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October 13, 2004

Ms. Susan Keydel
Environmental Protection Agency
Superfund Division
75 Hawthorne Street, SFD-7-1
San Francisco, California 94105

Re: **Revised Soil Gas Survey Report**
Montrose Superfund Site
20201 S. Normandie Avenue, Torrance, California

Dear Ms. Keydel:

On behalf of Montrose Chemical Corporation (Montrose), Earth Tech submits the Revised Soil Gas Survey Report for the Montrose Superfund Site. This report has been revised to:

(a) Combine the results previously documented in the Soil Gas Survey Report (Earth Tech, January 22, 2004) and the associated Addendum (Earth Tech, March 31, 2004), and

(b) Address comments from EPA regarding the above-referenced reports (EPA, May 6, 2004).

Montrose responded to EPA's comments in a letter dated June 25, 2004, and the soil gas survey report has been revised in accordance with these responses. EPA additionally requested some minor modifications to the monochlorobenzene isoconcentration contours based on evidence obtained during the DNAPL Reconnaissance Program, which have been incorporated into this revised report. If you have any questions regarding this revised report, please contact me at (562) 951-2212 or Mr. Paul Sundberg at (209) 474-3617.

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Sincerely,

EARTH TECH INC.

Brian Dean
Senior Project Manager

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REVISED
SOIL GAS SURVEY REPORT
MONTROSE SUPERFUND SITE
20201 S. Normandie Avenue, Torrance, California

October 13, 2004

Prepared For: **Montrose Chemical Corporation of California**
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1 INTRODUCTION

This report presents the results of a comprehensive soil gas survey conducted at the Montrose Plant Property (Property) located at 20201 S. Normandie Avenue in Torrance, California (Figure 1). The soil gas survey was conducted in accordance with the survey work plan dated July 8, 2003, which was approved by the Environmental Protection Agency (EPA) Region IX in letter dated August 28. EPA was notified in advance of the survey, which was conducted at the Property between September 29 and October 20, 2003. Operating under the direction of Earth Tech Inc. (Earth Tech), Environmental Support Technologies, Inc. in Laguna Hills, California was contracted to conduct the soil gas survey.

1.1 Soil Gas Survey Objectives

The soil gas survey was conducted to support on-going feasibility studies for soil and dense non-aqueous phase liquids (DNAPL) at the Property. EPA identified five site-specific objectives for this survey as described in their letter dated February 4 and summarized as follows:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. Provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assess the potential for vapor off-gassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.

To achieve these objectives, Montrose Chemical Corporation (Montrose) and EPA developed a plan to collect soil gas samples from multiple locations arrayed on a grid covering the Property at depths of 5, 15, and 35 feet below ground surface (bgs) (and additionally at 8 feet below the surface at certain locations). The shallow 5-foot bgs samples were intended to primarily address the potential for vapor off-gassing at the surface as described by Objective 4. EPA's conditional approval letter required

collection of six, 8-foot bgs samples to evaluate the potential for differences in soil gas concentrations between the native soils and re-graded soils associated with the raised areas at the Property. The 15 and 35-foot bgs samples serve to delineate soil gas concentrations within the center of the Playa Deposits and Palos Verdes Sand, which represent the two uppermost soil horizons present at the Property. In all, 86 soil gas samples, 9 duplicates and 8 confirmation samples were collected from 34 sampling locations according to the following sample matrix and as shown in Figure 2:

Soil Gas Sample Depth Summary

Depth (feet below surface)	Number of Soil Gas Samples
5 feet	27
8 feet	7
15 feet	21
35 feet	31
Total	86

The soil gas survey was conducted in accordance with the EPA-approved workplan and conditional approval letter without exception. A small number of soil gas points were slightly relocated due to underground obstructions including:

- SG-20 was relocated approximately 16 feet north of its original location due to a buried obstruction.

- The eastern most soil gas points (SG-06, SG-15, SG-23, SG-30, SG-32, and SG-33) were relocated approximately 5 feet farther east than their original location due to the presence of underground sewer lines and based on the recommendation of the Los Angeles Department of Water and Power.

- SG-16 was initially placed at the former wastewater pond, which had been previously abandoned and backfilled with concrete debris and re-graded soils in 1985. During advancement of the soil gas point at this location, concrete debris was repeatedly encountered. Earth Tech was eventually successful in advancing the soil gas point to the full target depth of 35-feet bgs. However, due to concerns regarding potential differences in soil gas conditions within the pond backfill material, SG-16 was relocated approximately 50 feet to the southwest and outside of the wastewater pond extents. Collection and analysis of the shallow soil gas

samples at 5, 8, and 15-feet were duplicated at this alternate location. Because of the depth of the pond (maximum of approximately 15 feet bgs), the 35-foot soil gas sample was not duplicated at this alternate location. For purposes of this report, the original sample location is referred to as SG-16A, and the alternate sample location is referred to as SG-16B. Soil gas results from both locations are provided in this report.

Soil gas sampling and analytical methodologies are summarized in Section 2, and an interpretation of the soil gas results is provided in Section 3. A summary of the soil gas results, with an evaluation in terms of meeting the survey objectives, and recommendations are provided in Section 4.

2 SOIL GAS SAMPLING AND ANALYTICAL METHODOLOGIES

Soil gas sampling points were installed using a hydraulic ram as described in the field methodology description provided in Appendix A. Soil gas samples were collected at the target depths and analyzed in the field using a mobile on-site laboratory. The following sections summarize the field and laboratory methods that were used to collect and analyze the soil gas samples collected during this program.

2.1 Sample Collection

A vacuum pump was used to extract soil gas from the subsurface and induce flow from each soil gas sampling point. The flow of soil gas evacuated from the sampling point was controlled to a rate of approximately 100 cubic centimeters per minute using a flow-control valve and meter. Initially, the sampling point and system was purged to ensure that the integrity of the soil gas sample was not compromised. Following purging, a gas sample syringe, fitted with a disposable needle and Mininert™ gas-tight valve, was used to withdraw the soil gas sample from a stainless steel sampling tee fitting located between the nylon sample tubing and the flow control valve. The soil gas filled syringe was used to directly inject the soil gas sample into the gas chromatograph located within the mobile laboratory. The vacuum integrity of the soil gas sampling system was tested as described in Section 3.4 to ensure that there were no atmospheric leaks diluting the collected samples.

Refusal due to excessive low permeability soils and the resulting excessive sampling vacuum (greater than the maximum capacity of the sampling equipment) was encountered at only one sample location, SG-22 at 15-feet bgs. Per the work plan procedures, the probe was driven 5 feet deeper to 20-feet bgs, and a second attempt at collecting a soil gas sample was conducted and was successful. All other sample locations and depths required only low to moderate vacuums, below 10-inches of mercury, to collect sol gas samples.

2.2 Sample Analysis

All soil gas samples, excluding the confirmation samples, were analyzed by the mobile laboratory for the presence of Volatile Organic Compounds (VOCs), using gas chromatography/mass spectrometry (GC/MS) and EPA 8260B methodology. As shown in Table 1, the soil gas samples were analyzed for 25

target constituents in accordance with LARWQCB guidance documentation, which included the six specific compounds referenced by EPA in their February 4, 2003 guidance letter: chlorobenzene (MCB), benzene, trichloroethene (TCE), tetrachloroethene (PCE), and including both 1,1,1- and 1,1,2-trichloroethane (TCA). Laboratory results for the 86 soil gas samples are presented in Table 2 and summarized in Section 3.0. Copies of the mobile laboratory reports are provided in Appendix B. The mobile laboratory reported all soil gas concentrations in units of micrograms per liter (ug/L). At our request, the mobile laboratory additionally provided tabulated soil gas results in units of parts per million by volume (ppmv). Because the "ppmv" units are easier to interpret, the tables and figures of this report show the soil gas concentrations in ppmv. The tabulated mobile laboratory results in units of ppmv are additionally provided in Appendix B.

In November 2003, after completion of the survey and at EPA's request, the GC/MS results for five soil gas samples representative of site-wide conditions were reprocessed to additionally report the full list of EPA 8260B constituents. Full EPA 8260B laboratory results for these five samples are provided in Appendix C. Of the 36 additional VOC constituents analyzed, 1,4-dichlorobenzene was the only compound detected. At EPA's request, the GC/MS results for the remaining 81 samples were reprocessed to report 1,4-dichlorobenzene. The 1,4-dichlorobenzene results are reported in Table 2 and Figures 24, 25, and 26.

2.3 Time-Series Sampling (Purge Volume Test)

Prior to conducting soil gas sampling, a time-series study was conducted to identify the optimum purge volumes (PV) for each designated sampling depth (5, 8, 15, and 35 feet bgs). The time-series sampling (Purge Volume Test) was performed in accordance with the "Advisory- Active Soil Gas Investigation," the guidance document jointly developed by the California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board – Los Angeles Region (LARWQCB) as referenced to by EPA in their February 4, 2003 letter. Time-series sampling was performed at the start of the survey to evaluate site-specific trends in soil gas concentrations as a function of the PV and to select the target purge volume for remaining soil gas samples. A PV is defined as the soil gas capacity of the sampling system, which includes the borehole, sampling point, and sampling tubing. Insufficient or over-purging of the soil gas points, as represented by a concentration incline or decline, can lead to underestimated soil gas concentrations. The intent of the time-series sampling is to determine the

appropriate site-specific PV that is representative of equilibrium conditions at a specific depth, typically represented by the highest observed concentration (a concentration plateau is often observed). However, soil gas concentrations per a given purge volume can vary among compounds as the transport of VOCs in the vadose zone is highly influenced by physicochemical properties, such as vapor pressure, Henry's Law Constant, or Octanol-water partition coefficient. The appropriate or optimal purge volume should be selected based on the highest concentrations of compound(s) of concern detected during the step purge tests (LARWQCB, 2003). Tetrachloroethene (PCE), chloroform, and monochlorobenzene (MCB), the three most frequently detected VOCs, were used for selecting the optimal purge volumes based at each sampling depth.

A baseline time-series sampling study was initially conducted to identify the target PVs and was then repeated periodically at an interval of 1 per every 10 samples at each depth throughout the survey to verify the consistency of the target PVs in other areas of the Property (as shown in the table below). The baseline and continuing time-series studies were performed at the seven PVs specified by EPA in their February 4, 2003 letter, corresponding to: 0.5 PV, 1.0 PV, 1.5 PV, 2.0 PV, 3.0 PV, 5.0 PV, and 7.0 PV. Independent time-series studies were performed at sampling depths of 5, 8, 15, and 35 feet bgs to account for the unique soil gas flow characteristics of each lithologic unit.

Frequency of Time-Series Events

Sample Depth	Total Soil Gas Samples	Number of Full Time-Series Studies
5 feet	27	3
8 feet	7	1
15 feet	21	2
35 feet	31	3

SG-16A was selected as the initial baseline sampling location and time-series study because it was located in an area where elevated VOC concentrations in soil gas were expected, at the former wastewater pond and adjacent to the DNAPL recovery wells. The placement of SG-16A within the abandoned pond added some uncertainty regarding the results and the appropriateness of using the results to represent soil gas conditions at 5-feet in other areas. However, as the results show, the time-series sampling at SG-16A was consistent with the time-series results from other 5-foot samples. Concentration

profiles for the three most frequently detected VOCs during the survey (MCB, chloroform, and PCE) are provided for each time-series study in Appendix D.

Additional time-series samples were collected at the second survey location, SG-21 (southeast of SG-16A). At this location, soil gas samples were collected over a more narrow range around the optimized PV from SG-16A. The intent of the second time-series study was to more precisely identify the optimum PV at each target depth. The time-series results from these first two well locations formed the basis for selection of the optimized PV for subsequent samples and are summarized as follows:

Baseline PV Time-Series Study Results

Sample Depth	SG-16A		SG-21		Optimized PV Used At Subsequent Locations
	PVs Tested	Optimized PV	PVs Tested	Optimized PV	
5-Feet	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.0	0.75, 1.0, 1.25	1.25	1.25
8-Feet	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.5	1.25, 1.5, 1.75	1.25	1.25
15-Feet	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	3.0	2.75, 3.0, 3.25	3.25	3.25
35-Feet	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.5	1.25, 1.5, 1.75	1.5	1.5

As shown in the above table, 3 of the 4 time-series studies at SG-21 resulted in a small modification (0.25 PV) to the optimized PVs detected at SG-16A. Only the time-series study at 35-feet at SG-21 resulted in no change to the optimized PV. However, there is some uncertainty associated with the baseline PV optimization process due to the 3-point studies conducted at SG-21. For example, MCB concentrations increased consistently over the study ranges at the 5 and 15-foot depths, while they decreased consistently at the 8-foot depth. Because only three PVs were tested in these focused studies, establishment of a clear peak concentration was not possible at these 3 depths. As such, it is uncertain if the true peak concentration was observed over the focused ranges. This uncertainty will extend to subsequent samples where only one PV, the optimized PV determined from the baseline studies, was tested.

The greatest amount of uncertainty occurs at the 15-foot depth, where the density of the PVs was lower in the baseline 7-point study (e.g. 2.0, 3.0, and 5.0 PV). Conversely, there was a higher density of PVs tested at the lower range in the baseline 7-point studies (e.g. 0.5, 1.0, 1.5, and 2.0 PV). Because the

optimized PVs from the SG-16A location at depths of 5, 8, and 35 feet were all at the lower PV range (1.0 to 1.5 PV), the continuing time-series studies at subsequent samples provided valuable data in reducing the uncertainty associated with the baseline optimization process. With the exception of SG-20, the continuing time-series studies were generally consistent with the baseline study results and were within 0.25 PV of the optimized PV as shown in the following table.

Continuing PV Time-Series Study Results

Sample Depth	Sample Location	PVs Tested	Optimized PV
5-Feet	SG-12	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.0
	SG-15	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.5
15-Feet	SG-32	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	3.0
35-Feet	SG-20	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	3.0
	SG-30	0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0	1.5

With the exception of SG-20, the results from the continuing time-series studies were generally consistent with the baseline study conducted at SG-16A and SG-21. For example, at 5-feet bgs, peak VOC concentrations were detected at 1.0 PV and 1.5 PV as compared against the baseline optimized PV of 1.25 PV. These results confirm the validity of the baseline time-series study conducted at SG-16A despite being located in an abandoned wastewater pond. These results additionally suggest that the optimized PV from the baseline study is within approximately 0.25 PV of the peak concentration at the subsequent points. While some variability over a 0.25 PV range is expected (as shown in the study conducted at SG-21), the peak or near-peak VOC concentrations would have been reported in the subsequent soil gas samples. For example, at 15-feet bgs at SG-32, the peak concentration of PCE at 3.0 PV was 7.8 ppmv, while the predicted PCE concentration at 3.25 PV would be 7.7 ppmv (interpolated between 3.0 and 5.0 PV results). The minor concentration difference over this narrow PV range does not significantly affect the results of the soil gas survey.

The results of the continuing time-series study at 35-feet bgs at location SG-20 were not consistent with the other studies conducted at this depth. At this location, the peak concentration of PCE was 20.7 ppmv at a 3.0 PV. At the optimum PV determined from the baseline study (1.5 PV), the PCE concentration in this sample was 13.6 ppmv. At these relatively low soil gas concentrations, the impact of the differing

PVs is not significant. However, if similar differences in the PV occurred at other 35-foot samples (where the highest soil gas concentrations were detected), the impact of the differences could be significant. The cause of the PV difference is not known. The time-series study at SG-20 was conducted after the baseline study at SG-21 but before the continuing study at SG-30. SG-20 is located near the baseline study area of SG-16A and SG-21, so it is unlikely that the difference is area-based. The result at this location was considered anomalous, and no change to the previously determined optimum PV was made for subsequent samples (continued to collect routine samples at 1.5 PV).

Some variation in the optimized PVs (peak concentrations) between individual VOC constituents (e.g. MCB and PCE) was observed during the time-series studies. A comparison of the optimized PV for each of the three most frequently detected VOCs is provided below for the time-series studies:

Comparison of Optimized PV by VOC Constituent

Sample Depth	Sample Location	Optimized PV		
		MCB	Chloroform	PCE
5-Feet	SG-12	nd	1.0	1.0
	SG-15	2.0	1.5	1.5
	SG-16A	1.0	nd	nd
	SG-21	1.25	0.75	0.75
8-Feet	SG-16A	1.5	1.5	1.5
	SG-21	1.25	nd	nd
15-Feet	SG-16A	3.0	3.0	3.0
	SG-21	3.25	3.25	3.25
	SG-32	1.0	nd	3.0
35-Feet	SG-16A	1.5	1.5	nd
	SG-20	0.5	3.0	3.0
	SG-21	1.5	1.5	1.5
	SG-30	1.5	nd	1.5

Notes:
nd = not detected

The optimum PV for each of the three VOCs was identical in 9 of the 13 sample locations (approximately 70%), implying that the majority of the soil gas data will have reported the peak concentration for these three VOCs. All of the time-series samples that exhibited moderate to elevated VOC concentrations were contained within this group of data. Therefore, the soil gas data with the

greatest potential to affect the results of the survey exhibited a consistent concentration profile between the three VOCs tabulated above.

The optimum PV for each of the three VOCs was not identical in 4 of the 13 sample locations (approximately 30%), implying that the reported concentration for some VOCs may not have been the peak concentration. However, in all 4 cases, the VOC concentrations detected at the sample locations were low, and therefore, the impact of the data variability on the overall soil gas survey results is also low. For example, at 15-feet bgs at location SG-32, a peak MCB concentration of 0.67 ppmv was observed at 1.0 PV, but the MCB concentration at the optimum PV for the other VOCs (3.0 PV) was 0.28 ppmv. Both of these concentrations are considered very low and do not significantly affect the results of the evaluation in terms of the study objectives. Similarly, at 5-feet bgs at location SG-15, a peak MCB concentration of 0.48 ppmv was detected at 2.0 PV, while the MCB concentration at the optimum PV for the other VOCs (1.5 PV) was 0.39 ppmv. Again, both of these concentrations are very low and do not affect the overall results of the soil gas survey.

2.4 Quality Assurance Leak Testing

Leak tests were performed to determine whether ambient air was diluting the soil gas samples, resulting in underestimated VOC concentrations. A leak test was performed at every soil gas sampling point at every depth using a tracer chemical that is not associated with the Property (isopropyl alcohol). Parts of the sampling system subject to potential ambient air dilution (aboveground equipment) were exposed to the tracer chemical by wrapping them in rags soaked with isopropyl alcohol. Each of the 86 samples were then analyzed for the presence of isopropyl alcohol using EPA 8260B methodology. The analytical results for this constituent were reported along with all other VOCs (Appendix B) but under its own heading entitled "Leak Check Compound" located at the bottom of each page. Isopropyl alcohol was not detected above the reporting limit in any of the 86 samples collected at the Property, indicating that there were no ambient air leaks in the sampling equipment during performance of the soil gas survey.

2.5 Oxygen and Carbon Dioxide Monitoring

In accordance with the EPA conditional-approval letter (dated August 28, 2003), the concentrations of oxygen and carbon dioxide were monitored during collection of the 5-foot bgs soil gas samples. Using a

GEM 2000 gas monitor, these concentrations were measured from the soil gas tubing immediately following collection of the soil gas samples. The oxygen and carbon dioxide monitoring results are provided in Appendix E. Concentrations of these gases in the 5-foot bgs samples were generally consistent with atmospheric readings at all sampling locations.

2.6 Duplicate Sampling

Duplicate samples were collected at a minimum frequency of 10% to evaluate sample reproducibility. Nine duplicate samples were collected immediately following the primary sampling point sample at the same location and depth but using separate sample syringes. Duplicate samples were handled and analyzed in an identical manner as the primary samples. A comparison of the soil gas results between the primary and duplicate samples is provided in Table 3. Laboratory data for the duplicate samples are provided in Appendix B.

In general, the reproducibility between the primary and duplicate samples was good with average relative percent differences (RPDs) below 30% as shown below:

Duplicate Sample Comparison

Sample Depth	No. of Duplicate Samples	Average Relative Percent Difference
5 feet	3	29.5%
15 feet	3	12.7%
35 feet	3	23.8%

A high RPD (120%) was observed for only one VOC in one sample: MCB in the 5-foot sample at SG-11. The primary and duplicate samples at this location and depth, exhibited MCB concentrations of 0.22 and 0.87 ppmv, respectively.

2.7 Confirmation Sampling

Confirmation samples were collected at a frequency of 10% to verify the accuracy of soil gas concentrations reported by the mobile laboratory. Eight confirmation samples were collected as part of this sampling program in Summa™ canisters, immediately following collection of the primary soil gas sample. Following sample collection, the Summa™ canisters were transported to Calscience

Environmental Laboratories, Inc. in Garden Grove, California for analysis by EPA Method TO-14A. A comparison of the soil gas results between the primary and confirmation samples is provided in Table 4. Copies of the laboratory reports for the confirmation samples are provided in Appendix F.

The reproducibility between the primary and confirmation samples was good for the samples collected at 35-feet bgs but poor for samples collected at 5 and 15-feet bgs as shown below:

Confirmation Sample Comparison

Sample Depth	No. of Confirmation Samples	Average Relative Percent Difference
5 feet	3	131%
15 feet	2	82%
35 feet	3	34%

The high RPDs in the samples collected at 5 and 15-feet bgs are partially due to the very low concentrations typically detected at these depths. Small changes in concentrations can result in elevated RPDs. For example, the primary and confirmation samples collected at 5-feet at SG-15 exhibited MCB concentrations of 0.48 and 0.05 ppmv, respectively. Although the RPD for this sample pair is high (164%), both results are very low and do not significantly affect the reliability of the soil gas results. Good reproducibility was observed at 35-feet bgs, where the highest soil gas concentrations were detected. For the sample pairs shown in Table 4, the highest concentrations were observed in the 35-foot samples from SG-14 and SG-24. For these two sample pairs, RPDs were between 0 and 45% for all constituents (with the exception of methylene chloride in SG-24).

3 DATA INTERPRETATION

A total of 86 soil gas samples excluding duplicate and confirmation samples collected from various depths and analyzed for the presence of VOCs. To assist in data interpretation and evaluation, a set of statistics that describe the number of detections, frequency of detection, maximum concentration detected, and mean concentration detected for all detected VOCs at all soil gas sample depths was complied. These statistics are presented in Tables 5 through 9. Secondly, chemical concentration contour (isoconcentration) maps for the most frequently detected VOCs for each sample depth (5, 15, and 35-feet bgs) were generated. Contour maps for the samples collected at 8-feet bgs were not prepared as they are limited in number and were taken for a specific purpose other than general site soil gas characterization (comparison with 5-foot samples). These isoconcentration maps are presented in Figures 3 through 26.

To provide a phased evaluation of the data, a bulleted overview of the entire 86 soil gas sample data set. Subsections focus on summarizing data from the individual depths. Section 3.2 provides an overview of the distribution of the most frequently observed chemicals across the Property using the data from the 35-foot depth.

3.1 Statistical Evaluation

3.1.1 Overview

- A total of 18 VOCs were detected in at least one of the 86 soil gas samples collected at the Property:

Benzene	Cis-1,2-Dichloroethene	TCE
Carbon Tetrachloride	Ethylbenzene	1,1,2-Trichlorotrifluoroethane
Chloroform	Methylene Chloride	Meta & Para-Xylene
1,1-Dichloroethane	MCB	Ortho-Xylene
1,2-Dichloroethane	PCE	Vinyl Chloride
1,1-DCE	1,1,1-Trichloroethane	1,4-Dichlorobenzene

- Three VOCs were detected more frequently than other constituents: PCE (detected in 84% of the samples), chloroform (80%), and MCB (79%).

- The VOCs exhibiting the highest concentrations at the Property were chloroform (2,253 ppmv) and MCB (1,911 ppmv).

- The average or mean concentrations of the 18 VOCs detected at the Property ranged from 1.0 to 156.5 ppmv (Table 5).

3.1.2 Laboratory Results for Samples Collected at 5-Feet

A total of 27 soil gas samples were collected at 5-feet bgs, and statistical results for these samples are summarized in Table 6. Results were as follows:

- A total of 13 VOCs were detected in at least one of the 27 samples collected at this depth:

Benzene	Ethylbenzene	TCE
Carbon Tetrachloride	MCB	1,1,2-Trichlorotrifluoroethane
Chloroform	Methylene Chloride	Meta & Para-Xylene
1,1-DCE	PCE	Ortho-Xylene
1,4-Dichlorobenzene		

- Three VOCs were detected more frequently than other constituents at this depth: They are PCE (detected in 74% of the samples), MCB (74%), and chloroform (67%).

- The VOCs exhibiting the highest concentrations at this depth were MCB (97.7 ppmv) and chloroform (34.8 ppmv).

- The average or mean concentrations of the 13 VOC constituents detected at this depth ranged from 0.3 to 13.7 ppmv (Table 6).

The relatively low concentrations generally observed at this shallow depth (5-feet bgs) indicate a decreased potential for vapor off-gassing in the event that the surface cover is compromised (Objective 4).

3.1.3 Laboratory Results for Samples Collected at 8-Feet

A total of 7 soil gas samples were collected at 8-feet bgs, and statistical results for these samples are summarized in Table 7. Results were as follows:

- A total of 11 VOCs were detected in at least one of the 7 samples collected at this depth:

Carbon Tetrachloride	MCB	1,1,2-Trichlorotrifluoroethane
Chloroform	PCE	Meta & Para-Xylene
1,1-DCE	TCE	Ortho-Xylene
Ethylbenzene	1,4-Dichlorobenzene	

- Three VOCs were detected more frequently than other constituents at this depth: MCB (detected in 86% of the samples), chloroform (86%), and PCE (71%).

- The VOCs exhibiting the highest concentrations at this depth were meta- and para-xylenes (29.9 ppmv), MCB (84.7 ppmv), and PCE (17.7 ppmv).

- The average or mean concentrations of the 11 VOC constituents detected at this depth ranged from 0.1 to 24 ppmv (Table 7).

The soil gas concentrations observed at 8-feet bgs, (with the exception of SG-16A) were generally consistent with those observed at 5-feet bgs, indicating little difference in soil gas conditions between the native and re-worked Playa Deposit soils located within the raised pads at the Property. For example, the mean concentrations of chloroform at 5 and 8-feet bgs were 5.0 and 3.8 ppmv, respectively. Similarly, the mean concentrations of PCE at 5 and 8 feet bgs were 1.5 and 3.8 ppmv, respectively.

3.1.4 Laboratory Results for Samples Collected at 15-Feet

A total of 21 soil gas samples were collected at 15-feet bgs, and statistical results for these samples are summarized in Table 8. Results were as follows:

- A total of 13 VOCs were detected in at least one of the 21 samples collected at this depth:

Benzene	Ethylbenzene	TCE
Carbon Tetrachloride	MCB	1,1,1-Trichloroethane
Chloroform	Methylene Chloride	Meta & Para-Xylene
1,1-DCE	PCE	Ortho-Xylene
1,4-Dichlorobenzene		

- Three VOCs were detected more frequently than other constituents at this depth: They are PCE (detected in 86% of the samples), MCB (81%), and chloroform (765%).

- The VOCs exhibiting the highest concentrations at this depth were chloroform (90.1 ppmv), MCB (955 ppmv), and PCE (60.5 ppmv). It is noted that an MCB concentration of 995 ppmv was detected at the SG-16A sample location, which is located within the abandoned wastewater pond. The elevated MCB concentration detected at this location may partially be due to differences in soil properties between the pond fill material (concrete rubble) and native Playa Deposits.

- The average or mean concentrations of the VOCs detected at this depth, excluding MCB, ranged from 0.2 to 15.1 ppmv (Table 8).

With the exception of SG-16A, the soil gas concentrations observed at 15-feet bgs are generally consistent with those observed at 5 and 8-feet bgs, indicating little difference in soil gas conditions between the near-surface soils and the Playa Deposits. For example, the mean concentrations of PCE at 5, 8, and 15-feet bgs were 1.5, 3.8, and 4.6 ppmv, respectively. The mean concentration of chloroform increased slightly at 15-feet bgs to 15.1 ppmv, as compared to 5.0 and 4.3 ppmv at 5 and 8-feet bgs, respectively.

The generally low concentrations at 15-feet indicate that there is minimal VOC transport within the low permeability Playa Deposits formation. With the exception of SG-16A, no significant source of VOCs was detected at 15-feet bgs.

3.1.5 Laboratory Results for Samples Collected at 35-Feet

A total of 31 soil gas samples were collected at 35-feet bgs, and statistical results for these samples are summarized in Table 9. Results were as follows:

- A total of 18 VOCs were detected in at least one of the 31 samples collected at this depth:

Benzene	Cis-1,2-Dichloroethene	TCE
Carbon Tetrachloride	Ethylbenzene	1,1,2-Trichlorotrifluoroethane
Chloroform	Methylene Chloride	Meta & Para-Xylene
1,1-Dichloroethane	MCB	Ortho-Xylene
1,2-Dichloroethane	PCE	Vinyl Chloride
1,1-DCE	1,1,1-Trichloroethane	1,4-Dichlorobenzene

- Three VOCs were detected more frequently than other constituents at this depth: They are PCE (detected in 94% of the samples), chloroform (94%), and MCB (81%).

- The VOCs exhibiting the highest concentrations at the Property were chloroform (2,253 ppmv) and MCB (1,911 ppmv).

- The average or mean concentrations for the 18 VOC constituents detected at this depth were between 1.0 and 363.2 ppmv (Table 9).

The soil gas concentrations observed at 35-feet bgs were significantly higher than those observed at the shallower depths. For example, the mean concentration for MCB increased from 64.9 ppmv at 15-feet bgs to 364.8 ppmv at 35-feet. The higher permeability soils of the Palos Verdes Sand formation offer the greatest potential for soil gas diffusion and migration within the soils tested at the Property. As such, the soil gas results at 35-feet bgs are the most useful in addressing Objectives 1, 2, 3, and 5.

3.2 Detailed Evaluation of Analytical Results for Most Frequently Detected VOCs

To facilitate evaluation of this data in terms of the survey objectives, the most frequently detected VOCs at the Property (Table 5) are individually discussed below in decreasing order as follows:

- PCE (84%)
- Chloroform (80%)
- MCB (79%)
- TCE (34%)
- 1,1-DCE (28%)
- Carbon Tetrachloride (24%)
- Benzene (19%)

The discussion focuses primarily on the soil gas results from the 35-foot depth since the highest concentrations were observed at this depth, and because the soil at this depth exhibits the highest permeability and therefore offers the greatest potential for soil gas migration and diffusion. Soil gas results at the 5 and 15-foot depths for each VOC are additionally discussed below, although generally only low concentrations were observed at these shallower depths. VOCs detected at lower frequencies

were not evaluated in detail because they were generally observed in only low concentrations and did not significantly contribute to achievement of the survey objectives. 1,4-Dichlorobenzene concentrations at 5, 15, and 35-feet bgs are plotted in Figures 24 through 26 but are not discussed in detail because it was infrequently detected and only up to a maximum of 4.5 ppmv at SG-24 (8-feet bgs).

3.2.1 Tetrachloroethene (PCE)

Moderate to elevated concentrations of PCE were detected in soil gas at 35-feet bgs as shown in Figure 5. The highest PCE soil gas concentrations, 546 and 841 ppmv, were detected at SG-27 and SG-28, located along the southern property boundary. PCE concentrations in soil gas decrease to the north and east. PCE concentrations are less than 100 ppmv at SG-17 and SG-31, and are less than 10 ppmv at SG-16, 22, and 26.

PCE concentrations in soil gas at 5 and 15-feet bgs were generally low as shown in Figures 3 and 4, with the exception of SG-25. At 5-feet bgs, all PCE concentrations were less than 10 ppmv. The highest PCE concentration detected at 5-feet was 9 ppmv at SG-18 located in the southwestern corner of the Property. At 15-feet bgs, a PCE concentration of 61 ppmv was detected at SG-25, located immediately northeast of SG-28. SG-27 and SG-28 were not sampled at the 15-foot depth. All remaining PCE concentrations at 15-feet bgs were less than 10 ppmv.

PCE was not used in the production of DDT, but Jones Chemical, located south of the Montrose Plant property, reported both use and storage of PCE during their operational history. The Preliminary Endangerment Assessment (PEA) for Jones Chemical (Levine-Fricke, 1995) reported that PCE was received by tank car and then stored in bulk storage tanks on site for later repackaging and distribution, and/or use at the drum-washing facility. In 1994, PCE concentrations in soil gas up to 11,000 micrograms per liter (μg/l) (approximately 1,580 ppmv) were detected at approximately 5-feet bgs at the former Jones Chemical PCE bulk storage area, located approximately 100 to 150 feet south of SG-27 and SG-28.

In coordination with EPA, Jones Chemical is currently planning to conduct a supplemental soil gas investigation at their site. The investigation will characterize and delineate the extent of VOCs, including PCE, at depths of 10 and 35-feet bgs.

3.2.2 Chloroform

Elevated concentrations of chloroform in soil gas (up to 2,253 ppmv) were observed at 35-feet bgs as shown in Figure 8. The highest chloroform concentrations, exceeding 1,000 ppmv, were detected at SG-08 located near the northeastern corner of the former Central Processing Area (CPA) (and raw materials storage area) and at SG-29 located in the southeastern portion of the Property near the former BHC plant. Chloroform concentrations exceeding 100 ppmv extended over most of the central portion of the Property, including up to 840 ppmv at SG-04 located at the northern property boundary and up to 594 ppmv at SG-28 located at the southern property boundary. Chloroform concentrations decreased to less than 10 ppmv to the west and to less than 1 ppmv to the southeast.

Chloroform is a highly volatile VOC with a vapor pressure of 160 millimeters of mercury at 20 degrees Centigrade, which is approximately 18 times more volatile than MCB. As a result, chloroform will exhibit a higher rate of vapor diffusion and transport as compared to MCB, and could impact soil gas concentrations over a large area. In coordination with EPA, Montrose is planning to drill multiple deep soil borings (to 60 or 90-feet bgs) as part of a supplemental soil investigation at the Property. These deep borings are expected to delineate the extent of chloroform in soils at the Property and specifically within the area exhibiting elevated chloroform concentrations in soil gas, including the northern and southern property boundaries.

Low to moderate concentrations of chloroform were detected in soil gas at 5 and 15-feet bgs as shown in Figures 6 and 7. At 5-feet bgs, chloroform concentrations were less than 10 ppmv, except at SG-12 (west of CPA) and SG-14 (east of CPA). The chloroform concentrations at these locations were 35 and 12 ppmv respectively. At 15-feet bgs, chloroform concentrations exceeding 10 ppmv were detected over the central and southeastern portions of the Property. The highest chloroform concentrations detected at 15-feet bgs were at SG-16A (90 ppmv) located in the former wastewater pond and at SG-25 (74 ppmv) located near a raw materials storage area.

3.2.3 Monochlorobenzene (MCB)

Elevated concentrations of MCB in soil gas (up to 1,911 ppmv) were observed at 35-feet bgs as shown in Figure 11. Consistent with the soil data presented in the Final RI, elevated MCB concentrations were detected in the southern portion of the CPA at SG-16A and at SG-21. However, elevated MCB

concentrations in soil gas also extended northeast of the former CPA at SG-08 (near a raw materials storage area), east of the CPA at SG-17 (along railroad tracks), and southeast of the CPA at SG-25 and SG-29 (near the former BHC plant and additional raw materials storage). This soil gas data suggests that the extent of MCB in vadose zone soils extends over a larger area than previously estimated, possibly due to the presence of additional sources of VOCs other than the former water recycling pond located within the CPA (e.g. loading/unloading areas or MCB storage tank).

MCB concentrations in soil gas at 35-feet bgs decreased to less than 10 ppmv to the north, east, and west, with a couple exceptions. Moderate detections of MCB in soil gas were observed at SG-01 (124 ppmv) in the northwest corner of the Property and at SG-30 (61 ppmv) in the southeastern portion of the property. The northwest corner of the property was formerly used as a "junk yard" (Final RI, EPA, May 1998), and therefore, the source of the MCB in this area is unknown. An MCB concentration of 18 ppmv was also observed at SG-10, located due south of SG-01. To the south, MCB concentrations of 24 and 135 ppmv were detected at SG-28 and SG-31.

The MCB soil gas results were used in identifying areas requiring additional soil characterization. Multiple deep soil borings (to 60 or 90-feet bgs) are planned over the areas exhibiting elevated MCB concentrations in soil gas, including four borings already drilled in the vicinity of SG-29 and the former BHC plant. Additional deep borings are planned in the areas of SG-01 (northwest corner), SG-08 (northeast of CPA), SG-17 (railroad tracks), SG-21 (southeast CPA), SG-25 (raw materials storage), and both SG-28 and SG-31 (southern property boundary). The supplemental soil investigation activities are expected to fully delineate the extent of MCB in soils at the Property.

Low to moderate MCB concentrations in soil gas were detected at 5 and 15-feet bgs as shown in Figures 9 and 10, with one exception. At 5-feet bgs, MCB concentrations exceeding 10 ppmv and up to 98 ppmv were observed at the CPA (SG-13), east of the CPA (SG-14), and southeast of the CPA near the southern property boundary (SG-31). MCB concentrations of 24 and 48 ppmv were also observed at SG-10 and SG-01, respectively, in the northwest corner of the Property. At 15-feet bgs, an elevated MCB concentration of 955 ppmv was observed at SG-16A, located in the former wastewater pond. It is unknown if the presence of concrete debris and other fill material within this abandoned pond contributed to this result, but the MCB concentration at SG-16B was only 7 ppmv. At 15-feet bgs, MCB concentrations exceeding 10 ppmv were observed at the CPA (SG-21), east of the CPA (SG-

22), and southeast of the CPA (SG-25). At this depth, MCB concentrations generally decreased to less than 1 ppmv near the property boundaries, although several locations were not tested at this depth including SG-01, SG-28, and SG-31. The supplemental soil investigation program will effectively characterize soils at these locations and at depths both above and below 15-feet bgs.

3.2.4 Trichloroethene (TCE)

Low to moderate concentrations of TCE were detected in soil gas at 35-feet bgs as shown in Figure 14. The highest TCE soil gas concentrations, up to 59 ppmv at SG-27, were detected along the southern property boundary. TCE concentrations in soil gas decrease to the north and east.

At 5 and 15-feet bgs, TCE concentrations in soil gas were less than 10 ppmv as shown in Figures 12 and 13. The highest concentration of TCE detected at 5-feet bgs was approximately 4 ppmv at SG-11, 12, and 18 located in the western/southwester portion of the Property.

TCE was not used in the production of DDT but was reported to be associated with Jones Chemical operations (Levine-Fricke, 1995). In 1994, TCE concentrations in soil gas up to 1,400 μg/l (approximately 250 ppmv) were detected in soil gas samples collected from approximately 5-feet bgs in the vicinity of the former main yard sump, located less than 100 feet west of SG-20 and SG-27. As previously mentioned, Jones Chemical is proposing to conduct a supplemental soil gas investigation to characterize the extent of VOCs at their site at depths of 10 and 35-feet bgs. Once completed, those results are expected to delineate the extent of TCE south of the Montrose plant property.

3.2.5 1,1-Dichloroethene (1,1-DCE)

With the exception of SG-17, low to moderate concentrations of 1,1-DCE in soil gas were observed at 35-feet bgs as shown in Figure 17. An elevated 1,1-DCE concentration of 504 ppmv was detected at SG-17, located along the former railroad tracks east of the CPA. It is unclear if this detection is related to a soil source in the area, since 1,1-DCE was not used in the production of DDT. 1,1-DCE is a highly volatile VOC, exhibiting a vapor pressure of 591 millimeters of mercury at 25 degrees Centrigrade, which is approximately 60 times greater than MCB. The higher rate of vapor diffusion and transport for 1,1-DCE as compared to other VOCs, suggests that a small soil source could affect soil gas concentrations over a larger area. A soil boring in the vicinity of SG-17 is planned during the

supplemental soil investigation program and will serve to determine if there is a soil source of 1,1-DCE in the area.

With the exception of SG-17, 1,1-DCE concentrations in soil gas at 35-feet bgs were less than 100 ppmv. 1,1-DCE concentrations up to 50 ppmv were detected at locations along the southern property boundary (50 ppmv at SG-27). 1,1-DCE concentrations in soil gas decreased to the east and were not detected at any of the locations along the eastern property boundary. In 1994, 1,1-DCE concentrations up to 460 μg/L (approximately 110 ppmv) were detected in soil gas samples collected at approximately 5-feet bgs at the Jones Chemical property (Levine-Fricke, May 1995).

1,1-DCE was infrequently detected in soil gas at 5 and 15-feet bgs (in only 8 of 48 samples) and at low concentrations less than 10 ppmv (Figures 15 and 16). The highest concentration of 1,1-DCE detected in soil gas at 5-feet bgs was 8 ppmv at SG-12, located immediately west of the former CPA.

3.2.6 Carbon Tetrachloride

Low concentrations of carbon tetrachloride were detected in soil gas at 35-feet bgs as shown in Figure 20. The highest concentrations were observed at SG-25 and SG-28 (27 and 40 ppmv respectively), located at or near the southern boundary of the Property. Carbon tetrachloride concentrations decrease to less than 10 ppmv to the north and to less than 1 ppmv to the east. In 1994, carbon tetrachloride was detected at concentrations up to 120 μg/L (approximately 20 ppmv) in soil gas at approximately 5-feet bgs at the Jones Chemical property (Levine-Fricke, 1995). The highest carbon tetrachloride concentration detected at the Jones Chemical property was at a sample point located less than 50 feet south of SG-28. As previously mentioned, Jones Chemical is proposing to conduct a supplemental soil gas investigation at depths of 10 and 35-feet bgs at their property, which will serve to delineate the extent of carbon tetrachloride in soil gas south of the Montrose property.

At 5 and 15-feet bgs, carbon tetrachloride was not detected above 1 ppmv in any of the 48 soil gas samples collected at those depths (Figures 18 and 19).

3.2.7 Benzene

Low to moderate concentrations of benzene (up to 116 ppmv) in soil gas were observed at 35-feet bgs as shown in Figure 23. The highest benzene concentrations were detected in the vicinity of SG-29 near

the former BHC plant, potentially indicating a limited or low concentration soil source of benzene in the area. With a vapor pressure of 75 millimeters of mercury at 20 degrees Centigrade, benzene is approximately 8 times more volatile than MCB. The higher rate of vapor diffusion and transport for benzene as compared to MCB, suggests that a small soil source could affect soil gas concentrations over a larger area. Four soil borings in the vicinity of SG-29 have already been drilled and additional borings are planned for this area as part of the supplemental soil investigation program. These borings will serve to determine if there is a soil source of benzene in the area.

Benzene was infrequently detected in soil gas at 5 and 15-feet bgs (in only 5 of 48 samples) and at low concentrations less than 10 ppmv (Figures 21 and 22). The highest concentration of benzene detected in soil gas at 5-feet bgs was 2 ppmv at SG-14, located east of the former CPA.

4 SUMMARY AND RECOMMENDATIONS

As a summary to this program, provided below is an evaluation of the program's achievements in accomplishing the objectives established in EPA's letter of February 4, 2003, the principal findings of the survey, and a summary of planned investigation activities that will serve to further delineate the extent of VOCs at and surrounding the Montrose plant property.

4.1 Achievement of Survey Objectives

The soil gas survey results effectively addressed each of the five objectives for this study as described below:

4.1.1 Objective 1: Lateral extent of VOCs at property boundaries

Elevated soil gas concentrations of site-related VOCs were observed within the property boundaries including MCB, chloroform, and to a lesser degree, benzene. Only low to moderate concentrations of MCB and benzene were observed at the property boundaries, particularly in the northwest and southeast portions of the Property. Higher concentrations of chloroform were detected at some property boundaries, but the volatile nature of this chemical may have resulted in vapor diffusion over a larger area than the other VOCs. Supplemental soil investigation activities at the plant property and surrounding areas will serve to delineate the extent of VOCs in soil, including boundaries where moderate to elevated soil gas concentrations were detected.

Moderate to elevated concentrations of PCE, TCE, and to a lesser degree 1,1-DCE and carbon tetrachloride were detected at the southern boundary of the Property. The extent of these VOCs in soil gas south of the Property, at the Jones Chemical site, will be evaluated as part of a supplemental soil gas investigation currently planned by Jones and under review by EPA.

4.1.2 Objective 2: Information related to the presence of DNAPL

Hargis + Associates implemented a DNAPL reconnaissance program at the Property simultaneously with the soil gas survey, and the interim soil gas survey results were used to evaluate the need for additional DNAPL reconnaissance borings. The highest VOC

concentrations in soil gas were observed at 35 feet bgs and in areas generally consistent with the presence of DNAPL in the saturated zone, with some exceptions. Elevated MCB concentrations were observed at the former CPA, east of the CPA along the former railroad tracks, and southeast of the CPA near the former BHC plant and raw materials storage area. DNAPL was found to extend farther to the east than the elevated MCB concentrations in soil gas, potentially due to the eastward dipping soil formations. However, DNAPL was not found to extend as far to the southeast as the elevated MCB concentrations in soil gas. Two DNAPL reconnaissance borings (TSB-4 and SSB-15) were drilled in the vicinity of the former BHC plant based on the interim soil gas results at SG-29, but no DNAPL was detected at these locations. Soil samples were collected and analyzed from both the unsaturated and saturated zones during drilling of these borings in accordance with the preliminary methodology established for the supplemental soil investigation program. Additionally, the DNAPL investigation did not extend to the northwestern portion of the Property where low to moderate MCB concentrations were detected at SG-01.

4.1.3 Objective 3: Vapor distribution data to support soil vapor extraction (SVE) alternatives

The distribution of VOCs in soil gas suggests that the area of the Property to be addressed by SVE alternatives will need to be expanded. The vapor distribution data will be used in the evaluation of remedial alternatives, including SVE, during revision of the draft Soil Feasibility Study Study. The supplemental soil investigation activities planned for the Property will serve to further refine the area requiring VOC remediation.

4.1.4 Objective 4: Assess vapor off-gassing potential at the surface

VOC concentrations in the near surface soils (5-feet bgs) were evaluated at 27 locations across the Property and were found to be relatively low. The average or mean concentrations of VOCs detected at this depth ranged between 0.3 and 23 ppmv. MCB, chloroform, and PCE were detected most frequently in samples collected at this depth. Benzene was detected in only 3 of the 27 samples at concentrations up to 2.2 ppmv. These low results generally imply a reduced potential for vapor off-gassing at surface in the event that the surface cover were compromised, although evaluation of the health risk under such an exposure scenario has not

been conducted. A health risk assessment for the Property is planned following completion of the supplemental soil investigation activities.

4.1.5 Objective 5: Provide data to support selection of soil sampling locations

The soil gas data was used to locate proposed supplemental soil sampling locations in coordination with EPA. Deep soil borings (60 and 90-feet bgs) are planned for areas where elevated soil gas concentrations were observed at 35-feet bgs, including the former CPA, railroad tracks east of the CPA, and former raw material storage area southeast of the CPA. Four deep 90-foot soil borings have already been drilled and sampled in the vicinity of the former BHC plant and SG-29. A deep soil gas boring is additionally planned in the northwest corner where moderate concentrations of MCB were detected at SG-01. At these deep sampling locations, VOC concentrations will be thoroughly evaluated by collection and analysis of soil samples at depths of 1, 3, 5, 7, 10, 20, 30, 40, 50, 60, and 70, 80, 90 feet if a deep 90-foot boring.

4.2 Principle Findings

The on-property soil gas survey effectively addressed all five of the survey objectives and is being used to locate future soil borings for continued site characterization in support of the Soil FS. Soil gas conditions were evaluated at three different soil horizons (5, 15, and 35-feet bgs) and at 34 different locations across the Property (86 total soil gas samples). The highest concentrations of VOCs were observed at 35-feet bgs within the Palos Verdes Sand. The lateral extent of elevated VOC concentrations at this depth closely resembled the extent of DNAPL in the saturated zone, with a few exceptions, and extended over central, eastern, and southeastern portions of the Property. VOC concentrations in the shallower soil horizons (5 and 15-feet bgs) were significantly lower, with the exception of SG-16A located within the abandoned wastewater pond. A total of 18 VOCs were detected in soil gas samples. MCB, chloroform, and PCE were the most frequently detected VOCs at the Property (greater than 75% of the samples) and occurred at the highest concentrations. Moderate to elevated concentrations of certain VOCs, most notably PCE and TCE, were detected along the southern property boundary.

4.3 Additional Investigation Activities

Additional investigation activities are required to characterize and delineate the extent of VOCs at and surrounding the plant property. In coordination with EPA, Montrose is planning to conduct a comprehensive supplemental soil investigation that will, among other things, characterize and delineate the extent of VOCs in soil at the Property. The results of the on-property soil gas survey were considered in developing the final proposed scope of the supplemental soil investigation program. The need for additional soil gas investigation data at and surrounding the Property will be evaluated following completion of the supplemental soil investigation. The results of the supplemental soil investigation will also be used to conduct a health risk assessment for the Property and to revise the feasibility study for soils.

Jones Chemical is also planning to conduct, in coordination with EPA, supplemental soil gas, soil, DNAPL, and groundwater investigation activities at their site located south of the Montrose plant property. These supplemental investigation activities will serve to delineate the lateral extent of VOCs detected along the southern boundary of the Montrose property. The need for additional soil gas investigation at sites surrounding the Montrose property, either at Jones or other off-property areas, is deferred until completion of the planned supplemental investigation activities. The results of the supplemental investigation activities, in combination with a health risk evaluation, will determine if any additional off-property soil gas or soil investigation is required.

TABLES

Table 1
Target Volatile Organic Compound Analytes
October 2003 Soil Gas Survey
Montrose Plant Property Site

Mobile Laboratory Target Analytes	86 Primary Samples	9 Duplicate Samples	8 Confirmation Samples
Benzene	X	X	X
Carbon Tetrachloride	X	X	X
Chloroethane	X	X	X
Chloroform	X	X	X
Dichlorodifluoromethane	X	X	X
1,1-Dichloroethane	X	X	X
1,2-Dichloroethane	X	X	X
1,1-Dichloroethene	X	X	X
cis-1,2-Dichloroethene	X	X	X
trans-1,2-Dichloroethene	X	X	X
Ethylbenzene	X	X	X
Methylene Chloride	X	X	X
Monochlorobenzene	X	X	X
Tetrachloroethene	X	X	X
1,1,1,2-Tetrachloroethane	X	X	X
1,1,2,2-Tetrachloroethane	X	X	X
Toluene	X	X	X
Trichloroethene	X	X	X
1,1,1-Trichloroethane	X	X	X
1,1,2-Trichloroethane	X	X	X
Trichlorofluoromethane	X	X	X
1,1,2-Trichloro-trifluoroethane	X	X	X
Vinyl Chloride	X	X	X
meta- and para-Xylene	X	X	X
ortho-Xylene	X	X	X
Additional TO-14A Analytes			
Benzyl Chloride			X
Bromomethane			X
Chloromethane			X
1,2-Dichlorobenzene			X
1,3-Dichlorobenzene			X
1,4-Dichlorobenzene			X
1,2-Dibromomethane			X
1,2-Dichloropropane			X
cis-1,3-Dichloropropene			X
trans-1,3-Dichloropropene			X
1,2-Dichloro-1,1,2,2-Tetrafluoroethane			X
Hexachlro-1,3-Butadiene			X
Styrene			X
1,2,4-Trichlorobenzene			X
1,2,4-Trimethylbenzene			X
1,3,5-Trimethylbenzene			X

Table 2
Laboratory Results for Volatile Organic Compounds
October 2003 Soil Gas Survey
Montrose Plant Property Site

Sample ID	Depth (ft)	Volatile Organic Compounds (ppmv)																	
		Benzene	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene Chloride	Mono-chlorobenzene	Tetra-chloroethene	Trichloroethene	1,1,1-Trichloro-ethane	1,4-Dichlorobenzene	1,1,2 Trichloro-trifluoroethane	Meta and Para-Xylene	Ortho-Xylene	Vinyl Chloride
SG-01	5	<0.31	<0.16	0.90	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	47.77	1.24	<0.18	<0.18	0.43	<0.13	0.25	<0.22	<0.22
	35	<6.10	<3.10	<4.00	<0.24	<0.24	<4.90	<0.25	<6.10	<0.28	123.77	<2.86	<3.64	<0.18	<3.32	<0.13	<0.22	<0.22	<0.22
SG-02	5	<0.31	<0.16	0.35	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.91	0.16	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	<0.78	24.57	<1.21	<1.21	10.08	<1.23	<1.53	<1.41	2.17	10.03	5.02	<0.91	<0.83	<0.64	<1.12	<1.12	<1.12
SG-03	5	<0.61	<0.31	2.05	<0.24	<0.24	<0.25	<0.25	<0.61	<0.28	0.65	0.87	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	0.51	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.91	0.27	<0.18	<0.18	<0.17	<0.13	0.69	0.32	<0.24
	35	<1.53	<0.78	92.15	<1.21	<1.21	2.04	<1.23	<1.53	<1.41	<1.05	19.17	<0.91	<0.91	<0.83	<0.64	<1.12	<1.12	<1.12
SG-04	5	<0.31	<0.16	1.13	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	1.72	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<3.05	2.38	839.57	<2.41	<2.41	<1.23	<2.46	<3.05	<2.81	<2.24	23.59	<1.82	<1.81	<1.66	<1.27	<2.24	<2.24	<2.24
SG-05	5	<0.31	<0.16	0.61	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.69	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<1.12	<1.12
	15	<0.31	<0.16	0.84	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	1.56	0.16	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	3.34	348.12	<1.21	<1.21	<0.25	<1.21	<1.53	<1.41	0.59	7.52	<0.91	<0.91	<0.83	<0.64	<1.12	<1.12	<1.12
SG-06	5	<0.31	<0.16	3.48	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.39	0.28	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<0.31	1.91	30.72	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	5.16	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
SG-07	8	<0.31	<0.16	0.29	<0.24	<0.24	<0.25	<0.25	6.91	<0.28	0.63	<0.14	<0.18	<0.18	<0.17	<0.13	29.93	9.67	<0.25
	15	<0.61	<0.31	11.67	<0.24	<0.24	<0.25	<0.25	2.12	0.75	6.30	1.42	<0.36	<0.36	<0.33	<0.13	2.99	3.45	<0.25
	35	<1.53	1.75	204.77	<0.24	<0.24	5.29	<0.25	<0.24	<0.28	2.17	33.92	1.49	<0.18	<0.83	<0.64	1.91	1.59	<0.25
SG-08	15	<0.61	<0.31	22.53	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	1.95	<0.29	<0.36	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	35	8.14	8.43	2252.51	<9.64	<9.64	<2.45	<9.84	<9.84	<11.24	1389.70	11.80	<7.28	<7.24	<6.65	<5.08	<8.96	<8.96	<8.96
SG-09	15	<0.31	<0.16	1.70	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.41	0.24	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	8.90	190.44	<1.21	<1.21	<0.25	<1.21	<1.53	<1.41	<0.21	30.97	0.28	<0.91	<0.83	<0.64	<1.12	<1.12	<1.12
SG-10	5	<0.61	<0.31	<0.40	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	23.89	0.49	<0.36	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	35	<3.05	<1.55	7.99	<2.41	<2.41	8.57	<2.46	<3.05	<2.81	17.59	4.72	6.51	<1.81	<1.66	<1.27	<2.24	<2.24	<2.24
SG-11	5	<0.31	<0.16	5.32	<0.24	<0.24	7.06	<0.25	<0.31	<0.28	0.87	2.06	3.91	<0.18	<0.17	0.16	<0.22	<0.22	<0.22
SG-12	5	<0.31	0.35	34.81	<0.24	<0.24	7.56	<0.25	<0.31	<0.28	<0.21	5.31	4.28	<0.18	<0.17	0.42	<0.22	<0.22	<0.22
	15	<0.31	<0.16	2.25	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.61	0.25	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	<0.78	34.81	<1.21	<1.21	17.14	<1.23	<1.53	<1.41	1.28	7.67	9.68	<0.91	<0.83	<0.64	<1.12	<1.12	<1.12
SG-13	5	<0.31	<0.16	1.76	<0.24	<0.24	<0.25	<0.25	<0.31	0.35	21.71	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
SG-14	5	1.85	<0.16	11.47	<0.24	<0.24	<0.25	<0.25	<0.31	4.61	97.71	1.62	<0.18	<0.18	0.18	<0.13	0.76	0.28	<0.22
	8	<0.31	<0.16	7.37	<2.41	<2.41	<0.25	<2.46	<0.31	<2.81	23.89	0.53	<0.18	<1.81	<0.17	<1.27	<2.24	<2.24	<2.24
	15	<0.61	<0.31	2.46	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	9.77	0.32	<0.36	<0.36	<0.33	<0.25	<0.45	<0.22	<0.22
	35	<0.61	7.63	286.68	<0.24	<0.24	<0.49	<0.25	<0.61	<0.28	13.25	35.39	<0.36	<0.18	<0.83	<0.13	<0.22	<0.22	<0.22
SG-15	5	<0.31	<0.16	1.31	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.48	0.40	<0.18	<0.18	<0.17	<0.13	0.46	<0.22	<0.22
	35	<0.31	<0.16	0.49	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	1.06	0.25	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
SG-16(A)	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.49	<0.25	<0.31	<0.28	16.72	<0.14	<0.18	<0.18	<1.66	<0.13	0.39	<0.22	<0.22
	8	<0.61	<0.31	1.09	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	84.68	0.16	<0.18	<0.36	0.53	<0.25	0.90	0.25	<0.45
	15	2.16	<0.16	90.10	<0.24	<0.24	4.79	<0.25	<0.31	2.88	955.42	1.92	<0.18	<0.18	4.16	<0.13	5.53	0.23	<0.22
	35	7.20	<1.55	129.01	<0.24	<0.24	16.89	<0.25	<0.61	4.90	803.42	<1.43	<1.82	4.03	<1.66	<1.27	<2.24	<2.24	<2.24
SG-16(B)	5	<0.31	<0.16	3.69	<0.24	<0.24	1.44	<0.25	<0.31	<0.28	17.15	0.32	0.58	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	8	<0.61	<0.31	1.43	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	14.98	0.41	0.39	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	15	<0.31	<0.16	0.63	<0.24	<0.24	2.77	<0.25	<0.31	<0.28	6.73	0.31	1.84	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
SG-17	15	<0.31	<0.16	6.14	<0.24	<0.24	<0.49	<0.25	<0.31	<0.28	12.81	0.41	<0.36	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	10.02	12.88	491.46	<0.48	<0.48	504.12	<0.49	<3.05	<0.56	1889.12	91.43	<3.64	<2.54	<3.33	<2.54	2.99	<2.24	<2.24

Table 2
Laboratory Results for Volatile Organic Compounds
October 2003 Soil Gas Survey
Montrose Plant Property Site

Sample ID	Depth (ft)	Volatile Organic Compounds (ppmv)																	
		Benzene	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene Chloride	Mono-chlorobenzene	Tetra-chloroethene	Trichloroethene	1,1,1-Trichloro-ethane	1,4-Dichlorobenzene	1,1,2 Trichloro-trifluoroethane	Meta and Para-Xylene	Ortho-Xylene	Vinyl Chloride
SG-18	5	<0.31	<0.16	5.73	<0.24	<0.24	4.79	<0.25	<0.31	<0.28	0.46	9.00	3.72	<0.18	<0.17	0.21	<0.22	<0.22	<0.22
	35	<1.53	<0.78	10.85	<1.21	<1.21	21.43	<1.23	<1.53	<1.41	1.15	50.14	20.47	<0.91	<0.83	1.03	<1.12	<1.12	<1.12
SG-19	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	<0.78	3.07	0.42	<1.21	9.07	<1.2	<1.53	<1.41	0.63	10.32	10.23	<0.91	<0.17	<0.64	<1.12	<1.12	<1.12
SG-20	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	0.28	<0.21	0.43	0.30	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	<0.20	<0.24	<0.24	0.38	<0.25	<0.31	<0.28	<0.21	2.21	3.54	0.24	<0.17	<0.13	<0.22	<0.22	<0.22
	35	0.47	<0.31	6.14	0.84	<0.44	9.33	0.98	<0.44	0.29	0.63	20.65	24.19	1.45	<0.17	0.42	<0.45	<0.45	1.88
SG-21	5	<0.31	<0.16	4.30	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	1.39	0.75	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	8	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.48	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	0.27	18.22	<0.24	<0.24	0.66	<0.25	<0.31	<0.28	62.97	2.51	0.33	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	4.07	11.13	634.80	<0.24	<0.24	19.66	<0.25	<3.05	<0.28	1910.83	235.95	16.00	<0.18	<3.32	2.74	<0.22	<0.22	<0.22
SG-22	5	<7.02	<0.31	0.88	<0.48	<0.48	<0.49	<0.49	<7.02	<0.56	21.71	0.31	<0.36	<1.81	<0.33	<1.27	1.24	0.48	<0.25
	8	<0.61	<0.31	1.15	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	19.11	0.38	<0.36	<0.36	<0.33	<0.25	<0.46	<0.45	<0.25
	15 (1)	<0.61	<0.31	5.12	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	18.67	0.84	<0.36	<0.25	<0.33	<0.25	0.71	<0.45	<0.25
	35	1.57	0.38	43.00	<0.48	<0.48	<0.49	<0.49	<0.49	0.63	89.03	9.88	<0.36	<0.25	<0.33	<0.25	2.76	<0.45	<0.45
SG-23	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<1.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<0.31	0.25	3.89	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.22	22.12	0.35	<0.18	<0.17	<0.13	<0.22	<1.12	<1.12
SG-24	8	<0.31	0.57	11.26	<0.24	<0.24	1.89	<0.25	<0.31	<0.28	<0.21	17.70	2.79	<0.18	4.49	0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	0.78	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.24	1.05	0.22	<0.18	0.60	<0.13	<0.22	<0.22	<0.22
	35	<1.53	13.83	182.25	1.80	0.99	42.85	1.84	<1.53	0.72	<1.05	383.41 E	52.10	2.93	0.48	4.70	<1.12	<1.12	<1.12
SG-25	15	2.29	0.83	73.72	<0.48	<0.48	<0.49	<0.49	<0.31	2.48	18.46	60.46	1.10	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	35	17.84	27.03	921.48	<2.41	<2.41	5.04	<2.46	<1.53	<2.81	933.70	398.16	6.88	<1.81	<1.66	2.74	<2.24	<2.24	<2.24
SG-26	15	<0.31	<0.16	<0.2	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	0.29	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<1.53	<0.78	1.19	<0.24	<0.24	<0.25	<0.25	<1.53	<0.28	1.26	4.42	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
SG-27	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	1.15	<0.18	<0.18	0.33	<0.13	<0.22	<0.22	<0.22
	35	<3.05	13.51	102.39	2.96	<3.05	50.41	4.04	<3.05	<3.05	<2.11	545.63	59.54	1.30	<1.66	6.26	<1.12	<1.12	<1.12
SG-28	5	<0.31	<0.16	0.41	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.22	1.34	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	3.13	39.74	593.84	<2.41	<2.41	13.11	<2.46	<2.81	<2.81	23.89	840.56	22.33	<1.81	<1.66	9.79	<2.24	<2.24	<2.24
SG-29	5	<0.31	<0.16	5.32	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	7.17	2.06	<0.18	<0.18	<0.17	<0.13	0.55	<0.22	<0.22
	15	0.63	<0.31	3.07	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	3.69	1.11	<0.36	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	35	115.83	11.45	1331.03	<4.82	<4.82	<4.90	<4.92	<5.62	<5.62	1715.41	206.45	5.77	<3.62	<3.33	3.65	<4.48	<4.48	<4.48
SG-30	5	<0.31	<0.16	<0.2	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	<0.2	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	<0.21	<0.14	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	0.94	<0.16	<0.2	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	60.80	23.59	11.91	<0.18	0.22	<0.13	<0.22	<0.22	<0.22
SG-31	5	0.59	<0.16	7.17	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	10.42	2.06	<0.18	<0.18	<0.17	<0.13	0.69	0.23	<0.22
	35	5.95	0.84	32.76	<0.48	<0.48	<0.49	<0.49	<1.53	<0.56	134.63	91.43	0.50	<0.36	1.15	0.74	<0.45	<0.45	<0.45
SG-32	5	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	1.80	0.43	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.31	<0.16	<0.20	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	0.67	7.82	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	35	<0.31	<0.31	0.20	<0.24	<0.24	<0.49	<0.25	<0.31	<0.28	1.50	1.30	<0.18	<0.18	<0.33	<0.13	<0.22	<0.22	<0.22
SG-33	5	<0.31	<0.16	<0.2	<0.24	<0.24	<0.25	<0.25	<0.31	<0.28	2.08	0.53	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22
	15	<0.61	<0.31	<0.4	<0.48	<0.48	<0.49	<0.49	<0.61	<0.56	2.82	0.86	<0.36	<0.36	<0.33	<0.25	<0.45	<0.45	<0.45
	35	<1.53	<0.78	0.29	<0.24	<0.24	<1.23	<0.25	<1.53	<0.28	3.26	0.99	<0.18	<0.18	<0.17	<0.13	<0.22	<0.22	<0.22

Notes
(1) Soil gas samples were actually collected at 20 feet bgs due to excess vacuum encountered at 15 feet bgs.

Table 3
Results of Duplicate Samples
October 2003 Soil Gas Survey
Montrose Plant Property Site

	Volatile Organic Compounds (ppmv)																															
	5-Foot Sample										15-Foot Sample										35-Foot Sample									
Sample ID	SG-06-5			SG-11-5			SG-22-5				SG05-15			SG-12-15			SG17-15				SG-10-35			SG-25-35			SG-29-35			
Constituent	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Average RPD (%)	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Average RPD (%)	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Primary	Duplicate	RPD (%)	Average RPD (%)
Chloroform	3.48	2.25	43	4.70	5.32	12	0.88	0.78	12	22	0.82	0.84	2	1.35	2.25	50	4.10	6.14	40	31	7.99	7.17	11	758	921	19	1,126	1,331	17	16
Tetrachloroethene	0.28	<0.14	--	1.77	2.06	15	<0.29	0.31	--	15	<0.14	0.16	--	0.25	0.25	0	12.80	0.41	--	0	4.72	4.28	10	251	398	45	162	206	24	26
Monochlorobenzene	0.39	<0.21	--	0.22	0.87	119	21.7	19.5	11	65	1.56	1.52	3	0.52	0.61	16	12.43	13.00	4	8	17.6	14.3	21	717	934	26	1,433	1,715	18	22
1,1-Dichloroethene	<0.25	<0.25	--	6.55	7.06	--	<0.49	<0.49	--	--	<0.25	<0.25	--	<0.25	<0.25	--	<0.49	<0.25	--	--	8.32	8.51	--	3.53	5.04	35	<4.90	<4.90	--	40
Carbon Tetrachloride	<0.16	<0.16	--	<0.16	<0.16	--	<0.32	<0.32	--	--	<0.16	<0.16	--	<0.16	<0.16	--	<0.16	<0.16	--	--	<1.6	<1.6	--	17.5	27.0	43	11.0	11.4	4	23
Benzene	<0.31	<0.31	--	<0.31	<0.31	--	<0.62	<0.62	--	--	<0.31	<0.31	--	<0.31	<0.31	--	<0.62	<0.31	--	--	<10	<10	--	13.1	17.8	31	97.0	116	18	24
Trichloroethene	<0.18	<0.18	--	3.54	3.91	10	<0.36	<0.36	--	10	<0.18	<0.18	--	<0.18	<0.18	--	<0.36	<0.18	--	--	6.51	5.95	9	5.02	6.88	31	5.02	5.77	14	18
Meta and Para-Xylene	<0.22	<0.22	--	<0.22	<0.22	--	1.24	0.87	35	51	<0.22	<0.22	--	<0.22	<0.22	--	<0.44	<0.22	--	--	<2.2	<2.2	--	<2.2	<2.2	--	<4.4	<4.4	--	--
Ortho-Xylene	<0.22	<0.22	--	<0.22	<0.22	--	0.48	<0.44	--	--	<0.22	<0.22	--	<0.22	<0.22	--	<0.44	<0.22	--	--	<2.2	<2.2	--	<2.2	<2.2	--	<4.4	<4.4	--	--
1,1,2 Trichloro-trifluoroethane	<0.13	<0.13	--	0.13	0.16	21	<0.26	<0.26	--	14	<0.13	<0.13	--	<0.13	<0.13	--	<0.26	<0.13	--	--	<1.3	<1.3	--	1.96	2.74	33	3.26	3.65	11	22
1,1,1-Trichloroethane	<0.18	<0.18	--	<0.18	<0.18	--	<0.36	<0.36	--	--	<0.18	<0.18	--	<0.18	<0.18	--	<0.36	<0.18	--	--	<1.81	<1.81	--	<1.81	<1.81	--	<3.60	<3.60	--	--
cis-1,2-Dichloroethene	<0.25	<0.25	--	<0.25	<0.25	--	<0.50	<0.50	--	--	<0.25	<0.25	--	<0.25	<0.25	--	<0.50	<0.25	--	--	<2.5	<2.5	--	<2.5	<2.5	--	<5.0	<5.0	--	--
1,1-Dichloroethane	<1	<1	--	<1	<1	--	<2	<2	--	--	<1	<1	--	<1	<1	--	<2	<1	--	--	<10	<10	--	<10	<10	--	<20	<20	--	--
Methylene Chloride	<1	<1	--	<1	<1	--	<2	<2	--	--	<1	<1	--	<1	<1	--	<2	<1	--	--	<10	<10	--	<10	<10	--	<20	<20	--	--
									Total Average RPD (%)	30									Total Average RPD (%)	13									Total Average RPD (%)	24

Notes:

ppmv - parts per million by volume

RPD=(Sample – Duplicate)(200)/(Sample + Duplicate)

-- not applicable

< not detected above laboratory reporting limits

Table 4
Results of Confirmation Samples
October 2003 Soil Gas Survey
Montrose Plant Property Site

Volatile Organic Compounds (ppmv)

Sample ID	5-Foot Sample									
	SG-11-5			SG-15-5			SG-20-5			
Constituent	Primary	Confirmation	RPD (%)	Primary	Confirmation	RPD (%)	Primary	Confirmation	RPD (%)	Average RPD (%)
Chloroform	5.32	21.0	119	1.31	0.07	180	<0.20	0.14	--	149
Tetrachloroethene	2.06	9.30	127	0.40	0.06	147	0.43	0.52	19	98
Monochlorobenzene	0.87	0.07	172	0.48	0.05	164	<0.21	0.06	--	168
1,1-Dichloroethene	7.06	29.0	122	<0.25	<0.001	--	<0.25	0.07	--	122
Carbon Tetrachloride	<0.16	0.27	--	<0.16	0.002	--	<0.16	0.002	--	--
Benzene	<0.31	0.45	--	<0.31	0.003	--	<0.31	0.073	--	--
Trichloroethene	3.91	18.0	129	<0.18	0.002	--	0.30	0.57	62	95
Meta and Para-Xylene	<0.22	<0.09	--	0.46	0.05	164	<0.22	0.01	--	164
Ortho-Xylene	<0.22	<0.04	--	<0.22	0.02	--	<0.22	0.01	--	--
1,1,2-Trichloro-trifluoroethane	0.16	0.68	124	<0.13	<0.0017	--	<0.13	<0.003	--	124
1,1,1-Trichloroethane	<0.18	<0.04	--	<0.18	<0.001	--	<0.18	0.03	--	--
cis-1,2-Dichloroethene	<0.25	0.04	--	<0.25	<0.001	--	<0.25	0.003	--	--
1,1-Dichloroethane	<0.24	0.09	--	<0.24	<0.001	--	<0.24	0.004	--	--
Methylene Chloride	<0.28	0.53	--	<0.28	<0.004	--	<0.28	<0.006	--	--
Vinyl Chloride	<0.22	0.09	--	<0.22	<0.001	--	<0.22	<0.002	--	--
1,2-Dichloroethane	<0.24	<0.04	--	<0.24	<0.001	--	<0.24	<0.002	--	--
Ethylbenzene	<0.31	<0.04	--	<0.31	0.01	--	<0.31	<0.004	--	--
Total Average RPD (%)										137

Sample ID	15-Foot Sample						
	SG-25-15			SG-29-15			
Constituent	Primary	Confirmation	RPD (%)	Primary	Confirmation	RPD (%)	Average RPD (%)
Chloroform	73.7	16.0	129	3.10	1.20	88	109
Tetrachloroethene	60.5	15.0	121	1.11	1.40	23	72
Monochlorobenzene	18.5	8.70	72	3.69	1.20	102	87
1,1-Dichloroethene	<0.49	<0.30	--	<0.49	<0.43	--	--
Carbon Tetrachloride	0.83	<0.30	--	<0.31	<0.43	--	--
Benzene	2.3	0.45	134	0.63	<0.43	--	134
Trichloroethene	1.10	<0.30	--	<0.36	<0.43	--	--
Meta and Para-Xylene	<0.45	<0.61	--	<0.45	<0.86	--	--
Ortho-Xylene	<0.45	<0.30	--	<0.45	<0.43	--	--
1,1,2-Trichloro-trifluoroethane	<0.36	<0.61	--	<0.25	<0.86	--	--
1,1,1-Trichloroethane	<0.36	<0.30	--	<0.36	<0.43	--	--
cis-1,2-Dichloroethene	<0.49	<0.30	--	<0.49	<0.43	--	--
1,1-Dichloroethane	<0.48	<0.30	--	<0.48	<0.43	--	--
Methylene Chloride	2.48	2.30	8	<0.56	1.70	--	8
Vinyl Chloride	<0.45	<0.30	--	<0.45	<0.43	--	--
1,2-Dichloroethane	<0.48	<0.30	--	<0.48	<0.43	--	--
Ethylbenzene	<0.31	<0.30	--	<0.61	<0.43	--	--
Total Average RPD (%)							81

Sample ID	35-Foot Sample											
	SG12-35			SG-14-35			SG-24-35					
Constituent	Primary	Confirmation	RPD (%)	Primary	Confirmation	RPD (%)	Primary	Confirmation	RPD (%)	Average RPD (%)		
Chloroform	34.8	58.0	50	287	350	20	182	210	14	28		
Tetrachloroethene	7.67	21.0	93	35.4	46.0	26	383E	330	15	45		
Monochlorobenzene	1.28	0.67	63	13.2	10.0	28	<1.05	<0.59	--	48		
1,1-Dichloroethene	17.1	25.0	38	<0.49	<0.18	--	42.9	43.0	0	19		
Carbon Tetrachloride	<0.78	0.92	--	7.63	12.0	45	13.8	16.0	15	30		
Benzene	<1.53	0.19	--	<0.61	0.29	--	<1.53	<0.59	--	--		
Trichloroethene	9.68	24.0	85	<0.36	<0.18	--	52.1	43.0	19	52		
Meta and Para-Xylene	<1.12	0.15	--	<0.22	0.42	--	<1.12	<1.2	--	--		
Ortho-Xylene	<1.12	0.07	--	<0.22	0.18	--	<1.12	<1.2	--	--		
1,1,2-Trichloro-trifluoroethane	<0.64	0.57	--	<0.13	<0.36	--	4.70	4.40	7	7		
1,1,1-Trichloroethane	<0.91	1.10	--	<0.18	<0.18	--	2.93	3.10	6	6		
cis-1,2-Dichloroethene	<1.23	0.50	--	<0.25	<0.18	--	1.80	1.70	6	6		
1,1-Dichloroethane	<1.21	0.56	--	<0.24	<0.18	--	1.80	1.90	5	5		
Methylene Chloride	<1.41	0.50	--	<0.28	1.30	--	0.72	6.20	158	158		
Vinyl Chloride	<1.12	0.39	--	<0.22	<0.18	--	<1.12	0.62	--	--		
1,2-Dichloroethane	<1.21	<0.04	--	<0.24	<0.18	--	0.99	1.10	11	11		
Ethylbenzene	<1.53	0.05	--	<0.61	<0.18	--	<1.53	<0.59	--	--		
Total Average RPD (%)										34		

Notes:

Confirmation samples were analyzed at an off-site laboratory

ppmv - parts per million by volume

The following addition compounds were detected by the off-site laboratory, all detections were <1.0ppmv:

Cloromethane

Dichlorodifluoromethane

1,4-dichlorobenzene

1,3,5-trimethylbenzene

Trichlorofluoromethane

1,2,4-trichlorobenzene

Hexachloro-1,3-butadiene

Toluene

RPD=(Sample – Duplicate)(200)/(Sample + Duplicate)

-- not applicable

< not detected above laboratory reporting limits

Table 5
Total Frequency of Detections
October 2003 Soil Gas Survey
Montrose Plant Property Site

Parameter	Total No. of Analyses	Total No. of Detections	Frequency of Detections (%)	Maximum Concentration (ppmv)	Arithmetic Mean of Concentrations Detected (ppmv)[1]
Tetrachloroethene	86	72	84%	841.0	45.3
Chloroform	86	69	80%	2252.5	132.7
Monochlorobenzene	86	68	79%	1910.8	156.5
Trichloroethene	86	29	34%	59.5	9.5
1,1-Dichloroethene	86	24	28%	504.0	31.9
Carbon Tetrachloride	86	21	24%	39.7	8.0
Benzene	86	16	19%	116.0	11.4
Meta and Para-Xylene	86	16	19%	29.9	3.3
1,1,2-Trichloro-trifluoroethane	86	13	15%	9.8	2.5
1,4-dichlorobenzene	86	10	12%	4.5	1.3
Methylene Chloride	86	9	10%	4.9	2.0
Ortho-Xylene	86	9	10%	9.7	1.8
1,1,1-Trichloroethane	86	5	6%	4.0	2.0
1,1-Dichloroethane	86	4	5%	3.0	1.5
cis-1,2-Dichloroethene	86	3	3%	4.0	2.3
Ethylbenzene	86	2	2%	6.9	4.5
1,2-Dichloroethane	86	1	1%	1.0	1.0
Vinyl Chloride	86	1	1%	1.9	1.9

Notes
1. Arithmetic mean does not include concentrations below the detection limit
ppmv - parts per million by volume

Table 6
Frequency of Detections-5' Depth
October 2003 Soil Gas Survey
Montrose Plant Property Site

Parameter	Total No. of Analyses	Total No. of Detections	Frequency of Detections	Maximum Concentration (ppmv)	Arithmetic Mean of Concentrations Detected (ppmv)[1]
Tetrachloroethene	27	20	74%	9.0	1.5
Monochlorobenzene	27	20	74%	97.7	13.7
Chloroform	27	18	67%	34.8	5.0
Meta and Para-Xylene	27	7	26%	1.2	0.6
Trichloroethene	27	5	19%	4.3	2.6
1,1- Dichloroethene	27	4	15%	7.6	5.2
1,4-dichlorobenzene	27	3	11%	0.4	0.3
1,1,2-Trichloro-trifluoroethane	27	3	11%	0.4	0.3
Ortho-Xylene	27	3	11%	0.5	0.3
Benzene	27	2	7%	1.9	1.2
Methylene Chloride	27	2	7%	4.6	2.5
Carbon Tetrachloride	27	1	4%	0.4	0.4

Notes

1. Arithmetic mean does not include concentrations below the detection limit

ppmv - parts per million by volume

Table 7
Frequency of Detections-8' Depth
October 2003 Soil Gas Survey
Montrose Plant Property Site

Parameter	Total No. of Analyses	Total No. of Detections	Frequency of Detections	Maximum Concentration (ppmv)	Arithmetic Mean of Concentrations Detected (ppmv)[1]
Chloroform	7	6	86%	11.3	3.8
Monochlorobenzene	7	6	86%	84.7	24.0
Tetrachloroethene	7	5	71%	17.7	3.8
Trichloroethene	7	2	29%	2.8	1.6
Meta and Para-Xylene	7	2	29%	29.9	15.4
Ortho-Xylene	7	2	29%	9.7	5.0
Carbon Tetrachloride	7	1	14%	0.6	0.6
1,4-dichlorobenzene	7	1	14%	4.5	2.5
1,1- Dichloroethene	7	1	14%	1.9	1.9
Ethylbenzene	7	1	14%	6.9	6.9
1,1,2-Trichloro-trifluoroethane	7	1	14%	0.1	0.1

Notes
1. Arithmetic mean does not include concentrations below the detection limit
ppmv - parts per million by volume

Table 8
Frequency of Detections-15' Depth
October 2003 Soil Gas Survey
Montrose Plant Property Site

Parameter	Total No. of Analyses	Total No. of Detections	Frequency of Detections	Maximum Concentration (ppmv)	Arithmetic Mean of Concentrations Detected (ppmv)[1]
Tetrachloroethene	21	18	86%	60.5	4.6
Monochlorobenzene	21	17	81%	955.0	64.9
Chloroform	21	16	76%	90.1	15.1
Trichloroethene	21	5	24%	3.5	1.4
1,1-Dichloroethene	21	4	19%	4.8	2.2
Meta and Para-Xylene	21	4	19%	5.5	2.5
Benzene	21	3	14%	2.3	1.7
Methylene Chloride	21	3	14%	2.9	2.0
Ortho-Xylene	21	3	14%	3.5	1.3
Carbon Tetrachloride	21	2	10%	0.8	0.6
1,4-dichlorobenzene	21	2	10%	4.2	2.4
1,1,1-Trichloroethane	21	1	5%	0.2	0.2
Ethylbenzene	21	1	5%	2.1	2.1

Notes
1. Arithmetic mean does not include concentrations below the detection limit
ppmv - parts per million by volume

Table 9
Frequency of Detections-35' Depth
October 2003 Soil Gas Survey
Montrose Plant Property Site

Parameter	Total No. of Analyses	Total No. of Detections	Frequency of Detections	Maximum Concentration (ppmv)	Arithmetic Mean of Concentrations Detected (ppmv)[1]
Tetrachloroethene	31	29	94%	841.0	107.8
Chloroform	31	29	94%	2,252.5	303.5
Monochlorobenzene	31	25	81%	1,910.8	364.8
Trichloroethene	31	17	55%	59.5	14.9
Carbon Tetrachloride	31	17	55%	39.7	9.7
1,1-Dichloroethene	31	15	48%	504.0	49.0
Benzene	31	11	35%	116.0	15.9
1,1,2-Trichloro-trifluoroethane	31	9	29%	9.8	3.6
Methylene Chloride	31	4	13%	4.9	1.6
1,1,1-Trichloroethane	31	4	13%	4.0	2.4
1,1-Dichloroethane	31	4	13%	3.0	1.5
1,4-Dichlorobenzene	31	3	10%	1.2	0.6
Meta and Para-Xylene	31	3	10%	3.0	2.6
cis-1,2-Dichloroethene	31	3	10%	4.0	2.3
Ortho-Xylene	31	1	3%	1.6	1.6
1,2-Dichloroethane	31	1	3%	1.0	1.0
Vinyl Chloride	31	1	3%	1.9	1.9

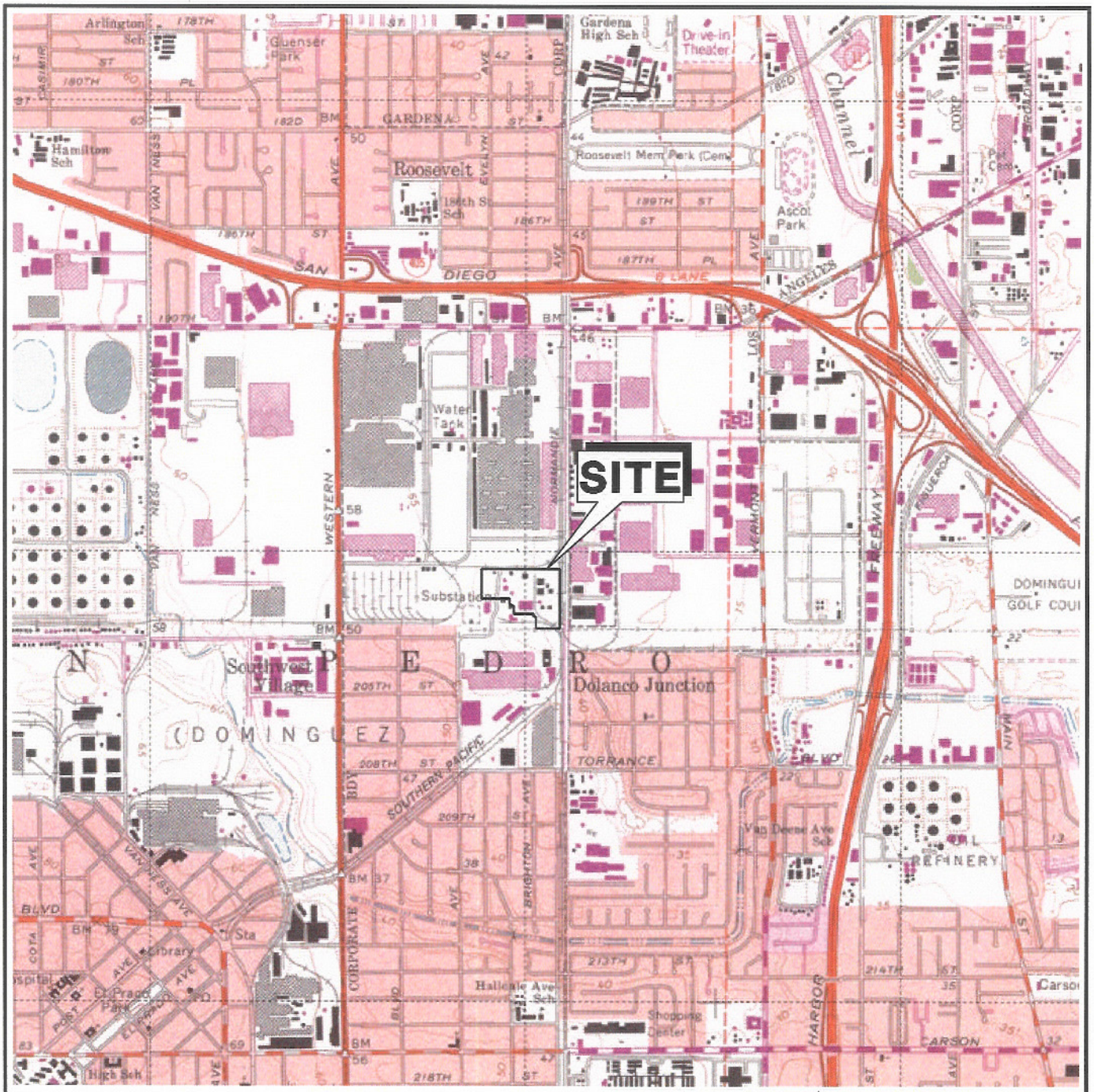
Notes

1. Arithmetic mean does not include concentrations below the detection limit

ppmv - parts per million by volume

ND = Non Detect

FIGURES



NORTH

0 1,000 2,000 FEET

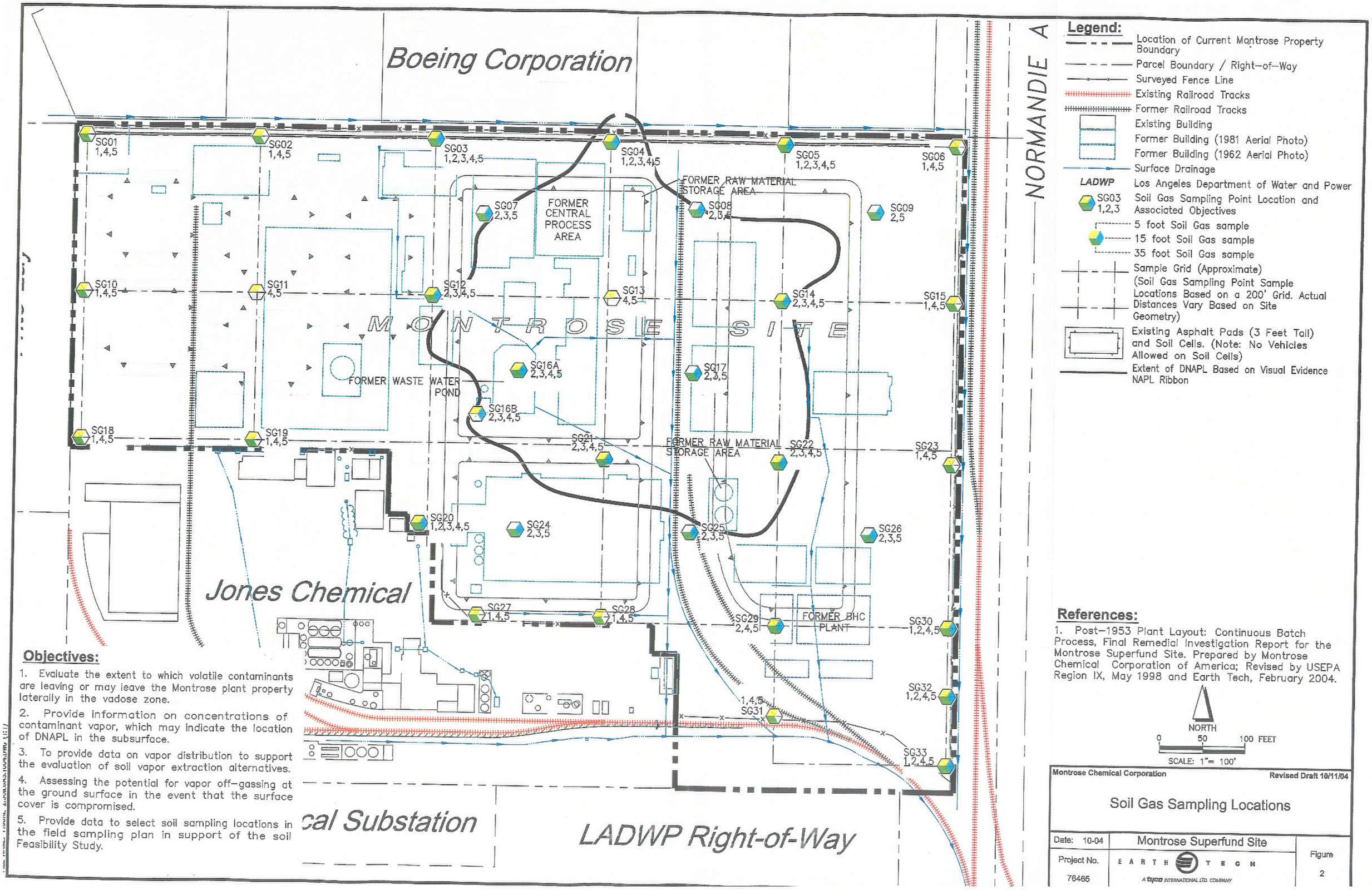
SCALE: 1"= 2,000'

Reference:

1. U.S.G.S. Topographic Map, Torrance, California 7.5 Minute Quadrangle.

FILE NAME: 64210SLM.1103.DWG (1:1)

Montrose Chemical Corporation		Draft
Site Location Map		
Date: 11-03	Montrose Superfund Site	Figure 1
Project No. 64210	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	



Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor off-gassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.

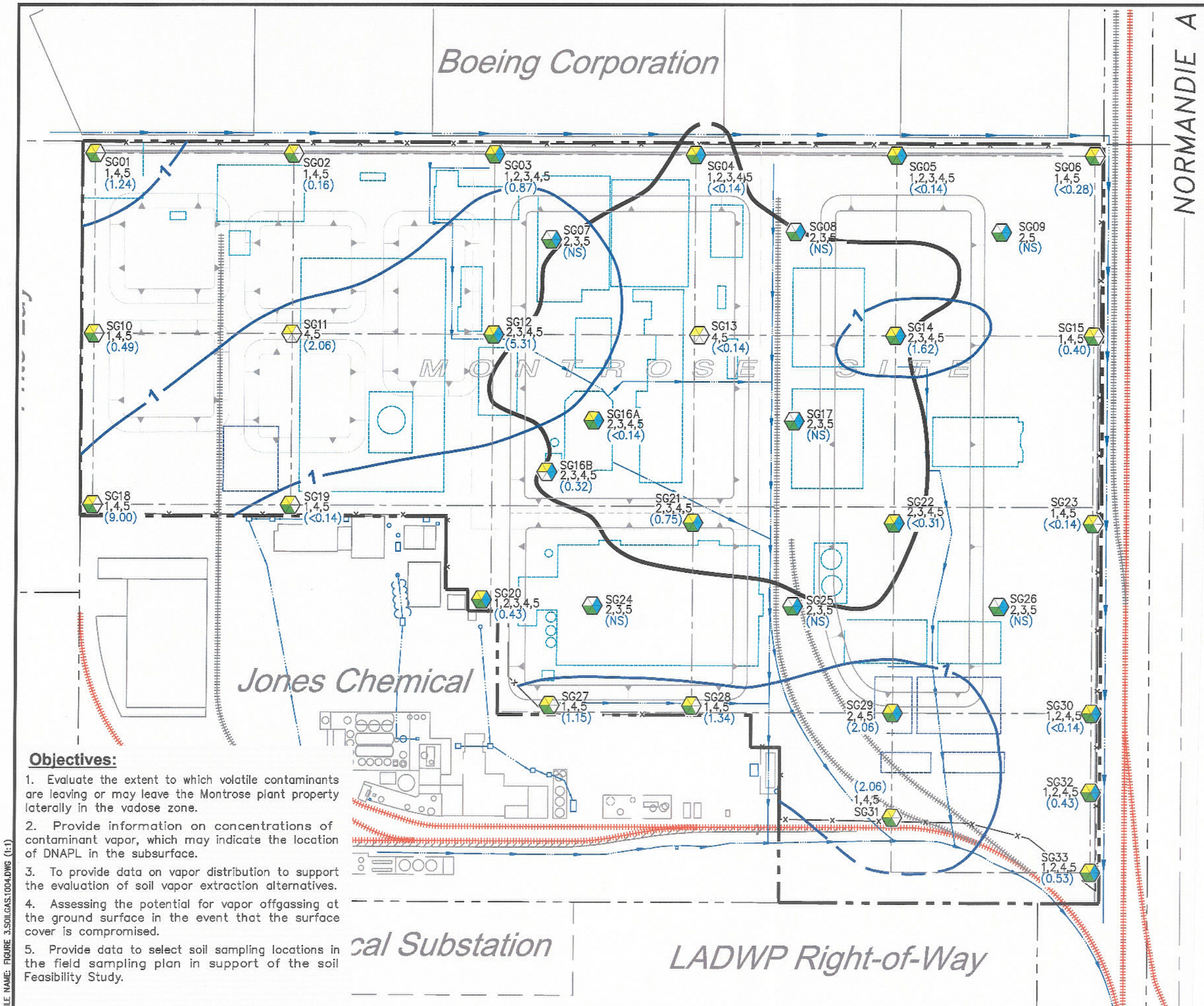
References:

1. Post-1953 Plant Layout: Continuous Batch Process, Final Remedial Investigation Report for the Montrose Superfund Site. Prepared by Montrose Chemical Corporation of America; Revised by USEPA Region IX, May 1998 and Earth Tech, February 2004.

Montrose Chemical Corporation — Revised Draft 10/11/04

Soil Gas Sampling Locations

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	2



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — PCE Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
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NORTH

0 50 100 FEET

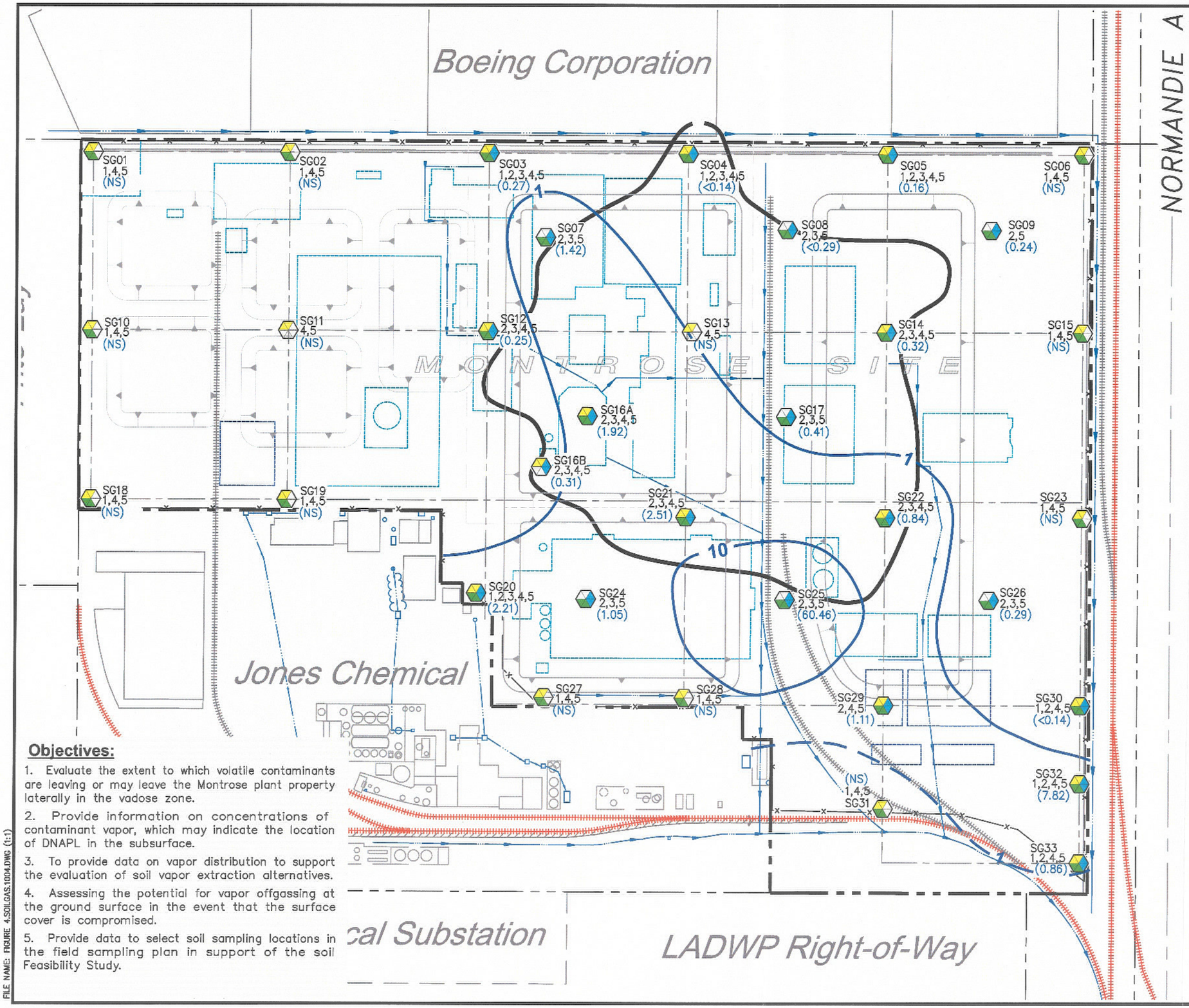
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

PCE
Isoconcentration Contours
5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	3

FILE NAME: FIGURE 3.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — PCE Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.

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1. Post-1953 Plant Layout: Continuous Batch Process, Final Remedial Investigation Report for the Montrose Superfund Site. Prepared by Montrose Chemical Corporation of America; Revised by USEPA Region IX, May 1998 and Earth Tech, February 2004.

NORTH

0 50 100 FEET

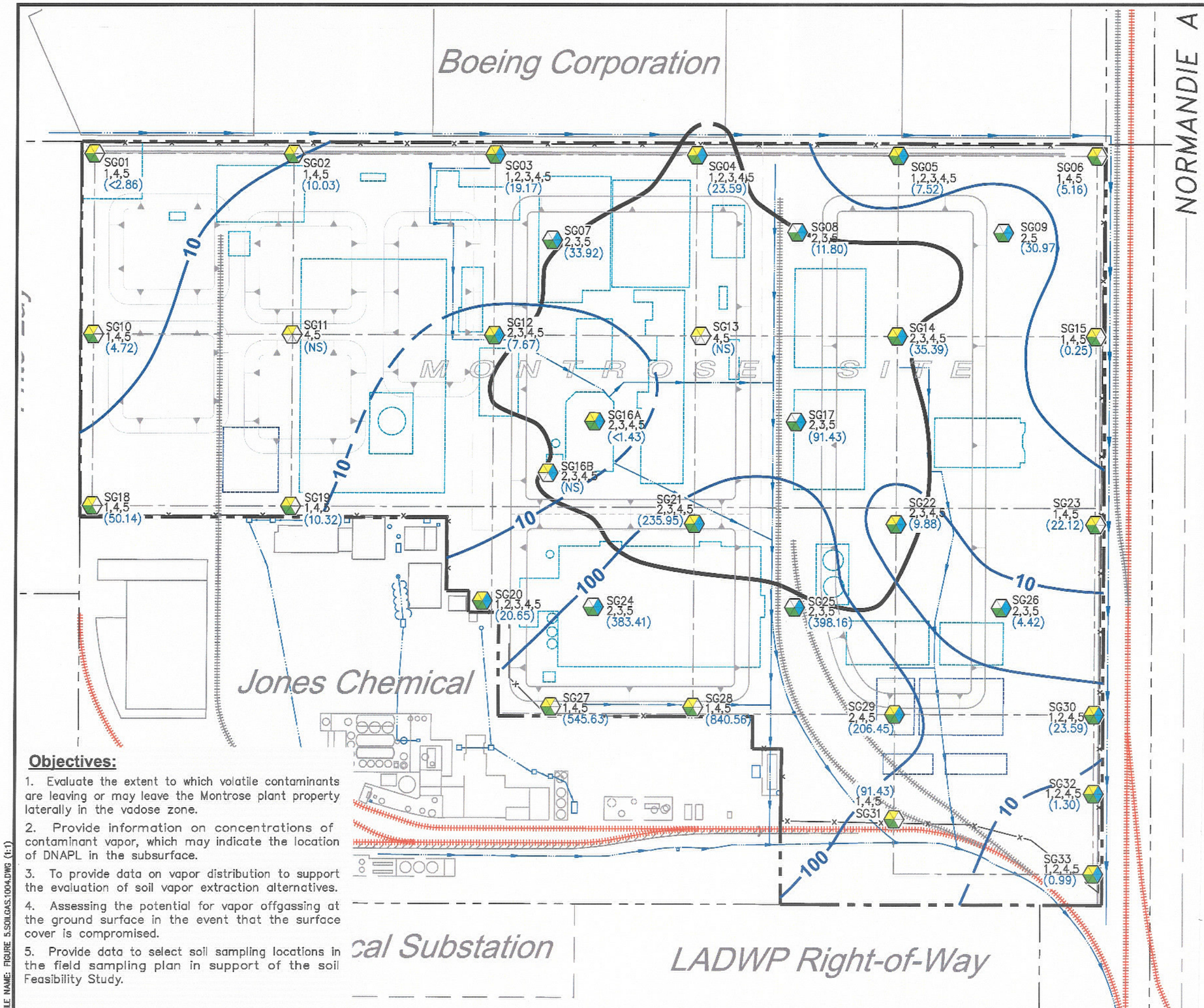
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

PCE
Isoconcentration Contours
15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	4

FILE NAME: FIGURE 4.SOILGAS.1004.DWG (1:1)



Legend:

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- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
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- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — PCE Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
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3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

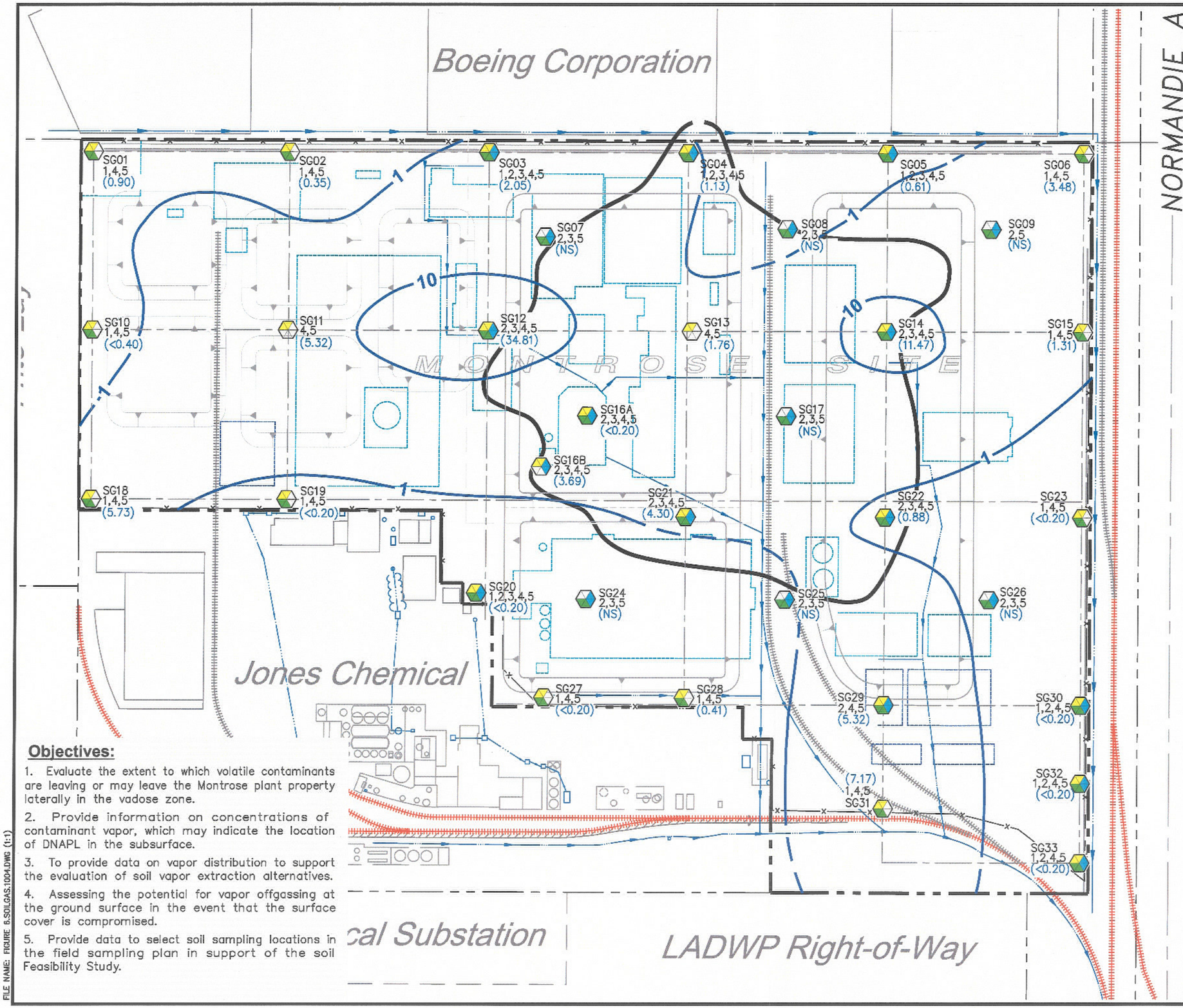
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

PCE
Isoconcentration Contours
35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	5

FILE NAME: FIGURE 5.SOILGAS.100A.DWG (1:1)



Legend:

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- Parcel Boundary / Right-of-Way
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- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Chloroform Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
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NORTH

0 50 100 FEET

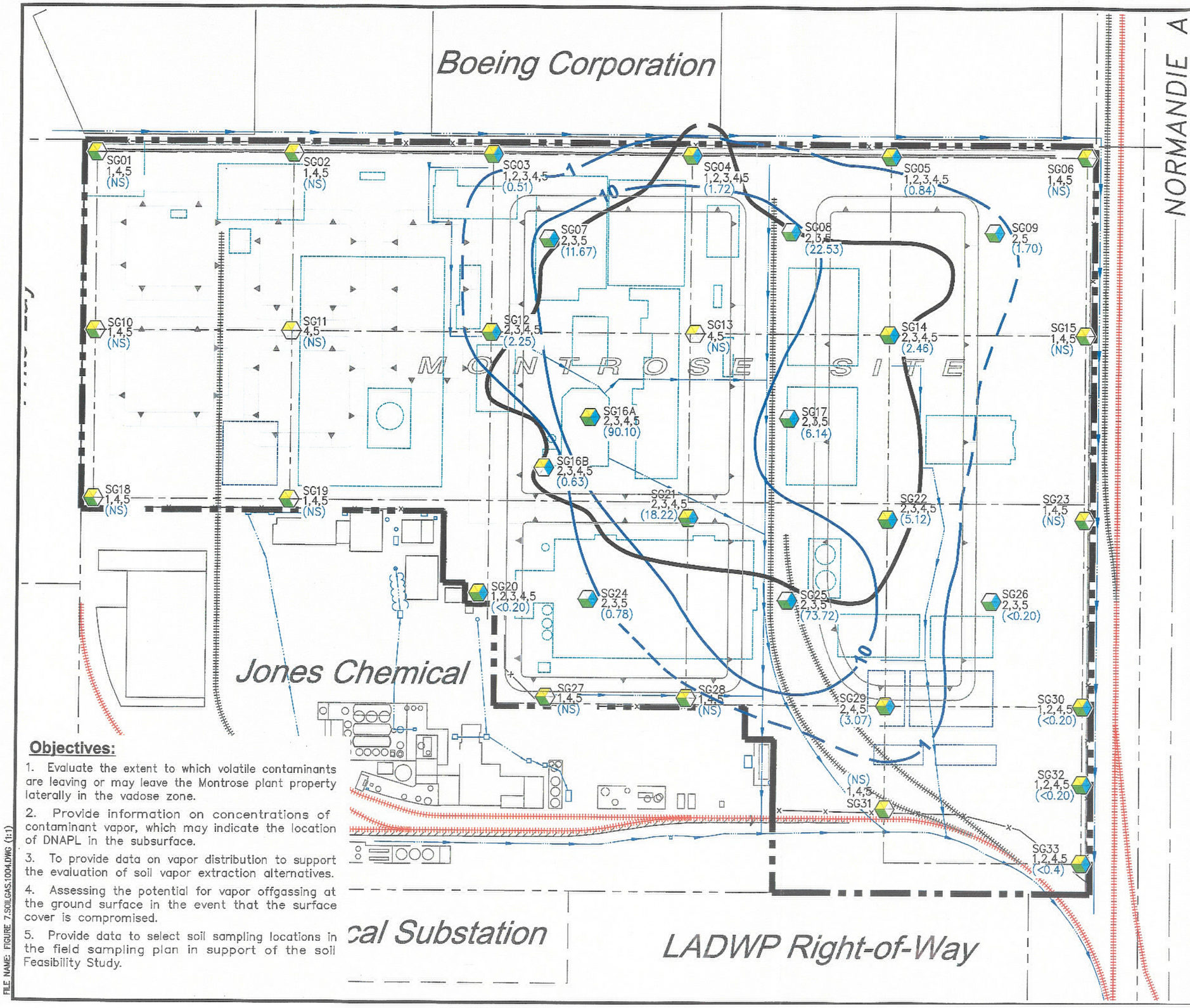
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Chloroform Isoconcentration Contours 5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	6

FILE NAME: FIGURE 6.SOILGAS.1004.DWG (1:1)



Legend:

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- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Chloroform Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

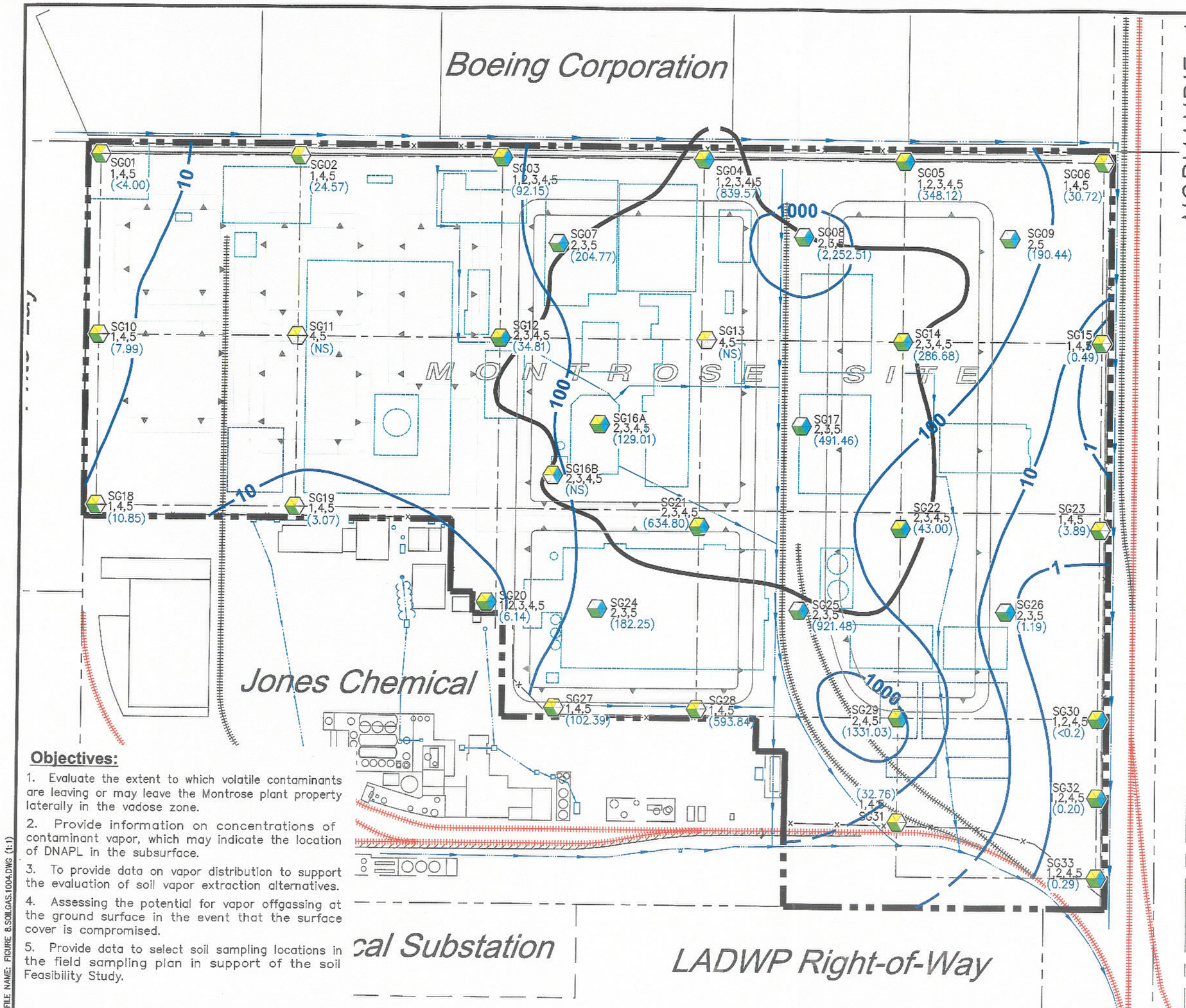
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Chloroform
Isoconcentration Contours
15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	7

FILE NAME: FIGURE 7.SOILGAS.1004.DWG (1:1)



Legend:

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- Former Railroad Tracks
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- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Chloroform Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
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NORTH

0 50 100 FEET

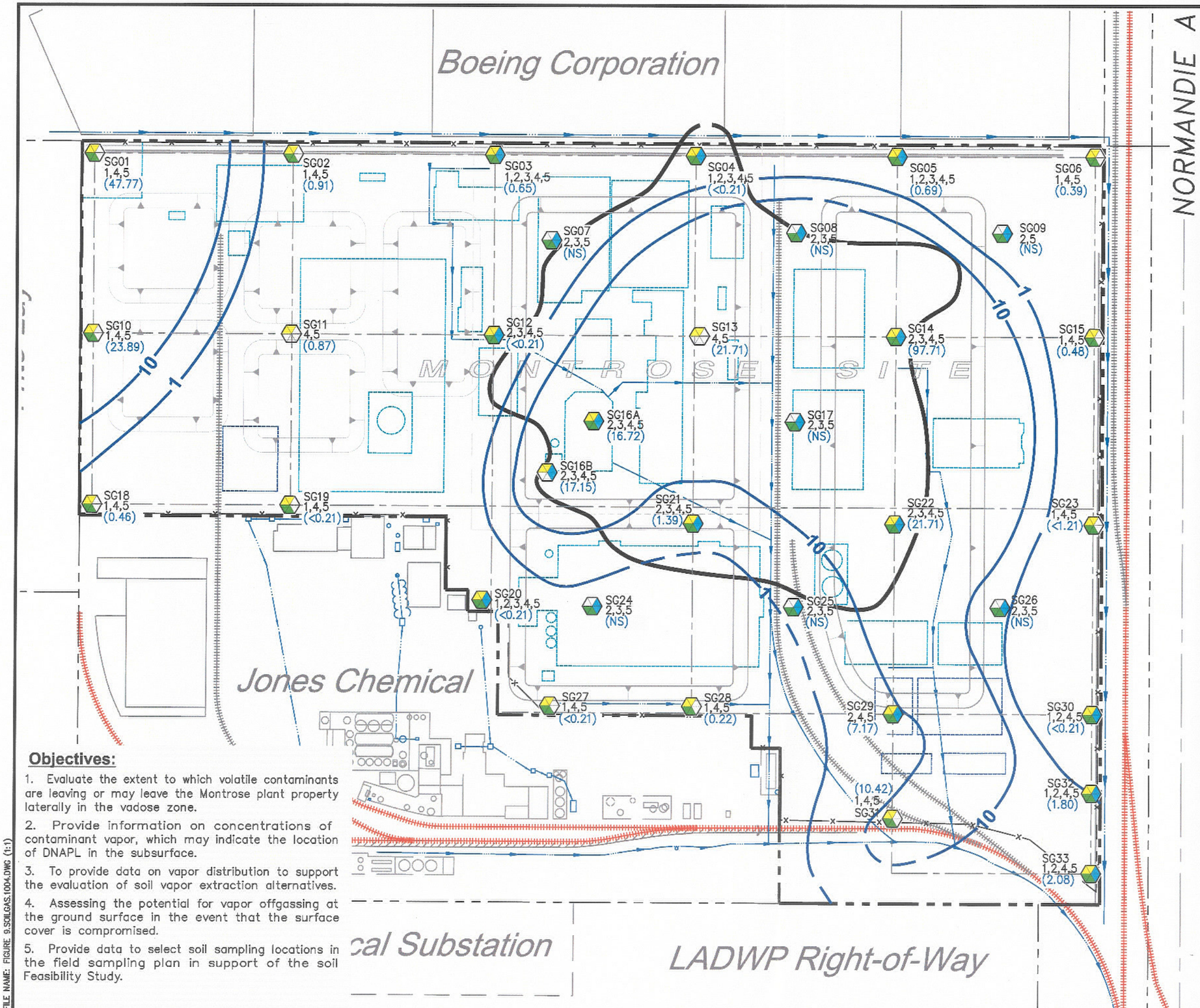
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Chloroform Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	8

FILE NAME: FIGURE 8.SOILGAS.1004.DWG (1:1)



Legend:

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- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — MCB Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
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NORTH

0 50 100 FEET

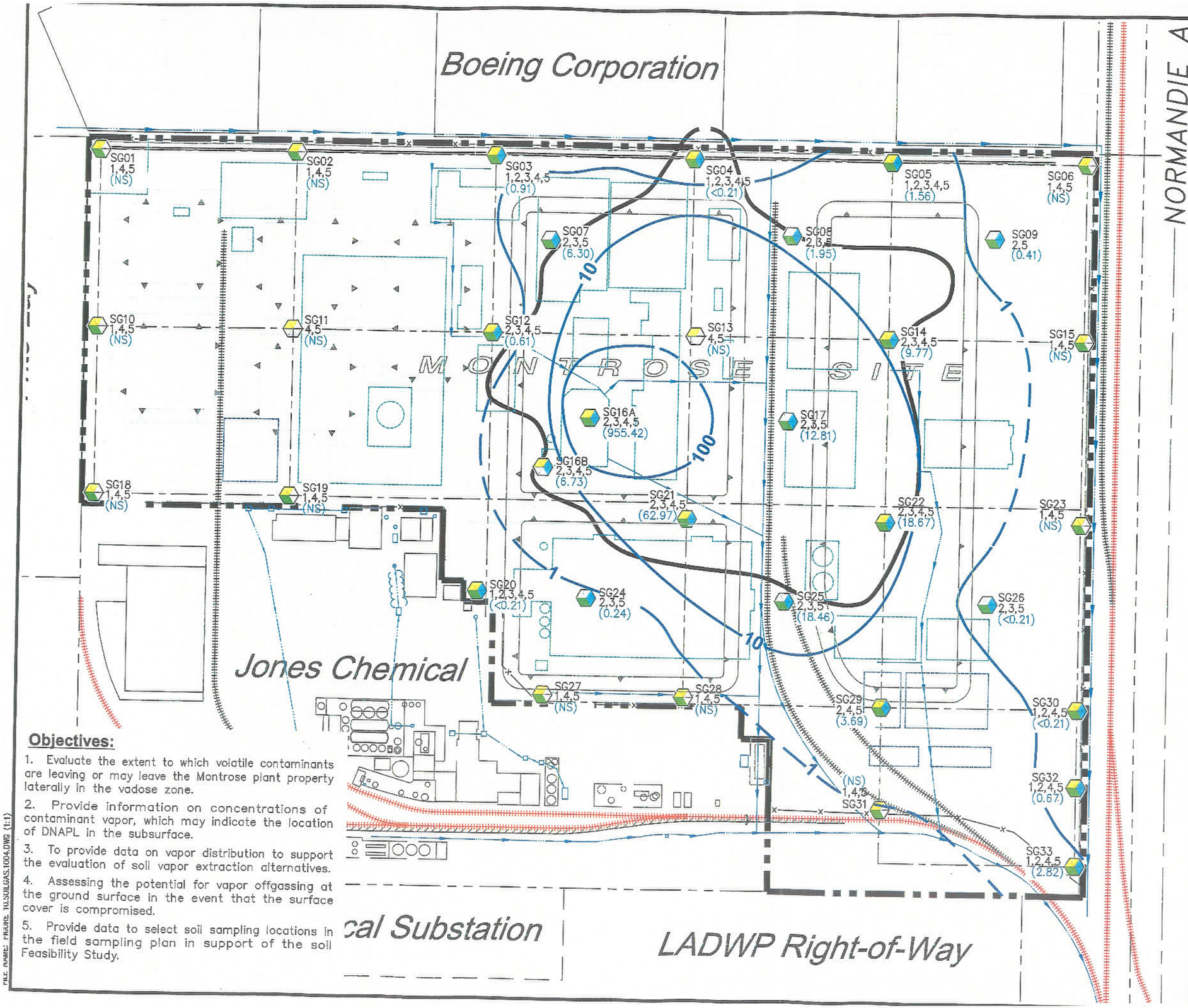
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Monochlorobenzene
Isoconcentration Contours
5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	9

FILE NAME: FIGURE 9.SOILGAS.1004.DWG (1:1)



Legend:

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- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — MCB Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
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NORTH

0 50 100 FEET

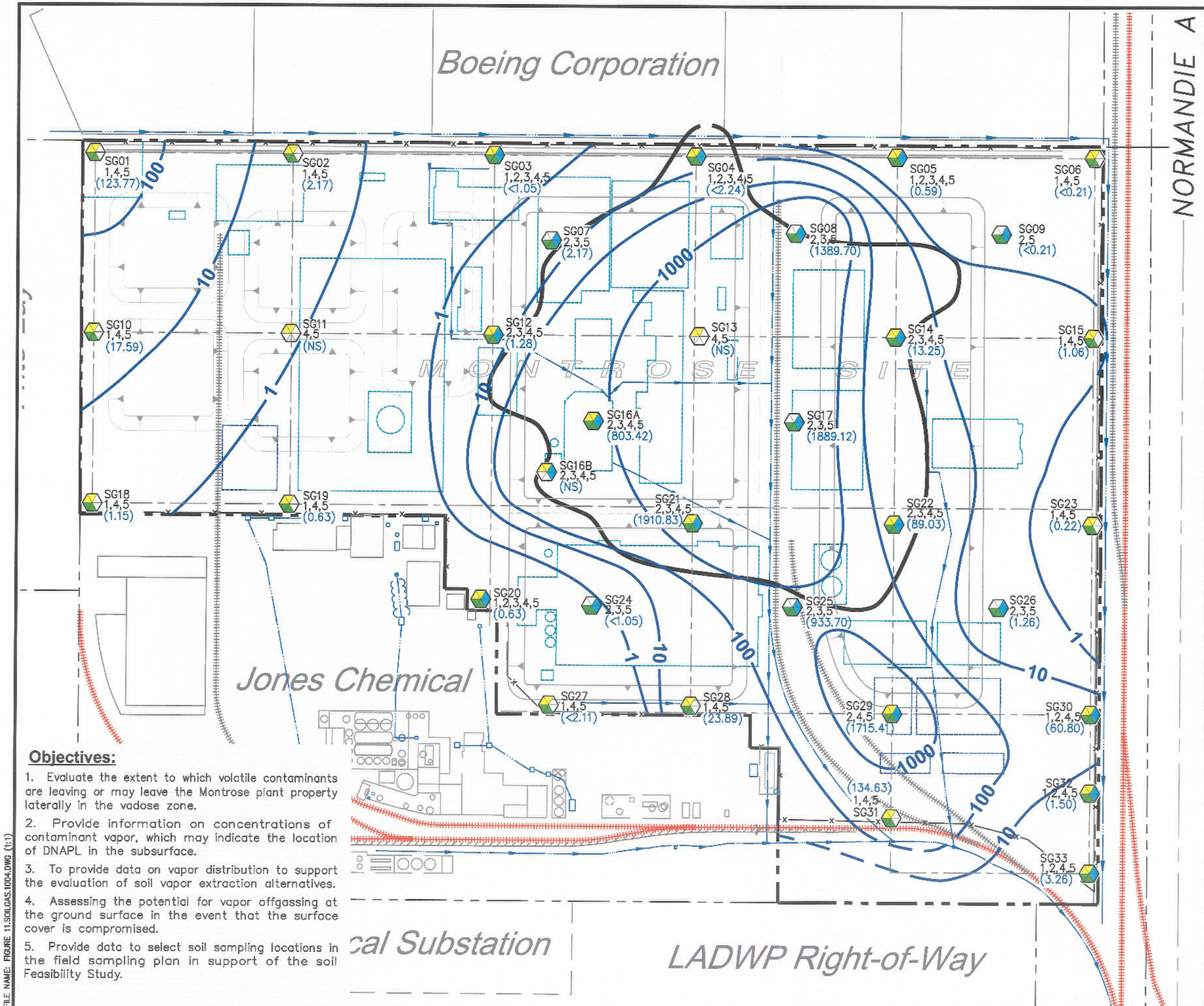
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Monochlorobenzene Isoconcentration Contours 15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	10

FILE NAME: FIGURE 10.SOILGAS.1004.DWG (1:1)



Legend:

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- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — MCB Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

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NORTH

0 50 100 FEET

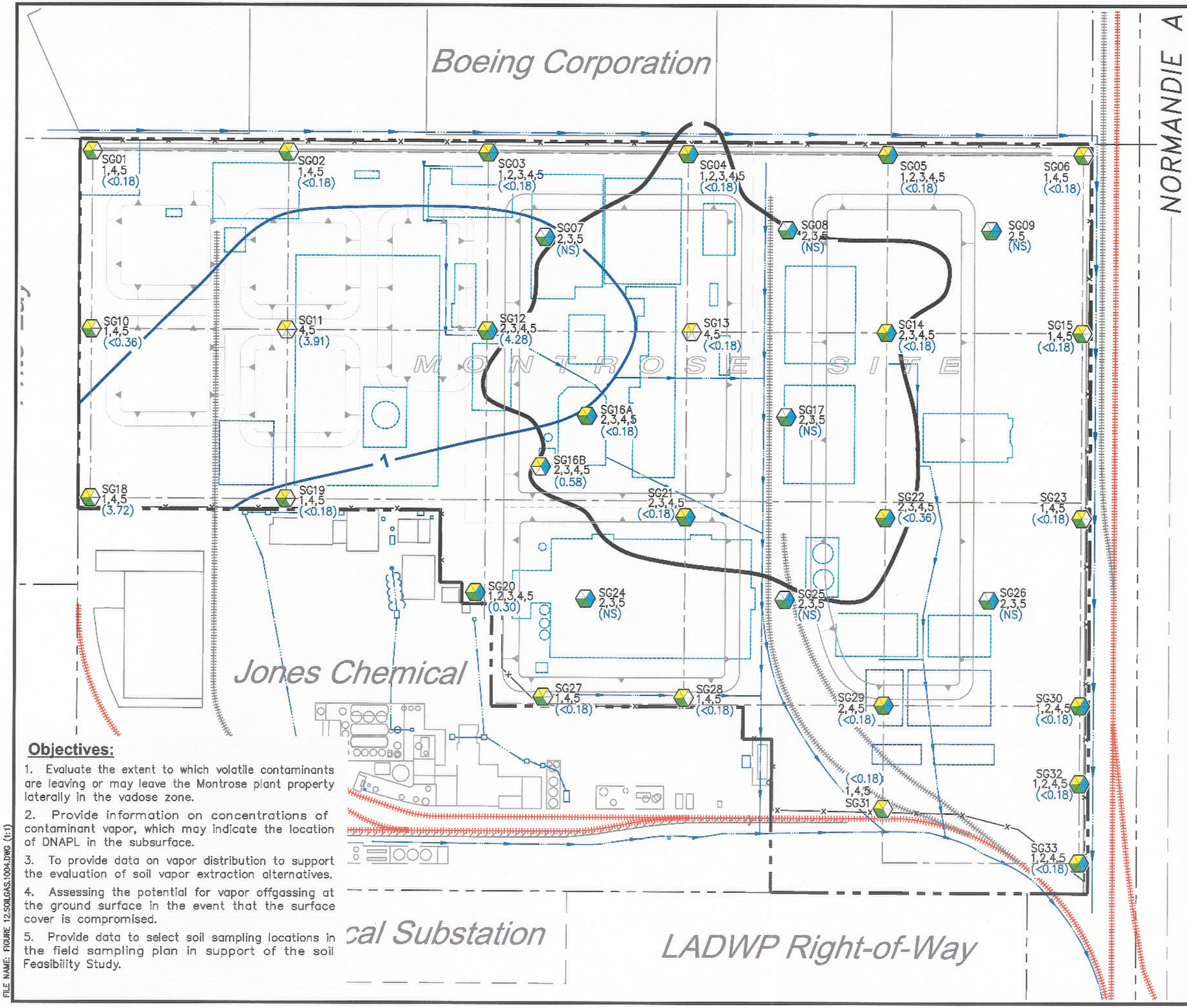
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Monochlorobenzene Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	11

FILE NAME: FIGURE 11.SOILGAS.1004.DWG (1:1)



Legend:

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- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — TCE Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

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NORTH

0 50 100 FEET

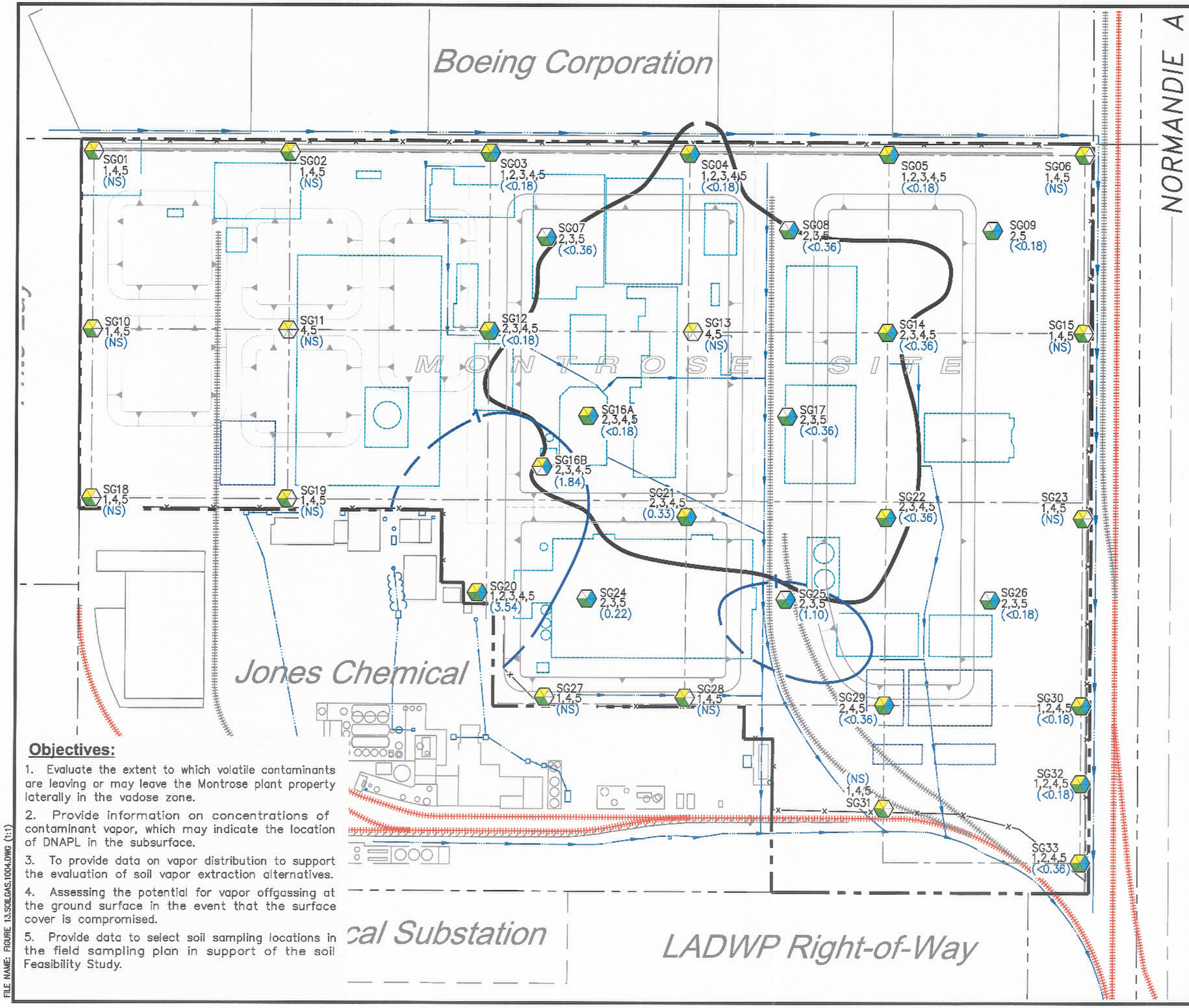
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

TCE
Isoconcentration Contours
5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	12

FILE NAME: FIGURE 12.SOILGAS.1004.DWG (1:1)



Legend:

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- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
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- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
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Objectives:

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NORTH

0 50 100 FEET

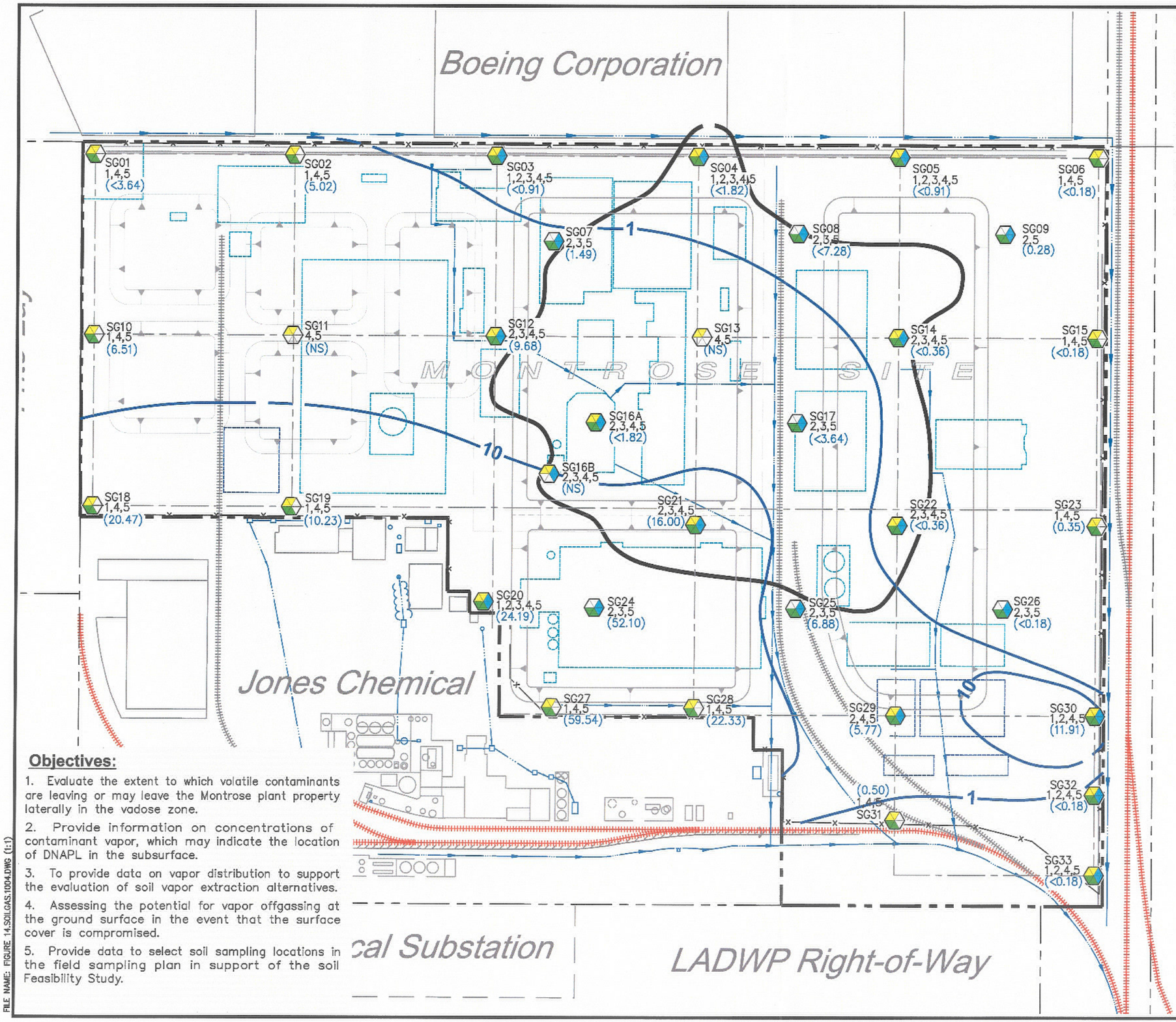
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

TCE
Isoconcentration Contours
15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	13

FILE NAME: FIGURE 13.SOILGAS.1004.DWG (1:1)



Legend:

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- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — TCE Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
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NORTH

0 50 100 FEET

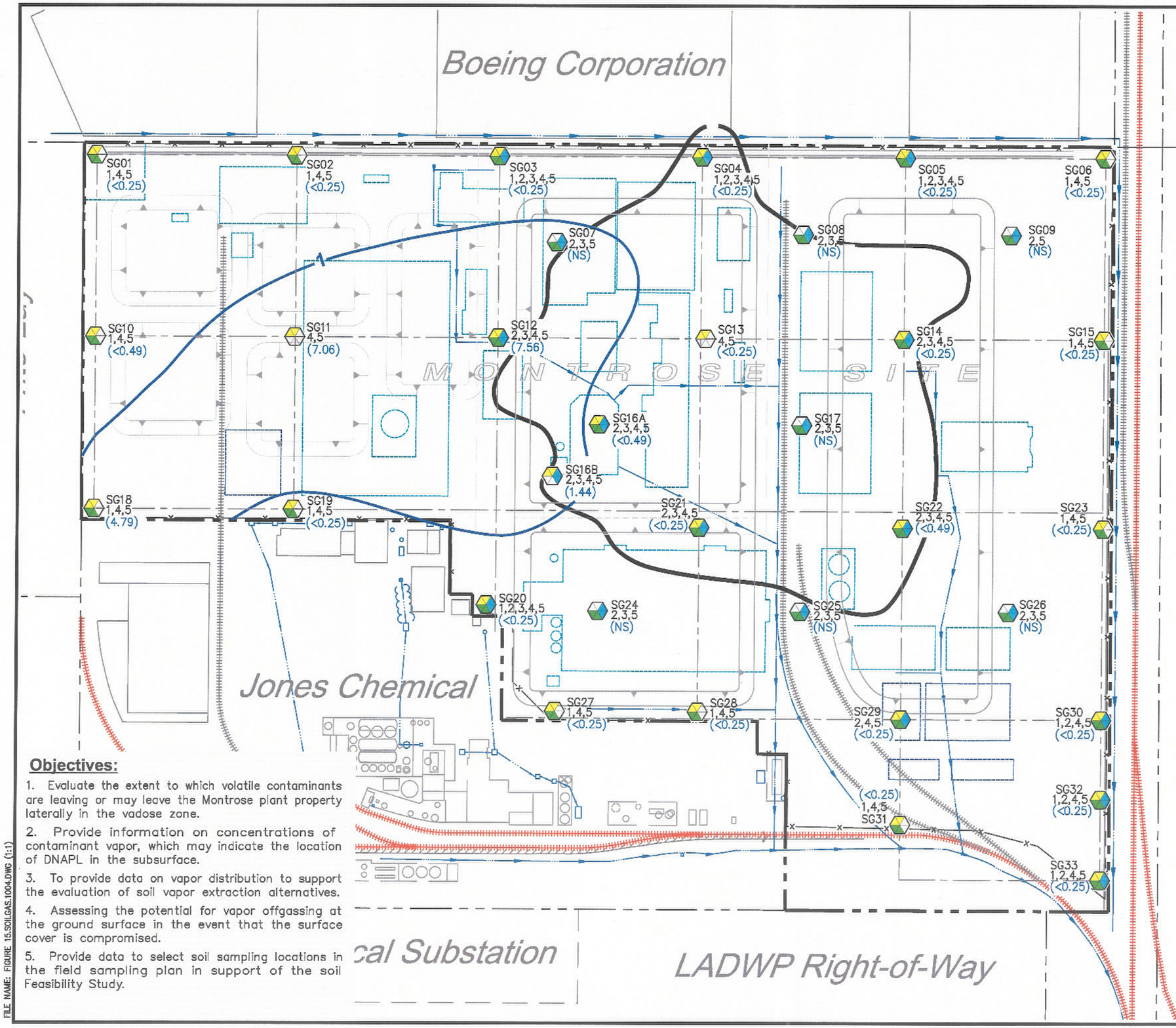
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

TCE
Isoconcentration Contours
35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	14

FILE NAME: FIGURE 14.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — 1,1-DCE Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.

References:

1. Post-1953 Plant Layout: Continuous Batch Process, Final Remedial Investigation Report for the Montrose Superfund Site. Prepared by Montrose Chemical Corporation of America; Revised by USEPA Region IX, May 1998 and Earth Tech, February 2004.

NORTH

0 50 100 FEET

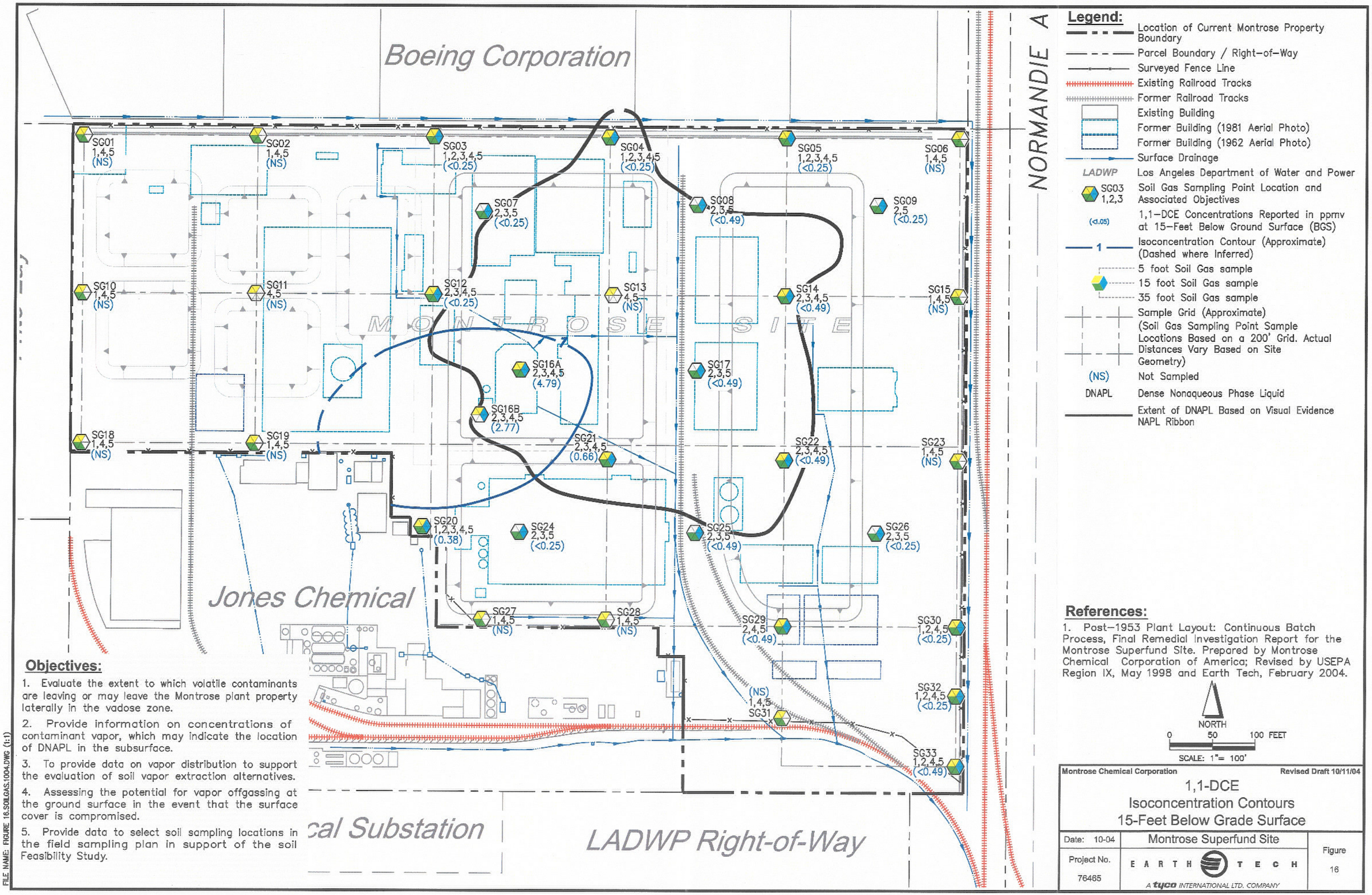
SCALE: 1" = 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

1,1-DCE Isoconcentration Contours 5-Feet Below Grade Surface

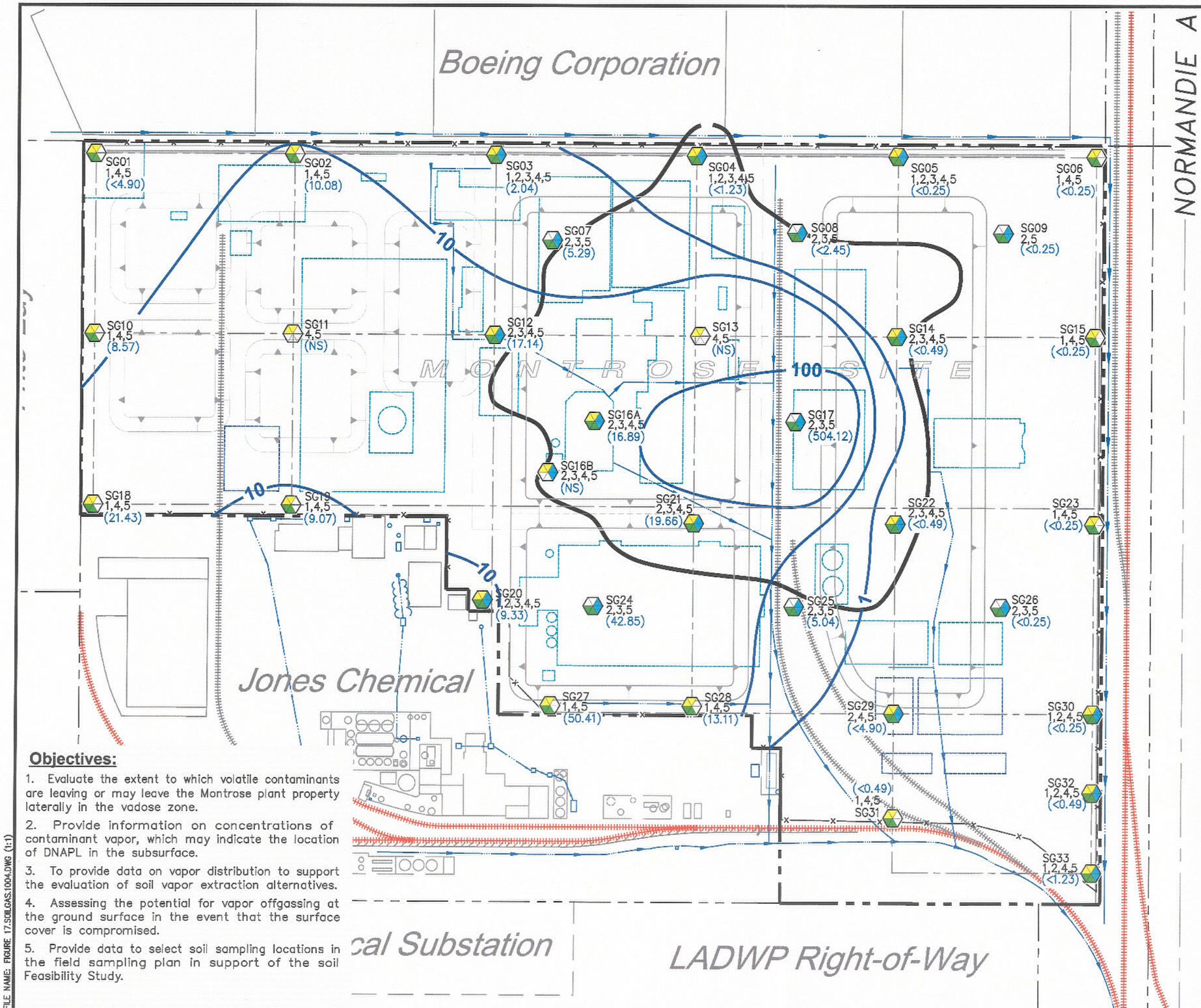
Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	15

FILE NAME: FIGURE 15.SOILGAS.1004.DWG (1:1)



Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — 1,1-DCE Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

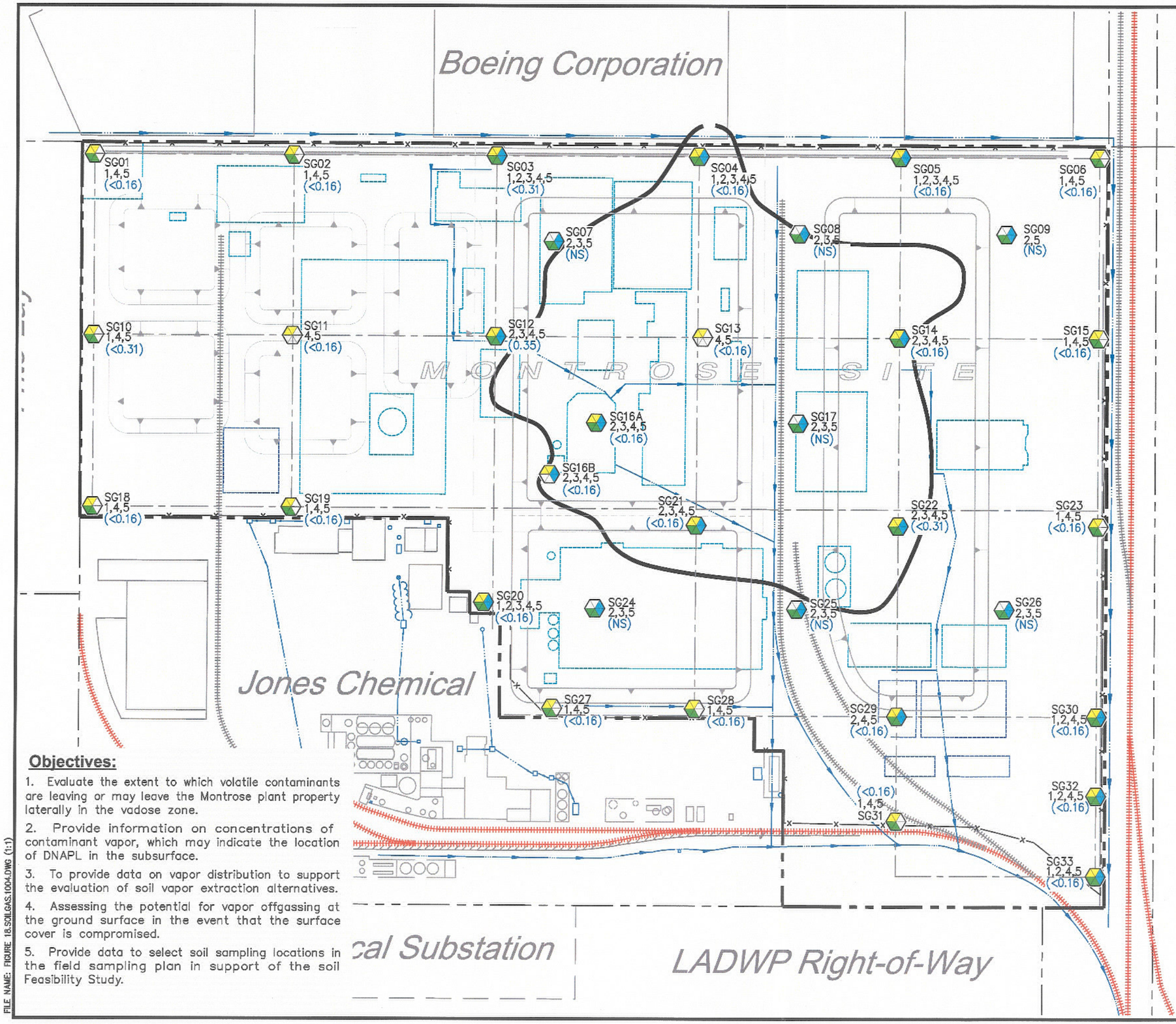
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

1,1-DCE Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	17

FILE NAME: FIGURE 17.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Carbon Tetrachloride Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
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NORTH

0 50 100 FEET

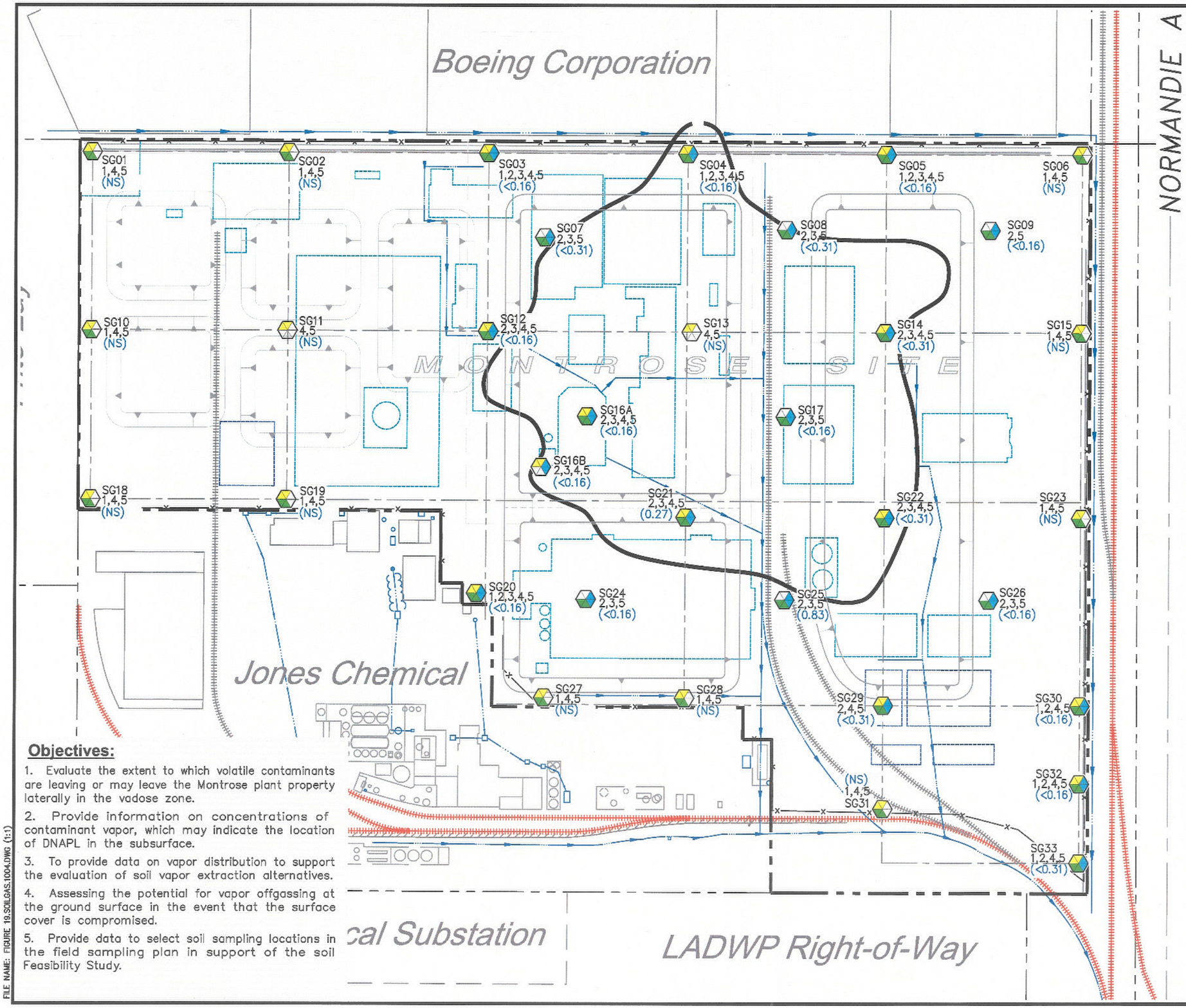
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Carbon Tetrachloride Isoconcentration Contours 5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	18

FILE NAME: FIGURE 18.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Carbon Tetrachloride Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

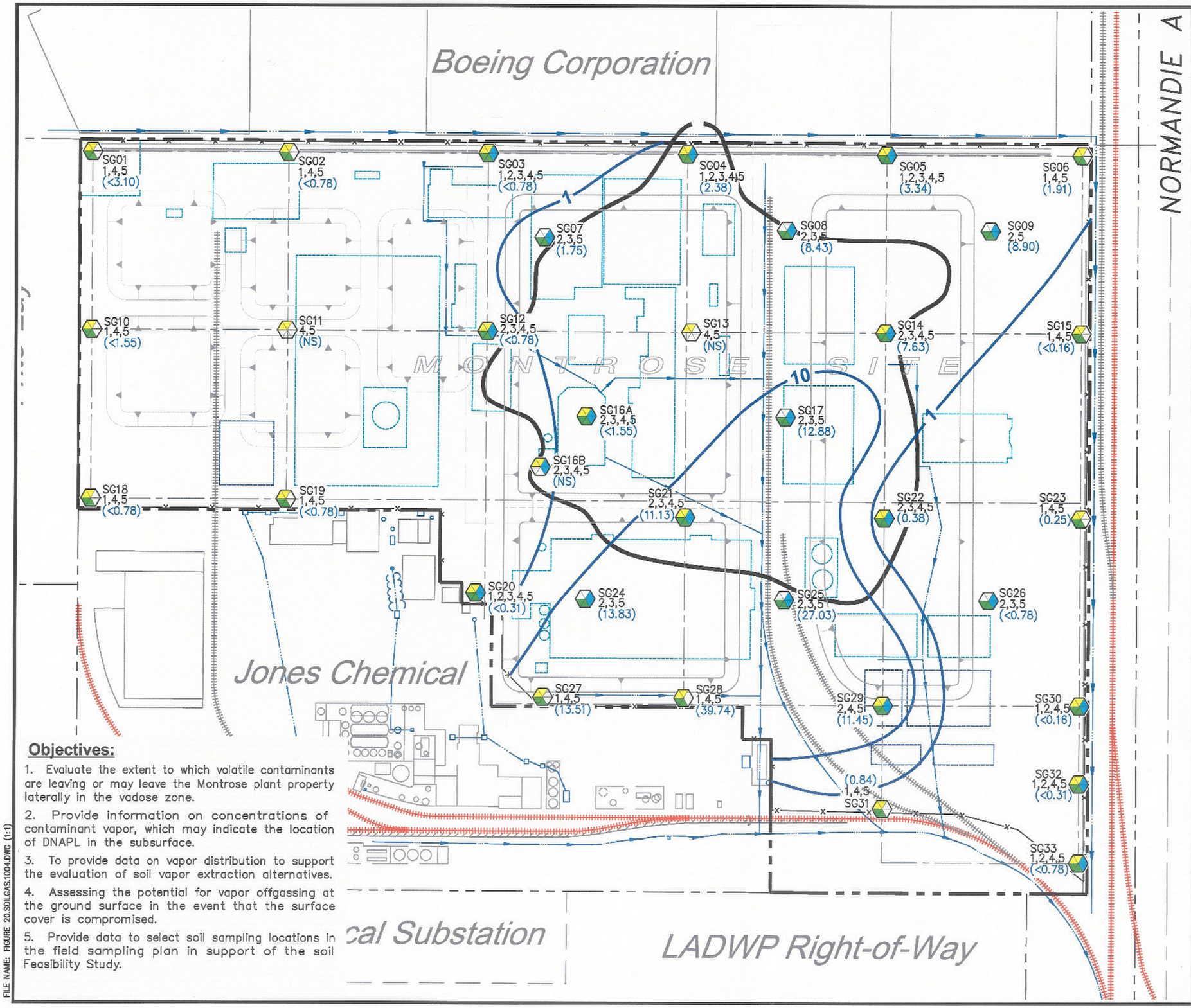
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Carbon Tetrachloride Isoconcentration Contours 15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	19

FILE NAME: FIGURE 19.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Carbon Tetrachloride Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

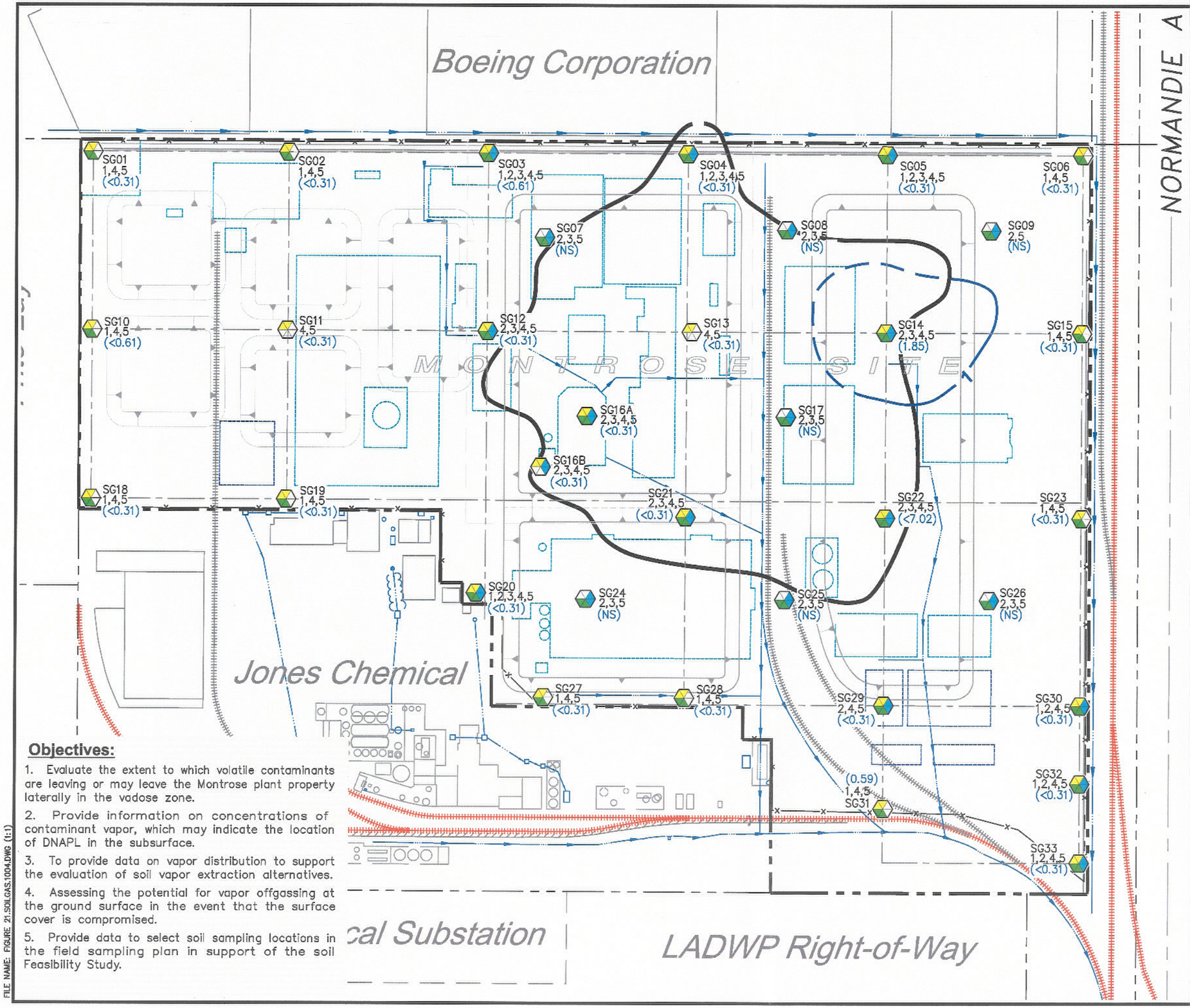
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Carbon Tetrachloride Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	20

FILE NAME: FIGURE 20.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Benzene Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
5. Provide data to select soil sampling locations in the field sampling plan in support of the soil Feasibility Study.

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NORTH

0 50 100 FEET

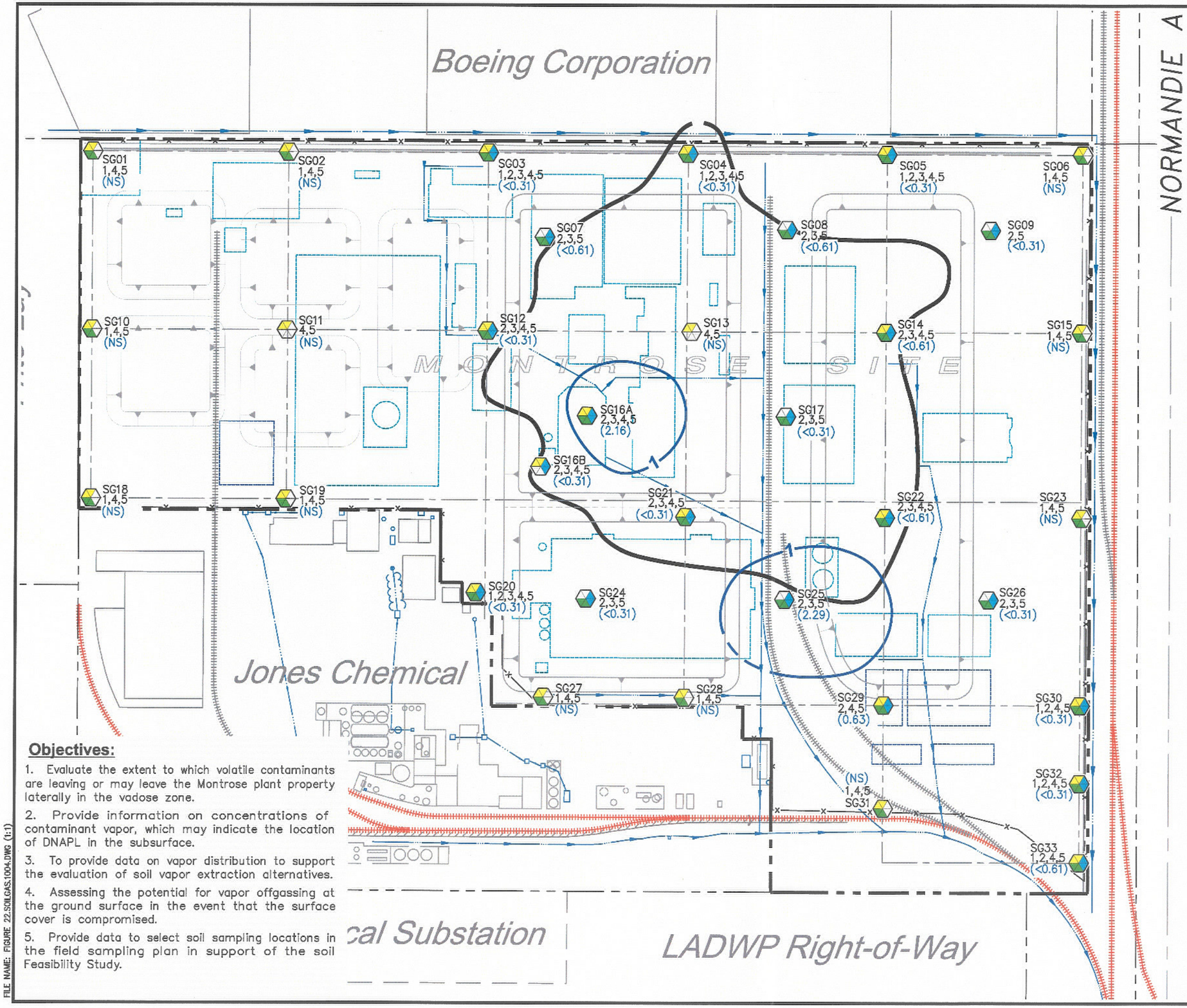
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Benzene
Isoconcentration Contours
5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	21

FILE NAME: FIGURE 21.SOILGAS.1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Benzene Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
4. Assessing the potential for vapor offgassing at the ground surface in the event that the surface cover is compromised.
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NORTH

0 50 100 FEET

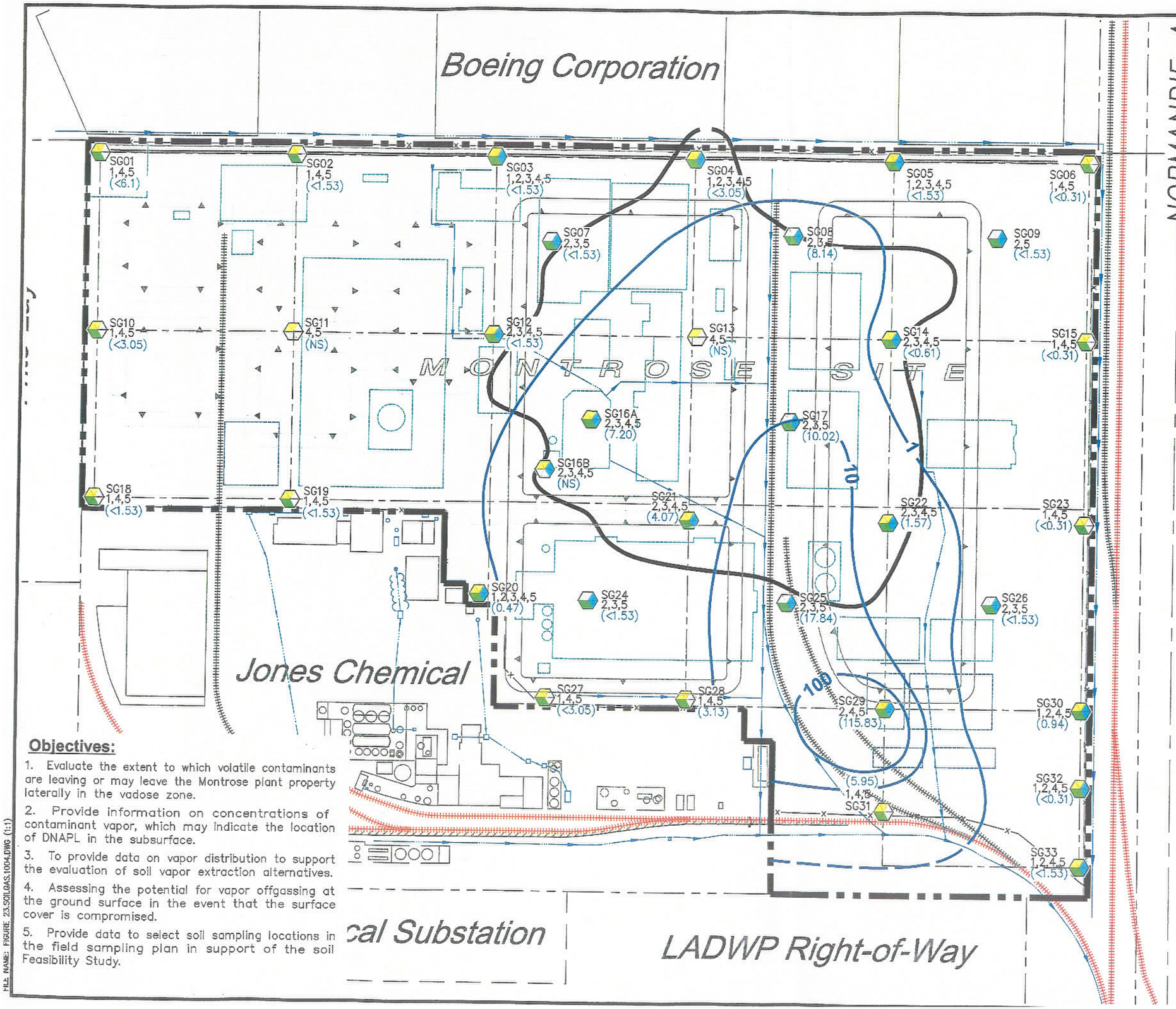
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Benzene
Isoconcentration Contours
15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	22

FILE NAME: FIGURE 22:SOILGAS:1004.DWG (1:1)



Legend:

- Location of Current Montrose Property Boundary
- Parcel Boundary / Right-of-Way
- Surveyed Fence Line
- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — Benzene Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

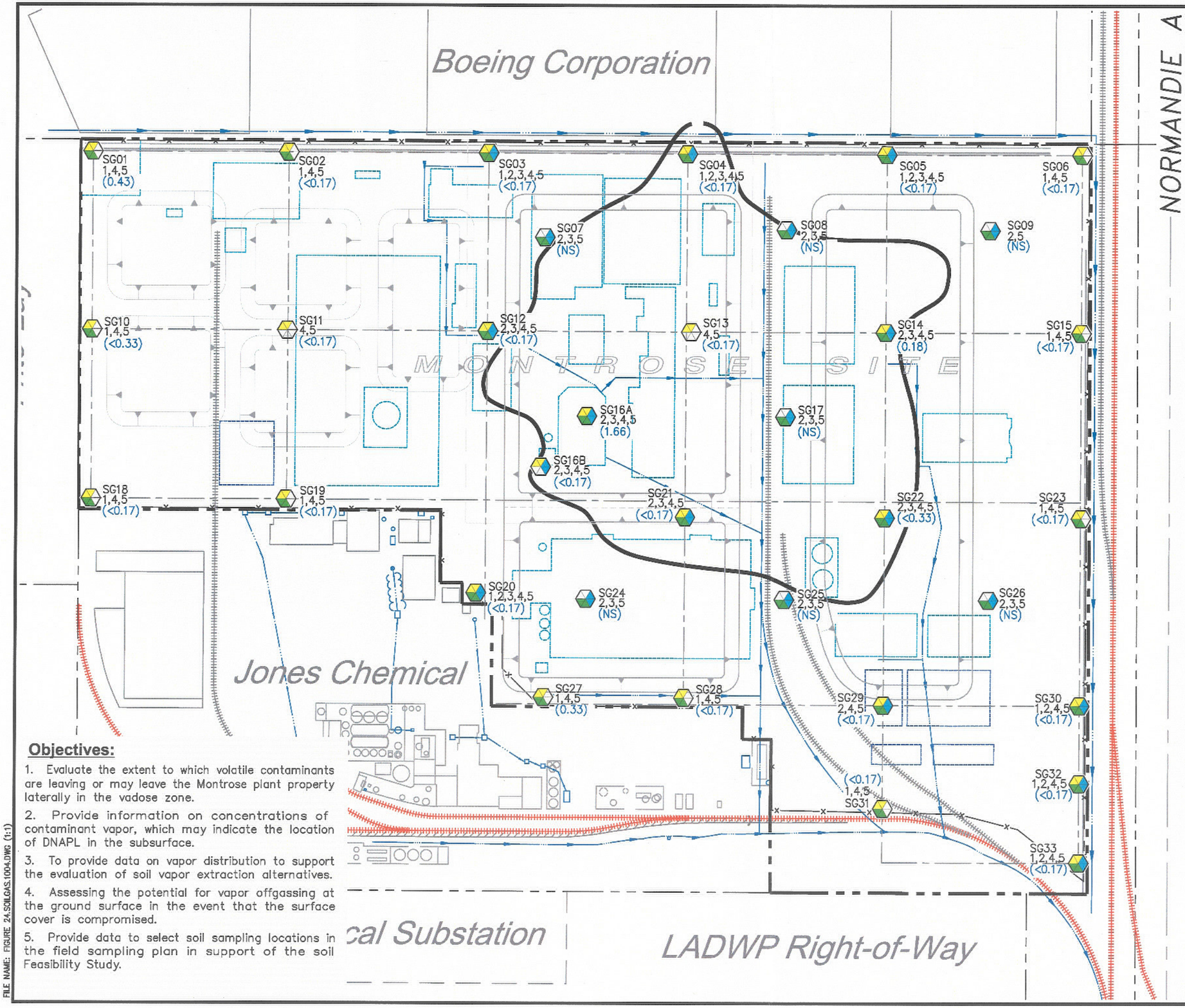
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

Benzene Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	23

FILE NAME: FIGURE 23.SOILGAS.1004.DWG (1:1)



Legend:

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- Surveyed Fence Line
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- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — 1,4-Dichlorobenzene Concentrations Reported in ppmv at 5-Feet Below Ground Surface (BGS)
- 10 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
3. To provide data on vapor distribution to support the evaluation of soil vapor extraction alternatives.
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NORTH

0 50 100 FEET

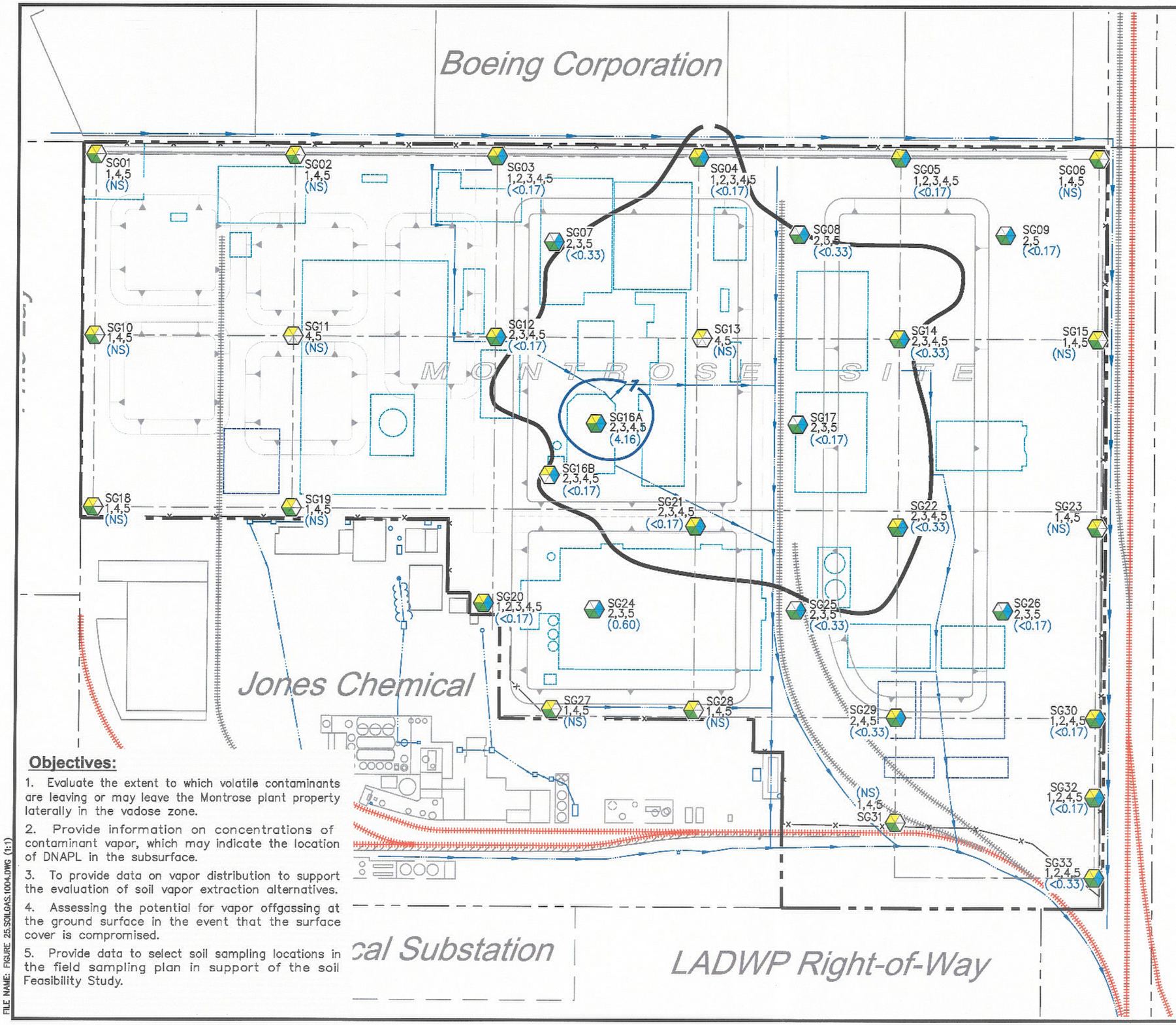
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

1,4-Dichlorobenzene Isoconcentration Contours 5-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	24

FILE NAME: FIGURE 24.SOILGAS.1004.DWG (1:1)



Legend:

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- Existing Railroad Tracks
- Former Railroad Tracks
- Existing Building
- Former Building (1981 Aerial Photo)
- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — 1,4-Dichlorobenzene Concentrations Reported in ppmv at 15-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
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NORTH

0 50 100 FEET

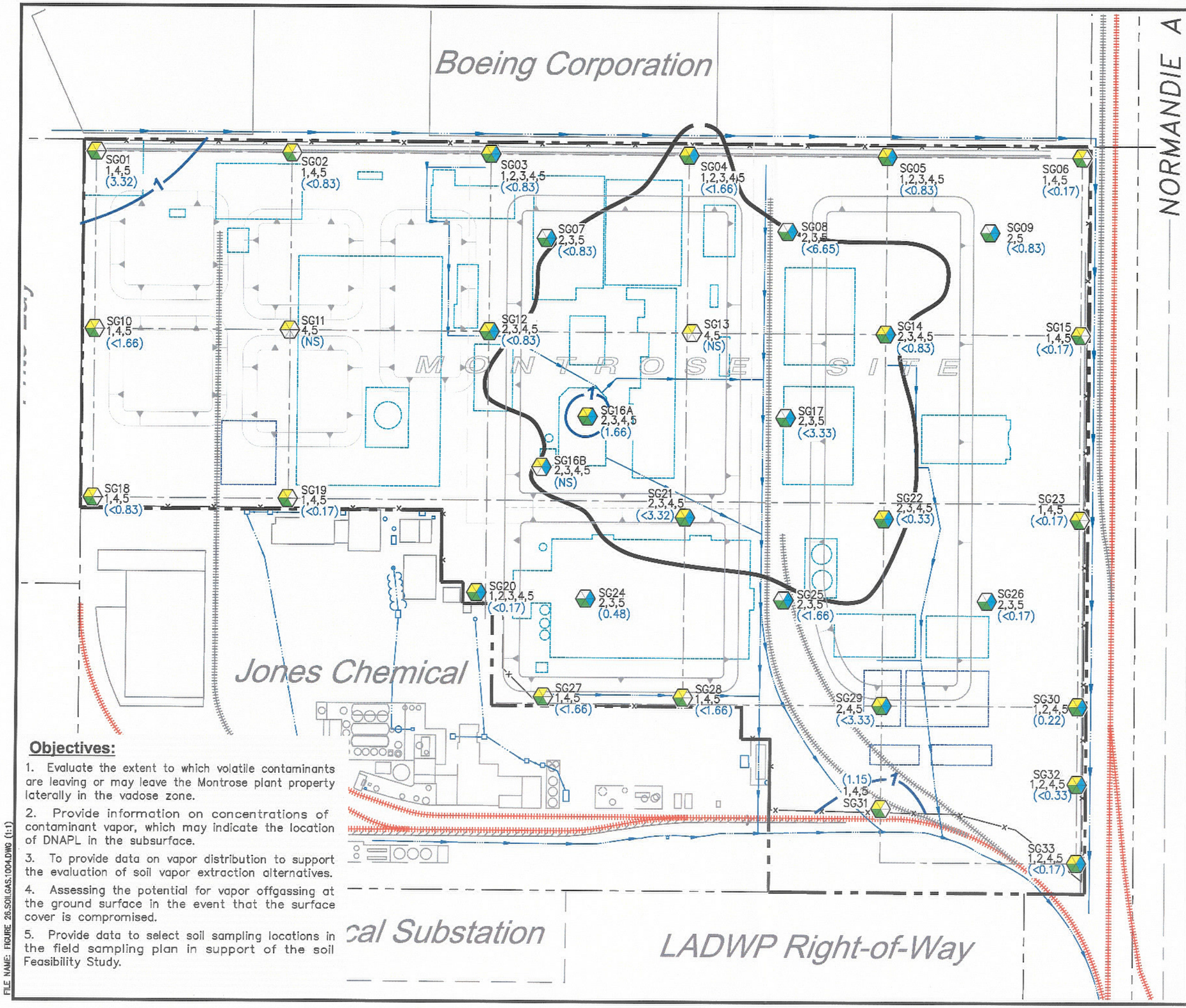
SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

1,4-Dichlorobenzene Isoconcentration Contours 15-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	25

FILE NAME: FIGURE 25.SOILGAS.1004.DWG (1:1)



Legend:

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- Surveyed Fence Line
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- Former Railroad Tracks
- Existing Building
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- Former Building (1962 Aerial Photo)
- Surface Drainage
- LADWP — Los Angeles Department of Water and Power
- SG03 1,2,3 — Soil Gas Sampling Point Location and Associated Objectives
- (<1.05) — 1,4-Dichlorobenzene Concentrations Reported in ppmv at 35-Feet Below Ground Surface (BGS)
- 1 — Isoconcentration Contour (Approximate) (Dashed where Inferred)
- 5 foot Soil Gas sample
- 15 foot Soil Gas sample
- 35 foot Soil Gas sample
- Sample Grid (Approximate) (Soil Gas Sampling Point Sample Locations Based on a 200' Grid. Actual Distances Vary Based on Site Geometry)
- (NS) — Not Sampled
- DNAPL — Dense Nonaqueous Phase Liquid
- Extent of DNAPL Based on Visual Evidence NAPL Ribbon

Objectives:

1. Evaluate the extent to which volatile contaminants are leaving or may leave the Montrose plant property laterally in the vadose zone.
2. Provide information on concentrations of contaminant vapor, which may indicate the location of DNAPL in the subsurface.
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NORTH

0 50 100 FEET

SCALE: 1"= 100'

Montrose Chemical Corporation — Revised Draft 10/11/04

1,4-Dichlorobenzene Isoconcentration Contours 35-Feet Below Grade Surface

Date: 10-04	Montrose Superfund Site	Figure 26
Project No. 76465	EARTH TECH — A tyco INTERNATIONAL LTD. COMPANY	

FILE NAME: FIGURE 26.SOILGAS.1004.DWG (1:1)

APPENDIX A

FIELD METHODOLOGY

FIELD METHODOLOGY

This appendix summarizes the field methods used during performance of the October 2003 soil gas survey at the Montrose Superfund Site. The EPA-approved workplan was followed without exception, and therefore the following methodology is nearly identical to that provided in the workplan. Where appropriate, additional information has been added regarding implementation of the survey.

Soil Gas Probe Installation

Soil gas sampling points were installed using a hydraulic ram and direct-push drilling methods in accordance with Los Angeles Regional Water Quality Control Board (LARWQCB) guidelines. The soil gas probe was advanced to depths between 5 and 35-feet bgs using a hydraulic ram and nominal 1.25-inch diameter hollow drive-rods. As shown in Figure 2, sampling locations had been selected to avoid encountering obstructions. However, if refusal occurred during installation, the location was moved 5 feet away from any suspected obstruction and re-attempted. Once at the target sampling depth, the drive rods were lifted thereby exposing the soil gas sampling ports to the surrounding soil formation. A 1/8-inch nylon or polyethylene tube connected the surface sampling equipment to the downhole sampling tip, through drive rods. At each depth, soil gas conditions was allowed to equilibrate for at least 20 minutes following probe installation in accordance with the State guidance document (December 2002).

Following sample collection at each depth, the drive rods and sampling tip were driven to the next target depth, if appropriate. Once all target depths have been sampled at a location, the drive rods were removed from the ground and decontaminated prior to re-use. The sample tubing was discarded and not re-used. All boreholes were abandoned using a bentonite slurry, followed by resurfacing of the asphalt cover.

Surveying

The soil gas sampling locations were identified and marked by a Professional Land Surveyor (Dulin & Boynton) using bench marks previously established for the site. Underground obstructions were encountered at some locations, which required minor relocation of the soil gas probe as described in Section 1 of the report. Such locations were subsequently resurveyed following completion of the soil gas sampling program. A copy of the final survey coordinates (including elevation, northing, and easting) is provided in Appendix G.

Photographs

Photographs of the soil gas survey equipment are provided in Appendix H showing:

- Installation of the soil gas points using direct-push techniques;
- Collection of soil gas samples by the mobile laboratory;
- The soil gas sampling equipment.

Health and Safety

A site-specific Health and Safety Plan (HASP) has been prepared for field activities at the Montrose site. The HASP is consistent with current Federal Occupational Safety and Health Administration (OSHA) requirements for hazardous waste operations [29 Code of Federal Regulations (CFR) 1910.120 (e) and (f) and California Code of Regulations (CCR) Title 8, Section 5192]. All field personnel were required to read and sign the HASP prior to beginning work at the site. A brief meeting was held at the start of each workday to remind field personnel of the potential hazards and other health and safety issues associated with the sampling program. A written record of the daily safety meeting was kept, and a copy of the HASP was maintained at the site during field activities.

All drilling and soil gas sampling activities were conducted in modified Level D personal protective equipment (PPE) in accordance with the existing HASP for the site. Although elevated concentrations of certain chlorinated pesticides, particularly dichlorodiphenyltrichloroethane (DDT), have been detected in shallow soils within the CPA, no dust generation or elevated volatile organic concentrations in the breathing zone was encountered during boring of the vapor probes due to the nature of direct-push drilling methods (no soil cuttings). An MIE pdm-3 MiniRam meter was used to monitor dust and particulate levels throughout the work area during soil gas probe installation and abandonment activities. Similarly, VOC concentrations in the breathing zone were monitored using a photo-ionization detector (PID). Equipment calibrations were performed prior to the start of work each day. All field personnel handling the drill rods were required to wear modified Level D PPE including, at a minimum, nitrile inner-sampling gloves, outer gloves, and a Tyvek™ suit to prevent any dermal contact with DDT-impacted soil.

Equipment Decontamination

Prior to each use, the drive rods were properly decontaminated using a standard triple-rinse method including distilled water and a non-phosphate detergent. At the end of each workday, the accumulated

decontamination water was placed in a Department of Transportation (DOT)-approved steel drum pending off-site transport.

Waste Management

Decontamination water generated during the soil gas probe installation activities has been temporarily stored on-site in DOT-approved drums pending waste characterization and subsequent off-site disposal. Soil gas survey activities generated approximately 50 gallons of decontamination water and one drum of used PPE. The drums have been appropriately labeled, sealed, and placed to the side in an area not subject to vehicular traffic pending characterization and off-site disposal.

APPENDIX B

MOBILE LABORATORY REPORTS

November 13, 2003

EST2185

Ms. Alycia McCord
EARTH TECH, Inc.
100 West Broadway, Suite 240
Long Beach, California 90802-4443

Subject: Soil Gas Survey Report
Montrose Superfund Site
20201 South Normandie Avenue
Torrance, California

Dear Ms. McCord:

Environmental Support Technologies, Inc. (EST) is pleased to submit the results of the soil gas survey conducted at the Montrose Superfund site located at 20201 South Normandie Avenue in Torrance, California. From September 29 to October 20, 2003, EST installed and sampled soil gas probes at depths ranging from 5- to 35-feet below grade. The soil gas samples were analyzed on-site following EPA Method 8260B for volatile organic compounds (VOCs) using a gas chromatograph/mass spectrometer (GC/MS). The soil gas survey was conducted in accordance with the July 8, 2003 *Soil Gas Survey Work Plan* prepared by EARTH TECH, Inc. for this project. The soil gas survey was conducted in general accordance with the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) "Advisory – Active Soil Gas Investigations" dated January 28, 2003.

A summary of field analytical results for soil gas samples is provided in Table 1. Factors that may affect the distribution of VOCs in the subsurface are presented in Appendix A. Field analytical reports and an explanation of reporting limits for VOCs are provided in Appendix B. EST's standard methods and procedures for soil gas surveys are provided in Appendix C.

EST appreciates the opportunity to assist EARTH TECH, Inc. on this project. Should you have any questions or require additional information, please contact me at (949) 679-9500.

Sincerely,

Environmental Support Technologies, Inc.

Kevin B. Aardahl
Project Manager

360 Goddard • Irvine, California 92618-4601 • (949) 679-9500 • Fax (949) 679-9501

LIMITATIONS AND WARRANTIES

This letter report titled "Soil Gas Survey Report – Montrose Superfund Site, 20201 South Normandie Avenue, Torrance, California," has been prepared for the exclusive use of EARTH TECH, Inc. and assigned interested parties. The report has been prepared in accordance with generally accepted environmental assessment practices. No other warranty, expressed or implied, is made. The information provided in this report is based on measurements performed in specific areas during a specific limited period of time.

Soil gas sample analyses were conducted using a gas chromatography/mass spectrometer (GC/MS). Soil gas survey data should be used in conjunction with other site-specific data.

Kevin B. Aardahl
Project Manager

Kirk A. Thomson, R.G., C.HG., REA II
Laboratory Manager

November 13, 2003

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-092903

SAMPLE ID	Method Blank Ambient Air	SG16-5-092903	SG16-5-092903	SG16-5-092903	SG16-5-092903	SG16-5-092903	SG16-5-092903	SG16-5-092903
DATE ANALYZED	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003
TIME ANALYZED	8:18	9:21	9:47	10:11	10:36	11:02	11:27	11:53
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	10	10
PURGE VOLUME (ml)	NA	30	60	90	120	180	300	420
VACUUM (in. H_2O)	NA	20	20	20	20	20	20	20
DILUTION FACTOR	1	1	1	1	1	1	1	1
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	1	1
COMMENTS		Purge Volume Study at 5 feet lead 4'						
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroform	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Tetrachloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
Monochlorobenzene	**ND<1**	**30**	**77**	**69**	**37**	**25**	**21**	**19**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
meta- and para-Xylenes	**ND<1**	**1.7**	**1.7**	**1.3**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
ortho-Xylene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
SURROGATES								
Dibromofluoromethane	95%	99%	100%	98%	100%	100%	96%	98%
Toluene-d8	97%	98%	98%	99%	98%	98%	98%	95%
4-Bromofluorobenzene	94%	97%	96%	98%	96%	98%	96%	94%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-092903

SAMPLE ID	SG16-8-092903	SG16-8-092903	SG16-8-092903	SG16-8-092903	SG16-8-092903	SG16-8-092903	SG16-8-092903	NA
DATE ANALYZED	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	9/29/2003	NA
TIME ANALYZED	12:50	13:15	13:41	14:06	14:31	14:57	15:22	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	10	NA
PURGE VOLUME (ml)	40	80	120	160	240	400	560	NA
VACUUM (in. H_2O)	20	20	20	20	20	20	20	NA
DILUTION FACTOR	1	1	1	1	1	1	1	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	1	NA
COMMENTS	Purge Volume Study at 8 feet lead 4'							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Chloroform	**2.5**	**2.7**	**5.3**	**3.9**	**1.4**	**ND<1**	**ND<1**	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Trichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Tetrachloroethene	**1.1**	**ND<1**	**1.1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA
Monochlorobenzene	**210**	**270**	**390**	**350**	**190**	**120**	**130**	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
meta- and para-Xylenes	**2.4**	**2.6**	**3.9**	**2.7**	**1.4**	**ND<1**	**ND<1**	NA
ortho-Xylene	**ND<1**	**ND<1**	**1.1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,4-Dichlorobenzene	**1.7**	**2.5**	**3.2**	**2.6**	**2.6**	**1.7**	**1.7**	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	NA
SURROGATES								
Dibromofluoromethane	99%	98%	96%	99%	93%	100%	99%	NA
Toluene-d8	97%	99%	98%	101%	100%	99%	99%	NA
4-Bromofluorobenzene	96%	99%	95%	98%	98%	93%	96%	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-093003

SAMPLE ID	Equipment Blank	Method Blank Ambient Air	SG16-15-093003	SG16-15-093003	SG16-15-093003	SG16-15-093003	SG16-15-093003	SG16-15-093003
DATE ANALYZED	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003
TIME ANALYZED	7:34	8:06	10:02	10:27	11:20	11:46	12:12	12:38
SAMPLE AMOUNT (ml)	10	10	10	4.0	2.0	2.0	2.0	2.0
PURGE VOLUME (ml)	100	NA	63	127	190	254	380	635
VACUUM (in. H_2O)	ND	NA	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	1	2.5	5	5	5	5
REPORTABLE LIMIT (µg/L)	1	1	1	2.5	5	5	5	5
COMMENTS			Purge Volume Study at 15 feet					
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Vinyl chloride	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Chloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
1,1-Dichloroethene	**ND<1**	**ND<1**	**2.7**	**ND<2.5**	**ND<5**	**ND<5**	**8.5**	**12**
Methylene chloride	**ND<1**	**ND<1**	**1.6**	**ND<2.5**	**ND<5**	**ND<5**	**ND<5**	**6.3**
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Chloroform	**ND<1**	**ND<1**	**73**	**51**	**44**	**31**	**220**	**300**
1,1,1-Trichloroethane	**ND<1**	**ND<1**	**ND<1**	**ND<2.5**	**ND<5**	**ND<5**	**ND<5**	**ND<5**
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Benzene	**ND<1**	**ND<1**	**2.5**	**ND<2.5**	**ND<5**	**ND<5**	**ND<5**	**6.4**
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Trichloroethene	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Toluene	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Tetrachloroethene	**ND<1**	**ND<1**	**2.7**	**ND<2.5**	**ND<5**	**ND<5**	**6.9**	**8.8**
Monochlorobenzene	**ND<1**	**ND<1**	**540 E**	**1,200 E**	**1,800**	**1,600**	**2,700 E**	**2,400 E**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
Ethylbenzene	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
meta- and para-Xylenes	**ND<1**	**ND<1**	**7.3**	**2.9**	**ND<5**	**ND<5**	**18**	**24**
ortho-Xylene	**ND<1**	**ND<1**	**1.0**	**ND<2.5**	**ND<5**	**ND<5**	**ND<5**	**ND<5**
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<2.5	ND<5	ND<5	ND<5	ND<5
1,4-Dichlorobenzene	**ND<1**	**ND<1**	**4.6**	**4.6**	**ND<5**	**ND<5**	**8.1**	**13**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<25	ND<50	ND<50	ND<50	ND<50
SURROGATES								
Dibromofluoromethane	99%	99%	101%	100%	97%	101%	99%	101%
Toluene-d8	99%	101%	104%	106%	102%	103%	102%	102%
4-Bromofluorobenzene	97%	95%	99%	103%	101%	98%	100%	98%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-093003

SAMPLE ID	SG16-15-093003	SG16-15-093003	SG16-35-093003	SG16-35-093003	SG16-35-093003	SG16-35-093003	SG16-35-093003	SG16-35-093003
DATE ANALYZED	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003
TIME ANALYZED	13:04	13:30	14:56	15:22	15:48	16:13	16:38	17:03
SAMPLE AMOUNT (ml)	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
PURGE VOLUME (ml)	890	380	130	260	390	520	780	1,300
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	5	10	5	10	10	10	10	10
REPORTABLE LIMIT (µg/L)	5	10	5	10	10	10	10	10
COMMENTS	Purge Volume Study at 15 feet (Continued)		Purge Volume Study at 35 feet					
Dichlorodifluoromethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Chloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Trichlorofluoromethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
1,1,2-Trichloro-trifluoroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
1,1-Dichloroethene	**14**	**19**	**13**	**10**	**67**	**12**	**13**	**ND<10**
Methylene chloride	**7.7**	**10**	**ND<5**	**ND<10**	**17**	**ND<10**	**ND<10**	**ND<10**
trans-1,2-Dichloroethene	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
1,1-Dichloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
cis-1,2-Dichloroethene	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Chloroform	**330**	**440**	**130**	**120**	**630**	**150**	**160**	**120**
1,1,1-Trichloroethane	**ND<5**	**ND<10**	**ND<5**	**ND<10**	**22**	**ND<10**	**ND<10**	**ND<10**
Carbon tetrachloride	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Benzene	**6.9**	**ND<10**	**9.9**	**ND<10**	**23**	**ND<10**	**ND<10**	**ND<10**
1,2-Dichloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Trichloroethene	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Toluene	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
1,1,2-Trichloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Tetrachloroethene	**9.3**	**13**	**ND<5**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<10**
Monochlorobenzene	**2,500 E**	**4,400**	**2,100**	**2,400**	**3,700**	**2,300**	**2,300**	**1,900**
1,1,1,2-Tetrachloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
Ethylbenzene	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
meta- and para-Xylenes	**9.1**	**14**	**ND<5**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<10**
ortho-Xylene	**ND<5**	**ND<10**	**ND<5**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<10**
1,1,2,2-Tetrachloroethane	ND<5	ND<10	ND<5	ND<10	ND<10	ND<10	ND<10	ND<10
1,4-Dichlorobenzene	**15**	**25**	**ND<5**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<10**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<50	ND<100	ND<50	ND<100	ND<100	ND<100	ND<100	ND<100
SURROGATES								
Dibromofluoromethane	101%	100%	99%	96%	100%	101%	104%	99%
Toluene-d8	101%	100%	98%	98%	100%	100%	103%	101%
4-Bromofluorobenzene	96%	96%	95%	93%	95%	98%	96%	95%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-093003

SAMPLE ID	SG16-35-093003	NA	NA	NA	NA	NA	NA	NA
DATE ANALYZED	9/30/2003	NA	NA	NA	NA	NA	NA	NA
TIME ANALYZED	17:28	NA	NA	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	1.0	NA	NA	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	1,820	NA	NA	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	NA	NA	NA	NA	NA	NA	NA
DILUTION FACTOR	10	NA	NA	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	10	NA	NA	NA	NA	NA	NA	NA
COMMENTS	Purge Volume Study (Continued)							
Dichlorodifluoromethane	ND<10	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND<10	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<10	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**11**	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**ND<10**	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<10	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<10	NA	NA	NA	NA	NA	NA	NA
Chloroform	**130**	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**ND<10**	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ND<10	NA	NA	NA	NA	NA	NA	NA
Benzene	**ND<10**	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ND<10	NA	NA	NA	NA	NA	NA	NA
Toluene	ND<10	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**ND<10**	NA	NA	NA	NA	NA	NA	NA
Monochlorobenzene	**2,100**	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND<10	NA	NA	NA	NA	NA	NA	NA
meta- and para-Xylenes	**ND<10**	NA	NA	NA	NA	NA	NA	NA
ortho-Xylene	**ND<10**	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<10	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**ND<10**	NA	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<100	NA	NA	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	103%	NA	NA	NA	NA	NA	NA	NA
Toluene-d8	102%	NA	NA	NA	NA	NA	NA	NA
4-Bromofluorobenzene	94%	NA	NA	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

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ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100103

SAMPLE ID	Ambient Air	SG21-5-100103	SG21-5-100103	SG21-5-100103	SG21-8-100103	SG21-8-100103	SG21-8-100103	SG21-15-100103
DATE ANALYZED	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003
TIME ANALYZED	7:36	8:59	9:24	9:48	10:39	11:03	11:28	12:49
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	10	10
PURGE VOLUME (ml)	NA	45	60	75	100	120	140	348
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	1	1	1	1	1	1
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	1	1
COMMENTS		Refine Purge Volume Study second sample location at 5 feet			Refine Purge Volume Study second sample location at 8 feet			Purge Volume Study (See next page)
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
1,1-Dichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroform	**ND<1**	**21**	**11**	**10**	**ND<1**	**ND<1**	**ND<1**	**42**
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
Benzene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**1.0**
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Tetrachloroethene	**ND<1**	**5.1**	**2.9**	**2.4**	**ND<1**	**ND<1**	**ND<1**	**8.5**
Monochlorobenzene	**ND<1**	**2.9**	**6.2**	**6.4**	**2.2**	**2.0**	**1.6**	**40**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
ortho-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	ND<1	NA	NA	ND<1	ND<1	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
SURROGATES								
Dibromofluoromethane	99%	93%	98%	94%	98%	100%	102%	98%
Toluene-d8	97%	100%	102%	101%	105%	104%	101%	103%
4-Bromofluorobenzene	96%	94%	97%	94%	94%	96%	94%	96%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-100103

SAMPLE ID	SG21-15-100103	SG21-15-100103	SG21-35-100103	SG21-35-100103	SG21-35-100103	SG21-35-100103	NA	NA
DATE ANALYZED	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	NA	NA
TIME ANALYZED	13:15	13:39	14:58	16:29	16:54	17:20	NA	NA
SAMPLE AMOUNT (ml)	10	10	1.0	0.5	0.5	0.5	NA	NA
PURGE VOLUME (ml)	380	412	325	325	390	455	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	ND	NA	NA
DILUTION FACTOR	1	1	10	20	20	20	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	10	20	20	20	NA	NA
COMMENTS	Refine Purge Volume Study second sample location at 15		Refine Purge Volume Study second sample location at 35 feet					
Dichlorodifluoromethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Vinyl chloride	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Chloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<1**	**17**	**21**	**ND<20**	**ND<20**	NA	NA
1,1-Dichloroethene	**2.2**	**2.6**	**69**	**77**	**78**	**68**	NA	NA
Methylene chloride	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
1,1-Dichloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Chloroform	**76**	**89**	**2,400**	**3,100**	**3,100**	**2,600**	NA	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Carbon tetrachloride	**1.2**	**1.7**	**57**	**70**	**69**	**58**	NA	NA
Benzene	**ND<1**	**ND<1**	**13**	**ND<20**	**ND<20**	**ND<20**	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Trichloroethene	**1.6**	**1.8**	**72**	**86**	**80**	**70**	NA	NA
Toluene	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Tetrachloroethene	**17**	**17**	**1,300**	**1,500**	**1,600**	**1,300**	NA	NA
Monochlorobenzene	**210**	**290**	**5,000 E**	**8,500**	**8,800**	**8,200**	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
Ethylbenzene	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
meta- and para-Xylenes	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
ortho-Xylene	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<10	ND<20	ND<20	ND<20	NA	NA
1,4-Dichlorobenzene	NA	ND<1	NA	NA	ND<20	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<100	ND<200	ND<200	ND<200	NA	NA
SURROGATES								
Dibromofluoromethane	102%	102%	99%	100%	97%	96%	NA	NA
Toluene-d8	100%	104%	99%	99%	103%	102%	NA	NA
4-Bromofluorobenzene	95%	96%	93%	91%	95%	96%	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

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ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-100203

SAMPLE ID	Ambient Air	SG13-5-100203	SG01-5-100203	SG01-35-100203	SG10-5-100203	SG10-35-100203	SG10-35-100203-DS	SG18-5-100203
DATE ANALYZED	10/2/2003	10/2/2003	10/2/2003	10/2/2003	10/2/2003	10/2/2003	10/2/2003	10/2/2003
TIME ANALYZED	7:33	9:00	10:03	11:14	12:27	14:10	14:39	15:06
SAMPLE AMOUNT (ml)	10	10	10	0.5	5.0	1.0	1.0	10
PURGE VOLUME (ml)	NA	75	75	390	75	390	390	75
VACUUM (in. H_2O)	NA	ND	ND	10	ND	ND	ND	ND
DILUTION FACTOR	1	1	1	20	2	10	10	1
REPORTABLE LIMIT (µg/L)	1	1	1	20	2	10	10	1
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Vinyl chloride	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Chloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<1**	**ND<1**	**ND<20**	**ND<2**	**ND<10**	**ND<10**	**1.6**
1,1-Dichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<20**	**ND<2**	**33**	**34**	**19**
Methylene chloride	**ND<1**	**1.2**	**ND<1**	**ND<20**	**ND<2**	**ND<10**	**ND<10**	**ND<1**
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Chloroform	**ND<1**	**8.6**	**4.4**	**ND<20**	**ND<2**	**39**	**35**	**28**
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Benzene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Trichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<20**	**ND<2**	**35**	**32**	**20**
Toluene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Tetrachloroethene	**ND<1**	**ND<1**	**8.4**	**ND<20**	**3.3**	**32**	**29**	**61**
Monochlorobenzene	**ND<1**	**100**	**220**	**570**	**110**	**81**	**66**	**2.1**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
Ethylbenzene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
meta- and para-Xylenes	**ND<1**	**ND<1**	**1.1**	**ND<20**	**ND<2**	**ND<10**	**ND<10**	**ND<1**
ortho-Xylene	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<20	ND<2	ND<10	ND<10	ND<1
1,4-Dichlorobenzene	**ND<1**	**ND<1**	**2.6**	**ND<20**	**ND<2**	**ND<10**	**NA**	**ND<1**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<200	ND<20	ND<100	ND<100	ND<10
SURROGATES								
Dibromofluoromethane	95%	103%	99%	100%	99%	100%	99%	99%
Toluene-d8	98%	100%	101%	94%	100%	102%	97%	100%
4-Bromofluorobenzene	96%	97%	96%	93%	93%	92%	91%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
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ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100203

SAMPLE ID	SG18-35-100203	NA	NA	NA	NA	NA	NA	NA
DATE ANALYZED	10/2/2003	NA	NA	NA	NA	NA	NA	NA
TIME ANALYZED	16:15	NA	NA	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	2.0	NA	NA	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	390	NA	NA	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	NA	NA	NA	NA	NA	NA	NA
DILUTION FACTOR	5	NA	NA	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	5	NA	NA	NA	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND<5	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<5	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	**7.9**	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**85**	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**ND<5**	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<5	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<5	NA	NA	NA	NA	NA	NA	NA
Chloroform	**53**	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ND<5	NA	NA	NA	NA	NA	NA	NA
Benzene	ND<5	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**110**	NA	NA	NA	NA	NA	NA	NA
Toluene	ND<5	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**340**	NA	NA	NA	NA	NA	NA	NA
Monochlorobenzene	**5.3**	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND<5	NA	NA	NA	NA	NA	NA	NA
meta- and para-Xylenes	**ND<5**	NA	NA	NA	NA	NA	NA	NA
ortho-Xylene	ND<5	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<5	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**ND<5**	NA	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<50	NA	NA	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	95%	NA	NA	NA	NA	NA	NA	NA
Toluene-d8	99%	NA	NA	NA	NA	NA	NA	NA
4-Bromofluorobenzene	91%	NA	NA	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-100303

SAMPLE ID	Ambient Air	SG19-5-100303	SG19-35-100303	SG19-35-100303	SG11-5-100303	SG11-5-100303-DS	SG02-5-100303	SG02-35-100303
DATE ANALYZED	10/3/2003	10/3/2003	10/3/2003	10/3/2003	10/3/2003	10/3/2003	10/3/2003	10/3/2003
TIME ANALYZED	7:30	8:38	9:59	10:30	11:59	12:26	13:26	14:48
SAMPLE AMOUNT (ml)	10	10	2.0	10	10	10	10	2.0
PURGE VOLUME (ml)	NA	75	390	390	75	75	75	390
VACUUM (in. H_2O)	NA	10	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	5	1	1	1	1	5
REPORTABLE LIMIT (µg/L)	1	1	5	1	1	1	1	5
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Vinyl chloride	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Chloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Trichlorofluoromethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**1.2**	**ND<1**	**ND<5**
1,1-Dichloroethene	**ND<1**	**ND<1**	**34**	**36**	**26**	**28**	**ND<1**	**40**
Methylene chloride	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
trans-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
1,1-Dichloroethane	**ND<1**	**ND<1**	**ND<5**	**1.7**	**ND<1**	**ND<1**	**ND<1**	**ND<5**
cis-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Chloroform	**ND<1**	**ND<1**	**14**	**15**	**23**	**26**	**1.7**	**120**
1,1,1-Trichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Carbon tetrachloride	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Benzene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
1,2-Dichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Trichloroethene	**ND<1**	**ND<1**	**54**	**55**	**19**	**21**	**ND<1**	**27**
Toluene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
1,1,2-Trichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Tetrachloroethene	**ND<1**	**ND<1**	**67**	**70**	**12**	**14**	**1.1**	**68**
Monochlorobenzene	**ND<1**	**ND<1**	**ND<5**	**2.9**	**1.0**	**4.0**	**4.2**	**10**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
Ethylbenzene	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**
meta- and para-Xylenes	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**
ortho-Xylene	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
1,4-Dichlorobenzene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<1	ND<5
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<50	ND<10	ND<10	ND<10	ND<10	ND<50
SURROGATES								
Dibromofluoromethane	96%	91%	100%	97%	101%	98%	104%	97%
Toluene-d8	99%	103%	104%	101%	99%	96%	98%	96%
4-Bromofluorobenzene	95%	93%	98%	95%	94%	95%	97%	97%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100303

SAMPLE ID	SG07-08-100303	NA	NA	NA	NA	NA	NA	NA
DATE ANALYZED	10/3/2003	NA	NA	NA	NA	NA	NA	NA
TIME ANALYZED	16:19	NA	NA	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	10	NA	NA	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	100	NA	NA	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	NA	NA	NA	NA	NA	NA	NA
DILUTION FACTOR	1	NA	NA	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	NA	NA	NA	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND<1	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	**ND<1**	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**ND<1**	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	ND<1	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**ND<1**	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<1	NA	NA	NA	NA	NA	NA	NA
Chloroform	**1.4**	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ND<1	NA	NA	NA	NA	NA	NA	NA
Benzene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**ND<1**	NA	NA	NA	NA	NA	NA	NA
Toluene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**ND<1**	NA	NA	NA	NA	NA	NA	NA
Monochlorobenzene	**2.9**	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**30**	NA	NA	NA	NA	NA	NA	NA
meta- and para-Xylenes	**130**	NA	NA	NA	NA	NA	NA	NA
ortho-Xylene	**42**	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND<1	NA	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	NA	NA	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	100%	NA	NA	NA	NA	NA	NA	NA
Toluene-d8	97%	NA	NA	NA	NA	NA	NA	NA
4-Bromofluorobenzene	99%	NA	NA	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
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NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100603

SAMPLE ID	Ambient Air	SG07-15-100603	SG07-35-100603	SG03-5-100603	SG03-5-100603	SG03-15-100603	SG03-35-100603	SG12-5-100603
DATE ANALYZED	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003
TIME ANALYZED	7:36	8:08	9:34	11:05	11:33	12:07	13:22	14:36
SAMPLE AMOUNT (ml)	10	5.0	2.0	5.0	10	10	2.0	10
PURGE VOLUME (ml)	NA	412	390	75	75	412	390	30
VACUUM (in. H_2O)	NA	5	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	2	5	2	1	1	5	1
REPORTABLE LIMIT (µg/L)	1	2	5	2	1	1	5	1
COMMENTS								Purge Volume Study (See next page)
Dichlorodifluoromethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Vinyl chloride	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Chloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Trichlorofluoromethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<2**	**ND<5**	**ND<2**	**ND<1**	**ND<1**	**ND<5**	**3.0**
1,1-Dichloroethene	**ND<1**	**ND<2**	**21**	**ND<2**	**ND<1**	**ND<1**	**8.1**	**30**
Methylene chloride	**ND<1**	**2.6**	**ND<5**	**ND<2**	**ND<1**	**ND<1**	**ND<5**	**ND<1**
trans-1,2-Dichloroethene	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
cis-1,2-Dichloroethene	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Chloroform	**ND<1**	**57**	**1,000**	**10**	**9.5**	**2.5**	**450**	**140**
1,1,1-Trichloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Carbon tetrachloride	**ND<1**	**ND<2**	**11**	**ND<2**	**ND<1**	**ND<1**	**ND<5**	**1.9**
Benzene	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
1,2-Dichloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Trichloroethene	**ND<1**	**ND<2**	**8.0**	**ND<2**	**ND<1**	**ND<1**	**ND<5**	**20**
Toluene	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Tetrachloroethene	**ND<1**	**9.6**	**230**	**5.5**	**5.9**	**1.8**	**130**	**32**
Monochlorobenzene	**ND<1**	**29**	**10**	**ND<2**	**3.0**	**4.2**	**ND<5**	**ND<1**
1,1,1,2-Tetrachloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
Ethylbenzene	**ND<1**	**9.2**	**ND<5**	**ND<2**	**ND<1**	**ND<1**	**ND<5**	**ND<1**
meta- and para-Xylenes	**ND<1**	**13**	**8.3**	**ND<2**	**ND<1**	**3.0**	**ND<5**	**ND<1**
ortho-Xylene	**ND<1**	**15**	**6.9**	**ND<2**	**ND<1**	**1.4**	**ND<5**	**ND<1**
1,1,2,2-Tetrachloroethane	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	ND<1
1,4-Dichlorobenzene	ND<1	ND<2	ND<5	ND<2	ND<1	ND<1	ND<5	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<20	ND<50	ND<20	ND<10	ND<10	ND<50	ND<10
SURROGATES								
Dibromofluoromethane	99%	99%	100%	101%	101%	101%	95%	97%
Toluene-d8	97%	101%	100%	101%	102%	102%	102%	99%
4-Bromofluorobenzene	97%	98%	95%	92%	97%	95%	93%	93%

ml = milliliter
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µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100603

SAMPLE ID	SG12-5-100603	SG12-5-100603	SG12-5-100603	SG12-5-100603	SG12-5-100603	SG12-5-100603	NA	NA
DATE ANALYZED	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003	10/6/2003	NA	NA
TIME ANALYZED	15:01	15:26	15:50	16:15	16:40	17:04	NA	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	NA	NA
PURGE VOLUME (ml)	60	90	120	180	300	420	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	ND	NA	NA
DILUTION FACTOR	1	1	1	1	1	1	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	NA	NA
COMMENTS	2nd Purge Volume Study at 5 feet							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloro-trifluoroethane	**3.2**	**2.6**	**2.8**	**2.7**	**2.3**	**2.5**	NA	NA
1,1-Dichloroethene	**28**	**27**	**27**	**26**	**24**	**25**	NA	NA
Methylene chloride	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroform	**170**	**130**	**140**	**130**	**130**	**130**	NA	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Carbon tetrachloride	**2.2**	**1.8**	**1.8**	**1.7**	**1.6**	**1.8**	NA	NA
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichloroethene	**23**	**19**	**19**	**18**	**17**	**17**	NA	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Tetrachloroethene	**36**	**31**	**30**	**30**	**27**	**29**	NA	NA
Monochlorobenzene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Ethylbenzene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
meta- and para-Xylenes	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
ortho-Xylene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,4-Dichlorobenzene	ND<1	ND<1	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	NA	NA
SURROGATES								
Dibromofluoromethane	101%	97%	100%	96%	103%	98%	NA	NA
Toluene-d8	101%	103%	100%	100%	100%	106%	NA	NA
4-Bromofluorobenzene	98%	94%	95%	94%	95%	96%	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

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REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100703

SAMPLE ID	Ambient Air	SG12-15-100703	SG12-15-100703-DS	SG12-35-100703	SG20-5-100703	SG20-15-100703	SG20-35-100703	SG20-35-100703
DATE ANALYZED	10/7/2003	10/7/2003	10/7/2003	10/7/2003	10/7/2003	10/7/2003	10/7/2003	10/7/2003
TIME ANALYZED	7:39	8:45	9:11	9:46	12:05	13:34	14:48	15:15
SAMPLE AMOUNT (ml)	10	10	10	2.0	10	10	5.0	5.0
PURGE VOLUME (ml)	NA	412	412	390	75	412	130	260
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	1	5	1	1	2	2
REPORTABLE LIMIT (µg/L)	1	1	1	5	1	1	2	2
COMMENTS							Purge Volume Study (Continued on next page)	
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Vinyl chloride	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
Chloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
1,1-Dichloroethene	**ND<1**	**ND<1**	**ND<1**	**68**	**ND<1**	**1.5**	**ND<2**	**15**
Methylene chloride	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
1,1-Dichloroethane	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
cis-1,2-Dichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
Chloroform	**ND<1**	**6.6**	**11**	**170**	**ND<1**	**ND<1**	**ND<2**	**9.3**
1,1,1-Trichloroethane	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**1.3**	**ND<2**	**5.4**
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Benzene	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<2**	**ND<2**
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Trichloroethene	**ND<1**	**ND<1**	**ND<1**	**52**	**1.6**	**19**	**ND<2**	**76**
Toluene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Tetrachloroethene	**ND<1**	**1.7**	**1.7**	**52**	**2.9**	**15**	**ND<2**	**67**
Monochlorobenzene	**ND<1**	**2.4**	**2.8**	**5.9**	**ND<1**	**ND<1**	**2.9**	**2.2**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
Ethylbenzene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
ortho-Xylene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	ND<2	ND<2
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<1	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<50	ND<10	ND<10	ND<20	ND<20
SURROGATES								
Dibromofluoromethane	98%	98%	101%	102%	97%	96%	99%	95%
Toluene-d8	99%	103%	99%	100%	101%	98%	98%	100%
4-Bromofluorobenzene	96%	93%	95%	91%	96%	95%	95%	95%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-100703

SAMPLE ID	SG20-35-100703	SG20-35-100703	SG20-35-100703	SG20-35-100703	SG20-35-100703	NA	NA	NA
DATE ANALYZED	10/7/2003	10/7/2003	10/7/2003	10/7/2003	10/7/2003	NA	NA	NA
TIME ANALYZED	15:41	16:08	16:34	17:00	17:29	NA	NA	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	NA	NA	NA
PURGE VOLUME (ml)	390	520	780	1,300	1,820	NA	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	NA	NA	NA
DILUTION FACTOR	1	1	1	1	1	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	NA	NA	NA
COMMENTS	Purge Volume Study (Continued)							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Vinyl chloride	**4.8**	**3.9**	**2.0**	**ND<1**	**ND<1**	NA	NA	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	**3.2**	**2.4**	**1.5**	**ND<1**	**ND<1**	NA	NA	NA
1,1-Dichloroethene	**37**	**31**	**21**	**7.8**	**6.3**	NA	NA	NA
Methylene chloride	**1.0**	**1.0**	**ND<1**	**ND<1**	**ND<1**	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1-Dichloroethane	**3.4**	**3.2**	**3.3**	**1.0**	**ND<1**	NA	NA	NA
cis-1,2-Dichloroethene	**3.2**	**3.8**	**3.9**	**ND<1**	**ND<1**	NA	NA	NA
Chloroform	**24**	**26**	**30**	**6.7**	**4.9**	NA	NA	NA
1,1,1-Trichloroethane	**7.9**	**7.2**	**7.0**	**4.7**	**3.4**	NA	NA	NA
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Benzene	**1.5**	**1.5**	**1.3**	**1.2**	**1.0**	NA	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Trichloroethene	**110**	**120**	**130**	**83**	**57**	NA	NA	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Tetrachloroethene	**92**	**110**	**140**	**88**	**65**	NA	NA	NA
Monochlorobenzene	**1.8**	**1.8**	**2.0**	**2.0**	**1.9**	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
ortho-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,4-Dichlorobenzene	ND<1	NA	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	NA	NA	NA
SURROGATES								
Dibromofluoromethane	99%	99%	98%	98%	101%	NA	NA	NA
Toluene-d8	98%	98%	99%	101%	95%	NA	NA	NA
4-Bromofluorobenzene	95%	95%	94%	96%	95%	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-100803

SAMPLE ID	Method Blank Ambient Air	SG24-8-100803	SG24-15-100803	SG24-35-100803	SG24-35-100803	SG27-5-100803	SG27-35-100803	SG27-35-100803
DATE ANALYZED	10/8/2003	10/8/2003	10/8/2003	10/8/2003	10/8/2003	10/8/2003	10/8/2003	10/8/2003
TIME ANALYZED	7:56	9:05	10:00	11:16	11:44	13:14	14:32	14:59
SAMPLE AMOUNT (ml)	10	10	10	5.0	2.0	10	2.0	1.0
PURGE VOLUME (ml)	NA	100	412	390	390	75	390	390
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	5	ND	ND
DILUTION FACTOR	1	1	1	2	5	1	5	10
REPORTABLE LIMIT (µg/L)	1	1	1	2	5	1	5	10
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
Vinyl chloride	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
Chloroethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
1,1,2-Trichloro-trifluoroethane	**ND<1**	**1.0**	**ND<1**	**36**	**34**	**ND<1**	**48**	**46**
1,1-Dichloroethene	**ND<1**	**7.5**	**ND<1**	**170**	**160**	**ND<1**	**200**	**200**
Methylene chloride	**ND<1**	**ND<1**	**ND<1**	**2.5**	**ND<5**	**ND<1**	**ND<5**	**ND<10**
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
1,1-Dichloroethane	**ND<1**	**ND<1**	**ND<1**	**7.3**	**7.0**	**ND<1**	**12**	**11**
cis-1,2-Dichloroethene	**ND<1**	**ND<1**	**ND<1**	**7.3**	**7.2**	**ND<1**	**15**	**16**
Chloroform	**ND<1**	**55**	**3.8**	**730**	**890**	**ND<1**	**480**	**500**
1,1,1-Trichloroethane	**ND<1**	**ND<1**	**ND<1**	**15**	**16**	**ND<1**	**7.1**	**ND<10**
Carbon tetrachloride	**ND<1**	**3.6**	**ND<1**	**85**	**87**	**ND<1**	**85**	**82**
Benzene	**ND<1**	**ND<1**	**ND<1**	**ND<2**	**ND<5**	**ND<1**	**ND<5**	**ND<10**
1,2-Dichloroethane	**ND<1**	**ND<1**	**ND<1**	**4.0**	**ND<5**	**ND<1**	**ND<5**	**ND<10**
Trichloroethene	**ND<1**	**15**	**1.2**	**280**	**280**	**ND<1**	**320**	**320**
Toluene	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
Tetrachloroethene	**ND<1**	**120**	**7.1**	**2,000 E**	**2,600 E**	**7.8**	**3,600 E**	**3,700**
Monochlorobenzene	**ND<1**	**ND<1**	**1.1**	**ND<2**	**ND<5**	**ND<1**	**ND<5**	**ND<10**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
Ethylbenzene	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
ortho-Xylene	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<2	ND<5	ND<1	ND<5	ND<10
1,4-Dichlorobenzene	**ND<1**	**27**	**3.6**	**2.9**	**ND<5**	**2.0**	**ND<5**	**ND<10**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<20	ND<50	ND<10	ND<50	ND<100
SURROGATES								
Dibromofluoromethane	99%	99%	96%	95%	98%	99%	96%	101%
Toluene-d8	97%	104%	104%	102%	103%	99%	100%	102%
4-Bromofluorobenzene	92%	94%	95%	93%	95%	96%	94%	90%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-100803

SAMPLE ID	SG28-5-100803	SG28-35-100803	SG28-35-100803	NA	NA	NA	NA	NA
DATE ANALYZED	10/8/2003	10/8/2003	10/8/2003	NA	NA	NA	NA	NA
TIME ANALYZED	15:25	16:34	17:00	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	10	1.0	0.4	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	75	390	390	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	NA	NA	NA	NA	NA
DILUTION FACTOR	1	10	25	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	10	25	NA	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
Vinyl chloride	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
Chloroethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	**ND<1**	**65**	**75**	NA	NA	NA	NA	NA
1,1-Dichloroethene	**ND<1**	**48**	**52**	NA	NA	NA	NA	NA
Methylene chloride	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
1,1-Dichloroethane	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
Chloroform	**2.0**	**2,500**	**2,900**	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
Carbon tetrachloride	**ND<1**	**230**	**250**	NA	NA	NA	NA	NA
Benzene	**ND<1**	**10**	**ND<25**	NA	NA	NA	NA	NA
1,2-Dichloroethane	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
Trichloroethene	**ND<1**	**120**	**120**	NA	NA	NA	NA	NA
Toluene	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
Tetrachloroethene	**9.1**	**6,400 E**	**5,700**	NA	NA	NA	NA	NA
Monochlorobenzene	**1.0**	**110**	**70**	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
Ethylbenzene	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
meta- and para-Xylenes	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
ortho-Xylene	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<10	ND<25	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**ND<1**	**ND<10**	**ND<25**	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<100	ND<250	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	101%	97%	99%	NA	NA	NA	NA	NA
Toluene-d8	102%	103%	101%	NA	NA	NA	NA	NA
4-Bromofluorobenzene	94%	92%	92%	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
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ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-2-100903

SAMPLE ID	Method Blank Ambient Air	SG25-15-100903	SG25-35-100903	SG25-35-100903-DS	SG29-5-100903	SG29-15-100903	SG29-35-100903	SG29-35-100903-DS
DATE ANALYZED	10/9/2003	10/9/2003	10/9/2003	10/9/2003	10/9/2003	10/9/2003	10/9/2003	10/9/2003
TIME ANALYZED	7:43	8:16	9:53	10:21	10:49	11:50	14:31	14:59
SAMPLE AMOUNT (ml)	10	5.0	1.0	1.0	10	5.0	0.5	0.5
PURGE VOLUME (ml)	NA	412	390	390	75	412	390	390
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	10	ND	ND
DILUTION FACTOR	1	2	10	10	1	2	20	20
REPORTABLE LIMIT (µg/L)	1	2	10	10	1	2	20	20
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Vinyl chloride	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Chloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Trichlorofluoromethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<2**	**15**	**21**	**ND<1**	**ND<2**	**25**	**28**
1,1-Dichloroethene	**ND<1**	**ND<2**	**14**	**20**	**ND<1**	**ND<2**	**ND<20**	**ND<20**
Methylene chloride	**ND<1**	**8.6**	**ND<10**	**ND<10**	**ND<1**	**ND<2**	**ND<20**	**ND<20**
trans-1,2-Dichloroethene	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
1,1-Dichloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
cis-1,2-Dichloroethene	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Chloroform	**ND<1**	**360**	**3,700**	**4,500**	**26**	**15**	**5,500**	**6,500**
1,1,1-Trichloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Carbon tetrachloride	**ND<1**	**5.2**	**110**	**170**	**ND<1**	**ND<2**	**69**	**72**
Benzene	**ND<1**	**7.3**	**42**	**57**	**ND<1**	**2.0**	**310**	**370**
1,2-Dichloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Trichloroethene	**ND<1**	**5.9**	**27**	**37**	**ND<1**	**ND<2**	**27**	**31**
Toluene	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
1,1,2-Trichloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Tetrachloroethene	**ND<1**	**410**	**1,700**	**2,700**	**14**	**7.5**	**1,100**	**1,400**
Monochlorobenzene	**ND<1**	**85**	**3,300**	**4,300**	**33**	**17**	**6,600**	**7,900**
1,1,1,2-Tetrachloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
Ethylbenzene	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
meta- and para-Xylenes	**ND<1**	**ND<2**	**ND<10**	**ND<10**	**2.4**	**ND<2**	**ND<20**	**ND<20**
ortho-Xylene	**ND<1**	**ND<2**	**ND<10**	**ND<10**	**ND<1**	**ND<2**	**ND<20**	**ND<20**
1,1,2,2-Tetrachloroethane	ND<1	ND<2	ND<10	ND<10	ND<1	ND<2	ND<20	ND<20
1,4-Dichlorobenzene	**ND<1**	**ND<2**	**ND<10**	**ND<10**	**ND<1**	**ND<2**	**ND<20**	**ND<20**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<20	ND<100	ND<100	ND<10	ND<20	ND<200	ND<200
SURROGATES								
Dibromofluoromethane	98%	95%	99%	97%	97%	97%	101%	100%
Toluene-d8	99%	97%	101%	105%	103%	100%	101%	104%
4-Bromofluorobenzene	96%	92%	95%	96%	95%	93%	92%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-2-100903

SAMPLE ID	SG31-5-100903	SG31-35-100903	SG31-35-100903	NA	NA	NA	NA	NA
DATE ANALYZED	10/9/2003	10/9/2003	10/9/2003	NA	NA	NA	NA	NA
TIME ANALYZED	15:23	16:17	16:43	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	10	0.5	5.0	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	75	390	390	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	NA	NA	NA	NA	NA
DILUTION FACTOR	1	20	2	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	20	2	NA	NA	NA	NA	NA
COMMENTS		Too Diluted						
Dichlorodifluoromethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Vinyl chloride	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Chloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	**ND<1**	**ND<20**	**5.7**	NA	NA	NA	NA	NA
1,1-Dichloroethene	**ND<1**	**ND<20**	**ND<2**	NA	NA	NA	NA	NA
Methylene chloride	**ND<1**	**ND<20**	**ND<2**	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Chloroform	**35**	**160**	**160**	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Carbon tetrachloride	**ND<1**	**ND<20**	**5.3**	NA	NA	NA	NA	NA
Benzene	**1.9**	**ND<20**	**19**	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Trichloroethene	**ND<1**	**ND<20**	**2.7**	NA	NA	NA	NA	NA
Toluene	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Tetrachloroethene	**14**	**490**	**620**	NA	NA	NA	NA	NA
Monochlorobenzene	**48**	**560**	**620**	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
Ethylbenzene	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
meta- and para-Xylenes	**3.0**	**ND<20**	**ND<2**	NA	NA	NA	NA	NA
ortho-Xylene	**1.0**	**ND<20**	**ND<2**	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<20	ND<2	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**ND<1**	**ND<20**	**6.9**	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<200	ND<20	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	88%	99%	98%	NA	NA	NA	NA	NA
Toluene-d8	105%	103%	104%	NA	NA	NA	NA	NA
4-Bromofluorobenzene	96%	95%	96%	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101003

SAMPLE ID	Method Blank Ambient Air	SG33-5-101003	SG33-15-101003	SG33-35-101003	SG33-35-101003	SG32-5-101003	SG32-15-101003	SG32-15-101003
DATE ANALYZED	10/10/2003	10/10/2003	10/10/2003	10/10/2003	10/10/2003	10/10/2003	10/10/2003	10/10/2003
TIME ANALYZED	7:23	8:16	8:48	9:48	10:16	11:00	12:28	12:53
SAMPLE AMOUNT (ml)	10	10	5.0	2.0	10	10	10	10
PURGE VOLUME (ml)	NA	75	412	390	390	75	63	127
VACUUM (in. H_2O)	NA	10	10	ND	ND	20	ND	ND
DILUTION FACTOR	1	1	2	5	1	1	1	1
REPORTABLE LIMIT (µg/L)	1	1	2	5	1	1	1	1
COMMENTS							2nd Purge Volume Study at 15 feet (Continued on next	
Dichlorodifluoromethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Vinyl chloride	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Chloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Methylene chloride	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
trans-1,2-Dichloroethene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Chloroform	**ND<1**	**ND<1**	**ND<2**	**ND<5**	**1.4**	**ND<1**	**ND<1**	**ND<1**
1,1,1-Trichloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Carbon tetrachloride	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Benzene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,2-Dichloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Trichloroethene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Toluene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Tetrachloroethene	**ND<1**	**3.6**	**5.8**	**6.7**	**5.2**	**2.9**	**21**	**39**
Monochlorobenzene	**ND<1**	**9.6**	**13**	**15**	**11**	**8.3**	**2.9**	**3.1**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
Ethylbenzene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
meta- and para-Xylenes	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
ortho-Xylene	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<2	ND<5	ND<1	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	ND<1	ND<1	ND<2	NA	ND<1	ND<1	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<20	ND<50	ND<10	ND<10	ND<10	ND<10
SURROGATES								
Dibromofluoromethane	96%	95%	97%	96%	99%	100%	98%	103%
Toluene-d8	100%	101%	98%	102%	105%	100%	103%	102%
4-Bromofluorobenzene	94%	96%	93%	90%	92%	91%	92%	95%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101003

SAMPLE ID	SG32-15-101003	SG32-15-101003	SG32-15-101003	SG32-15-101003	SG32-15-101003	NA	NA	NA
DATE ANALYZED	10/10/2003	10/10/2003	10/10/2003	10/10/2003	10/10/2003	NA	NA	NA
TIME ANALYZED	13:18	13:48	14:13	14:38	15:03	NA	NA	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	NA	NA	NA
PURGE VOLUME (ml)	190	254	390	635	890	NA	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	NA	NA	NA
DILUTION FACTOR	1	1	1	1	1	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	NA	NA	NA
COMMENTS	2nd Purge Volume Study at 15 feet (Continued)							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Chloroform	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Carbon tetrachloride	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Trichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Tetrachloroethene	**42**	**48**	**53**	**45**	**42**	NA	NA	NA
Monochlorobenzene	**2.1**	**1.9**	**1.3**	**1.1**	**1.3**	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
ortho-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	ND<1	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	NA	NA	NA
SURROGATES								
Dibromofluoromethane	99%	106%	107%	104%	101%	NA	NA	NA
Toluene-d8	101%	97%	99%	99%	104%	NA	NA	NA
4-Bromofluorobenzene	98%	96%	95%	94%	96%	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101303

SAMPLE ID	Method Blank Ambient Air	SG32-35-101303	SG32-35-101303	SG23-5-101303	SG23-35-101303	SG30-5-101303	SG30-15-101303	SG30-35-101303
DATE ANALYZED	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003
TIME ANALYZED	7:26	8:12	8:39	9:20	10:09	12:00	12:26	13:23
SAMPLE AMOUNT (ml)	10	5.0	10	10	10	10	10	10
PURGE VOLUME (ml)	NA	390	390	75	390	75	412	130
VACUUM (in. H_2O)	NA	10	ND	5	ND	60	ND	ND
DILUTION FACTOR	1	2	1	1	1	1	1	1
REPORTABLE LIMIT (µg/L)	1	2	1	1	1	1	1	1
COMMENTS								Purge Volume Study at 35 feet
Dichlorodifluoromethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Vinyl chloride	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichlorofluoromethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Methylene chloride	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
trans-1,2-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
cis-1,2-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroform	**ND<1**	**ND<2**	**1.0**	**ND<1**	**19**	**ND<1**	**ND<1**	**ND<1**
1,1,1-Trichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Carbon tetrachloride	**ND<1**	**ND<2**	**ND<1**	**ND<1**	**1.6**	**ND<1**	**ND<1**	**ND<1**
Benzene	**ND<1**	**ND<2**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**
1,2-Dichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichloroethene	**ND<1**	**ND<2**	**ND<1**	**ND<1**	**1.9**	**ND<1**	**ND<1**	**ND<1**
Toluene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Tetrachloroethene	**ND<1**	**8.8**	**6.8**	**ND<1**	**150**	**ND<1**	**ND<1**	**ND<1**
Monochlorobenzene	**ND<1**	**6.9**	**5.0**	**ND<1**	**1.0**	**ND<1**	**ND<1**	**ND<1**
1,1,1,2-Tetrachloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Ethylbenzene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
meta- and para-Xylenes	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
ortho-Xylene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	**ND<1**	**ND<2**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**NA**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<20	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
SURROGATES								
Dibromofluoromethane	95%	99%	97%	97%	95%	97%	97%	100%
Toluene-d8	97%	102%	97%	101%	97%	98%	98%	98%
4-Bromofluorobenzene	95%	95%	94%	96%	93%	95%	95%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101303

SAMPLE ID	SG30-35-101303	SG30-35-101303	SG30-35-101303	SG30-35-101303	SG30-35-101303	SG30-35-101303	NA	NA
DATE ANALYZED	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003	10/13/2003	NA	NA
TIME ANALYZED	13:50	14:17	14:43	15:08	15:33	16:24	NA	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	NA	NA
PURGE VOLUME (ml)	260	390	520	780	1,300	1,820	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	ND	ND	NA	NA
DILUTION FACTOR	1	1	1	1	1	1	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	NA	NA
COMMENTS	Purge Volume Study at 35 feet (Continued)							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroform	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
Benzene	**2.5**	**3.0**	**2.7**	**2.7**	**3.0**	**2.5**	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichloroethene	**55**	**64**	**56**	**58**	**64**	**53**	NA	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Tetrachloroethene	**130**	**160**	**140**	**150**	**160**	**140**	NA	NA
Monochlorobenzene	**230**	**280**	**270**	**280**	**270**	**270**	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
ortho-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,4-Dichlorobenzene	**NA**	**1.3**	**NA**	**NA**	**NA**	**NA**	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	NA	NA
SURROGATES								
Dibromofluoromethane	97%	97%	97%	92%	98%	96%	NA	NA
Toluene-d8	105%	100%	107%	106%	103%	99%	NA	NA
4-Bromofluorobenzene	98%	92%	103%	99%	94%	99%	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101403

SAMPLE ID	Method Blank Ambient Air	SG26-15-101403	SG26-35-101403	SG26-35-101403	SG09-15-101403	SG09-35-101403	SG09-35-101403	SG15-5-101403
DATE ANALYZED	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003
TIME ANALYZED	8:21	8:46	9:.37	10:05	11:03	12:24	13:00	13:56
SAMPLE AMOUNT (ml)	10	10	2.0	10	10	10	2.0	10
PURGE VOLUME (ml)	NA	412	390	390	412	390	390	30
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	ND	ND	10
DILUTION FACTOR	1	1	5	1	1	1	5	1
REPORTABLE LIMIT (µg/L)	1	1	5	1	1	1	5	1
COMMENTS								Purge Volume Study at 5 feet
Dichlorodifluoromethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Vinyl chloride	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Chloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Methylene chloride	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
trans-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Chloroform	**ND<1**	**ND<1**	**5.8**	**2.9**	**8.3**	**610 E**	**930**	**5.6**
1,1,1-Trichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**55**	**56**	**ND<1**
Benzene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,2-Dichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Trichloroethene	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**1.5**	**ND<5**	**ND<1**
Toluene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Tetrachloroethene	**ND<1**	**2.0**	**26**	**30**	**1.6**	**210**	**210**	**2.4**
Monochlorobenzene	**ND<1**	**ND<1**	**5.5**	**5.8**	**1.9**	**ND<1**	**ND<5**	**1.3**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
Ethylbenzene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
meta- and para-Xylenes	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**1.3**
ortho-Xylene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	ND<1
1,4-Dichlorobenzene	ND<1	ND<1	ND<5	ND<1	ND<1	ND<1	ND<5	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<50	ND<10	ND<10	ND<10	ND<50	ND<10
SURROGATES								
Dibromofluoromethane	94%	96%	100%	98%	99%	95%	92%	95%
Toluene-d8	100%	100%	102%	102%	102%	99%	99%	99%
4-Bromofluorobenzene	91%	89%	92%	93%	89%	94%	94%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-101403

SAMPLE ID	SG15-5-101403	SG15-5-101403	SG15-5-101403	SG15-5-101403	SG15-5-101403	SG15-5-101403	NA	NA
DATE ANALYZED	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003	10/14/2003	NA	NA
TIME ANALYZED	14:22	14:48	15:14	15:41	16:05	16:30	NA	NA
SAMPLE AMOUNT (ml)	10	10	10	10	10	10	NA	NA
PURGE VOLUME (ml)	60	90	120	180	300	420	NA	NA
VACUUM (in. H_2O)	10	10	10	10	10	10	NA	NA
DILUTION FACTOR	1	1	1	1	1	1	NA	NA
REPORTABLE LIMIT (µg/L)	1	1	1	1	1	1	NA	NA
COMMENTS	Purge Volume Study at 5 feet (Continued)							
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Vinyl chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Methylene chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Chloroform	**6.1**	**6.4**	**4.6**	**2.2**	**ND<1**	**ND<1**	NA	NA
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Trichloroethene	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Tetrachloroethene	**2.6**	**2.7**	**2.4**	**1.5**	**ND<1**	**ND<1**	NA	NA
Monochlorobenzene	**1.5**	**1.8**	**2.2**	**1.1**	**ND<1**	**ND<1**	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
meta- and para-Xylenes	**2.0**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	NA	NA
ortho-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	NA	NA
1,4-Dichlorobenzene	ND<1	ND<1	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	NA	NA
SURROGATES								
Dibromofluoromethane	93%	94%	93%	98%	102%	93%	NA	NA
Toluene-d8	97%	101%	98%	102%	102%	102%	NA	NA
4-Bromofluorobenzene	93%	97%	93%	94%	96%	94%	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101503

SAMPLE ID	Method Blank Ambient Air	SG14-5-101503	SG14-8-101503	SG14-8-101503	SG14-15-101503	SG14-35-101503	SG14-35-101503	SG15-35-101503
DATE ANALYZED	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003	10/15/2003
TIME ANALYZED	7:27	8:02	9:05	9:32	10:04	11:24	11:52	13:43
SAMPLE AMOUNT (ml)	10	10	1.0	10	5.0	5.0	2.0	10
PURGE VOLUME (ml)	NA	75	100	100	412	390	390	390
VACUUM (in. H_2O)	NA	ND	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	10	1	2	2	5	1
REPORTABLE LIMIT (µg/L)	1	1	10	1	2	2	5	1
COMMENTS			Too Diluted Reanalyze				Chloroform Confirmation	
Dichlorodifluoromethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Vinyl chloride	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Chloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Trichlorofluoromethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
1,1-Dichloroethene	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Methylene chloride	**ND<1**	**16**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
trans-1,2-Dichloroethene	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Chloroform	**ND<1**	**56**	**ND<10**	**36**	**12**	**1,000 E**	**1,400**	**2.4**
1,1,1-Trichloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<10**	**ND<1**	**ND<2**	**48**	**48**	**ND<1**
Benzene	**ND<1**	**5.9**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
1,2-Dichloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Trichloroethene	**ND<1**	**ND<1**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
Toluene	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Tetrachloroethene	**ND<1**	**11**	**ND<10**	**3.6**	**2.2**	**240**	**240**	**1.7**
Monochlorobenzene	**ND<1**	**450**	**68**	**110**	**45**	**61**	**55**	**4.9**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
Ethylbenzene	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
meta- and para-Xylenes	**ND<1**	**3.3**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
ortho-Xylene	**ND<1**	**1.2**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<10	ND<1	ND<2	ND<2	ND<5	ND<1
1,4-Dichlorobenzene	**ND<1**	**1.1**	**ND<10**	**ND<1**	**ND<2**	**ND<2**	**ND<5**	**ND<1**
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<100	ND<10	ND<20	ND<20	ND<50	ND<10
SURROGATES								
Dibromofluoromethane	98%	93%	98%	97%	97%	98%	2%	93%
Toluene-d8	97%	102%	101%	103%	99%	100%	102%	100%
4-Bromofluorobenzene	94%	96%	92%	92%	93%	96%	95%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101503

SAMPLE ID	SG22-5-101503	SG22-5-101503-DS	SG22-8-101503	SG22-15-101503	NA	NA	NA	NA
DATE ANALYZED	10/15/2003	10/15/2003	10/15/2003	10/15/2003	NA	NA	NA	NA
TIME ANALYZED	14:56	15:23	15:54	16:56	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	5.0	5.0	5.0	5.0	NA	NA	NA	NA
PURGE VOLUME (ml)	75	75	100	412	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	ND	ND	ND	NA	NA	NA	NA
DILUTION FACTOR	2	2	2	2	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	2	2	2	2	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Vinyl chloride	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Chloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Trichlorofluoromethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
1,1-Dichloroethene	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Methylene chloride	**ND<2**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
1,1-Dichloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Chloroform	**4.3**	**3.8**	**5.6**	**25**	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Carbon tetrachloride	**ND<2**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
Benzene	**ND<2**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
1,2-Dichloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Trichloroethene	**ND<2**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
Toluene	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Tetrachloroethene	**ND<2**	**2.1**	**2.6**	**5.7**	NA	NA	NA	NA
Monochlorobenzene	**100**	**90**	**88**	**86**	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
Ethylbenzene	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
meta- and para-Xylenes	**5.4**	**3.8**	**ND<2**	**3.1**	NA	NA	NA	NA
ortho-Xylene	**2.1**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<2	ND<2	ND<2	ND<2	NA	NA	NA	NA
1,4-Dichlorobenzene	**ND<2**	**ND<2**	**ND<2**	**ND<2**	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<20	ND<20	ND<20	ND<20	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	94%	96%	96%	86%	NA	NA	NA	NA
Toluene-d8	98%	98%	101%	100%	NA	NA	NA	NA
4-Bromofluorobenzene	94%	95%	97%	93%	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101603

SAMPLE ID	Method Blank Ambient Air	SG22-35-101603	SG05-5-101603	SG05-15-101603	SG05-15-101603-DS	SG05-35-101603	SG05-35-101603	SG04-5-101603
DATE ANALYZED	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003
TIME ANALYZED	7:31	8:30	9:57	10:58	11:27	12:21	12:48	14:18
SAMPLE AMOUNT (ml)	10	5.0	10	10	10	10	2.0	10
PURGE VOLUME (ml)	NA	412	75	412	412	390	390	75
VACUUM (in. H_2O)	NA	ND	20	ND	ND	ND	ND	20
DILUTION FACTOR	1	2	1	1	1	1	5	1
REPORTABLE LIMIT (µg/L)	1	2	1	1	1	1	5	1
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Vinyl chloride	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Chloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Trichlorofluoromethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloro-trifluoroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Methylene chloride	**ND<1**	**2.2**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**
trans-1,2-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
cis-1,2-Dichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Chloroform	**ND<1**	**210**	**3.0**	**4.0**	**4.1**	**820 E**	**1,700**	**5.5**
1,1,1-Trichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Carbon tetrachloride	**ND<1**	**2.4**	**ND<1**	**ND<1**	**ND<1**	**21**	**21**	**ND<1**
Benzene	**ND<1**	**5.0**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**
1,2-Dichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Trichloroethene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Toluene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Tetrachloroethene	**ND<1**	**67**	**ND<1**	**ND<1**	**1.1**	**50**	**51**	**ND<1**
Monochlorobenzene	**ND<1**	**410**	**3.2**	**7.2**	**7.0**	**2.7**	**ND<5**	**ND<1**
1,1,1,2-Tetrachloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
Ethylbenzene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
meta- and para-Xylenes	**ND<1**	**12**	**ND<1**	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**
ortho-Xylene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
1,4-Dichlorobenzene	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<5	ND<1
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<20	ND<10	ND<10	ND<10	ND<10	ND<50	ND<10
SURROGATES								
Dibromofluoromethane	96%	95%	97%	95%	101%	93%	94%	91%
Toluene-d8	98%	96%	102%	103%	99%	101%	101%	100%
4-Bromofluorobenzene	95%	93%	93%	95%	93%	95%	96%	94%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 | 2185-3-101603

SAMPLE ID	SG04-15-101603	SG04-35-101603	SG04-35-101603	NA	NA	NA	NA	NA
DATE ANALYZED	10/16/2003	10/16/2003	10/16/2003	NA	NA	NA	NA	NA
TIME ANALYZED	15:15	16:27	16:55	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	10	2.0	1.0	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	412	390	390	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	30	ND	ND	NA	NA	NA	NA	NA
DILUTION FACTOR	1	5	10	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	5	10	NA	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Vinyl chloride	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Chloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Methylene chloride	**ND<1**	**ND<5**	**ND<10**	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Chloroform	**8.4**	**3,100 E**	**4,100**	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Carbon tetrachloride	**ND<1**	**15**	**12**	NA	NA	NA	NA	NA
Benzene	**ND<1**	**ND<5**	**ND<10**	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Trichloroethene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Toluene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Tetrachloroethene	**ND<1**	**160**	**150**	NA	NA	NA	NA	NA
Monochlorobenzene	**ND<1**	**ND<5**	**ND<10**	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
Ethylbenzene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
meta- and para-Xylenes	**ND<1**	**ND<5**	**ND<10**	NA	NA	NA	NA	NA
ortho-Xylene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND<1	ND<5	ND<10	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<50	ND<100	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	92%	94%	97%	NA	NA	NA	NA	NA
Toluene-d8	100%	98%	99%	NA	NA	NA	NA	NA
4-Bromofluorobenzene	96%	90%	92%	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-101703

SAMPLE ID	Method Blank Ambient Air	SG06-5-101703	SG06-5-101703-DS	SG06-31-101703	SG06-35-101703	SG08-15-101703	SG08-35-101703	SG08-35-101703
DATE ANALYZED	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003
TIME ANALYZED	7:29	8:54	9:25	11:25	12:42	14:16	15:02	15:32
SAMPLE AMOUNT (ml)	10	10	10	2.0	10	5.0	1.0	2.0
PURGE VOLUME (ml)	NA	75	95	390	390	412	390	390
VACUUM (in. H_2O)	NA	5	5	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	1	5	1	2	10	40
REPORTABLE LIMIT (µg/L)	1	1	1	5	1	2	10	40
COMMENTS				8 feet lead				8X dilutiom 5ml into 40ml
Dichlorodifluoromethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Vinyl chloride	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Chloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Methylene chloride	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
trans-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
cis-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Chloroform	**ND<1**	**17**	**11**	**32**	**150**	**110**	**7,400 E**	**11,000**
1,1,1-Trichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**12**	**ND<2**	**53**	**41**
Benzene	**ND<1**	**ND<1**	**ND<1**	**ND<5**	**ND<1**	**ND<2**	**26**	**ND<40**
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Trichloroethene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Toluene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Tetrachloroethene	**ND<1**	**1.9**	**ND<1**	**8.9**	**35**	**ND<2**	**80**	**64**
Monochlorobenzene	**ND<1**	**1.8**	**ND<1**	**ND<5**	**ND<1**	**9.0**	**4,900 E**	**6,400**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
Ethylbenzene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
meta- and para-Xylenes	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
ortho-Xylene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	ND<5	ND<1	ND<2	ND<10	ND<40
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<10	ND<50	ND<10	ND<20	ND<100	ND<400
SURROGATES								
Dibromofluoromethane	96%	87%	99%	95%	95%	93%	99%	97%
Toluene-d8	103%	104%	96%	98%	99%	101%	102%	103%
4-Bromofluorobenzene	100%	91%	94%	93%	94%	96%	95%	93%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Mark Yang

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-102003

SAMPLE ID	System Blank	Metod Blank Ambient Air	SG17-15-102003	SG17-15-102003-DS	SG17-35-102003	SG17-35-102003	SG16-5-102003-New	SG16-8-102003-New
DATE ANALYZED	10/20/2003	10/20/2003	10/20/2003	10/20/2003	10/20/2003	10/20/2003	10/20/2003	10/20/2003
TIME ANALYZED	7:40	8:13	8:43	9:12	9:44	10:15	11:18	12:19
SAMPLE AMOUNT (ml)	10	10	5.0	10	1.0	2.0	10	5.0
PURGE VOLUME (ml)	NA	NA	412	412	390	390	75	412
VACUUM (in. H_2O)	NA	NA	ND	ND	ND	ND	ND	ND
DILUTION FACTOR	1	1	2	1	10	20	1	2
REPORTABLE LIMIT (µg/L)	1	1	2	1	10	20	1	2
COMMENTS						4X dilution 10ml into 40ml		
Dichlorodifluoromethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Vinyl chloride	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Chloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Trichlorofluoromethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,1,2-Trichloro-trifluoroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,1-Dichloroethene	**ND<1**	**ND<1**	**ND<2**	**ND<1**	**11**	**2,000**	**5.7**	**ND<2**
Methylene chloride	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
trans-1,2-Dichloroethene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,1-Dichloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
cis-1,2-Dichloroethene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Chloroform	**ND<1**	**ND<1**	**20**	**30**	**2,400**	**ND<20**	**18**	**7.0**
1,1,1-Trichloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Carbon tetrachloride	**ND<1**	**ND<1**	**ND<2**	**ND<1**	**81**	**59**	**ND<1**	**ND<2**
Benzene	**ND<1**	**ND<1**	**ND<2**	**ND<1**	**32**	**30**	**ND<1**	**ND<2**
1,2-Dichloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Trichloroethene	**ND<1**	**ND<1**	**ND<2**	**ND<1**	**ND<10**	**ND<20**	**3.1**	**2.1**
Toluene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,1,2-Trichloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Tetrachloroethene	**ND<1**	**ND<1**	**ND<2**	**2.8**	**540**	**620**	**2.2**	**2.8**
Monochlorobenzene	**ND<1**	**ND<1**	**59**	**60**	**5,100 E**	**8,700**	**79**	**69**
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
Ethylbenzene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
meta- and para-Xylenes	**ND<1**	**ND<1**	**ND<2**	**ND<1**	**13**	**ND<20**	**ND<1**	**ND<2**
ortho-Xylene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
1,4-Dichlorobenzene	ND<1	ND<1	ND<2	ND<1	ND<10	ND<20	ND<1	ND<2
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	ND<10	ND<20	ND<10	ND<100	ND<200	ND<10	ND<20
SURROGATES								
Dibromofluoromethane	97%	97%	95%	97%	94%	84%	95%	98%
Toluene-d8	105%	99%	97%	100%	99%	100%	100%	102%
4-Bromofluorobenzene	99%	92%	93%	93%	90%	93%	93%	95%

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-1

VOLATILE ORGANIC COMPOUNDS
FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
SITE LOCATED AT 20201 SOUTH NORMANDIE AVENUE, TORRANCE, CALIFORNIA
27-TARGET COMPOUND LIST

GC/MS # 3 — 2185-3-102003

SAMPLE ID	SG16-15-102003-New	NA	NA	NA	NA	NA	NA	NA
DATE ANALYZED	10/20/2003	NA	NA	NA	NA	NA	NA	NA
TIME ANALYZED	13:58	NA	NA	NA	NA	NA	NA	NA
SAMPLE AMOUNT (ml)	10	NA	NA	NA	NA	NA	NA	NA
PURGE VOLUME (ml)	390	NA	NA	NA	NA	NA	NA	NA
VACUUM (in. H_2O)	ND	NA	NA	NA	NA	NA	NA	NA
DILUTION FACTOR	1	NA	NA	NA	NA	NA	NA	NA
REPORTABLE LIMIT (µg/L)	1	NA	NA	NA	NA	NA	NA	NA
COMMENTS								
Dichlorodifluoromethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND<1	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**11**	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	ND<1	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND<1	NA	NA	NA	NA	NA	NA	NA
Chloroform	**3.1**	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**ND<1**	NA	NA	NA	NA	NA	NA	NA
Benzene	**ND<1**	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**9.9**	NA	NA	NA	NA	NA	NA	NA
Toluene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**2.1**	NA	NA	NA	NA	NA	NA	NA
Monochlorobenzene	**31**	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND<1	NA	NA	NA	NA	NA	NA	NA
meta- and para-Xylenes	**ND<1**	NA	NA	NA	NA	NA	NA	NA
ortho-Xylene	ND<1	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND<1	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND<1	NA	NA	NA	NA	NA	NA	NA
LEAK CHECK COMPOUND								
Isopropyl Alcohol	ND<10	NA	NA	NA	NA	NA	NA	NA
SURROGATES								
Dibromofluoromethane	98%	NA	NA	NA	NA	NA	NA	NA
Toluene-d8	102%	NA	NA	NA	NA	NA	NA	NA
4-Bromofluorobenzene	97%	NA	NA	NA	NA	NA	NA	NA

ml = milliliter
in. H_2O = inches of water
µg/L = microgram per liter
Concentrations reported in micrograms per liter (µg/L)

ND< = Not detected above the reported limit of quantitation
E = Estimated value; Value above the calibration range.
NA = Not Applicable

Note: Analysis was performed by EPA method 8260B following the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) guidelines.

ANALYST: Art Perez

REVIEWED BY: Ragi Abraham

TABLE B-2

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

10/28/2003 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	BENZ (ppmv)	CCL4 (ppmv)	CFM (ppmv)	1,1-DCA (ppmv)	1,2-DCA (ppmv)	1,1-DCE (ppmv)	c-1,2-DCE (ppmv)	EBENZ (ppmv)	MeCl2 (ppmv)	CBENZ (ppmv)	PCE (ppmv)	TCE (ppmv)	1,1,1-TCA (ppmv)	VC (ppmv)	F-113 (ppmv)	m,p-XYL (ppmv)	o-XYL (ppmv)
SG01-5-100203	10/2/2003	1	ND	ND	0.90	ND	ND	ND	ND	ND	ND	47.77	1.24	ND	ND	ND	ND	0.25	ND
SG01-35-100203	10/2/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	123.77	ND	ND	ND	ND	ND	ND	ND
SG02-5-100303	10/3/2003	1	ND	ND	0.35	ND	ND	ND	ND	ND	ND	0.91	0.16	ND	ND	ND	ND	ND	ND
SG02-35-100303	10/3/2003	1	ND	ND	24.57	ND	ND	10.08	ND	ND	ND	2.17	10.03	5.02	ND	ND	ND	ND	ND
SG03-5-100603	10/6/2003	2	ND	ND	2.05	ND	ND	ND	ND	ND	ND	0.65	0.87	ND	ND	ND	ND	ND	ND
SG03-15-100603	10/6/2003	1	ND	ND	0.51	ND	ND	ND	ND	ND	ND	0.91	0.27	ND	ND	ND	ND	0.69	0.32
SG03-35-100603	10/6/2003	1	ND	ND	92.15	ND	ND	2.04	ND	ND	ND	ND	19.17	ND	ND	ND	ND	ND	ND
SG04-5-101603	10/16/2003	1	ND	ND	1.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG04-15-101603	10/16/2003	1	ND	ND	1.72	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG04-35-101603	10/16/2003	2	ND	2.38	839.57	ND	ND	ND	ND	ND	ND	ND	23.59	ND	ND	ND	ND	ND	ND
SG05-5-101603	10/16/2003	1	ND	ND	0.61	ND	ND	ND	ND	ND	ND	0.69	ND	ND	ND	ND	ND	ND	ND
SG05-15-101603	10/16/2003	1	ND	ND	0.82	ND	ND	ND	ND	ND	ND	1.56	ND	ND	ND	ND	ND	ND	ND
SG05-15-101603-DS	10/16/2003	1	ND	ND	0.84	ND	ND	ND	ND	ND	ND	1.52	0.16	ND	ND	ND	ND	ND	ND
SG05-35-101603	10/16/2003	2	ND	3.34	348.12	ND	ND	ND	ND	ND	ND	0.59	7.52	ND	ND	ND	ND	ND	ND
SG06-5-101703	10/17/2003	1	ND	ND	3.48	ND	ND	ND	ND	ND	ND	0.39	0.28	ND	ND	ND	ND	ND	ND
SG06-5-101703-DS	10/17/2003	1	ND	ND	2.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG06-31-101703	10/17/2003	1	ND	ND	6.55	ND	ND	ND	ND	ND	ND	ND	1.31	ND	ND	ND	ND	ND	ND
SG06-35-101703	10/17/2003	1	ND	1.91	30.72	ND	ND	ND	ND	ND	ND	ND	5.16	ND	ND	ND	ND	ND	ND
SG07-08-100303	10/3/2003	1	ND	ND	0.29	ND	ND	ND	ND	6.91	ND	0.63	ND	ND	ND	ND	ND	29.93	9.67
SG07-15-100603	10/6/2003	1	ND	ND	11.67	ND	ND	ND	ND	2.12	0.75	6.30	1.42	ND	ND	ND	ND	2.99	3.45
SG07-35-100603	10/6/2003	1	ND	1.75	204.77	ND	ND	5.29	ND	ND	ND	2.17	33.92	1.49	ND	ND	ND	1.91	1.59
SG08-15-101703	10/17/2003	1	ND	ND	22.53	ND	ND	ND	ND	ND	ND	1.95	ND	ND	ND	ND	ND	ND	ND
SG08-35-101703	10/17/2003	2	8.14	8.43	2252.51	ND	ND	ND	ND	ND	ND	1389.70	11.80	ND	ND	ND	ND	ND	ND
SG09-15-101403	10/14/2003	1	ND	ND	1.70	ND	ND	ND	ND	ND	ND	0.41	0.24	ND	ND	ND	ND	ND	ND
SG09-35-101403	10/14/2003	2	ND	8.90	190.44	ND	ND	ND	ND	ND	ND	ND	30.97	0.28	ND	ND	ND	ND	ND

TABLE B-2

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

10/28/2003 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	BENZ (ppmv)	CCL4 (ppmv)	CFM (ppmv)	1,1-DCA (ppmv)	1,2-DCA (ppmv)	1,1-DCE (ppmv)	c-1,2-DCE (ppmv)	EBENZ (ppmv)	MeCl2 (ppmv)	CBENZ (ppmv)	PCE (ppmv)	TCE (ppmv)	1,1,1-TCA (ppmv)	VC (ppmv)	F-113 (ppmv)	m,p-XYL (ppmv)	o-XYL (ppmv)
SG10-5-100203	10/2/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.89	0.49	ND	ND	ND	ND	ND	ND
SG10-35-100203	10/2/2003	1	ND	ND	7.99	ND	ND	8.32	ND	ND	ND	17.59	4.72	6.51	ND	ND	ND	ND	ND
SG10-35-100203-DS	10/2/2003	1	ND	ND	7.17	ND	ND	8.57	ND	ND	ND	14.33	4.28	5.95	ND	ND	ND	ND	ND
SG11-5-100303	10/3/2003	1	ND	ND	4.71	ND	ND	6.55	ND	ND	ND	0.22	1.77	3.54	ND	ND	ND	ND	ND
SG11-5-100303-DS	10/3/2003	1	ND	ND	5.32	ND	ND	7.06	ND	ND	ND	0.87	2.06	3.91	ND	ND	0.16	ND	ND
SG12-5-100603	10/6/2003	7 (PVS)	ND	0.35	34.81	ND	ND	7.56	ND	ND	ND	ND	5.31	4.28	ND	ND	0.42	ND	ND
SG12-15-100703	10/7/2003	1	ND	ND	1.35	ND	ND	ND	ND	ND	ND	0.52	0.25	ND	ND	ND	ND	ND	ND
SG12-15-100703-DS	10/7/2003	1	ND	ND	2.25	ND	ND	ND	ND	ND	ND	0.61	0.25	ND	ND	ND	ND	ND	ND
SG12-35-100703	10/7/2003	1	ND	ND	34.81	ND	ND	17.14	ND	ND	ND	1.28	7.67	9.68	ND	ND	ND	ND	ND
SG13-5-100203	10/2/2003	1	ND	ND	1.76	ND	ND	ND	ND	ND	0.35	21.71	ND	ND	ND	ND	ND	ND	ND
SG14-5-101503	10/15/2003	1	1.85	ND	11.47	ND	ND	ND	ND	ND	4.61	97.71	1.62	ND	ND	ND	ND	0.76	0.28
SG14-8-101503	10/15/2003	2	ND	ND	7.37	ND	ND	ND	ND	ND	ND	23.89	0.53	ND	ND	ND	ND	ND	ND
SG14-15-101503	10/15/2003	1	ND	ND	2.46	ND	ND	ND	ND	ND	ND	9.77	0.32	ND	ND	ND	ND	ND	ND
SG14-35-101503	10/15/2003	2	ND	7.63	286.68	ND	ND	ND	ND	ND	ND	13.25	35.39	ND	ND	ND	ND	ND	ND
SG15-5-101403	10/14/2003	7 (PVS)	ND	ND	1.31	ND	ND	ND	ND	ND	ND	0.48	0.40	ND	ND	ND	ND	0.46	ND
SG15-35-101503	10/15/2003	1	ND	ND	0.49	ND	ND	ND	ND	ND	ND	1.06	0.25	ND	ND	ND	ND	ND	ND
SG16-5-092903	9/29/2003	7 (PVS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.72	ND	ND	ND	ND	ND	0.39	ND
SG16-8-092903	9/29/2003	7 (PVS)	ND	ND	1.09	ND	ND	ND	ND	ND	ND	84.68	0.16	ND	ND	ND	ND	0.90	0.25
SG16-15-093003	9/30/2003	8 (PVS)	2.16	ND	90.10	ND	ND	4.79	ND	ND	2.88	955.42	1.92	ND	ND	ND	ND	5.53	0.23
SG16-35-093003	9/30/2003	7 (PVS)	7.20	ND	129.01	ND	ND	16.89	ND	ND	4.90	803.42	ND	ND	4.03	ND	ND	ND	ND
SG16-5-102003-New	10/20/2003	1	ND	ND	3.69	ND	ND	1.44	ND	ND	ND	17.15	0.32	0.58	ND	ND	ND	ND	ND
SG16-8-102003-New	10/20/2003	1	ND	ND	1.43	ND	ND	ND	ND	ND	ND	14.98	0.41	0.39	ND	ND	ND	ND	ND
SG16-15-102003-New	10/20/2003	1	ND	ND	0.63	ND	ND	2.77	ND	ND	ND	6.73	0.31	1.84	ND	ND	ND	ND	ND

TABLE B-2

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

10/28/2003

2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	BENZ (ppmv)	CCL4 (ppmv)	CFM (ppmv)	1,1-DCA (ppmv)	1,2-DCA (ppmv)	1,1-DCE (ppmv)	c-1,2-DCE (ppmv)	EBENZ (ppmv)	MeCl2 (ppmv)	CBENZ (ppmv)	PCE (ppmv)	TCE (ppmv)	1,1,1-TCA (ppmv)	VC (ppmv)	F-113 (ppmv)	m,p-XYL (ppmv)	o-XYL (ppmv)
SG17-15-102003	10/20/2003	1	ND	ND	4.10	ND	ND	ND	ND	ND	ND	12.81	ND	ND	ND	ND	ND	ND	ND
SG17-15-102003-DS	10/20/2003	1	ND	ND	6.14	ND	ND	ND	ND	ND	ND	13.03	0.41	ND	ND	ND	ND	ND	ND
SG17-35-102003	10/20/2003	2	10.02	12.88	491.46	ND	ND	504.12	ND	ND	ND	1889.12	91.43	ND	ND	ND	ND	2.99	ND
SG18-5-100203	10/2/2003	1	ND	ND	5.73	ND	ND	4.79	ND	ND	ND	0.46	9.00	3.72	ND	ND	0.21	ND	ND
SG18-35-100203	10/2/2003	1	ND	ND	10.85	ND	ND	21.43	ND	ND	ND	1.15	50.14	20.47	ND	ND	1.03	ND	ND
SG19-5-100303	10/3/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG19-35-100303	10/3/2003	2	ND	ND	3.07	0.42	ND	9.07	ND	ND	ND	0.63	10.32	10.23	ND	ND	ND	ND	ND
SG20-5-100703	10/7/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43	0.30	ND	ND	ND	ND	ND
SG20-15-100703	10/7/2003	1	ND	ND	ND	ND	ND	0.38	ND	ND	ND	ND	2.21	3.54	0.24	ND	ND	ND	ND
SG20-35-100703	10/7/2003	7 (PVS)	0.47	ND	6.14	0.84	ND	9.33	0.98	ND	0.29	0.63	20.65	24.19	1.45	1.88	0.42	ND	ND
SG21-5-100103	10/1/2003	3 (PVS)	ND	ND	4.30	ND	ND	ND	ND	ND	ND	1.39	0.75	ND	ND	ND	ND	ND	ND
SG21-8-100103	10/1/2003	3 (PVS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	ND	ND	ND	ND	ND	ND	ND
SG21-15-100103	10/1/2003	3 (PVS)	ND	0.27	18.22	ND	ND	0.66	ND	ND	ND	62.97	2.51	0.33	ND	ND	ND	ND	ND
SG21-35-100103	10/1/2003	4 (PVS)	4.07	11.13	634.80	ND	ND	19.66	ND	ND	ND	1910.83	235.95	16.00	ND	ND	2.74	ND	ND
SG22-5-101503	10/15/2003	1	ND	ND	0.88	ND	ND	ND	ND	ND	ND	21.71	ND	ND	ND	ND	ND	1.24	0.48
SG22-5-101503-DS	10/15/2003	1	ND	ND	0.78	ND	ND	ND	ND	ND	ND	19.54	0.31	ND	ND	ND	ND	0.87	ND
SG22-8-101503	10/15/2003	1	ND	ND	1.15	ND	ND	ND	ND	ND	ND	19.11	0.38	ND	ND	ND	ND	ND	ND
SG22-15-101503	10/15/2003	1	ND	ND	5.12	ND	ND	ND	ND	ND	ND	18.67	0.84	ND	ND	ND	ND	0.71	ND
SG22-35-101603	10/16/2003	1	1.57	0.38	43.00	ND	ND	ND	ND	ND	0.63	89.03	9.88	ND	ND	ND	ND	2.76	ND
SG23-5-101303	10/13/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG23-35-101303	10/13/2003	1	ND	0.25	3.89	ND	ND	ND	ND	ND	ND	0.22	22.12	0.35	ND	ND	ND	ND	ND
SG24-8-100803	10/8/2003	1	ND	0.57	11.26	ND	ND	1.89	ND	ND	ND	ND	17.70	2.79	ND	ND	0.13	ND	ND
SG24-15-100803	10/8/2003	1	ND	ND	0.78	ND	ND	ND	ND	ND	ND	0.24	1.05	0.22	ND	ND	ND	ND	ND
SG24-35-100803	10/8/2003	2	ND	13.83	182.25	1.80	0.99	42.85	1.84	ND	0.72	ND	383.41 E	52.10	2.93	ND	4.70	ND	ND
SG25-15-100903	10/9/2003	1	2.29	0.83	73.72	ND	ND	ND	ND	ND	2.48	18.46	60.46	1.10	ND	ND	ND	ND	ND
SG25-35-100903	10/9/2003	1	13.15	17.49	757.66	ND	ND	3.53	ND	ND	ND	716.56	250.69	5.02	ND	ND	1.96	ND	ND
SG25-35-100903-DS	10/9/2003	1	17.84	27.03	921.48	ND	ND	5.04	ND	ND	ND	933.70	398.16	6.88	ND	ND	2.74	ND	ND

TABLE B-2

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

10/28/2003 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	BENZ (ppmv)	CCL4 (ppmv)	CFM (ppmv)	1,1-DCA (ppmv)	1,2-DCA (ppmv)	1,1-DCE (ppmv)	c-1,2-DCE (ppmv)	EBENZ (ppmv)	MeCl2 (ppmv)	CBENZ (ppmv)	PCE (ppmv)	TCE (ppmv)	1,1,1-TCA (ppmv)	VC (ppmv)	F-113 (ppmv)	m,p-XYL (ppmv)	o-XYL (ppmv)
SG26-15-101403	10/14/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29	ND	ND	ND	ND	ND	ND
SG26-35-101403	10/14/2003	2	ND	ND	1.19	ND	ND	ND	ND	ND	ND	1.26	4.42	ND	ND	ND	ND	ND	ND
SG27-5-100803	10/8/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.15	ND	ND	ND	ND	ND	ND
SG27-35-100803	10/8/2003	2	ND	13.51	102.39	2.96	ND	50.41	4.04	ND	ND	ND	545.63	59.54	1.30	ND	6.26	ND	ND
SG28-5-100803	10/8/2003	1	ND	ND	0.41	ND	ND	ND	ND	ND	ND	0.22	1.34	ND	ND	ND	ND	ND	ND
SG28-35-100803	10/8/2003	2	3.13	39.74	593.84	ND	ND	13.11	ND	ND	ND	23.89	840.56	22.33	ND	ND	9.79	ND	ND
SG29-5-100903	10/9/2003	1	ND	ND	5.32	ND	ND	ND	ND	ND	ND	7.17	2.06	ND	ND	ND	ND	0.55	ND
SG29-15-100903	10/9/2003	1	0.63	ND	3.07	ND	ND	ND	ND	ND	ND	3.69	1.11	ND	ND	ND	ND	ND	ND
SG29-35-100903	10/9/2003	1	97.05	10.97	1126.26	ND	ND	ND	ND	ND	ND	1433.13	162.21	5.02	ND	ND	3.26	ND	ND
SG29-35-100903-DS	10/9/2003	1	115.83	11.45	1331.03	ND	ND	ND	ND	ND	ND	1715.41	206.45	5.77	ND	ND	3.65	ND	ND
SG30-5-101303	10/13/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG30-15-101303	10/13/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG30-35-101303	10/13/2003	7 (PVS)	0.94	ND	ND	ND	ND	ND	ND	ND	ND	60.80	23.59	11.91	ND	ND	ND	ND	ND
SG31-5-100903	10/9/2003	1	0.59	ND	7.17	ND	ND	ND	ND	ND	ND	10.42	2.06	ND	ND	ND	ND	0.69	0.23
SG31-35-100903	10/9/2003	2	5.95	0.84	32.76	ND	ND	ND	ND	ND	ND	134.63	91.43	0.50	ND	ND	0.74	ND	ND
SG32-5-101003	10/10/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.80	0.43	ND	ND	ND	ND	ND	ND
SG32-15-101003	10/10/2003	7 (PVS)	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.67	7.82	ND	ND	ND	ND	ND	ND
SG32-35-101303	10/13/2003	2	ND	ND	0.20	ND	ND	ND	ND	ND	ND	1.50	1.30	ND	ND	ND	ND	ND	ND
SG33-5-101003	10/10/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.08	0.53	ND	ND	ND	ND	ND	ND
SG33-15-101003	10/10/2003	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.82	0.86	ND	ND	ND	ND	ND	ND
SG33-35-101003	10/10/2003	2	ND	ND	0.29	ND	ND	ND	ND	ND	ND	3.26	0.99	ND	ND	ND	ND	ND	ND

ppmv = parts per million by volume
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

st detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG16-5-092903	9/29/2003	7 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	77	ND<1	1.7	ND<1
SG16-8-092903	9/29/2003	7 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	5.3	ND<1	ND<1	ND<1	ND<1	ND<1	1.1	390	ND<1	3.9	1.1
Equipment Blank	9/30/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG16-15-093003	9/30/2003	8 (PVS)	ND<1	ND<1	19	10	ND<1	ND<1	440	ND<1	ND<1	6.9	ND<1	ND<1	13	4,400	ND<1	24	1.0
SG16-35-093003	9/30/2003	7 (PVS)	ND<5	ND<5	67	17	ND<5	ND<5	630	22	ND<5	23	ND<5	ND<5	ND<5	3,700	ND<5	ND<5	ND<5
SG21-5-100103	10/1/2003	3 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	21	ND<1	ND<1	ND<1	ND<1	ND<1	5.1	6.4	ND<1	ND<1	ND<1
SG21-8-100103	10/1/2003	3 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.2	ND<1	ND<1	ND<1
SG21-15-100103	10/1/2003	3 (PVS)	ND<1	ND<1	2.6	ND<1	ND<1	ND<1	89	ND<1	1.7	ND<1	ND<1	1.8	17	290	ND<1	ND<1	ND<1
SG21-35-100103	10/1/2003	4 (PVS)	ND<10	21	78	ND<10	ND<10	ND<10	3,100	ND<10	70	13	ND<10	86	1,600	8,800	ND<10	ND<10	ND<10
SG01-5-100203	10/2/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	4.4	ND<1	ND<1	ND<1	ND<1	ND<1	8.4	220	ND<1	1.1	ND<1
SG01-35-100203	10/2/2003	1	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	570	ND<20	ND<20	ND<20
SG10-5-100203	10/2/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	3.3	110	ND<2	ND<2	ND<2
SG10-35-100203	10/2/2003	1	ND<10	ND<10	33	ND<10	ND<10	ND<10	39	ND<10	ND<10	ND<10	ND<10	35	32	81	ND<10	ND<10	ND<10
SG10-35-100203-DS	10/2/2003	1	ND<10	ND<10	34	ND<10	ND<10	ND<10	35	ND<10	ND<10	ND<10	ND<10	32	29	66	ND<10	ND<10	ND<10
SG13-5-100203	10/2/2003	1	ND<1	ND<1	ND<1	1.2	ND<1	ND<1	8.6	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	100	ND<1	ND<1	ND<1
SG18-5-100203	10/2/2003	1	ND<1	1.6	19	ND<1	ND<1	ND<1	28	ND<1	ND<1	ND<1	ND<1	20	61	2.1	ND<1	ND<1	ND<1
SG18-35-100203	10/2/2003	1	ND<5	7.9	85	ND<5	ND<5	ND<5	53	ND<5	ND<5	ND<5	ND<5	110	340	5.3	ND<5	ND<5	ND<5

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004

2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG02-5-100303	10/3/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.7	ND<1	ND<1	ND<1	ND<1	ND<1	1.1	4.2	ND<1	ND<1	ND<1
SG02-35-100303	10/3/2003	1	ND<5	ND<5	40	ND<5	ND<5	ND<5	120	ND<5	ND<5	ND<5	ND<5	27	68	10	ND<5	ND<5	ND<5
SG07-08-100303	10/3/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.4	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.9	30	130	42
SG11-5-100303	10/3/2003	1	ND<1	ND<1	26	ND<1	ND<1	ND<1	23	ND<1	ND<1	ND<1	ND<1	19	12	1.0	ND<1	ND<1	ND<1
SG11-5-100303-DS	10/3/2003	1	ND<1	1.2	28	ND<1	ND<1	ND<1	26	ND<1	ND<1	ND<1	ND<1	21	14	4.0	ND<1	ND<1	ND<1
SG19-5-100303	10/3/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG19-35-100303	10/3/2003	2	ND<1	ND<1	36	ND<1	1.7	ND<1	15	ND<1	ND<1	ND<1	ND<1	55	70	2.9	ND<1	ND<1	ND<1
SG03-5-100603	10/6/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	10	ND<1	ND<1	ND<1	ND<1	ND<1	5.9	3.0	ND<1	ND<1	ND<1
SG03-15-100603	10/6/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.5	ND<1	ND<1	ND<1	ND<1	ND<1	1.8	4.2	ND<1	3.0	1.4
SG03-35-100603	10/6/2003	1	ND<5	ND<5	8.1	ND<5	ND<5	ND<5	450	ND<5	ND<5	ND<5	ND<5	ND<5	130	ND<5	ND<5	ND<5	ND<5
SG07-15-100603	10/6/2003	1	ND<2	ND<2	ND<2	2.6	ND<2	ND<2	57	ND<2	ND<2	ND<2	ND<2	ND<2	9.6	29	9.2	13	15
SG07-35-100603	10/6/2003	1	ND<5	ND<5	21	ND<5	ND<5	ND<5	1,000	ND<5	11	ND<5	ND<5	8.0	230	10	ND<5	8.3	6.9
SG12-5-100603	10/6/2003	7 (PVS)	ND<1	3.2	30	ND<1	ND<1	ND<1	170	ND<1	2.2	ND<1	ND<1	23	36	ND<1	ND<1	ND<1	ND<1
SG12-15-100703	10/7/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	6.6	ND<1	ND<1	ND<1	ND<1	ND<1	1.7	2.4	ND<1	ND<1	ND<1
SG12-15-100703-DS	10/7/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	11	ND<1	ND<1	ND<1	ND<1	ND<1	1.7	2.8	ND<1	ND<1	ND<1
SG12-35-100703	10/7/2003	1	ND<5	ND<5	68	ND<5	ND<5	ND<5	170	ND<5	ND<5	ND<5	ND<5	52	52	5.9	ND<5	ND<5	ND<5

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG20-5-100703	10/7/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.6	2.9	ND<1	ND<1	ND<1	ND<1
SG20-15-100703	10/7/2003	1	ND<1	ND<1	1.5	ND<1	ND<1	ND<1	ND<1	1.3	ND<1	ND<1	ND<1	19	15	ND<1	ND<1	ND<1	ND<1
SG20-35-100703	10/7/2003	7 (PVS)	4.8	3.2	37	1.0	3.4	3.9	30	7.9	ND<1	1.5	ND<1	130	140	2.9	ND<1	ND<1	ND<1
SG24-8-100803	10/8/2003	1	ND<1	1.0	7.5	ND<1	ND<1	ND<1	55	ND<1	3.6	ND<1	ND<1	15	120	ND<1	ND<1	ND<1	ND<1
SG24-15-100803	10/8/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	3.8	ND<1	ND<1	ND<1	ND<1	1.2	7.1	1.1	ND<1	ND<1	ND<1
SG24-35-100803	10/8/2003	2	ND<2	36	170	2.5	7.3	7.3	890	16	87	ND<2	4.0	280	2,600 E	ND<2	ND<2	ND<2	ND<2
SG27-5-100803	10/8/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	7.8	ND<1	ND<1	ND<1	ND<1
SG27-35-100803	10/8/2003	2	ND<5	48	200	ND<5	12	16	500	7.1	85	ND<5	ND<5	320	3,700	ND<5	ND<5	ND<5	ND<5
SG28-5-100803	10/8/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.0	ND<1	ND<1	ND<1	ND<1	ND<1	9.1	1.0	ND<1	ND<1	ND<1
SG28-35-100803	10/8/2003	2	ND<10	75	52	ND<10	ND<10	ND<10	2,900	ND<10	250	10	ND<10	120	5,700	110	ND<10	ND<10	ND<10
SG25-15-100903	10/9/2003	1	ND<2	ND<2	ND<2	8.6	ND<2	ND<2	360	ND<2	5.2	7.3	ND<2	5.9	410	85	ND<2	ND<2	ND<2
SG25-35-100903	10/9/2003	1	ND<10	15	14	ND<10	ND<10	ND<10	3,700	ND<10	110	42	ND<10	27	1,700	3,300	ND<10	ND<10	ND<10
SG25-35-100903-DS	10/9/2003	1	ND<10	21	20	ND<10	ND<10	ND<10	4,500	ND<10	170	57	ND<10	37	2,700	4,300	ND<10	ND<10	ND<10
SG29-5-100903	10/9/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	26	ND<1	ND<1	ND<1	ND<1	ND<1	14	33	ND<1	2.4	ND<1
SG29-15-100903	10/9/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	15	ND<2	ND<2	2.0	ND<2	ND<2	7.5	17	ND<2	ND<2	ND<2
SG29-35-100903	10/9/2003	1	ND<20	25	ND<20	ND<20	ND<20	ND<20	5,500	ND<20	69	310	ND<20	27	1,100	6,600	ND<20	ND<20	ND<20
SG29-35-100903-DS	10/9/2003	1	ND<20	28	ND<20	ND<20	ND<20	ND<20	6,500	ND<20	72	370	ND<20	31	1,400	7,900	ND<20	ND<20	ND<20

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG31-5-100903	10/9/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	35	ND<1	ND<1	1.9	ND<1	ND<1	14	48	ND<1	3.0	1.0
SG31-35-100903	10/9/2003	2	ND<2	5.7	ND<2	ND<2	ND<2	ND<2	160	ND<2	5.3	19	ND<2	2.7	620	620	ND<2	ND<2	ND<2
SG32-5-101003	10/10/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.9	8.3	ND<1	ND<1	ND<1
SG32-15-101003	10/10/2003	7 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	53	3.1	ND<1	ND<1	ND<1
SG33-5-101003	10/10/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	3.6	9.6	ND<1	ND<1	ND<1
SG33-15-101003	10/10/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	5.8	13	ND<2	ND<2	ND<2
SG33-35-101003	10/10/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.4	ND<1	ND<1	ND<1	ND<1	ND<1	6.7	15	ND<1	ND<1	ND<1
SG23-5-101303	10/13/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG23-35-101303	10/13/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	19	ND<1	1.6	ND<1	ND<1	1.9	150	1.0	ND<1	ND<1	ND<1
SG30-5-101303	10/13/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG30-15-101303	10/13/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG30-35-101303	10/13/2003	7 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	3.0	ND<1	64	160	280	ND<1	ND<1	ND<1
SG32-35-101303	10/13/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.0	ND<1	ND<1	ND<1	ND<1	ND<1	8.8	6.9	ND<1	ND<1	ND<1
SG09-15-101403	10/14/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	8.3	ND<1	ND<1	ND<1	ND<1	ND<1	1.6	1.9	ND<1	ND<1	ND<1
SG09-35-101403	10/14/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	930	ND<1	56	ND<1	ND<1	1.5	210	ND<1	ND<1	ND<1	ND<1
SG15-5-101403	10/14/2003	7 (PVS)	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	6.4	ND<1	ND<1	ND<1	ND<1	ND<1	2.7	2.2	ND<1	2.0	ND<1
SG26-15-101403	10/14/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.0	ND<1	ND<1	ND<1	ND<1
SG26-35-101403	10/14/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	5.8	ND<1	ND<1	ND<1	ND<1	ND<1	30	5.8	ND<1	ND<1	ND<1

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG14-5-101503	10/15/2003	1	ND<1	ND<1	ND<1	16	ND<1	ND<1	56	ND<1	ND<1	5.9	ND<1	ND<1	11	450	ND<1	3.3	1.2
SG14-8-101503	10/15/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	36	ND<1	ND<1	ND<1	ND<1	ND<1	3.6	110	ND<1	ND<1	ND<1
SG14-15-101503	10/15/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	12	ND<2	ND<2	ND<2	ND<2	ND<2	2.2	45	ND<2	ND<2	ND<2
SG14-35-101503	10/15/2003	2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	1,400	ND<2	48	ND<2	ND<2	ND<2	240	61	ND<2	ND<2	ND<2
SG15-35-101503	10/15/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	2.4	ND<1	ND<1	ND<1	ND<1	ND<1	1.7	4.9	ND<1	ND<1	ND<1
SG22-5-101503	10/15/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	4.3	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	100	ND<2	5.4	2.1
SG22-5-101503-DS	10/15/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	3.8	ND<2	ND<2	ND<2	ND<2	ND<2	2.1	90	ND<2	3.8	ND<2
SG22-8-101503	10/15/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	5.6	ND<2	ND<2	ND<2	ND<2	ND<2	2.6	88	ND<2	ND<2	ND<2
SG22-15-101503	10/15/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	25	ND<2	ND<2	ND<2	ND<2	ND<2	5.7	86	ND<2	3.1	ND<2
SG04-5-101603	10/16/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	5.5	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG04-15-101603	10/16/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	8.4	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG04-35-101603	10/16/2003	2	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	4,100	ND<5	15	ND<5	ND<5	ND<5	160	ND<5	ND<5	ND<5	ND<5
SG05-5-101603	10/16/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	3.0	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	3.2	ND<1	ND<1	ND<1
SG05-15-101603	10/16/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	4.0	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	7.2	ND<1	ND<1	ND<1
SG05-15-101603-DS	10/16/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	4.1	ND<1	ND<1	ND<1	ND<1	ND<1	1.1	7.0	ND<1	ND<1	ND<1
SG05-35-101603	10/16/2003	2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1,700	ND<1	21	ND<1	ND<1	ND<1	51	2.7	ND<1	ND<1	ND<1
SG22-35-101603	10/16/2003	1	ND<2	ND<2	ND<2	2.2	ND<2	ND<2	210	ND<2	2.4	5.0	ND<2	ND<2	67	410	ND<2	12	ND<2

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene
note: SG 22-15 sampled at 20 ft

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-3

SUMMARY OF FIELD ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
20201 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA

5/25/2004 2185 t1

PROBE ID	DATE OF SAMPLING	SAMPLING EVENTS	VC (µg/L)	F-113 (µg/L)	1,1-DCE (µg/L)	MeCl2 (µg/L)	1,1-DCA (µg/L)	c-1,2-DCE (µg/L)	CFM (µg/L)	1,1,1-TCA (µg/L)	CCL4 (µg/L)	BENZ (µg/L)	1,2-DCA (µg/L)	TCE (µg/L)	PCE (µg/L)	CBENZ (µg/L)	EBENZ (µg/L)	m,p-XYL (µg/L)	o-XYL (µg/L)
SG06-5-101703	10/17/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	17	ND<1	ND<1	ND<1	ND<1	ND<1	1.9	1.8	ND<1	ND<1	ND<1
SG06-5-101703-DS	10/17/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	11	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
SG06-31-101703	10/17/2003	1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	32	ND<5	ND<5	ND<5	ND<5	ND<5	8.9	ND<5	ND<5	ND<5	ND<5
SG06-35-101703	10/17/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	150	ND<1	12	ND<1	ND<1	ND<1	35	ND<1	ND<1	ND<1	ND<1
SG08-15-101703	10/17/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	110	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	9.0	ND<2	ND<2	ND<2
SG08-35-101703	10/17/2003	2	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	11,000	ND<10	53	26	ND<10	ND<10	80	6,400	ND<10	ND<10	ND<10
SG16-5-102003-New	10/20/2003	1	ND<1	ND<1	5.7	ND<1	ND<1	ND<1	18	ND<1	ND<1	ND<1	ND<1	3.1	2.2	79	ND<1	ND<1	ND<1
SG16-8-102003-New	10/20/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	7.0	ND<2	ND<2	ND<2	ND<2	2.1	2.8	69	ND<2	ND<2	ND<2
SG16-15-102003-New	10/20/2003	1	ND<1	ND<1	11	ND<1	ND<1	ND<1	3.1	ND<1	ND<1	ND<1	ND<1	9.9	2.1	31	ND<1	ND<1	ND<1
SG17-15-102003	10/20/2003	1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	20	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	59	ND<2	ND<2	ND<2
SG17-15-102003-DS	10/20/2003	1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	30	ND<1	ND<1	ND<1	ND<1	ND<1	2.8	60	ND<1	ND<1	ND<1
SG17-35-102003	10/20/2003	2	ND<10	ND<10	2,000	ND<10	ND<10	ND<10	2,400	ND<10	81	32	ND<10	ND<10	620	8,700	ND<10	13	ND<10

µg/L = micrograms per liter
ND = Not detected; Sample is below the reported limit of quantitation.
PVS = Purge Volume Study
E = Exceeds instrument calibration range
VC = vinyl chloride
F-113 = 1,1,2-trichloro-trifluoroethane
1,1-DCE = 1,1-dichloroethene

MeCl2 = methylene chloride
1,1-DCA = 1,1-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
CFM = chloroform
1,1,1-TCA = 1,1,1-trichloroethane
CCL4 = carbon tetrachloride
BENZ = benzene

1,2-DCA = 1,2-Dichloroethane
TCE = trichloroethene
PCE = tetrachloroethene
CBENZ = monochlorobenzene
EBENZ = ethylbenzene
m,p-XYL = meta and para-xylenes
o-XYL = ortho-xylene

Note: Values shown are the highest detected at each location within quantitation range.

TABLE B-4

ENVIRONMENTAL SUPPORT TECHNOLOGIES, INC.
SOIL GAS SURVEYS

REPORTING LIMITS FOR
VOLATILE ORGANIC COMPOUNDS

The Reporting Limit for volatile organic compounds is 1 µg/L when the sample volume is 10 ml. Reporting limits for lesser sample volumes are listed below.

Sample Volume (ml)	Reporting Limit (µg/L)
10	1.0
5.0	2.0
2.5	4.0
2.0	5.0
1.0	10
0.50	20
0.25	40
0.20	50
0.10	100
0.05	200
0.02	500
0.01	1000
0.005	2000

Appendix C

STANDARD METHODS AND PROCEDURES FOR SOIL GAS SURVEYS

SOIL GAS SURVEYING

STANDARD METHODS AND PROCEDURES FOR ADVANCEMENT AND SAMPLING OF SOIL GAS SAMPLING PROBES

ENVIRONMENTAL SUPPORT TECHNOLOGIES, INC.
360 Goddard
Irvine, California 92618-4601
(949) 679-9500
Fax (949) 679-9501

2003

STANDARD METHODS AND PROCEDURES FOR SOIL GAS SURVEYS

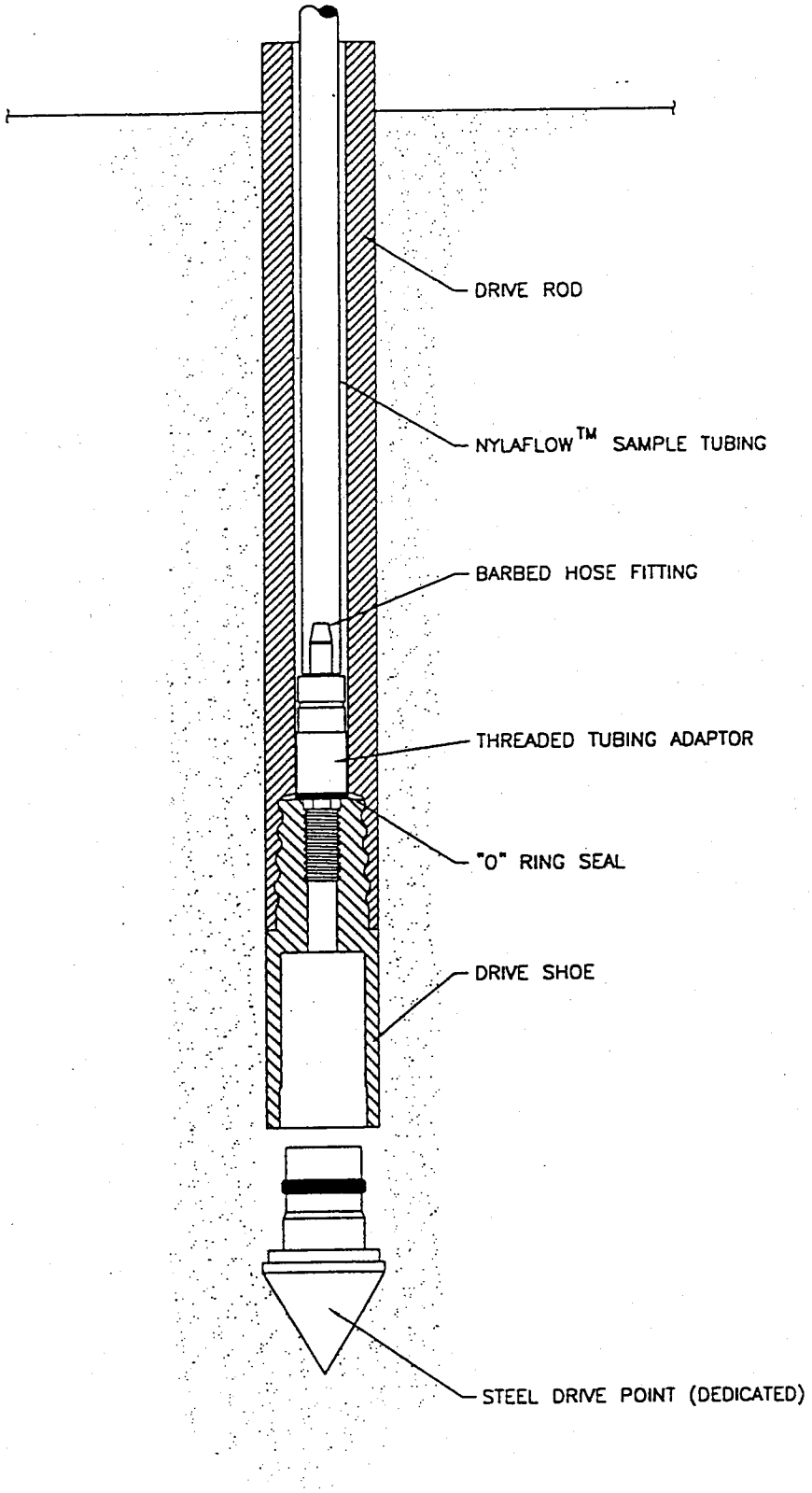
This section describes EST's standard methods and procedures for conducting soil gas surveys. Procedures may be modified based on evaluation of specific project needs. EST will perform soil gas surveys in general accordance with the Department of Toxic Substances Control (DTSC) / Los Angeles Regional Water Quality Control Board's (LARWQCB) "Advisory – Active Soil Gas Investigations" dated January 28, 2003.

MULTI-DEPTH SOIL GAS SAMPLING UTILIZING DIRECT-PUSH PROBE ADVANCEMENT METHODS

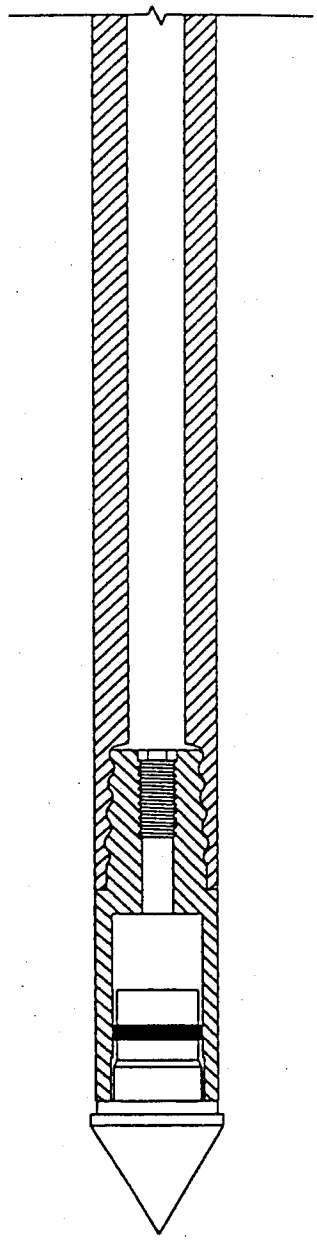
Discrete soil gas samples will be collected using a system similar to the Geoprobe Post-Run™ system. The soil gas probe advancement system is shown in Figure 1. The system uses a retractable probe tip and threaded tubing adapter with Nylaflow™ tubing for collection of a soil vapor samples at discrete intervals in a soil profile. Drive-casing with drive shoe and retractable probe tip will be advanced to an interval where a soil gas sample will be collected. The drive casing will be retracted slightly while the probe tip remains in-place allowing for sampling of soil vapors in an opening between the drive shoe and the probe tip. A threaded tubing adapter fitted with Nylaflow™ sample tubing will be lowered down the inside of the drive-casing and threaded to the drive shoe by rotating the sample tubing at the surface. The threaded tubing adapter will be fitted with an "o"-ring for a positive seal with the drive shoe. Soil gas samples will be collected using the soil gas sampling system shown in Figure 2.

The soil gas sampling system is constructed of stainless steel, glass, Nylaflow™, and Teflon™ components. Instrumentation associated with the sampling system includes a calibrated flow meter and a vacuum gauge. Vacuum integrity of the sampling system will be tested prior to, and after the soil gas survey using leak-down testing methods. Site-specific probe purging and sample volume calibrations will be initially performed to evaluate the appropriate volume of gas to be purged from each probe prior to sample collection. This will be done by performing time-series sampling of at least one probe to evaluate trends in soil gas concentrations as a function of purge volume. After probe purging, soil gas samples will be withdrawn from the moving sample stream using a glass syringe fitted with a disposable needle and Mininert™ gas-tight valve. Soil gas samples will be analyzed, immediately following collection, by direct gas injection into a laboratory-grade, field-operable gas chromatograph (GC).

Following collection of a soil gas sample, the sample tubing adapter assembly will be unthreaded and removed and the drive-casing will be advanced. This process re-seats the probe tip in the drive shoe. The drive-casing will be advanced to the next discrete sampling interval and the process will be repeated. New Nylaflow™ tubing will be used at each sampling interval. Following removal of the drive casing, the steel probe point will remain down-hole and the remaining annulus will be filled with hydrated bentonite/cement slurry to slightly below grade. The remaining depression will be filled with concrete patch material and finished flush with grade.



SAMPLING PROBE IN OPEN POSITION
(DURING SAMPLING)



SAMPLING PROBE IN CLOSED POSITION
(DURING ADVANCEMENT)

NOTE: NOT TO SCALE

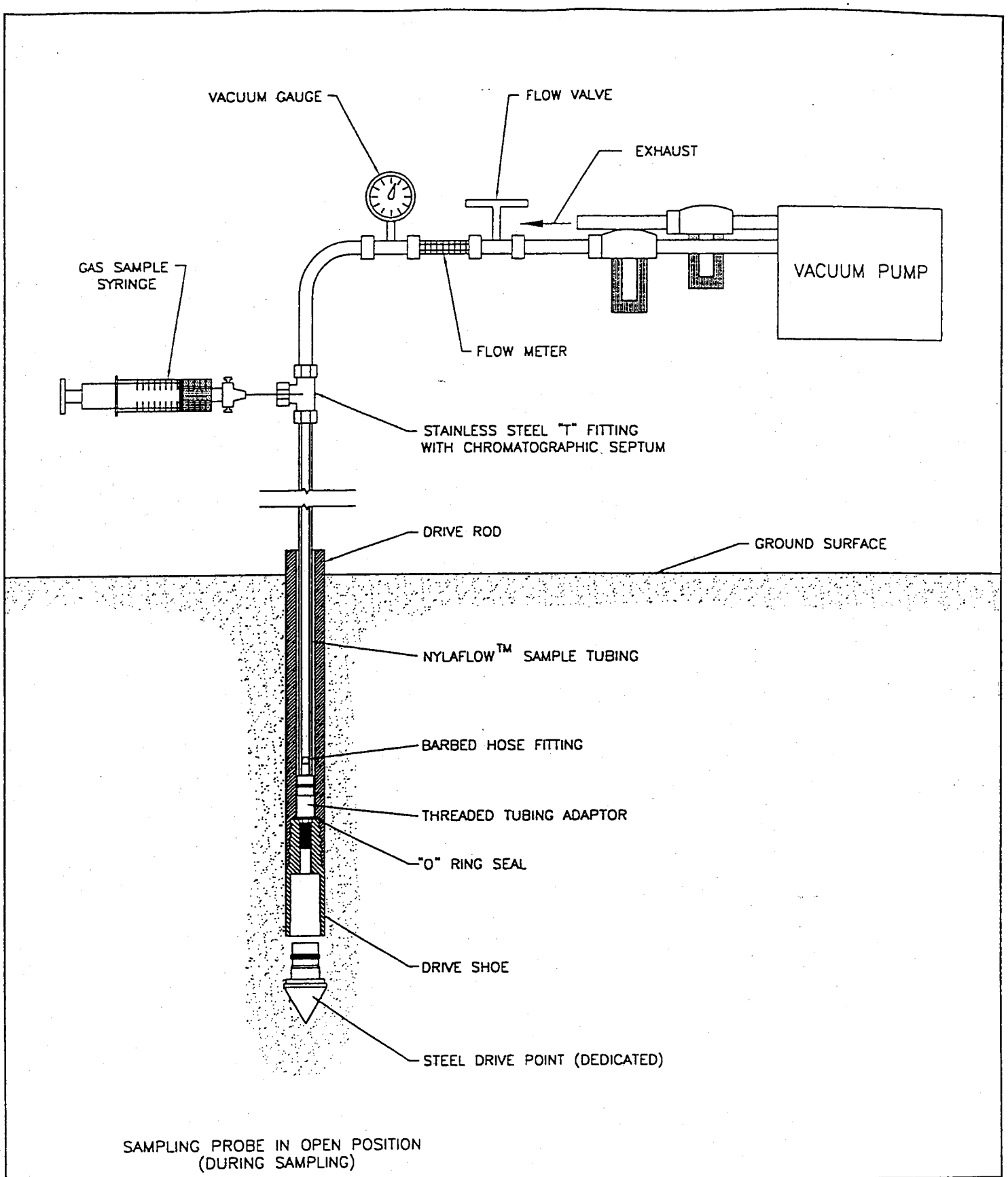
FIGURE 1

DISCRETE SOIL GAS SAMPLING PROBE

ENVIRONMENTAL SUPPORT TECHNOLOGIES, INC.
IRVINE, CALIFORNIA

DRAWN BY: JST SCALE: NOT TO SCALE DATE: 06-03-02

MKTG-03.DWG



SAMPLING PROBE IN OPEN POSITION
(DURING SAMPLING)

NOTE: NOT TO SCALE

FIGURE 2

DISCRETE SOIL GAS SAMPLING SYSTEM

ENVIRONMENTAL SUPPORT TECHNOLOGIES, INC.
IRVINE, CALIFORNIA

DRAWN BY: JST SCALE: NOT TO SCALE DATE: 06-03-02

MKTG-04.DWG

SAMPLE ANALYSIS OF VOLATILE ORGANIC COMPOUNDS

Soil gas samples will be analyzed in the field following EPA Method 8260B using a gas chromatograph/mass spectrometer GC/MS for the twenty-five (25) target compounds (VOCs) as specified in the DTSC / LARWQCB requirements (January 28, 2003) and monochlorobenzene. Detection limits for the DTSC / LARWQCB target compounds will be no more than one microgram per liter (µg/L) of gas except when compound concentration exceeds the initial calibration range. If this occurs, the sample will be diluted using smaller volume, which will result in raised detection limits for the analysis.

A series of quality assurance/quality control (QA/QC) analyses will be performed prior to, during, and following the analysis of the soil gas samples. A summary of these QA/QC analyses is shown in Table 1 and each are described below.

LEAK TEST

Leak testing will be conducted at every soil gas probe using isopropyl alcohol as a leak check compound. The detection limit for isopropyl alcohol will be 10 µg/L.

SURROGATE COMPOUNDS

Three (3) surrogate compounds will be added to all analyzed samples. Surrogate compound concentrations will be within the calibration range. The percent recovery of the surrogate compounds will be calculated and reported with soil gas sample results. The acceptance goal for surrogate recovery is ±25 percent difference from the true concentration of the surrogate compounds. Surrogate compounds added to each sample analysis run will include dibromofluoromethane, toluene-d8, and 4-bromofluorobenzene, each at a concentration of 25 µg/L.

INITIAL MULTI-POINT EQUIPMENT CALIBRATION

The GC/MS used for soil gas analysis will be calibrated using high-purity solvent-based standards obtained from certified vendors. Standards are typically prepared in high-purity methanol solvent. Calibration will be performed using solvent-based standards at varying concentration levels. If necessary, stock solvent-based standards will be diluted to an appropriate concentration. Diluted standards will be prepared by introducing a known volume of stock solvent-based standard into a known volume of high-purity solvent.

Initial GC/MS calibration will be performed for the DTSC / LARWQCB target compounds and isopropyl alcohol. The GC/MS will be calibrated using a minimum of three standard injections to establish a multi-point calibration curve. The lowest standard will not be higher than five times the method detection limit. The percent relative standard deviation (%RSD) of the response factor (RF) for each target compound must not exceed 20 percent except for trichlorofluoromethane (Freon®-11), dichlorodifluoromethane (Freon®-12), trichlorotrifluoroethane (Freon®-113),

TABLE 1

SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL ANALYSES FOR SOIL GAS SURVEYS

File: SGSQAQC11

CALIBRATION AND LABORATORY CONTROL SAMPLES		
DESCRIPTION	FREQUENCY	PRECISION GOAL
INITIAL MULTI-POINT CALIBRATION (25 Target Compounds)	At the beginning of the soil gas survey, unless the RPDs of the initial laboratory check sample or daily ICV samples samples exceed their goals.	20, 30 %RSD (1)
INITIAL LABORATORY CONTROL SAMPLE (LCS) (25 Target Compounds)	At the beginning of the survey, following the initial multi-point calibration.	±15, ±25 %D (2)
INITIAL CALIBRATION VERIFICATION (ICV) (14 Target Compounds)	At the beginning of each day (unless an initial multi-point calibration was performed).	±15, ±25 %D (3)
LAST GC TEST RUN	At the end of the day if all samples from that day of analysis show non-detect (ND) results.	At least 50 % recovery (4)
FIELD CONTROL SAMPLES		
DESCRIPTION	FREQUENCY	PRECISION GOAL
BACKGROUND SAMPLE (5)	Minimum one per day.	<1 µg/L of target compounds and 75 to 125 percent recovery of surrogate compounds
SYRINGE BLANK (5)	Minimum one per day.	<1 µg/L of target compounds and 75 to 125 percent recovery of surrogate compounds

%RSD = Percent Relative Standard Deviation calculated based on the initial multi-point calibration.

%D = Percent Difference between the response factor obtained from the LCS, the daily ICV, and the average response factor initially calculated based on the multi-point calibration.

µg/L = Micrograms per liter

(1) The %RSD goal for the initial multi-point calibration will be 20 percent for all compounds except for Dichlorodiflouromethane (Freon®-12, Vinyl Chloride (VC), Chloroethane (CE), Trichlorofluoromethane (Freon®-11), and 1,1,2-Trichloro-trifluoroethane (Freon®-113) for which the % RSD goal is 30 percent.

(2) The %D goal for the initial laboratory control standard will be ±15 percent for all compounds except for Freon®-12, Vinyl Chloride, Chloroethane, Freon®-11, and Freon®-113 for which the %D goal is ±25 percent.

(3) The %D goal for the daily ICV will be ±15 percent for all compounds except for Freon®-12, Vinyl Chloride, Chloroethane, Freon®-11, and Freon®-113 for which the %D goal is ±25 percent.

(4) A LCS at the detection limit concentration is analyzed. The recovery for each compound must be at least 50 percent.

(5) A syringe/background sample will be analyzed using ambient air. If volatile organic compounds (VOCs) are not detected, the ambient air sample will represent the background sample and syringe blank. If VOCs are detected in the ambient air sample, a syringe blank will be analyzed using ultra-high-purity helium or nitrogen gas.

chloroethane (CE), and vinyl chloride (VC) which must not exceed 30% RSD. Identification and quantitation of compounds in the field will be conducted under the same analytical conditions as for the initial calibration.

LABORATORY CONTROL SAMPLE

A laboratory control sample (LCS) from a source or a lot number other than the initial calibration standard will be analyzed to verify the true concentration of the initial calibration standard. The LCS will include the LARWQCB target compounds and the RF for each compound must be within ±15 percent difference from the average response factor (ARF) of the initial calibration except for Freon®-11, Freon®-12, Freon®-113, CE, and VC, which must be within ±25 percent difference from the ARF of the initial calibration.

INITIAL CALIBRATION VERIFICATION

A daily Initial Calibration Verification (ICV) will consist of a mid-point concentration of the initial calibration using the calibration standard solution. The daily ICV will include the 14 target compounds as specified in the previously referenced DTSC / LARWQCB requirements. The RF of each compound (except for Freon®-11, -12, and -113, CE, and VC) must be within ±15 percent difference from the ARF of the initial calibration. The RF for Freon®-11, -12, and -113, CE, and VC must be within ±25 percent difference from the ARF of the initial calibration.

Daily ICV will be performed prior to the first sample analysis of the day. Daily ICV also will be performed for compounds detected at a particular location to assure accurate quantitation.

END OF DAY GC TEST RUN

A LCS will be analyzed at the detection limit concentration should the soil gas samples show no detectable concentrations of volatile organic compounds. The recovery for each compound must be at least 50 percent of the true concentration of that LCS. If these criteria are not met, an additional LCS will be analyzed to satisfy these criteria.

BLANK INJECTIONS

The syringes used for soil gas sample collection will be filled with ambient air or high-purity carrier-grade gas from a compressed gas cylinder. The ambient air or high-purity gas will be analyzed daily before running samples. The blank injection will serve to detect contamination of the syringe to be used for sampling and verify the effectiveness of equipment decontamination procedures.

DECONTAMINATION PROCEDURES

The direct-push drive-rods, sampling shoe, probe points, and threaded tubing adapters will be decontaminated between sampling locations by washing/scrubbing the equipment in a phosphate-free detergent solution, followed by rinsing with tap water, and final rinsing with organic-free water. The

cleaned equipment will be placed on plastic sheeting and allowed to air-dry before use at the next location. Water from decontamination activities will be stored in 55-gallon DOT steel drums that will remain on-site for handling by others.

Soil gas sampling syringes and applicable fittings will be decontaminated by placing the equipment in the gas chromatograph oven and heating at a temperature ranging from 100 to 120 degrees centigrade (°C) for minimum of 5 minutes. The syringe will be allowed to cool to ambient temperature before use on the next sampling location. Several syringes will be heating in the oven and will be available for use at any time during the field day.

APPENDIX C

RESULTS OF FIVE RE-PROCESSED SAMPLES FOR FULL EPA 8260B LIST

Volatile Organic Compound Results
October 2003 Soil Gas Survey
Montrose Chemical Corporation
20201 S. Normandie Ave
Torrance, California

Constituents	Sample Locations				
	SG01-35	SG15-35	SG16-35	SG17-35	SG30-35
Reporting Units	(µg/L)				
Regional Water Quality Control Board Required List:					
Benzene	<20	<1	**23**	**30**	**3**
Carbon tetrachloride	<20	<1	<10	**59**	<1
Chloroethane	<20	<1	<10	<20	<1
Chloroform	<20	**2.4**	**630**	**2,000**	<1
Dichlorodifluoromethane	<20	<1	<10	<20	<1
1,1-Dichloroethane	<20	<1	<10	<20	<1
1,2-Dichloroethane	<20	<1	<10	<20	<1
1,1-Dichloroethene	<20	<1	**67**	<20	<1
cis-1,2-dichloroethene	<20	<1	<10	<20	<1
trans-1,2-Dichloroethene	<20	<1	<10	<20	<1
Ethylbenzene	<20	<1	<10	<20	<1
Methylene Chloride	<20	<1	**17**	<20	<1
Monochlorobenzene	**570**	**4.9**	**3,700**	**8,700**	**280**
1,1,1,2-Tetrachloroethane	<20	<1	<10	<20	<1
1,1,2,2-Tetrachloroethane	<20	<1	<10	<20	<1
Tetrachloroethene (PCE)	<20	**1.7**	<10	**620**	**160**
Toluene	<20	<1	<10	<20	<1
1,1,1-Trichloroethane	<20	<1	**22**	<20	<1
1,1,2-Trichloroethane	<20	<1	<10	<20	<1
Trichloroethene (TCE)	<20	<1	<10	<20	**64**
1,1,2-Trichloro-trifluoroethane	<20	<1	<10	<20	<1
Trichlorofluoromethane	<20	<1	<10	<20	<1
ortho-Xylene	<20	<1	<10	<20	<1
meta- and para-Xylene	<20	<1	<10	<20	<1
Vinyl Chloride	<20	<1	<10	<20	<1

Volatile Organic Compound Results
October 2003 Soil Gas Survey
Montrose Chemical Corporation
20201 S. Normandie Ave
Torrance, California

Constituents	Sample Locations				
	SG01-35	SG15-35	SG16-35	SG17-35	SG30-35
Reporting Units	(µg/L)				
Other Constituents Reported on Full 8260B List:					
Bromobenzene	<20	<1	<10	<20	<1
Bromochloromethane	<20	<1	<10	<20	<1
Bromodichloromethane	<20	<1	<10	<20	<1
Bromoform	<20	<1	<10	<20	<1
Bromomethane	<20	<1	<10	<20	<1
n-Butylbenzene	<20	<1	<10	<20	<1
sec-Butylbenzene	<20	<1	<10	<20	<1
tert-Butylbenzene	<20	<1	<10	<20	<1
Carbon disulfide	<20	<1	<10	<20	<1
Chloromethane	<20	<1	<10	<20	<1
2-Chlorotoluene	<20	<1	<10	<20	<1
4-Chlorotoluene	<20	<1	<10	<20	<1
1,2-Dibromo-3-chloropropane*	NR	NR	NR	<20	NR
Dibromochloromethane	<20	<1	<10	<20	<1
1,2-Dibromoethane	<20	<1	<10	<20	<1
Dibromomethane	<20	<1	<10	<20	<1
1,2-Dichlorobenzene	<20	<1	<10	<20	<1
1,3-Dichlorobenzene	<20	<1	<10	<20	<1
1,4-Dichlorobenzene	<20	<1	<10	<20	**1.3**
1,2-Dichloropropane	<20	<1	<10	<20	<1
1,3-Dichloropropane	<20	<1	<10	<20	<1
2,2-Dichloropropane	<20	<1	<10	<20	<1
1,1-Dichloropropene	<20	<1	<10	<20	<1
cis-1,3-Dichloropropene	<20	<1	<10	<20	<1
trans-1,3-Dichloropropene	<20	<1	<10	<20	<1
Hexachlorobutadiene*	NR	NR	NR	<20	NR
Isopropylbenzene	<20	<1	<10	<20	<1
p-Isopropyltoluene	<20	<1	<10	<20	<1
Naphthalene*	NR	NR	NR	<20	NR
n-Propylbenzene	<20	<1	<10	<20	<1
Styrene	<20	<1	<10	<20	<1
1,2,3-Trichlorobenzene*	NR	NR	NR	<20	NR
1,2,4-Trichlorobenzene*	NR	NR	NR	<20	NR
1,2,3-Trichloropropane	<20	<1	<10	<20	<1
1,2,4-Trimethylbenzene	<20	<1	<10	<20	<1
1,3,5-Trimethylbenzene	<20	<1	<10	<20	<1

Notes:
(µg/L) - micrograms per liter
< - not detected above the reporting limit
NR=not reported
* Not typically reported by mobile laboratory (elution time is too long)

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Client Name:	Earth Tech	Date Sampled:	10/02/03
Client Address:		Date Received:	10/02/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/02/03
Client Project ID:	Torrance	Date Reported:	10/02/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QUALITY ASSURANCE/QUALITY CONTROL REPORT

QC Batch No.: 1002033A
Spiked Sample: NA

COMPOUNDS	LCS % REC	QC LIMITS
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	123	70-130
1,1,1-Trichloroethane	109	70-130
Trichloroethene	115	70-130
Tetrachloroethene	118	70-130
Benzene	109	70-130
Toluene	110	70-130

COMPOUNDS	AMOUNT SPIKED (µg/L)	SPIKED SAMPLE RESULT	SPIKE		SPIKE DUPLICATE		% REC QC LIMITS	RPD	RPD QC LIMITS
			CONC (µg/L)	% REC	CONC (µg/L)	% REC			
1,1-Dichloroethene	25	0.0	24	96	23	92	60-140	4	30
cis-1,2-Dichloroethene	25	0.0	32	127	30	122	60-140	4	30
1,1,1-Trichloroethane	25	0.0	27	110	26	106	60-140	4	30
Trichloroethene	25	0.0	28	114	27	108	60-140	5	30
Tetrachloroethene	25	0.0	31	123	30	119	60-140	3	30
Benzene	25	0.0	27	107	27	109	60-140	-2	30
Toluene	25	0.0	25	100	24	96	60-140	3	30

µg/L = Micrograms per liter
NA = Not Applicable
LCS = Laboratory Control Sample
QC = Quality Control

% REC = Percent Recovery
CONC = Concentration
RPD = Relative Percent Difference

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Client Name:	Earth Tech	Date Sampled:	10/02/03
Client Address:		Date Received:	10/02/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/02/03
Client Project ID:	Torrance	Date Reported:	10/02/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QC Batch No.: 1002033A

Sample ID: SG01-35-100203
Lab ID: NA
Dilution Factor: 20

COMPOUNDS	CONCENTRATION µg/L	RL µg/L	COMPOUNDS	CONCENTRATION µg/L	RL µg/L
Dichlorodifluoromethane (F12)	ND	20	Dibromochloromethane	ND	20
Chloromethane	ND	20	1,2-Dibromoethane	ND	20
Vinyl Chloride	ND	20	Chlorobenzene	570	20
Bromomethane	ND	20	1,1,1,2-Tetrachloroethane	ND	20
Chloroethane	ND	20	Ethylbenzene	ND	20
Trichlorofluoromethane (F11)	ND	20	meta- and para-Xylene	ND	20
1,1,2-Trichloro-trifluoroethane (F113)	ND	20	ortho-Xylene	ND	20
1,1-Dichloroethene	ND	20	Styrene	ND	20
Carbon disulfide	ND	20	Bromoform	ND	20
Methylene Chloride	ND	20	Isopropylbenzene	ND	20
trans-1,2-Dichloroethene	ND	20	1,1,2,2-Tetrachloroethane	ND	20
1,1-Dichloroethane	ND	20	1,2,3-Trichloropropane	ND	20
cis-1,2-Dichloroethene	ND	20	Bromobenzene	ND	20
2,2-Dichloropropane	ND	20	n-Propylbenzene	ND	20
Bromochloromethane	ND	20	2-Chlorotoluene	ND	20
Chloroform	ND	20	1,3,5-Trimethylbenzene	ND	20
1,1,1-Trichloroethane	ND	20	4-Chlorotoluene	ND	20
1,1-Dichloropropene	ND	20	tert-Butylbenzene	ND	20
Carbon tetrachloride	ND	20	1,2,4-Trimethylbenzene	ND	20
Benzene	ND	20	sec-Butylbenzene	ND	20
1,2-Dichloroethane	ND	20	p-Isopropyltoluene	ND	20
Trichloroethene (TCE)	ND	20	1,3-Dichlorobenzene	ND	20
1,2-Dichloropropane	ND	20	1,4-Dichlorobenzene	ND	20
Dibromomethane	ND	20	n-Butylbenzene	ND	20
Bromodichloromethane	ND	20	1,2-Dichlorobenzene	ND	20
cis-1,3-Dichloropropene	ND	20	1,2-Dibromo-3-chloropropane *	NA	NA
Toluene	ND	20	1,2,4-Trichlorobenzene *	NA	NA
trans-1,3-Dichloropropene	ND	20	Hexachlorobutadiene *	NA	NA
1,1,2-Trichloroethane	ND	20	Naphthalene *	NA	NA
Tetrachloroethene (PCE)	ND	20	1,2,3-Trichlorobenzene *	NA	NA
1,3-Dichloropropane	ND	20			

SURROGATES	% REC	QC LIMITS (%)	SURROGATES	% REC	QC LIMITS (%)
Dibromofluoromethane	100%	75-125%	4-Bromofluorobenzene	93%	75-125%
Toluene-d8	94%	75-125%			

µg/L = Micrograms per liter
NA = Not Applicable
RL = Reporting Limit

ND = Not Detected
% REC = Percent Recovery
* = Not analyzed for in the samples

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Client Name:	Earth Tech	Date Sampled:	10/15/03
Client Address:		Date Received:	10/15/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/15/03
Client Project ID:	Torrance	Date Reported:	10/15/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QUALITY ASSURANCE/QUALITY CONTROL REPORT

QC Batch No.: 1015033A
Spiked Sample: NA

COMPOUNDS	LCS % REC	QC LIMITS
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	123	70-130
1,1,1-Trichloroethane	109	70-130
Trichloroethene	115	70-130
Tetrachloroethene	118	70-130
Benzene	109	70-130
Toluene	110	70-130

COMPOUNDS	AMOUNT SPIKED (µg/L)	SPIKED SAMPLE RESULT	SPIKE		SPIKE DUPLICATE		% REC QC LIMITS	RPD	RPD QC LIMITS
			CONC (µg/L)	% REC	CONC (µg/L)	% REC			
1,1-Dichloroethene	25	0.0	24	96	23	92	60-140	4	30
cis-1,2-Dichloroethene	25	0.0	32	127	30	122	60-140	4	30
1,1,1-Trichloroethane	25	0.0	27	110	26	106	60-140	4	30
Trichloroethene	25	0.0	28	114	27	108	60-140	5	30
Tetrachloroethene	25	0.0	31	123	30	119	60-140	3	30
Benzene	25	0.0	27	107	27	109	60-140	-2	30
Toluene	25	0.0	25	100	24	96	60-140	3	30

µg/L = Micrograms per liter
NA = Not Applicable
LCS = Laboratory Control Sample
QC = Quality Control

% REC = Percent Recovery
CONC = Concentration
RPD = Relative Percent Difference

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Client Name:	Earth Tech	Date Sampled:	10/15/03
Client Address:		Date Received:	10/15/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/15/03
Client Project ID:	Torrance	Date Reported:	10/15/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QC Batch No.: 1015033A

Sample ID: SG15-35-101503
Lab ID: NA
Dilution Factor: 1

COMPOUNDS	CONCENTRATION µg/L	RL µg/L	COMPOUNDS	CONCENTRATION µg/L	RL µg/L
Dichlorodifluoromethane (F12)	ND	1	Dibromochloromethane	ND	1
Chloromethane	ND	1	1,2-Dibromoethane	ND	1
Vinyl Chloride	ND	1	Chlorobenzene	4.9	1
Bromomethane	ND	1	1,1,1,2-Tetrachloroethane	ND	1
Chloroethane	ND	1	Ethylbenzene	ND	1
Trichlorofluoromethane (F11)	ND	1	meta- and para-Xylene	ND	1
1,1,2-Trichloro-trifluoroethane (F113)	ND	1	ortho-Xylene	ND	1
1,1-Dichloroethene	ND	1	Styrene	ND	1
Carbon disulfide	ND	1	Bromoform	ND	1
Methylene Chloride	ND	1	Isopropylbenzene	ND	1
trans-1,2-Dichloroethene	ND	1	1,1,2,2-Tetrachloroethane	ND	1
1,1-Dichloroethane	ND	1	1,2,3-Trichloropropane	ND	1
cis-1,2-Dichloroethene	ND	1	Bromobenzene	ND	1
2,2-Dichloropropane	ND	1	n-Propylbenzene	ND	1
Bromochloromethane	ND	1	2-Chlorotoluene	ND	1
Chloroform	2.4	1	1,3,5-Trimethylbenzene	ND	1
1,1,1-Trichloroethane	ND	1	4-Chlorotoluene	ND	1
1,1-Dichloropropene	ND	1	tert-Butylbenzene	ND	1
Carbon tetrachloride	ND	1	1,2,4-Trimethylbenzene	ND	1
Benzene	ND	1	sec-Butylbenzene	ND	1
1,2-Dichloroethane	ND	1	p-Isopropyltoluene	ND	1
Trichloroethene (TCE)	ND	1	1,3-Dichlorobenzene	ND	1
1,2-Dichloropropane	ND	1	1,4-Dichlorobenzene	ND	1
Dibromomethane	ND	1	n-Butylbenzene	ND	1
Bromodichloromethane	ND	1	1,2-Dichlorobenzene	ND	1
cis-1,3-Dichloropropene	ND	1	1,2-Dibromo-3-chloropropane *	NA	NA
Toluene	ND	1	1,2,4-Trichlorobenzene *	NA	NA
trans-1,3-Dichloropropene	ND	1	Hexachlorobutadiene *	NA	NA
1,1,2-Trichloroethane	ND	1	Naphthalene *	NA	NA
Tetrachloroethene (PCE)	1.7	1	1,2,3-Trichlorobenzene *	NA	NA
1,3-Dichloropropane	ND	1			

SURROGATES	% REC	QC LIMITS (%)	SURROGATES	% REC	QC LIMITS (%)
Dibromofluoromethane	93%	75-125%	4-Bromofluorobenzene	93%	75-125%
Toluene-d8	100%	75-125%			

µg/L = Micrograms per liter
NA = Not Applicable
RL = Reporting Limit

ND = Not Detected
% REC = Percent Recovery
* = Not analyzed for in the samples

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Client Name:	Earth Tech	Date Sampled:	09/30/03
Client Address:		Date Received:	09/30/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	09/30/03
Client Project ID:	Torrance	Date Reported:	09/30/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QUALITY ASSURANCE/QUALITY CONTROL REPORT

QC Batch No.: 0930033A
Spiked Sample: NA

COMPOUNDS	LCS % REC	QC LIMITS
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	123	70-130
1,1,1-Trichloroethane	109	70-130
Trichloroethene	115	70-130
Tetrachloroethene	118	70-130
Benzene	109	70-130
Toluene	110	70-130

COMPOUNDS	AMOUNT SPIKED (µg/L)	SPIKED SAMPLE RESULT	SPIKE		SPIKE DUPLICATE		% REC QC LIMITS	RPD	RPD QC LIMITS
			CONC (µg/L)	% REC	CONC (µg/L)	% REC			
1,1-Dichloroethene	25	0.0	24	96	23	92	60-140	4	30
cis-1,2-Dichloroethene	25	0.0	32	127	30	122	60-140	4	30
1,1,1-Trichloroethane	25	0.0	27	110	26	106	60-140	4	30
Trichloroethene	25	0.0	28	114	27	108	60-140	5	30
Tetrachloroethene	25	0.0	31	123	30	119	60-140	3	30
Benzene	25	0.0	27	107	27	109	60-140	-2	30
Toluene	25	0.0	25	100	24	96	60-140	3	30

µg/L = Micrograms per liter
NA = Not Applicable
LCS = Laboratory Control Sample
QC = Quality Control

% REC = Percent Recovery
CONC = Concentration
RPD = Relative Percent Difference

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Client Name:	Earth Tech	Date Sampled:	09/30/03
Client Address:		Date Received:	09/30/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	09/30/03
Client Project ID:	Torrance	Date Reported:	09/30/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QC Batch No.: 0930033A

Sample ID: SG16-35-093003
Lab ID: NA
Dilution Factor: 10

COMPOUNDS	CONCENTRATION µg/L	RL µg/L	COMPOUNDS	CONCENTRATION µg/L	RL µg/L
Dichlorodifluoromethane (F12)	ND	10	Dibromochloromethane	ND	10
Chloromethane	ND	10	1,2-Dibromoethane	ND	10
Vinyl Chloride	ND	10	Chlorobenzene	3,700	10
Bromomethane	ND	10	1,1,1,2-Tetrachloroethane	ND	10
Chloroethane	ND	10	Ethylbenzene	ND	10
Trichlorofluoromethane (F11)	ND	10	meta- and para-Xylene	ND	10
1,1,2-Trichloro-trifluoroethane (F113)	ND	10	ortho-Xylene	ND	10
1,1-Dichloroethene	67	10	Styrene	ND	10
Carbon disulfide	ND	10	Bromoform	ND	10
Methylene Chloride	17	10	Isopropylbenzene	ND	10
trans-1,2-Dichloroethene	ND	10	1,1,2,2-Tetrachloroethane	ND	10
1,1-Dichloroethane	ND	10	1,2,3-Trichloropropane	ND	10
cis-1,2-Dichloroethene	ND	10	Bromobenzene	ND	10
2,2-Dichloropropane	ND	10	n-Propylbenzene	ND	10
Bromochloromethane	ND	10	2-Chlorotoluene	ND	10
Chloroform	630	10	1,3,5-Trimethylbenzene	ND	10
1,1,1-Trichloroethane	22	10	4-Chlorotoluene	ND	10
1,1-Dichloropropene	ND	10	tert-Butylbenzene	ND	10
Carbon tetrachloride	ND	10	1,2,4-Trimethylbenzene	ND	10
Benzene	23	10	sec-Butylbenzene	ND	10
1,2-Dichloroethane	ND	10	p-Isopropyltoluene	ND	10
Trichloroethene (TCE)	ND	10	1,3-Dichlorobenzene	ND	10
1,2-Dichloropropane	ND	10	1,4-Dichlorobenzene	ND	10
Dibromomethane	ND	10	n-Butylbenzene	ND	10
Bromodichloromethane	ND	10	1,2-Dichlorobenzene	ND	10
cis-1,3-Dichloropropene	ND	10	1,2-Dibromo-3-chloropropane *	NA	NA
Toluene	ND	10	1,2,4-Trichlorobenzene *	NA	NA
trans-1,3-Dichloropropene	ND	10	Hexachlorobutadiene *	NA	NA
1,1,2-Trichloroethane	ND	10	Naphthalene *	NA	NA
Tetrachloroethene (PCE)	ND	10	1,2,3-Trichlorobenzene *	NA	NA
1,3-Dichloropropane	ND	10			

SURROGATES	% REC	QC LIMITS (%)	SURROGATES	% REC	QC LIMITS (%)
Dibromofluoromethane	100%	60-130%	4-Bromofluorobenzene	95%	60-130%
Toluene-d8	100%	60-130%			

µg/L = Micrograms per liter
NA = Not Applicable
RL = Reporting Limit

ND = Not Detected
% REC = Percent Recovery
* = Not analyzed for in the samples

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Client Name:	Earth Tech	Date Sampled:	10/20/03
Client Address:		Date Received:	10/20/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/20/03
Client Project ID:	Torrance	Date Reported:	10/20/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QUALITY ASSURANCE/QUALITY CONTROL REPORT

QC Batch No.: 1020033A
Spiked Sample: NA

COMPOUNDS	LCS % REC	QC LIMITS
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	123	70-130
1,1,1-Trichloroethane	109	70-130
Trichloroethene	115	70-130
Tetrachloroethene	118	70-130
Benzene	109	70-130
Toluene	110	70-130

COMPOUNDS	AMOUNT SPIKED (µg/L)	SPIKED SAMPLE RESULT	SPIKE		SPIKE DUPLICATE		% REC QC LIMITS	RPD	RPD QC LIMITS
			CONC (µg/L)	% REC	CONC (µg/L)	% REC			
1,1-Dichloroethene	25	0.0	24	96	23	92	60-140	4	30
cis-1,2-Dichloroethene	25	0.0	32	127	30	122	60-140	4	30
1,1,1-Trichloroethane	25	0.0	27	110	26	106	60-140	4	30
Trichloroethene	25	0.0	28	114	27	108	60-140	5	30
Tetrachloroethene	25	0.0	31	123	30	119	60-140	3	30
Benzene	25	0.0	27	107	27	109	60-140	-2	30
Toluene	25	0.0	25	100	24	96	60-140	3	30

µg/L = Micrograms per liter
NA = Not Applicable
LCS = Laboratory Control Sample
QC = Quality Control

% REC = Percent Recovery
CONC = Concentration
RPD = Relative Percent Difference

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Client Name:	Earth Tech	Date Sampled:	10/20/03
Client Address:		Date Received:	10/20/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/20/03
Client Project ID:	Torrance	Date Reported:	10/20/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QC Batch No.: 1020033A

Sample ID: SG17-35-102003
Lab ID: NA
Dilution Factor: 20

COMPOUNDS	CONCENTRATION µg/L	RL µg/L	COMPOUNDS	CONCENTRATION µg/L	RL µg/L
Dichlorodifluoromethane (F12)	ND	20	Dibromochloromethane	ND	20
Chloromethane	ND	20	1,2-Dibromoethane	ND	20
Vinyl Chloride	ND	20	Chlorobenzene	8700	20
Bromomethane	ND	20	1,1,1,2-Tetrachloroethane	ND	20
Chloroethane	ND	20	Ethylbenzene	ND	20
Trichlorofluoromethane (F11)	ND	20	meta- and para-Xylene	ND	20
1,1,2-Trichloro-trifluoroethane (F113)	ND	20	ortho-Xylene	ND	20
1,1-Dichloroethene	ND	20	Styrene	ND	20
Carbon disulfide	ND	20	Bromoform	ND	20
Methylene Chloride	ND	20	Isopropylbenzene	ND	20
trans-1,2-Dichloroethene	ND	20	1,1,2,2-Tetrachloroethane	ND	20
1,1-Dichloroethane	ND	20	1,2,3-Trichloropropane	ND	20
cis-1,2-Dichloroethene	ND	20	Bromobenzene	ND	20
2,2-Dichloropropane	ND	20	n-Propylbenzene	ND	20
Bromochloromethane	ND	20	2-Chlorotoluene	ND	20
Chloroform	2000	20	1,3,5-Trimethylbenzene	ND	20
1,1,1-Trichloroethane	ND	20	4-Chlorotoluene	ND	20
1,1-Dichloropropene	ND	20	tert-Butylbenzene	ND	20
Carbon tetrachloride	59	20	1,2,4-Trimethylbenzene	ND	20
Benzene	30	20	sec-Butylbenzene	ND	20
1,2-Dichloroethane	ND	20	p-Isopropyltoluene	ND	20
Trichloroethene (TCE)	ND	20	1,3-Dichlorobenzene	ND	20
1,2-Dichloropropane	ND	20	1,4-Dichlorobenzene	ND	20
Dibromomethane	ND	20	n-Butylbenzene	ND	20
Bromodichloromethane	ND	20	1,2-Dichlorobenzene	ND	20
cis-1,3-Dichloropropene	ND	20	1,2-Dibromo-3-chloropropane	ND	20
Toluene	ND	20	1,2,4-Trichlorobenzene	ND	20
trans-1,3-Dichloropropene	ND	20	Hexachlorobutadiene	ND	20
1,1,2-Trichloroethane	ND	20	Naphthalene	ND	20
Tetrachloroethene (PCE)	620	20	1,2,3-Trichlorobenzene	ND	20
1,3-Dichloropropane	ND	20			

SURROGATES	% REC	QC LIMITS (%)	SURROGATES	% REC	QC LIMITS (%)
Dibromofluoromethane	84%	75-125%	4-Bromofluorobenzene	93%	75-125%
Toluene-d8	100%	75-125%			

µg/L = Micrograms per liter
NA = Not Applicable
RL = Reporting Limit

ND = Not Detected
% REC = Percent Recovery

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Client Name:	Earth Tech	Date Sampled:	10/13/03
Client Address:		Date Received:	10/13/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/13/03
Client Project ID:	Torrance	Date Reported:	10/13/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QUALITY ASSURANCE/QUALITY CONTROL REPORT

QC Batch No.: 1013033A
Spiked Sample: NA

COMPOUNDS	LCS % REC	QC LIMITS
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	123	70-130
1,1,1-Trichloroethane	109	70-130
Trichloroethene	115	70-130
Tetrachloroethene	118	70-130
Benzene	109	70-130
Toluene	110	70-130

COMPOUNDS	AMOUNT SPIKED (µg/L)	SPIKED SAMPLE RESULT	SPIKE		SPIKE DUPLICATE		% REC QC LIMITS	RPD	RPD QC LIMITS
			CONC (µg/L)	% REC	CONC (µg/L)	% REC			
1,1-Dichloroethene	25	0.0	24	96	23	92	60-140	4	30
cis-1,2-Dichloroethene	25	0.0	32	127	30	122	60-140	4	30
1,1,1-Trichloroethane	25	0.0	27	110	26	106	60-140	4	30
Trichloroethene	25	0.0	28	114	27	108	60-140	5	30
Tetrachloroethene	25	0.0	31	123	30	119	60-140	3	30
Benzene	25	0.0	27	107	27	109	60-140	-2	30
Toluene	25	0.0	25	100	24	96	60-140	3	30

µg/L = Micrograms per liter
NA = Not Applicable
LCS = Laboratory Control Sample
QC = Quality Control

% REC = Percent Recovery
CONC = Concentration
RPD = Relative Percent Difference

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Fax: (949) 679-9501

Client Name:	Earth Tech	Date Sampled:	10/13/03
Client Address:		Date Received:	10/13/03
		Date Prepared:	NA
EST Project No.:	EST2185	Date Analyzed:	10/13/03
Client Project ID:	Torrance	Date Reported:	10/13/03
Sample Matrix:	Air		

VOLATILE ORGANIC COMPOUNDS
EPA METHOD 8260B

QC Batch No.: 1013033A

Sample ID: SG30-35-101303
Lab ID: NA
Dilution Factor: 1

COMPOUNDS	CONCENTRATION µg/L	RL µg/L	COMPOUNDS	CONCENTRATION µg/L	RL µg/L
Dichlorodifluoromethane (F12)	ND	1	Dibromochloromethane	ND	1
Chloromethane	ND	1	1,2-Dibromoethane	ND	1
Vinyl Chloride	ND	1	Chlorobenzene	280	1
Bromomethane	ND	1	1,1,1,2-Tetrachloroethane	ND	1
Chloroethane	ND	1	Ethylbenzene	ND	1
Trichlorofluoromethane (F11)	ND	1	meta- and para-Xylene	ND	1
1,1,2-Trichloro-trifluoroethane (F113)	ND	1	ortho-Xylene	ND	1
1,1-Dichloroethene	ND	1	Styrene	ND	1
Carbon disulfide	ND	1	Bromoform	ND	1
Methylene Chloride	ND	1	Isopropylbenzene	ND	1
trans-1,2-Dichloroethene	ND	1	1,1,2,2-Tetrachloroethane	ND	1
1,1-Dichloroethane	ND	1	1,2,3-Trichloropropane	ND	1
cis-1,2-Dichloroethene	ND	1	Bromobenzene	ND	1
2,2-Dichloropropane	ND	1	n-Propylbenzene	ND	1
Bromochloromethane	ND	1	2-Chlorotoluene	ND	1
Chloroform	ND	1	1,3,5-Trimethylbenzene	ND	1
1,1,1-Trichloroethane	ND	1	4-Chlorotoluene	ND	1
1,1-Dichloropropene	ND	1	tert-Butylbenzene	ND	1
Carbon tetrachloride	ND	1	1,2,4-Trimethylbenzene	ND	1
Benzene	3.0	1	sec-Butylbenzene	ND	1
1,2-Dichloroethane	ND	1	p-Isopropyltoluene	ND	1
Trichloroethene (TCE)	64	1	1,3-Dichlorobenzene	ND	1
1,2-Dichloropropane	ND	1	1,4-Dichlorobenzene	1.3	1
Dibromomethane	ND	1	n-Butylbenzene	ND	1
Bromodichloromethane	ND	1	1,2-Dichlorobenzene	ND	1
cis-1,3-Dichloropropene	ND	1	1,2-Dibromo-3-chloropropane *	NA	NA
Toluene	ND	1	1,2,4-Trichlorobenzene *	NA	NA
trans-1,3-Dichloropropene	ND	1	Hexachlorobutadiene *	NA	NA
1,1,2-Trichloroethane	ND	1	Naphthalene *	NA	NA
Tetrachloroethene (PCE)	160	1	1,2,3-Trichlorobenzene *	NA	NA
1,3-Dichloropropane	ND	1			

SURROGATES	% REC	QC LIMITS (%)	SURROGATES	% REC	QC LIMITS (%)
Dibromofluoromethane	100%	60-130%	4-Bromofluorobenzene	95%	60-130%
Toluene-d8	100%	60-130%			

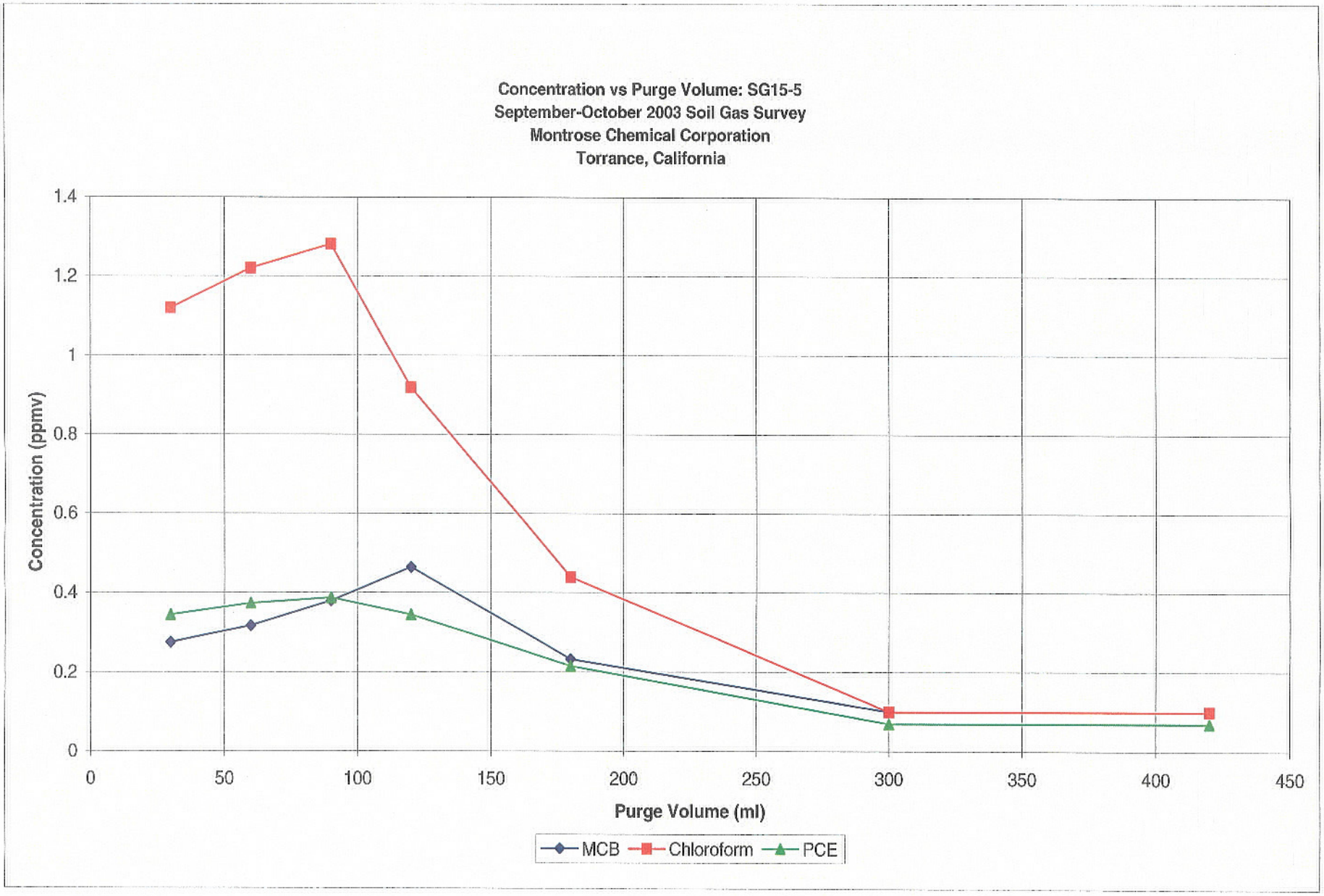
µg/L = Micrograms per liter
NA = Not Applicable
RL = Reporting Limit

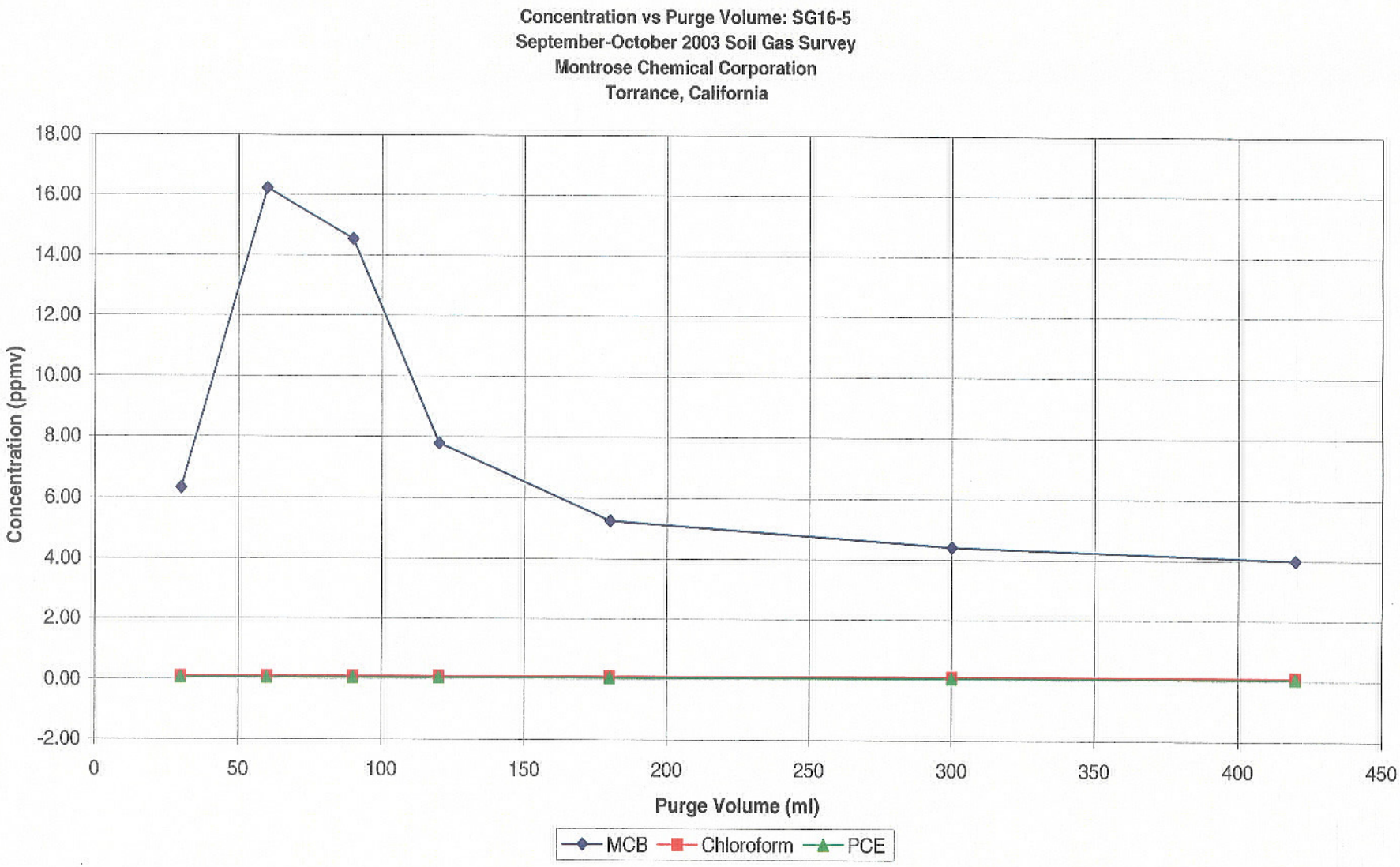
ND = Not Detected
% REC = Percent Recovery
* = Not analyzed for in the samples

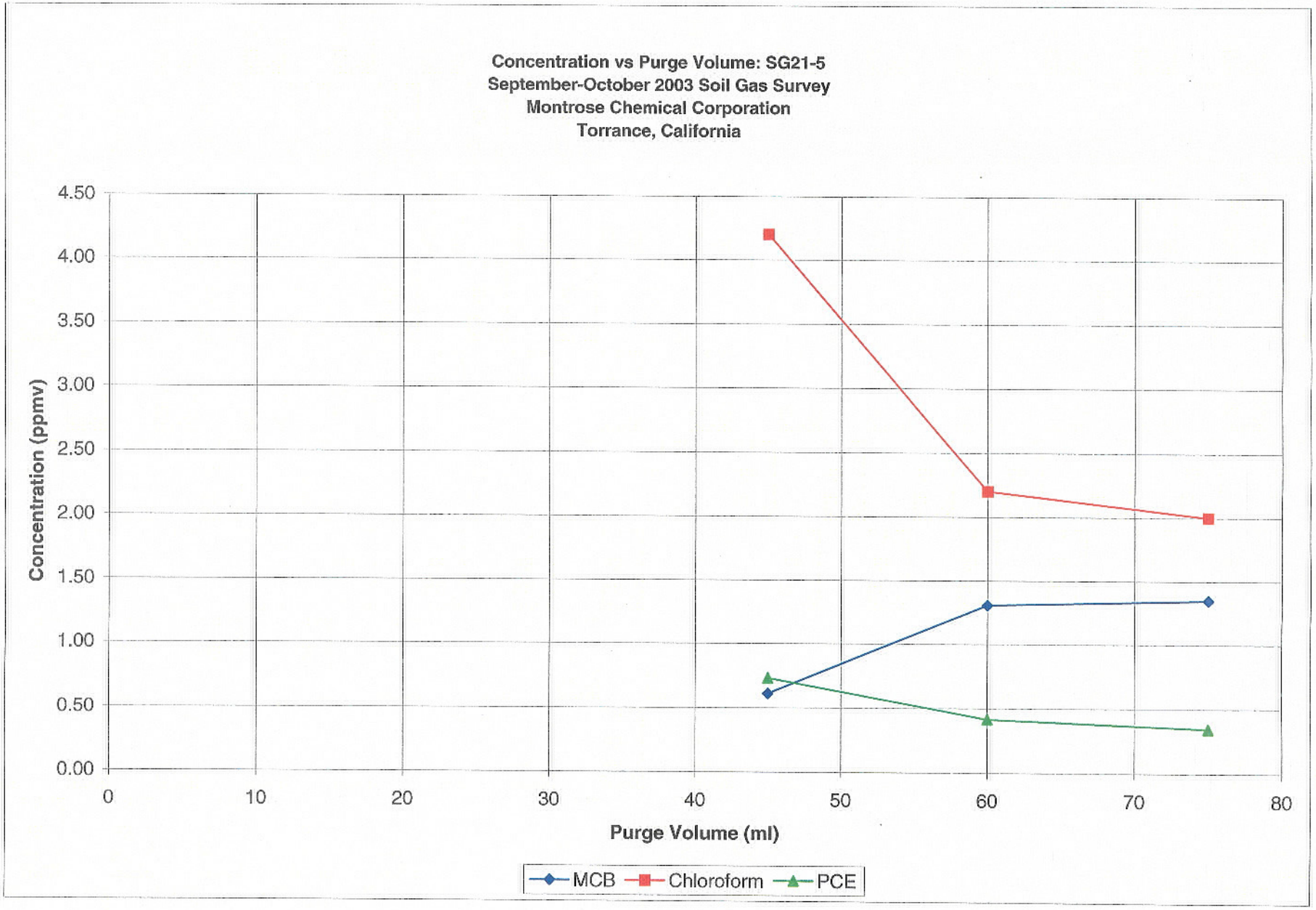
APPENDIX D

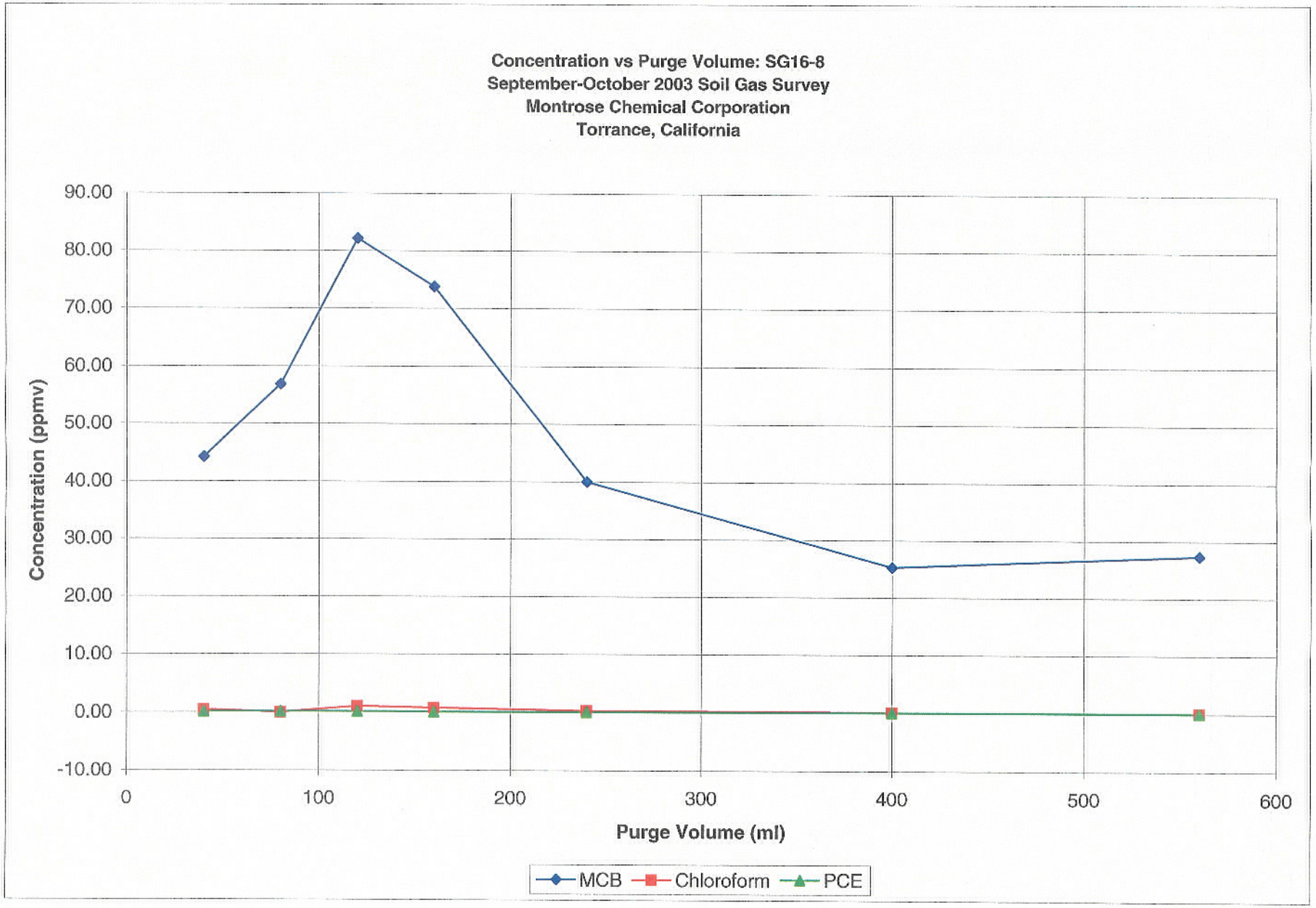
GRAPHS OF TIME-SERIES SAMPLING RESULTS

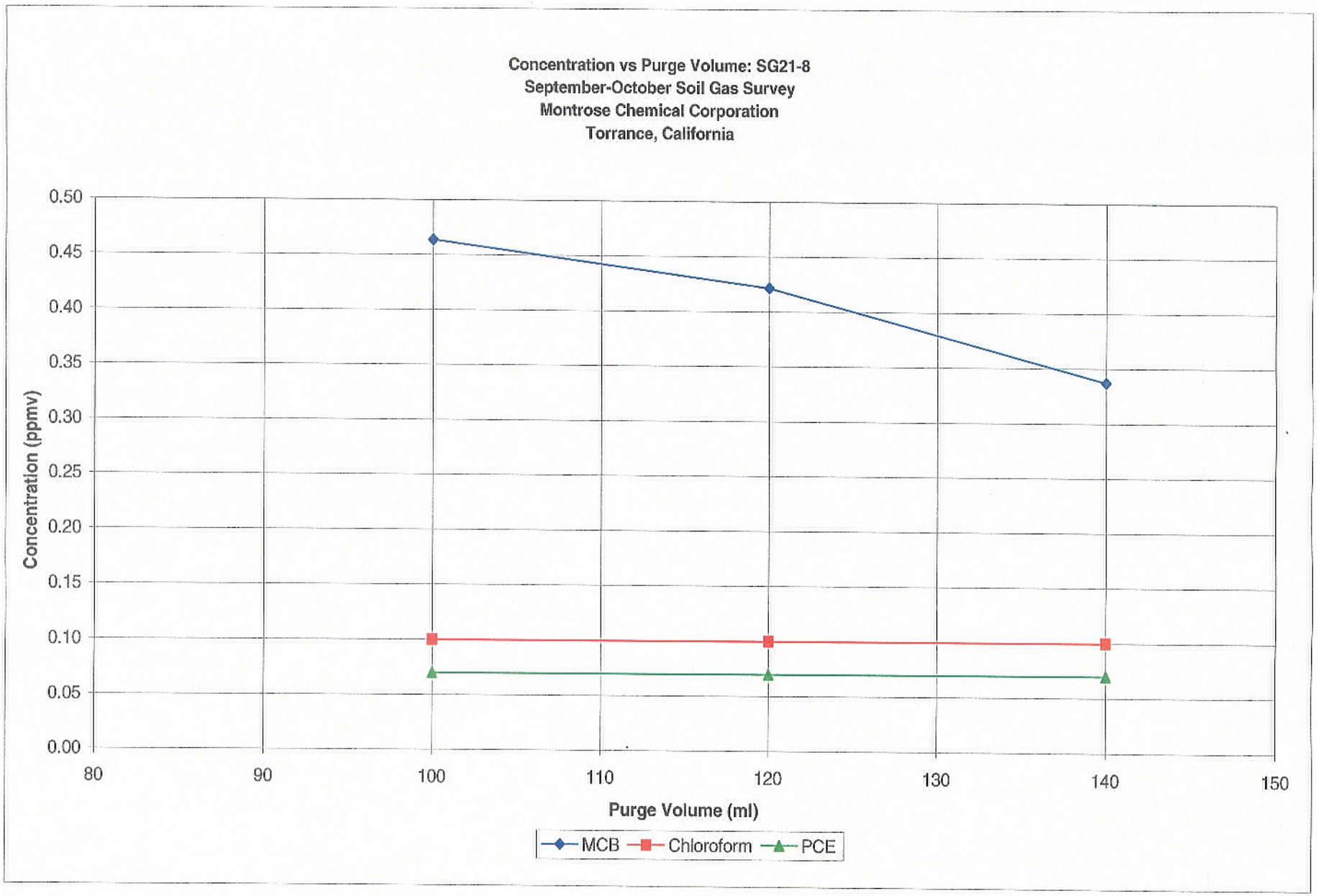
Concentration vs Purge Volume: SG12-5
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
40
35
30
25
20
15
10
5
0
-5
0
50
100
150
200
250
300
350
400
450
Purge Volume (ml)
MCB
Chloroform
PCE

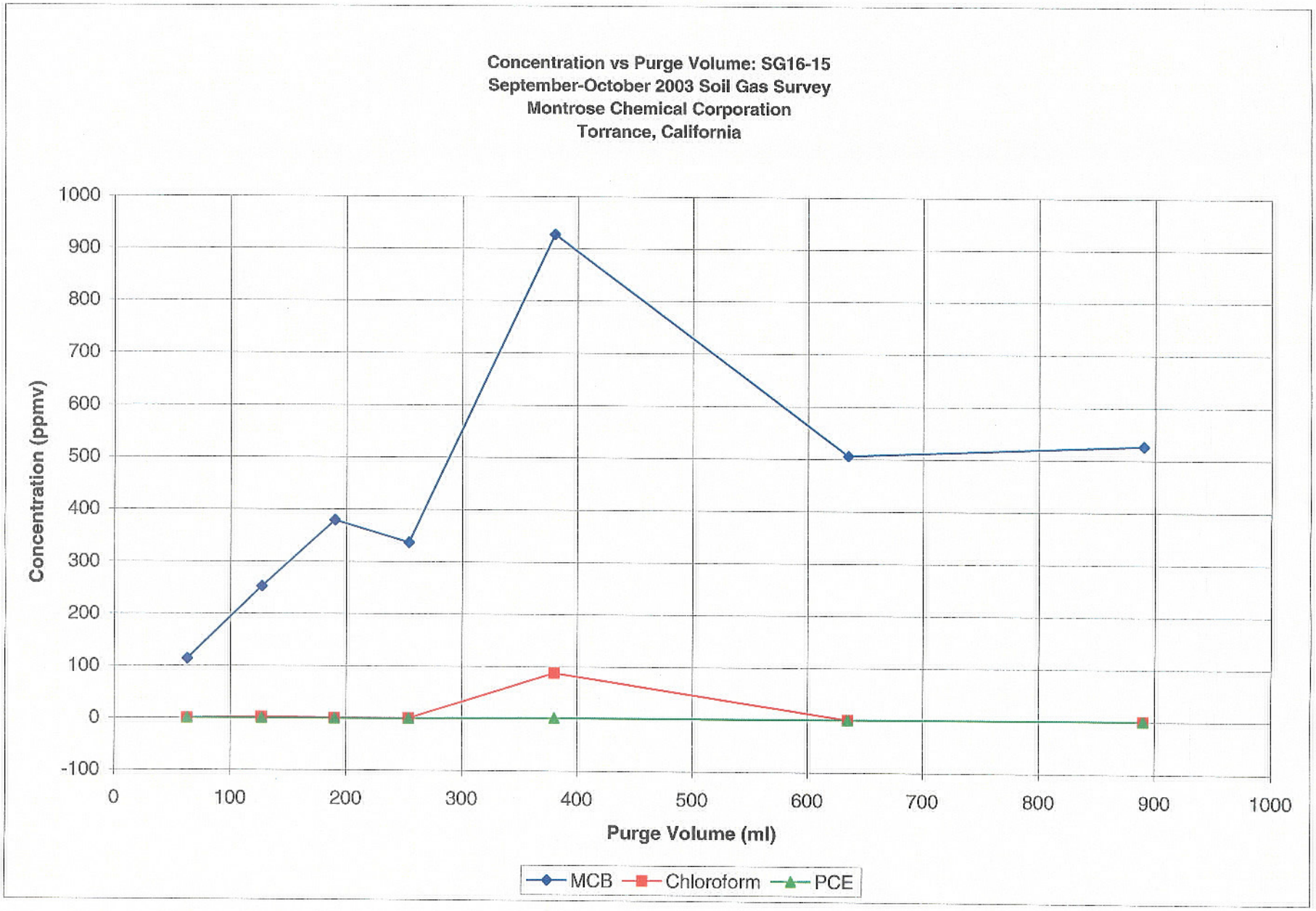

Concentration vs Purge Volume: SG15-5
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
50
100
150
200
250
300
350
400
450
Purge Volume (ml)
MCB
Chloroform
PCE

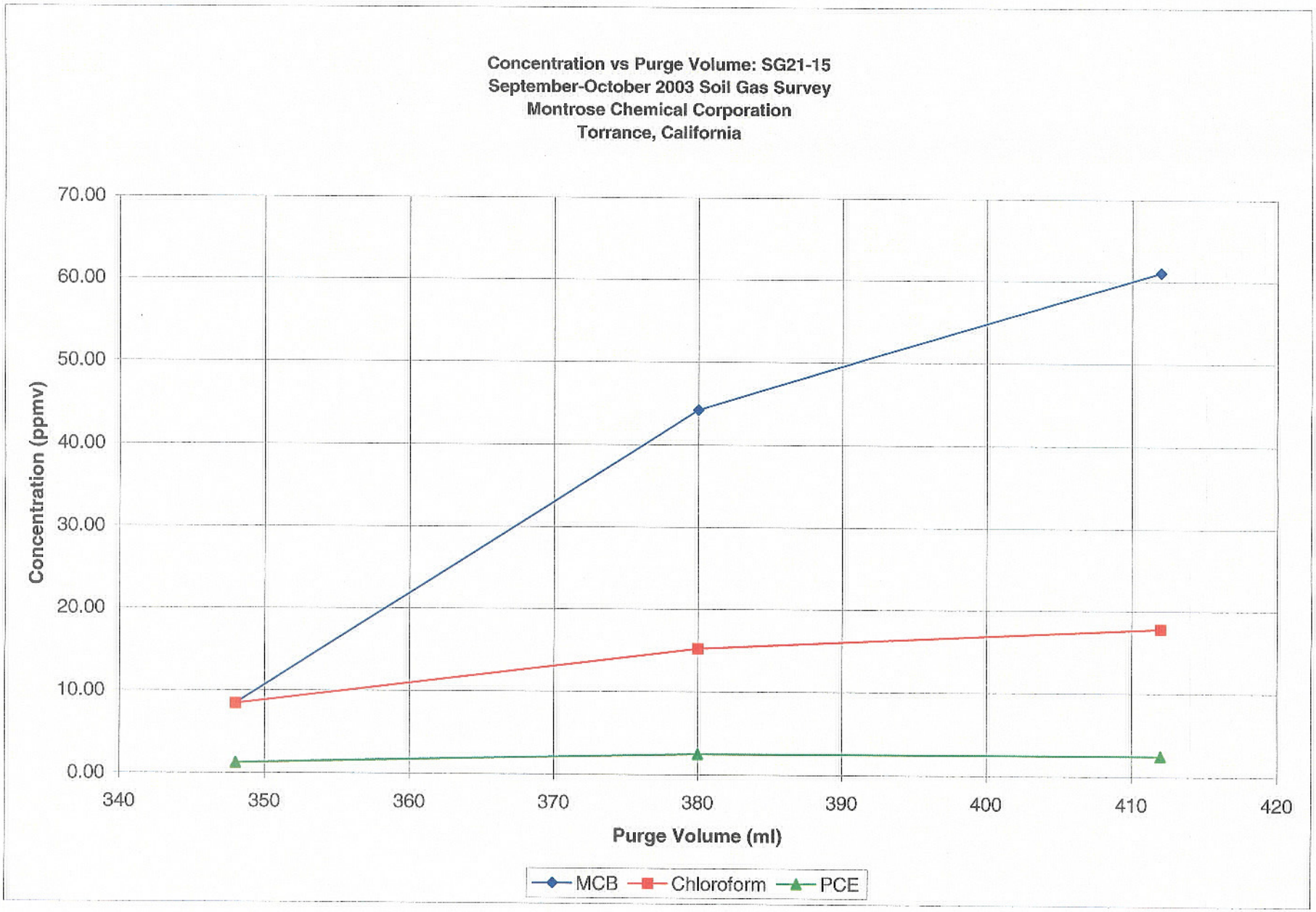

Concentration vs Purge Volume: SG16-5
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
0
50
100
150
200
250
300
350
400
450
Purge Volume (ml)
MCB
Chloroform
PCE

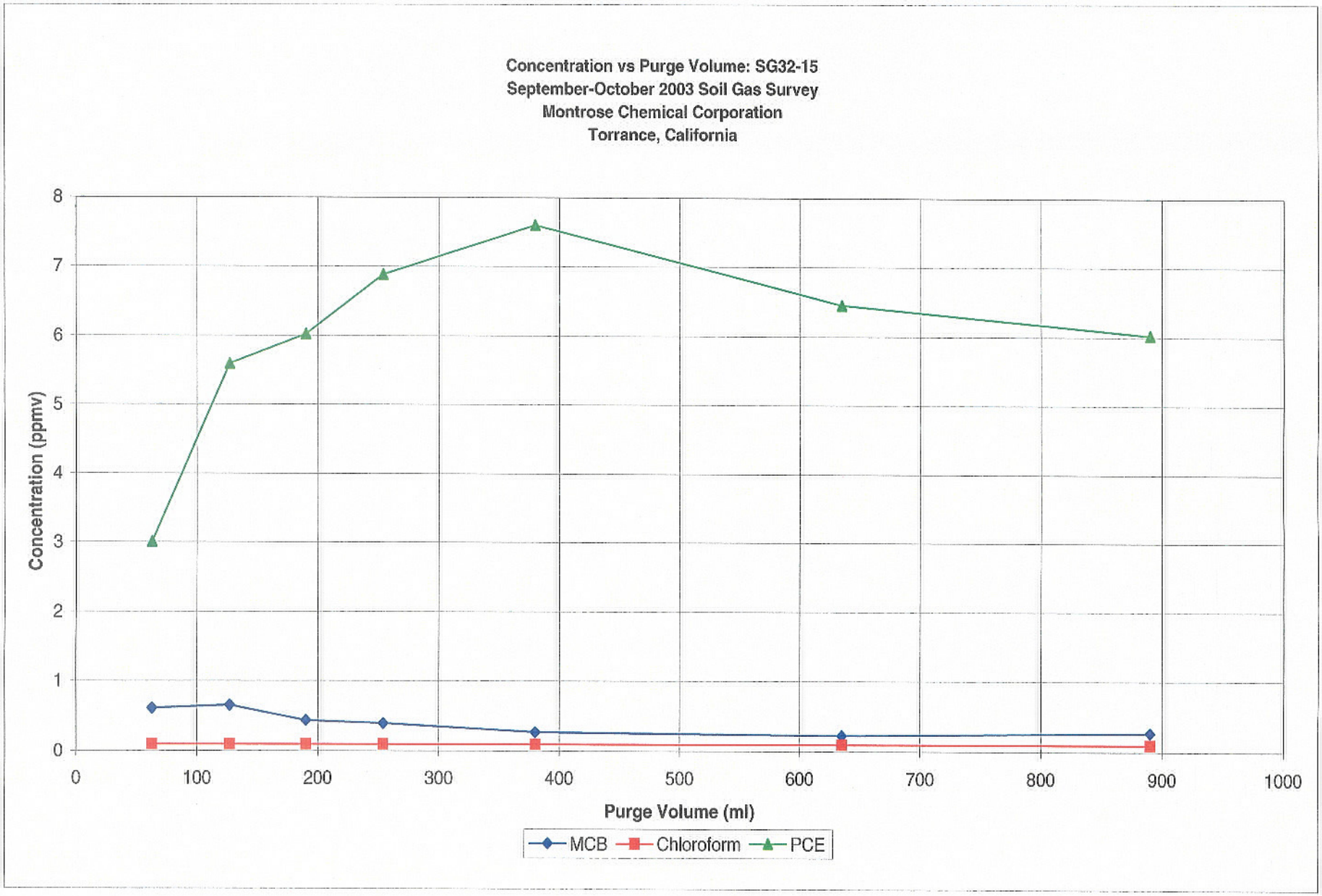

Concentration vs Purge Volume: SG21-5
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0
10
20
30
40
50
60
70
80
Purge Volume (ml)
MCB
Chloroform
PCE


Concentration vs Purge Volume: SG16-8
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
0
100
200
300
400
500
600
Purge Volume (ml)
MCB
Chloroform
PCE

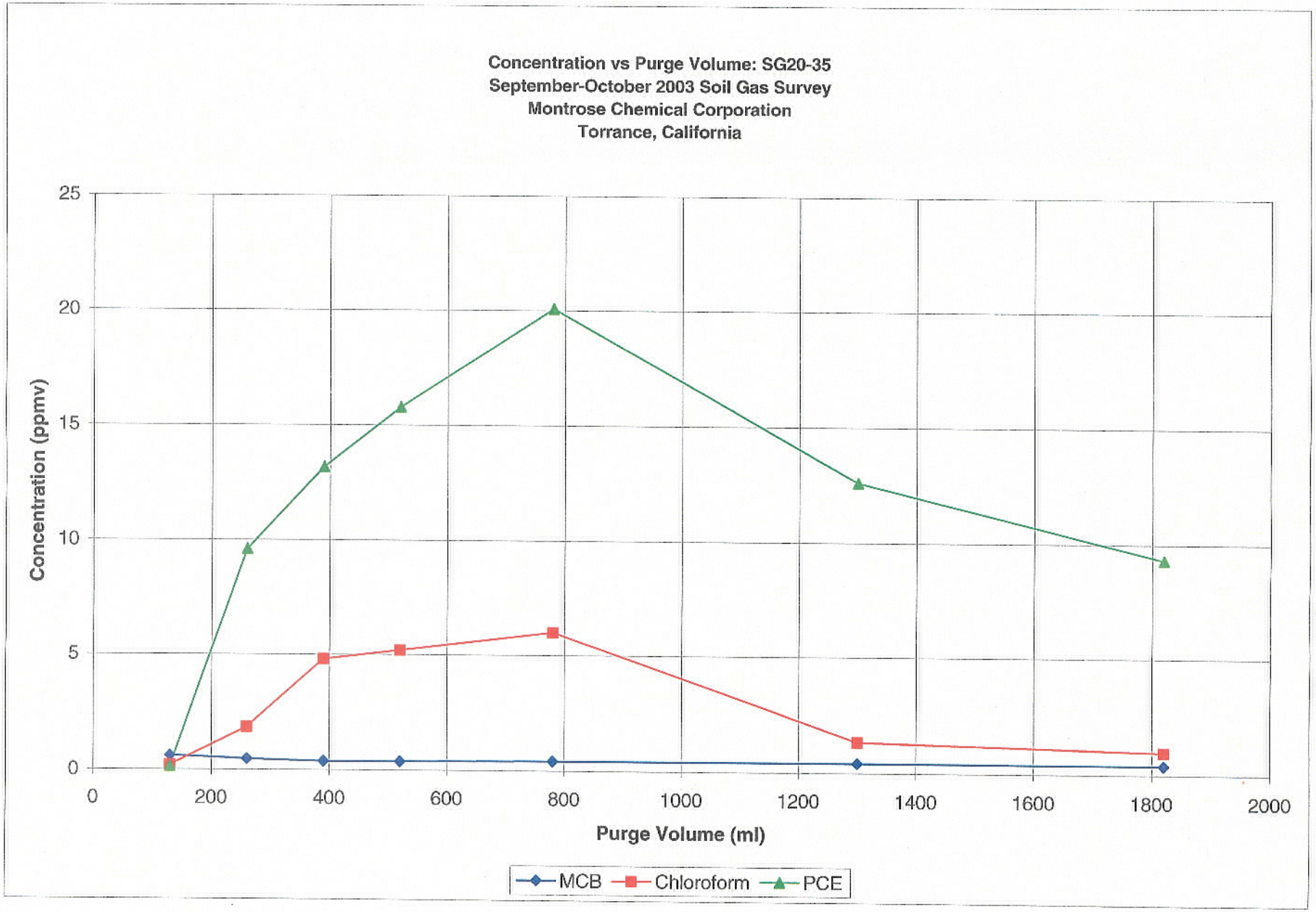

Concentration vs Purge Volume: SG21-8
September-October Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
80
90
100
110
120
130
140
150
Purge Volume (ml)
MCB
Chloroform
PCE

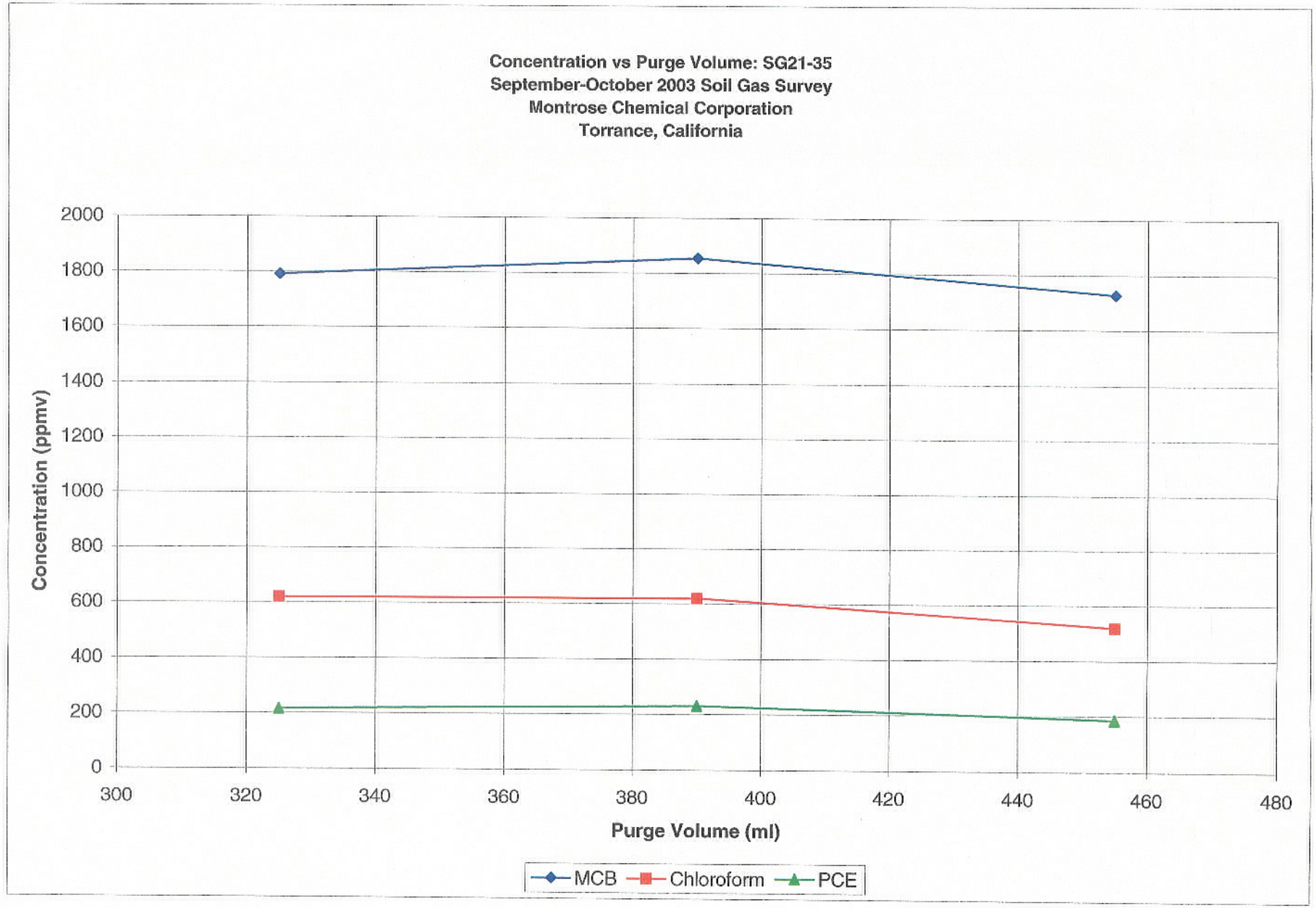

Concentration vs Purge Volume: SG16-15
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
1000
900
800
700
600
500
400
300
200
100
0
-100
0
100
200
300
400
500
600
700
800
900
1000
Purge Volume (ml)
MCB
Chloroform
PCE

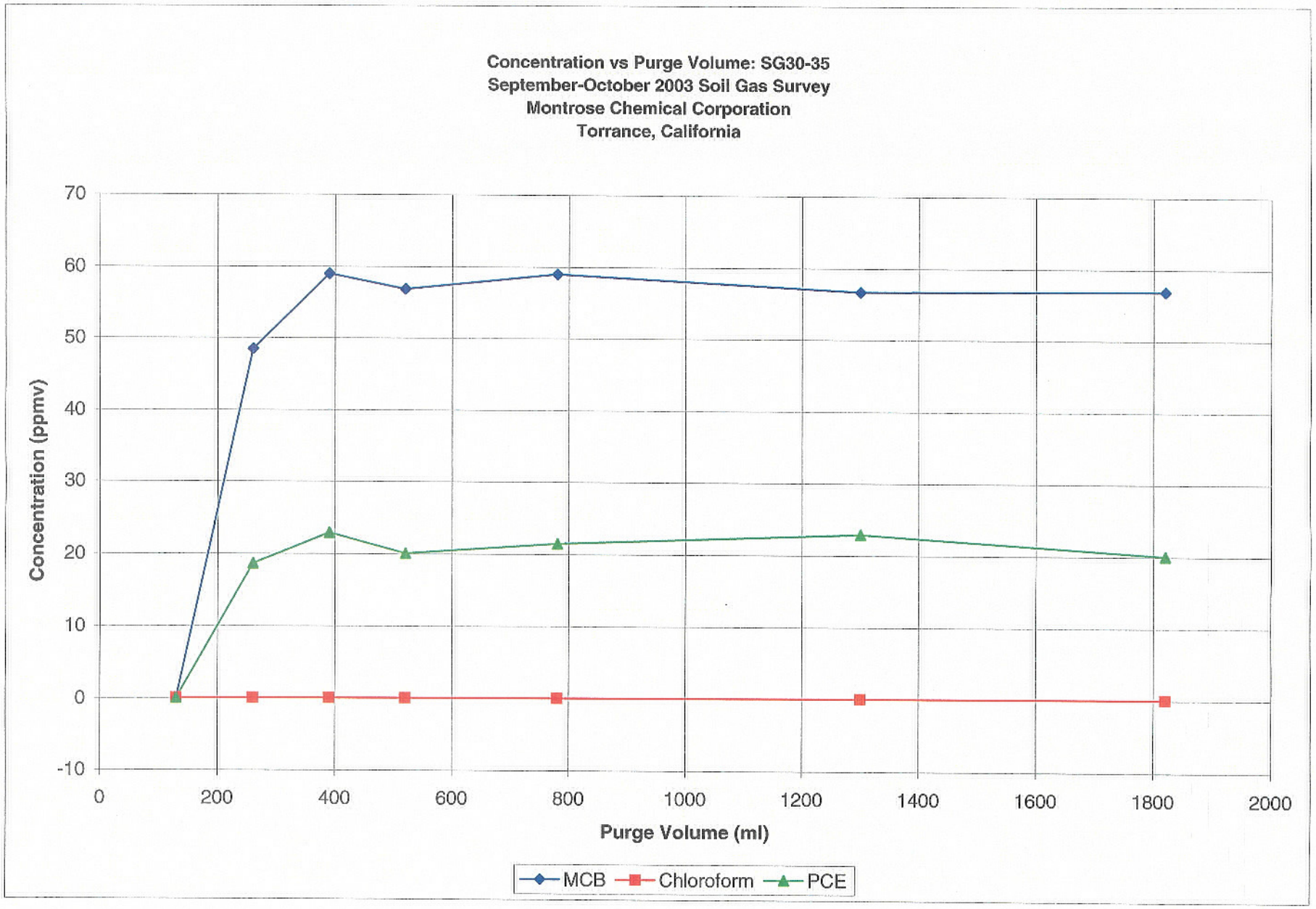

Concentration vs Purge Volume: SG21-15
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
340
350
360
370
380
390
400
410
420
Purge Volume (ml)
MCB
Chloroform
PCE


Concentration vs Purge Volume: SG32-15
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
0
1
2
3
4
5
6
7
8
0
100
200
300
400
500
600
700
800
900
1000
Purge Volume (ml)
MCB
Chloroform
PCE

Concentration vs Purge Volume: SG16-35
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
900
800
700
600
500
400
300
200
100
0
-100
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Purge Volume (ml)
MCB
Chloroform
PCE


Concentration vs Purge Volume: SG20-35
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Purge Volume (ml)
MCB
Chloroform
PCE


Concentration vs Purge Volume: SG21-35
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
300
320
340
360
380
400
420
440
460
480
Purge Volume (ml)
MCB
Chloroform
PCE


Concentration vs Purge Volume: SG30-35
September-October 2003 Soil Gas Survey
Montrose Chemical Corporation
Torrance, California
Concentration (ppmv)
70
60
50
40
30
20
10
0
-10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Purge Volume (ml)
MCB
Chloroform
PCE

APPENDIX E

OXYGEN AND CARBON DIOXIDE LEAK TEST RESULTS

Appendix E
Oxygen and Carbon Dioxide Leak Test Results

Sample ID	O_2% (1,2)	CO_2% (1,2)
SG-01	NS	NS
SG-02	NS	NS
SG-03	NS	NS
SG-04	NS	NS
SG-05	20.40	0.10
SG-06	20.30	0.20
SG-07	NA	NA
SG-08	21.40	0.20
SG-09	NA	NA
SG-10	NS	NS
SG-11	NS	NS
SG-12	NS	NS
SG-13	NS	NS
SG-14	20.60	0.00
SG-15	20.40	0.10
SG-16	20.80	0.10
SG-17	NA	NA
SG-18	NS	NS
SG-19	NS	NS
SG-20	20.10	0.10
SG-21	NS	NS
SG-22	19.80	0.00
SG-23	21.00	0.00
SG-24	NA	NA
SG-25	20.90	0.20
SG-26	NA	NA
SG-27	21.50	0.00
SG-28	21.70	0.00
SG-29	NS	NS
SG-30	21.20	0.10
SG-31	21.20	0.10
SG-32	20.70	0.10
SG-33	20.90	0.10

Notes:

1. O_2 and CO_2 concentrations were measured using a Gem 2000 gas analyzer
2. Field instruments were calibrated with 15% CO_2 calibration gas and atmospheric Oxygen

O_2 and CO_2 concentrations were only monitored at the 5' sample depth

NS - Not Sampled

NA- No 5' sample collected at this locations

APPENDIX F

CONFIRMATION SAMPLE LABORATORY REPORTS

ATTACHMENT F

Confirmation sample laboratory reports from Calscience Environmental Laboratory, Inc. are provided. When the analytes exceed the calibration range, they are run at a dilution. When this occurs, a "D" qualifier is listed next to the Dilution Factor (DF). A DF of 1 implies that the sample was analyzed without dilution. For example, a 400 ml aliquot is typically used for a TO-14A analysis. A sample with DF of 1 uses a 400 ml of sample aliquot, while a DF of 10 uses a 40 ml of sample aliquot. For dilutions greater than 10, serial dilutions are used (air is transferred to clean bags at specific aliquots) until the desired dilution is reached. This is done because the instrument should have at least 40 ml of air to analyze the sample (a 400x dilution without doing the serial dilution would mean using only 1 ml or air). Effectively, a DF of 335 would be an analysis of 1/335 of the normal sample aliquot.

The samples are usually screened before they are analyzed. From the initial screening, the appropriate DF is used to analyze the sample. Due to the nature of air samples, some analytes are going to be above the lab's instrument calibration range. As a result, a second (sometimes even a third) analytical run is necessary to report results over the limit analytes (to get them within the calibration range). The DF for a second run is determined by the amount above the calibration range the analyte(s) was during the initial run.

Laboratory results are reported in both ppm (v/v) and ug/l. Some of the laboratory reports are shown twice using different units, ppm (v/v) and ug/l. In these cases, the reported concentrations have been converted according to the corresponding unit.

Calscience
Environmental
Laboratories, Inc.

October 22, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.:** **03-10-0911**
Client Reference: **Montrose**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/15/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/15/03
Work Order No:	03-10-0911
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-14-35	03-10-0911-1	10/15/03	Air	N/A	10/17/03	031016L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.88	355		ug/L	1,1,2-Trichloroethane	ND	0.97	355		ug/L
Chloromethane	ND	0.37	355		ug/L	Toluene	1.3	0.6	355		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	5.0	355		ug/L	Trichloroethene	ND	0.95	355		ug/L
Vinyl Chloride	ND	0.45	355		ug/L	1,2-Dibromoethane	ND	1.4	355		ug/L
Bromomethane	ND	0.69	355		ug/L	Tetrachloroethene	310	12	3550	D	ug/L
Chloroethane	ND	0.47	355		ug/L	Chlorobenzene	48	0.82	355		ug/L
Trichlorofluoromethane	ND	1.0	355		ug/L	Ethylbenzene	ND	0.77	355		ug/L
1,1-Dichloroethene	ND	0.70	355		ug/L	p/m-Xylene	1.8	1.5	355		ug/L
Methylene Chloride	4.5	2.5	355		ug/L	Styrene	ND	1.5	355		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	2.7	355		ug/L	1,1,2,2-Tetrachloroethane	ND	1.2	355		ug/L
1,1-Dichloroethane	ND	0.72	355		ug/L	o-Xylene	0.79	0.77	355		ug/L
c-1,2-Dichloroethene	ND	0.70	355		ug/L	1,3,5-Trimethylbenzene	ND	0.87	355		ug/L
Chloroform	1700	22	8880	D	ug/L	1,2,4-Trimethylbenzene	ND	1.7	355		ug/L
1,2-Dichloroethane	ND	0.72	355		ug/L	Benzyl Chloride	ND	1.8	355		ug/L
1,1,1-Trichloroethane	ND	0.97	355		ug/L	1,3-Dichlorobenzene	ND	1.1	355		ug/L
Benzene	0.92	0.57	355		ug/L	1,4-Dichlorobenzene	1.3	1.1	355		ug/L
Carbon Tetrachloride	77	1	355		ug/L	1,2-Dichlorobenzene	1.2	1.1	355		ug/L
1,2-Dichloropropane	ND	0.82	355		ug/L	1,2,4-Trichlorobenzene	4.8	2.6	355		ug/L
c-1,3-Dichloropropene	ND	0.81	355		ug/L	Hexachloro-1,3-Butadiene	8.0	1.9	355		ug/L
t-1,3-Dichloropropene	ND	1.6	355		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/15/03
Work Order No: 03-10-0911
Preparation: N/A
Method: EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,257**	**N/A**	**Air**	**N/A**	**10/16/03**	**031016L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech		Date Received:	10/15/03
100 West Broadway, Suite 240		Work Order No:	03-10-0911
Long Beach, CA 90802-4432		Preparation:	N/A
		Method:	EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,260**	**N/A**	**Air**	**N/A**	**10/18/03**	**031017L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/15/03
Work Order No:	03-10-0911
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-14-35	03-10-0911-1	10/15/03	Air	N/A	10/17/03	031016L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	180	355		ppb (v/v)	1,1,2-Trichloroethane	ND	180	355		ppb (v/v)
Chloromethane	ND	180	355		ppb (v/v)	Toluene	350	180	355		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	710	355		ppb (v/v)	Trichloroethene	ND	180	355		ppb (v/v)
Vinyl Chloride	ND	180	355		ppb (v/v)	1,2-Dibromoethane	ND	180	355		ppb (v/v)
Bromomethane	ND	180	355		ppb (v/v)	Tetrachloroethene	46000	1800	3550	D	ppb (v/v)
Chloroethane	ND	180	355		ppb (v/v)	Chlorobenzene	10000	180	355		ppb (v/v)
Trichlorofluoromethane	ND	180	355		ppb (v/v)	Ethylbenzene	ND	180	355		ppb (v/v)
1,1-Dichloroethene	ND	180	355		ppb (v/v)	p/m-Xylene	420	360	355		ppb (v/v)
Methylene Chloride	1300	710	355		ppb (v/v)	Styrene	ND	360	355		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	360	355		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	180	355		ppb (v/v)
1,1-Dichloroethane	ND	180	355		ppb (v/v)	o-Xylene	180	180	355		ppb (v/v)
c-1,2-Dichloroethene	ND	180	355		ppb (v/v)	1,3,5-Trimethylbenzene	ND	180	355		ppb (v/v)
Chloroform	350000	4400	8880	D	ppb (v/v)	1,2,4-Trimethylbenzene	ND	360	355		ppb (v/v)
1,2-Dichloroethane	ND	180	355		ppb (v/v)	Benzyl Chloride	ND	360	355		ppb (v/v)
1,1,1-Trichloroethane	ND	180	355		ppb (v/v)	1,3-Dichlorobenzene	ND	180	355		ppb (v/v)
Benzene	290	180	355		ppb (v/v)	1,4-Dichlorobenzene	210	180	355		ppb (v/v)
Carbon Tetrachloride	12000	180	355		ppb (v/v)	1,2-Dichlorobenzene	200	180	355		ppb (v/v)
1,2-Dichloropropane	ND	180	355		ppb (v/v)	1,2,4-Trichlorobenzene	640	360	355		ppb (v/v)
c-1,3-Dichloropropene	ND	180	355		ppb (v/v)	Hexachloro-1,3-Butadiene	750	180	355		ppb (v/v)
t-1,3-Dichloropropene	ND	360	355		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/15/03
Work Order No:	03-10-0911
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,257**	**N/A**	**Air**	**N/A**	**10/16/03**	**031016L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/15/03
Work Order No: 03-10-0911
Preparation: N/A
Method: EPA TO-14A

Project: Montrose

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,260**	**N/A**	**Air**	**N/A**	**10/18/03**	**031017L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/15/03
Work Order No: 03-10-0911
Preparation: N/A
Method: EPA TO-14A

Project: Montrose

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,257	Air	GC/MS V	N/A	10/16/03	031016L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	82	85	58-124	3	0-37	
1,2-Dichloroethane	123	119	63-123	4	0-37	
Benzene	90	92	61-121	2	0-37	
Carbon Tetrachloride	125	122	56-128	3	0-42	
1,2-Dichloropropane	90	91	61-121	2	0-37	
c-1,3-Dichloropropene	108	107	62-128	1	0-37	
1,1,2-Trichloroethane	98	97	64-124	1	0-37	
Toluene	81	87	60-120	7	0-39	
Trichloroethene	96	95	65-119	1	0-38	
1,2-Dibromoethane	92	97	63-123	6	0-38	
Tetrachloroethene	84	89	59-119	6	0-40	
Ethylbenzene	89	95	61-127	6	0-38	
p/m-Xylene	91	96	57-129	6	0-39	
Bromoform	102	107	62-134	5	0-38	
o-Xylene	93	98	58-130	5	0-38	
1,4-Dichlorobenzene	113	119	51-147	5	0-49	
1,2-Dichlorobenzene	114	118	41-149	3	0-62	

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/15/03
Work Order No: 03-10-0911
Preparation: N/A
Method: EPA TO-14A

Project: Montrose

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,260	Air	GC/MS V	N/A	10/18/03	031017L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	87	88	58-124	2	0-37	
1,2-Dichloroethane	94	93	63-123	1	0-37	
Benzene	94	99	61-121	5	0-37	
Carbon Tetrachloride	92	92	56-128	0	0-42	
1,2-Dichloropropane	95	99	61-121	4	0-37	
c-1,3-Dichloropropene	101	103	62-128	3	0-37	
1,1,2-Trichloroethane	93	96	64-124	3	0-37	
Toluene	94	96	60-120	1	0-39	
Trichloroethene	95	95	65-119	1	0-38	
1,2-Dibromoethane	100	101	63-123	1	0-38	
Tetrachloroethene	90	91	59-119	1	0-40	
Ethylbenzene	94	96	61-127	2	0-38	
p/m-Xylene	92	94	57-129	2	0-39	
Bromoform	97	97	62-134	0	0-38	
o-Xylene	94	95	58-130	1	0-38	
1,4-Dichlorobenzene	108	108	51-147	0	0-49	
1,2-Dichlorobenzene	104	105	41-149	1	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0911

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - ____

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Earth Tech

DATE: 10/15/03

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- ____ Chilled, cooler with temperature blank provided.
- ____ Chilled, cooler without temperature blank.
- ____ Chilled and placed in cooler with wet ice.
- ____ Ambient and placed in cooler with wet ice.
- ✓ Ambient temperature.
- ____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- ____ °C Temperature blank.
- ____ °C IR thermometer.
- ____ Ambient temperature.

Initial: [illegible]

CUSTODY SEAL INTACT:

Sample(s): ____ Cooler: ____ No (Not Intact) : ____ Not Applicable (N/A): ✓

Initial: [illegible]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.	✓		✓
Tedlar bag(s) free of condensation			✓

Initial: [illegible]

COMMENTS:

LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 10-15-03

Page 1 of 1

LABORATORY CLIENT: EARTH TECH

ADDRESS: 100 WEST BROADWAY

CITY LONG BEACH STATE CA ZIP 90802

TEL: 562-951-2000 FAX: 562-951-2086 E-MAIL:

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.:

PROJECT CONTACT: BRIAN DEAN

LAB USE ONLY: 10-0911

SAMPLER(S): (SIGNATURE) [signature]

COELT LOG CODE ☐☐☐☐

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or ___	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TO-14A				
		SG-14-35	10-15-03	1150	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	10-15-03	1350
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) [signature]	Received for Laboratory by: (Signature) [signature]	Date: 10/15/03	Time: 1630

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

09/10/01 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 21, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.:** **03-10-0864**
Client Reference: **Montrose Torrance Soil Gas Survey**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/14/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/14/03
Work Order No:	03-10-0864
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-15-5	03-10-0864-1	10/14/03	Air	N/A	10/17/03	031017L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	0.0049	0.0043	1.73		ug/L	1,1,2-Trichloroethane	ND	0.0047	1.73		ug/L
Chloromethane	0.0030	0.0018	1.73		ug/L	Toluene	0.015	0.003	1.73		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.024	1.73		ug/L	Trichloroethene	0.011	0.004	1.73		ug/L
Vinyl Chloride	ND	0.0022	1.73		ug/L	1,2-Dibromoethane	ND	0.0066	1.73		ug/L
Bromomethane	ND	0.0034	1.73		ug/L	Tetrachloroethene	0.41	0.0059	1.73		ug/L
Chloroethane	ND	0.0023	1.73		ug/L	Chlorobenzene	0.22	0.0040	1.73		ug/L
Trichlorofluoromethane	ND	0.0049	1.73		ug/L	Ethylbenzene	0.057	0.003	1.73		ug/L
1,1-Dichloroethene	ND	0.0034	1.73		ug/L	p/m-Xylene	0.19	0.0075	1.73		ug/L
Methylene Chloride	ND	0.012	1.73		ug/L	Styrene	ND	0.0074	1.73		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.013	1.73		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0060	1.73		ug/L
1,1-Dichloroethane	ND	0.0035	1.73		ug/L	o-Xylene	0.092	0.003	1.73		ug/L
c-1,2-Dichloroethene	ND	0.0034	1.73		ug/L	1,3,5-Trimethylbenzene	ND	0.0043	1.73		ug/L
Chloroform	0.34	0.0042	1.73		ug/L	1,2,4-Trimethylbenzene	ND	0.0085	1.73		ug/L
1,2-Dichloroethane	ND	0.0035	1.73		ug/L	Benzyl Chloride	ND	0.0090	1.73		ug/L
1,1,1-Trichloroethane	ND	0.0047	1.73		ug/L	1,3-Dichlorobenzene	ND	0.0052	1.73		ug/L
Benzene	0.0090	0.0028	1.73		ug/L	1,4-Dichlorobenzene	0.0083	0.0052	1.73		ug/L
Carbon Tetrachloride	0.015	0.005	1.73		ug/L	1,2-Dichlorobenzene	0.0057	0.0052	1.73		ug/L
1,2-Dichloropropane	ND	0.0040	1.73		ug/L	1,2,4-Trichlorobenzene	0.018	0.013	1.73		ug/L
c-1,3-Dichloropropene	ND	0.0039	1.73		ug/L	Hexachloro-1,3-Butadiene	ND	0.0092	1.73		ug/L
t-1,3-Dichloropropene	ND	0.0079	1.73		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/14/03
Work Order No:	03-10-0864
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,258**	**N/A**	**Air**	**N/A**	**10/17/03**	**031017L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/14/03
Work Order No:	03-10-0864
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-15-5	03-10-0864-1	10/14/03	Air	N/A	10/17/03	031017L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	0.99	0.87	1.73		ppb (v/v)	1,1,2-Trichloroethane	ND	0.87	1.73		ppb (v/v)
Chloromethane	1.4	0.8	1.73		ppb (v/v)	Toluene	4.1	0.8	1.73		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	3.5	1.73		ppb (v/v)	Trichloroethene	2.1	0.8	1.73		ppb (v/v)
Vinyl Chloride	ND	0.87	1.73		ppb (v/v)	1,2-Dibromoethane	ND	0.87	1.73		ppb (v/v)
Bromomethane	ND	0.87	1.73		ppb (v/v)	Tetrachloroethene	61	0.87	1.73		ppb (v/v)
Chloroethane	ND	0.87	1.73		ppb (v/v)	Chlorobenzene	48	0.87	1.73		ppb (v/v)
Trichlorofluoromethane	ND	0.87	1.73		ppb (v/v)	Ethylbenzene	13	0.87	1.73		ppb (v/v)
1,1-Dichloroethene	ND	0.87	1.73		ppb (v/v)	p/m-Xylene	45	1	1.73		ppb (v/v)
Methylene Chloride	ND	3.5	1.73		ppb (v/v)	Styrene	ND	1.7	1.73		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.7	1.73		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.87	1.73		ppb (v/v)
1,1-Dichloroethane	ND	0.87	1.73		ppb (v/v)	o-Xylene	21	0.87	1.73		ppb (v/v)
c-1,2-Dichloroethene	ND	0.87	1.73		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.87	1.73		ppb (v/v)
Chloroform	70	0.87	1.73		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.7	1.73		ppb (v/v)
1,2-Dichloroethane	ND	0.87	1.73		ppb (v/v)	Benzyl Chloride	ND	1.7	1.73		ppb (v/v)
1,1,1-Trichloroethane	ND	0.87	1.73		ppb (v/v)	1,3-Dichlorobenzene	ND	0.87	1.73		ppb (v/v)
Benzene	2.8	0.8	1.73		ppb (v/v)	1,4-Dichlorobenzene	1.4	0.8	1.73		ppb (v/v)
Carbon Tetrachloride	2.4	0.8	1.73		ppb (v/v)	1,2-Dichlorobenzene	0.95	0.87	1.73		ppb (v/v)
1,2-Dichloropropane	ND	0.87	1.73		ppb (v/v)	1,2,4-Trichlorobenzene	2.4	1.7	1.73		ppb (v/v)
c-1,3-Dichloropropene	ND	0.87	1.73		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.87	1.73		ppb (v/v)
t-1,3-Dichloropropene	ND	1.7	1.73		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/14/03
Work Order No:	03-10-0864
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,258**	**N/A**	**Air**	**N/A**	**10/17/03**	**031017L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/14/03
Work Order No: 03-10-0864
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,258	Air	GC/MS DD	N/A	10/17/03	031017L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	92	92	58-124	0	0-37	
1,2-Dichloroethane	97	95	63-123	2	0-37	
Benzene	94	91	61-121	3	0-37	
Carbon Tetrachloride	98	95	56-128	3	0-42	
1,2-Dichloropropane	94	91	61-121	2	0-37	
c-1,3-Dichloropropene	103	101	62-128	2	0-37	
1,1,2-Trichloroethane	94	92	64-124	2	0-37	
Toluene	95	93	60-120	2	0-39	
Trichloroethene	94	91	65-119	3	0-38	
1,2-Dibromoethane	95	92	63-123	3	0-38	
Tetrachloroethene	94	91	59-119	3	0-40	
Ethylbenzene	96	93	61-127	3	0-38	
p/m-Xylene	95	93	57-129	3	0-39	
Bromoform	97	95	62-134	3	0-38	
o-Xylene	94	91	58-130	3	0-38	
1,4-Dichlorobenzene	97	95	51-147	3	0-49	
1,2-Dichlorobenzene	100	97	41-149	3	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0864

Qualifier	Definition
ND	Not detected at indicated reporting limit.

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - 0864

Cooler _____ of _____

SAMPLE RECEIPT FORM

CLIENT: Earth Tech

DATE: 10/14/03

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
✓ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: [illegible]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: [illegible]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: [illegible]

COMMENTS:

LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 10-14-03

Page 1 of 1

LABORATORY CLIENT: EARTH TECH

ADDRESS: 100 W. BROADWAY #240

CITY: LONG BEACH, CA STATE: 90802 ZIP:

TEL: 562-951-2000 FAX: 562-951-2086 E-MAIL:

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE TORRANCE SOIL GAS SURVEY

P.O. NO.:

PROJECT CONTACT: BRIAN DEAN

LAB USE ONLY: 10-0864

SAMPLER(S): (SIGNATURE) Eva Burns

COELT LOG CODE ☐☐☐☐

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or ___	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TO-14A				
1		SG-15-5	10.14.03	1500	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Eva Burns 10-14-03	[signature]	10/14/3	1545
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) [signature]	Received for Laboratory by: (Signature) [signature]	10/14/3	1725

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

09/10/01 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 16, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.:** **03-10-0581**
Client Reference: **Montrose Torrance Soil Gas Survey**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/9/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-25-15	03-10-0581-1	10/09/03	Air	N/A	10/13/03	031011L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	1.5	608		ug/L	1,1,2-Trichloroethane	ND	1.7	608		ug/L
Chloromethane	ND	0.63	608		ug/L	Toluene	ND	1.1	608		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	8.5	608		ug/L	Trichloroethene	ND	1.6	608		ug/L
Vinyl Chloride	ND	0.78	608		ug/L	1,2-Dibromoethane	ND	2.3	608		ug/L
Bromomethane	ND	1.2	608		ug/L	Tetrachloroethene	100	2	608		ug/L
Chloroethane	ND	0.80	608		ug/L	Chlorobenzene	40	1	608		ug/L
Trichlorofluoromethane	ND	1.7	608		ug/L	Ethylbenzene	ND	1.3	608		ug/L
1,1-Dichloroethene	ND	1.2	608		ug/L	p/m-Xylene	ND	2.6	608		ug/L
Methylene Chloride	8.0	4.2	608		ug/L	Styrene	ND	2.6	608		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	4.7	608		ug/L	1,1,2,2-Tetrachloroethane	ND	2.1	608		ug/L
1,1-Dichloroethane	ND	1.2	608		ug/L	o-Xylene	ND	1.3	608		ug/L
c-1,2-Dichloroethene	ND	1.2	608		ug/L	1,3,5-Trimethylbenzene	ND	1.5	608		ug/L
Chloroform	78	1	608		ug/L	1,2,4-Trimethylbenzene	ND	3.0	608		ug/L
1,2-Dichloroethane	ND	1.2	608		ug/L	Benzyl Chloride	ND	3.1	608		ug/L
1,1,1-Trichloroethane	ND	1.7	608		ug/L	1,3-Dichlorobenzene	ND	1.8	608		ug/L
Benzene	1.4	0.9	608		ug/L	1,4-Dichlorobenzene	ND	1.8	608		ug/L
Carbon Tetrachloride	ND	1.9	608		ug/L	1,2-Dichlorobenzene	ND	1.8	608		ug/L
1,2-Dichloropropane	ND	1.4	608		ug/L	1,2,4-Trichlorobenzene	ND	4.5	608		ug/L
c-1,3-Dichloropropene	ND	1.4	608		ug/L	Hexachloro-1,3-Butadiene	7.3	3.2	608		ug/L
t-1,3-Dichloropropene	ND	2.8	608		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-29-15	03-10-0581-2	10/09/03	Air	N/A	10/13/03	031011L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	2.1	855		ug/L	1,1,2-Trichloroethane	ND	2.3	855		ug/L
Chloromethane	ND	0.88	855		ug/L	Toluene	ND	1.6	855		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	12	855		ug/L	Trichloroethene	ND	2.3	855		ug/L
Vinyl Chloride	ND	1.1	855		ug/L	1,2-Dibromoethane	ND	3.3	855		ug/L
Bromomethane	ND	1.7	855		ug/L	Tetrachloroethene	9.4	2.9	855		ug/L
Chloroethane	ND	1.1	855		ug/L	Chlorobenzene	5.5	2.0	855		ug/L
Trichlorofluoromethane	ND	2.4	855		ug/L	Ethylbenzene	ND	1.9	855		ug/L
1,1-Dichloroethene	ND	1.7	855		ug/L	p/m-Xylene	ND	3.7	855		ug/L
Methylene Chloride	6.0	5.9	855		ug/L	Styrene	ND	3.6	855		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	6.6	855		ug/L	1,1,2,2-Tetrachloroethane	ND	3.0	855		ug/L
1,1-Dichloroethane	ND	1.7	855		ug/L	o-Xylene	ND	1.9	855		ug/L
c-1,2-Dichloroethene	ND	1.7	855		ug/L	1,3,5-Trimethylbenzene	ND	2.1	855		ug/L
Chloroform	6.0	2.1	855		ug/L	1,2,4-Trimethylbenzene	ND	4.2	855		ug/L
1,2-Dichloroethane	ND	1.7	855		ug/L	Benzyl Chloride	ND	4.4	855		ug/L
1,1,1-Trichloroethane	ND	2.3	855		ug/L	1,3-Dichlorobenzene	ND	2.6	855		ug/L
Benzene	ND	1.4	855		ug/L	1,4-Dichlorobenzene	ND	2.6	855		ug/L
Carbon Tetrachloride	ND	2.7	855		ug/L	1,2-Dichlorobenzene	ND	2.6	855		ug/L
1,2-Dichloropropane	ND	2.0	855		ug/L	1,2,4-Trichlorobenzene	ND	6.3	855		ug/L
c-1,3-Dichloropropene	ND	1.9	855		ug/L	Hexachloro-1,3-Butadiene	ND	4.6	855		ug/L
t-1,3-Dichloropropene	ND	3.9	855		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,249**	**N/A**	**Air**	**N/A**	**10/12/03**	**031011L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-25-15	03-10-0581-1	10/09/03	Air	N/A	10/13/03	031011L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	300	608		ppb (v/v)	1,1,2-Trichloroethane	ND	300	608		ppb (v/v)
Chloromethane	ND	300	608		ppb (v/v)	Toluene	ND	300	608		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	1200	608		ppb (v/v)	Trichloroethene	ND	300	608		ppb (v/v)
Vinyl Chloride	ND	300	608		ppb (v/v)	1,2-Dibromoethane	ND	300	608		ppb (v/v)
Bromomethane	ND	300	608		ppb (v/v)	Tetrachloroethene	15000	300	608		ppb (v/v)
Chloroethane	ND	300	608		ppb (v/v)	Chlorobenzene	8700	300	608		ppb (v/v)
Trichlorofluoromethane	ND	300	608		ppb (v/v)	Ethylbenzene	ND	300	608		ppb (v/v)
1,1-Dichloroethene	ND	300	608		ppb (v/v)	p/m-Xylene	ND	610	608		ppb (v/v)
Methylene Chloride	2300	1200	608		ppb (v/v)	Styrene	ND	610	608		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	610	608		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	300	608		ppb (v/v)
1,1-Dichloroethane	ND	300	608		ppb (v/v)	o-Xylene	ND	300	608		ppb (v/v)
c-1,2-Dichloroethene	ND	300	608		ppb (v/v)	1,3,5-Trimethylbenzene	ND	300	608		ppb (v/v)
Chloroform	16000	300	608		ppb (v/v)	1,2,4-Trimethylbenzene	ND	610	608		ppb (v/v)
1,2-Dichloroethane	ND	300	608		ppb (v/v)	Benzyl Chloride	ND	610	608		ppb (v/v)
1,1,1-Trichloroethane	ND	300	608		ppb (v/v)	1,3-Dichlorobenzene	ND	300	608		ppb (v/v)
Benzene	450	300	608		ppb (v/v)	1,4-Dichlorobenzene	ND	300	608		ppb (v/v)
Carbon Tetrachloride	ND	300	608		ppb (v/v)	1,2-Dichlorobenzene	ND	300	608		ppb (v/v)
1,2-Dichloropropane	ND	300	608		ppb (v/v)	1,2,4-Trichlorobenzene	ND	610	608		ppb (v/v)
c-1,3-Dichloropropene	ND	300	608		ppb (v/v)	Hexachloro-1,3-Butadiene	690	300	608		ppb (v/v)
t-1,3-Dichloropropene	ND	610	608		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-29-15	03-10-0581-2	10/09/03	Air	N/A	10/13/03	031011L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	430	855		ppb (v/v)	1,1,2-Trichloroethane	ND	430	855		ppb (v/v)
Chloromethane	ND	430	855		ppb (v/v)	Toluene	ND	430	855		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	1700	855		ppb (v/v)	Trichloroethene	ND	430	855		ppb (v/v)
Vinyl Chloride	ND	430	855		ppb (v/v)	1,2-Dibromoethane	ND	430	855		ppb (v/v)
Bromomethane	ND	430	855		ppb (v/v)	Tetrachloroethene	1400	430	855		ppb (v/v)
Chloroethane	ND	430	855		ppb (v/v)	Chlorobenzene	1200	430	855		ppb (v/v)
Trichlorofluoromethane	ND	430	855		ppb (v/v)	Ethylbenzene	ND	430	855		ppb (v/v)
1,1-Dichloroethene	ND	430	855		ppb (v/v)	p/m-Xylene	ND	860	855		ppb (v/v)
Methylene Chloride	1700	1700	855		ppb (v/v)	Styrene	ND	860	855		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	860	855		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	430	855		ppb (v/v)
1,1-Dichloroethane	ND	430	855		ppb (v/v)	o-Xylene	ND	430	855		ppb (v/v)
c-1,2-Dichloroethene	ND	430	855		ppb (v/v)	1,3,5-Trimethylbenzene	ND	430	855		ppb (v/v)
Chloroform	1200	430	855		ppb (v/v)	1,2,4-Trimethylbenzene	ND	860	855		ppb (v/v)
1,2-Dichloroethane	ND	430	855		ppb (v/v)	Benzyl Chloride	ND	860	855		ppb (v/v)
1,1,1-Trichloroethane	ND	430	855		ppb (v/v)	1,3-Dichlorobenzene	ND	430	855		ppb (v/v)
Benzene	ND	430	855		ppb (v/v)	1,4-Dichlorobenzene	ND	430	855		ppb (v/v)
Carbon Tetrachloride	ND	430	855		ppb (v/v)	1,2-Dichlorobenzene	ND	430	855		ppb (v/v)
1,2-Dichloropropane	ND	430	855		ppb (v/v)	1,2,4-Trichlorobenzene	ND	860	855		ppb (v/v)
c-1,3-Dichloropropene	ND	430	855		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	430	855		ppb (v/v)
t-1,3-Dichloropropene	ND	860	855		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/09/03
Work Order No:	03-10-0581
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,249**	**N/A**	**Air**	**N/A**	**10/12/03**	**031011L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor ; Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/09/03
Work Order No: 03-10-0581
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,249	Air	GC/MS V	N/A	10/12/03	031011L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	87	99	58-124	14	0-37	
1,2-Dichloroethane	113	110	63-123	3	0-37	
Benzene	91	109	61-121	19	0-37	
Carbon Tetrachloride	110	111	56-128	0	0-42	
1,2-Dichloropropane	89	108	61-121	19	0-37	
c-1,3-Dichloropropene	103	118	62-128	13	0-37	
1,1,2-Trichloroethane	96	110	64-124	14	0-37	
Toluene	95	112	60-120	16	0-39	
Trichloroethene	93	105	65-119	12	0-38	
1,2-Dibromoethane	105	117	63-123	11	0-38	
Tetrachloroethene	95	103	59-119	8	0-40	
Ethylbenzene	101	112	61-127	10	0-38	
p/m-Xylene	101	110	57-129	9	0-39	
Bromoform	112	113	62-134	2	0-38	
o-Xylene	103	111	58-130	7	0-38	
1,4-Dichlorobenzene	126	133	51-147	5	0-49	
1,2-Dichlorobenzene	126	129	41-149	2	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0581

Qualifier	Definition
ND	Not detected at indicated reporting limit.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - 0581

Cooler 0 of 0

SAMPLE RECEIPT FORM

CLIENT: Earth Tech

DATE: 10/9/3

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
✓ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: [illegible]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: [illegible]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: [illegible]

COMMENTS:

CALSCIENCE ENVIRONMENTAL
LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date: October 9, 2003

Page 1 of 1

LABORATORY CLIENT: EARTH TECH

ADDRESS: 100 W. BROADWAY STE 240

CITY: LONG BEACH STATE: CA ZIP: 90802

TEL: (562) 951-2000 FAX: (562) 951-2086 E-MAIL:

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Montrose-Torrance Soil Gas Survey

P.O. NO.: 64210 GW1

PROJECT CONTACT: Brian Dean

LAB USE ONLY: 10-0581

SAMPLER(S): (SIGNATURE) Ally L McCord

COELT LOG CODE

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TO-14A				
		SG-25-15	10.9.03	8:44	AIR	1														X				
		SG-29-15	10.9.03	13:08	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Ally L McCord		10.9.03	1555
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:
	W Chan	10/9/3	1645

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies.

09/10/01 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 14, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.:** **03-10-0382**
Client Reference: **Montrose - Torrance**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/7/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-12-35	03-10-0382-1	10/07/03	Air	N/A	10/08/03	031007L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.21	86.4		ug/L	1,1,2-Trichloroethane	ND	0.24	86.4		ug/L
Chloromethane	ND	0.089	86.4		ug/L	Toluene	0.39	0.16	86.4		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	1.2	86.4		ug/L	Trichloroethene	130	4	1730	D	ug/L
Vinyl Chloride	1.0	0.1	86.4		ug/L	1,2-Dibromoethane	ND	0.33	86.4		ug/L
Bromomethane	ND	0.17	86.4		ug/L	Tetrachloroethene	140	5	1730	D	ug/L
Chloroethane	ND	0.11	86.4		ug/L	Chlorobenzene	3.1	0.2	86.4		ug/L
Trichlorofluoromethane	0.58	0.24	86.4		ug/L	Ethylbenzene	0.22	0.19	86.4		ug/L
1,1-Dichloroethene	100	3	1730	D	ug/L	p/m-Xylene	0.64	0.38	86.4		ug/L
Methylene Chloride	1.7	0.6	86.4		ug/L	Styrene	ND	0.37	86.4		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	4.4	0.6	86.4		ug/L	1,1,2,2-Tetrachloroethane	ND	0.30	86.4		ug/L
1,1-Dichloroethane	2.3	0.1	86.4		ug/L	o-Xylene	0.28	0.19	86.4		ug/L
c-1,2-Dichloroethene	2.0	0.1	86.4		ug/L	1,3,5-Trimethylbenzene	0.23	0.21	86.4		ug/L
Chloroform	280	4	1730	D	ug/L	1,2,4-Trimethylbenzene	ND	0.42	86.4		ug/L
1,2-Dichloroethane	ND	0.17	86.4		ug/L	Benzyl Chloride	ND	0.45	86.4		ug/L
1,1,1-Trichloroethane	5.9	0.2	86.4		ug/L	1,3-Dichlorobenzene	ND	0.26	86.4		ug/L
Benzene	0.59	0.14	86.4		ug/L	1,4-Dichlorobenzene	0.28	0.26	86.4		ug/L
Carbon Tetrachloride	5.8	0.2	86.4		ug/L	1,2-Dichlorobenzene	0.27	0.26	86.4		ug/L
1,2-Dichloropropane	ND	0.20	86.4		ug/L	1,2,4-Trichlorobenzene	ND	0.64	86.4		ug/L
c-1,3-Dichloropropene	ND	0.20	86.4		ug/L	Hexachloro-1,3-Butadiene	2.1	0.4	86.4		ug/L
t-1,3-Dichloropropene	ND	0.39	86.4		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-20-5	03-10-0382-2	10/07/03	Air	N/A	10/08/03	031007L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0078	3.14		ug/L	1,1,2-Trichloroethane	ND	0.0086	3.14		ug/L
Chloromethane	ND	0.0032	3.14		ug/L	Toluene	0.031	0.005	3.14		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.044	3.14		ug/L	Trichloroethene	3.1	0.084	31.4	D	ug/L
Vinyl Chloride	ND	0.0040	3.14		ug/L	1,2-Dibromoethane	ND	0.012	3.14		ug/L
Bromomethane	ND	0.0061	3.14		ug/L	Tetrachloroethene	3.5	0.1	31.4	D	ug/L
Chloroethane	ND	0.0041	3.14		ug/L	Chlorobenzene	0.26	0.0072	3.14		ug/L
Trichlorofluoromethane	ND	0.0088	3.14		ug/L	Ethylbenzene	0.017	0.006	3.14		ug/L
1,1-Dichloroethene	0.29	0.0062	3.14		ug/L	p/m-Xylene	0.044	0.014	3.14		ug/L
Methylene Chloride	ND	0.022	3.14		ug/L	Styrene	ND	0.013	3.14		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.024	3.14		ug/L	1,1,2,2-Tetrachloroethane	ND	0.011	3.14		ug/L
1,1-Dichloroethane	0.017	0.006	3.14		ug/L	o-Xylene	0.025	0.006	3.14		ug/L
c-1,2-Dichloroethene	0.012	0.006	3.14		ug/L	1,3,5-Trimethylbenzene	ND	0.0077	3.14		ug/L
Chloroform	0.67	0.0077	3.14		ug/L	1,2,4-Trimethylbenzene	ND	0.015	3.14		ug/L
1,2-Dichloroethane	ND	0.0064	3.14		ug/L	Benzyl Chloride	ND	0.016	3.14		ug/L
1,1,1-Trichloroethane	0.15	0.0086	3.14		ug/L	1,3-Dichlorobenzene	ND	0.0094	3.14		ug/L
Benzene	0.023	0.005	3.14		ug/L	1,4-Dichlorobenzene	0.021	0.009	3.14		ug/L
Carbon Tetrachloride	0.013	0.009	3.14		ug/L	1,2-Dichlorobenzene	0.018	0.009	3.14		ug/L
1,2-Dichloropropane	ND	0.0073	3.14		ug/L	1,2,4-Trichlorobenzene	0.024	0.023	3.14		ug/L
c-1,3-Dichloropropene	ND	0.0071	3.14		ug/L	Hexachloro-1,3-Butadiene	ND	0.017	3.14		ug/L
t-1,3-Dichloropropene	ND	0.014	3.14		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,240**	**N/A**	**Air**	**N/A**	**10/07/03**	**031007L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,242**	**N/A**	**Air**	**N/A**	**10/08/03**	**031008L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-12-35	03-10-0382-1	10/07/03	Air	N/A	10/08/03	031007L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	43	86.4		ppb (v/v)	1,1,2-Trichloroethane	ND	43	86.4		ppb (v/v)
Chloromethane	ND	43	86.4		ppb (v/v)	Toluene	100	43	86.4		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	170	86.4		ppb (v/v)	Trichloroethene	24000	870	1730	D	ppb (v/v)
Vinyl Chloride	390	43	86.4		ppb (v/v)	1,2-Dibromoethane	ND	43	86.4		ppb (v/v)
Bromomethane	ND	43	86.4		ppb (v/v)	Tetrachloroethene	21000	870	1730	D	ppb (v/v)
Chloroethane	ND	43	86.4		ppb (v/v)	Chlorobenzene	670	43	86.4		ppb (v/v)
Trichlorofluoromethane	100	43	86.4		ppb (v/v)	Ethylbenzene	50	43	86.4		ppb (v/v)
1,1-Dichloroethene	25000	870	1730	D	ppb (v/v)	p/m-Xylene	150	86	86.4		ppb (v/v)
Methylene Chloride	500	170	86.4		ppb (v/v)	Styrene	ND	86	86.4		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	570	86	86.4		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	43	86.4		ppb (v/v)
1,1-Dichloroethane	560	43	86.4		ppb (v/v)	o-Xylene	65	43	86.4		ppb (v/v)
c-1,2-Dichloroethene	500	43	86.4		ppb (v/v)	1,3,5-Trimethylbenzene	47	43	86.4		ppb (v/v)
Chloroform	58000	870	1730	D	ppb (v/v)	1,2,4-Trimethylbenzene	ND	86	86.4		ppb (v/v)
1,2-Dichloroethane	ND	43	86.4		ppb (v/v)	Benzyl Chloride	ND	86	86.4		ppb (v/v)
1,1,1-Trichloroethane	1100	43	86.4		ppb (v/v)	1,3-Dichlorobenzene	ND	43	86.4		ppb (v/v)
Benzene	190	43	86.4		ppb (v/v)	1,4-Dichlorobenzene	46	43	86.4		ppb (v/v)
Carbon Tetrachloride	920	43	86.4		ppb (v/v)	1,2-Dichlorobenzene	44	43	86.4		ppb (v/v)
1,2-Dichloropropane	ND	43	86.4		ppb (v/v)	1,2,4-Trichlorobenzene	ND	86	86.4		ppb (v/v)
c-1,3-Dichloropropene	ND	43	86.4		ppb (v/v)	Hexachloro-1,3-Butadiene	200	43	86.4		ppb (v/v)
t-1,3-Dichloropropene	ND	86	86.4		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-20-5	03-10-0382-2	10/07/03	Air	N/A	10/08/03	031007L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	1.6	3.14		ppb (v/v)	1,1,2-Trichloroethane	ND	1.6	3.14		ppb (v/v)
Chloromethane	ND	1.6	3.14		ppb (v/v)	Toluene	8.3	1.6	3.14		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	6.3	3.14		ppb (v/v)	Trichloroethene	570	16	31.4	D	ppb (v/v)
Vinyl Chloride	ND	1.6	3.14		ppb (v/v)	1,2-Dibromoethane	ND	1.6	3.14		ppb (v/v)
Bromomethane	ND	1.6	3.14		ppb (v/v)	Tetrachloroethene	520	16	31.4	D	ppb (v/v)
Chloroethane	ND	1.6	3.14		ppb (v/v)	Chlorobenzene	56	1	3.14		ppb (v/v)
Trichlorofluoromethane	ND	1.6	3.14		ppb (v/v)	Ethylbenzene	3.9	1.6	3.14		ppb (v/v)
1,1-Dichloroethene	72	1	3.14		ppb (v/v)	p/m-Xylene	10	3	3.14		ppb (v/v)
Methylene Chloride	ND	6.3	3.14		ppb (v/v)	Styrene	ND	3.1	3.14		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	3.1	3.14		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	1.6	3.14		ppb (v/v)
1,1-Dichloroethane	4.2	1.6	3.14		ppb (v/v)	o-Xylene	5.7	1.6	3.14		ppb (v/v)
c-1,2-Dichloroethene	3.0	1.6	3.14		ppb (v/v)	1,3,5-Trimethylbenzene	ND	1.6	3.14		ppb (v/v)
Chloroform	140	1	3.14		ppb (v/v)	1,2,4-Trimethylbenzene	ND	3.1	3.14		ppb (v/v)
1,2-Dichloroethane	ND	1.6	3.14		ppb (v/v)	Benzyl Chloride	ND	3.1	3.14		ppb (v/v)
1,1,1-Trichloroethane	28	1	3.14		ppb (v/v)	1,3-Dichlorobenzene	ND	1.6	3.14		ppb (v/v)
Benzene	7.3	1.6	3.14		ppb (v/v)	1,4-Dichlorobenzene	3.5	1.6	3.14		ppb (v/v)
Carbon Tetrachloride	2.0	1.6	3.14		ppb (v/v)	1,2-Dichlorobenzene	3.0	1.6	3.14		ppb (v/v)
1,2-Dichloropropane	ND	1.6	3.14		ppb (v/v)	1,2,4-Trichlorobenzene	3.2	3.1	3.14		ppb (v/v)
c-1,3-Dichloropropene	ND	1.6	3.14		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	1.6	3.14		ppb (v/v)
t-1,3-Dichloropropene	ND	3.1	3.14		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/07/03
Work Order No: 03-10-0382
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,240**	**N/A**	**Air**	**N/A**	**10/07/03**	**031007L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/07/03
Work Order No:	03-10-0382
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,242**	**N/A**	**Air**	**N/A**	**10/08/03**	**031008L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/07/03
Work Order No: 03-10-0382
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,240	Air	GC/MS V	N/A	10/07/03	031007L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	101	102	58-124	1	0-37	
1,2-Dichloroethane	119	119	63-123	1	0-37	
Benzene	112	110	61-121	1	0-37	
Carbon Tetrachloride	112	110	56-128	2	0-42	
1,2-Dichloropropane	111	111	61-121	0	0-37	
c-1,3-Dichloropropene	120	121	62-128	1	0-37	
1,1,2-Trichloroethane	110	110	64-124	0	0-37	
Toluene	112	112	60-120	0	0-39	
Trichloroethene	109	109	65-119	0	0-38	
1,2-Dibromoethane	114	114	63-123	0	0-38	
Tetrachloroethene	102	101	59-119	1	0-40	
Ethylbenzene	114	112	61-127	1	0-38	
p/m-Xylene	111	110	57-129	1	0-39	
Bromoform	115	113	62-134	1	0-38	
o-Xylene	113	112	58-130	1	0-38	
1,4-Dichlorobenzene	128	126	51-147	1	0-49	
1,2-Dichlorobenzene	126	124	41-149	1	0-62	

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/07/03
Work Order No: 03-10-0382
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,242	Air	GC/MS V	N/A	10/08/03	031008L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	103	104	58-124	1	0-37	
1,2-Dichloroethane	115	114	63-123	1	0-37	
Benzene	117	116	61-121	1	0-37	
Carbon Tetrachloride	104	104	56-128	0	0-42	
1,2-Dichloropropane	116	113	61-121	3	0-37	
c-1,3-Dichloropropene	123	120	62-128	2	0-37	
1,1,2-Trichloroethane	118	113	64-124	4	0-37	
Toluene	116	114	60-120	1	0-39	
Trichloroethene	114	113	65-119	1	0-38	
1,2-Dibromoethane	119	116	63-123	3	0-38	
Tetrachloroethene	106	103	59-119	3	0-40	
Ethylbenzene	117	115	61-127	1	0-38	
p/m-Xylene	113	111	57-129	1	0-39	
Bromoform	114	113	62-134	1	0-38	
o-Xylene	116	114	58-130	2	0-38	
1,4-Dichlorobenzene	134	130	51-147	4	0-49	
1,2-Dichlorobenzene	131	125	41-149	4	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0382

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - 0382

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: EARTH TECH.

DATE: 10.07.03

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
✓ Ambient temperature. Summa

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: [illegible]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: [illegible]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: [illegible]

COMMENTS:

LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date: October 7, 2003

Page 1 of 1

LABORATORY CLIENT: EARTH TECH

ADDRESS: 100 W. Broadway Ste 240

CITY: Long Beach STATE: CA ZIP: 90802

TEL: (562)951-2000 FAX: (562)951-2086 E-MAIL:

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE TORRANCE SOIL GAS SURVEY

P.O. NO.: 64210.51.5

PROJECT CONTACT: BRIAN DEAN

LAB USE ONLY: 1 0 - 0 3 8 2

SAMPLER(S): (SIGNATURE)

COELT LOG CODE ☐ ☐ ☐ ☐

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TO-14A				
		SG-12-35	10.07.03	1040	AIR	1														X				
		SG-20-5	10.07.03	1255	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		10.07.03	14:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:
		10.07.03	15:17

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

09/10/01 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 10, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.:** **03-10-0203**
Client Reference: **Montrose - Torrance**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/3/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/03/03
Work Order No:	03-10-0203
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-11	03-10-0203-1	10/03/03	Air	N/A	10/06/03	031006L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.22	87.5		ug/L	1,1,2-Trichloroethane	ND	0.24	87.5		ug/L
Chloromethane	ND	0.090	87.5		ug/L	Toluene	0.41	0.16	87.5		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	1.2	87.5		ug/L	Trichloroethene	95	4	1750	D	ug/L
Vinyl Chloride	0.24	0.11	87.5		ug/L	1,2-Dibromoethane	ND	0.34	87.5		ug/L
Bromomethane	ND	0.17	87.5		ug/L	Tetrachloroethene	63	5	1750	D	ug/L
Chloroethane	ND	0.12	87.5		ug/L	Chlorobenzene	0.30	0.20	87.5		ug/L
Trichlorofluoromethane	0.56	0.25	87.5		ug/L	Ethylbenzene	ND	0.19	87.5		ug/L
1,1-Dichloroethene	110	3	1750	D	ug/L	p/m-Xylene	ND	0.38	87.5		ug/L
Methylene Chloride	1.8	0.6	87.5		ug/L	Styrene	ND	0.37	87.5		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	5.2	0.6	87.5		ug/L	1,1,2,2-Tetrachloroethane	ND	0.30	87.5		ug/L
1,1-Dichloroethane	0.35	0.18	87.5		ug/L	o-Xylene	ND	0.19	87.5		ug/L
c-1,2-Dichloroethene	0.17	0.17	87.5		ug/L	1,3,5-Trimethylbenzene	ND	0.22	87.5		ug/L
Chloroform	100	4	1750	D	ug/L	1,2,4-Trimethylbenzene	ND	0.43	87.5		ug/L
1,2-Dichloroethane	ND	0.18	87.5		ug/L	Benzyl Chloride	ND	0.45	87.5		ug/L
1,1,1-Trichloroethane	ND	0.24	87.5		ug/L	1,3-Dichlorobenzene	ND	0.26	87.5		ug/L
Benzene	0.14	0.14	87.5		ug/L	1,4-Dichlorobenzene	ND	0.26	87.5		ug/L
Carbon Tetrachloride	1.7	0.2	87.5		ug/L	1,2-Dichlorobenzene	ND	0.26	87.5		ug/L
1,2-Dichloropropane	ND	0.20	87.5		ug/L	1,2,4-Trichlorobenzene	ND	0.65	87.5		ug/L
c-1,3-Dichloropropene	ND	0.20	87.5		ug/L	Hexachloro-1,3-Butadiene	ND	0.47	87.5		ug/L
t-1,3-Dichloropropene	ND	0.40	87.5		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/03/03
Work Order No:	03-10-0203
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,236**	**N/A**	**Air**	**N/A**	**10/06/03**	**031006L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/03/03
Work Order No:	03-10-0203
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-11	**03-10-0203-1**	**10/03/03**	**Air**	**N/A**	**10/06/03**	**031006L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	44	87.5		ppb (v/v)	1,1,2-Trichloroethane	ND	44	87.5		ppb (v/v)
Chloromethane	ND	44	87.5		ppb (v/v)	Toluene	110	44	87.5		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	180	87.5		ppb (v/v)	Trichloroethene	18000	880	1750	D	ppb (v/v)
Vinyl Chloride	93	44	87.5		ppb (v/v)	1,2-Dibromoethane	ND	44	87.5		ppb (v/v)
Bromomethane	ND	44	87.5		ppb (v/v)	Tetrachloroethene	9300	880	1750	D	ppb (v/v)
Chloroethane	ND	44	87.5		ppb (v/v)	Chlorobenzene	65	44	87.5		ppb (v/v)
Trichlorofluoromethane	100	44	87.5		ppb (v/v)	Ethylbenzene	ND	44	87.5		ppb (v/v)
1,1-Dichloroethene	29000	880	1750	D	ppb (v/v)	p/m-Xylene	ND	88	87.5		ppb (v/v)
Methylene Chloride	530	180	87.5		ppb (v/v)	Styrene	ND	88	87.5		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	680	88	87.5		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	44	87.5		ppb (v/v)
1,1-Dichloroethane	88	44	87.5		ppb (v/v)	o-Xylene	ND	44	87.5		ppb (v/v)
c-1,2-Dichloroethene	44	44	87.5		ppb (v/v)	1,3,5-Trimethylbenzene	ND	44	87.5		ppb (v/v)
Chloroform	21000	880	1750	D	ppb (v/v)	1,2,4-Trimethylbenzene	ND	88	87.5		ppb (v/v)
1,2-Dichloroethane	ND	44	87.5		ppb (v/v)	Benzyl Chloride	ND	88	87.5		ppb (v/v)
1,1,1-Trichloroethane	ND	44	87.5		ppb (v/v)	1,3-Dichlorobenzene	ND	44	87.5		ppb (v/v)
Benzene	45	44	87.5		ppb (v/v)	1,4-Dichlorobenzene	ND	44	87.5		ppb (v/v)
Carbon Tetrachloride	270	44	87.5		ppb (v/v)	1,2-Dichlorobenzene	ND	44	87.5		ppb (v/v)
1,2-Dichloropropane	ND	44	87.5		ppb (v/v)	1,2,4-Trichlorobenzene	ND	88	87.5		ppb (v/v)
c-1,3-Dichloropropene	ND	44	87.5		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	44	87.5		ppb (v/v)
t-1,3-Dichloropropene	ND	88	87.5		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/03/03
Work Order No:	03-10-0203
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,236**	**N/A**	**Air**	**N/A**	**10/06/03**	**031006L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Project: Montrose Torrance

Date Received: 10/03/03
Work Order No: 03-10-0203
Preparation: N/A
Method: EPA TO-14A

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,236	Air	GC/MS V	N/A	10/06/03	031006L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	106	107	58-124	2	0-37	
1,2-Dichloroethane	119	115	63-123	3	0-37	
Benzene	111	113	61-121	1	0-37	
Carbon Tetrachloride	105	106	56-128	1	0-42	
1,2-Dichloropropane	113	115	61-121	2	0-37	
c-1,3-Dichloropropene	122	124	62-128	1	0-37	
1,1,2-Trichloroethane	112	113	64-124	2	0-37	
Toluene	111	112	60-120	1	0-39	
Trichloroethene	110	112	65-119	2	0-38	
1,2-Dibromoethane	116	116	63-123	0	0-38	
Tetrachloroethene	104	102	59-119	1	0-40	
Ethylbenzene	112	112	61-127	1	0-38	
p/m-Xylene	109	109	57-129	0	0-39	
Bromoform	113	114	62-134	1	0-38	
o-Xylene	111	111	58-130	1	0-38	
1,4-Dichlorobenzene	128	128	51-147	0	0-49	
1,2-Dichlorobenzene	122	124	41-149	1	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0203

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - 0203

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: EARTH-tech

DATE: 10-03-03

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- ____ Chilled, cooler with temperature blank provided.
- ____ Chilled, cooler without temperature blank.
- ____ Chilled and placed in cooler with wet ice.
- ____ Ambient and placed in cooler with wet ice.
- ✓ Ambient temperature. Summa
- ____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- ____ °C Temperature blank.
- ____ °C IR thermometer.
- ____ Ambient temperature.

Initial: MD

CUSTODY SEAL INTACT:

Sample(s): ____ Cooler: ____ No (Not Intact) : ____ Not Applicable (N/A): ✓

Initial: MD

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: MD

COMMENTS:

LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date: October 3, 2003

Page 1 of 1

LABORATORY CLIENT: Earth Tech

ADDRESS: 100 W. Broadway Ste 240

CITY: Long Beach STATE: CA ZIP: 90802

TEL: (562) 951-2000 FAX: (562) 951-2086 E-MAIL:

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Montrose-Torrance

P.O. NO.: 64211 51.5

PROJECT CONTACT: Brian Dean

LAB USE ONLY: 1 0 - 0 2 0 3

SAMPLER(S): (SIGNATURE)

COELT LOG CODE

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TD-14A				
		SG-11	10.03.03	1125-1207	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		10.03.03	12:40
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:
		10.03.03	14:15

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink

09/10/01 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 15, 2003

Brian Dean
Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Subject: **Calscience Work Order No.: 03-10-0467**
Client Reference: Montrose - Torrance Soil Gas Survey

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/8/03 and analyzed in accordance with the attached chain-of-custody. Results are reported at 1 ATM and 25° C.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/08/03
Work Order No:	03-10-0467
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-24-35	03-10-0467-1	10/08/03	Air	N/A	10/10/03	031010L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	2.9	1170		ug/L	1,1,2-Trichloroethane	ND	3.2	1170		ug/L
Chloromethane	ND	1.2	1170		ug/L	Toluene	3.7	2.2	1170		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	16	1170		ug/L	Trichloroethene	230	3	1170		ug/L
Vinyl Chloride	1.6	1.5	1170		ug/L	1,2-Dibromoethane	ND	4.5	1170		ug/L
Bromomethane	ND	2.3	1170		ug/L	Tetrachloroethene	2200	40	11700D		ug/L
Chloroethane	ND	1.5	1170		ug/L	Chlorobenzene	ND	2.7	1170		ug/L
Trichlorofluoromethane	ND	3.3	1170		ug/L	Ethylbenzene	ND	2.5	1170		ug/L
1,1-Dichloroethene	170	2	1170		ug/L	p/m-Xylene	ND	5.1	1170		ug/L
Methylene Chloride	22	8	1170		ug/L	Styrene	ND	5.0	1170		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	34	9	1170		ug/L	1,1,2,2-Tetrachloroethane	ND	4.1	1170		ug/L
1,1-Dichloroethane	7.7	2.4	1170		ug/L	o-Xylene	ND	2.5	1170		ug/L
c-1,2-Dichloroethene	6.9	2.3	1170		ug/L	1,3,5-Trimethylbenzene	ND	2.9	1170		ug/L
Chloroform	1000	29	11700D		ug/L	1,2,4-Trimethylbenzene	ND	5.8	1170		ug/L
1,2-Dichloroethane	4.6	2.4	1170		ug/L	Benzyl Chloride	ND	6.1	1170		ug/L
1,1,1-Trichloroethane	17	3	1170		ug/L	1,3-Dichlorobenzene	ND	3.5	1170		ug/L
Benzene	ND	1.9	1170		ug/L	1,4-Dichlorobenzene	ND	3.5	1170		ug/L
Carbon Tetrachloride	100	3	1170		ug/L	1,2-Dichlorobenzene	ND	3.5	1170		ug/L
1,2-Dichloropropane	ND	2.7	1170		ug/L	1,2,4-Trichlorobenzene	ND	8.7	1170		ug/L
c-1,3-Dichloropropene	ND	2.7	1170		ug/L	Hexachloro-1,3-Butadiene	ND	6.2	1170		ug/L
t-1,3-Dichloropropene	ND	5.3	1170		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/08/03
Work Order No:	03-10-0467
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,244**	**N/A**	**Air**	**N/A**	**10/10/03**	**031010L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.0025	1		ug/L	1,1,2-Trichloroethane	ND	0.0027	1		ug/L
Chloromethane	ND	0.0010	1		ug/L	Toluene	ND	0.0019	1		ug/L
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	0.014	1		ug/L	Trichloroethene	ND	0.0027	1		ug/L
Vinyl Chloride	ND	0.0013	1		ug/L	1,2-Dibromoethane	ND	0.0038	1		ug/L
Bromomethane	ND	0.0019	1		ug/L	Tetrachloroethene	ND	0.0034	1		ug/L
Chloroethane	ND	0.0013	1		ug/L	Chlorobenzene	ND	0.0023	1		ug/L
Trichlorofluoromethane	ND	0.0028	1		ug/L	Ethylbenzene	ND	0.0022	1		ug/L
1,1-Dichloroethene	ND	0.0020	1		ug/L	p/m-Xylene	ND	0.0043	1		ug/L
Methylene Chloride	ND	0.0069	1		ug/L	Styrene	ND	0.0043	1		ug/L
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	0.0077	1		ug/L	1,1,2,2-Tetrachloroethane	ND	0.0035	1		ug/L
1,1-Dichloroethane	ND	0.0020	1		ug/L	o-Xylene	ND	0.0022	1		ug/L
c-1,2-Dichloroethene	ND	0.0020	1		ug/L	1,3,5-Trimethylbenzene	ND	0.0025	1		ug/L
Chloroform	ND	0.0024	1		ug/L	1,2,4-Trimethylbenzene	ND	0.0049	1		ug/L
1,2-Dichloroethane	ND	0.0020	1		ug/L	Benzyl Chloride	ND	0.0052	1		ug/L
1,1,1-Trichloroethane	ND	0.0027	1		ug/L	1,3-Dichlorobenzene	ND	0.0030	1		ug/L
Benzene	ND	0.0016	1		ug/L	1,4-Dichlorobenzene	ND	0.0030	1		ug/L
Carbon Tetrachloride	ND	0.0031	1		ug/L	1,2-Dichlorobenzene	ND	0.0030	1		ug/L
1,2-Dichloropropane	ND	0.0023	1		ug/L	1,2,4-Trichlorobenzene	ND	0.0074	1		ug/L
c-1,3-Dichloropropene	ND	0.0023	1		ug/L	Hexachloro-1,3-Butadiene	ND	0.0053	1		ug/L
t-1,3-Dichloropropene	ND	0.0045	1		ug/L						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/08/03
Work Order No:	03-10-0467
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SG-24-35	03-10-0467-1	10/08/03	Air	N/A	10/10/03	031010L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	590	1170		ppb (v/v)	1,1,2-Trichloroethane	ND	590	1170		ppb (v/v)
Chloromethane	ND	590	1170		ppb (v/v)	Toluene	970	590	1170		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2300	1170		ppb (v/v)	Trichloroethene	43000	590	1170		ppb (v/v)
Vinyl Chloride	620	590	1170		ppb (v/v)	1,2-Dibromoethane	ND	590	1170		ppb (v/v)
Bromomethane	ND	590	1170		ppb (v/v)	Tetrachloroethene	330000	5900	11700D		ppb (v/v)
Chloroethane	ND	590	1170		ppb (v/v)	Chlorobenzene	ND	590	1170		ppb (v/v)
Trichlorofluoromethane	ND	590	1170		ppb (v/v)	Ethylbenzene	ND	590	1170		ppb (v/v)
1,1-Dichloroethene	43000	590	1170		ppb (v/v)	p/m-Xylene	ND	1200	1170		ppb (v/v)
Methylene Chloride	6200	2300	1170		ppb (v/v)	Styrene	ND	1200	1170		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	4400	1200	1170		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	590	1170		ppb (v/v)
1,1-Dichloroethane	1900	590	1170		ppb (v/v)	o-Xylene	ND	590	1170		ppb (v/v)
c-1,2-Dichloroethene	1700	590	1170		ppb (v/v)	1,3,5-Trimethylbenzene	ND	590	1170		ppb (v/v)
Chloroform	210000	5900	11700D		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1200	1170		ppb (v/v)
1,2-Dichloroethane	1100	590	1170		ppb (v/v)	Benzyl Chloride	ND	1200	1170		ppb (v/v)
1,1,1-Trichloroethane	3100	590	1170		ppb (v/v)	1,3-Dichlorobenzene	ND	590	1170		ppb (v/v)
Benzene	ND	590	1170		ppb (v/v)	1,4-Dichlorobenzene	ND	590	1170		ppb (v/v)
Carbon Tetrachloride	16000	590	1170		ppb (v/v)	1,2-Dichlorobenzene	ND	590	1170		ppb (v/v)
1,2-Dichloropropane	ND	590	1170		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1200	1170		ppb (v/v)
c-1,3-Dichloropropene	ND	590	1170		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	590	1170		ppb (v/v)
t-1,3-Dichloropropene	ND	1200	1170		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received:	10/08/03
Work Order No:	03-10-0467
Preparation:	N/A
Method:	EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**095-01-021-2,244**	**N/A**	**Air**	**N/A**	**10/10/03**	**031010L01**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Dichlorodifluoromethane	ND	0.50	1		ppb (v/v)	1,1,2-Trichloroethane	ND	0.50	1		ppb (v/v)
Chloromethane	ND	0.50	1		ppb (v/v)	Toluene	ND	0.50	1		ppb (v/v)
1,2-Dichloro-1,1,2,2-Tetrafluoro ethane	ND	2.0	1		ppb (v/v)	Trichloroethene	ND	0.50	1		ppb (v/v)
Vinyl Chloride	ND	0.50	1		ppb (v/v)	1,2-Dibromoethane	ND	0.50	1		ppb (v/v)
Bromomethane	ND	0.50	1		ppb (v/v)	Tetrachloroethene	ND	0.50	1		ppb (v/v)
Chloroethane	ND	0.50	1		ppb (v/v)	Chlorobenzene	ND	0.50	1		ppb (v/v)
Trichlorofluoromethane	ND	0.50	1		ppb (v/v)	Ethylbenzene	ND	0.50	1		ppb (v/v)
1,1-Dichloroethene	ND	0.50	1		ppb (v/v)	p/m-Xylene	ND	1.0	1		ppb (v/v)
Methylene Chloride	ND	2.0	1		ppb (v/v)	Styrene	ND	1.0	1		ppb (v/v)
1,1,2-Trichloro-1,2,2-Trifluoroeth ane	ND	1.0	1		ppb (v/v)	1,1,2,2-Tetrachloroethane	ND	0.50	1		ppb (v/v)
1,1-Dichloroethane	ND	0.50	1		ppb (v/v)	o-Xylene	ND	0.50	1		ppb (v/v)
c-1,2-Dichloroethene	ND	0.50	1		ppb (v/v)	1,3,5-Trimethylbenzene	ND	0.50	1		ppb (v/v)
Chloroform	ND	0.50	1		ppb (v/v)	1,2,4-Trimethylbenzene	ND	1.0	1		ppb (v/v)
1,2-Dichloroethane	ND	0.50	1		ppb (v/v)	Benzyl Chloride	ND	1.0	1		ppb (v/v)
1,1,1-Trichloroethane	ND	0.50	1		ppb (v/v)	1,3-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Benzene	ND	0.50	1		ppb (v/v)	1,4-Dichlorobenzene	ND	0.50	1		ppb (v/v)
Carbon Tetrachloride	ND	0.50	1		ppb (v/v)	1,2-Dichlorobenzene	ND	0.50	1		ppb (v/v)
1,2-Dichloropropane	ND	0.50	1		ppb (v/v)	1,2,4-Trichlorobenzene	ND	1.0	1		ppb (v/v)
c-1,3-Dichloropropene	ND	0.50	1		ppb (v/v)	Hexachloro-1,3-Butadiene	ND	0.50	1		ppb (v/v)
t-1,3-Dichloropropene	ND	1.0	1		ppb (v/v)						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Earth Tech
100 West Broadway, Suite 240
Long Beach, CA 90802-4432

Date Received: 10/08/03
Work Order No: 03-10-0467
Preparation: N/A
Method: EPA TO-14A

Project: Montrose Torrance Soil Gas Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-2,244	Air	GC/MS V	N/A	10/10/03	031010L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Vinyl Chloride	88	88	58-124	1	0-37	
1,2-Dichloroethane	101	97	63-123	4	0-37	
Benzene	93	93	61-121	0	0-37	
Carbon Tetrachloride	97	93	56-128	4	0-42	
1,2-Dichloropropane	93	92	61-121	1	0-37	
c-1,3-Dichloropropene	102	100	62-128	2	0-37	
1,1,2-Trichloroethane	98	96	64-124	2	0-37	
Toluene	93	93	60-120	1	0-39	
Trichloroethene	94	91	65-119	3	0-38	
1,2-Dibromoethane	101	101	63-123	0	0-38	
Tetrachloroethene	92	90	59-119	2	0-40	
Ethylbenzene	96	95	61-127	2	0-38	
p/m-Xylene	95	93	57-129	2	0-39	
Bromoform	102	100	62-134	3	0-38	
o-Xylene	98	96	58-130	2	0-38	
1,4-Dichlorobenzene	119	115	51-147	3	0-49	
1,2-Dichlorobenzene	119	115	41-149	4	0-62	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-10-0467

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 03 - 10 - 0467

Cooler 8 of 0

SAMPLE RECEIPT FORM

CLIENT: Earth Tech

DATE: 10/8/3

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
✓ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: [signature]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: [signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: [signature]

COMMENTS:

LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date: October 8, 2003

Page 1 of 1

LABORATORY CLIENT: Earth Tech
ADDRESS: 100 W. Broadway Ste 240
CITY: Long Beach STATE: CA ZIP: 90802
TEL: (562) 951-2000 FAX: (562) 951-2086 E-MAIL:

CLIENT PROJECT NAME / NUMBER: Montrose-Torrance Soil Gas Survey
PROJECT CONTACT: Brian Dean
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.: 64210 GW-1
LAB USE ONLY: 1 0 - 0 4 6 7
COOLER RECEIPT
TEMP = °C

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or ___	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	TO-14A				
		SG-24-35	10.8.03	1200	AIR	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date: 10.8.03	Time: 1302
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 10/8/3	Time: 1440

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

09/10/01 Revision

Q&Q Graphic (714) 898-9702

APPENDIX G

SAMPLING POINT SURVEY COORDINATES

EARTH TECH
MONTROSE SITE
20201 NORMANDIE AVE
LOS ANGELES, CA

BORE	ELEV	NORTH	EAST
SG-01	46.4	10916.1	18875.2
SG-02	45.8	10916.0	19078.3
SG-03	45.2	10916.1	19285.2
SG-04	44.5	10916.1	19492.2
SG-05	43.9	10916.1	19699.2
SG-06	46.8	10917.1	19879.9
SG-07	49.1	10841.0	19347.4
SG-08	44.5	10837.5	19595.7
SG-09	43.4	10837.5	19807.7
SG-10	47.2	10731.1	18875.2
SG-11	46.2	10731.1	19078.2
SG-12	44.7	10731.0	19285.2
SG-13	49.2	10731.2	19491.4
SG-14	47.0	10731.0	19699.2
SG-15	45.4	10730.8	19907.4
SG-16	48.7	10589.7	19340.6
SG-17	43.8	10643.0	19595.7
SG-18	45.8	10555.1	18875.1
SG-19	44.9	10555.1	19078.2
SG-20	47.3	10474.2	19275.8
SG-21	48.7	10557.5	19492.0
SG-22	46.4	10538.1	19699.2
SG-23	45.1	10537.6	19907.5
SG-24	47.2	10452.6	19389.2
SG-25	42.8	10452.5	19595.6
SG-26	42.0	10452.5	19807.6
SG-27	46.1	10350.1	19346.1
SG-28	46.2	10350.0	19492.1
SG-29	44.0	10341.0	19699.2
SG-30	44.4	10343.1	19908.5
SG-31	43.0	10238.7	19697.5
SG-32	44.4	10261.9	19908.2
SG-33	44.2	10180.7	19908.1

BENCHMARK:

VERTICAL DATUM NGVD29

CITY OF LOS ANGELES BM #21-02268 SPBM "STAMPED 21-02268 1983" EAST CURB NORMANDIE AVE, 38FT SOUTH OF BCR SOUTH OF FRANCISCO ST.

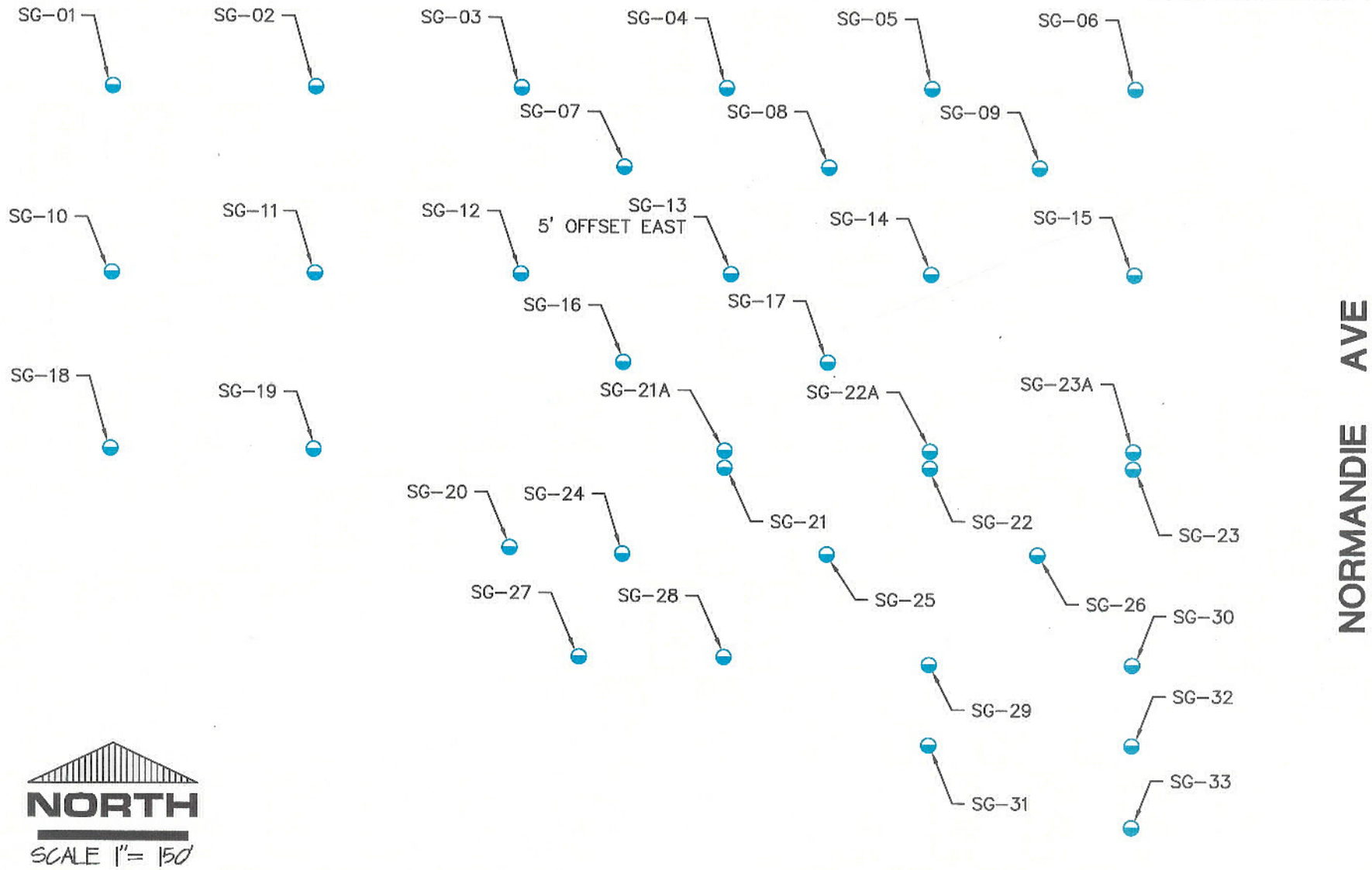
1985 ELEV= 46.525 FEET NGVD29

COORDINATES ARE ON ASSUMED SYSTEM AND RELATIVE TO SITE

Prepared by:
DULIN and BOYNTON

Date of Survey's:
15 SEP 03 and 21 OCT 03

EARTH TECH
MONTROSE SITE
20201 NORMANDIE AVE
LOS ANGELES, CA



DATE OF SURVEY 15 SEP 03

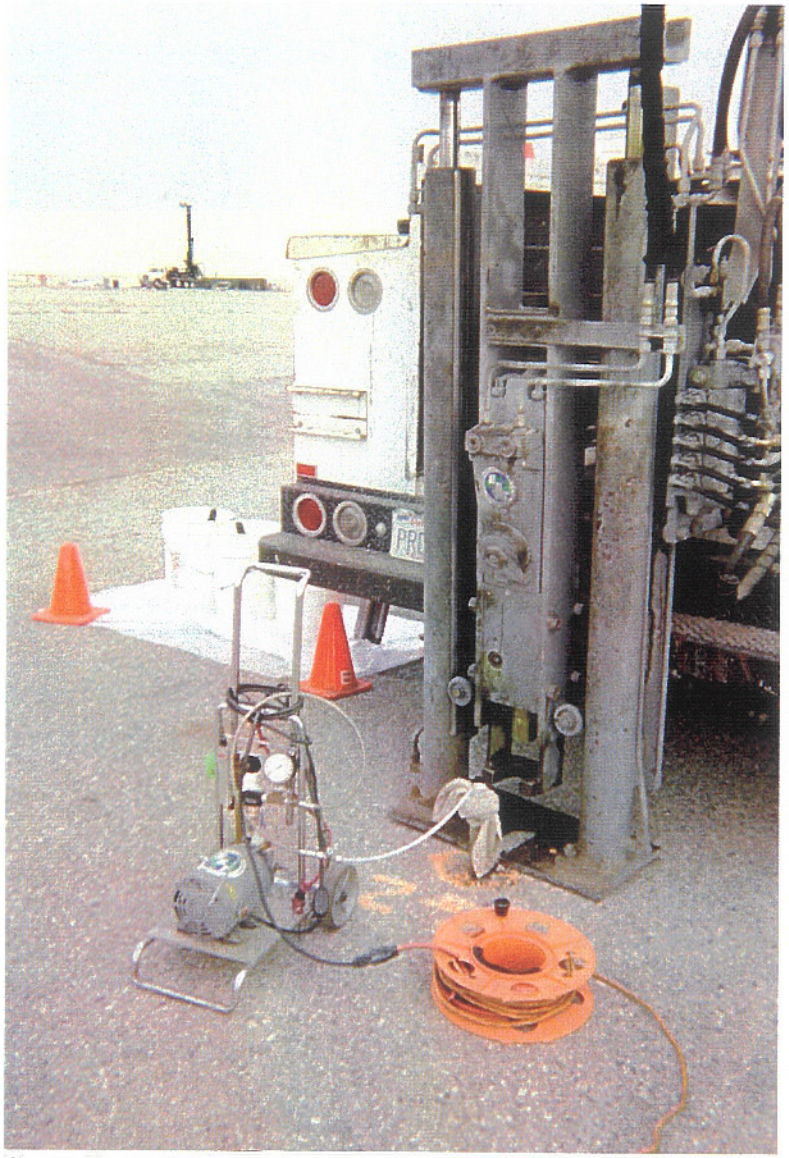
DULIN & BOYNTON
LICENSED SURVEYORS
729 E. WILLOW STREET ● (562)426-6464 FAX(562)426-7707 ● SIGNAL HILL, CA. 90806

APPENDIX H

PHOTOGRAPHS

Installation of soil gas sampling point

Mobile laboratory preparing to collect soil gas sample



Sampling equipment setup