL GAS AT 10 FEET
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

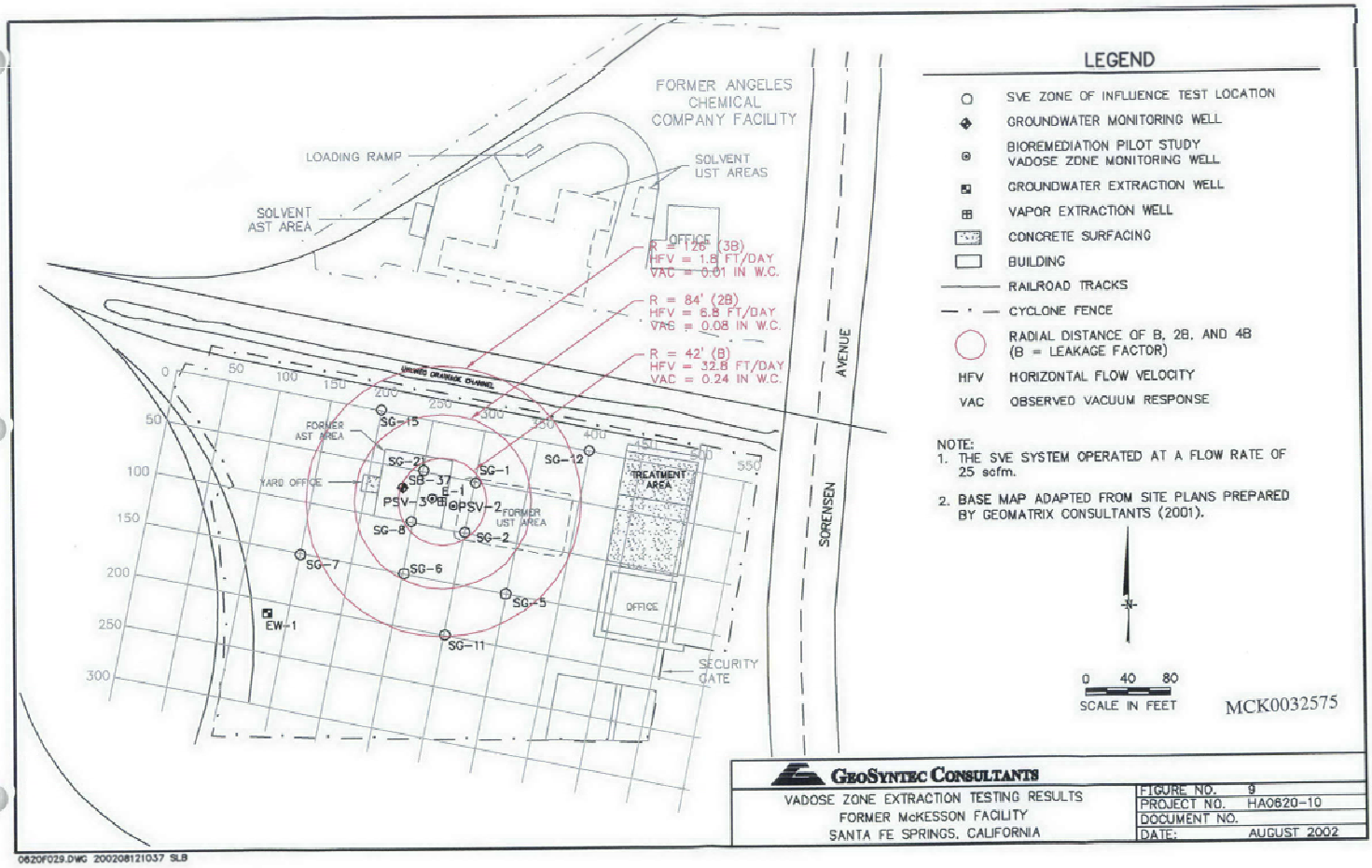
FIGURE NO.	3-24
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

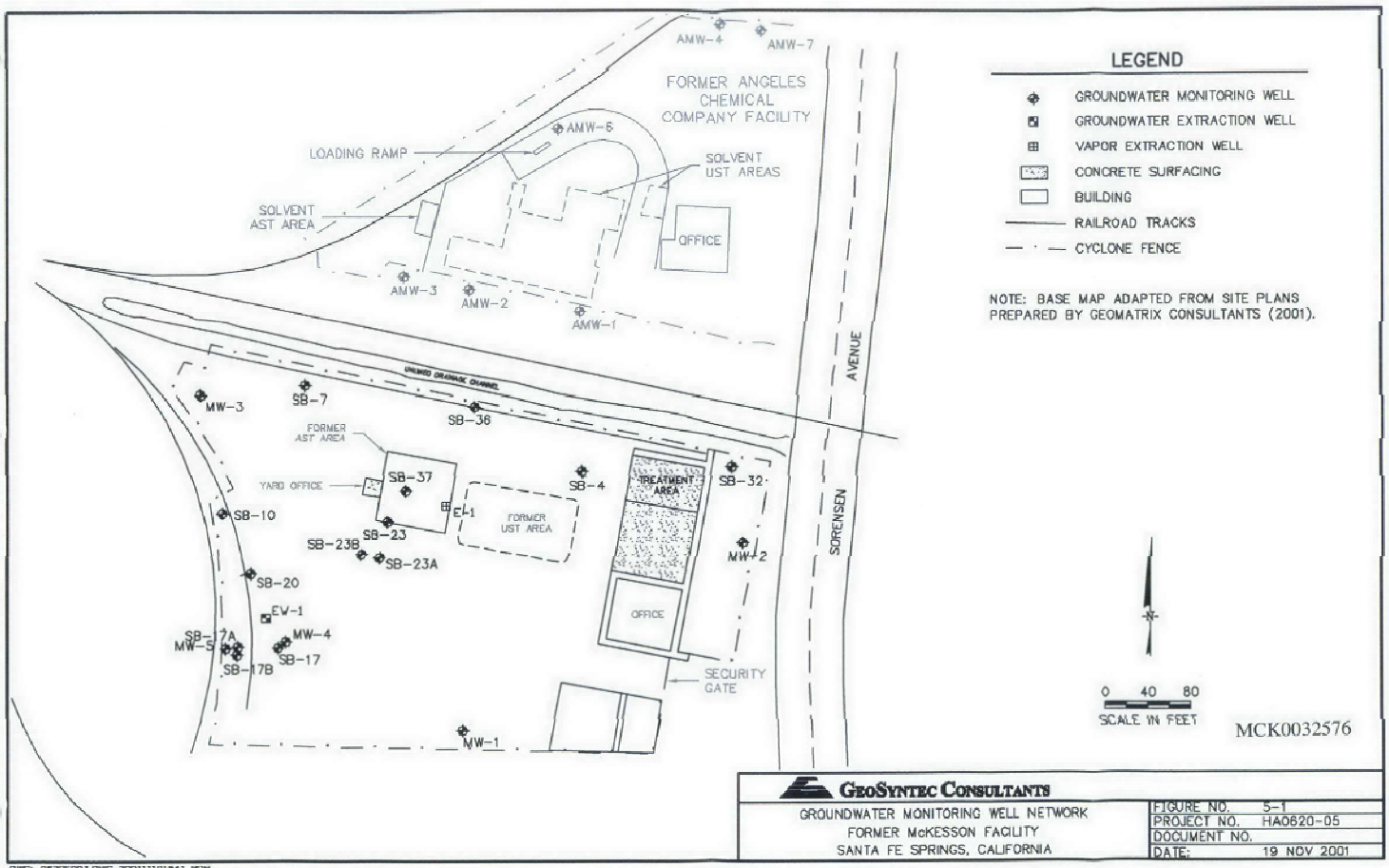
DWG: 0620F039.DWG 20011210854 BDP



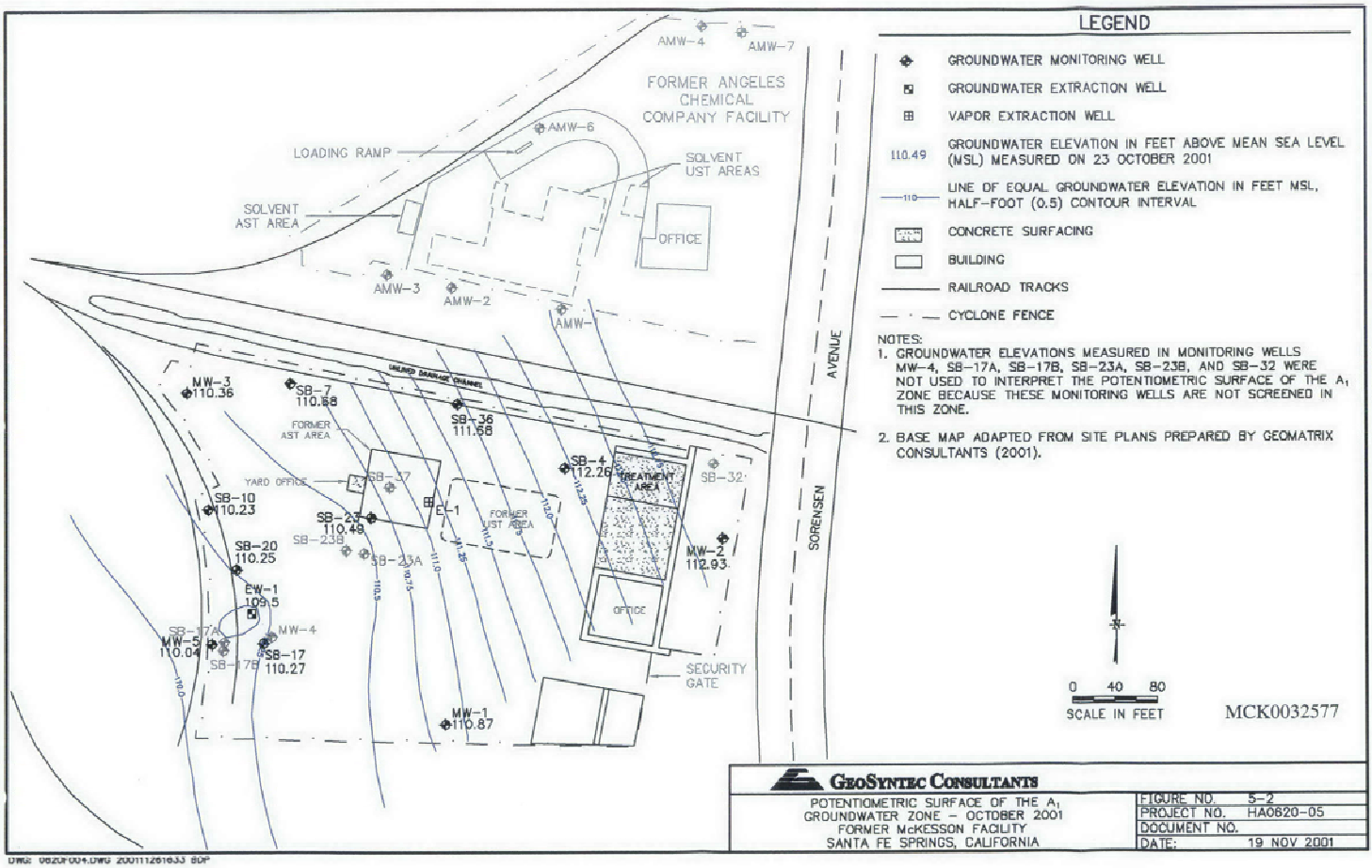
0620F040.DWG 200201041507SLB


LEGEND
SVE ZONE OF INFLUENCE TEST LOCATION
GROUNDWATER MONITORING WELL
BIOREMEDIATION PILOT STUDY VADOSE ZONE MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
RAILROAD TRACKS
CYCLONE FENCE
NOTE: BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
0 40 80
SCALE IN FEET
N
MCK0032574
LOADING RAMP
SOLVENT AST AREA
SOLVENT UST AREAS
OFFICE
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
HARD OFFICE
SG-15
SG-21
SB-37
PSV-3
EI-1
SG-1
SG-12
SG-8
SG-2
FORMER UST AREA
TREATMENT AREA
SG-7
SG-6
SG-5
EW-1
SG-11
OFFICE
SECURITY GATE
SORENSEN AVENUE
GEOSYNTEC CONSULTANTS
VADOSE ZONE EXTRACTION TESTING LOCATIONS
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 4-1
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F005.DWG 20011211023 BDP

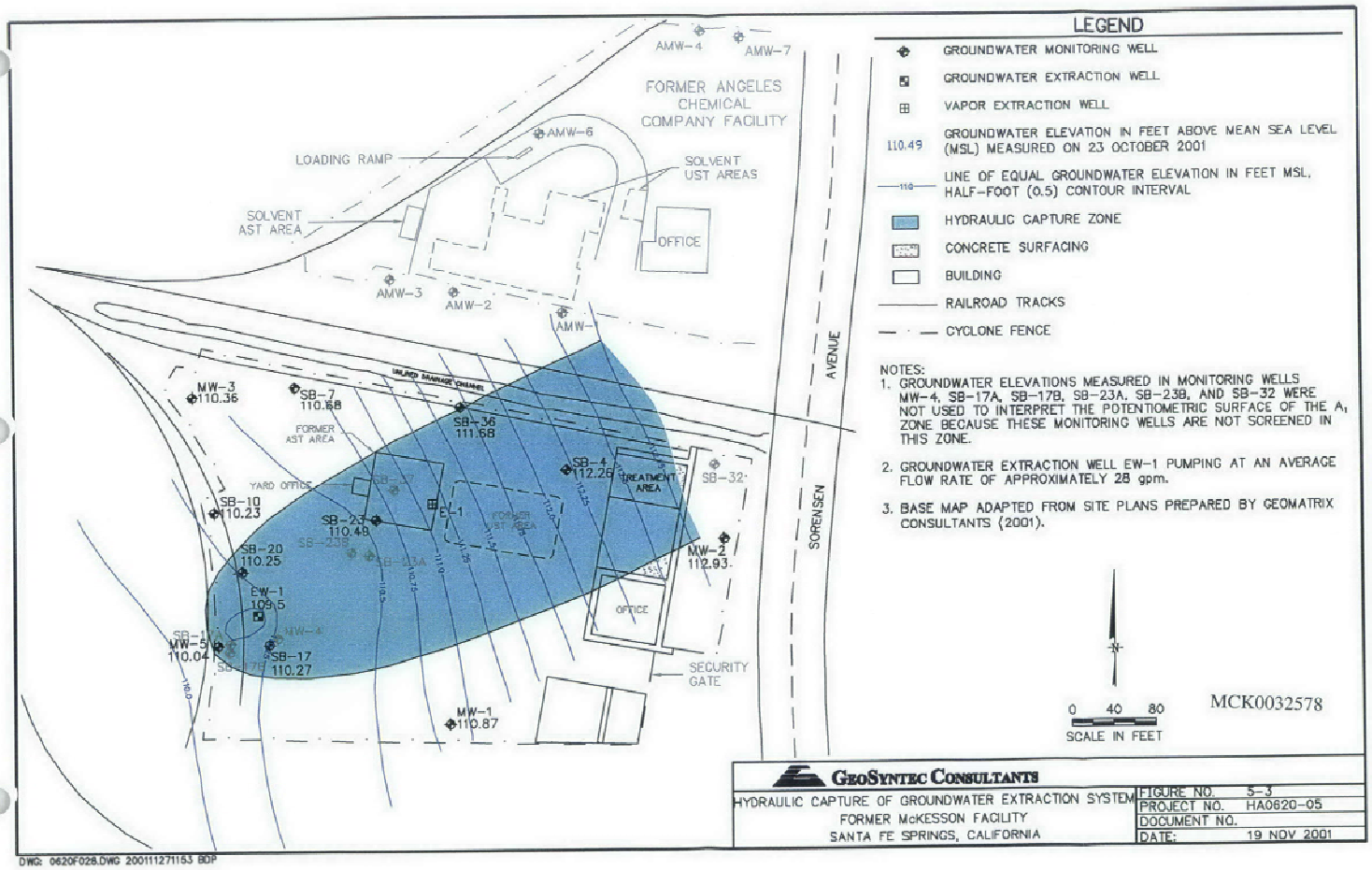

FORMER ANGELES CHEMICAL COMPANY FACILITY
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
R = 126' (3B)
HFV = 1.8 FT/DAY
VAC = 0.01 IN W.C.
R = 84' (2B)
HFV = 6.8 FT/DAY
VAC = 0.08 IN W.C.
R = 42' (B)
HFV = 32.8 FT/DAY
VAC = 0.24 IN W.C.
UNLINED DRAINAGE CHANNEL
FORMER AST AREA
YARD OFFICE
SG-15
SG-21
SG-37
E-1
PSV-3
PSV-2
SG-1
SG-12
SG-8
SG-2
SG-7
SG-6
SG-5
SG-11
EW-1
FORMER UST AREA
TREATMENT AREA
OFFICE
SECURITY GATE
SORENSEN AVENUE
0
50
100
150
200
250
300
350
400
450
500
550
LEGEND
SVE ZONE OF INFLUENCE TEST LOCATION
GROUNDWATER MONITORING WELL
BIOREMEDIATION PILOT STUDY VADOSE ZONE MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
RAILROAD TRACKS
CYCLONE FENCE
RADIAL DISTANCE OF B, 2B, AND 4B (B = LEAKAGE FACTOR)
HFV HORIZONTAL FLOW VELOCITY
VAC OBSERVED VACUUM RESPONSE
NOTE:
1. THE SVE SYSTEM OPERATED AT A FLOW RATE OF 25 scfm.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
N
0 40 80
SCALE IN FEET
MCK0032575
GEOSYNTEC CONSULTANTS
VADOSE ZONE EXTRACTION TESTING RESULTS
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 9
PROJECT NO. HA0620-10
DOCUMENT NO.
DATE: AUGUST 2002
0620F029.DWG 200208121037 SLB

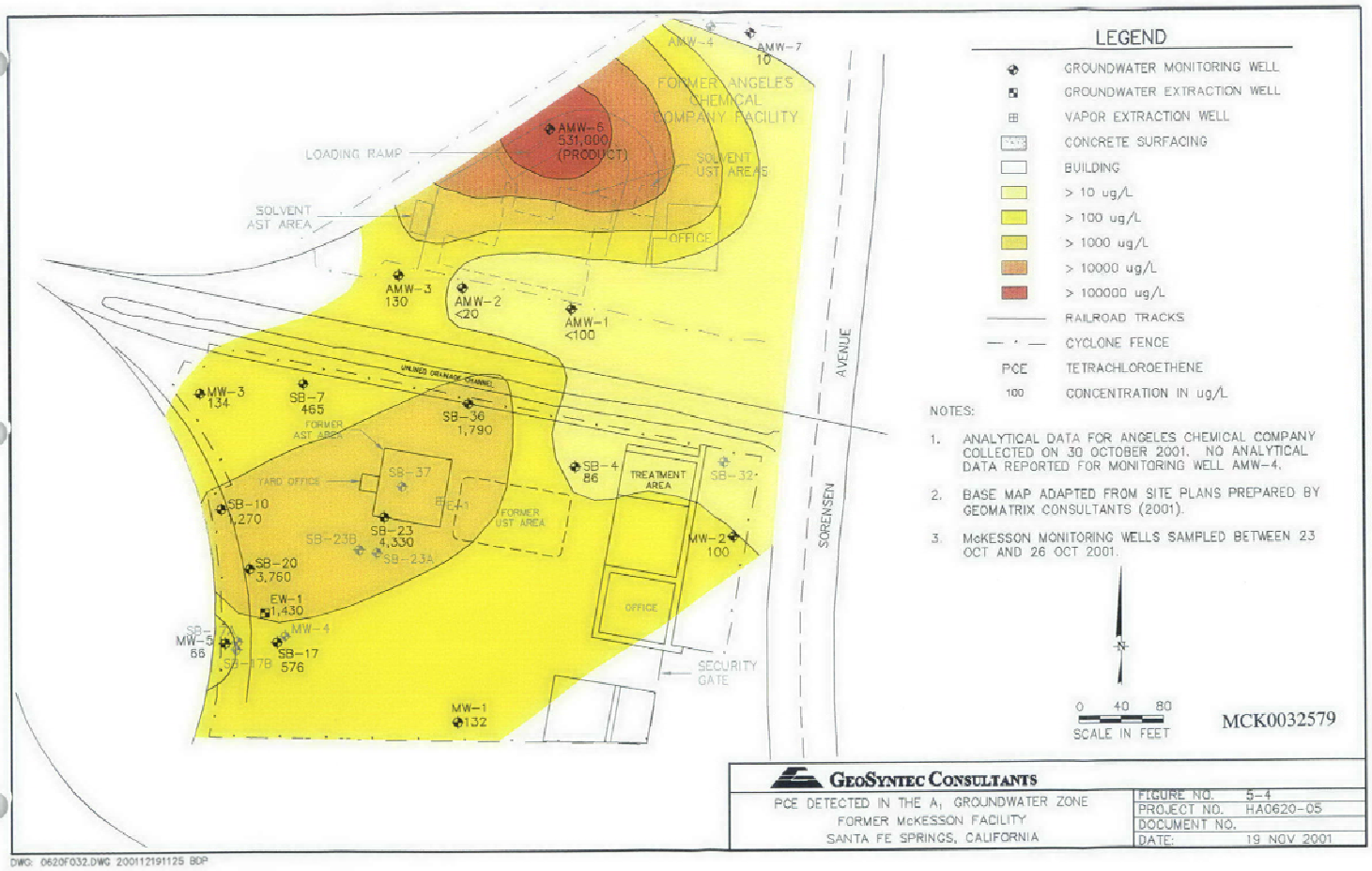


DWG: 0620F003.DWG 200111191541 BDP



DWG: 0620F004.DWG 200111261633 BDP


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
110.49 GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL) MEASURED ON 23 OCTOBER 2001
110 LINE OF EQUAL GROUNDWATER ELEVATION IN FEET MSL, HALF-FOOT (0.5) CONTOUR INTERVAL
HYDRAULIC CAPTURE ZONE
CONCRETE SURFACING
BUILDING
RAILROAD TRACKS
CYCLONE FENCE
NOTES:
1. GROUNDWATER ELEVATIONS MEASURED IN MONITORING WELLS MW-4, SB-17A, SB-17B, SB-23A, SB-23B, AND SB-32 WERE NOT USED TO INTERPRET THE POTENTIOMETRIC SURFACE OF THE A1 ZONE BECAUSE THESE MONITORING WELLS ARE NOT SCREENED IN THIS ZONE.
2. GROUNDWATER EXTRACTION WELL EW-1 PUMPING AT AN AVERAGE FLOW RATE OF APPROXIMATELY 28 gpm.
3. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
N
0 40 80
SCALE IN FEET
MCK0032578
FORMER ANGELES CHEMICAL COMPANY FACILITY
AMW-4
AMW-7
AMW-6
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
AMW-3
AMW-2
AMW-
SORENSEN AVENUE
MW-3 110.36
SB-7 110.68
SB-36 111.68
FORMER AST AREA
SB-4 112.26
TREATMENT AREA
SB-32
YARD OFFICE
SB-10 110.23
SB-23 110.49
EL-1
SB-20 110.25
EW-1 109.5
MW-2 112.93
OFFICE
MW-5 110.04
SB-17 110.27
SECURITY GATE
MW-1 110.87
GEOSYNTEC CONSULTANTS
HYDRAULIC CAPTURE OF GROUNDWATER EXTRACTION SYSTEM
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 5-3
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F028.DWG 200111271153 BDP

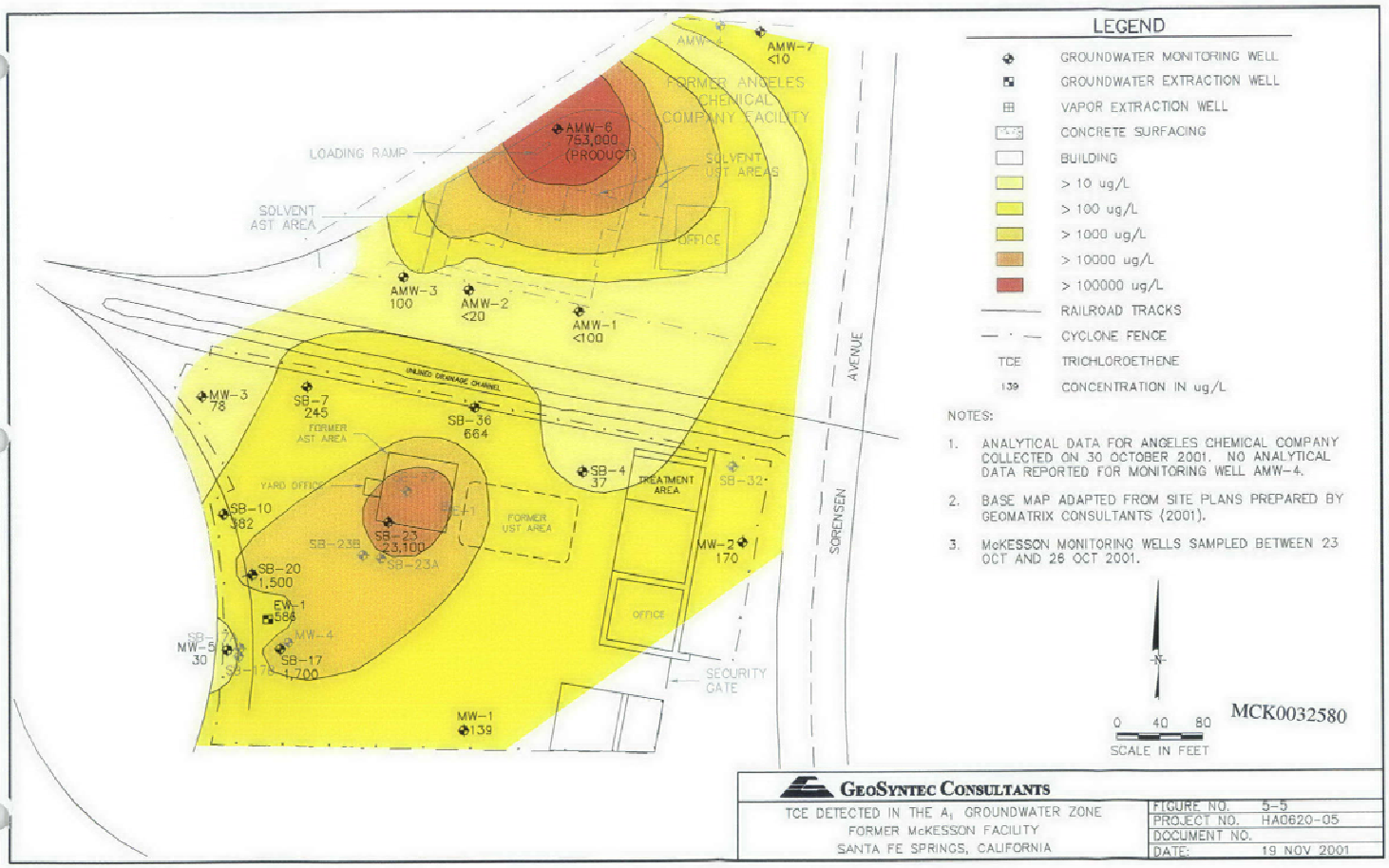


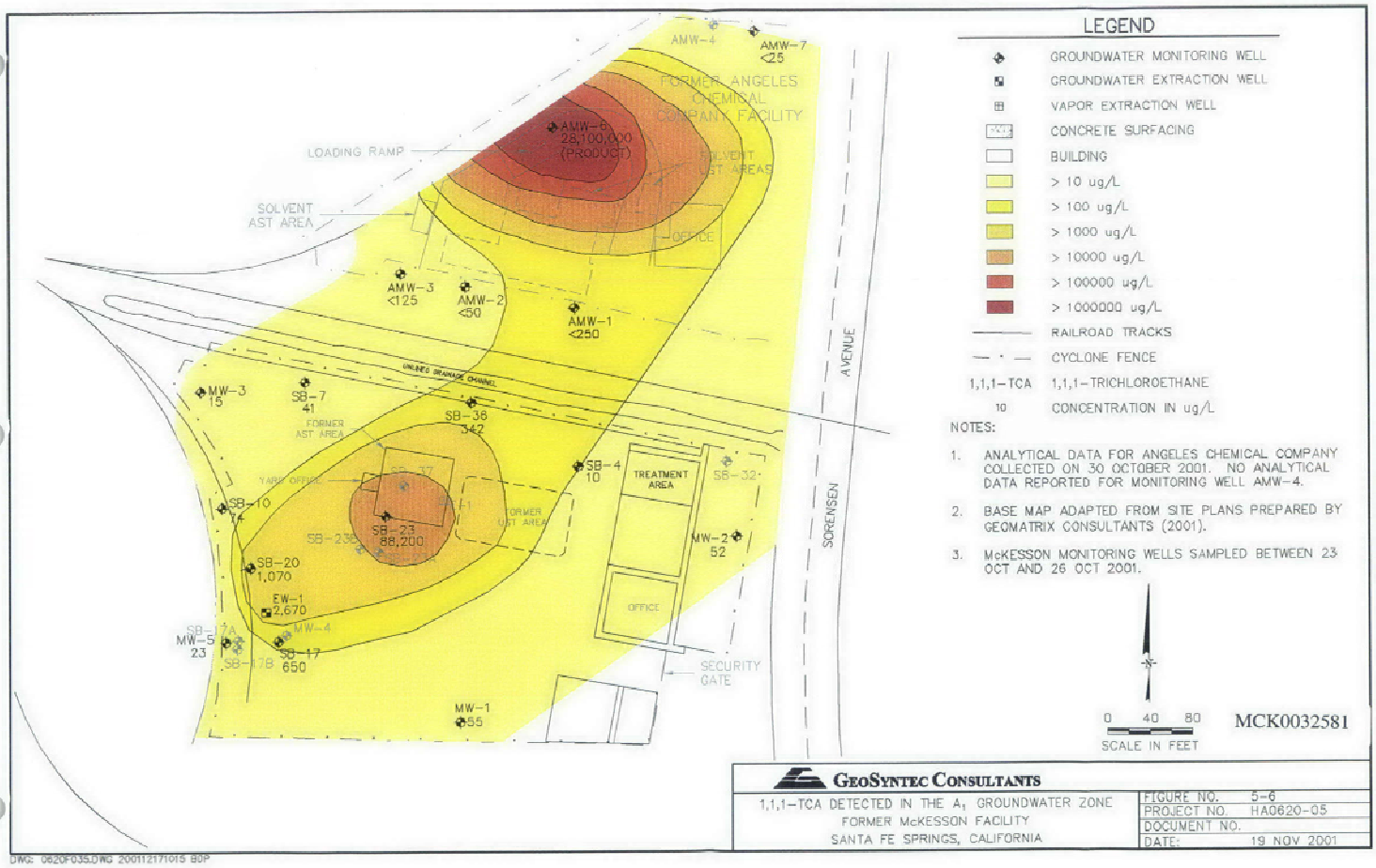
GEOSYNTEC CONSULTANTS

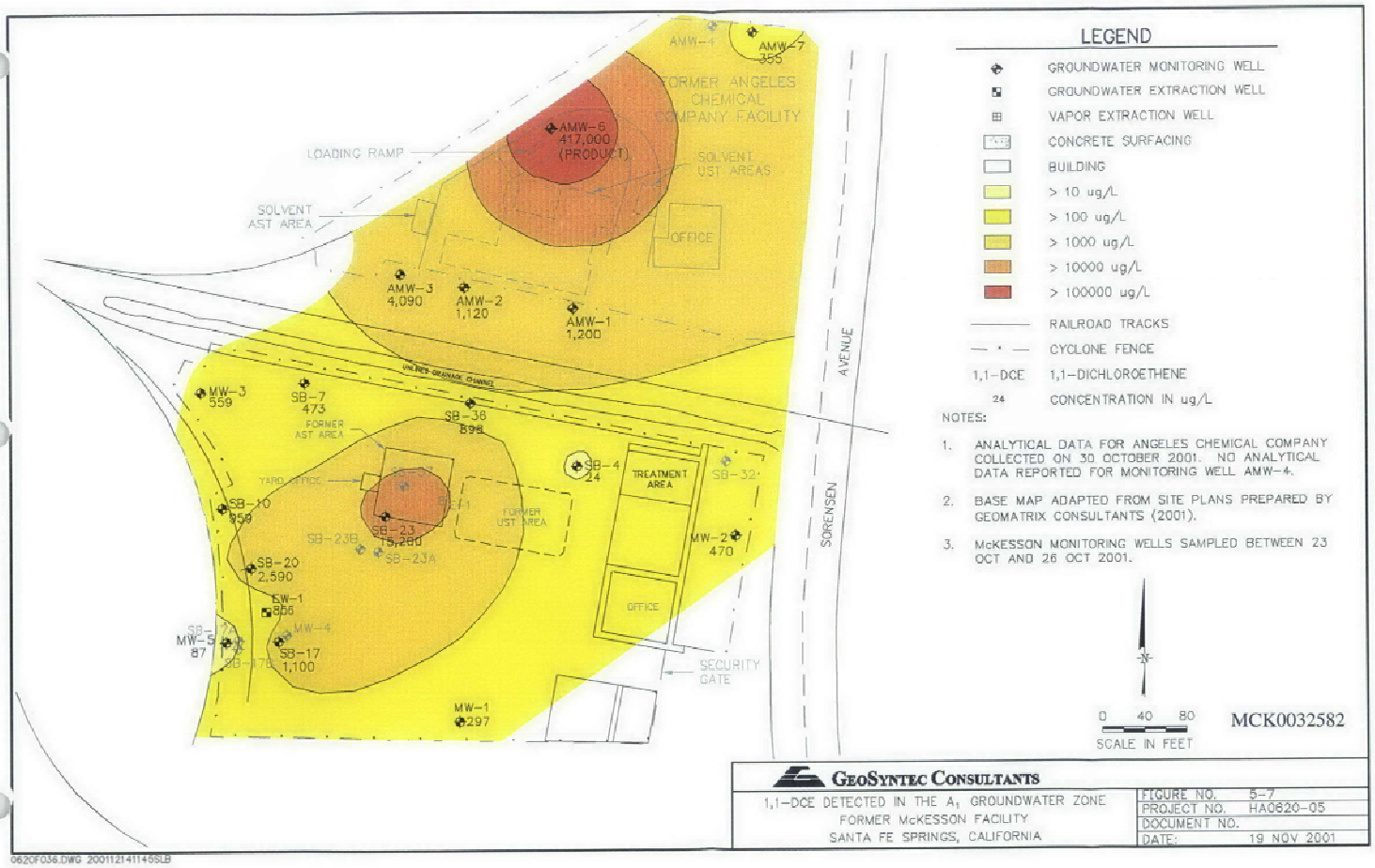
PCE DETECTED IN THE A1 GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

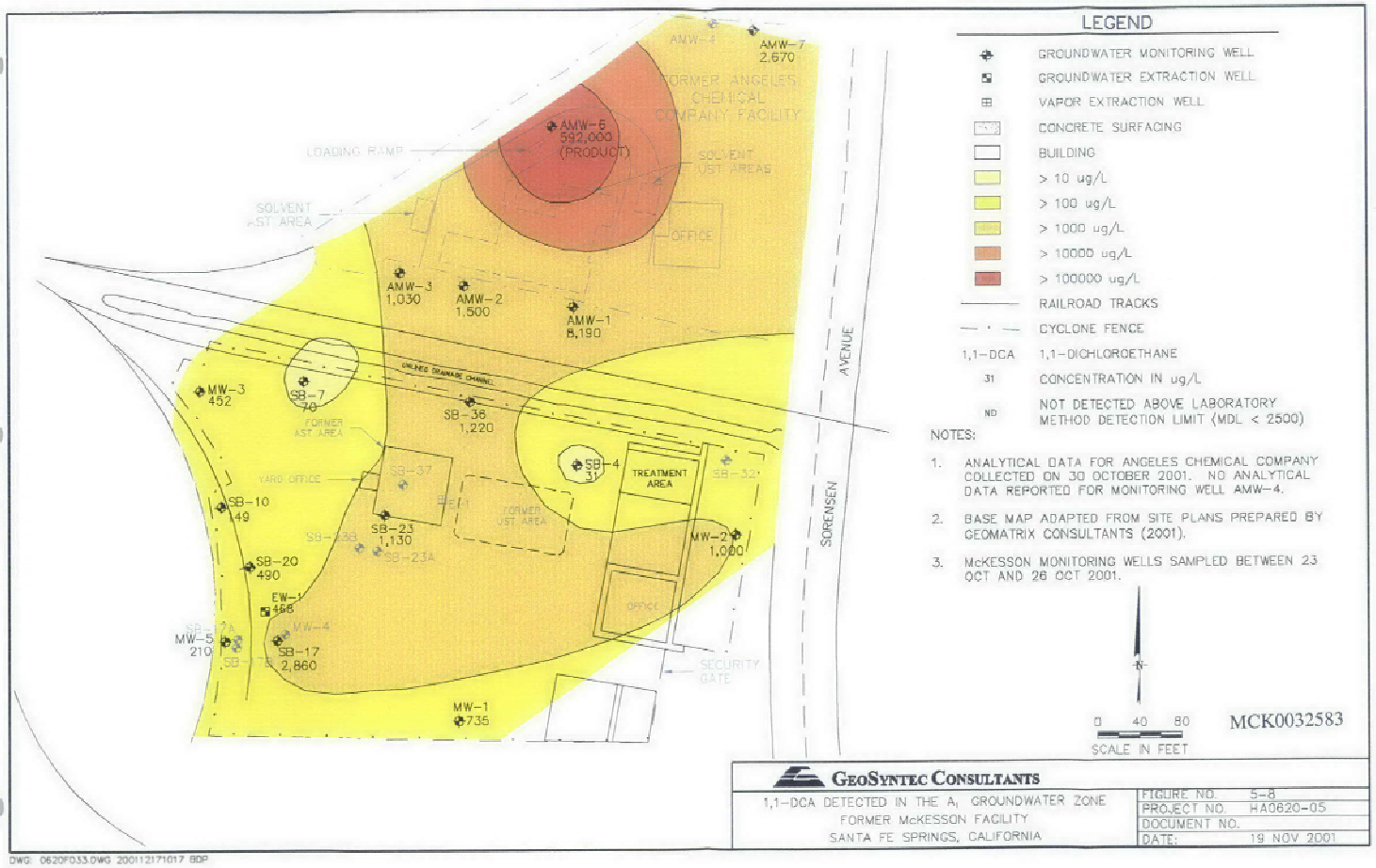
FIGURE NO.	5-4
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F032.DWG 200112191125 BDP


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L
> 100 ug/L
> 1000 ug/L
> 10000 ug/L
> 100000 ug/L
RAILROAD TRACKS
CYCLONE FENCE
TCE TRICHLOROETHENE
139 CONCENTRATION IN ug/L
NOTES:
1. ANALYTICAL DATA FOR ANGELES CHEMICAL COMPANY COLLECTED ON 30 OCTOBER 2001. NO ANALYTICAL DATA REPORTED FOR MONITORING WELL AMW-4.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
3. McKESSON MONITORING WELLS SAMPLED BETWEEN 23 OCT AND 26 OCT 2001.
N
0 40 80
SCALE IN FEET
MCK0032580
AMW-7 <10
AMW-4
FORMER ANGELES CHEMICAL COMPANY FACILITY
AMW-6 753,000 (PRODUCT)
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
AMW-3 100
AMW-2 <20
AMW-1 <100
UNLINED DRAINAGE CHANNEL
MW-3 78
SB-7 245
SB-36 664
FORMER AST AREA
YARD OFFICE
SB-4 37
TREATMENT AREA
SB-32
SB-10 382
SB-23B
SB-23 23,100
FORMER UST AREA
SB-23A
MW-2 170
SB-20 1,500
EW-1 584
MW-4
SB-17 1,700
SB-17
SECURITY GATE
MW-1 139
SORENSEN AVENUE
GEOSYNTEC CONSULTANTS
TCE DETECTED IN THE A1 GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 5-5
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
0620F034.DWG 20011214115 3SLB


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L
> 100 ug/L
> 1000 ug/L
> 10000 ug/L
> 100000 ug/L
> 1000000 ug/L
RAILROAD TRACKS
CYCLONE FENCE
1,1,1-TCA 1,1,1-TRICHLOROETHANE
10 CONCENTRATION IN ug/L
NOTES:
1. ANALYTICAL DATA FOR ANGELES CHEMICAL COMPANY COLLECTED ON 30 OCTOBER 2001. NO ANALYTICAL DATA REPORTED FOR MONITORING WELL AMW-4.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
3. McKESSON MONITORING WELLS SAMPLED BETWEEN 23 OCT AND 26 OCT 2001.
0 40 80
SCALE IN FEET
MCK0032581
AMW-4
AMW-7 <25
FORMER ANGELES CHEMICAL COMPANY FACILITY
AMW-6 28,100,000 (PRODUCT)
LOADING RAMP
SOLVENT AST AREA
SOLVENT UST AREAS
OFFICE
AMW-3 <125
AMW-2 <50
AMW-1 <250
UNLINED DRAINAGE CHANNEL
MW-3 15
SB-7 41
FORMER AST AREA
SB-36 342
SB-4 10
TREATMENT AREA
SB-32
YARD OFFICE
SB-10
SB-23 88,200
FORMER UST AREA
MW-2 52
SB-20 1,070
EW-1 2,670
MW-4
MW-5 23
SB-17 650
OFFICE
SECURITY GATE
MW-1 55
SORENSEN AVENUE
GEOSYNTEC CONSULTANTS
1,1,1-TCA DETECTED IN THE A1 GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 5-6
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
DWG: 0620F035.DWG 20011217101S BOP


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L
> 100 ug/L
> 1000 ug/L
> 10000 ug/L
> 100000 ug/L
RAILROAD TRACKS
CYCLONE FENCE
1,1-DCE 1,1-DICHLOROETHENE
24 CONCENTRATION IN ug/L
NOTES:
1. ANALYTICAL DATA FOR ANGELES CHEMICAL COMPANY COLLECTED ON 30 OCTOBER 2001. NO ANALYTICAL DATA REPORTED FOR MONITORING WELL AMW-4.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
3. McKESSON MONITORING WELLS SAMPLED BETWEEN 23 OCT AND 26 OCT 2001.
N
0 40 80
SCALE IN FEET
MCK0032582
FORMER ANGELES CHEMICAL COMPANY FACILITY
AMW-4
AMW-7 355
AMW-6 417,000 (PRODUCT)
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
AMW-3 4,090
AMW-2 1,120
AMW-1 1,200
MW-3 559
SB-7 473
FORMER AST AREA
SB-38 898
SB-4 24
TREATMENT AREA
SB-32
YARD OFFICE
SB-10 959
SB-23 15,280
FORMER UST AREA
SB-23B
SB-23A
MW-2 470
SB-20 2,590
EW-1 856
MW-4
SB-17 1,100
SB-17B
MW-5 87
OFFICE
SECURITY GATE
MW-1 297
SORENSEN AVENUE
GEOSYNTEC CONSULTANTS
1,1-DCE DETECTED IN THE A1 GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 5-7
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
0620F036.DWG 20011214114 5SLB

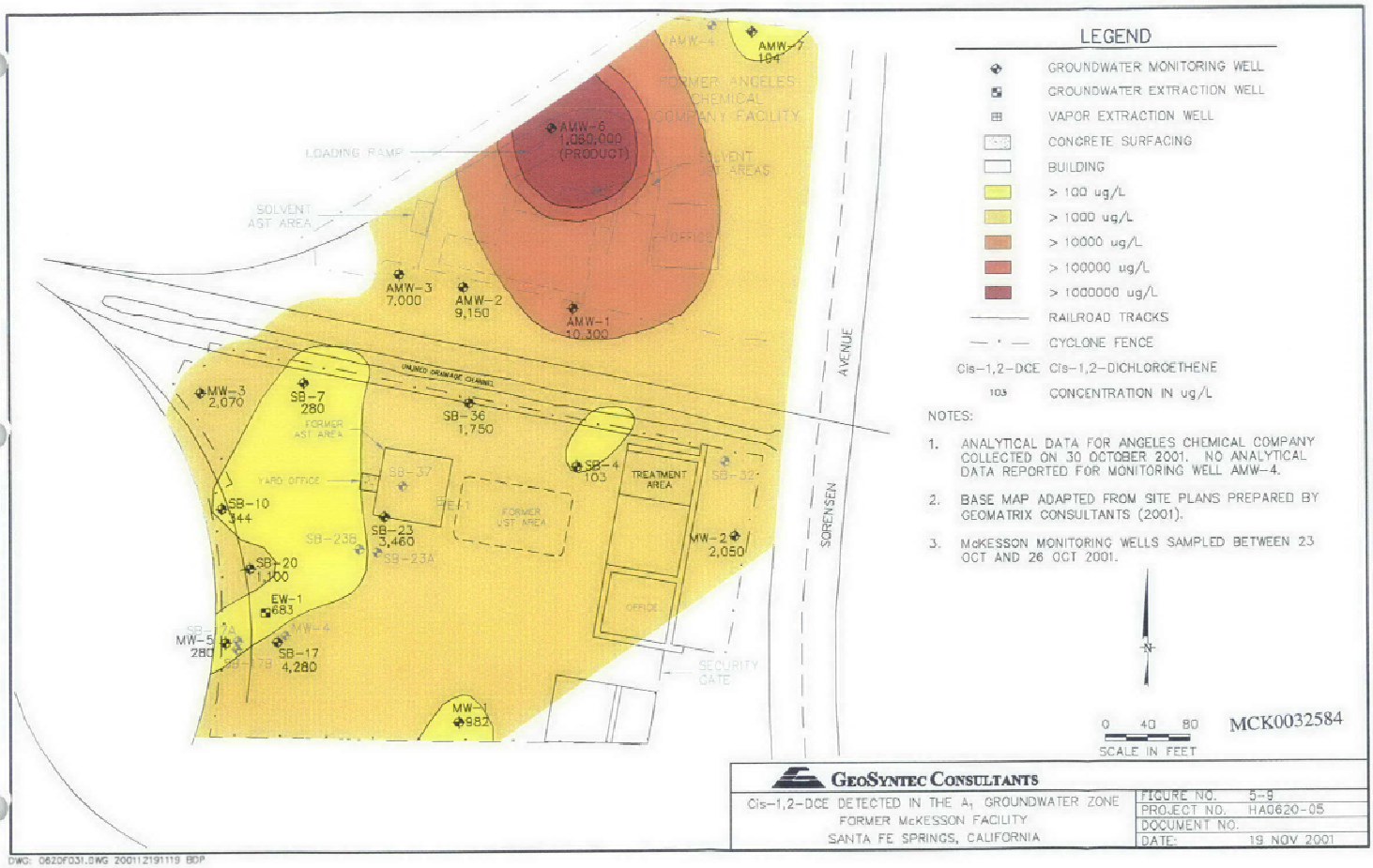


GEOSYNTEC CONSULTANTS

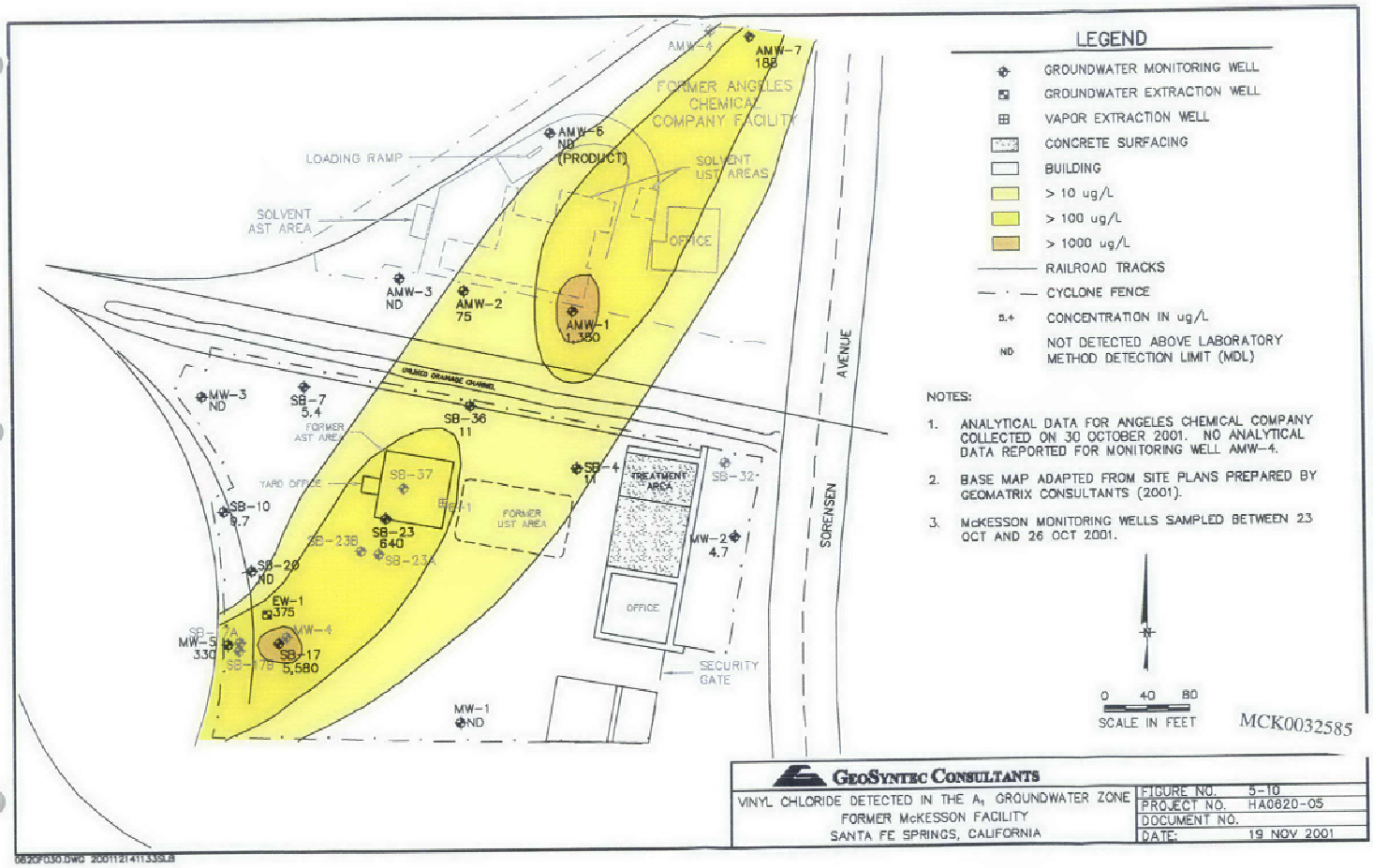
1,1-DCA DETECTED IN THE A, GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA

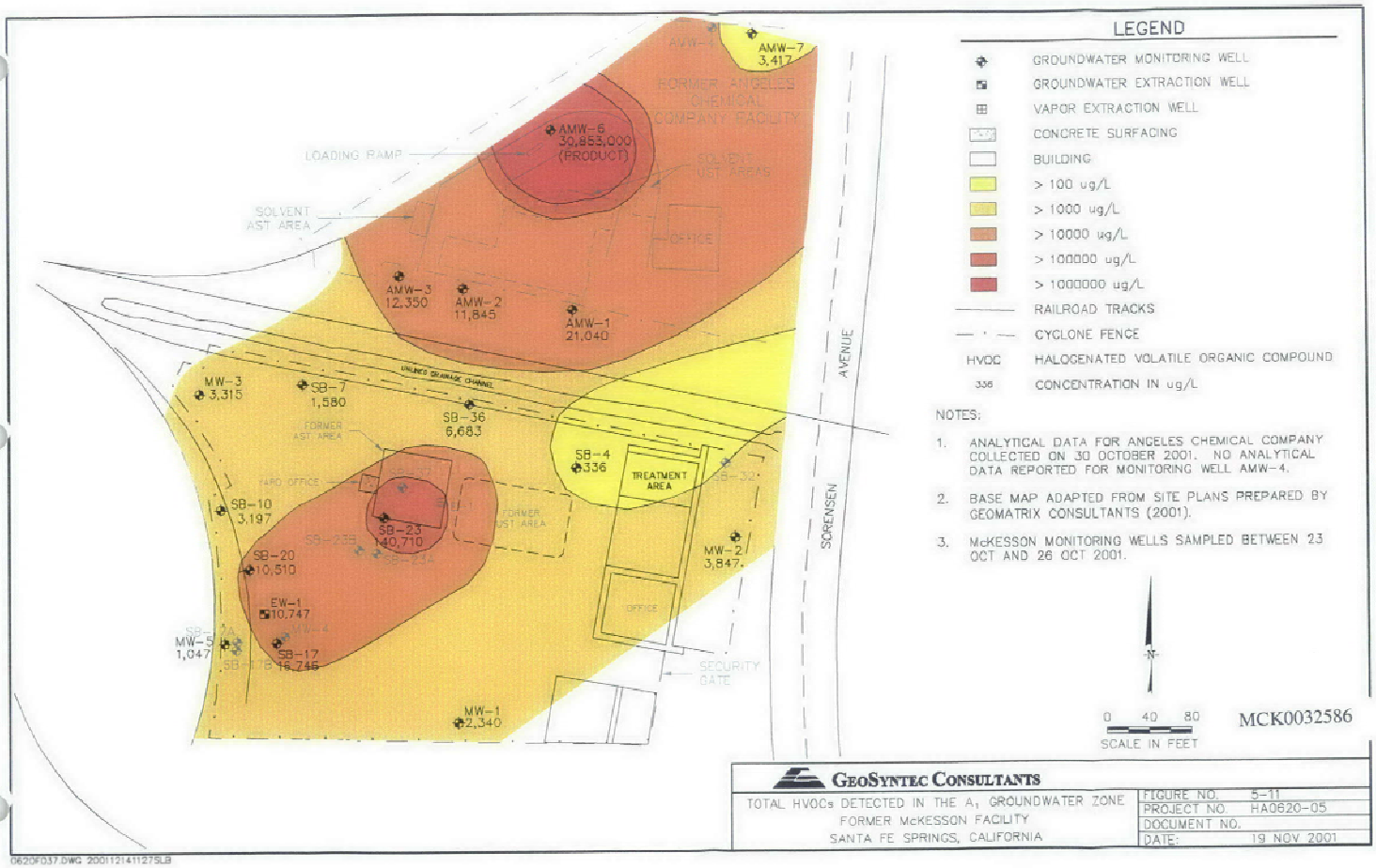
FIGURE NO.	5-8
PROJECT NO.	HA0620-05
DOCUMENT NO.	
DATE:	19 NOV 2001

DWG: 0620F033.DWG 20011217101 7 BDP



DWG: 0620F031.DWG 20011219119 BDP


LEGEND
GROUNDWATER MONITORING WELL
GROUNDWATER EXTRACTION WELL
VAPOR EXTRACTION WELL
CONCRETE SURFACING
BUILDING
> 10 ug/L
> 100 ug/L
> 1000 ug/L
RAILROAD TRACKS
CYCLONE FENCE
5.4 CONCENTRATION IN ug/L
ND NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
NOTES:
1. ANALYTICAL DATA FOR ANGELES CHEMICAL COMPANY COLLECTED ON 30 OCTOBER 2001. NO ANALYTICAL DATA REPORTED FOR MONITORING WELL AMW-4.
2. BASE MAP ADAPTED FROM SITE PLANS PREPARED BY GEOMATRIX CONSULTANTS (2001).
3. McKESSON MONITORING WELLS SAMPLED BETWEEN 23 OCT AND 26 OCT 2001.
N
0 40 80
SCALE IN FEET
AMW-4
AMW-7 188
FORMER ANGELES CHEMICAL COMPANY FACILITY
AMW-6 ND (PRODUCT)
LOADING RAMP
SOLVENT UST AREAS
SOLVENT AST AREA
OFFICE
AMW-3 ND
AMW-2 75
AMW-1 1,380
UNLINED DRAINAGE CHANNEL
MW-3 ND
SB-7 5.4
FORMER AST AREA
SB-36 11
SB-4 11
TREATMENT AREA
SB-32
YARD OFFICE
SB-37
SB-10 9.7
SB-11
FORMER UST AREA
SB-23 640
SB-23B
SB-23A
MW-2 4.7
SB-20 ND
EW-1 375
OFFICE
SB-2A
MW-4
MW-5 330
SB-17 5,580
SB-7B
SECURITY GATE
MW-1 ND
SORENSEN AVENUE
MCK0032585
GEOSYNTEC CONSULTANTS
VINYL CHLORIDE DETECTED IN THE A1 GROUNDWATER ZONE
FORMER McKESSON FACILITY
SANTA FE SPRINGS, CALIFORNIA
FIGURE NO. 5-10
PROJECT NO. HA0620-05
DOCUMENT NO.
DATE: 19 NOV 2001
0620F030.DWG 20011214113339LB



GeoSyntec Consultants

TOTAL HVOCs DETECTED IN THE A_1 GROUNDWATER ZONE FORMER McKESSON FACILITY SANTA FE SPRINGS, CALIFORNIA	FIGURE NO.	5-11
	PROJECT NO.	HA0620-05
	DOCUMENT NO.	
	DATE:	19 NOV 2001

0620F037.DWG 20011214112 7SLB

Appendix A

APPENDIX A

ANALYTICAL LABORATORY REPORTS – SOIL GAS

Centrum Analytical Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	Centrum Analytical Laboratories, Inc.
Address:	1401 Research Park Drive, Suite 100, Riverside, CA 92507
Telephone/Fax::	(909) 779-0310/(909) 779-0344
ELAP Certification No./ Expiration Date	2419/May 2002
Authorized Signature Name, Title (print)	Robert R. Clark, PhD, Laboratory Director
Signature, Date	11/2/01
Client Name	Interphase Environmental
Project No:	01233/McKesson
Date(s) Sampled: (from - to)	10/08/01
Date(s) Received: (from - to)	10/08/01
Date(s) Reported: (from - to)	10/08/01
Chain of Custody received:	Yes X No ____
Comments	

MCK0032589

(RWQCB Lab Form: Ver 6/00)

909•779•0310 OR 800•798•9336 fax 909•779•0344
www.centrum-labs.com 1401 Research Park Drive, Suite 100, Riverside, CA 92507

Centrum
Analytical
Laboratories, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
LARWQCB - GCMS	17	
Sample Condition:	Intact	

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Microbiological Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Other Types of Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

(RWQCB Lab Form: Ver 6/00)

MCK0032590

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
DATE EXTRACTED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
LAB SAMPLE I.D.		Air Blank	M2-831-1	M2-831-2	M2-831-3	M2-831-4
CLIENT SAMPLE I.D.		NA	SG-4-5'A	SG-4-5'B	SG-4-5'C	SG-4-10'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	1.1	1.1	4.7
Dichloroethene	1.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	Air Blank	SG-4-5'A	SG-4-5'B	SG-4-5'C	SG-4-10'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	**2.8**	**13**	**18**	ND
Toluene	1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	**3.4**	**8.6**	**9.3**	**3.3**
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	**3.0**	**3.4**	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	**4.5**
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	105	107	106	105	103
Toluene-d8	50	70-130	102	104	103	104	106
Bromofluorobenzene	50	70-130	95	96	95	95	96

MCK0032592

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
DATE EXTRACTED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
LAB SAMPLE I.D.		M2-831-5	M2-831-6	M2-831-7	M2-831-8	M2-831-9
CLIENT SAMPLE I.D.		SG-4-20'	SG-3-5'	SG-3-10'	SG-3-20'	SG-9-5'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	5	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	**260**	**4.9**	**4.4**	**190**	**1.5**
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
,1-Dichloroethene	1.0	**420**	**4.1**	**1.2**	**180**	ND
cis-1,2-Dichloroethene	1.0	**290**	**8.5**	**7.0**	**220**	**2.4**
trans-1,2-Dichloroethene	1.0	**1.4**	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-4-20'	SG-3-5'	SG-3-10'	SG-3-20'	SG-9-5'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	**3.6**	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Naphthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**130**	**7.2**	**1.4**	**64**	**2.9**
Toluene	1.0	**25**	**1.1**	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	**73**	**1.9**	ND	**18**	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	**150**	**5.0**	**1.7**	**86**	**2.0**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	**1.9**	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	**110**	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	**78**	ND	ND	ND	ND
Xylenes, m-,p-	2.0	**7.7**	ND	ND	ND	ND
Xylene, o-	1.0	**1.2**	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	102	99	100	104	106
luene-d8	50	70-130	114	101	94	93	96
omofluorobenzene	50	70-130	94	93	96	95	95

MCK0032594

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
DATE EXTRACTED		10/08/01	10/08/01	10/08/01	10/08/01	10/08/01
LAB SAMPLE I.D.		M2-831-10	M2-831-11	M2-831-12	M2-831-13	M2-831-14
CLIENT SAMPLE I.D.		SG-9-10'	SG-9-20'	SG-10-5'	SG-10-10'	SG-10-20'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	5	1	1	5
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
romomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	**85**	ND	ND	**22**
',2-Dichloroethane	1.0	ND	**10**	ND	ND	ND
,1-Dichloroethene	1.0	ND	**480**	ND	ND	**560**
cis-1,2-Dichloroethene	1.0	ND	**52**	ND	ND	**120**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032595

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	SG-9-10'	SG-9-20'	SG-10-5'	SG-10-10'	SG-10-20'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Napthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	**4.0**	**400**	**5.8**	**5.5**	**100**
Toluene		1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	**16**	ND	ND	ND
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	**1.8**	**210**	**1.4**	**1.2**	**61**
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	**8.3**	ND	ND	**12**
Trichlorotrifluoroethane		5.0	ND	ND	ND	ND	**30**
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	100	100	100	108	100
Toluene-d8	50	70-130	95	92	92	104	94
Bromofluorobenzene	50	70-130	96	96	94	95	96

MCK0032596

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/08/01	10/08/01	10/08/01		
DATE EXTRACTED		10/08/01	10/08/01	10/08/01		
LAB SAMPLE I.D.		M2-831-15	M2-831-16	M2-831-17		
CLIENT SAMPLE I.D.		SG-22-5'	SG-22-10'	SG-22-20'		
EXTRACTION SOLVENT		NA	NA	NA		
EXTRACTION METHOD		5030	5030	5030		
DILUTION FACTOR		1	1	5		
COMPOUND	CRDL					
Acetone	50	ND	ND	ND		
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND		
Benzene	1.0	ND	ND	ND		
Bromobenzene	1.0	ND	ND	ND		
Bromochloromethane	1.0	ND	ND	ND		
Bromodichloromethane	1.0	ND	ND	ND		
Bromoform	1.0	ND	ND	ND		
Bromomethane	1.0	ND	ND	ND		
tert-Butanol (TBA)	10	ND	ND	ND		
2-Butanone (MEK)	20	ND	ND	ND		
n-Butylbenzene	1.0	ND	ND	ND		
sec-Butylbenzene	1.0	ND	ND	ND		
tert-Butylbenzene	1.0	ND	ND	ND		
Carbon disulfide	10	ND	ND	ND		
Carbon tetrachloride	1.0	ND	ND	ND		
Chlorobenzene	1.0	ND	ND	ND		
Chloroethane	1.0	ND	ND	ND		
Chloroform	1.0	ND	ND	ND		
Chloromethane	1.0	ND	ND	ND		
2-Chlorotoluene	1.0	ND	ND	ND		
4-Chlorotoluene	1.0	ND	ND	ND		
Dibromochloromethane	1.0	ND	ND	ND		
1,2-Dibromoethane	1.0	ND	ND	ND		
1,2-Dibromo-3-chloropropane	10	ND	ND	ND		
Dibromomethane	1.0	ND	ND	ND		
1,2-Dichlorobenzene	1.0	ND	ND	ND		
1,3-Dichlorobenzene	1.0	ND	ND	ND		
1,4-Dichlorobenzene	1.0	ND	ND	ND		
Dichlorodifluoromethane	1.0	ND	ND	ND		
1,1-Dichloroethane	1.0	ND	ND	**7.2**		
1,2-Dichloroethane	1.0	**1.0**	ND	ND		
1,1-Dichloroethene	1.0	ND	ND	**380**		
cis-1,2-Dichloroethene	1.0	**26**	ND	ND		
trans-1,2-Dichloroethene	1.0	ND	ND	ND		

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-22-5'	SG-22-10'	SG-22-20'		
1,2-Dichloropropane	1.0	ND	ND	ND		
1,3-Dichloropropane	1.0	ND	ND	ND		
2,2-Dichloropropane	1.0	ND	ND	ND		
1,1-Dichloropropene	1.0	ND	ND	ND		
cis-1,3-Dichloropropene	1.0	ND	ND	ND		
trans-1,3-Dichloropropene	1.0	ND	ND	ND		
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND		
Ethylbenzene	1.0	ND	ND	ND		
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND		
Hexachlorobutadiene	1.0	ND	ND	ND		
2-Hexanone	10	ND	ND	ND		
Isopropylbenzene	1.0	ND	ND	ND		
p-Isopropyltoluene	1.0	ND	ND	ND		
Methylene chloride	10	ND	ND	ND		
4-Methyl-2-pentanone	10	ND	ND	ND		
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND		
Naphthalene	2.0	ND	ND	ND		
n-Propylbenzene	1.0	ND	ND	ND		
Styrene	1.0	ND	ND	ND		
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND		
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND		
Tetrachloroethene	1.0	**7.4**	ND	**160**		
Toluene	1.0	ND	ND	ND		
1,2,3-Trichlorobenzene	1.0	ND	ND	ND		
1,2,4-Trichlorobenzene	1.0	ND	ND	ND		
1,1,1-Trichloroethane	1.0	ND	ND	**6.2**		
1,1,2-Trichloroethane	1.0	ND	ND	ND		
Trichloroethene	1.0	**4.7**	ND	**61**		
1,2,3-Trichloropropane	1.0	ND	ND	ND		
Trichlorofluoromethane	1.0	ND	ND	**11**		
Trichlorotrifluoroethane	5.0	ND	ND	ND		
1,2,4-Trimethylbenzene	1.0	ND	ND	ND		
1,3,5-Trimethylbenzene	1.0	ND	ND	ND		
Vinyl chloride	1.0	ND	ND	ND		
Xylenes, m-,p-	2.0	ND	ND	ND		
Xylene, o-	1.0	ND	ND	ND		

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC		
Dibromofluoromethane	50	70-130	118	115	105		
Toluene-d8	50	70-130	104	104	96		
romofluorobenzene	50	70-130	95	95	95		

MCK0032598

Centrum Analytical Laboratories, Inc.

(RWQCB labFrom 10A; Ver6/00)

Project No: 01233/McKesson

QA/QC REPORT (Continued)

I. Sample/Sample Duplicate

DATE PERFORMED: 10/08/01 ANALYTICAL METHOD: GCMS

LAB SAMPLE I.D.: SG-9-5' UNIT: (Circle one) mg/L µg/L of Air

ANALYTE	SAMPLE RESULT	SAMPLE CONC (DUP)	RPD	RPD Limit
8260 Compounds				
1,1-Dichloroethylene	0.81	1.18	37.2%	50*
cis-1,2-Dichloroethene	2.40	2.43	1.2%	25
1,1-Dichloroethane	1.49	1.52	2.0%	25
Trichloroethene	2.00	2.14	6.8%	25
Tetrachloroethene	2.92	3.36	14.0%	25

The RPD Acceptance Limit for sample concentrations less than twice the detection limit is 50%.

II. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 10/08/01 ANALYTICAL METHOD: GCMS

STANDARD SUPPLY SOURCE: Ultra Sci. Accu. Std.(Freon 113) DATE OF SOURCE: 08/23/01

INSTRUMENT I.D.: MEL2 GCMS#1 LOT NUMBER: M-106Z,S-0130,S-0152 B0050150(Freon113)

LAB LCS I.D.: 8260JT01082301 8260JT02082301 UNIT: (Circle one) mg/L µg/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
8260 Compounds				
1,1-Dichloroethylene	20	23.25	116%	59-172
Benzene	20	19.61	98%	66-142
Trichloroethene	20	21.80	109%	62-137
Toluene	20	20.98	105%	59-139
Chlorobenzene	20	21.15	106%	60-133

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-831

Project No: 01233
Project Name: McKESSON
Project Manager: JACK WILLIAMS
Phone: 323-278-7700
Fax: 323-271-7707
Client Name: (Report and Billing) INTERPHASE
Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: (8260), 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	SG-4-5'A	10/8/01	0852	VAPOR		BUBB							X									1 PURGE VOLUME
2	SG-4-5'B		0856										X									3 " "
3	SG-4-5'C		0859										X									5 " "
4	SG-4-10'		1025										X									
5	SG-4-20'		1040										X									
6	SG-3-5'		1107										X									
7	SG-3-10'		1117										X									
8	SG-3-20'		1128										X									
9	SG-9-5'		1155										X									
10	SG-9-10'		1220										X									

1) Relinquished by: (Sampler's Signature) Date: 10/8/01 Time: 1650
2) Received by: Date: 10/8/01 Time: 1550
3) Relinquished by: Date: Time:
4) Received by: Date: Time:
5) Relinquished by: Date: Time:
6) Received for Laboratory by: Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Turn-Around Time
☐ 24 Hr. RUSH*
☐ 48 Hr. RUSH*
☐ Normal TAT
*Requires PRIOR approval, additional charges apply
Requested due date: _____

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032600

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-831

Project No: 01233

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MTBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG-9-20'	10/8/01	1240	VAPOR		BULB							X									
12	SG-10-5'		1402										X									
13	SG-10-10'		1417										X									
14	SG-10-20'		1436										X									
15	SG-22-5'		1510										X									
16	SG-22-10'		1530										X									
17	SG-22-20'		1545										X									

1) Relinquished by: (Sampler's Signature) — Date: 10/8/01 Time: 1550

Received by: — Date: 10/8/01 Time: 1550

2) Relinquished by: — Date: Time:

3) Received by: — Date: Time:

4) Relinquished by: — Date: Time:

5) Received for Laboratory by: — Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples)

Yellow Copy - Centrum File

MCK0032601

Centrum Analytical Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	Centrum Analytical Laboratories, Inc.
Address:	1401 Research Park Drive, Suite 100, Riverside, CA 92507
Telephone/Fax::	(909) 779-0310/(909) 779-0344
ELAP Certification No./ Expiration Date	2419/May 2002
Authorized Signature Name, Title (print)	Robert R. Clark, PhD, Laboratory Director
Signature, Date	11/7/01
Client Name	Interphase Environmental
Project No:	01233/McKesson
Date(s) Sampled: (from - to)	10/09/01
Date(s) Received: (from - to)	10/09/01
Date(s) Reported: (from - to)	10/09/01
Chain of Custody received:	Yes X No ____
Comments	

MCK0032602

(RWQCB Lab Form: Ver 6/00)

Centrum
Analytical
Laboratories, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
LARWQCB - GCMS	15	
Sample Condition:	Intact	

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Microbiological Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Other Types of Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

(RWQCB Lab Form: Ver 6/00)

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
DATE EXTRACTED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
LAB SAMPLE I.D.		Air Blank	M2-832-1	M2-832-2	M2-832-3	M2-832-4
CLIENT SAMPLE I.D.		NA	SG-19-5'	SG-19-10'	SG-19-20'	SG-20-5'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	**3.9**	**15**
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	**11**	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	**1.7**	**6.3**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032604

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	Air Blank	SG-19-5'	SG-19-10'	SG-19-20'	SG-20-5'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Naphthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	ND	ND	ND	**22**	ND
Toluene		1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	ND	ND	**1.6**	**2.7**
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	ND	ND	ND	**6.8**	ND
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane		5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	104	106	107	104	110
Toluene-d8	50	70-130	101	102	102	102	103
Bromofluorobenzene	50	70-130	96	96	96	95	95

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
DATE EXTRACTED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
LAB SAMPLE I.D.		M2-832-5	M2-832-6	M2-832-7	M2-832-8	M2-832-9
CLIENT SAMPLE I.D.		SG-20-10'	SG-20-20'	SG-24-5'	SG-24-10'	SG-24-20'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
ert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	**24**	**8.8**	ND	ND	**300**
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1-Dichloroethene	1.0	**7.0**	**3.9**	ND	ND	**300**
s-1,2-Dichloroethene	1.0	**6.4**	**1.8**	ND	ND	**210**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-20-10'	SG-20-20'	SG-24-5'	SG-24-10'	SG-24-20'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
lapthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**44**	**10**	ND	**1.3**	**38**
Toluene	1.0	**1.9**	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	**3.2**	**2.3**	ND	ND	**75**
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	**5.1**	**2.0**	ND	ND	**43**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	**3.0**
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	**37**
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	**4.3**
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	107	109	102	105	102
oluene-d8	50	70-130	102	103	90	91	91
omofluorobenzene	50	70-130	95	94	95	95	94

MCK0032607

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
DATE EXTRACTED		10/09/01	10/09/01	10/09/01	10/09/01	10/09/01
LAB SAMPLE I.D.		M2-832-10	M2-832-11	M2-832-12	M2-832-13	M2-832-14
CLIENT SAMPLE I.D.		SG-23-5'	SG-23-10'	SG-23-20'	SG-13-5'	SG-13-10'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
ert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	**1.4**	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	**47**	ND	ND
1,2-Dichloroethane	1.0	ND	ND	**4.2**	ND	ND
1-Dichloroethene	1.0	**1.4**	**1.7**	**310**	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	**10**	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	SG-23-5'	SG-23-10'	SG-23-20'	SG-13-5'	SG-13-10'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Naphthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	ND	**2.6**	**280**	**1.0**	**1.7**
Toluene		1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	ND	**15**	ND	ND
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	ND	ND	**150**	ND	ND
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	**2.8**	ND	ND
Trichlorotrifluoroethane		5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	103	104	104	103	101
Toluene-d8	50	70-130	90	91	90	91	101
Bromofluorobenzene	50	70-130	94	94	93	94	107

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/09/01				
DATE EXTRACTED		10/09/01				
LAB SAMPLE I.D.		M2-832-15				
CLIENT SAMPLE I.D.		SG-13-20'				
EXTRACTION SOLVENT		NA				
EXTRACTION METHOD		5030				
DILUTION FACTOR		1				
COMPOUND	CRDL					
Acetone	50	ND				
tert-Amyl Methyl Ether (TAME)	5.0	ND				
Benzene	1.0	ND				
Bromobenzene	1.0	ND				
Bromochloromethane	1.0	ND				
Bromodichloromethane	1.0	ND				
Bromoform	1.0	ND				
Bromomethane	1.0	ND				
ert-Butanol (TBA)	10	ND				
2-Butanone (MEK)	20	ND				
n-Butylbenzene	1.0	ND				
sec-Butylbenzene	1.0	ND				
tert-Butylbenzene	1.0	ND				
Carbon disulfide	10	ND				
Carbon tetrachloride	1.0	ND				
Chlorobenzene	1.0	ND				
Chloroethane	1.0	ND				
Chloroform	1.0	ND				
Chloromethane	1.0	ND				
2-Chlorotoluene	1.0	ND				
4-Chlorotoluene	1.0	ND				
Dibromochloromethane	1.0	ND				
1,2-Dibromoethane	1.0	ND				
1,2-Dibromo-3-chloropropane	10	ND				
Dibromomethane	1.0	ND				
1,2-Dichlorobenzene	1.0	ND				
1,3-Dichlorobenzene	1.0	ND				
1,4-Dichlorobenzene	1.0	ND				
Dichlorodifluoromethane	1.0	ND				
1,1-Dichloroethane	1.0	**39**				
1,2-Dichloroethane	1.0	ND				
1-Dichloroethene	1.0	**5.4**				
s-1,2-Dichloroethene	1.0	**29**				
trans-1,2-Dichloroethene	1.0	ND				

MCK0032610

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-13-20'				
1,2-Dichloropropane	1.0	ND				
1,3-Dichloropropane	1.0	ND				
2,2-Dichloropropane	1.0	ND				
1,1-Dichloropropene	1.0	ND				
cis-1,3-Dichloropropene	1.0	ND				
trans-1,3-Dichloropropene	1.0	ND				
Diisopropyl Ether (DIPE)	5.0	ND				
Ethylbenzene	1.0	ND				
Ethyl tert-Butyl Ether (EtBE)	5.0	ND				
Hexachlorobutadiene	1.0	ND				
2-Hexanone	10	ND				
Isopropylbenzene	1.0	ND				
p-Isopropyltoluene	1.0	ND				
Methylene chloride	10	ND				
4-Methyl-2-pentanone	10	ND				
Methyl-tert-butyl ether (MtBE)	5.0	ND				
Napthalene	2.0	ND				
n-Propylbenzene	1.0	ND				
Styrene	1.0	ND				
1,1,1,2-Tetrachloroethane	1.0	ND				
1,1,2,2-Tetrachloroethane	2.0	ND				
Tetrachloroethene	1.0	**1.4**				
Toluene	1.0	ND				
1,2,3-Trichlorobenzene	1.0	ND				
1,2,4-Trichlorobenzene	1.0	ND				
1,1,1-Trichloroethane	1.0	**2.7**				
1,1,2-Trichloroethane	1.0	ND				
Trichloroethene	1.0	ND				
1,2,3-Trichloropropane	1.0	ND				
Trichlorofluoromethane	1.0	ND				
Trichlorotrifluoroethane	5.0	ND				
1,2,4-Trimethylbenzene	1.0	ND				
1,3,5-Trimethylbenzene	1.0	ND				
Vinyl chloride	1.0	**1.9**				
Xylenes, m-,p-	2.0	ND				
Xylene, o-	1.0	ND				

SURROGATE	SPK CONC	ACP%	%RC				
Dibromofluoromethane	50	70-130	101				
luene-d8	50	70-130	95				
omofluorobenzene	50	70-130	94				

MCK0032611

Centrum Analytical Laboratories, Inc.

(RWQCB labFrom 10A; Ver6/00)

Project No: 01233/McKesson

QA/QC REPORT (Continued)

I. Sample/Sample Duplicate

DATE PERFORMED: 10/09/01 ANALYTICAL METHOD: GCMS

LAB SAMPLE I.D.: SG-19-20' UNIT: (Circle one) mg/L µg/L of Air

ANALYTE	SAMPLE RESULT	SAMPLE CONC (DUP)	RPD	RPD Limit
8260 Compounds				
1,1-Dichloroethylene	10.7	9.92	7.6%	25
cis-1,2-Dichloroethene	1.68	1.55	8.0%	50*
1,1-Dichloroethane	3.94	3.84	2.6%	25
1,1,1-Trichloroethane	1.81	1.54	16.1%	50*
Trichloroethene	6.83	6.41	6.3%	25
Tetrachloroethene	22.1	20.7	6.5%	25

The RPD Acceptance Limit for sample concentrations less than twice the detection limit is 50%.

II. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 10/09/01 ANALYTICAL METHOD: GCMS

STANDARD SUPPLY SOURCE: Ultra Sci. Accu. Std.(Freon 113) DATE OF SOURCE: 08/23/01

INSTRUMENT I.D.: MEL2 GCMS#1 LOT NUMBER: M-106Z,S-0130,S-0152 B0050150(Freon113)

LAB LCS I.D.: 8260JT01082301 8260JT02082301 UNIT: (Circle one) mg/L µg/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
8260 Compounds				
1,1-Dichloroethylene	20	18.62	93%	59-172
Benzene	20	18.24	91%	66-142
Trichloroethene	20	17.98	90%	62-137
Toluene	20	17.03	85%	59-139
Chlorobenzene	20	18.58	93%	60-133

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-832

Project No: 01233

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	SG-19-5'	10/9/01	0803	VAPOR		BULB							X									
2	SG-19-10'		0815										X									
3	SG-19-20'		0834										X									
4	SG-20-5'		0902										X									
5	SG-20-10'		0914										X									
6	SG-20-20'		0929										X									
7	SG-24-5'		1009										X									
8	SG-24-10'		1020										X									
9	SG-24-20'		1037										X									
10	SG-23-5'		1120										X									

Relinquished by: (Sampler's Signature) Date: 10/9/01 Time: 1330

Received by: Date: 10/9/01 Time: 1330

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

e delivery of samples and the signature on this chain of custody form stitutes authorization to perform the analyses specified above under Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Turn-Around Time
☐ 24 Hr. RUSH*
☐ 48 Hr. RUSH*
☐ Normal TAT
*Requires PRIOR approval, additional charges apply
Requested due date: _____

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Sample Locator No.

oratory Notes:

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032613

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2- 832

Project No: 01233

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 W/P	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG-23-10'	10/9/01	1135	VAPOR		BULB							X									
12	SG-23-20'		1152										X									
13	SG-13-5'		1251										X									
14	SG-13-10'		1305										X									
15	SG-13-20'		1325										X									

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) Date: 10/9/01 Time: 1330

2) Received by: Date: 10/9/01 Time: 1330

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

...ry of samples and the signature on this chain of custody form ... authorization to perform the analyses specified above under ... and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Notes:

Sample Locator No.

MCK0032614

...iginal (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

Centrum Analytical Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	Centrum Analytical Laboratories, Inc.
Address:	1401 Research Park Drive, Suite 100, Riverside, CA 92507
Telephone/Fax::	(909) 779-0310/(909) 779-0344
ELAP Certification No./ Expiration Date	2419/May 2002
Authorized Signature Name, Title (print)	Robert R. Clark, PhD, Laboratory Director
Signature, Date	11/7/01
Client Name	Interphase Environmental
Project No:	01233/McKesson
Date(s) Sampled: (from - to)	10/10/01
Date(s) Received: (from - to)	10/10/01
Date(s) Reported: (from - to)	10/10/01
Chain of Custody received:	Yes X No ____
Comments	

(RWQCB Lab Form: Ver 6/00)

Centrum
Analytical
Laboratories, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
LARWQCB - GCMS	15	
Sample Condition:	Intact	

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Microbiological Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Other Types of Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

(RWQCB Lab Form: Ver 6/00)

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
DATE EXTRACTED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
LAB SAMPLE I.D.		Air Blank	M2-833-1	M2-833-2	M2-833-3	M2-833-4
CLIENT SAMPLE I.D.		NA	SG-1-5'	SG-1-10'	SG-1-20'	SG-2-5'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	5	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	**800**	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	**200**	**1.1**
cis-1,2-Dichloroethene	1.0	ND	ND	ND	**260**	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	Air Blank	SG-1-5'	SG-1-10'	SG-1-20'	SG-2-5'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Naphthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	**9.6**	**13**	**28**	**8.6**
Toluene	1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	**4.2**	**5.7**	**87**	**1.8**
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	**1.5**	**13**	**1.2**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	**76**	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	110	106	105	106	114
Toluene-d8	50	70-130	101	102	101	101	103
Bromofluorobenzene	50	70-130	96	95	95	94	96

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
DATE EXTRACTED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
LAB SAMPLE I.D.		M2-833-5	M2-833-6	M2-833-7	M2-833-8	M2-833-9
CLIENT SAMPLE I.D.		SG-2-10'	SG-2-20'	SG-8-5'	SG-8-10'	SG-8-20'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	10
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	**47**	**5.3**	ND	**110**
1,2-Dichloroethane	1.0	ND	**4.4**	ND	ND	**10**
1,1-Dichloroethene	1.0	ND	**35**	**3.1**	ND	**360**
cis-1,2-Dichloroethene	1.0	ND	**71**	**3.6**	ND	**110**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032619

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-2-10'	SG-2-20'	SG-8-5'	SG-8-10'	SG-8-20'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**20**	**61**	**4.6**	ND	**510**
Toluene	1.0	ND	ND	ND	ND	**12**
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	**14**	**4.7**	**45**	**1.9**	**1,900**
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	**1.4**	**21**	**1.3**	ND	**110**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	**20**
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	106	101	106	103	103
Toluene-d8	50	70-130	92	90	92	97	91
Bromofluorobenzene	50	70-130	96	94	94	95	95

MCK0032620

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
DATE EXTRACTED		10/10/01	10/10/01	10/10/01	10/10/01	10/10/01
LAB SAMPLE I.D.		M2-833-10	M2-833-11	M2-833-12	M2-833-13	M2-833-14
CLIENT SAMPLE I.D.		SG-16-5'	SG-16-10'	SG-16-20'	SG-17-5'	SG-17-10'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	**1.3**	ND	ND	**6.3**	**6.2**
2-Dichloroethane	1.0	ND	ND	ND	ND	ND
-Dichloroethene	1.0	ND	ND	**2.1**	**7.3**	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	**4.7**	**3.8**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032621

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	SG-16-5'	SG-16-10'	SG-16-20'	SG-17-5'	SG-17-10'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Naphthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	**71**	**35**	**15**	**120**	**8.4**
Toluene		1.0	**1.3**	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	**32**	**17**	**9.0**	**24**	**5.3**
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	**2.7**	**2.1**	**1.5**	**15**	ND
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane		5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	103	104	105	103	104
Toluene-d8	50	70-130	91	92	91	90	92
Bromofluorobenzene	50	70-130	96	95	97	94	94

MCK0032622

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/10/01				
DATE EXTRACTED		10/10/01				
LAB SAMPLE I.D.		M2-833-15				
CLIENT SAMPLE I.D.		SG-17-20'				
EXTRACTION SOLVENT		NA				
EXTRACTION METHOD		5030				
DILUTION FACTOR		1				
COMPOUND	CRDL					
Acetone	50	ND				
tert-Amyl Methyl Ether (TAME)	5.0	ND				
Benzene	1.0	ND				
Bromobenzene	1.0	ND				
Bromochloromethane	1.0	ND				
Bromodichloromethane	1.0	ND				
Bromoform	1.0	ND				
Bromomethane	1.0	ND				
ert-Butanol (TBA)	10	ND				
2-Butanone (MEK)	20	ND				
n-Butylbenzene	1.0	ND				
sec-Butylbenzene	1.0	ND				
tert-Butylbenzene	1.0	ND				
Carbon disulfide	10	ND				
Carbon tetrachloride	1.0	ND				
Chlorobenzene	1.0	ND				
Chloroethane	1.0	ND				
Chloroform	1.0	ND				
Chloromethane	1.0	ND				
2-Chlorotoluene	1.0	ND				
4-Chlorotoluene	1.0	ND				
Dibromochloromethane	1.0	ND				
1,2-Dibromoethane	1.0	ND				
1,2-Dibromo-3-chloropropane	10	ND				
Dibromomethane	1.0	ND				
1,2-Dichlorobenzene	1.0	ND				
1,3-Dichlorobenzene	1.0	ND				
1,4-Dichlorobenzene	1.0	ND				
Dichlorodifluoromethane	1.0	ND				
1,1-Dichloroethane	1.0	**19**				
1,2-Dichloroethane	1.0	**1.6**				
1-Dichloroethene	1.0	**65**				
-1,2-Dichloroethene	1.0	**14**				
trans-1,2-Dichloroethene	1.0	ND				

MCK0032623

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-17-20'				
1,2-Dichloropropane	1.0	ND				
1,3-Dichloropropane	1.0	ND				
2,2-Dichloropropane	1.0	ND				
1,1-Dichloropropene	1.0	ND				
cis-1,3-Dichloropropene	1.0	ND				
trans-1,3-Dichloropropene	1.0	ND				
Diisopropyl Ether (DIPE)	5.0	ND				
Ethylbenzene	1.0	ND				
Ethyl tert-Butyl Ether (EtBE)	5.0	ND				
Hexachlorobutadiene	1.0	ND				
2-Hexanone	10	ND				
Isopropylbenzene	1.0	ND				
p-Isopropyltoluene	1.0	ND				
Methylene chloride	10	ND				
4-Methyl-2-pentanone	10	ND				
Methyl-tert-butyl ether (MtBE)	5.0	ND				
Napthalene	2.0	ND				
n-Propylbenzene	1.0	ND				
Styrene	1.0	ND				
1,1,1,2-Tetrachloroethane	1.0	ND				
1,1,2,2-Tetrachloroethane	2.0	ND				
Tetrachloroethene	1.0	**130**				
Toluene	1.0	ND				
1,2,3-Trichlorobenzene	1.0	ND				
1,2,4-Trichlorobenzene	1.0	ND				
1,1,1-Trichloroethane	1.0	**11**				
1,1,2-Trichloroethane	1.0	ND				
Trichloroethene	1.0	**45**				
1,2,3-Trichloropropane	1.0	ND				
Trichlorofluoromethane	1.0	ND				
Trichlorotrifluoroethane	5.0	ND				
1,2,4-Trimethylbenzene	1.0	ND				
1,3,5-Trimethylbenzene	1.0	ND				
Vinyl chloride	1.0	ND				
Xylenes, m-,p-	2.0	ND				
Xylene, o-	1.0	ND				

SURROGATE	SPK CONC	ACP%	%RC				
Dibromofluoromethane	50	70-130	106				
Toluene-d8	50	70-130	91				
Bromofluorobenzene	50	70-130	96				

MCK0032624

Centrum Analytical Laboratories, Inc.

(RWQCB labFrom 10A; Ver6/00)

Project No: 01233/McKesson

QA/QC REPORT (Continued)

I. Sample/Sample Duplicate

DATE PERFORMED: 10/10/01 ANALYTICAL METHOD: GCMS

LAB SAMPLE I.D.: SG-16-20' UNIT: (Circle one) mg/L µg/L of Air

ANALYTE	SAMPLE RESULT	SAMPLE CONC (DUP)	RPD	RPD Limit
8260 Compounds				
1,1-Dichloroethylene	2.06	2.35	13.2%	25
1,1,1-Trichloroethane	8.95	9.16	2.3%	25
Trichloroethene	1.53	2.13	32.8%	50*
Tetrachloroethene	15.4	15.8	2.6%	25

The RPD Acceptance Limit for sample concentrations less than twice the detection limit is 50%.

II. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 10/10/01 ANALYTICAL METHOD: GCMS

STANDARD SUPPLY SOURCE: Ultra Sci. Accu. Std.(Freon 113) DATE OF SOURCE: 08/23/01

INSTRUMENT I.D.: MEL2 GCMS#1 LOT NUMBER: M-106Z,S-0130,S-0152 B0050150(Freon113)

LAB LCS I.D.: 8260JT01082301 8260JT02082301 UNIT: (Circle one) mg/L µg/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
8260 Compounds				
1,1-Dichloroethylene	20	19.50	98%	59-172
Benzene	20	19.33	97%	66-142
Trichloroethene	20	20.08	100%	62-137
Toluene	20	18.20	91%	59-139
Chlorobenzene	20	19.84	99%	60-133

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-833

Project No: 01233

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	SG-1-5'	10/10/01	0802	VAPOR		BULB							X									
2	SG-1-10'		0814										X									
3	SG-1-20'		0832										X									
4	SG-2-5'		0853										X									
5	SG-2-10'		0907										X									
6	SG-2-20'		0920										X									
7	SG-8-5'		1011										X									
8	SG-8-10'		1055										X									
9	SG-8-20'		1115										X									
10	SG-16-5'		1150										X									

1) Relinquished by: (Sampler's Signature) Date: 10/10/01 Time: 1420

Received by: Date: 10/10/01 Time: 1420

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

Delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under Terms and Conditions set forth on the back hereof.

Laboratory Notes:

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032626

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com jlab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-833

Project No: 01033

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG-16-10'	10/10/01	1203	VAPOR		BULB							X									
12	SG-16-20'		1232										X									
13	SG-17-5'		1349										X									
14	SG-17-10'		1358										X									
15	SG-17-20'		1418										X									

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

Relinquished by: (Sampler's Signature) Date: 10/10/01 Time: 1420

Received by: Date: 10/10/01 Time: 1420

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

Delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

MCK0032627

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	Centrum Analytical Laboratories, Inc.
Address:	1401 Research Park Drive, Suite 100, Riverside, CA 92507
Telephone/Fax::	(909) 779-0310/(909) 779-0344
ELAP Certification No./ Expiration Date	2419/May 2002
Authorized Signature Name, Title (print)	Robert R. Clark, PhD, Laboratory Director
Signature, Date	11/7/01
Client Name	Interphase Environmental
Project No:	01233/McKesson
Date(s) Sampled: (from - to)	10/11/01
Date(s) Received: (from - to)	10/11/01
Date(s) Reported: (from - to)	10/11/01
Chain of Custody received:	Yes X No ____

Comments

The results for Acetone and 2-Butanone in sample M2-834-2 exceeded the calibration range. Re-analysis at a dilution was not possible due to expiration of the sample hold time, so these analytes were reported from the initial run as estimated values; the client was notified.

(RWQCB Lab Form: Ver 6/00)

Centrum
Analytical
Laboratories, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
LARWQCB - GCMS	15	
Sample Condition:	Intact	

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Microbiological Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Other Types of Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

(RWQCB Lab Form: Ver 6/00)

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/11/01	10/11/01	10/11/01	10/11/01	10/11/01
DATE EXTRACTED		10/11/01	10/11/01	10/11/01	10/11/01	10/11/01
LAB SAMPLE I.D.		Air Blank	M2-834-1	M2-834-2	M2-834-3	M2-834-4
CLIENT SAMPLE I.D.		NA	SG-21-5'	SG-21-10'	SG-21-20'	SG-14-5'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	10	1
COMPOUND	CRDL					
Acetone	50	ND	ND	**1,200***	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	**190***	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	**330**	**13**	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	**200**	**18**	ND
cis-1,2-Dichloroethene	1.0	ND	ND	**3.6**	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	Air Blank	SG-21-5'	SG-21-10'	SG-21-20'	SG-14-5'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	**17**	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	**1,500**	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Napthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	ND	**7.5**	**1,200**	**120**	**14**
Toluene		1.0	ND	ND	**200**	ND	**1.2**
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	**9.6**	**7,200**	**280**	**45**
1,1,2-Trichloroethane		1.0	ND	ND	**2.4**	ND	ND
Trichloroethene		1.0	ND	ND	**150**	**12**	**1.9**
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	**62**	ND	ND
Trichlorotrifluoroethane		5.0	ND	ND	**270**	ND	ND
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	**53**	ND	ND
Xylene, o-		1.0	ND	ND	**4.9**	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	107	108	107	106	108
Toluene-d8	50	70-130	102	101	102	103	91
Bromofluorobenzene	50	70-130	96	95	104	94	97

*These concentrations are estimated values; see Case Narrative.

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/11/01	10/11/01	10/11/01	10/11/01	10/11/01
DATE EXTRACTED		10/11/01	10/11/01	10/11/01	10/11/01	10/11/01
LAB SAMPLE I.D.		M2-834-5	M2-834-6	M2-834-7	M2-834-8	M2-834-9
CLIENT SAMPLE I.D.		SG-14-10'	SG-14-20'	SG-6-5'	SG-6-10'	SG-6-20'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	**3.1**
2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1-Dichloroethene	1.0	ND	**2.5**	ND	ND	**43**
cis-1,2-Dichloroethene	1.0	ND	**3.8**	ND	ND	**13**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032632

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-14-10'	SG-14-20'	SG-6-5'	SG-6-10'	SG-6-20'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**3.2**	**1.5**	**1.3**	**2.2**	**11**
Toluene	1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	**8.2**	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	**5.9**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	104	103	105	112	103
Toluene-d8	50	70-130	91	88	91	91	89
Bromofluorobenzene	50	70-130	95	95	94	96	95

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/11/01	10/11/01	10/11/01	10/11-12/01	10/11/01
DATE EXTRACTED		10/11/01	10/11/01	10/11/01	10/11/01	10/11/01
LAB SAMPLE I.D.		M2-834-10	M2-834-11	M2-834-12	M2-834-13	M2-834-14
CLIENT SAMPLE I.D.		SG-7-5'	SG-7-10'	SG-7-20'	SG-5-5'	SG-5-10'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	**1.8**	ND	**4.0**
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
romomethane	1.0	ND	ND	ND	ND	ND
ert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	**1.6**	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	**49**	**1.6**	**280**
2-Dichloroethane	1.0	ND	ND	**5.0**	ND	**29**
1-Dichloroethene	1.0	ND	ND	**690**	**2.6**	**170**
cis-1,2-Dichloroethene	1.0	ND	ND	**13**	**1.8**	**1,300**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	**2.6**

MCK0032634

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-7-5'	SG-7-10'	SG-7-20'	SG-5-5'	SG-5-10'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Naphthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**5.3**	**3.7**	**330**	**15**	**220**
Toluene	1.0	ND	ND	ND	ND	**1.7**
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	**15**	ND	**14**	**6.9**	**5.1**
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	**230**	**4.0**	**92**
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	**12**	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	**14**	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	**8.8**
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	105	103	100	105	106
oluene-d8	50	70-130	91	96	91	102	93
romofluorobenzene	50	70-130	95	94	94	95	96

MCK0032635

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/11/01				
DATE EXTRACTED		10/11/01				
LAB SAMPLE I.D.		M2-834-15				
CLIENT SAMPLE I.D.		SG-5-20'				
EXTRACTION SOLVENT		NA				
EXTRACTION METHOD		5030				
DILUTION FACTOR		1				
COMPOUND	CRDL					
Acetone	50	ND				
tert-Amyl Methyl Ether (TAME)	5.0	ND				
Benzene	1.0	**1.6**				
Bromobenzene	1.0	ND				
Bromochloromethane	1.0	ND				
Bromodichloromethane	1.0	ND				
Bromoform	1.0	ND				
Bromomethane	1.0	ND				
tert-Butanol (TBA)	10	ND				
2-Butanone (MEK)	20	ND				
n-Butylbenzene	1.0	ND				
sec-Butylbenzene	1.0	ND				
tert-Butylbenzene	1.0	ND				
Carbon disulfide	10	ND				
Carbon tetrachloride	1.0	ND				
Chlorobenzene	1.0	ND				
Chloroethane	1.0	ND				
Chloroform	1.0	**1.1**				
Chloromethane	1.0	ND				
2-Chlorotoluene	1.0	ND				
4-Chlorotoluene	1.0	ND				
Dibromochloromethane	1.0	ND				
1,2-Dibromoethane	1.0	ND				
1,2-Dibromo-3-chloropropane	10	ND				
Dibromomethane	1.0	ND				
1,2-Dichlorobenzene	1.0	ND				
1,3-Dichlorobenzene	1.0	ND				
1,4-Dichlorobenzene	1.0	ND				
Dichlorodifluoromethane	1.0	ND				
1,1-Dichloroethane	1.0	**280**				
1,2-Dichloroethane	1.0	**18**				
1,1-Dichloroethene	1.0	**260**				
cis-1,2-Dichloroethene	1.0	**270**				
trans-1,2-Dichloroethene	1.0	**1.5**				

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-5-20'				
1,2-Dichloropropane	1.0	ND				
1,3-Dichloropropane	1.0	ND				
2,2-Dichloropropane	1.0	ND				
1,1-Dichloropropene	1.0	ND				
cis-1,3-Dichloropropene	1.0	ND				
trans-1,3-Dichloropropene	1.0	ND				
Diisopropyl Ether (DIPE)	5.0	ND				
Ethylbenzene	1.0	ND				
Ethyl tert-Butyl Ether (EtBE)	5.0	ND				
Hexachlorobutadiene	1.0	ND				
2-Hexanone	10	ND				
Isopropylbenzene	1.0	ND				
p-Isopropyltoluene	1.0	ND				
Methylene chloride	10	ND				
4-Methyl-2-pentanone	10	ND				
Methyl-tert-butyl ether (MtBE)	5.0	ND				
Napthalene	2.0	ND				
n-Propylbenzene	1.0	ND				
Styrene	1.0	ND				
1,1,1,2-Tetrachloroethane	1.0	ND				
1,1,2,2-Tetrachloroethane	2.0	ND				
Tetrachloroethene	1.0	**170**				
Toluene	1.0	ND				
1,2,3-Trichlorobenzene	1.0	ND				
1,2,4-Trichlorobenzene	1.0	ND				
1,1,1-Trichloroethane	1.0	**13**				
1,1,2-Trichloroethane	1.0	ND				
Trichloroethene	1.0	**88**				
1,2,3-Trichloropropane	1.0	ND				
Trichlorofluoromethane	1.0	**2.2**				
Trichlorotrifluoroethane	5.0	**6.4**				
1,2,4-Trimethylbenzene	1.0	ND				
1,3,5-Trimethylbenzene	1.0	ND				
Vinyl chloride	1.0	**25**				
Xylenes, m-,p-	2.0	ND				
Xylene, o-	1.0	ND				

SURROGATE	SPK CONC	ACP%	%RC				
Dibromofluoromethane	50	70-130	109				
Toluene-d8	50	70-130	92				
Bromofluorobenzene	50	70-130	94				

MCK0032637

Centrum Analytical Laboratories, Inc.

(RWQCB labFrom 10A; Ver6/00)

Project No: 01233/McKesson

QA/QC REPORT (Continued)

I. Sample/Sample Duplicate

DATE PERFORMED: 10/11/01 ANALYTICAL METHOD: GCMS

LAB SAMPLE I.D.: SG-6-20' UNIT: (Circle one) mg/L µg/L of Air

ANALYTE	SAMPLE RESULT	SAMPLE CONC (DUP)	RPD	RPD Limit
8260 Compounds				
1,1-Dichloroethylene	43.1	49.4	13.6%	25
cis-1,2-Dichloroethene	13.5	15.9	16.3%	25
1,1-Dichloroethane	3.12	3.85	20.9%	25
Trichloroethene	5.92	5.80	2.0%	25
Tetrachloroethene	11.2	12.6	11.8%	25

The RPD Acceptance Limit for sample concentrations less than twice the detection limit is 50%.

II. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 10/11/01 ANALYTICAL METHOD: GCMS

STANDARD SUPPLY SOURCE: Ultra Sci. Accu. Std.(Freon 113) DATE OF SOURCE: 08/23/01

INSTRUMENT I.D.: MEL2 GCMS#1 LOT NUMBER: M-106Z,S-0130,S-0152 B0050150(Freon113)

LAB LCS I.D.: 8260JT01082301 8260JT02082301 UNIT: (Circle one) mg/L µg/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
8260 Compounds				
1,1-Dichloroethylene	20	18.00	90%	59-172
Benzene	20	18.20	91%	66-142
Trichloroethene	20	17.32	87%	62-137
Toluene	20	17.61	88%	59-139
Chlorobenzene	20	18.44	92%	60-133

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-834

Project No: 01233

Project Name: McKESSON

Project Manager: JACK WILLIAMS

Phone: 323-278-7700

Fax: 323-278-7707

Client Name: (Report and Billing) INTERPHASE

Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 MP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB	Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr	Remarks/Special Instructions
1	SG-21-5	10/11/01	0830	VAPOR		BULB													
2	SG-21-10'		0840									X							
3	SG-21-20'		0854									X							
4	SG-14-5'		0926									X							
5	SG-14-10'		0939									X							
6	SG-14-20		1000									X							
7	SG-6-5'		1032									X							
8	SG-6-10'		1043									X							
9	SG-6-20'		1100									X							
10	SG-7-5		1135									X							

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) — Date: 10/11/01 Time: 1500

2) Received by: — Date: 10/11/01 Time: 1500

3) Relinquished by: — Date: Time:

4) Received by: — Date: Time:

5) Relinquished by: — Date: Time:

6) Received for Laboratory by: — Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032639

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # 102-838

Please Circle Analyses Requested

Project No: 01233
Project Name: McKESSON
Project Manager: JACK WILLIAMS
Phone: 323-278-7700
Fax: 323-278-7707
Client Name: (Report and Billing) INTERPHASE
Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES CA 90040

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 N/P	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG-7-10'	10/11/01	1150	VAPOR		BULB							X									
12	SG-7-20'		1245										X									
13	SG-5-5'		1426										X									
14	SG-5-10'		1438										X									
15	SG-5-20'		1458										X									

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) J. Voogt — Date: 10/11/01 Time: 1500
2) Received by: [signature] — Date: 10/11/01 Time: 1500
3) Relinquished by: — Date: Time:
4) Received by: — Date: Time:
5) Relinquished by: — Date: Time:
6) Received for Laboratory by: — Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032640

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	Centrum Analytical Laboratories, Inc.
Address:	1401 Research Park Drive, Suite 100, Riverside, CA 92507
Telephone/Fax::	(909) 779-0310/(909) 779-0344
ELAP Certification No./ Expiration Date	2419/May 2002
Authorized Signature Name, Title (print)	Robert R. Clark, PhD, Laboratory Director
Signature, Date	11/7/01
Client Name	Interphase Environmental
Project No:	01233/McKesson
Date(s) Sampled: (from - to)	10/12/01
Date(s) Received: (from - to)	10/12/01
Date(s) Reported: (from - to)	10/12/01
Chain of Custody received:	Yes X No ____
Comments	

(RWQCB Lab Form: Ver 6/00)

Centrum
Analytical
Laboratories, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
LARWQCB - GCMS	15	
Sample Condition:	Intact	

Inorganic Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Microbiological Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

Other Types of Analyses	# of Samples	# of Samples Subcontracted
Sample Condition:		

(RWQCB Lab Form: Ver 6/00)

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
DATE EXTRACTED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
LAB SAMPLE I.D.		Air Blank	M2-835-1	M2-835-2	M2-835-3	M2-835-4
CLIENT SAMPLE I.D.		NA	SG-12-5'	SG-12-10'	SG-12-20'	SG-11-5'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	5	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
ert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	**280**	ND
1-Dichloroethene	1.0	ND	ND	ND	ND	ND
-1,2-Dichloroethene	1.0	ND	ND	ND	**350**	**1.4**
trans-1,2-Dichloroethene	1.0	ND	ND	**1.2**	**190**	ND
	1.0	ND	ND	ND	ND	ND

MCK0032643

Centrum
Analytical
Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	Air Blank	SG-12-5'	SG-12-10'	SG-12-20'	SG-11-5'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Naphthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	ND	**1.1**	**1.3**	**59**	**4.5**
Toluene		1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	ND	ND	**55**	ND
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	ND	ND	ND	**53**	**1.2**
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane		5.0	ND	ND	ND	**130**	ND
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	**110**	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	107	111	105	104	103
Toluene-d8	50	70-130	102	102	104	104	97
Bromofluorobenzene	50	70-130	95	96	95	93	95

MCK0032644

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
DATE EXTRACTED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
LAB SAMPLE I.D.		M2-835-5	M2-835-6	M2-835-7	M2-835-8	M2-835-9
CLIENT SAMPLE I.D.		SG-11-10'	SG-11-20'	SG-15-5'	SG-15-10'	SG-15-20'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	5	1	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0'	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	**61**	**1.0**	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1-Dichloroethene	1.0	ND	**660**	ND	ND	ND
-1,2-Dichloroethene	1.0	ND	**240**	**2.1**	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032645

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-11-10'	SG-11-20'	SG-15-5'	SG-15-10'	SG-15-20'
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	5.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND
Methylene chloride	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	5.0	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	**1.7**	**140**	**3.7**	**1.6**	**4.1**
Toluene	1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	**11**	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	**140**	**1.6**	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	**7.0**	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
Dibromofluoromethane	50	70-130	109	105	104	107	105
Toluene-d8	50	70-130	95	90	91	91	91
Bromofluorobenzene	50	70-130	94	93	96	95	94

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS **REPORTING UNIT:** µg/L of Air

DATE ANALYZED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
DATE EXTRACTED		10/12/01	10/12/01	10/12/01	10/12/01	10/12/01
LAB SAMPLE I.D.		M2-835-10	M2-835-11	M2-835-12	M2-835-13	M2-835-14
CLIENT SAMPLE I.D.		SG-18-5'	SG-18-10'	SG-18-20'	SG-25-5'	SG-25-10'
EXTRACTION SOLVENT		NA	NA	NA	NA	NA
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	5	1	1
COMPOUND	CRDL					
Acetone	50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	5.0	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND	ND
2-Butanone (MEK)	20	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Chloromethane	1.0	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	**24**	**1.5**	**4.0**
',2-Dichloroethane	1.0	ND	ND	ND	ND	ND
,1-Dichloroethene	1.0	**1.1**	ND	**160**	**9.2**	**8.9**
cis-1,2-Dichloroethene	1.0	**1.9**	ND	**5.9**	ND	**1.4**
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND

MCK0032647

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND		CRDL	SG-18-5'	SG-18-10'	SG-18-20'	SG-25-5'	SG-25-10'
1,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,3-Dichloropropane		1.0	ND	ND	ND	ND	ND
2,2-Dichloropropane		1.0	ND	ND	ND	ND	ND
1,1-Dichloropropene		1.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		1.0	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)		5.0	ND	ND	ND	ND	ND
Ethylbenzene		1.0	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)		5.0	ND	ND	ND	ND	ND
Hexachlorobutadiene		1.0	ND	ND	ND	ND	ND
2-Hexanone		10	ND	ND	ND	ND	ND
Isopropylbenzene		1.0	ND	ND	ND	ND	ND
p-Isopropyltoluene		1.0	ND	ND	ND	ND	ND
Methylene chloride		10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)		5.0	ND	ND	ND	ND	ND
Napthalene		2.0	ND	ND	ND	ND	ND
n-Propylbenzene		1.0	ND	ND	ND	ND	ND
Styrene		1.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane		1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		2.0	ND	ND	ND	ND	ND
Tetrachloroethene		1.0	**5.2**	**2.9**	**150**	**20**	**17**
Toluene		1.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		1.0	ND	ND	ND	**86**	**59**
1,1,2-Trichloroethane		1.0	ND	ND	ND	ND	ND
Trichloroethene		1.0	**1.5**	**1.1**	**71**	**1.5**	**2.9**
1,2,3-Trichloropropane		1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane		1.0	ND	ND	ND	**1.4**	ND
Trichlorotrifluoroethane		5.0	ND	ND	ND	**6.2**	**7.5**
1,2,4-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		1.0	ND	ND	ND	ND	ND
Vinyl chloride		1.0	ND	ND	ND	ND	ND
Xylenes, m-,p-		2.0	ND	ND	ND	ND	ND
Xylene, o-		1.0	ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
Dibromofluoromethane	50	70-130	107	109	105	105	104
Toluene-d8	50	70-130	89	91	90	91	95
Bromofluorobenzene	50	70-130	96	93	94	95	94

Centrum Analytical Laboratories, Inc.

Project No: 01233/McKesson

(RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: LARWQCB - GCMS

REPORTING UNIT: µg/L of Air

DATE ANALYZED		10/12/01				
DATE EXTRACTED		10/12/01				
LAB SAMPLE I.D.		M2-835-15				
CLIENT SAMPLE I.D.		SG-25-20'				
EXTRACTION SOLVENT		NA				
EXTRACTION METHOD		5030				
DILUTION FACTOR		5				
COMPOUND	CRDL					
Acetone	50	ND				
tert-Amyl Methyl Ether (TAME)	5.0	ND				
Benzene	1.0	ND				
Bromobenzene	1.0	ND				
Bromochloromethane	1.0	ND				
Bromodichloromethane	1.0	ND				
Bromoform	1.0	ND				
Bromomethane	1.0	ND				
tert-Butanol (TBA)	10	ND				
2-Butanone (MEK)	20	ND				
n-Butylbenzene	1.0	ND				
sec-Butylbenzene	1.0	ND				
tert-Butylbenzene	1.0	ND				
Carbon disulfide	10	ND				
Carbon tetrachloride	1.0	ND				
Chlorobenzene	1.0	ND				
Chloroethane	1.0	ND				
Chloroform	1.0	ND				
Chloromethane	1.0	ND				
2-Chlorotoluene	1.0	ND				
4-Chlorotoluene	1.0	ND				
Dibromochloromethane	1.0	ND				
1,2-Dibromoethane	1.0	ND				
1,2-Dibromo-3-chloropropane	10	ND				
Dibromomethane	1.0	ND				
1,2-Dichlorobenzene	1.0	ND				
1,3-Dichlorobenzene	1.0	ND				
1,4-Dichlorobenzene	1.0	ND				
Dichlorodifluoromethane	1.0	ND				
1,1-Dichloroethane	1.0	**390**				
1,2-Dichloroethane	1.0	ND				
1,1-Dichloroethene	1.0	**210**				
1,2-Dichloroethene	1.0	**290**				
s-1,2-Dichloroethene	1.0	ND				

MCK0032649

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULT (Cont'd)

COMPOUND	CRDL	SG-25-20				
1,2-Dichloropropane	1.0	ND				
1,3-Dichloropropane	1.0	ND				
2,2-Dichloropropane	1.0	ND				
1,1-Dichloropropene	1.0	ND				
cis-1,3-Dichloropropene	1.0	ND				
trans-1,3-Dichloropropene	1.0	ND				
Diisopropyl Ether (DIPE)	5.0	ND				
Ethylbenzene	1.0	ND				
Ethyl tert-Butyl Ether (EtBE)	5.0	ND				
Hexachlorobutadiene	1.0	ND				
2-Hexanone	10	ND				
Isopropylbenzene	1.0	ND				
p-Isopropyltoluene	1.0	ND				
Methylene chloride	10	ND				
4-Methyl-2-pentanone	10	ND				
Methyl-tert-butyl ether (MtBE)	5.0	ND				
Naphthalene	2.0	ND				
n-Propylbenzene	1.0	ND				
Styrene	1.0	ND				
1,1,1,2-Tetrachloroethane	1.0	ND				
1,1,2,2-Tetrachloroethane	2.0	ND				
Tetrachloroethene	1.0	**53**				
Toluene	1.0	ND				
1,2,3-Trichlorobenzene	1.0	ND				
1,2,4-Trichlorobenzene	1.0	ND				
1,1,1-Trichloroethane	1.0	**100**				
1,1,2-Trichloroethane	1.0	ND				
Trichloroethene	1.0	**51**				
1,2,3-Trichloropropane	1.0	ND				
Trichlorofluoromethane	1.0	ND				
Trichlorotrifluoroethane	5.0	**71**				
1,2,4-Trimethylbenzene	1.0	ND				
1,3,5-Trimethylbenzene	1.0	ND				
Vinyl chloride	1.0	ND				
Xylenes, m-,p-	2.0	ND				
Xylene, o-	1.0	ND				

SURROGATE	SPK CONC	ACP%	%RC				
Dibromofluoromethane	50	70-130	110				
Toluene-d8	50	70-130	90				
Bromofluorobenzene	50	70-130	93				

MCK0032650

Centrum Analytical Laboratories, Inc.

(RWQCB labFrom 10A; Ver6/00)

Project No: 01233/McKesson

QA/QC REPORT (Continued)

I. Sample/Sample Duplicate

DATE PERFORMED: 10/12/01 ANALYTICAL METHOD: GCMS

LAB SAMPLE I.D.: SG-11-20' UNIT: (Circle one) mg/L µg/L of Air

ANALYTE	SAMPLE RESULT	SAMPLE CONC (DUP)	RPD	RPD Limit
8260 Compounds				
Trichlorofluoromethane	7.05	7.15	1.4%	25
1,1-Dichloroethylene	656	667	1.7%	25
cis-1,2-Dichloroethene	244	230	5.9%	25
1,1-Dichloroethane	61.2	61.1	0.2%	25
Trichloroethene	140	133	5.1%	25
Tetrachloroethene	135	120	11.8%	25

*The RPD Acceptance Limit for sample concentrations less than twice the detection limit is 50%.

II. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 10/12/01 ANALYTICAL METHOD: GCMS

STANDARD SUPPLY SOURCE: Ultra Sci. Accu. Std.(Freon 113) DATE OF SOURCE: 08/23/01

INSTRUMENT I.D.: MEL2 GCMS#1 LOT NUMBER: M-106Z,S-0130,S-0152 B0050150(Freon113)

LAB LCS I.D.: 8260JT01082301 8260JT02082301 UNIT: (Circle one) mg/L µg/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
8260 Compounds				
1,1-Dichloroethylene	20	19.38	97%	59-172
Benzene	20	18.37	92%	66-142
Trichloroethene	20	19.43	97%	62-137
Toluene	20	19.04	95%	59-139
Chlorobenzene	20	18.62	93%	60-133

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-835

Project No: 01233
Project Name: McKESSON
Project Manager: JACK WILLIAMS
Phone: 323-278-7700
Fax: 323-278-7707
Client Name: (Report and Billing) INTERPHASE
Address: (Report and Billing) 6200 PEACHTREE ST LOS ANGELES, CA 90040

Please Circle Analyses Requested

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2 WIP	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	SG-12-5'	10/12/01	0815	VAPOR		BULB							X									
2	SG-12-10'		0830										X									
3	SG-12-20'		0845										X									
4	SG-11-5'		0913										X									
5	SG-11-10'		0932										X									
6	SG-11-20'		0954										X									
7	SG-15-5'		1014										X									
8	SG-15-10'		1028										X									
9	SG-15-20'		1058										X									
10	SG-18-5'		1146										X									

1) Relinquished by: (Sampler's Signature) Date: 10/12/01 Time: 1410
2) Received by: Date: 10/12/01 Time: 1410
3) Relinquished by: Date: Time:
4) Received by: Date: Time:
5) Relinquished by: Date: Time:
6) Received for Laboratory by: Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032652

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com
lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M2-835

Please Circle Analyses Requested

Project No: 01233
Project Name: McKESSON
Project Manager: JACK WILLIAMS
Phone: 323-278-7700
Fax: 323-278-7707
Client Name: (Report and Billing) INTERPHASE
Address: (Report and Billing) 6200 PEACHTREE ST. LOS ANGELES, CA 90040

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG-18-10'	10/12/01	1201	VAPOR		BULB							X									
12	SG-18-20'		1220										X									
13	SG-25-5'		1333										X									
14	SG-25-10'		1345										X									
15	SG-25-20'		1400										X									

WIP

Turn-Around Time
☐ 24 Hr. RUSH*
☐ 48 Hr. RUSH*
☐ Normal TAT
*Requires PRIOR approval, additional charges apply
Requested due date: _____

1) Relinquished by: (Sampler's Signature) — Date: 10/12/01 Time: 1410
2) Received by: — Date: 10/12/01 Time: 1410
3) Relinquished by: — Date: Time:
4) Received by: — Date: Time:
5) Relinquished by: — Date: Time:
6) Received for Laboratory by: — Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

MCK0032653

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS	Date of Report:	10/25/01
Address:	200 E. Del Mar, Suite 250	Date Received:	10/11/01
	Pasadena, CA 91105	PAI Project No:	P2102380
Contact:	Mr. Eric Batman	Purchase Order:	Verbal

Client Project ID: Santa Fe Springs, CA #HA0620-03

Three (3) Stainless Steel Summa Canisters labeled: "SG-9-20"' "SG-13-20"' "SG-16-10"'

The samples were received at the laboratory under chain of custody on October 11, 2001. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for volatile organic compounds and a selected tentatively identified compound. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5973 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

Reviewed and Approved:

Wade Henton
Senior Chemist

Reviewed and Approved:

Chris Parnell
Senior Chemist

MCK0032654

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-9-20'
PAI Sample ID : P2102380-001

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00139

Date Sampled : 10/8/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.00010 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.7
D.F. = 1.30

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	20,000	ND	2,300
74-87-3	Chloromethane	ND	10,000	ND	4,800
75-01-4	Vinyl Chloride	ND	10,000	ND	3,900
74-83-9	Bromomethane	ND	20,000	ND	5,200
75-00-3	Chloroethane	ND	10,000	ND	3,800
67-64-1	Acetone	ND	10,000	ND	4,200
75-69-4	Trichlorofluoromethane	ND	20,000	ND	3,600
75-35-4	1,1-Dichloroethene	390,000	10,000	98,000	2,500
75-09-2	Methylene chloride	ND	10,000	ND	2,900
76-13-1	Trichlorotrifluoroethane	ND	30,000	ND	3,900
75-15-0	Carbon Disulfide	ND	10,000	ND	3,200
156-60-5	trans-1,2-Dichloroethene	ND	10,000	ND	2,500
75-34-3	1,1-Dichloroethane	76,000	10,000	19,000	2,500
1634-04-4	Methyl tert-Butyl Ether	ND	10,000	ND	2,800
108-05-4	Vinyl Acetate	ND	10,000	ND	2,800
78-93-3	2-Butanone (MEK)	ND	10,000	ND	3,400
156-59-2	cis-1,2-Dichloroethene	46,000	10,000	12,000	2,500
67-66-3	Chloroform	ND	10,000	ND	2,000
107-06-2	1,2-Dichloroethane	ND	10,000	ND	2,500
71-55-6	1,1,1-Trichloroethane	14,000	10,000	2,600	1,800
71-43-2	Benzene	ND	10,000	ND	3,100
56-23-5	Carbon Tetrachloride	ND	10,000	ND	1,600
78-87-5	1,2-Dichloropropane	ND	10,000	ND	2,200

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032655

2

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-9-20'
PAI Sample ID : P2102380-001

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00139

Date Sampled : 10/8/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.00010 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.7

D.F. = 1.30

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	10,000	ND	1,500
79-01-6	Trichloroethene	240,000	10,000	44,000	1,900
10061-01-5	cis-1,3-Dichloropropene	ND	10,000	ND	2,200
108-10-1	4-Methyl-2-pentanone	ND	10,000	ND	2,400
10061-02-6	trans-1,3-Dichloropropene	ND	10,000	ND	2,200
79-00-5	1,1,2-Trichloroethane	ND	10,000	ND	1,800
108-88-3	Toluene	ND	10,000	ND	2,700
591-78-6	2-Hexanone	ND	10,000	ND	2,400
124-48-1	Dibromochloromethane	ND	10,000	ND	1,200
106-93-4	1,2-Dibromoethane	ND	10,000	ND	1,300
127-18-4	Tetrachloroethene	650,000	10,000	96,000	1,500
108-90-7	Chlorobenzene	ND	10,000	ND	2,200
100-41-4	Ethylbenzene	ND	10,000	ND	2,300
136777-61-2	*m,p*-Xylenes	ND	10,000	ND	2,300
75-25-2	Bromoform	ND	10,000	ND	970
100-42-5	Styrene	ND	10,000	ND	2,300
95-47-6	o-Xylene	ND	10,000	ND	2,300
79-34-5	1,1,2,2-Tetrachloroethane	ND	10,000	ND	1,500
541-73-1	1,3-Dichlorobenzene	ND	10,000	ND	1,700
106-46-7	1,4-Dichlorobenzene	ND	10,000	ND	1,700
95-50-1	1,2-Dichlorobenzene	ND	10,000	ND	1,700

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032656

3

02380VOA RD1 - Sample

Verified By: RCS Date: 10/25/01

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-9-20'
PAI Sample ID : P2102380-001

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00139

Date Sampled : 10/8/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.00010 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.7
D.F. = 1.30

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032657

4

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-13-20'
PAI Sample ID : P2102380-002

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00500

Date Sampled : 10/9/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0025 Liter(s)

Pi 1 = -0.6 Pf 1 = 3.5
D.F. = 1.29

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	800	ND	94
74-87-3	Chloromethane	ND	400	ND	190
75-01-4	Vinyl Chloride	2,200	400	850	160
74-83-9	Bromomethane	ND	800	ND	210
75-00-3	Chloroethane	540	400	210	150
67-64-1	Acetone	ND	400	ND	170
75-69-4	Trichlorofluoromethane	ND	800	ND	140
75-35-4	1,1-Dichloroethene	6,000	400	1,500	100
75-09-2	Methylene chloride	ND	400	ND	120
76-13-1	Trichlorotrifluoroethane	1,600	1,200	210	160
75-15-0	Carbon Disulfide	ND	400	ND	130
156-60-5	trans-1,2-Dichloroethene	ND	400	ND	100
75-34-3	1,1-Dichloroethane	42,000	400	10,000	99
1634-04-4	Methyl tert-Butyl Ether	ND	400	ND	110
108-05-4	Vinyl Acetate	ND	400	ND	110
78-93-3	2-Butanone (MEK)	ND	400	ND	140
156-59-2	cis-1,2-Dichloroethene	30,000	400	7,600	100
67-66-3	Chloroform	ND	400	ND	82
107-06-2	1,2-Dichloroethane	ND	400	ND	99
71-55-6	1,1,1-Trichloroethane	2,800	400	520	73
71-43-2	Benzene	ND	400	ND	130
56-23-5	Carbon Tetrachloride	ND	400	ND	64
78-87-5	1,2-Dichloropropane	ND	400	ND	87

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032658

5

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-13-20'
PAI Sample ID : P2102380-002

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00500

Date Sampled : 10/9/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0025 Liter(s)

Pi 1 = -0.6 Pf 1 = 3.5
D.F. = 1.29

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	400	ND	60
79-01-6	Trichloroethene	ND	400	ND	74
10061-01-5	cis-1,3-Dichloropropene	ND	400	ND	88
108-10-1	4-Methyl-2-pentanone	ND	400	ND	98
10061-02-6	trans-1,3-Dichloropropene	ND	400	ND	88
79-00-5	1,1,2-Trichloroethane	ND	400	ND	73
108-88-3	Toluene	ND	400	ND	110
591-78-6	2-Hexanone	ND	400	ND	98
124-48-1	Dibromochloromethane	ND	400	ND	47
106-93-4	1,2-Dibromoethane	ND	400	ND	52
127-18-4	Tetrachloroethene	ND	400	ND	59
108-90-7	Chlorobenzene	ND	400	ND	87
100-41-4	Ethylbenzene	ND	400	ND	92
136777-61-2	*m,p*-Xylenes	ND	400	ND	92
75-25-2	Bromoform	ND	400	ND	39
100-42-5	Styrene	ND	400	ND	94
95-47-6	o-Xylene	ND	400	ND	92
79-34-5	1,1,2,2-Tetrachloroethane	ND	400	ND	58
541-73-1	1,3-Dichlorobenzene	ND	400	ND	67
106-46-7	1,4-Dichlorobenzene	ND	400	ND	67
95-50-1	1,2-Dichlorobenzene	ND	400	ND	67

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032659

6

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-13-20'
PAI Sample ID : P2102380-002

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00500

Date Sampled : 10/9/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0025 Liter(s)

Pi 1 = -0.6 Pf 1 = 3.5
D.F. = 1.29

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032660

7

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-16-10'
PAI Sample ID : P2102380-003

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00103

Date Sampled : 10/10/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0050 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
D.F. = 1.49

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	400	ND	47
74-87-3	Chloromethane	ND	200	ND	97
75-01-4	Vinyl Chloride	ND	200	ND	78
74-83-9	Bromomethane	ND	400	ND	100
75-00-3	Chloroethane	ND	200	ND	76
67-64-1	Acetone	3,500	200	1,500	84
75-69-4	Trichlorofluoromethane	ND	400	ND	71
75-35-4	1,1-Dichloroethene	460	200	120	50
75-09-2	Methylene chloride	1,900	200	550	58
76-13-1	Trichlorotrifluoroethane	ND	600	ND	78
75-15-0	Carbon Disulfide	ND	200	ND	64
156-60-5	trans-1,2-Dichloroethene	ND	200	ND	50
75-34-3	1,1-Dichloroethane	350	200	85	49
1634-04-4	Methyl tert-Butyl Ether	ND	200	ND	55
108-05-4	Vinyl Acetate	ND	200	ND	57
78-93-3	2-Butanone (MEK)	440	200	150	68
156-59-2	cis-1,2-Dichloroethene	ND	200	ND	50
67-66-3	Chloroform	ND	200	ND	41
107-06-2	1,2-Dichloroethane	ND	200	ND	49
71-55-6	1,1,1-Trichloroethane	6,600	200	1,200	37
71-43-2	Benzene	ND	200	ND	63
56-23-5	Carbon Tetrachloride	ND	200	ND	32
78-87-5	1,2-Dichloropropane	ND	200	ND	43

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032661

8

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-16-10'
PAI Sample ID : P2102380-003

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00103

Date Sampled : 10/10/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0050 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
D.F. = 1.49

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	200	ND	30
79-01-6	Trichloroethene	2,000	200	380	37
10061-01-5	cis-1,3-Dichloropropene	ND	200	ND	44
108-10-1	4-Methyl-2-pentanone	ND	200	ND	49
10061-02-6	trans-1,3-Dichloropropene	ND	200	ND	44
79-00-5	1,1,2-Trichloroethane	ND	200	ND	37
108-88-3	Toluene	ND	200	ND	53
591-78-6	2-Hexanone	ND	200	ND	49
124-48-1	Dibromochloromethane	ND	200	ND	23
106-93-4	1,2-Dibromoethane	ND	200	ND	26
127-18-4	Tetrachloroethene	27,000	200	3,900	30
108-90-7	Chlorobenzene	ND	200	ND	43
100-41-4	Ethylbenzene	ND	200	ND	46
136777-61-2	*m,p* -Xylenes	410	200	93	46
75-25-2	Bromoform	ND	200	ND	19
100-42-5	Styrene	ND	200	ND	47
95-47-6	o-Xylene	ND	200	ND	46
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	ND	29
541-73-1	1,3-Dichlorobenzene	ND	200	ND	33
106-46-7	1,4-Dichlorobenzene	ND	200	ND	33
95-50-1	1,2-Dichlorobenzene	ND	200	ND	33

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032662

9

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-16-10'
PAI Sample ID : P2102380-003

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00103

Date Sampled : 10/10/01
Date Received : 10/11/01
Date Analyzed : 10/22/01
Volume(s) Analyzed : 0.0050 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
D.F. = 1.49

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032663

Verified By: RG Date: 10/25/01

02380VOA.RD1 - TIC (3)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011022-MB

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/22/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	2.0	ND	0.23
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	2.0	ND	0.52
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	2.0	ND	0.36
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	3.0	ND	0.39
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032664

11

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011022-MB

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/22/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
136777-61-2	*m,p*-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032665

12

Verified By: RG Date: 10/25/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011022-MB

PAI Project ID : P2102380
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/22/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032666

13

Verified By: RG Date: 10/25/01

02380VOA.RD1 - MBlank (TIC)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants Work order: P2102380

Project: Santa Fe Springs, CA / HA0620-03

Sample(s) received on: 10/11/01 Date opened: 10/11/01 by SM

Note: This form is used for all samples received by PAI. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)
P2102380-001			NA
P2102380-002			NA
P2102380-003			NA

xplain any discrepancies: (include lab sample ID numbers): _____ MCK0032667

14

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Services Request

Client / Address: (GeoSyntec Consultants) McKesson 9005 Sorensen Ave

Phone: (626)4490664 Fax: (626) 449-0411

Client Project Name / Location: Santa Fe Springs, CA

Client Project No.: HA0620-03

PAI Project No.: P2102380

Contact: Eric Batman

Sampler (Signature): [signature]

P. O. No.:

ANALYSES

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial#)	Regulator ID (Serial#)	TO-15	Freon 12	1,1,1,2 Tetrachloroethane		Expected Turnaround Time	Remarks
SG-9-20'	10-8-01	12:45		Summa	00139		X	X	X			if questions
SG-13-20'	10-9-01	13:30		Summa	00500		X	X	X			about analysis,
SG-16-10'	10-10-01	12:00		Summa	00103		X	X	X			see John Yokoyama

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Date	Time
[signature]	10/10/01	2:15 p.m.	Sharon Malone	10/11/01	10:49

MCK0032668

15

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS	Date of Report:	10/30/01
Address:	200 E. Del Mar, Suite 250	Date Received:	10/15/01
	Pasadena, CA 91105	PAI Project No:	P2102391
Contact:	Mr. Eric Batman	Purchase Order:	Verbal

Client Project ID: McKesson 9005 Sorensen #HA0620-03

Four (4) Stainless Steel Summa Canisters labeled:

"SG-21-20"" "SG-5-20"" "SG-12-20"" "SG-15-20""

The samples were received at the laboratory under chain of custody on October 15, 2001. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds and a selected tentatively identified compound. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5973 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets.

Reviewed and Approved:

Wade Henton
Senior Chemist

MCK0032669

Reviewed and Approved:

Chris Parnell
Senior Chemist

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-21-20'
PAI Sample ID : P2102391-001

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01117

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.0010 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5
D.F. = 1.23

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	2,000	ND	230
74-87-3	Chloromethane	ND	1,000	ND	480
75-01-4	Vinyl Chloride	ND	1,000	ND	390
74-83-9	Bromomethane	ND	2,000	ND	520
75-00-3	Chloroethane	ND	1,000	ND	380
67-64-1	Acetone	31,000	1,000	13,000	420
75-69-4	Trichlorofluoromethane	ND	2,000	ND	360
75-35-4	1,1-Dichloroethene	12,000	1,000	2,900	250
75-09-2	Methylene chloride	5,800	1,000	1,700	290
76-13-1	Trichlorotrifluoroethane	ND	3,000	ND	390
75-15-0	Carbon Disulfide	ND	1,000	ND	320
156-60-5	trans-1,2-Dichloroethene	ND	1,000	ND	250
75-34-3	1,1-Dichloroethane	5,500	1,000	1,400	250
1634-04-4	Methyl tert-Butyl Ether	ND	1,000	ND	280
108-05-4	Vinyl Acetate	ND	1,000	ND	280
78-93-3	2-Butanone (MEK)	2,600	1,000	870	340
156-59-2	cis-1,2-Dichloroethene	6,100	1,000	1,500	250
67-66-3	Chloroform	ND	1,000	ND	200
107-06-2	1,2-Dichloroethane	ND	1,000	ND	250
71-55-6	1,1,1-Trichloroethane	120,000	1,000	22,000	180
71-43-2	Benzene	ND	1,000	ND	310
56-23-5	Carbon Tetrachloride	ND	1,000	ND	160
78-87-5	1,2-Dichloropropane	ND	1,000	ND	220

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032670

2

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-21-20'
PAI Sample ID : P2102391-001

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01117

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.0010 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5
D.F. = 1.23

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1,000	ND	150
79-01-6	Trichloroethene	12,000	1,000	2,200	190
10061-01-5	cis-1,3-Dichloropropene	ND	1,000	ND	220
108-10-1	4-Methyl-2-pentanone	ND	1,000	ND	240
10061-02-6	trans-1,3-Dichloropropene	ND	1,000	ND	220
79-00-5	1,1,2-Trichloroethane	ND	1,000	ND	180
108-88-3	Toluene	2,800	1,000	730	270
591-78-6	2-Hexanone	ND	1,000	ND	240
124-48-1	Dibromochloromethane	ND	1,000	ND	120
106-93-4	1,2-Dibromoethane	ND	1,000	ND	130
127-18-4	Tetrachloroethene	120,000	1,000	18,000	150
108-90-7	Chlorobenzene	ND	1,000	ND	220
100-41-4	Ethylbenzene	ND	1,000	ND	230
136777-61-2	*m,p*-Xylenes	1,700	1,000	390	230
75-25-2	Bromoform	ND	1,000	ND	97
100-42-5	Styrene	ND	1,000	ND	230
95-47-6	o-Xylene	ND	1,000	ND	230
79-34-5	1,1,2,2-Tetrachloroethane	ND	1,000	ND	150
541-73-1	1,3-Dichlorobenzene	ND	1,000	ND	170
106-46-7	1,4-Dichlorobenzene	ND	1,000	ND	170
95-50-1	1,2-Dichlorobenzene	ND	1,000	ND	170

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032671

3

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-21-20'
PAI Sample ID : P2102391-001

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01117

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.0010 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5
D.F. = 1.23

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032672

Verified By: RCG Date: 10/30/01

02391VOA.RD1 - TIC

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-5-20'
PAI Sample ID : P2102391-002

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01536

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.5
D.F. = 1.28

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	8,000	ND	940
74-87-3	Chloromethane	ND	4,000	ND	1,900
75-01-4	Vinyl Chloride	19,000	4,000	7,600	1,600
74-83-9	Bromomethane	ND	8,000	ND	2,100
75-00-3	Chloroethane	ND	4,000	ND	1,500
67-64-1	Acetone	ND	4,000	ND	1,700
75-69-4	Trichlorofluoromethane	ND	8,000	ND	1,400
75-35-4	1,1-Dichloroethene	170,000	4,000	44,000	1,000
75-09-2	Methylene chloride	ND	4,000	ND	1,200
76-13-1	Trichlorotrifluoroethane	ND	12,000	ND	1,600
75-15-0	Carbon Disulfide	ND	4,000	ND	1,300
156-60-5	trans-1,2-Dichloroethene	ND	4,000	ND	1,000
75-34-3	1,1-Dichloroethane	220,000	4,000	54,000	990
1634-04-4	Methyl tert-Butyl Ether	ND	4,000	ND	1,100
108-05-4	Vinyl Acetate	ND	4,000	ND	1,100
78-93-3	2-Butanone (MEK)	ND	4,000	ND	1,400
156-59-2	cis-1,2-Dichloroethene	190,000	4,000	49,000	1,000
67-66-3	Chloroform	ND	4,000	ND	820
107-06-2	1,2-Dichloroethane	12,000	4,000	3,000	990
71-55-6	1,1,1-Trichloroethane	9,000	4,000	1,700	730
71-43-2	Benzene	ND	4,000	ND	1,300
56-23-5	Carbon Tetrachloride	ND	4,000	ND	640
78-87-5	1,2-Dichloropropane	ND	4,000	ND	870

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032673

5

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-5-20'
PAI Sample ID : P2102391-002

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01536

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.5
D.F. = 1.28

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	4,000	ND	600
79-01-6	Trichloroethene	67,000	4,000	12,000	740
10061-01-5	cis-1,3-Dichloropropene	ND	4,000	ND	880
108-10-1	4-Methyl-2-pentanone	ND	4,000	ND	980
10061-02-6	trans-1,3-Dichloropropene	ND	4,000	ND	880
79-00-5	1,1,2-Trichloroethane	ND	4,000	ND	730
108-88-3	Toluene	ND	4,000	ND	1,100
591-78-6	2-Hexanone	ND	4,000	ND	980
124-48-1	Dibromochloromethane	ND	4,000	ND	470
106-93-4	1,2-Dibromoethane	ND	4,000	ND	520
127-18-4	Tetrachloroethene	130,000	4,000	19,000	590
108-90-7	Chlorobenzene	ND	4,000	ND	870
100-41-4	Ethylbenzene	ND	4,000	ND	920
136777-61-2	*m,p*-Xylenes	ND	4,000	ND	920
75-25-2	Bromoform	ND	4,000	ND	390
100-42-5	Styrene	ND	4,000	ND	940
95-47-6	o-Xylene	ND	4,000	ND	920
79-34-5	1,1,2,2-Tetrachloroethane	ND	4,000	ND	580
541-73-1	1,3-Dichlorobenzene	ND	4,000	ND	670
106-46-7	1,4-Dichlorobenzene	ND	4,000	ND	670
95-50-1	1,2-Dichlorobenzene	ND	4,000	ND	670

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032674

6

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-5-20'
PAI Sample ID : P2102391-002

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #01536

Date Sampled : 10/11/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.5 Pf 1 = 3.5
D.F. = 1.28

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032675

Verified By: RG Date: 10/30/01

02391VOA.RD1 - TIC (2)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-12-20'
PAI Sample ID : P2102391-003

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00592

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5
D.F. = 1.25

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	8,000	ND	940
74-87-3	Chloromethane	ND	4,000	ND	1,900
75-01-4	Vinyl Chloride	82,000	4,000	32,000	1,600
74-83-9	Bromomethane	ND	8,000	ND	2,100
75-00-3	Chloroethane	ND	4,000	ND	1,500
67-64-1	Acetone	ND	4,000	ND	1,700
75-69-4	Trichlorofluoromethane	ND	8,000	ND	1,400
75-35-4	1,1-Dichloroethene	250,000	4,000	63,000	1,000
75-09-2	Methylene chloride	ND	4,000	ND	1,200
76-13-1	Trichlorotrifluoroethane	96,000	12,000	13,000	1,600
75-15-0	Carbon Disulfide	ND	4,000	ND	1,300
156-60-5	trans-1,2-Dichloroethene	ND	4,000	ND	1,000
75-34-3	1,1-Dichloroethane	210,000	4,000	52,000	990
1634-04-4	Methyl tert-Butyl Ether	ND	4,000	ND	1,100
108-05-4	Vinyl Acetate	ND	4,000	ND	1,100
78-93-3	2-Butanone (MEK)	ND	4,000	ND	1,400
156-59-2	cis-1,2-Dichloroethene	140,000	4,000	36,000	1,000
67-66-3	Chloroform	ND	4,000	ND	820
107-06-2	1,2-Dichloroethane	ND	4,000	ND	990
71-55-6	1,1,1-Trichloroethane	40,000	4,000	7,300	730
71-43-2	Benzene	ND	4,000	ND	1,300
56-23-5	Carbon Tetrachloride	ND	4,000	ND	640
78-87-5	1,2-Dichloropropane	ND	4,000	ND	870

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032676

8

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-12-20'
PAI Sample ID : P2102391-003

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00592

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5
D.F. = 1.25

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	4,000	ND	600
79-01-6	Trichloroethene	55,000	4,000	10,000	740
10061-01-5	cis-1,3-Dichloropropene	ND	4,000	ND	880
108-10-1	4-Methyl-2-pentanone	ND	4,000	ND	980
10061-02-6	trans-1,3-Dichloropropene	ND	4,000	ND	880
79-00-5	1,1,2-Trichloroethane	ND	4,000	ND	730
108-88-3	Toluene	ND	4,000	ND	1,100
591-78-6	2-Hexanone	ND	4,000	ND	980
124-48-1	Dibromochloromethane	ND	4,000	ND	470
106-93-4	1,2-Dibromoethane	ND	4,000	ND	520
127-18-4	Tetrachloroethene	89,000	4,000	13,000	590
108-90-7	Chlorobenzene	ND	4,000	ND	870
100-41-4	Ethylbenzene	ND	4,000	ND	920
136777-61-2	*m,p*-Xylenes	ND	4,000	ND	920
75-25-2	Bromoform	ND	4,000	ND	390
100-42-5	Styrene	ND	4,000	ND	940
95-47-6	o-Xylene	ND	4,000	ND	920
79-34-5	1,1,2,2-Tetrachloroethane	ND	4,000	ND	580
541-73-1	1,3-Dichlorobenzene	ND	4,000	ND	670
106-46-7	1,4-Dichlorobenzene	ND	4,000	ND	670
95-50-1	1,2-Dichlorobenzene	ND	4,000	ND	670

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032677

9

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-12-20'
PAI Sample ID : P2102391-003

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00592

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.00025 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5
D.F. = 1.25

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032678

10

Verified By: RC Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161• Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-15-20'
PAI Sample ID : P2102391-004

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00568

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5
D.F. = 1.24

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	40	ND	4.7
74-87-3	Chloromethane	ND	20	ND	9.7
75-01-4	Vinyl Chloride	ND	20	ND	7.8
74-83-9	Bromomethane	ND	40	ND	10
75-00-3	Chloroethane	ND	20	ND	7.6
67-64-1	Acetone	30	20	13	8.4
75-69-4	Trichlorofluoromethane	ND	40	ND	7.1
75-35-4	1,1-Dichloroethene	140	20	36	5.0
75-09-2	Methylene chloride	ND	20	ND	5.8
76-13-1	Trichlorotrifluoroethane	120	60	15	7.8
75-15-0	Carbon Disulfide	ND	20	ND	6.4
156-60-5	trans-1,2-Dichloroethene	ND	20	ND	5.0
75-34-3	1,1-Dichloroethane	180	20	45	4.9
1634-04-4	Methyl tert-Butyl Ether	ND	20	ND	5.5
108-05-4	Vinyl Acetate	ND	20	ND	5.7
78-93-3	2-Butanone (MEK)	ND	20	ND	6.8
156-59-2	cis-1,2-Dichloroethene	270	20	67	5.0
67-66-3	Chloroform	34	20	6.9	4.1
107-06-2	1,2-Dichloroethane	ND	20	ND	4.9
71-55-6	1,1,1-Trichloroethane	420	20	77	3.7
71-43-2	Benzene	ND	20	ND	6.3
56-23-5	Carbon Tetrachloride	ND	20	ND	3.2
78-87-5	1,2-Dichloropropane	ND	20	ND	4.3

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032679

11

Verified By: RCS Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-15-20'
PAI Sample ID : P2102391-004

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00568

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5
D.F. = 1.24

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	20	ND	3.0
79-01-6	Trichloroethene	280	20	52	3.7
10061-01-5	cis-1,3-Dichloropropene	ND	20	ND	4.4
108-10-1	4-Methyl-2-pentanone	ND	20	ND	4.9
10061-02-6	trans-1,3-Dichloropropene	ND	20	ND	4.4
79-00-5	1,1,2-Trichloroethane	ND	20	ND	3.7
108-88-3	Toluene	ND	20	ND	5.3
591-78-6	2-Hexanone	ND	20	ND	4.9
124-48-1	Dibromochloromethane	ND	20	ND	2.3
106-93-4	1,2-Dibromoethane	ND	20	ND	2.6
127-18-4	Tetrachloroethene	3,500	20	520	3.0
108-90-7	Chlorobenzene	ND	20	ND	4.3
100-41-4	Ethylbenzene	ND	20	ND	4.6
136777-61-2	*m,p*-Xylenes	27	20	6.2	4.6
75-25-2	Bromoform	ND	20	ND	1.9
100-42-5	Styrene	ND	20	ND	4.7
95-47-6	o-Xylene	ND	20	ND	4.6
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	ND	2.9
541-73-1	1,3-Dichlorobenzene	ND	20	ND	3.3
106-46-7	1,4-Dichlorobenzene	ND	20	ND	3.3
95-50-1	1,2-Dichlorobenzene	ND	20	ND	3.3

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032680

12

Verified By: RO Date: 10/30/01

02391VOA.RD1 - Sample (4)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : SG-15-20'
PAI Sample ID : P2102391-004

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister
Canister ID : #00568

Date Sampled : 10/12/01
Date Received : 10/15/01
Date Analyzed : 10/24/01
Volume(s) Analyzed : 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5
D.F. = 1.24

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032681

13

Verified By: RG Date: 10/30/01

02391VOA.RD1 - TIC (4)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011024-MB

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/24/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-71-8	Dichlorodifluoromethane	ND	2.0	ND	0.23
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	2.0	ND	0.52
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	2.0	ND	0.36
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	3.0	ND	0.39
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032682

14

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011024-MB

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/24/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
136777-61-2	*m,p*-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MCK0032683

15

Verified By: RG Date: 10/30/01

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

RESULTS OF ANALYSIS

Client : GeoSyntec Consultants

Client Sample ID : Method Blank
PAI Sample ID : P011024-MB

PAI Project ID : P2102391
Test Code : EPA TO-15
Instrument : HP5973/Tekmar AUTOCan Elite
Analyst : Wade Henton
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 10/24/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	COMPOUND IDENTIFICATION	CONCENTRATION µg/m³
	1,1,1,2-Tetrachloroethane	ND

ND = Compound was searched for, but was not detected.

MCK0032684

Verified By: RC Date: 10/30/01

02391VOA.RD1 - MBlank (TIC)

2665 Park Center Drive, Suite D, Simi Valley, California 93065 • Phone (805) 526-7161 • Fax (805) 526-7270

Performance Analytical Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants Work order: P2102391

Project: McKesson 9005 Sorensen / HA0620-03

Sample(s) received on: 10/15/01 Date opened: 10/15/01 by SM

Note: This form is used for all samples received by PAI. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were VOA vials checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)
P2102391-001			NA
P2102391-002			NA
P2102391-003			NA
P2102391-004			NA

xplain any discrepancies: (include lab sample ID numbers): _____

MCK0032685

Performance Analytical Inc.
Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Services Request

Client / Address	Phone	Fax	ANALYSES	PAI Project No.
Geo Syntec Consultants, 200 E Del Mar Ste 250, Pasadena, CA 91105	(626) 449 0664	(626) 449 0411		P2102391

Client Project Name / Location: McKesson 9005 Sorensen

Client Project No.: HA0620-03

Contact: Eric Batman

Sampler (Signature): Eric Batman

P. O. No.:

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial#)	Regulator ID (Serial#)	TO-15	Freon 12	1,1,1,2 Tetrachloroethane		Expected Turnaround Time	Remarks
SG-21-20'	10-11-01	900am	-1	Summa	01117		X	X	X			For questions
SG-5-20'	10-11-01	300pm	-2	Summa	01536		X	X	X			regarding
SG-12-20'	10-12-01	845am	-3	Summa	00592		X	X	X			analysis see
SG-15-20'	10-12-01	1050am	-4	Summa	00568		X	X	X			John Yokoyama

MCK0032686

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Date	Time
Eric Batman	10/12/01	3:45pm	B. Bath.	10/12/01	3:45pm
B. Bath.	10/15/01	9-25am	[illegible]	10/15/01	9-25am
[illegible]	10/15/01	10:35	V. Rodriguez	10/15/01	10:35

Appendix B

APPENDIX B

SVE TEST DATA

TABLE B.1
SVE DATA SHEET

Client:	McKesson	Well ID:	E-1
Location:	Santa Fe Springs, CA		
Job No:	HA0620	Casing Diam (in):	4"
Field Personel:	Tim Smith, Eric Batman, Gordon Thrupp	Total Depth (ft TOC):	28 ft bgs
Subcontractor(s):	N/A	Screen Length:	20 ft.
Test Equipment:	Treatment System Blower (Ghast)		

Date	Time	Elapsed Time (min)	Well Head Vacuum (in H2O)	Flowrate (scfm)	Notes/Observations (baseline data, etc)
10/10/2001	12:26	0:00	31	25	Vacuum gage not constant
10/10/2001	12:40	0:14	31	25	Test #1; SG-1 and SG-2
10/10/2001	13:16	0:50	31	25	
10/10/2001	13:28	1:02	31	25	
10/10/2001	15:54	0:00	---	---	
10/10/2001	15:57	0:03	31	25	Test #2; SB-8 and SG-37
10/10/2001	16:15	0:21	31	25	
10/10/2001	16:27	0:33	30	25	
10/11/2001	9:44	0:00	31	25	Test #3; PSV-3a and PSV-3b
10/11/2001	10:26	0:42	31	25	
10/11/2001	11:02	0:00	31	21	Test #4; SG-1 and SG-21
10/11/2001	11:26	0:24	31	25	
10/11/2001	11:30	0:28	24	20	
10/11/2001	11:40	0:38	24	20	
10/11/2001	11:46	0:44	---	15	
10/11/2001	11:52	0:50	17	---	
10/11/2001	11:56	0:54	---	15	
10/11/2001	11:59	0:57	9	10	
10/11/2001	12:05	1:03	9	10	
10/11/2001	12:16	1:14	5	6	
10/11/2001	12:26	1:24	5	6	
10/11/2001	12:54	0:00	32	---	Test #5; SG-6 and SG-7
10/11/2001	14:02	1:08	32	25	
10/11/2001	14:10	1:16	25	20	
10/11/2001	14:30	1:36	16	15	
10/11/2001	14:49	1:55	9	10	
10/11/2001	14:58	2:04	---	---	
10/11/2001	15:20	2:26	31	25	Test #6; SG-5
10/11/2001	15:39	2:45	---	---	
10/12/2001	8:10	0:00	37	25	Test #7; PSV-3a and PSV-3b
10/12/2001	8:19	0:09	36	27	
10/12/2001	8:23	0:13	27	20	
10/12/2001	8:42	0:32	---	20	
10/12/2001	8:43	0:33	16	15	
10/12/2001	9:10	0:00	36	25	Test #8; SG-12
10/12/2001	9:21	0:11	27	20	
10/12/2001	9:33	0:23	16	15	
10/12/2001	9:43	0:33	8	10	
10/12/2001	10:07	0:00	36	25	Test #9; SG-11
10/12/2001	10:21	0:14	27	20	
10/12/2001	10:31	0:24	---	---	
10/12/2001	11:00	0:53	35	25	Test #10; PSV-3a and PSV-3b
10/12/2001	11:12	1:05	27	20	
10/12/2001	11:30	1:23	11	15	
10/12/2001	11:45	1:38	8	10	
10/12/2001	11:50	1:43	---	---	
10/12/2001	12:25	0:00	35	25	Test #11; SG-15
10/12/2001	12:40	0:15	27	20	
10/12/2001	12:50	0:25	15	15	

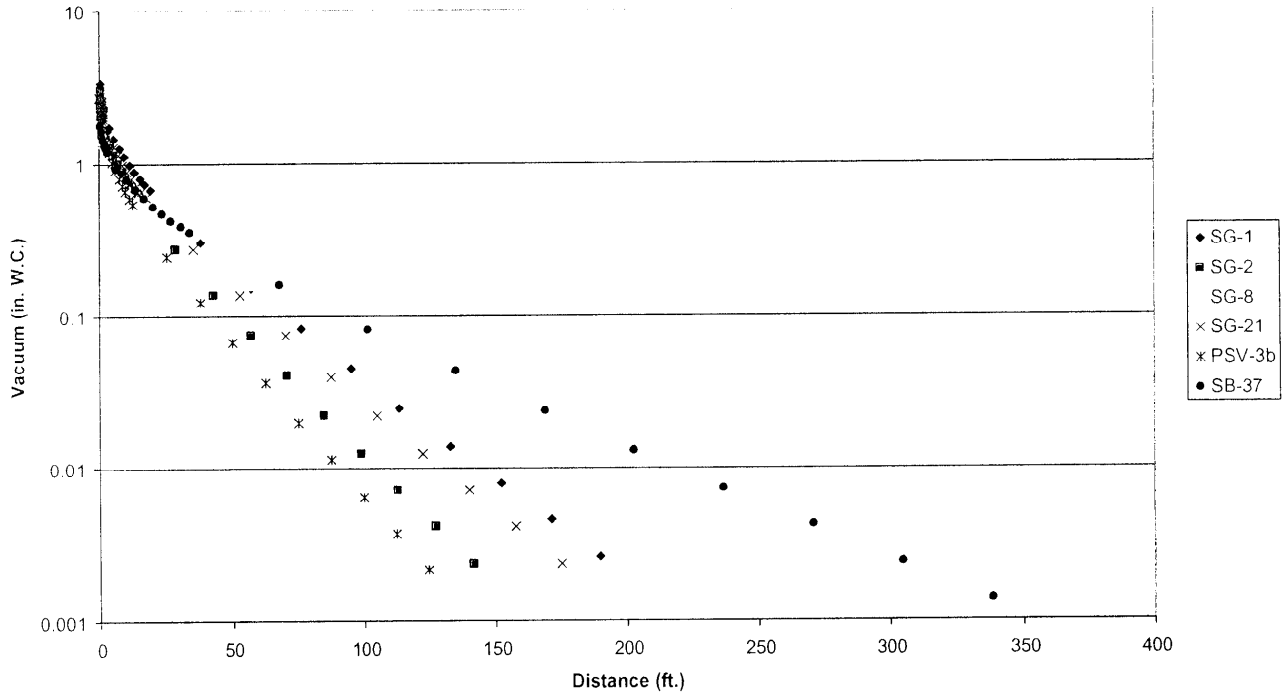
MCK0032689

TABLE B.2
SVE DATA FORM
(Vapor Monitoring Points)

Client: **McKesson**
Location: **Santa Fe Springs, CA**
Job No: **HA0620**
Field Personel: **Tim Smith, Eric Batman, Gordon Thrupp**

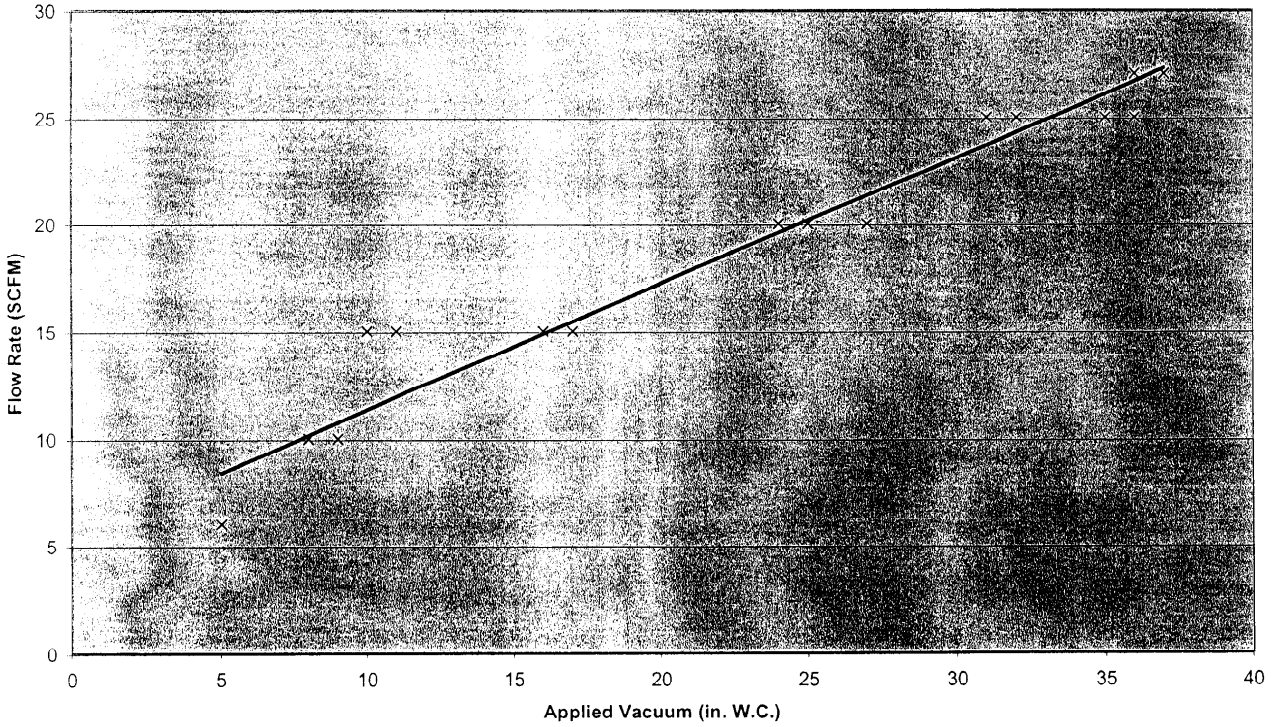
Monitoring Location	Distance From E-1 (ft)	Applied Vacuum at E-1 (in H_2O)	Flowrate at E-1 (scfm)	Vacuum Response at Monitoring Point (in H_2O)	Date	Time
SG-1	38	31	25	0.39	10/10/2001	12:59
SG-8	34	31	25	0.17	10/10/2001	16:21
PSV-3A	15	31	25	0.57	10/11/2001	10:07
SG-21	35	31	25	0.23	10/11/2001	10:13
PSV-2A	7	31	25	0.90	10/11/2001	10:17
PSV-2B	7	31	25	1.60	10/11/2001	10:17
SG-21	35	31	25	0.23	10/11/2001	11:23
SG-1	38	31	25	0.20	10/11/2001	11:24
SG-1	38	24	20	0.13	10/11/2001	11:40
SG-21	35	24	20	0.18	10/11/2001	11:40
SG-1	38	17	15	0.13	10/11/2001	11:56
SG-21	35	17	15	0.09	10/11/2001	11:56
SG-1	38	9	10	0.05	10/11/2001	12:09
SG-21	35	9	10	0.04	10/11/2001	12:09
SG-1	38	5	6	0.00	10/11/2001	12:26
SG-21	35	5	6	0.00	10/11/2001	12:26
SG-6	76	32	25	0.03	10/11/2001	14:04
SG-7	140	32	25	0.04	10/11/2001	14:04
SG-6	76	25	20	0.03	10/11/2001	14:25
SG-7	140	25	20	0.05	10/11/2001	14:25
SG-6	76	16	15	0.01	10/11/2001	14:40
SG-7	140	16	15	0.00	10/11/2001	14:40
SG-6	76	9	10	0.00	10/11/2001	14:55
SG-5	103	36	27	0.11	10/12/2001	8:20
SG-5	103	27	20	0.05	10/12/2001	8:38
SG-5	103	16	15	0.00	10/12/2001	8:53
SG-12	142	36	25	0.07	10/12/2001	9:20
SG-12	142	27	20	0.06	10/12/2001	9:31
SG-12	142	16	15	0.00	10/12/2001	9:42
SG-12	142	8	10	0.00	10/12/2001	9:53
SG-11	129	36	25	0.01	10/12/2001	10:17
SG-11	129	27	20	0.00	10/12/2001	10:31
PSV-3A	15	35	25	0.26	10/12/2001	11:10
PSV-3B	15	35	25	1.00	10/12/2001	11:10
PSV-3A	15	37	27	0.20	10/12/2001	11:28
PSV-3B	15	27	20	0.78	10/12/2001	11:28
PSV-3A	15	11	15	0.08	10/12/2001	11:43
PSV-3B	15	11	15	0.41	10/12/2001	11:43
PSV-3A	15	8	10	0.01	10/12/2001	11:55
PSV-3B	15	8	10	0.12	10/12/2001	11:55
SG-15	111	35	25	0.02	10/12/2001	12:35
SG-15	111	27	20	0.02	10/12/2001	12:50
SG-15	111	10	15	0.01	10/12/2001	13:00

Estimated Vacuum Response Vs. Distance
Q = 25 scfm, b = 10 ft., b' = 17 ft.

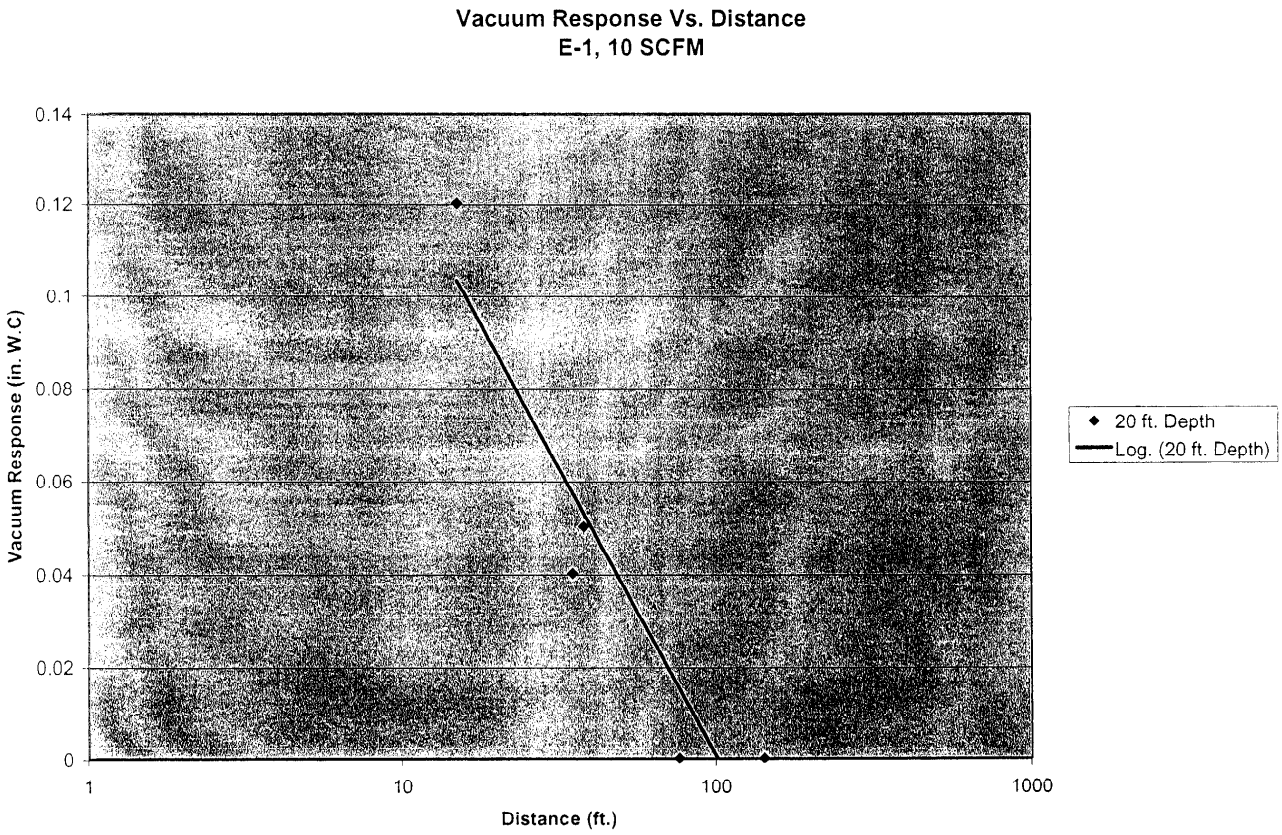


MCK0032691

Flow Rate Vs. Applied Vacuum
E-1

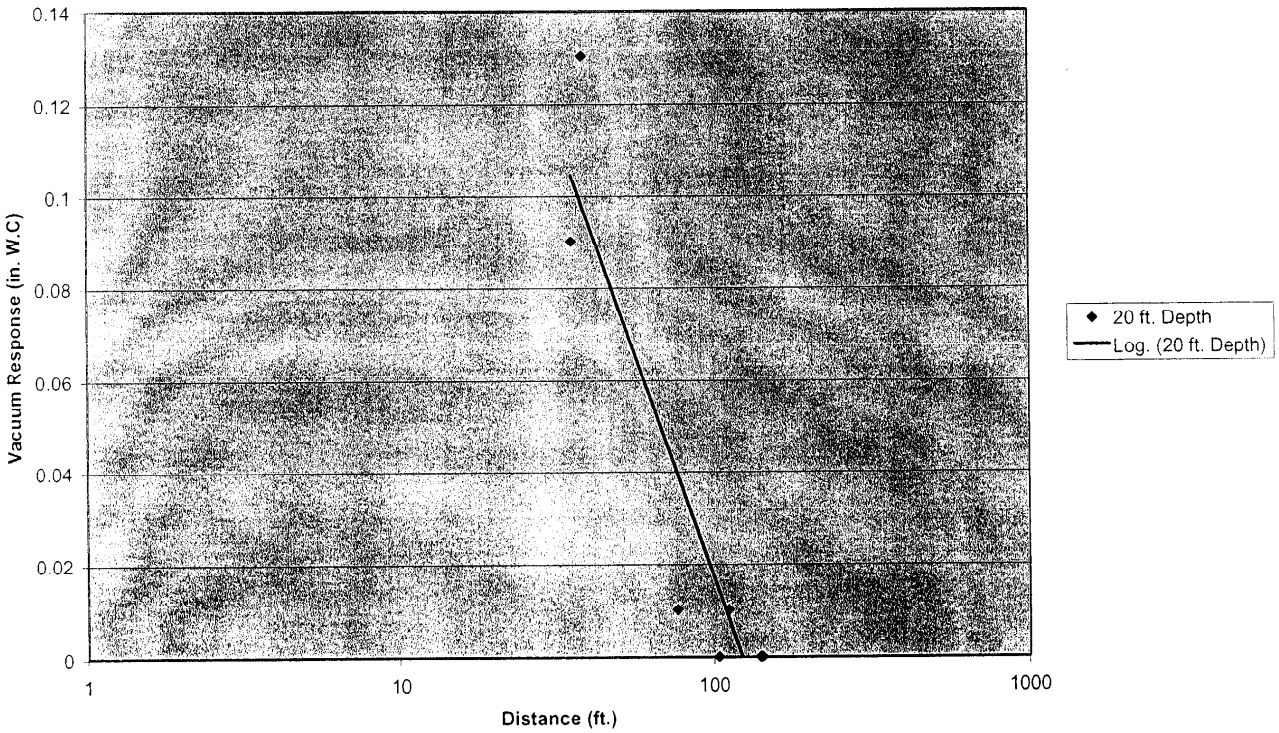


MCK0032692

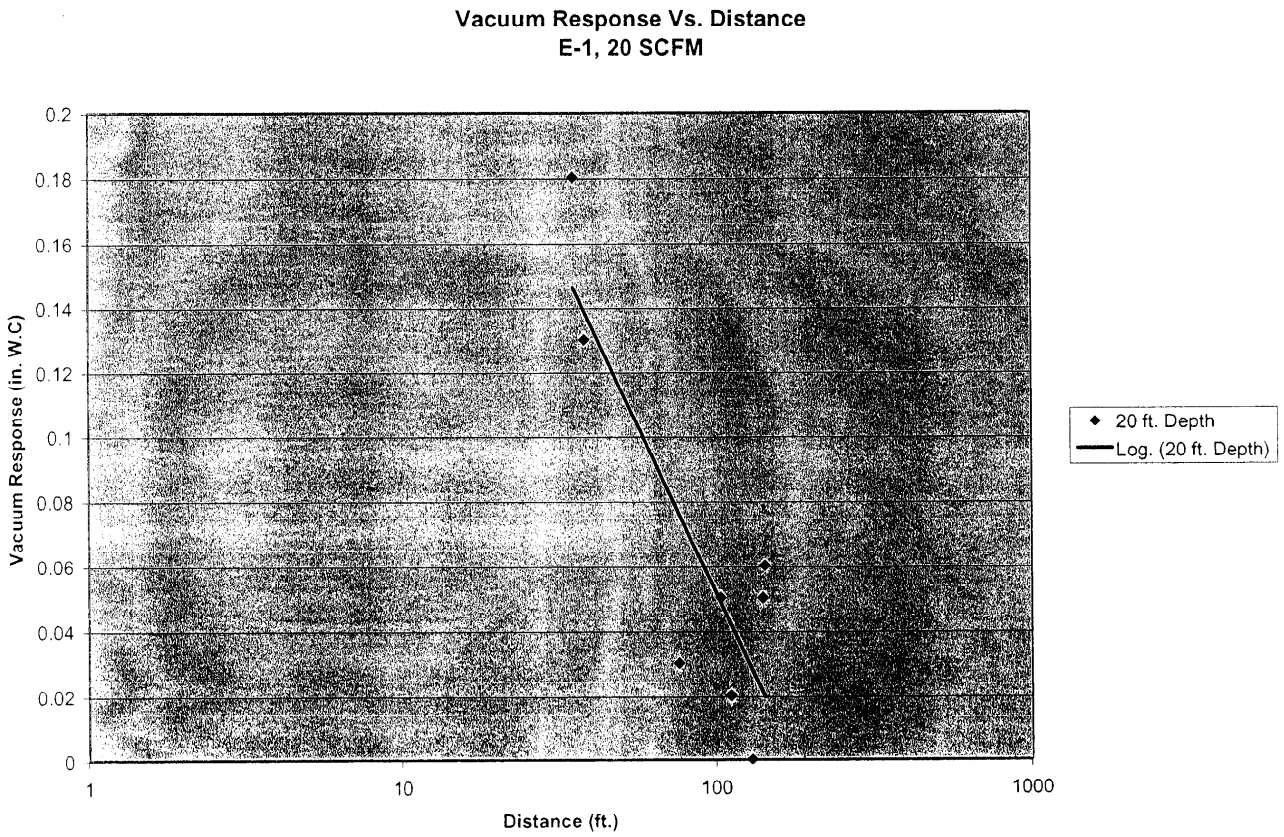

Vacuum Response Vs. Distance
E-1, 10 SCFM
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Vacuum Response (in. W.C)
1
10
100
1000
Distance (ft.)
20 ft. Depth
Log. (20 ft. Depth)

MCK0032693

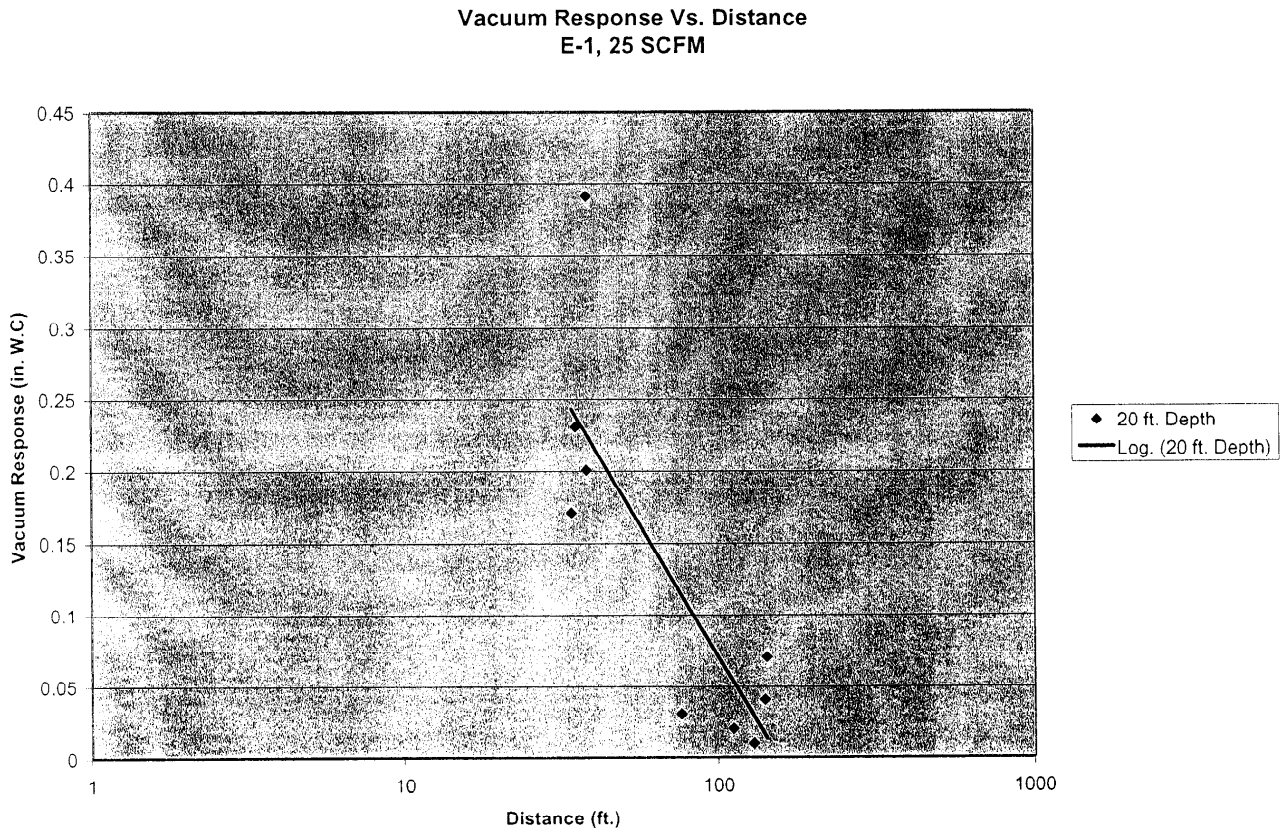
Vacuum Response Vs. Distance
E-1, 15 SCFM



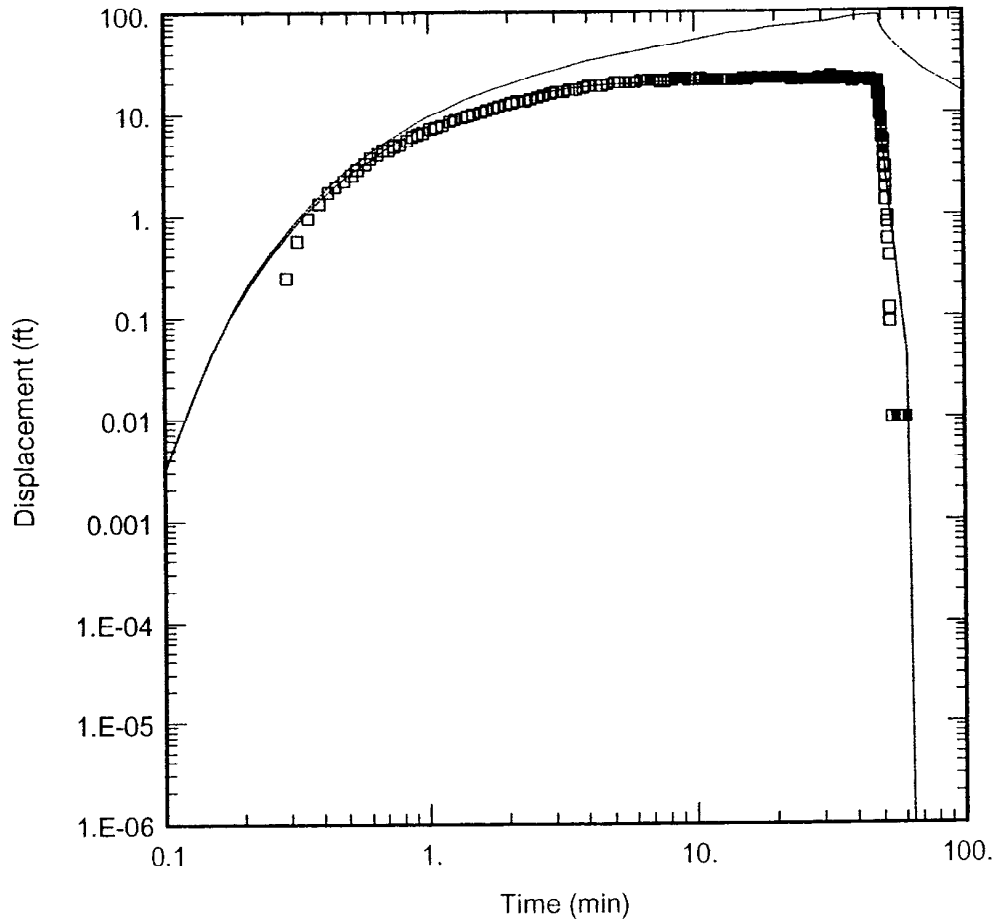
MCK0032694


Vacuum Response Vs. Distance
E-1, 20 SCFM
Vacuum Response (in. W.C)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
1
10
100
1000
Distance (ft.)
20 ft. Depth
Log. (20 ft. Depth)

MCK0032695


Vacuum Response Vs. Distance
E-1, 25 SCFM
Vacuum Response (in. W.C)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
1
10
100
1000
Distance (ft.)
20 ft. Depth
Log. (20 ft. Depth)

MCK0032696



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\SG-1.AQT
Date: 11/26/01 Time: 19:29:01

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 10 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

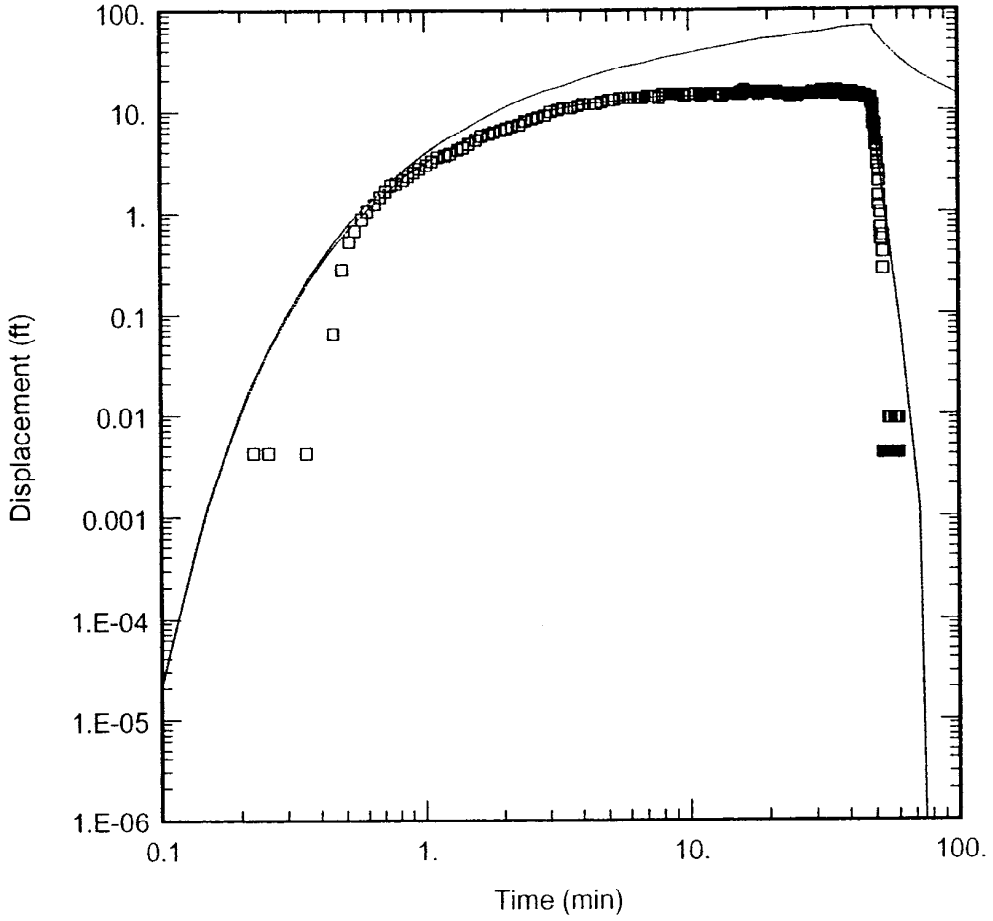
Well Name	X (ft)	Y (ft)
□ SG-1	38	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.08062 ft^2/min
S = 0.0001563
r/B = 1

MCK0032697



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\SG-2.AQT
Date: 11/26/01 Time: 19:29:16

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 10 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

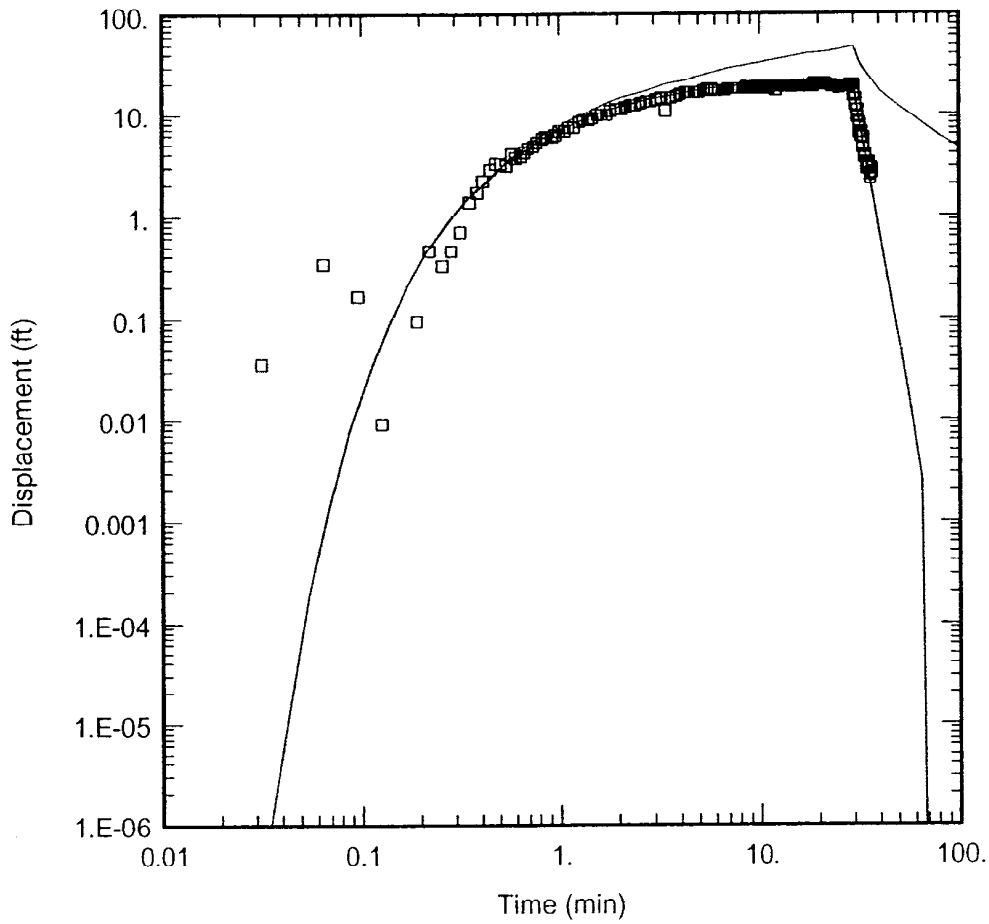
Well Name	X (ft)	Y (ft)
□ SG-2	34	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.08955 ft^2/min
S = 0.000357
r/B = 1.2

MCK0032698



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\SG-8.AQT
Date: 11/26/01 Time: 19:29:47

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 10 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

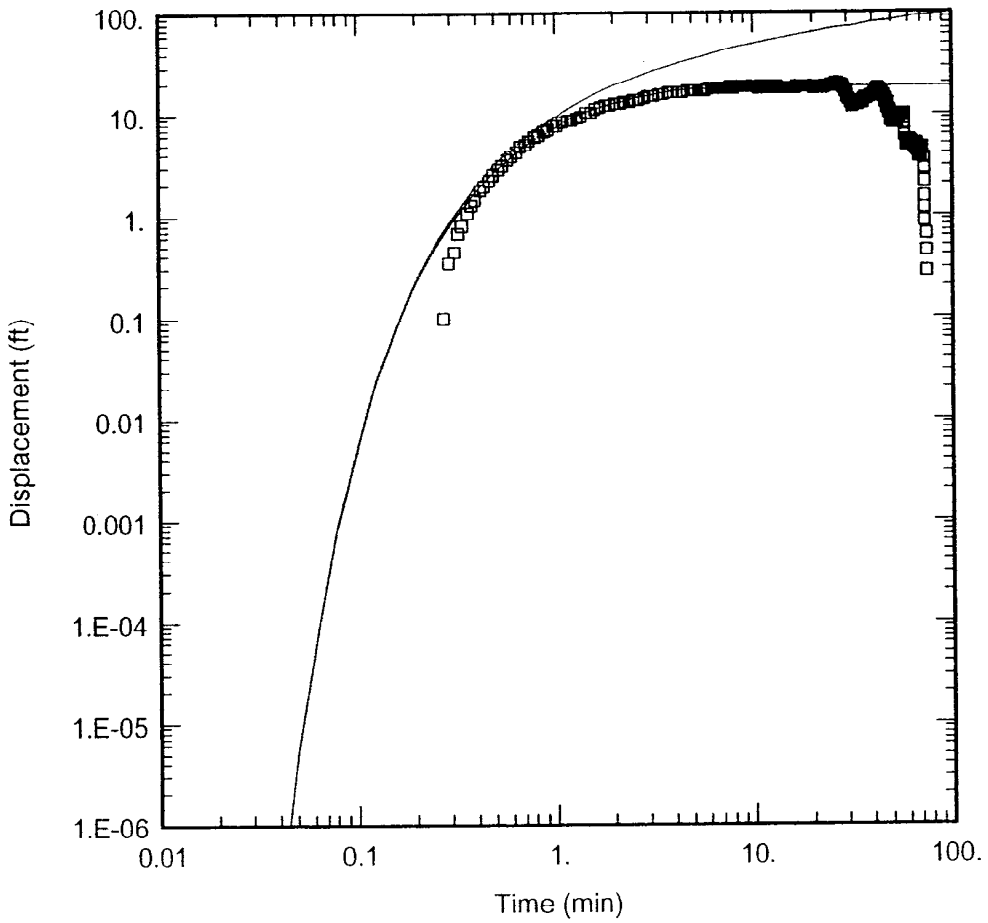
Well Name	X (ft)	Y (ft)
□ SG-8	34	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.1522 ft^2/min
S = 0.0002579
r/B = 0.6

MCK0032699



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\SG-21.AQT
Date: 11/26/01 Time: 19:29:59

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 11 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

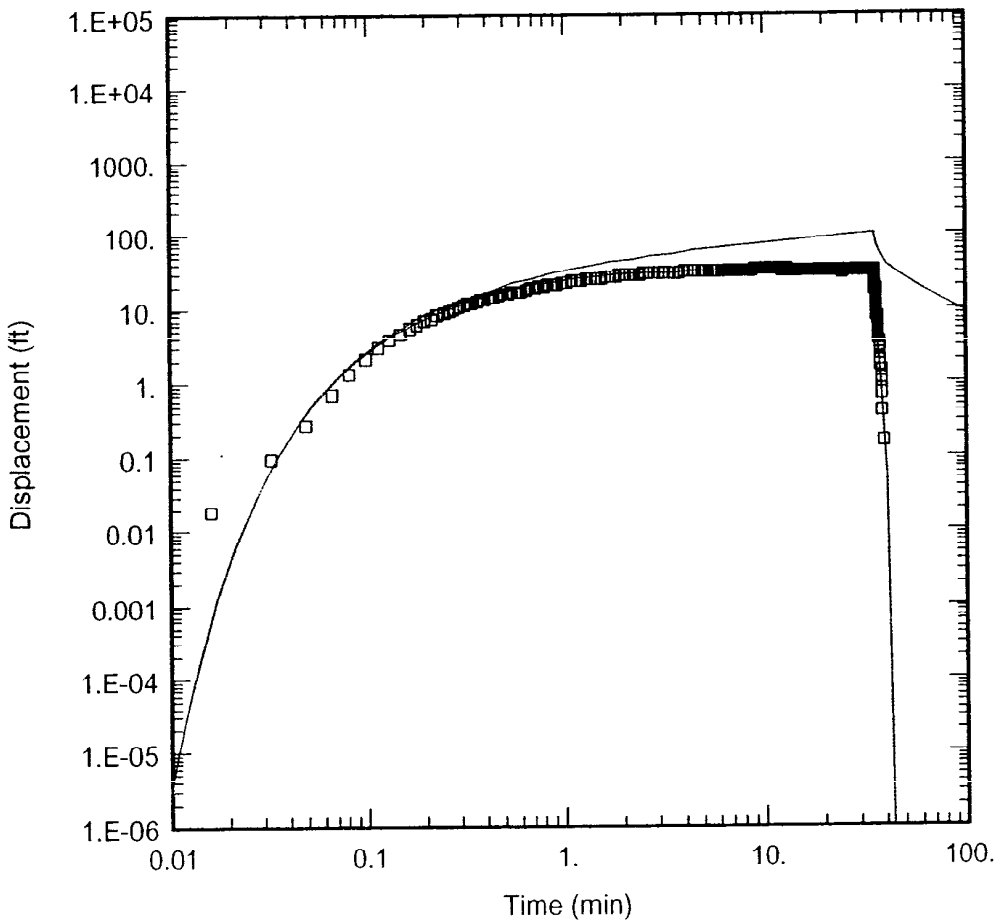
Well Name	X (ft)	Y (ft)
□ SG-21	35	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.08999 ft^2/min
S = 0.0001862
r/B = 1

MCK0032700



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\PSV-3B.AQT
Date: 11/26/01 Time: 19:30:12

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 11 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

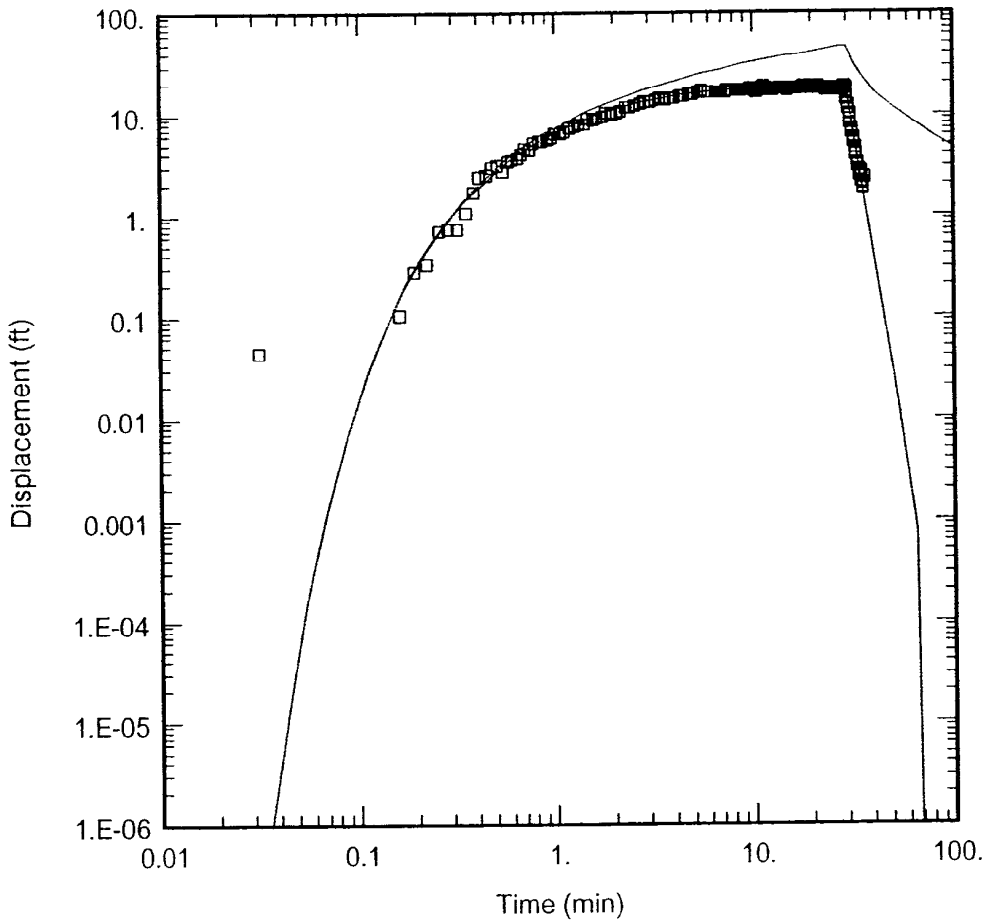
Well Name	X (ft)	Y (ft)
□ PSV-3b	15	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.09943 ft^2/min
S = 0.0002321
r/B = 0.6

MCK0032701



WELL TEST ANALYSIS

Data Set: C:\AQTW\MCKESSON\SB-37.AQT
Date: 11/26/01 Time: 19:28:07

PROJECT INFORMATION

Company: GeoSyntec Consultants
Client: McKesson
Project: HA0620
Test Location: Santa Fe Springs, CA
Test Well: E-1
Test Date: 10 October 2001

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
E-1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ SB-37	44	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.153 ft^2/min
S = 0.0001571
r/B = 0.65

MCK0032702

Appendix C

MCK0032703

APPENDIX C

HOLLOW-STEM AUGER BORING LOG

GEOSYNTEC CONSULTANTS
2100 Main Street, Suite 150
Huntington Beach, California 92648
Tel: (714) 969-0800 Fax: (714) 969-0820

GS FORM: CORE 8/98

BOREHOLE LOG

BORING	MW-05		SHEET 1 OF 3
START DATE	Oct 15, 01	GROUND SURF.	152.53 FT.
FINISH DATE	Oct 15, 01	TOP OF CASING	152.51 FT.
PROJECT	Former McKesson Facility		
LOCATION	Santa Fe Springs, CA	DATUM	mean sea level
NUMBER	HA0620		

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	WELL LOG	STRUCTURE/ GROUNDWATER	ELEVATION (ft)	SAMPLES NUMBER	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	COMMENTS
	No Recovery				150						
5	Sandy Silt (ML): dark brown (10YR 3/3); dry; 55% fines with coarse gravels; soft; weakly cemented									0.0	
	No Recovery				145						
10	Sandy Silt (ML): brown (7.5YR 5/4); moist; 60% fines; stiff; strongly cemented									0.0	
	Silty Sand (SM): light brown (7.5YR 6/4); moist; 20% fines; loose; moderately cemented				140					0.0	
	@ 13ft - becomes 15% fines with fine gravel									0.0	
15	Sand (SW): light brown (7.5YR 6/4); moist; <5% fines with coarse gravel; very loose; weakly cemented									0.0	
										0.0	
					135					0.0	
20										0.1	
										0.1	
					130					0.4	
	Silt (ML): brown (7.5YR 5/4); moist; 60% fines; soft; weakly cemented									0.5	
25	@ 25 ft - becomes 65% fines									1.0	
	Clayey Silt (ML): yellow brown (10YR 5/6); moist; 70% fines; soft; weakly cemented				125					2.0	
	@ 28 ft - becomes 75% fines; medium stiff; moderately cemented									1.5	
30											

CONTRACTOR	Layne Christensen	NORTHING	
EQUIPMENT		EASTING	
DRILL MTHD	Hollow Stem Auger	ANGLE	Vertical
DIAMETER	0.67 ft	BEARING	-----
LOGGER LVT	REVIEWER	PRINTED	Dec 4, 01

REMARKS:

MCK0032705

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GEOSYNTEC CONSULTANTS
2100 Main Street, Suite 150
Huntington Beach, California 92648
Tel: (714) 969-0800 Fax: (714) 969-0820

GS FORM: CORE 8/98

BOREHOLE LOG

BORING	MW-05		SHEET 2 OF 3
START DATE	Oct 15, 01	GROUND SURF.	152.53 FT.
FINISH DATE	Oct 15, 01	TOP OF CASING	152.51 FT.
PROJECT	Former McKesson Facility		
LOCATION	Santa Fe Springs, CA	DATUM	mean sea level
NUMBER	HA0620		

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	WELL LOG	STRUCTURE/ GROUNDWATER	ELEVATION (ft)	SAMPLES NUMBER	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	COMMENTS
										3.5	
	Clayey Silt with sand (ML): red brown (5YR 4/4); moist; 60% fines; hard; strongly cemented				120					4.5	
										0.5	
35	Silty Clay (CL): yellow brown (10YR 5/6); moist; 70% fines; hard; strongly cemented									0.7	
	@ 35.5 ft - becomes stiff; moderately cemented									5.0	
	@ 37 ft - becomes medium stiff				115					3.5	
40	Clayey Silt (ML): light brown (7.5YR 6/4); moist; 65% fines; medium stiff; moderately cemented									3.5	
	@ 40 ft - becomes sandy; 55% fines; very soft; weakly cemented									7.0	
	Silty Sand (SM): red brown (5YR 4/4); moist; 20% fines; very loose; weakly cemented				110					9.0	
	Sand (SW): brown (7.5YR 5/4); moist to wet; 10% fines; very loose; weakly cemented			▽						18.0	
	@ 43 ft - becomes light brown (7.5YR 6/4); wet; <5% fines										
45										24.0	
	Sand (SP): grey brown (10YR 5/2); wet; <5% fines; very loose; weakly cemented									26.0	
					105					28.0	
										27.0	
50										20.0	
					100					11.0	
										9.0	
55										4.0	
					95					2.5	
60											

CONTRACTOR	Layne Christensen	NORTHING	
EQUIPMENT		EASTING	
DRILL MTHD	Hollow Stem Auger	ANGLE	Vertical
DIAMETER	0.67 ft	BEARING	-----
LOGGER	LVT	REVIEWER	PRINTED Dec 4, 01

REMARKS:

MCK0032706

COORDINATE SYSTEM:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GEOSYNTEC CONSULTANTS
2100 Main Street, Suite 150
Huntington Beach, California 92648
Tel: (714) 969-0800 Fax: (714) 969-0820

GS FORM: CORE 8/98

BOREHOLE LOG

BORING	MW-05		SHEET 3 OF 3
START DATE	Oct 15, 01	GROUND SURF.	152.53 FT.
FINISH DATE	Oct 15, 01	TOP OF CASING	152.51 FT.
PROJECT	Former McKesson Facility		
LOCATION	Santa Fe Springs, CA	DATUM	mean sea level
NUMBER	HA0620		

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	WELL LOG	STRUCTURE/ GROUNDWATER	ELEVATION (ft)	SAMPLES NUMBER	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	COMMENTS
					90						
65										1.0	
	Borehole completed at a depth of 68 ft-bgs.				85						
70											
75											
80											
85											
90											

CONTRACTOR	Layne Christensen	NORTHING	
EQUIPMENT		EASTING	
DRILL MTHD	Hollow Stem Auger	ANGLE	Vertical
DIAMETER	0.67 ft	BEARING	----
LOGGER LVT	REVIEWER	PRINTED	Dec 4, 01

REMARKS:

MCK0032707

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Appendix D

MCK0032708

APPENDIX D

WELL CONSTRUCTION DIAGRAM

GEOSYNTEC CONSULTANTS
2100 Main Street, Suite 150
Huntington Beach, California 92648
Tel: (714) 969-0800 Fax: (714) 969-0820

GS FORM: WELL 11/98

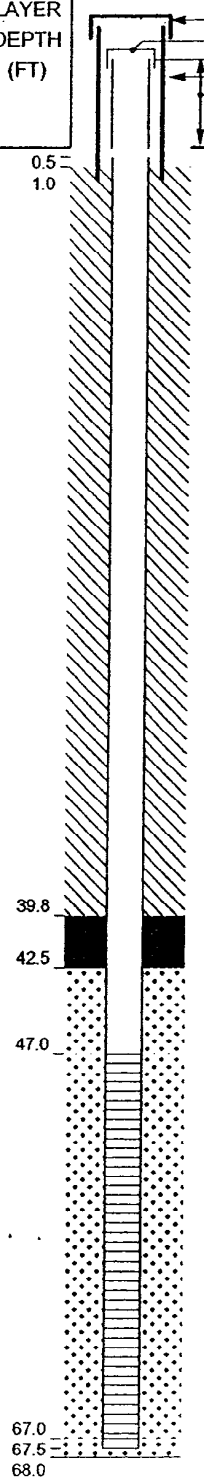
WELL RECORD

BORING	MW-05		SHEET 1 OF 1
START DATE	Oct 15, 01	GROUND SURF.	152.53 FT.
FINISH DATE	Oct 15, 01	TOP OF CASING	152.51 FT.
PROJECT	Former McKesson Facility		
LOCATION	Santa Fe Springs, CA	DATUM	mean sea level
NUMBER	HA0620		

LAYER DEPTH (FT)	MATERIAL DESCRIPTION
	Refer to the MW-05 borehole log for a detailed description.
	Borehole completed at a depth of 68 ft-bgs.

SYMBOLIC LOG

WELL LAYER DEPTH (FT)



RISER LENGTH	NA
RISER HEIGHT	NA
RISER DIAM.	NA
CASING HEIGHT	NA
SURFACE COMPLETION	8-inch traffic rated well box
CONCRETE TYPE	NA
BORING DIAMETER	0.67 ft
TOP OF GROUT DEPTH	1.0 ft
GROUT TYPE #1	Extra high yield bentonite
GROUT TYPE #2	Colton Type I/II cement
GROUT QUANTITY	413.5 lbs
WELL CASING DIAMETER	2 in
WELL CASING TYPE	Schedule 40 PVC
TOP OF BENTONITE SEAL	39.8 ft-bgs
BENTONITE SEAL TYPE	Enviroplug 1/4-in pellets
BENTONITE SEAL QUANTITY	5 gal
TOP OF FILTER SAND DEPTH	NA
FILTER SAND TYPE	NA
FILTER SAND QUANTITY	NA
TOP OF SAND PACK DEPTH	42.5 ft-bgs
SAND PACK TYPE	2/16 RMC Lonestar Sand
SAND PACK QUANTITY	550 lbs
TOP OF WELL SCREEN DEPTH	47 ft-bgs
TOP OF WELL SCREEN ELEVATION	105.53 ft-msl
BOTTOM OF WELL SCREEN DEPTH	67 ft-bgs
BOTTOM OF WELL SCREEN ELEVATION	85.53 ft-msl
SCREEN TYPE	Schedule 40 PVC
SLOT DIRECTION AND SIZE	Horizontal, 0.01 in
BOTTOM OF WELL DEPTH	67.5 ft-bgs
BOTTOM OF BORING GROUT TYPE	NA
GROUT QUANTITY	NA
BOTTOM OF BORING DEPTH	68 ft-bgs

CONTRACTOR	Layne Christensen	NORTHING	
EQUIPMENT		EASTING	
DRILL MTHD	Hollow Stem Auger	ANGLE	Vertical
DIAMETER	0.67 ft	BEARING	----
LOGGER LVT	REVIEWER	PRINTED	Dec 4, 01

REMARKS:

MCK0032710

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Appendix E

MCK0032711

APPENDIX E

LABORATORY ANALYTICAL REPORTS - GROUNDWATER

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-120*

CLIENT GeoSyntec Consultants (9628)
ATTN: Lisa Van Tassell
200 E. Del Mar
Suite 250
Pasadena, CA 91105

LAB REQUEST 82177
REPORTED 11/08/2001
RECEIVED 10/24/2001

PROJECT Former McKesson

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
301764	MW-05
301765	TB-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

MCK0032713

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 301764
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled: 16:25
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: MW-05

Analyte	Result	DF	DLR	Units	Date/Analyst	
200.7 ICP Dissolved Metals						
Antimony, Dissolved	ND	1	0.030	mg/L	10/30/01	KN
Arsenic, Dissolved	0.022	1	0.005	mg/L	10/29/01	MS
Barium, Dissolved	0.044	1	0.010	mg/L	10/30/01	KN
Beryllium, Dissolved	ND	1	0.005	mg/L	10/30/01	KN
Cadmium, Dissolved	ND	1	0.005	mg/L	10/30/01	KN
Chromium, Dissolved	ND	1	0.010	mg/L	10/30/01	KN
Cobalt, Dissolved	ND	1	0.005	mg/L	10/30/01	KN
Copper, Dissolved	0.011	1	0.010	mg/L	10/30/01	KN
Iron, Dissolved	0.473	1	0.020	mg/L	10/30/01	KN
Lead, Dissolved	ND	1	0.005	mg/L	10/29/01	MS
Nickel, Dissolved	0.020	1	0.015	mg/L	10/30/01	KN
Selenium, Dissolved	ND	1	0.005	mg/L	10/29/01	MS
Silver, Dissolved	ND	1	0.005	mg/L	10/30/01	KN
Thallium, dissolved	ND	1	0.005	mg/L	10/29/01	MS
Vanadium, Dissolved	ND	1	0.005	mg/L	10/30/01	KN
Zinc, Dissolved	0.129	1	0.010	mg/L	10/30/01	KN
245.1 Mercury in Water by Manual Cold Vapor						
Mercury	ND	1	0.0004	mg/L	10/29/01	MDJ
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,1-Trichloroethane	23	1	5	ug/L	11/03/01	DP
1,1,2,2-Tetrachloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,2-Trichloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/L	11/03/01	DP
1,1-Dichloroethane	210	1	5	ug/L	11/03/01	DP
1,1-Dichloroethene	87	1	5	ug/L	11/03/01	DP
1,1-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
1,2,3-Trichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,2,3-Trichloropropane	ND	1	5	ug/L	11/03/01	DP
1,2,4-Trichlorobenzene	ND	1	5	ug/L	11/03/01	DP

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301764
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled: 16:25
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: MW-05

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,2,4-Trimethylbenzene	ND	1	5	ug/L	11/03/01	DP
1,2-Dibromo-3-chloropropane	ND	1	5	ug/L	11/03/01	DP
1,2-Dibromoethane	ND	1	5	ug/L	11/03/01	DP
1,2-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,2-Dichloroethane	21	1	5	ug/L	11/03/01	DP
1,2-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
1,3,5-Trimethylbenzene	ND	1	5	ug/L	11/03/01	DP
1,3-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,3-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
1,4-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,4-Dioxane	ND	1	57	ug/L	11/03/01	DP
1,4-Dioxane	ND	1	5	ug/L	11/03/01	DP
1-Chlorohexane	ND	1	5	ug/L	11/03/01	DP
2,2-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
2-Butanone (MEK)	ND	1	100	ug/L	11/03/01	DP
2-Chloroethyl vinyl ether	ND	1	5	ug/L	11/03/01	DP
2-Chlorotoluene	ND	1	5	ug/L	11/03/01	DP
2-Hexanone	ND	1	20	ug/L	11/03/01	DP
4-Chlorotoluene	ND	1	5	ug/L	11/03/01	DP
4-Methyl -2- Pentanone	ND	1	10	ug/L	11/03/01	DP
Acetone	ND	1	100	ug/L	11/03/01	DP
Acetonitrile	ND	1	50	ug/L	11/03/01	DP
Acrolein	ND	1	200	ug/L	11/03/01	DP
Acrylonitrile	ND	1	10	ug/L	11/03/01	DP
Allyl chloride	ND	1	5	ug/L	11/03/01	DP
Benzene	4.5	1	1	ug/L	11/03/01	DP
Benzyl chloride	ND	1	5	ug/L	11/03/01	DP
Bromobenzene	ND	1	5	ug/L	11/03/01	DP
Bromochloromethane	ND	1	5	ug/L	11/03/01	DP
Bromodichloromethane	ND	1	5	ug/L	11/03/01	DP
Bromoform	ND	1	5	ug/L	11/03/01	DP
Bromomethane	ND	1	5	ug/L	11/03/01	DP
Carbon Disulfide	ND	1	5	ug/L	11/03/01	DP

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301764
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled: 16:25
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: MW-05

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Carbon tetrachloride	ND	1	5	ug/L	11/03/01	DP
Chlorobenzene	ND	1	5	ug/L	11/03/01	DP
Chloroethane	ND	1	5	ug/L	11/03/01	DP
Chloroform	ND	1	5	ug/L	11/03/01	DP
Chloromethane	ND	1	5	ug/L	11/03/01	DP
Dibromochloromethane	ND	1	5	ug/L	11/03/01	DP
Dibromomethane	ND	1	5	ug/L	11/03/01	DP
Dichlorodifluoromethane	ND	1	5	ug/L	11/03/01	DP
Ethyl benzene	ND	1	5	ug/L	11/03/01	DP
Ethyl methacrylate	ND	1	50	ug/L	11/03/01	DP
Hexachlorobutadiene	ND	1	5	ug/L	11/03/01	DP
Iodomethane	ND	1	5	ug/L	11/03/01	DP
Isopropylbenzene (Cumene)	ND	1	5	ug/L	11/03/01	DP
Methacrylonitrile	ND	1	35	ug/L	11/03/01	DP
Methyl methacrylate	ND	1	5	ug/L	11/03/01	DP
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	11/03/01	DP
Methylene chloride	ND	1	5	ug/L	11/03/01	DP
Naphthalene	ND	1	5	ug/L	11/03/01	DP
Pentachloroethane	ND	1	5	ug/L	11/03/01	DP
Propionitrile	ND	1	100	ug/L	11/03/01	DP
Styrene	ND	1	5	ug/L	11/03/01	DP
Tetrachloroethene	66	1	5	ug/L	11/03/01	DP
Toluene	38	1	5	ug/L	11/03/01	DP
Trichloroethene	30	1	5	ug/L	11/03/01	DP
Trichlorofluoromethane	ND	1	5	ug/L	11/03/01	DP
Vinyl acetate	ND	1	50	ug/L	11/03/01	DP
Vinyl chloride	330	1	5	ug/L	11/03/01	DP
Xylenes, total	6.8	1	5	ug/L	11/03/01	DP
cis-1,2-Dichloroethene	280	1	5	ug/L	11/03/01	DP
cis-1,3-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
cis-1,4-Dichloro-2-butene	ND	1	20	ug/L	11/03/01	DP
n-Butylbenzene	ND	1	5	ug/L	11/03/01	DP

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301764
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled: 16:25
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: MW-05

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
n-Propylbenzene	ND	1	5	ug/L	11/03/01	DP
p-Isopropyltoluene	ND	1	5	ug/L	11/03/01	DP
sec-Butylbenzene	ND	1	5	ug/L	11/03/01	DP
tert-Butylbenzene	ND	1	5	ug/L	11/03/01	DP
trans-1,2-Dichloroethene	ND	1	5	ug/L	11/03/01	DP
trans-1,3-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
trans-1,4-Dichloro-2-butene	ND	1	20	ug/L	11/03/01	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301765
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled:
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: TB-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,1-Trichloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,2,2-Tetrachloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,2-Trichloroethane	ND	1	5	ug/L	11/03/01	DP
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/L	11/03/01	DP
1,1-Dichloroethane	ND	1	5	ug/L	11/03/01	DP
1,1-Dichloroethene	ND	1	5	ug/L	11/03/01	DP
1,1-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
1,2,3-Trichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,2,3-Trichloropropane	ND	1	5	ug/L	11/03/01	DP
1,2,4-Trichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,2,4-Trimethylbenzene	ND	1	5	ug/L	11/03/01	DP
1,2-Dibromo-3-chloropropane	ND	1	5	ug/L	11/03/01	DP
1,2-Dibromoethane	ND	1	5	ug/L	11/03/01	DP
1,2-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,2-Dichloroethane	ND	1	5	ug/L	11/03/01	DP
1,2-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
1,3,5-Trimethylbenzene	ND	1	5	ug/L	11/03/01	DP
1,3-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,3-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
1,4-Dichlorobenzene	ND	1	5	ug/L	11/03/01	DP
1,4-Dioxane	ND	1	57	ug/L	11/03/01	DP
1,4-Dioxane	ND	1	5	ug/L	11/03/01	DP
1-Chlorohexane	ND	1	5	ug/L	11/03/01	DP
2,2-Dichloropropane	ND	1	5	ug/L	11/03/01	DP
2-Butanone (MEK)	ND	1	100	ug/L	11/03/01	DP
2-Chloroethyl vinyl ether	ND	1	5	ug/L	11/03/01	DP
2-Chlorotoluene	ND	1	5	ug/L	11/03/01	DP
2-Hexanone	ND	1	20	ug/L	11/03/01	DP
4-Chlorotoluene	ND	1	5	ug/L	11/03/01	DP
4-Methyl -2- Pentanone	ND	1	10	ug/L	11/03/01	DP
Acetone	ND	1	100	ug/L	11/03/01	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301765
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled:
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: TB-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Acetonitrile	ND	1	50	ug/L	11/03/01	DP
Acrolein	ND	1	200	ug/L	11/03/01	DP
Acrylonitrile	ND	1	10	ug/L	11/03/01	DP
Allyl chloride	ND	1	5	ug/L	11/03/01	DP
Benzene	ND	1	1	ug/L	11/03/01	DP
Benzyl chloride	ND	1	5	ug/L	11/03/01	DP
Bromobenzene	ND	1	5	ug/L	11/03/01	DP
Bromochloromethane	ND	1	5	ug/L	11/03/01	DP
Bromodichloromethane	ND	1	5	ug/L	11/03/01	DP
Bromoform	ND	1	5	ug/L	11/03/01	DP
Bromomethane	ND	1	5	ug/L	11/03/01	DP
Carbon Disulfide	ND	1	5	ug/L	11/03/01	DP
Carbon tetrachloride	ND	1	5	ug/L	11/03/01	DP
Chlorobenzene	ND	1	5	ug/L	11/03/01	DP
Chloroethane	ND	1	5	ug/L	11/03/01	DP
Chloroform	ND	1	5	ug/L	11/03/01	DP
Chloromethane	ND	1	5	ug/L	11/03/01	DP
Dibromochloromethane	ND	1	5	ug/L	11/03/01	DP
Dibromomethane	ND	1	5	ug/L	11/03/01	DP
Dichlorodifluoromethane	ND	1	5	ug/L	11/03/01	DP
Ethyl benzene	ND	1	5	ug/L	11/03/01	DP
Ethyl methacrylate	ND	1	50	ug/L	11/03/01	DP
Hexachlorobutadiene	ND	1	5	ug/L	11/03/01	DP
Iodomethane	ND	1	5	ug/L	11/03/01	DP
Isopropylbenzene (Cumene)	ND	1	5	ug/L	11/03/01	DP
Methacrylonitrile	ND	1	35	ug/L	11/03/01	DP
Methyl methacrylate	ND	1	5	ug/L	11/03/01	DP
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	11/03/01	DP
Methylene chloride	ND	1	5	ug/L	11/03/01	DP
Naphthalene	ND	1	5	ug/L	11/03/01	DP
Pentachloroethane	ND	1	5	ug/L	11/03/01	DP
Propionitrile	ND	1	100	ug/L	11/03/01	DP
Styrene	ND	1	5	ug/L	11/03/01	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 301765
Matrix: WATER
Date Sampled: 10/23/2001
Time Sampled:
Sampled By:

Client: GeoSyntec Consultants
Client Sample ID: TB-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Tetrachloroethene	ND	1	5	ug/L	11/03/01	DP
Toluene	ND	1	5	ug/L	11/03/01	DP
Trichloroethene	ND	1	5	ug/L	11/03/01	DP
Trichlorofluoromethane	ND	1	5	ug/L	11/03/01	DP
Vinyl acetate	ND	1	50	ug/L	11/03/01	DP
Vinyl chloride	ND	1	5	ug/L	11/03/01	DP
Xylenes, total	ND	1	5	ug/L	11/03/01	DP
cis-1,2-Dichloroethene	ND	1	5	ug/L	11/03/01	DP
cis-1,3-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
cis-1,4-Dichloro-2-butene	ND	1	20	ug/L	11/03/01	DP
n-Butylbenzene	ND	1	5	ug/L	11/03/01	DP
n-Propylbenzene	ND	1	5	ug/L	11/03/01	DP
p-Isopropyltoluene	ND	1	5	ug/L	11/03/01	DP
sec-Butylbenzene	ND	1	5	ug/L	11/03/01	DP
tert-Butylbenzene	ND	1	5	ug/L	11/03/01	DP
trans-1,2-Dichloroethene	ND	1	5	ug/L	11/03/01	DP
trans-1,3-Dichloropropene	ND	1	5	ug/L	11/03/01	DP
trans-1,4-Dichloro-2-butene	ND	1	20	ug/L	11/03/01	DP

MCK0032720

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: LCS/LCSD #2 - Water Samples

Matrix: WATER

Method : 8260 / 624

Analysis Date: 11/03-04/01

Applies to: LR 82178, 82179, 82177

Reporting Units = ug/L

Lab Controlled Spike / Lab Controlled Spike Duplicate

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits RPD	QC Limits %REC
1,1-Dichloroethene	ND	50	45.43	45.66	91	91	1	22	59-172
MTBE	ND	50	57.17	59.88	114	120	5	24	62-137
Benzene	ND	50	47.13	48.36	94	97	3	24	62-137
Trichloroethene	ND	50	45.10	46.84	90	94	4	21	66-142
Toluene	ND	50	46.75	46.54	94	93	0	21	59-139
Chlorobenzene	ND	50	48.67	48.20	97	96	1	21	60-133

ND = Not Detected
RPD = Relative Percent Difference of LCS and LCS Dup.
%REC-MS & MSD = Percent Recovery of LCS & LCS Dup.

LCS RECOVERY / METHOD BLANK

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50	46.05	92	59-172
Benzene	ND	50	62.89	126	62-137
Trichloroethene	ND	50	48.28	97	62-137
Toluene	ND	50	45.32	91	66-142
Chlorobenzene	ND	50	46.98	94	59-139
MTBE	ND	50	47.25	95	60-133

Method Blank = All ND

MCK0032721

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 82238-301937

Matrix: WATER

Prep. Date: 10/29/01

Analysis Date: 10/29/01

ID#'s in Batch: LR 82177, 82279, 82245, 82280, 82214, 82237, 82236, 82238, 82241, 81958

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.1 / 7470A	0.0002	0.001	0.0011	0.0013	90	110	16.7

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.0051	0.005	102	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES

QA REPORT FORM (MS/MSD)

QC Sample: LR 82245-301955 QC# 102901W3,4

Matrix: WATER

Prep. Date: 10/29/01

Analysis Date: 10/29/01

Lab ID#'s in Batch: LR 82245, 82177, 82255, 82280, 82279, 82262, 82312, 82339, 82340, 82314, 82310

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Arsenic	200.7 / 6010	0.005	U	0.2	0.200	0.197	100.0	98.5	1.5
Selenium	200.7 / 6010	0.005	U	0.2	0.188	0.185	94.0	92.5	1.6
Thallium	200.7 / 6010	0.005	U	0.2	0.196	0.198	98.0	99.0	1.0
Lead	200.7 / 6010	0.005	U	0.4	0.383	0.377	95.8	94.3	1.6
Antimony	200.7 / 6010	0.030	U	2.0	2.080	2.040	104.0	102.0	1.9
Barium	200.7 / 6010	0.135		2.0	2.030	1.990	94.8	92.8	2.0
Beryllium	200.7 / 6010	0.005	U	2.0	1.960	1.940	98.0	97.0	1.0
Cadmium	200.7 / 6010	0.005	U	2.0	1.920	1.930	96.0	96.5	0.5
Chromium	200.7 / 6010	0.010	U	2.0	1.950	1.950	97.5	97.5	0.0
Cobalt	200.7 / 6010	0.005	U	2.0	1.900	1.890	95.0	94.5	0.5
Copper	200.7 / 6010	0.010	U	2.0	2.000	1.960	100.0	98.0	2.0
Molybdenum	200.7 / 6010	0.010	U	2.0	1.960	1.950	98.0	97.5	0.5
Nickel	200.7 / 6010	0.015	U	2.0	1.820	1.780	91.0	89.0	2.2
Silver	200.7 / 6010	0.005	U	0.4	0.330	0.330	82.5	82.5	0.0
Vanadium	200.7 / 6010	0.005	U	2.0	1.960	1.950	98.0	97.5	0.5
Zinc	200.7 / 6010	0.144		2.0	2.070	2.000	96.3	92.8	3.4
Aluminum	200.7 / 6010	0.107		2.0	2.060	2.030	97.7	96.2	1.5
Iron	200.7 / 6010	0.135		2.0	2.040	2.030	95.3	94.8	0.5
Manganese	200.7 / 6010	0.052		2.0	1.960	1.950	95.4	94.9	0.5
Boron	200.7 / 6010	0.370		2.0	2.260	2.250	94.5	94.0	0.4

NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

MCK0032723

% REC LIMITS = 75 -125
RPD LIMITS = 20

ASSOCIATED LABORATORIES

LCS/MB REPORT FORM

LCS Source(s) : QC21-LOT#QC2/91/1;QC7-LOT7A92/1

							Method Blank	
Element	**Method**	**Result**	**TRUE**	**%Rec**	**L.Limit**	**H.Limit**	**MB**	**ND**
Arsenic	200.7 / 6010	1.991	2	99.6	80%	120%	0.005	U
Selenium	200.7 / 6010	1.992	2	99.6	80%	120%	0.005	U
Thallium	200.7 / 6010	1.995	2	99.8	80%	120%	0.008	
Lead	200.7 / 6010	2.024	2	101.2	80%	120%	0.005	U
Antimony	200.7 / 6010	2.197	2	109.9	80%	120%	0.030	U
Barium	200.7 / 6010	1.893	2	94.7	80%	120%	0.010	U
Beryllium	200.7 / 6010	2.157	2	107.9	80%	120%	0.005	U
Cadmium	200.7 / 6010	2.191	2	109.6	80%	120%	0.005	U
Chromium	200.7 / 6010	2.166	2	108.3	80%	120%	0.010	U
Cobalt	200.7 / 6010	2.162	2	108.1	80%	120%	0.005	U
Copper	200.7 / 6010	2.085	2	104.3	80%	120%	0.010	U
Molybdenum	200.7 / 6010	2.022	2	101.1	80%	120%	0.010	U
Nickel	200.7 / 6010	2.084	2	104.2	80%	120%	0.015	U
Silver	200.7 / 6010	0.984	1	98.4	80%	120%	0.005	U
Vanadium	200.7 / 6010	2.095	2	104.8	80%	120%	0.005	U
Zinc	200.7 / 6010	2.123	2	106.2	80%	120%	0.010	U
Manganese	200.7 / 6010	2.116	2	105.8	80%	120%	0.010	U

*Notes : RESULT = Sample Result; TRUE = True Value; %Rec = 100*Result/True*

L.LIMIT / H.LIMIT = Low / High Control Limits

MB = Method Blank; ND = " U " for Non- Detected

MCK0032724

Cooler Receipt Form

Client: Geo Synthetic Project: ✓
Cooler Received: 10/24 Cooler Opened: 10/24 By: [illegible]
Signed: [illegible]

Was cooler scanned for presence of radioactivity, and noted if found? Yes / No

Were custody seals present on outside of cooler? Yes / No
a: If Yes, were they intact? Yes / No
b: Were signature and date correct? Yes / No

Were custody papers completely filled out? Yes / No

Did you sign and date the custody papers in the appropriate place? Yes / No

Was a shippers packing slip attached to the cooler? Yes / No

What kind of packing material was used? ice

Was sufficient ice used? Yes / No Temperature: 3.2°c Date: 10/24

Were all bottles sealed in plastic bags? Yes / No

Did all bottles arrive intact? Yes / No

Were all bottles labeled correctly? (ID, Analysis, Dates, Times) Yes / No

Were the correct containers included for the tests required? Yes / No

Were all VOA vials checked for headspace? NA / Yes / No

Was sufficient volume of sample sent in all containers? Yes / No

Were correct preservatives used? Yes / No

Approved by: [illegible] Date: 10/24
If not approved: Name of person contacted _____ Date: _____

MCK0032725

SAMPLE RECEIVING pH Log

Client: Geosyntec Date/Time 10/24 ~~5:20~~ 6:20 pm

Sample ID	pH	Reader's Initial	Standardization Date
1. MW 05 metals	1.0	DV	10/24
2. MW 04 - metals	1.0	↓	↓
3. SB 32 metals	2.0	↓	↓
4. MW 02 metals	1.0	↓	↓
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

MCK0032726

ASSOCIATED LABORATORIES
806 N. Batavia • Orange, CA 92868
(714) 771-6900 • FAX: (714) 538-1209

CHAIN OF CUSTODY RECORD

Date 10/23/01 Page 1 of 1

82177

CLIENT GeoSyntec
ADDRESS 200 E. Del Mar Suite 250
Pasadena, CA 91105

PROJECT MANAGER Lisa VanTassell
PHONE NUMBER 626-449-0664
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient ___ Cooled X Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

PROJECT NAME Former McKesson

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO. OF CNTNRS.	SUSP. CONTAM.	TESTS REQUIRED
MW-05		10/23	1625	X			3		8260 + 1,4-Dioxane Dissolved metals*
TB-1			—				1		8260 + 1,4 Dioxane
MW-04			1555				3		8260 + 1,4-Dioxane Dissolved metals*
SB-32			1730						
MW-02			1345						

MCK0032727

Relinquished by: (Signature) Karen Caballero
Received by: (Signature) [signature] Date/Time 1125 10-24-01
Relinquished by: (Signature) [signature] 1730 10-24-01
Received by Laboratory for analysis: (Signature) [signature] Date/Time 10-24 5:40

I hereby authorize the performance of the above indicated work.

Misty Yanck

Special Instructions:
*See attached list for dissolved metals, filter metals in lab for dissolved concentration

DISTRIBUTION: White with report. Yellow to AL, Pink to Courier

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Department of Toxic Substances Control

Edwin F. Lowry, Director
1011 North Grandview Avenue
Glendale, California 91201

Gray Davis
Governor

FAX TRANSMITTAL
SITE MITIGATION

Date December 13, 2001

Total number of Pages: 16
(including cover sheet)

To: Nancy Bice
Fax #: (925) 943-2366

Company: Geo Syntec
Telephone #: (925) 943-3034

To:
Fax #:

Company:
Telephone #:

From: Ryan Kinsella
Fax #: 818-551-2832

Telephone #: (818) 551-2961
e-mail: rkinsell@dtsc.ca.gov

____ Per Your Request

____ Please confirm receipt by calling 818-551-2961

X For Your Information

____ URGENT

COMMENTS:

Nancy, here are results submitted to DTSC from the October quarterly ground water monitoring at the former Angeles Chemical Co. Site. Jean Mescher asked me to forward these to you, please call if you have any questions.

Sincerely,
Ryan Kinsella

MCK0032728

Printed on Recycled Paper

WELL GAUGING DATA

Project # 011115-GD-1 Date 11/15/01 Client Blakely ENV. Invest.

Site 8915 SORENSEN AVE - Santa Fe Springs

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-4	4	Odor	26.29	0.07		26.36		TOC	
MW-6	4	Odor	28.30	0.55		28.85		TOC	

WELL MONITORING DATA SHEET

Project #: 01 1030-P1	Client: Blakeley
Sampler: TB	Start Date: 10/28/01
Well I.D.: mw-6	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Baller
Disposable Baller
Middleburg
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other ___

Sampling Method:

Baller
~~Disposable Baller~~
Extraction Port
Dedicated Tubing
Other: ___

___ (Gals.) X ___ = ___ Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
		No Purge - Grab SAMPLE				

Did well dewater? ~~Yes~~ No Gallons actually evacuated: Grab sample

Sampling Time: Client has data on COC Sampling Date: 11/8/01

Sample I.D.: MW-6 Laboratory: Samples signed over to client

Analyzed for: TPH-G BTEX MTBE TPH-D (Other) Client has data

Equipment Blank I.D.: @ Time Duplicate I.D.: --

Analyzed for: TPH-G BTEX MTBE TPH-D Other: MCK0032730

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:41 P.03

WELL MONITORING DATA SHEET

Project #: 011030-P1	Client: Blakely Eng. Angeles Chem
Sampler: GB / JT	Start Date: 10/28/01
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 51.85	Depth to Water: 28.70
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- (Middleburg)
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:

- Bailer
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: _____

3.7 (Gals.) X 3 = 11.1 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	~~0.16~~	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
10:22	71.5	6.83	2637	>200	3.7 PTU 41.48	ODOR/Black
10:25	72.1	6.77	2732	175	7.4	"
10:34	71.7	7.00	2633	61	11.1	"
10:37	72.0	7.04	2635	>200	13	

Did well dewater? (Yes) (No) Gallons actually evacuated: 13

Sampling Time: Client has data on C.O.C. Sampling Date: 10-30-01

Sample I.D.: MW-7 (Laboratory): Samples signed over to client

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) ~~Stamp~~ Client has data on C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.:

MCK0032731

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:42 P.04

WELL MONITORING DATA SHEET

Project #: 011030-71	Client: Varley
Sampler: DS	Start Date: 10/28/01
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 52.00	Depth to Water: 39.19
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer	Waterra	
Disposable Bailer	Peristaltic	
~~Middleburg~~	Extraction Pump	
Electric Submersible	Other_____	

Sampling Method:

~~Bailer~~	
~~Disposable Bailer~~	
Extraction Port	
Dedicated Tubing	
Other: _____	

9.3 (Gals.) X 3 = 24.9 Gals.
1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
11:15	71.7	7.25	1861	35	8	Odor
1131	71.3	7.19	1878	19	16	"
	Well dewatered @ ~ 17 gal					

Did well dewater? Yes No Gallons actually evacuated: 17

Sampling Time: Client has data on coc Sampling Date: 10/28/01

Sample I.D.: MW-3 Laboratory: Samples signed over to client

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Client has data

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

MCK0032732

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:42 P.05

WELL MONITORING DATA SHEET

Project #: 011030 / P1	Client: Blackberry Env. Angeles Clean
Sampler: PB / JT	Start Date: 10/30/01
Well I.D.: mw-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 52.27	Depth to Water: 37.91
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:
- Bailer
- Disposable Bailer
- (Middleburg)
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:
- Bailer
- ~~Disposable Bailer~~
- Extraction Port
- Dedicated Tubing
- Other: _____

9.5 (Gals.) X 3 = 27.9 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:05	72.2	7.07	1807	87	10	
12:18	71.6	7.41	1793	165	17	
	well dewatered @ 17 gal					

Did well dewater? (Yes) No — Gallons actually evacuated: 17

Sampling Time: client has data on file — Sampling Date: 10/30/01

Sample I.D.: mw-2 — Laboratory: Sample signed over to client

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) Client has data

Equipment Blank I.D.: @ Time — Duplicate I.D.: MCK0032733

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:42 P.06

WELL MONITORING DATA SHEET

Project #: 011030-P1	Client: Berkeley Env. - Angelos Chem
Sampler: PB	Start Date: 10/30/01
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: 62.70	Depth to Water: 37.41
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:
- Bailer
- Disposable Bailer
- ~~Middleburg~~
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other ___

Sampling Method:
- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: ___

16.4 (Gals.) X 3 = 49.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:50	71.3	6.80	2031	38	16	Odor
13:05	71.0	6.82	1954	18	32	"
13:17	71.4	6.89	1879	10	49	"

Did well dewater? Yes No Gallons actually evacuated: 49

Sampling Time: client has data on file Sampling Date: 10/28/01

Sample I.D.: MW-1 Laboratory: Samples to client

Analyzed for: TPH-G BTEX MTBE TPH-D Other: client has data

Equipment Blank I.D.: @ Time Duplicate I.D.: MCK0032734

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:43 P.07

WELL GAUGING DATA

Project # 011030-P1 Date 10/30/01 Client Blayney Env.

Site Angelos Chem

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-3	4	odor				39.19	52.00	TOC	
MW-1	4	Toluene odor				37.41	62.70	"	
MW-2	4					37.91	52.27	"	
MW-4	4					26.35	26.65		
MW-6	4	SPH				—	—		
MW 7	2					29.70	51.35		

MCK0032735

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:43 P.08

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1503

11-07-2001

EPA 8260B
Batch QA/QC Report

Client:	Blakely Environmental Investigations, Inc.	Lab Job No.:	GR110126
Project:	Angeles Chemicals		
Matrix:	Soil	Sample ID:	ST1030-1
Batch No:	1030-VOCA	Date Analyzed:	10-30-2001

I. MS/MSD Report
Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	19.3	17.4	96.5	87.0	10.4	30	70-130
Benzene	ND	20	19.5	19.9	97.5	99.5	2.0	30	70-130
Trichloro-ethene	ND	20	20.6	20.4	103.0	102.0	1.0	30	70-130
Toluene	ND	20	20.9	20.8	104.5	104.0	0.5	30	70-130
Chlorobenzene	ND	20	21.3	20.6	106.5	103.0	3.3	30	70-130

II. LCS Result
Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	43.9	50	87.8	80-120
Benzene	49.2	50	98.4	80-120
Trichloro-ethene	51.1	50	102.2	80-120
Toluene	51.4	50	102.8	80-120
Chlorobenzene	51.5	50	103.0	80-120

ND: Not Detected (at the specified limit)

MCK0032736

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:43 P.09
NOV-7-2001 07:55P FHM:SIS LHR 2525881525

STS

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1539

Client: Blakely Environmental Investigations, Inc. Lab Job No.: GR110126 Date Reported: 11-07-01
Project: Angeles Chemicals Matrix: : Product Date Sampled: 10-30-01

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: mg/L (ppm)

COMPOUND	MDL	MB	MW-6			
Toluene	2	ND	9,010,000			
Tetrachloroethene	2	ND	531,000			
1,2-Dibromoethane(EDB)	5	ND	ND			
Chlorobenzene	5	ND	ND			
1,1,1,2-Tetrachloroethan	5	ND	ND			
Ethylbenzene	2	ND	4,320,000			
M&P-Xylenes	2	ND	6,950,000			
O-Xylene	2	ND	3,420,000			
Styrene	5	ND	ND			
1,1,2,2-Tetrachloroethan	5	ND	ND			
1,2,3-Trichloropropane	5	ND	ND			
n-Propylbenzene	5	ND	1,870,000			
2-Chlorotoluene	5	ND	ND			
4-Chlorotoluene	5	ND	ND			
1,3,5-Trimethylbenzene	5	ND	5,400,000			
tert-Butylbenzene	5	ND	ND			
1,2,4-Trimethylbenzene	5	ND	22,100,000			
Sec-Butylbenzene	5	ND	ND			
1,3-Dichlorobenzene	5	ND	ND			
p-Isopropyltoluene	5	ND	ND			
1,4-Dichlorobenzene	5	ND	ND			
1,2-Dichlorobenzene	5	ND	ND			
n-Butylbenzene	5	ND	1,400,000			
1,2,4-Trichlorobenzene	5	ND	ND			
1,2-Dibromo-3-Chloropropane	5	ND	ND			
Hexachlorobutadiene	5	ND	ND			
Naphthalene	5	ND	1,680,000			
1,2,3-Trichlorobenzene	5	ND	ND			
Acetone	25	ND	ND			
2-Butanone (MEK)	25	ND	ND			
4-Methyl-2-pentanone	25	ND	ND			
2-Hexanone	25	ND	ND			
MTBE	2	ND	ND			

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF * MDL).

MCK0032737

SITE MITIGATION BRANCH Fax:818-551-2832 Dec 13 2001 8:43 P.10
NOV-7-2001 07:35P FROM:STS LAB 3238881549 TO:15073859936 P.5/6

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

Client: Blakely Environmental Investigations, Inc.
Project: Angeles Chemicals

Lab Job No.: GR110126
Matrix: Product

Date Reported: 11-07-01
Date Sampled: 10-30-01

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: mg/L (ppm)

DATE ANALYZED		10-30-01	10-30-01			
PREPARATION METHOD		5030	5030			
DILUTION FACTOR		1	50			
LAB SAMPLE I.D.			GR10126-5			
CLIENT SAMPLE I.D.			MW-6			
COMPOUND	MDL	MB				
Dichlorodifluoromethane	5	ND	ND			
Chloromethane	5	ND	ND			
Vinyl Chloride	5	ND	ND			
Bromomethane	5	ND	ND			
Chloroethane	5	ND	ND			
Trichlorofluoromethane	5	ND	ND			
1,1-Dichloroethene	5	ND	417,000			
Iodomethane	5	ND	ND			
Methylene Chloride	5	ND	ND			
trans-1,2-Dichloroethene	5	ND	ND			
1,1-Dichloroethane	5	ND	592,000			
2,2-Dichloropropane	5	ND	ND			
cis-1,2-Dichloroethene	5	ND	1,060,000			
Bromochloromethane	5	ND	ND			
Chloroform	5	ND	ND			
1,2-Dichloroethane	5	ND	ND			
1,1,1-Trichloroethane	5	ND	28,100,000			
Carbon tetrachloride	5	ND	ND			
1,1-Dichloropropene	5	ND	ND			
Benzene	2	ND	110,000			
Trichloroethene	2	ND	753,000			
1,2-Dichloropropane	5	ND	ND			
Bromodichloromethane	5	ND	ND			
Dibromomethane	5	ND	ND			
trans-1,3-Dichloropropene	5	ND	ND			
cis-1,3-Dichloropropene	5	ND	ND			
1,1,2-Trichloroethane	5	ND	ND			
1,3-Dichloropropane	5	ND	ND			
Dibromochloromethane	5	ND	ND			
2-Chloroethylvinyl ether	5	ND	ND			
Bromoform	5	ND	ND			
Isopropylbenzene	5	ND	636,000			
Bromobenzene	5	ND	ND			

MCK0032738

STS

Southland Technical Services, Inc.
Environmental Laboratories

7201 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0729
Fax (323) 888-1509

Client: Blakely Environmental Investigations, Inc. Lab Job No.: GR110126 Date Reported: 11-07-01
Project: Angeles Chemicals Matrix: Water Date Sampled: 10-30-01

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: µg/L (ppb)

COMPOUND	MDL	MB	MW-1	MW-2	MW-3	MW-7	Trip
Toluene	2	ND	2,470	26	5,150	975	ND
Tetrachloroethene	2	ND	ND	ND	130	10	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	805	197	1,550	107	ND
M&P-Xylenes	2	ND	1,900	ND	2,800	227	ND
O-Xylene	2	ND	870	ND	920	74.0	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	470	62.9	145	25	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	1,590	18.9	345	200	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	185	76	ND	85	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	25	ND	ND	ND	ND	1,190	ND
2-Butanone (MEK)	25	ND	ND	ND	500	980	ND
4-Methyl-2-pentanone	25	ND	ND	ND	4,130	625	ND
2-Hexanone	25	ND	ND	ND	ND	ND	ND
MTBE	2	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF * MDL).

MCK0032739

STS

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello CA 90640

Phone (323) 888-0728
Fax (323) 888-1506

Client: Blakely Environmental Investigations, Inc. Lab Job No.: GR110126 Date Reported: 11-07-01
Project: Angeles Chemicals Matrix: Water Date Sampled: 10-30-01

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ug/L (ppb)

DATE ANALYZED		10-30	10-31-01	10-30-01	10-31-01	10-30-01	10-30-01
PREPARATION METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	50	10	25	5	1
LAB SAMPLE I.D.			GR10126-1	GR10126-2	GR10126-3	GR10126-4	GR10126-6
CLIENT SAMPLE I.D.			MW-1	MW-2	MW-3	MW-7	Trip
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	1,350	75	ND	188	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	1,200	1,120	4,090	355	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	8,190	1,590	1,030	2,670	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	10,300	9,150	7,000	194	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	125	105	110	55.0	ND
Trichloroethene	2	ND	ND	ND	100	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND

MCK0032740

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 869-0728
Fax (323) 888-1509

11-07-2001

Client:	Blakely Environmental Investigations, Inc.	Lab Job No.:	GR110126
Project:	Angeles Chemicals		
Project Site:	Angeles Chemicals	Date Sampled:	10-30-2001
Matrix:	Water	Date Received:	10-30-2001
Batch No.:	1031-MI	Date Analyzed:	10-31-2001

CAM Metals (Dissolved)
Reporting Units: mg/L (ppm)

Element	EPA Method	Method Blank	MW-1	MW-2	MW-3	MW-7	Reporting Limit
			GR10126-1	GR10126-2	GR10126-3	GR10126-4	
Antimony (Sb)	7040	ND	ND	ND	ND	ND	0.5
Arsenic (As)	7060	ND	0.026	0.061	ND	0.071	0.005
Barium (Ba)	7080	ND	ND	ND	ND	ND	0.5
Beryllium (Be)	7090	ND	ND	ND	ND	ND	0.05
Cadmium (Cd)	7130	ND	ND	ND	ND	ND	0.05
Chromium (Cr)	7190	ND	ND	ND	ND	ND	0.1
Cobalt (Co)	7200	ND	ND	0.12	ND	ND	0.1
Copper (Cu)	7210	ND	ND	ND	ND	ND	0.05
Lead (Pb)	7240	ND	ND	ND	ND	ND	0.1
Mercury (Hg)	7471	ND	ND	ND	ND	ND	0.001
Molybdenum (Mo)	7480	ND	ND	ND	ND	ND	0.4
Nickel (Ni)	7520	ND	ND	ND	ND	ND	0.1
Selenium (Se)	7740	ND	ND	ND	ND	ND	0.005
Silver (Ag)	7760	ND	ND	ND	ND	ND	0.05
Thallium (Tl)	7840	ND	ND	ND	ND	ND	0.2
Vanadium (V)	7910	ND	ND	ND	ND	ND	0.5
Zinc (Zn)	7950	ND	ND	ND	ND	ND	0.05

ND: Not Detected (at the specified limit).

MCK0032741

Southland Technical Services, Inc.
Environmental Laboratories

7601 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1505

11-07-2001

Mr. Hiram Garcia
Blakely Environmental Investigations, Inc.
9605 Arrow Highway, Suite T
Rancho Cucamonga, CA 91730

Project: Angeles Chemicals
Project Site: Angeles Chemicals
Sample Date: 10-30-2001
Lab Job No.: GR110126

Dear Mr Garcia:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 10-30-2001 and analyzed by the following EPA methods:

EPA 7000 Series for CAM Metals
EPA 8260B (VOCs by GC/MS)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

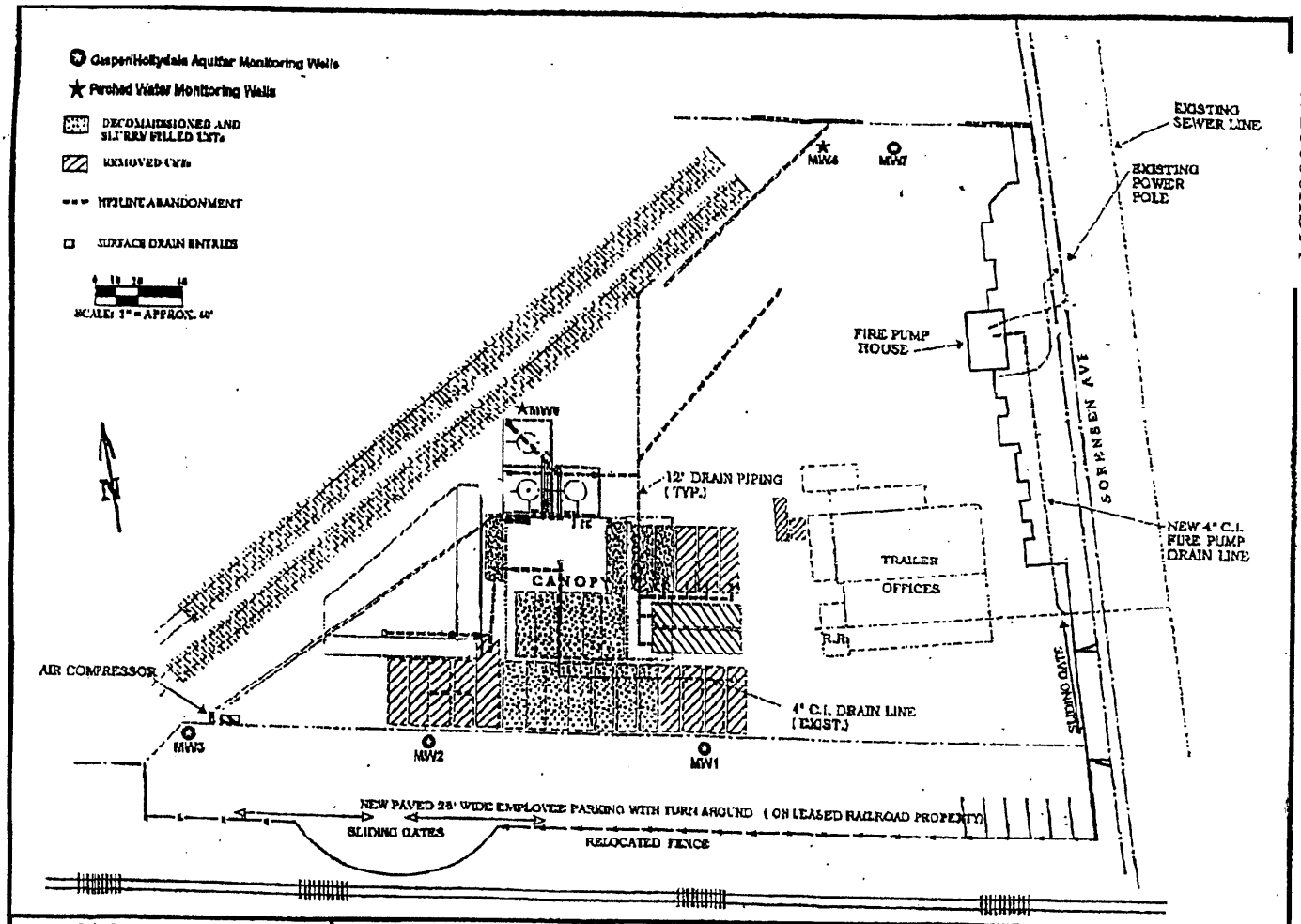
Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

MCK0032742

MCK0032743



Blakely Environmental Investigations, Inc. 9605 Arrow Route, Suite "T" Rancho Cucamonga, CA 91730	SITE LAYOUT MAP Angeles Chemical Company 8915 Sorensen Avenue Santa Fe Springs, CA	Figure 2