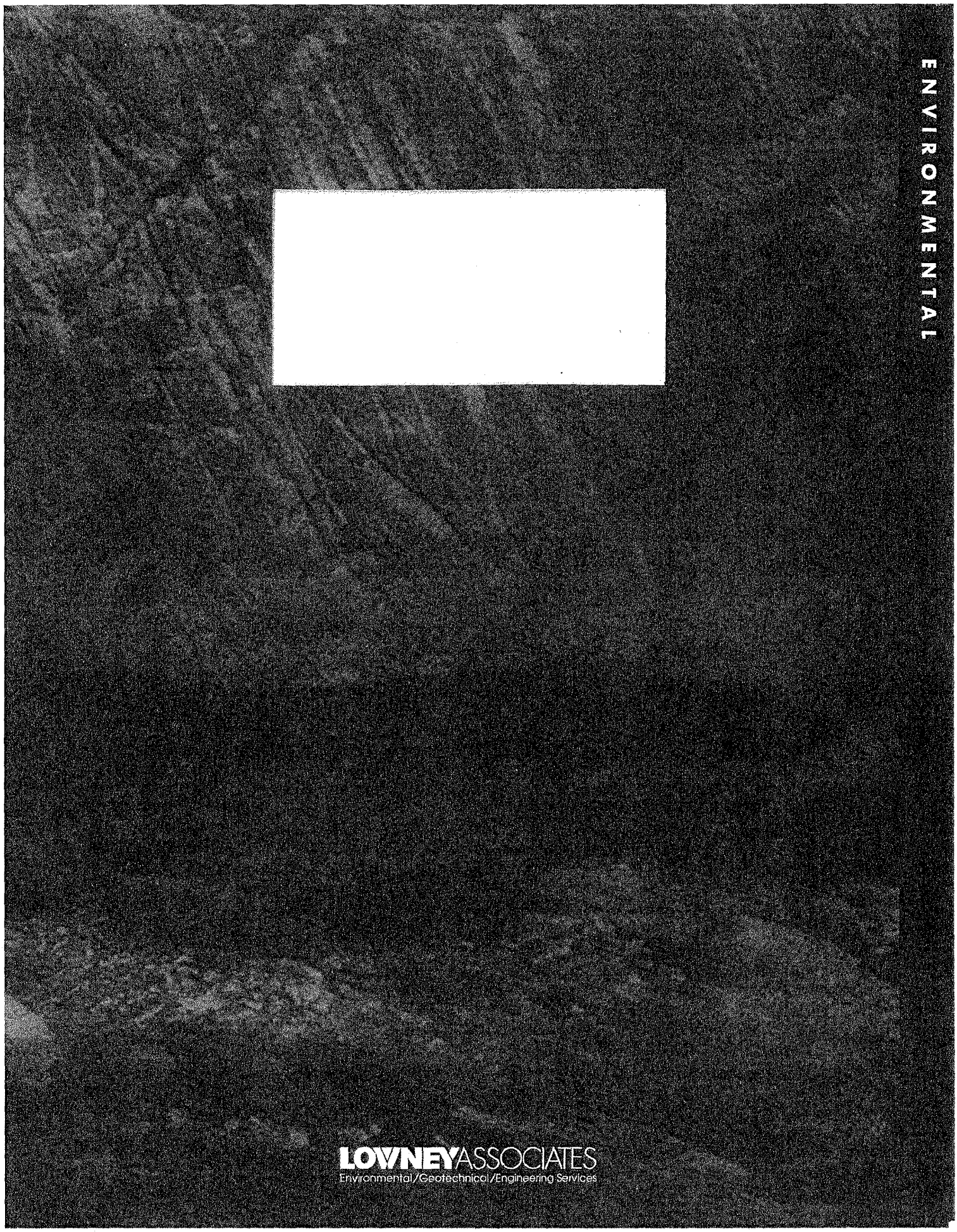
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LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

Soil and Ground Water Quality Evaluation

645 Horning Street

San Jose, California

This report has been prepared for:

Rick Giacomazzi

3111 San Juan Hollister Road, Hollister, California 95025

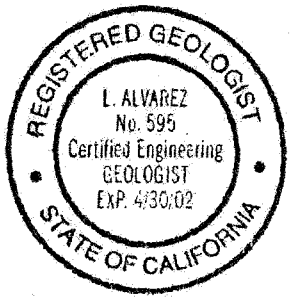
December 6, 2001

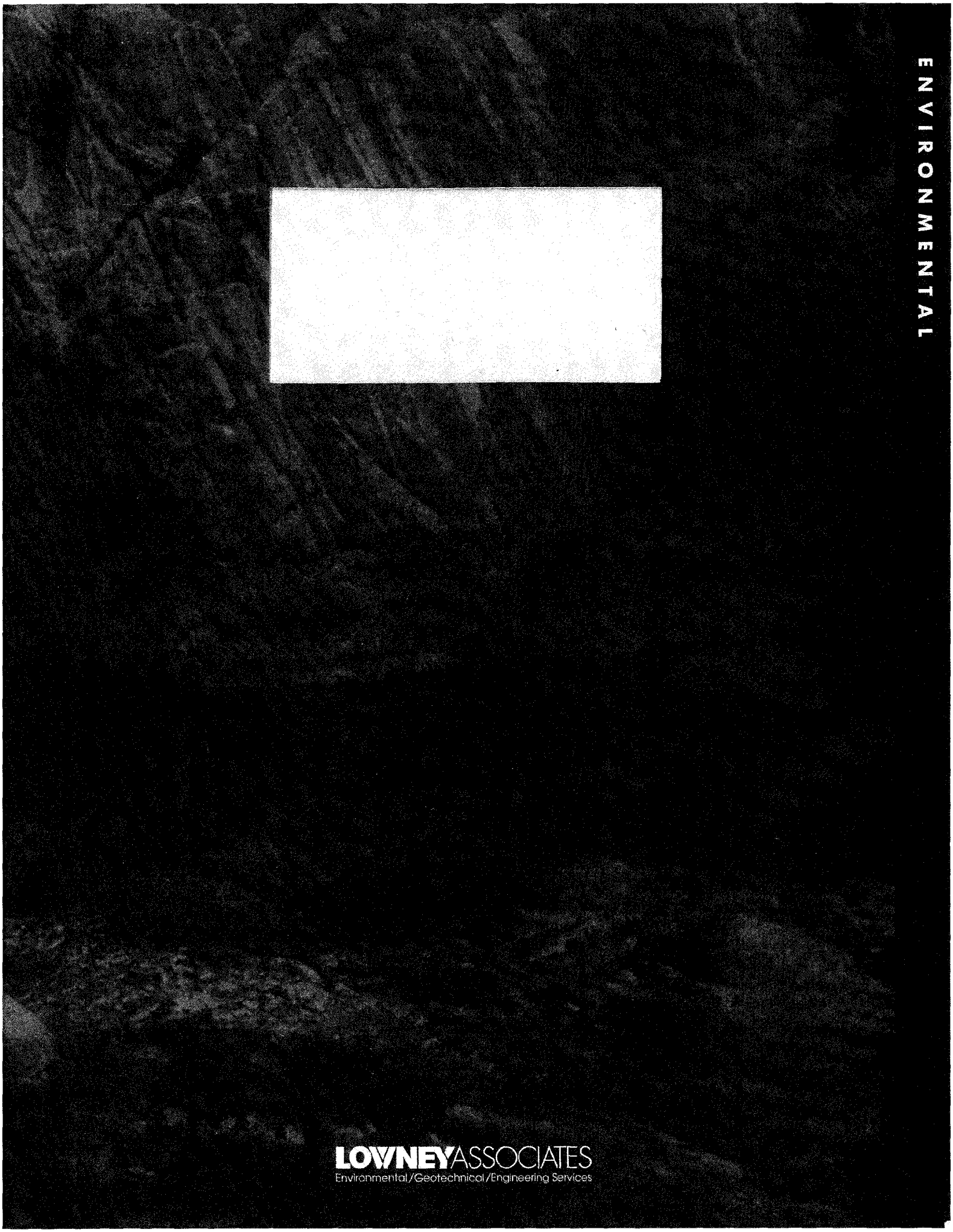
Project No. 1754-1

Kurt M. Soenen
Staff Environmental Engineer

Leonardo Alvarez, R.G., C.E.G.
Senior Project Geologist

Stason I. Foster, P.E.
Principal Environmental Engineer
Quality Assurance Reviewer

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SOIL AND GROUND WATER QUALITY EVALUATION

645 HORNING STREET

SAN JOSE, CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

In this report, we present the results of the soil and ground water quality evaluation performed at 645 Horning Street in San Jose, California. This work was performed at the request of the Santa Clara Valley Water District (SCVWD) to evaluate subsurface conditions in the vicinity of the former fuel dispenser area and 7,500-gallon gasoline underground storage tank (UST).

1.2 Site Background

The site is located at 645 Horning Street, in an unincorporated area of San Jose, California (shown on Figures 1 and 2). The site is currently comprised of an asphalt-covered lot with four 1-story buildings used for auto repair and welding shops. The property is bounded by Highway 101 to the north, Horning Street to the south, an alley to the west, and a residential structure to the east.

To evaluate ground water quality down-gradient of the former dispensing area, two borings (Figure 2) were advanced to ground water on March 15, 1999 (Lowney Associates 1999); one grab ground water sample was collected from each boring. Ground water was encountered at a depth of approximately 21 feet. The boring locations were selected based on information obtained from the SCVWD which indicated that ground water in the site area flows to the north/northeast.

The ground water samples were analyzed for total petroleum hydrocarbons in the gasoline range (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE). Analysis of the two ground water samples collected down-gradient of the former dispensing island did not detect gasoline- or diesel-range petroleum hydrocarbons or BTEX compounds. Low levels of MTBE (up to 110 ppb) were detected in each of the samples.

1.3 Scope of Work

The scope of work for this study was outlined in our agreement dated September 5, 2001 and included the following tasks.

- Drilling and logging of one exploratory boring.
- Converting the boring into a ground water monitoring well.

TABLE OF CONTENTS

- Collecting soil and ground water samples for laboratory analyses.
- Preparing a report documenting findings.

2.0 SOIL AND GROUND WATER QUALITY EVALUATION

2.1 Subsurface Investigation

On November 5, 2001 and under the supervision of Senior Project Geologist Leonardo Alvarez, staff geologist Charles Mettler directed a subsurface exploration program and logged one boring to an approximate depth of 30 feet. The exploratory boring was drilled between the locations of the former dispenser area and former 7,500-gallon gasoline UST to evaluate the presence of petroleum hydrocarbons in soil and ground water. Soil samples were obtained from the boring at 5-foot depth intervals. Ground water was encountered at an approximate depth of 21 to 23 feet during drilling. Soil sampling protocol, the boring log, and permits are presented in Appendix A.

The boring was converted to a permanent ground water monitoring well. The stabilized ground water level measured on November 14, 2001 was at a depth of 14.79 feet. Well installation protocol and well construction details are in Appendix A.

2.2 Soil Sample Collection and Analyses

Soil samples collected at depths of 9½-10 feet, 14½-15 feet, and 19½-20 feet were selected for submittal to a state-certified analytical laboratory. The three soil samples were analyzed for TPHg, BTEX, and MTBE (EPA Test Method 8015/8020); total petroleum hydrocarbons in the diesel range (TPHd) (EPA Test Method 8015M); fuel oxygenates (EPA Test Method 8260B); and 1,2-dichloroethane and ethylene dibromide (EPA Test Method 8021B). These analyses were selected to help evaluate the presence of petroleum hydrocarbons in soil.

Based on the analytical results, TPHd was the only constituent detected in soil (8.1 ppm at 9½-10 feet). Copies of the analytical reports and chain of custody documentation are presented in Appendix C.

2.3 Ground Water Sample Collection and Analyses

To evaluate ground water quality at the site, a ground water sample was collected from monitoring well MW-1. The sampling protocol is included in Appendix A.

The ground water sample was analyzed for TPHg, BTEX, and MTBE (EPA Test Method 8015/8020); TPHd (EPA Test Method 8015M); fuel oxygenates (EPA Test Method 8260B); and 1,2-dichloroethane and ethylene dibromide (EPA Test Method 8021B). These analyses were selected to help evaluate the presence of petroleum hydrocarbons in ground water. Analytical results are shown in Table 1. Results

from the previous sampling event are also presented for comparison. Copies of the laboratory reports are included in Appendix C.

Table 1. Analytical Results of Ground Water Samples
(concentrations in parts per billion)

Sample No.	Date	TPHg	TPHd	BTEX	MTBE	1,2 Dichloroethane	Ethylene dibromide
GW-1	March 15, 1999	<50	<50	<0.50	110	NA	NA
GW-2	March 15, 1999	<50	<50	<0.50	86	NA	NA
MW-1	November 14, 2001	<50	<51	<0.50	8.9	0.95	<1.0
MCL*		NE	NE	**	13	0.5	0.05

< Indicates that the compound was not detected at or above the stated laboratory reporting limit
* Drinking water Maximum Contaminant Levels–California DHS, January 31, 2001
** Variable MCLs for BTEX compounds
NE Not established
NA Not analyzed

3.0 CONCLUSIONS AND RECOMMENDATIONS

Laboratory analyses of soil samples collected from the MW-1 exploratory boring revealed TPHd at 8.1 ppm in soil at 9½-10 feet. TPHg, BTEX, MTBE, ethylene dibromide, and 1,2-dichloroethane were not detected in any of the samples.

Laboratory analysis of the ground water sample collected from the monitoring well detected MTBE at 8.9 ppb. Low levels of 1,2-dichloroethane also were detected in the sample (0.95 ppb). The MTBE concentration is below the drinking water MCL and 1,2-dichloroethane is slightly above the MCL. No TPHg, TPHd, or BTEX compounds were detected in the ground water sample.

Based on the data, the site does not appear to pose a significant threat to human health or the environment. Since the source has been removed the remaining residual petroleum hydrocarbon concentrations would be expected to naturally degrade over time. No further work appears warranted and the SCVWD should consider case closure for the site.

4.0 LIMITATIONS

This report was prepared for the sole use of Mr. Rick Giacomazzi in evaluating soil and ground water quality at the 645 Horning Street site at the time of this study. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for the data presented by others.

The accuracy and reliability of geo- or hydrogeochemical studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. Chemical

- Collecting soil and ground water samples for laboratory analyses.
- Preparing a report documenting findings.

2.0 SOIL AND GROUND WATER QUALITY EVALUATION

2.1 Subsurface Investigation

On November 5, 2001 and under the supervision of Senior Project Geologist Leonardo Alvarez, staff geologist Charles Mettler directed a subsurface exploration program and logged one boring to an approximate depth of 30 feet. The exploratory boring was drilled between the locations of the former dispenser area and former 7,500-gallon gasoline UST to evaluate the presence of petroleum hydrocarbons in soil and ground water. Soil samples were obtained from the boring at 5-foot depth intervals. Ground water was encountered at an approximate depth of 21 to 23 feet during drilling. Soil sampling protocol, the boring log, and permits are presented in Appendix A.

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analyses were performed for specific parameters during this investigation, as detailed in the scope of services. Please note that additional constituents not analyzed for during this evaluation may be present in soil and ground water at the site. Our sampling and analytical plan was designed using accepted environmental principles and our judgment for the performance of a soil and ground water quality evaluation, and was based on the degree of investigation approved by you. It is possible to obtain a greater degree of certainty, if desired, by implementing a more rigorous soil and ground water sampling program or evaluating the risk posed by the contaminants detected, if any.

5.0 REFERENCES

Lowney Associates. 1999. *Soil and Ground Water Evaluation, 645 Horning Street,* Dated April 20, 1999.

* * * * * * * * * * * * * *

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Lowney Associates. 1999. *Soil and Ground Water Evaluation, 645 Horning Street,* Dated April 20, 1999.

* * * * * * * * * * * * * *

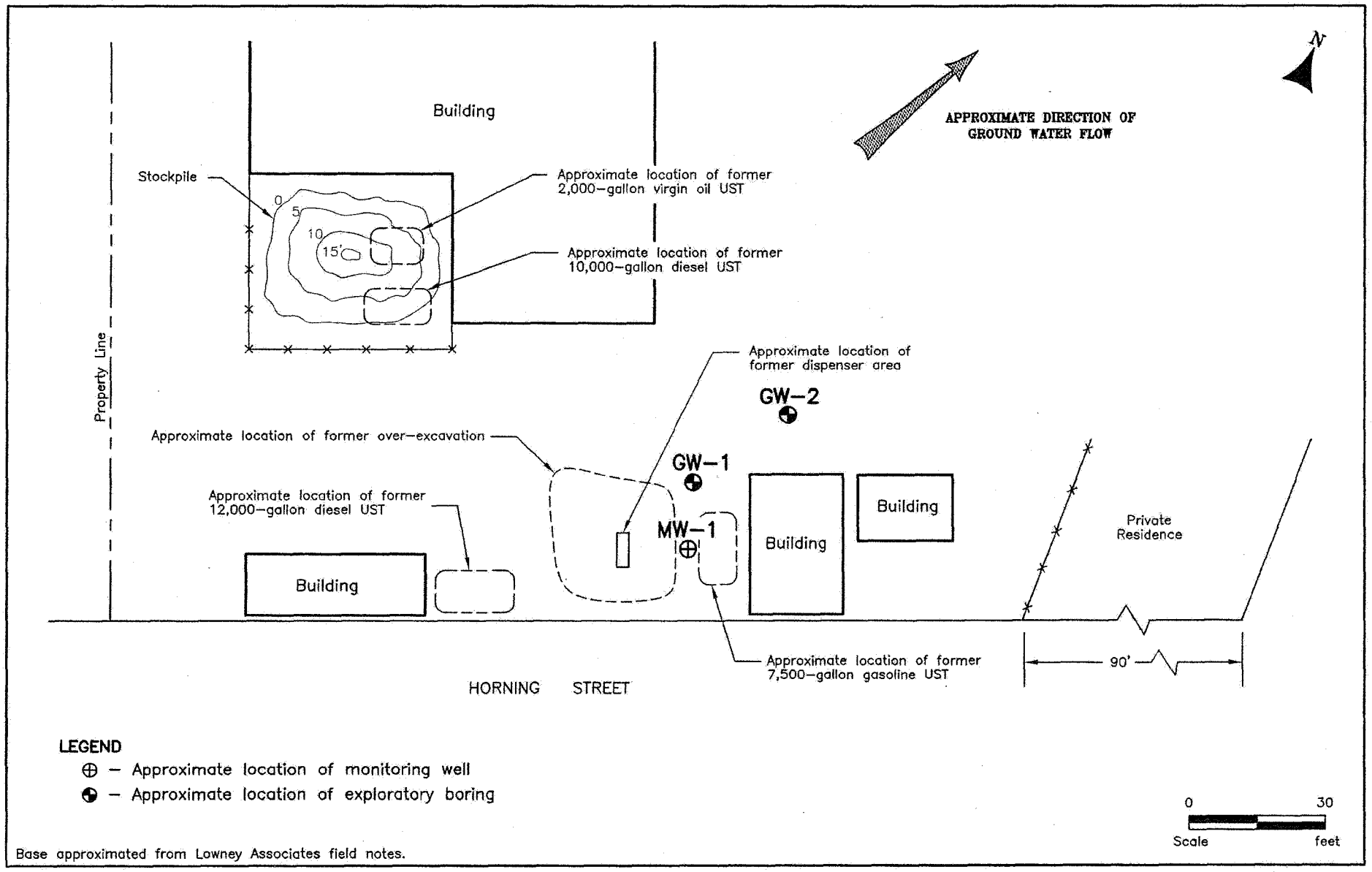
11/01*EB

VICINITY MAP

645 HORNING STREET
San Jose, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
1754-1



11/01*EB

SITE PLAN

645 HORNING STREET
San Jose, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
1754-1

11/01*EB

VICINITY MAP

645 HORNING STREET
San Jose, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
1754-1

Appendix A

APPENDIX A

SUBSURFACE INVESTIGATION, AND SOIL SAMPLING AND MONITORING WELL INSTALLATION PROTOCOL

Drilling: The subsurface investigation was performed on November 5, 2001 using a truck-mounted drill rig equipped with a 8-inch O.D. hollow-stem auger. One soil boring was drilled to a depth of approximately 30 feet. The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The blows per foot recorded on the boring logs represent the accumulated number of blows required to drive the sampler the last 12 inches of the interval indicated. Soil samples were collected at approximately 5-foot depth intervals using a 2.5-inch diameter modified California split-spoon sampler.

Soils encountered in the boring were logged using the Unified Soil Classification System (ASTM D-2488). The logs of the borings, as well as a key to the classification of soil (Figure A-1), are included as part of this appendix. The permit obtained for the monitoring well is also included.

Soil Sampling: Soil samples for laboratory analysis were collected in brass liners. The ends of the liners were covered in Teflon film, fitted with plastic end caps, taped, and labeled with a unique identification number. The samples were then placed in an ice-chilled cooler, and transported to a state-certified analytical laboratory with chain of custody documentation.

Monitoring Wells: The boring was converted into "permanent" ground water monitoring well with the installation of 2-inch I.D. flush-threaded, Schedule 40 PVC casing. The casing in the lower portion of the well had 0.02-inch factory machined slots. After the casing was installed, a filter pack composed of Number 3 sand was placed in the 3- to 4-inch annular space to approximately 1 to 2 feet above the slotted casing. The remaining annual seal consisted of an approximately 1-foot-thick seal of bentonite pellets or chips, followed by a 10-sack Portland cement and sand slurry to the surface. The well was completed with flush-mounted wellhead boxes. In addition, the PVC well casing was fitted with watertight, locking well caps at the surface. Well construction details are shown on the boring log.

Equipment Decontamination: All drilling and sampling equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point.

Santa Clara Valley Water District

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

WELL CONSTRUCTION APPLICATION

FC 158 (04-22-92) (DP 4-901)

TO BE COMPLETED BY DISTRICT

[illegible]	10-31-01	
1	4-30-02	77276

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner:	Well Owner (if different):	Drilling Co:
Rick Giacomazzi		HEW Drilling
Address: 3111 San Juan Hollister Rd	Address of Well Site: 645 Horning St.	Driller's Contractors License Number (C-57 Req'd): 604987
City, State, Zip: Hollister, CA 95025	City, State, Zip: San Jose, CA 95112	Address: 1045 Weeks Street
Telephone No: 408-316-9482	Telephone No	City, State, Zip: E. Palo Alto, CA 94303
Assessor's Parcel No. of Well site: Book 235 Page 18 Parcel 001	Owner's/Consultant's Well No: MW-1	Telephone No: 650-322-2851

Estimated depth of completed well: [x] Less than 50 ft. [ ] 50 to 300 ft. [ ] Over 300 ft.

Purpose of Well: [ ] Domestic [ ] Municipal/Industrial [ ] Agricultural [x] Monitoring [ ] Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: [ ] To comply with City or County Hazardous Materials Storage Permit Ordinance [x] Exploration studies

[ ] Other (specify): ____ [ ] Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: Former Giacomazzi Trucking

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? [ ] Yes [ ] No

Type of monitoring device: [x] Groundwater [ ] Vadose

Type of extraction device: [ ] Groundwater [ ] Vadose

Monitoring well use: [ ] Depth [x] Quality [ ] Chloride

Vadose device installation: [ ] Vapor [ ] Interface [ ] Suction Lysimeter

Consultant's Name (Company): Lowney Associates

Address: 167 Filbert St.

City, State, Zip: Oakland, CA 94607

Telephone No.: 650-967-2365 Charles Mettler

(signature)

Signature of Responsible Professional
(No substitution of signature will be accepted)

CEG #595

Registration No. Civil Engineer OR Certificate No. Engineering Geologist

TOPOGRAPHIC FEATURES

Well is to be constructed: [ ] In a public sidewalk [ ] In a public road [ ] On public property [x] On private property [ ] On SCVWD property

Within 50 ft of the top of a creek bank	[ ] Yes	[x] No	Within 50 ft. of any existing well	[ ] Yes	[x] No
Within 50 ft. of a sanitary sewer	[ ] Yes	[x] No	Within 150 ft of a cesspool or seepage pit	[ ] Yes	[x] No
Within 100 ft. of a pit privy, septic tank, leachfield	[ ] Yes	[x] No	Other wells exist on this property	[ ] Yes	[x] No

Status: [ ] Active [ ] Inactive [ ] Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which ~~is indicated~~ on this application form.

(signature) 10/22/01

Signature of Well ~~Owner~~/Agent Date

(signature) 10/22/01

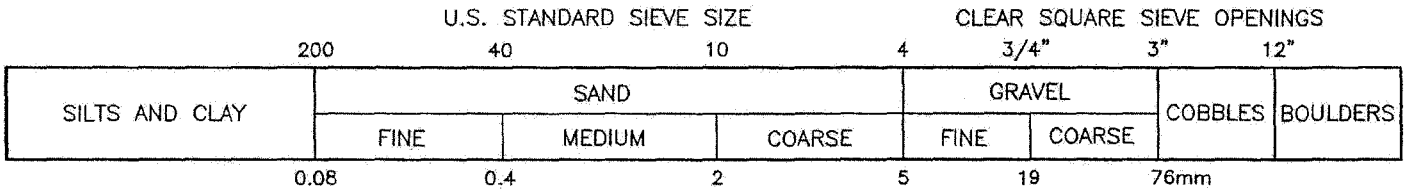
Signature of ~~Driller~~/Agent Date

MONITORING WELL PLAN APPROVAL
City/County [illegible]
Approved by [illegible]
Date [illegible]

***IMPORTANT:** A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 927-0710 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121 or (408) 927-0714.*

PRIMARY DIVISIONS			SOIL TYPE		SECONDARY DIVISIONS
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVELS (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE)	CLEAN GRAVELS (Less than 5% Fines)	GW		Well graded gravels, gravel–sand mixtures, little or no fines
			GP		Poorly graded gravels or gravel–sand mixtures, little or no fines
		GRAVEL WITH FINES	GM		Silty gravels, gravel–sand–silt mixtures, plastic fines
			GC		Clayey gravels, gravel–sand–clay mixtures, plastic fines
	SANDS (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE)	CLEAN SANDS (Less than 5% Fines)	SW		Well graded sands, gravelly sands, little or no fines
			SP		Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH FINES	SM		Silty sands, sand–silt–mixtures, non–plastic fines
			SC		Clayey sands, sand–clay mixtures, plastic fines
FINE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS (LIQUID LIMIT IS LESS THAN 50 %)		ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL		Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS (LIQUID LIMIT IS GREATER THAN 50 %)		MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH		Inorganic clays of high plasticity, fat clays
			OH		Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT		Peat and other highly organic soils

DEFINITION OF TERMS



GRAIN SIZES

SAMPLERS

SAND AND GRAVEL	BLOWS/FOOT*
VERY LOOSE	0–4
LOOSE	4–10
MEDIUM DENSE	10–30
DENSE	30–50
VERY DENSE	OVER 50

RELATIVE DENSITY

SILTS AND CLAYS	STRENGTH+	BLOWS/FOOT*
VERY SOFT	0–1/4	0–2
SOFT	1/4–1/2	2–4
MEDIUM STIFF	1/2–1	4–8
STIFF	1–2	8–16
VERY STIFF	2–4	16–32
HARD	OVER 4	OVER 32

CONSISTENCY

*Number of blows of 140 pound hammer falling 30 inches to drive a 2–inch O.D. (1–3/8 inch I.D.) split spoon (ASTM D–1586).
+Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D–1586), pocket penetrometer, torvane, or visual observation.

KEY TO EXPLORATORY BORING LOGS

Unified Soil Classification System (ASTM D–2487)

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE A–1

Santa Clara Valley Water District

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

WELL CONSTRUCTION APPLICATION

FC 158 (04-22-92) (DP 4-901)

TO BE COMPLETED BY DISTRICT

File No.	Date	Well Registration No.
W0107536	10-31-01	
No. of Wells: 1	Expiration Date: 4-30-02	Driller's Log No.: 772716

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner: Rick Giacomazzi	Well Owner (if different):	Drilling Co: HEW Drilling
Address: 3111 San Juan Hollister Rd	Address of Well Site: 645 Horning St.	Driller's Contractors License Number (C-57 Req'd): 604987
City, State, Zip: Hollister, CA 95025	City, State, Zip: San Jose, CA 95112	Address: 1045 Weeks Street
Telephone No: 408-316-9482	Telephone No	City, State, Zip: E. Palo Alto, CA 94303
Assessor's Parcel No. of Well site: Book 235 Page 18 Parcel 001	Owner's/Consultant's Well No: MW-1	Telephone No: 650-322-2851

Estimated depth of completed well: [X] Less than 50 ft. [ ] 50 to 300 ft. [ ] Over 300 ft.

Purpose of Well: [ ] Domestic [ ] Municipal/Industrial [ ] Agricultural [X] *Monitoring [ ] Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: [ ] To comply with City or County Hazardous Materials Storage Permit Ordinance [X] Exploration studies

[ ] Other (specify): ______ [ ] Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: Former Giacomazzi Trucking

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? [ ] Yes [ ] No

Consultant's Name (Company): Lowney Associates

Address: 167 Filbert St.

City, State, Zip: Oakland, CA 94607

Telephone No.: 650-967-2365 Charles Mettler

Type of monitoring device: [X] Groundwater [ ] Vadose

Type of extraction device: [ ] Groundwater [ ] Vadose

Monitoring well use: [ ] Depth [X] Quality [ ] Chloride

Vadose device installation: [ ] Vapor [ ] Interface [ ] Suction Lysimeter

[signature]

Signature of Responsible Professional
(No substitution of signature will be accepted)

CEG #595

Registration No. Civil Engineer OR Certificate No. Engineering Geologist

TOPOGRAPHIC FEATURES

Well is to be constructed: [ ] In a public sidewalk [ ] In a public road [ ] On public property [X] On private property [ ] On SCVWD property

Within 50 ft of the top of a creek bank	[ ] Yes	[X] No	Within 50 ft. of any existing well	[ ] Yes	[X] No
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Status: [ ] Active [ ] Inactive [ ] Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which ~~is indicated~~ on this application form.

[signature] 10/22/01

Signature of Well ~~Owner~~/Agent Date

[signature] 10/22/01

Signature of ~~Driller~~/Agent Date

MONITORING WELL PLAN APPROVAL
City/County
Approved By
Date

***IMPORTANT:** A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 927-0710 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121 or (408) 927-0714.*

PROJECT: 645 HORNING STREET
LOCATION: SAN JOSE, CA

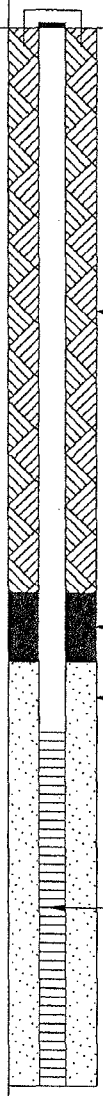
WELL / BORING NO: MW-1

STARTED: 11/5/01 COMPLETED: 11/5/01
DRILLING RIG: CME 75
DRILLING METHOD: HSA

NORTHING: EASTING:
ELEVATION: ft. T.O.C. ELEV: ft. (Assumed Datum)
GROUND WATER: 14.8 ft.
LOGGED BY: CM TOTAL DEPTH: 30.0 ft.

DEPTH (ft)	USCS	DESCRIPTION	SAMPLE	MOISTURE (%)	BLOW COUNTS	OVM (ppm)	ELEV (ft)
		4 inches asphalt over 3 inches baserock/gravel					
	GM	**SILTY GRAVEL WITH SAND (GM) [FILL]** medium dense, moist, varicolored, mostly brown, mixture of 15-20% gravelly/angular rock fragments, 20% sand, 20% silt, minor debris, red brick fragments, concrete fragments			19		
					13		
5					10		
					7		
10							
	CL	**LEAN CLAY (CL)** ▼ stiff, moist, gray brown, some orange mottles, 10-15% silt, moderate plasticity			11		
15							
	CL	**LEAN CLAY (CL)** stiff, gray, moist, 10% silt, moderate plasticity			15		
20							
	CL	**LEAN CLAY (CL)** very stiff, water saturated, gray, minor brown orange mottles, slightly more silt, 10-15% silt, low to moderate plasticity			16		
25							
					22		
30		Bottom of Boring/Well at 30 feet					
35							

WELL CONSTRUCTION



LAEWNN04.GDT 12/4/01

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

MW-1
1754-1

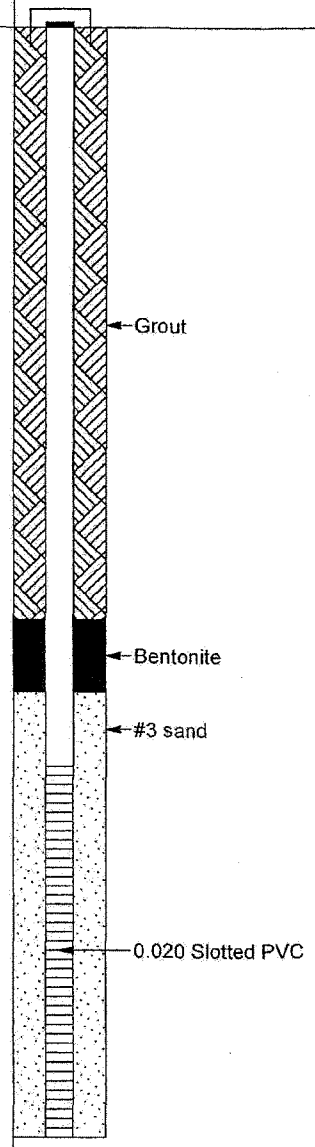
PROJECT: 645 HORNING STREET
LOCATION: SAN JOSE, CA

WELL / BORING NO: MW-1

STARTED: 11/5/01 COMPLETED: 11/5/01
DRILLING RIG: CME 75
DRILLING METHOD: HSA

NORTHING: EASTING:
ELEVATION: ft. T.O.C. ELEV: ft. (Assumed Datum)
GROUND WATER: 14.8 ft.
LOGGED BY: CM TOTAL DEPTH: 30.0 ft.

DEPTH (ft)	USCS	DESCRIPTION	SAMPLE	BLOW COUNTS
		4 inches asphalt over 3 inches baserock/gravel		
	GM	**SILTY GRAVEL WITH SAND (GM) [FILL]** medium dense, moist, varicolored, mostly brown, mixture of 15-20% gravelly/angular rock fragments, 20% sand, 20% silt, minor debris, red brick fragments, concrete fragments		19
				13
5				10
				7
10				
	CL	**LEAN CLAY (CL)** stiff, moist, gray brown, some orange mottles, 10-15% silt, moderate plasticity		11
15				
	CL	**LEAN CLAY (CL)** stiff, gray, moist, 10% silt, moderate plasticity		15
20				
	CL	**LEAN CLAY (CL)** very stiff, water saturated, gray, minor brown orange mottles, slightly more silt, 10-15% silt, low to moderate plasticity		16
25				
				22
30		Bottom of Boring/Well at 30 feet		
35				



WELL CONSTRUCTION

LAEWNN04.GDT 12/4/01 *

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

MW-1
1754-1

APPENDIX B

MONITORING WELL DEVELOPMENT AND GROUND WATER SAMPLING

Development: Approximately 48 hours after well installation, the static water level was measured to the nearest 0.01 foot using an electronic depth sounder. The well was then developed by purging several well volumes of water to remove fine-grained material from the well and surrounding soil disturbed during well installation and improve the yield of the well.

Ground Water Sampling: Approximately 48 hours after development, ground water from the monitoring well was sampled. A Teflon bailer was used to purge a minimum of three well casing volumes of water from the well. After purging each well volume, pH, temperature, and conductivity measurements were recorded. In general, these measurements stabilize (consecutive readings within 10 percent) after three to four well volumes. The sample was collected in appropriate sample bottles, labeled, and immediately placed into an ice-chilled chest for delivery to a state-certified analytical laboratory for analysis.

All well development and sampling equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point. Well development and sampling records are attached as part of this appendix.

LOWNEY ASSOCIATES

Project Number _____

Project Name 645 Harrison St.

Field Geologist/Engineer Charles Mettler

Well Number MW-1

Casing Diameter 2" (Inches)

Volume Produced _____ (liter/gal)

Total Well Depth (completed) 29.37 (Feet)

Development Date 11-8-01

Development Method bailer

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.17
VOL (LITERS) = FEET OF WATER X 0.62

4-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.66
VOL (LITERS) = FEET OF WATER X 2.5

Sampling Date _____ Time _____ Method bailer

Static Water Level Prior to Purging 14.99 (ft)
(Measured from top of casing)

Feet of Water 14.38 (ft)

Well Volume 2.5 (liter/gal)

Three Well Volumes 7.3 (liter/gal)

Total Produced 15 (liter/gal)

Number of Well Volumes 6

Production Time _____ (min)

Production Rate _____ (/min)

Well Volumes	pH	Cond µsx100 @	Temp °F
1	5.89	6.65	80.0
2	6.45	5.70	73.5
3	6.42	5.51	76.5
4	6.42	5.52	72.0
5	6.25	5.46	72.3
6	6.38	5.50	72.3
7			
8			
9			
10			

Water Characteristics:

Color; _____ Clear ☐ Slightly Cloudy ☒ Very Silty ☐

Odor; None ☒ Slight ☐ Moderate ☐ Strong ☐

Sheen; Yes ☐ No ☒ Other _____

Water Level After Recovery _____ (ft) 80% Recharged Yes ☐ No ☐

Sample I.D. _____ Laboratory _____

Comments: _____

APPENDIX B

MONITORING WELL DEVELOPMENT AND GROUND WATER SAMPLING

Development: Approximately 48 hours after well installation, the static water level was measured to the nearest 0.01 foot using an electronic depth sounder. The well was then developed by purging several well volumes of water to remove fine-grained material from the well and surrounding soil disturbed during well installation and improve the yield of the well.

Ground Water Sampling: Approximately 48 hours after development, ground water from the monitoring well was sampled. A Teflon bailer was used to purge a minimum of three well casing volumes of water from the well. After purging each well volume, pH, temperature, and conductivity measurements were recorded. In general, these measurements stabilize (consecutive readings within 10 percent) after three to four well volumes. The sample was collected in appropriate sample bottles, labeled, and immediately placed into an ice-chilled chest for delivery to a state-certified analytical laboratory for analysis.

All well development and sampling equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point. Well development and sampling records are attached as part of this appendix.

LOWNEY ASSOCIATES Environmental / Geotechnical / Engineering Services

RECORD OF WELL DEVELOPMENT / SAMPLING

Project Number 1754-1

Project Name 645 Hoyt St.

Field Geologist/Engineer K Scanga

Well Number MW-1

Casing Diameter 2 (Inches)

Volume Produced _____ (liter/gal)

Total Well Depth (completed) (Feet) 30

Development Date _____

Development Method Bailer

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.17
VOL (LITERS) = FEET OF WATER X 0.62

4-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.66
VOL (LITERS) = FEET OF WATER X 2.5

Sampling Date 11/14/01 **Time** 0800 **Method** bailer

Static Water Level Prior to Purging 14.79 (ft)
(Measured from top of casing)

Feet of Water 15.21 (ft)

Well Volume 9.43 (liter/gal)

Three Well Volumes 28.29 (liter/gal)

Total Produced 29 (liter/gal)

Number of Well Volumes 3

Production Time _____ (min)

Production Rate _____ (/min)

Well Volumes	pH	Cond µsx100	Temp °F
1	7.11	4.64	69.3
2	~~2.95~~ 7.30	2.55	68.3
3	7.27	2.53	68.6
4			
5			
6			
7			
8			
9			
10			

Water Characteristics:

Color; _____ Clear ☐ Cloudy ☐ Very Silty ☐

Odor; None ☐ Slight ☐ Moderate ☐ Strong ☐

Sheen; Yes ☐ No ☐ Other _____

Water Level After Recovery _____ (ft) **80% Recharged** Yes ☐ No ☐

Sample I.D. MW-1 **Laboratory** Seguoia

Comments: _____

LOWNEY ASSOCIATES RECORD OF WELL DEVELOPMENT/SAMPLING
Environmental / Geotechnical / Engineering Services

Project Number 1754-1
Project Name 645 Hoppins St.
Field Geologist/Engineer K Sorensen

Well Number MW-1 **Total Well Depth** (completed) (Feet) 30
Casing Diameter 2 (Inches) **Development Date** ______
Volume Produced ______ (liter/gal) **Development Method** Bailer

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.17
VOL (LITERS) = FEET OF WATER X 0.62

4-INCH CASING DIAMETER;
VOL (GALLONS) = FEET OF WATER X 0.66
VOL (LITERS) = FEET OF WATER X 2.5

Sampling Date 11/14/01 **Time** 0800 **Method** bailer

Static Water Level Prior to Purging 14.79 (ft)
(Measured from top of casing)
Feet of Water 15.21 (ft)

Well Volume 9.43 (liter/gal) — liter circled
Three Well Volumes 28.29 (liter/gal) — liter circled
Total Produced 29 (liter/gal) — liter circled
Number of Well Volumes 3

Production Time ______ (min)
Production Rate ______ (/min)

Well Volumes	pH	Cond µsx1000	Temp °F
1	7.11	4.64	69.3
2	~~7.35~~ 7.30	2.55	68.3
3	7.27	2.53	68.6
4			
5			
6			
7			
8			
9			
10			

Water Characteristics:
Color; ______ **Clear** ☐ **Cloudy** ☐ **Very Silty** ☐
Odor; **None** ☐ **Slight** ☐ **Moderate** ☐ **Strong** ☐
Sheen; **Yes** ☐ **No** ☐ **Other** ______

Water Level After Recovery ______ (ft) **80% Recharged** **Yes** ☐ **No** ☐

Sample I.D. MW-1 **Laboratory** Sequoia

***Comments*:** ______

APPENDIX C

ANALYTICAL RESULTS

The chilled samples were delivered to a state-certified analytical laboratory. Chain of custody documentation was maintained for all samples. Attached are copies of the analytical results and the chain of custody forms.

APPENDIX C

ANALYTICAL RESULTS

The chilled samples were delivered to a state-certified analytical laboratory. Chain of custody documentation was maintained for all samples. Attached are copies of the analytical results and the chain of custody forms.

Sequoia
Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

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Morgan Hill, CA 95037
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www.sequoialabs.com

Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1,9 1/2-10	MKK0094-01	Soil	11/05/01 00:00	11/05/01 17:55
MW-1,14 1/2-15	MKK0094-02	Soil	11/05/01 00:00	11/05/01 17:55
MW-1,19 1/2-20	MKK0094-03	Soil	11/05/01 00:00	11/05/01 17:55

Sequoia Analytical - Morgan Hill

James Hartley, Project Manager

Sequoia
Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Diesel Range Organics (C9-C24)	**8.1**	1.0	mg/kg	1	1K09012	11/09/01	11/09/01	DHS LUFT	D-15
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Diesel Range Organics (C9-C24)	ND	1.0	mg/kg	1	1K09012	11/09/01	11/09/01	DHS LUFT	
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Diesel Range Organics (C9-C24)	ND	1.0	mg/kg	1	1K09012	11/09/01	11/09/01	DHS LUFT	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg	1	1K07001	11/07/01	11/07/01	8015Bm/8021B	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
2,2-Dichloropropane	ND	0.20	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
1,1-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Isopropylbenzene	ND	0.20	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.20	"	"	"	"	"	"	
Methylene chloride	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.40	"	"	"	"	"	"	
Total Xylenes	ND	0.20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*70-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*114 %*	*70-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-130*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,9 1/2-10 (MKK0094-01) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*50-150*		"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
2,2-Dichloropropane	ND	0.20	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
1,1-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Isopropylbenzene	ND	0.20	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.20	"	"	"	"	"	"	
Methylene chloride	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.40	"	"	"	"	"	"	
Total Xylenes	ND	0.20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*70-130*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*70-130*		"	"	"	
Surrogate: Toluene-d8		*112 %*		*70-130*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*70-130*		"	"	"	

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,14 1/2-15 (MKK0094-02) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*50-150*		"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*50-150*		"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
2,2-Dichloropropane	ND	0.20	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
1,1-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Isopropylbenzene	ND	0.20	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.20	"	"	"	"	"	"	
Methylene chloride	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
Toluene	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.40	"	"	"	"	"	"	
Total Xylenes	ND	0.20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*70-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-130*		"	"	"	"	

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1,19 1/2-20 (MKK0094-03) Soil Sampled: 11/05/01 00:00 Received: 11/05/01 17:55									
Ethanol	ND	10	mg/kg	1	1K12023	11/12/01	11/12/01	EPA 8260B	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
Ethylene dibromide	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*50-150*		"	"	"	"	
Benzene	ND	0.20	"	"	"	"	"	"	
Bromobenzene	ND	0.20	"	"	"	"	"	"	
Bromochloromethane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.20	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.20	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.20	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.20	"	"	"	"	"	"	
Dibromomethane	ND	0.20	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.20	"	"	"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	Reported:
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K07001 - EPA 5030B [P/T]										
Blank (1K07001-BLK1)				Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.189*		"	*0.200*		*94.5*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.181*		"	*0.200*		*90.5*	*60-140*			
LCS (1K07001-BS1)				Prepared & Analyzed: 11/07/01						
Benzene	0.170	0.0050	mg/kg	0.200		85.0	70-130			
Toluene	0.175	0.0050	"	0.200		87.5	70-130			
Ethylbenzene	0.175	0.0050	"	0.200		87.5	70-130			
Xylenes (total)	0.528	0.0050	"	0.600		88.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*0.166*		"	*0.200*		*83.0*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.193*		"	*0.200*		*96.5*	*60-140*			
LCS (1K07001-BS2)				Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	4.83	1.0	mg/kg	5.00		96.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	*0.168*		"	*0.200*		*84.0*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.185*		"	*0.200*		*92.5*	*60-140*			
Matrix Spike (1K07001-MS1)		Source: MKK0067-03		Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	9.72	1.0	mg/kg	11.0	1.2	77.5	60-140			
Benzene	0.120	0.0050	"	0.132	ND	90.9	60-140			
Toluene	0.610	0.0050	"	0.794	ND	76.8	60-140			
Ethylbenzene	0.139	0.0050	"	0.184	ND	75.5	60-140			
Xylenes (total)	0.691	0.0050	"	0.922	ND	74.9	60-140			
Surrogate: a,a,a-Trifluorotoluene	*0.171*		"	*0.200*		*85.5*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.181*		"	*0.200*		*90.5*	*60-140*			

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K07001 - EPA 5030B [P/T]										
Matrix Spike Dup (1K07001-MSD1)	**Source: MKK0067-03**		Prepared & Analyzed: 11/07/01							
Gasoline Range Organics (C6-C10)	9.61	1.0	mg/kg	11.0	1.2	76.5	60-140	1.14	25	
Benzene	0.117	0.0050	"	0.132	ND	88.6	60-140	2.53	25	
Toluene	0.609	0.0050	"	0.794	ND	76.7	60-140	0.164	25	
Ethylbenzene	0.138	0.0050	"	0.184	ND	75.0	60-140	0.722	25	
Xylenes (total)	0.687	0.0050	"	0.922	ND	74.5	60-140	0.581	25	
Surrogate: a,a,a-Trifluorotoluene	*0.168*		"	*0.200*		*84.0*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.184*		"	*0.200*		*92.0*	*60-140*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K07001 - EPA 5030B [P/T]										
Blank (1K07001-BLK1)				Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.189*		"	*0.200*		*94.5*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.181*		"	*0.200*		*90.5*	*60-140*			
LCS (1K07001-BS1)				Prepared & Analyzed: 11/07/01						
Benzene	0.170	0.0050	mg/kg	0.200		85.0	70-130			
Toluene	0.175	0.0050	"	0.200		87.5	70-130			
Ethylbenzene	0.175	0.0050	"	0.200		87.5	70-130			
Xylenes (total)	0.528	0.0050	"	0.600		88.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*0.166*		"	*0.200*		*83.0*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.193*		"	*0.200*		*96.5*	*60-140*			
LCS (1K07001-BS2)				Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	4.83	1.0	mg/kg	5.00		96.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	*0.168*		"	*0.200*		*84.0*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.185*		"	*0.200*		*92.5*	*60-140*			
Matrix Spike (1K07001-MS1)		Source: MKK0067-03		Prepared & Analyzed: 11/07/01						
Gasoline Range Organics (C6-C10)	9.72	1.0	mg/kg	11.0	1.2	77.5	60-140			
Benzene	0.120	0.0050	"	0.132	ND	90.9	60-140			
Toluene	0.610	0.0050	"	0.794	ND	76.8	60-140			
Ethylbenzene	0.139	0.0050	"	0.184	ND	75.5	60-140			
Xylenes (total)	0.691	0.0050	"	0.922	ND	74.9	60-140			
Surrogate: a,a,a-Trifluorotoluene	*0.171*		"	*0.200*		*85.5*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*0.181*		"	*0.200*		*90.5*	*60-140*			

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885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K09012 - EPA 3550A										
Blank (1K09012-BLK1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	*1.39*		"	*1.67*		*83.2*	*40-140*			
LCS (1K09012-BS1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	14.4	1.0	mg/kg	16.7		86.2	40-140			
Surrogate: n-Pentacosane	*1.48*		"	*1.67*		*88.6*	*40-140*			
LCS Dup (1K09012-BSD1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	13.6	1.0	mg/kg	16.7		81.4	40-140	5.71	40	
Surrogate: n-Pentacosane	*1.48*		"	*1.67*		*88.6*	*40-140*			

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Morgan Hill, CA 95037
(408) 776-9600
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K12023 - EPA 5030B P/T										
Blank (1K12023-BLK1)			Prepared & Analyzed: 11/12/01							
Benzene	ND	0.20	mg/kg							
Ethanol	ND	10	"							
Bromobenzene	ND	0.20	"							
tert-Butyl alcohol	ND	5.0	"							
Bromochloromethane	ND	0.20	"							
Methyl tert-butyl ether	ND	0.20	"							
Bromodichloromethane	ND	0.20	"							
Di-isopropyl ether	ND	0.40	"							
Bromoform	ND	0.20	"							
Ethyl tert-butyl ether	ND	0.20	"							
Bromomethane	ND	0.40	"							
tert-Amyl methyl ether	ND	0.20	"							
1,2-Dichloroethane	ND	0.20	"							
n-Butylbenzene	ND	0.20	"							
Ethylene dibromide	ND	0.20	"							
sec-Butylbenzene	ND	0.20	"							
tert-Butylbenzene	ND	0.20	"							
Carbon tetrachloride	ND	0.20	"							
Chlorobenzene	ND	0.20	"							
Chloroethane	ND	0.40	"							
Chloroform	ND	0.20	"							
Chloromethane	ND	0.40	"							
2-Chlorotoluene	ND	0.20	"							
4-Chlorotoluene	ND	0.20	"							
Dibromochloromethane	ND	0.20	"							
1,2-Dibromoethane	ND	0.20	"							
Dibromomethane	ND	0.20	"							
1,2-Dibromo-3-chloropropane	ND	0.20	"							
1,2-Dichlorobenzene	ND	0.20	"							
1,3-Dichlorobenzene	ND	0.20	"							
1,4-Dichlorobenzene	ND	0.20	"							
Dichlorodifluoromethane	ND	0.40	"							
1,1-Dichloroethane	ND	0.20	"							
1,2-Dichloroethane	ND	0.20	"							
1,1-Dichloroethene	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.20	"							

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K09012 - EPA 3550A										
Blank (1K09012-BLK1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	*1.39*		"	*1.67*		*83.2*	*40-140*			
LCS (1K09012-BS1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	14.4	1.0	mg/kg	16.7		86.2	40-140			
Surrogate: n-Pentacosane	*1.48*		"	*1.67*		*88.6*	*40-140*			
LCS Dup (1K09012-BSD1)				Prepared & Analyzed: 11/09/01						
Diesel Range Organics (C9-C24)	13.6	1.0	mg/kg	16.7		81.4	40-140	5.71	40	
Surrogate: n-Pentacosane	*1.48*		"	*1.67*		*88.6*	*40-140*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K12023 - EPA 5030B P/T										
Blank (1K12023-BLK1)			Prepared & Analyzed: 11/12/01							
trans-1,2-Dichloroethene	ND	0.20	mg/kg							
1,2-Dichloropropane	ND	0.20	"							
1,3-Dichloropropane	ND	0.20	"							
2,2-Dichloropropane	ND	0.20	"							
1,1-Dichloropropene	ND	0.20	"							
Ethylbenzene	ND	0.20	"							
Hexachlorobutadiene	ND	0.20	"							
Isopropylbenzene	ND	0.20	"							
p-Isopropyltoluene	ND	0.20	"							
Methylene chloride	ND	0.20	"							
Naphthalene	ND	0.50	"							
n-Propylbenzene	ND	0.20	"							
Styrene	ND	0.20	"							
1,1,1,2-Tetrachloroethane	ND	0.20	"							
1,1,2,2-Tetrachloroethane	ND	0.20	"							
Tetrachloroethene	ND	0.20	"							
Toluene	ND	0.20	"							
1,2,3-Trichlorobenzene	ND	0.20	"							
1,2,4-Trichlorobenzene	ND	0.20	"							
1,1,1-Trichloroethane	ND	0.20	"							
1,1,2-Trichloroethane	ND	0.20	"							
Trichloroethene	ND	0.20	"							
Trichlorofluoromethane	ND	0.40	"							
1,2,3-Trichloropropane	ND	0.20	"							
1,2,4-Trimethylbenzene	ND	0.20	"							
1,3,5-Trimethylbenzene	ND	0.20	"							
Vinyl chloride	ND	0.40	"							
Total Xylenes	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0104*		"	*0.0100*		*104*	*50-150*			
Surrogate: Dibromofluoromethane	*0.0112*		"	*0.0100*		*112*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.0104*		"	*0.0100*		*104*	*70-130*			
Surrogate: Toluene-d8	*0.0112*		"	*0.0100*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0107*		"	*0.0100*		*107*	*70-130*			

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Morgan Hill, CA 95037
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K12023 - EPA 5030B P/T										
LCS (1K12023-BS1)				Prepared & Analyzed: 11/12/01						
Benzene	0.500	0.20	mg/kg	0.500		100	70-130			
Methyl tert-butyl ether	0.506	0.20	"	0.500		101	70-130			
Chlorobenzene	0.532	0.20	"	0.500		106	70-130			
1,1-Dichloroethene	0.446	0.20	"	0.500		89.2	70-130			
Toluene	0.534	0.20	"	0.500		107	70-130			
Trichloroethene	0.496	0.20	"	0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.00970*		"	*0.0100*		*97.0*	*50-150*			
Surrogate: Dibromofluoromethane	*0.0105*		"	*0.0100*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.00970*		"	*0.0100*		*97.0*	*70-130*			
Surrogate: Toluene-d8	*0.0111*		"	*0.0100*		*111*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0106*		"	*0.0100*		*106*	*70-130*			
Matrix Spike (1K12023-MS1)		**Source: MKK0067-03**		Prepared & Analyzed: 11/12/01						
Benzene	0.445	0.20	mg/kg	0.500	ND	89.0	60-140			
Methyl tert-butyl ether	0.503	0.20	"	0.500	ND	101	60-140			
Chlorobenzene	0.468	0.20	"	0.500	ND	93.6	60-140			
1,1-Dichloroethene	0.385	0.20	"	0.500	ND	77.0	60-140			
Toluene	0.482	0.20	"	0.500	ND	96.4	60-140			
Trichloroethene	0.494	0.20	"	0.500	ND	98.8	60-140			
Surrogate: 1,2-Dichloroethane-d4	*0.0108*		"	*0.0100*		*108*	*50-150*			
Surrogate: Dibromofluoromethane	*0.0117*		"	*0.0100*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.0108*		"	*0.0100*		*108*	*70-130*			
Surrogate: Toluene-d8	*0.0115*		"	*0.0100*		*115*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0107*		"	*0.0100*		*107*	*70-130*			
Matrix Spike Dup (1K12023-MSD1)		**Source: MKK0067-03**		Prepared & Analyzed: 11/12/01						
Benzene	0.468	0.20	mg/kg	0.500	ND	93.6	60-140	5.04	25	
Methyl tert-butyl ether	0.509	0.20	"	0.500	ND	102	60-140	1.19	25	
Chlorobenzene	0.481	0.20	"	0.500	ND	96.2	60-140	2.74	25	
1,1-Dichloroethene	0.453	0.20	"	0.500	ND	90.6	60-140	16.2	25	
Toluene	0.495	0.20	"	0.500	ND	99.0	60-140	2.66	25	
Trichloroethene	0.505	0.20	"	0.500	ND	101	60-140	2.20	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0108*		"	*0.0100*		*108*	*50-150*			
Surrogate: Dibromofluoromethane	*0.0114*		"	*0.0100*		*114*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.0108*		"	*0.0100*		*108*	*70-130*			
Surrogate: Toluene-d8	*0.0114*		"	*0.0100*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0106*		"	*0.0100*		*106*	*70-130*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K12023 - EPA 5030B P/T										
Blank (1K12023-BLK1)			Prepared & Analyzed: 11/12/01							
trans-1,2-Dichloroethene	ND	0.20	mg/kg							
1,2-Dichloropropane	ND	0.20	"							
1,3-Dichloropropane	ND	0.20	"							
2,2-Dichloropropane	ND	0.20	"							
1,1-Dichloropropene	ND	0.20	"							
Ethylbenzene	ND	0.20	"							
Hexachlorobutadiene	ND	0.20	"							
Isopropylbenzene	ND	0.20	"							
p-Isopropyltoluene	ND	0.20	"							
Methylene chloride	ND	0.20	"							
Naphthalene	ND	0.50	"							
n-Propylbenzene	ND	0.20	"							
Styrene	ND	0.20	"							
1,1,1,2-Tetrachloroethane	ND	0.20	"							
1,1,2,2-Tetrachloroethane	ND	0.20	"							
Tetrachloroethene	ND	0.20	"							
Toluene	ND	0.20	"							
1,2,3-Trichlorobenzene	ND	0.20	"							
1,2,4-Trichlorobenzene	ND	0.20	"							
1,1,1-Trichloroethane	ND	0.20	"							
1,1,2-Trichloroethane	ND	0.20	"							
Trichloroethene	ND	0.20	"							
Trichlorofluoromethane	ND	0.40	"							
1,2,3-Trichloropropane	ND	0.20	"							
1,2,4-Trimethylbenzene	ND	0.20	"							
1,3,5-Trimethylbenzene	ND	0.20	"							
Vinyl chloride	ND	0.40	"							
Total Xylenes	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0104*		"	*0.0100*		*104*	*50-150*			
Surrogate: Dibromofluoromethane	*0.0112*		"	*0.0100*		*112*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.0104*		"	*0.0100*		*104*	*70-130*			
Surrogate: Toluene-d8	*0.0112*		"	*0.0100*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0107*		"	*0.0100*		*107*	*70-130*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Notes and Definitions

D-15	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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405 Clyde Avenue	Project Number: 645 Horuing/P9Z03-V2	**Reported:**
Mountain View CA, 94043	Project Manager: Leo Alvarez	11/13/01 14:24

Notes and Definitions

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DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

CHAIN OF CUSTODY RECORD

☒ Mountain View Office
405 Clyde Ave.
Mountain View 94043
Tel: 650.967.2365
Fax: 650.967.2785

☐ Oakland Office
129 Filbert St.
Oakland 94607
Tel: 510.267.1970
Fax: 510.267.1972

☐ Pasadena Office
1785 Locust St., #10
Pasadena 91106
Tel: 626.396.1490
Fax: 626.396.1491

☐ San Ramon Office
2258 Camino Ramon
San Ramon 94583
Tel: 925.275.2555
Fax: 925.275.2555

Project Name: 645 Horning
Job No.: P9Z03-V2
Report To: Leo Alvarez
Sampler (print): Charles Mettler
Sampler (signature): CME Mettler
QC Requirement: ☒ Level A (standard)

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH
☐ _____

ANALYSES REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX/MTBE (8015/8020)	TPH as diesel (8015M) silica gel column	TRPH (418.1) silica gel column	Halogenated VOCs (8010) (8021 or 8260)	Organochlorine Pesticides (8081)	Metals - As, Hg, Pb, Cd (filer and preserve GW samples in lab)	Fuel Oxygenates (8260B) + 8010	PAHs (8310)	PCBs (8082)	Fuel Scan 8020/8015M) (Purgeable and Extractable)			Remarks
MW-1, 9½-10	11/5/01			soil	1	✓	✓					✓						
MW-1, 14½-15	"			"	"	✓	✓					✓						
MW-1, 19½-20	"			"	"	✓	✓					✓						

Relinquished By:	Date:	Time:	Received By: WHS Date: 11/05 Time: 1500
Relinquished By:	Date:	Time:	Received By: Date: Time:
Relinquished By:	Date:	Time:	Lab of Record:
			Received by Lab: Date: Time:

PM Initial:
Temp:

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

☒ Mountain View Office
405 Clyde Ave.
Mountain View 94043
Tel: 650.967.2365
Fax: 650.967.2785

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☐ San Ramon Office
2258 Camino Ramon
San Ramon 94583
Tel: 925.275.2555
Fax: 925.275.2555

CHAIN OF CUSTODY RECORD

Project Name: 645 Horning
Job No.: P9203-V2
Report To: Leo Alvarez
Sampler (print): Charles Mettler
Sampler (signature): CME
QC Requirement: ☒ Level A (standard)

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH
☐ _____

ANALYSES REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX/MTBE (8015/8020)	TPH as diesel (8015M) silica gel column	TRPH (418.1) silica gel column	Halogenated VOCs (8010) (8021 or 8260)	Organochlorine Pesticides (8081)	Metals - As, Hg, Pb, Cd (filer and preserve GW samples in lab)	Fuel Oxygenates (8260B) + 8010	PAHs (8310)	PCBs (8082)	Fuel Scan 8020/8015M) (Purgeable and Extractable)			Remarks
MW-1, 9½-10	11/5/01			soil	1	✓	✓					✓						
MW-1, 14½-15	"			"	"	✓	✓					✓						
MW-1, 19½-20	"			"	"	✓	✓					✓						

Relinquished By:		Date:	Time:	Received By: WHC	Date: 11/05	Time: 1500	PM Initial:
Relinquished By:		Date:	Time:	Received By:	Date:	Time:	
Relinquished By:		Date:	Time:	Lab of Record:			Temp:
				Received by Lab:	Date:	Time:	

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21 November, 2001

Leonardo Alvarez
Lowney Associates (MV)
405 Clyde Avenue
Mountain View, CA 94043

RE: Lowney
Sequoia Report: MKK0339

Enclosed are the results of analyses for samples received by the laboratory on 11/14/01 16:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James Hartley
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MKK0339-01	Water	11/14/01 08:45	11/14/01 16:10

Sequoia Analytical - Morgan Hill

James Hartley, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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21 November, 2001

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Mountain View, CA 94043

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Sequoia Report: MKK0339

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Sincerely,

James Hartley
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	1K16004	11/16/01	11/16/01	8015Bm/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	17	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.4 %*	*70-130*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Diesel Hydrocarbons (C10-C28) by 8015B modified

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
Diesel Range Organics (C10-C28)	ND	51	ug/l	1	1K19010	11/19/01	11/19/01	8015Bm	
Surrogate: n-Pentacosane		*78.2 %*	*50-150*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	1K16004	11/16/01	11/16/01	8015Bm/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	17	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.4 %*	*70-130*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
Ethanol	ND	400	ug/l	1	1K20017	11/19/01	11/19/01	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	8.9	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethylene dibromide	ND	1.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.9 %*		*60-140*	"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
1,2-Dichloroethane	**0.95**	0.50	ug/l	1	1K19008	11/19/01	11/19/01	EPA 8021B	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-130*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKK0339-01) Water Sampled: 11/14/01 08:45 Received: 11/14/01 16:10									
Ethanol	ND	400	ug/l	1	1K20017	11/19/01	11/19/01	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**8.9**	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethylene dibromide	ND	1.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.9 %*	*60-140*		"	"	"	"	

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	Reported:
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K16004 - EPA 5030B [P/T]										
Blank (1K16004-BLK1)				Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*8.61*		"	*10.0*		*86.1*	*70-130*			
LCS (1K16004-BS1)				Prepared & Analyzed: 11/16/01						
Benzene	10.7	0.50	ug/l	10.0		107	70-130			
Toluene	10.3	0.50	"	10.0		103	70-130			
Ethylbenzene	10.4	0.50	"	10.0		104	70-130			
Xylenes (total)	31.9	0.50	"	30.0		106	70-130			
Surrogate: a,a,a-Trifluorotoluene	*8.41*		"	*10.0*		*84.1*	*70-130*			
LCS (1K16004-BS2)				Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	228	50	ug/l	250		91.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.0*		"	*10.0*		*100*	*70-130*			
Matrix Spike (1K16004-MS1)		Source: MKK0339-01		Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	562	50	ug/l	550	ND	102	60-140			
Benzene	8.00	0.50	"	6.60	ND	121	60-140			
Toluene	40.0	0.50	"	39.7	ND	101	60-140			
Ethylbenzene	9.39	0.50	"	9.20	ND	102	60-140			
Xylenes (total)	46.1	0.50	"	46.1	ND	100	60-140			
Surrogate: a,a,a-Trifluorotoluene	*8.67*		"	*10.0*		*86.7*	*70-130*			
Matrix Spike Dup (1K16004-MSD1)		Source: MKK0339-01		Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	529	50	ug/l	550	ND	96.2	60-140	6.05	25	
Benzene	7.66	0.50	"	6.60	ND	116	60-140	4.34	25	
Toluene	38.2	0.50	"	39.7	ND	96.2	60-140	4.60	25	
Ethylbenzene	9.10	0.50	"	9.20	ND	98.9	60-140	3.14	25	
Xylenes (total)	45.7	0.50	"	46.1	ND	99.1	60-140	0.871	25	
Surrogate: a,a,a-Trifluorotoluene	*8.65*		"	*10.0*		*86.5*	*70-130*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Diesel Hydrocarbons (C10-C28) by 8015B modified - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K19010 - EPA 3510B										
Blank (1K19010-BLK1)				Prepared & Analyzed: 11/19/01						
Diesel Range Organics (C10-C28)	ND	50	ug/l							
Surrogate: n-Pentacosane	*35.6*		"	*50.0*		*71.2*	*50-150*			
LCS (1K19010-BS1)				Prepared & Analyzed: 11/19/01						
Diesel Range Organics (C10-C28)	444	50	ug/l	500		88.8	60-140			
Surrogate: n-Pentacosane	*41.2*		"	*50.0*		*82.4*	*50-150*			
LCS Dup (1K19010-BSD1)				Prepared & Analyzed: 11/19/01						
Diesel Range Organics (C10-C28)	396	50	ug/l	500		79.2	60-140	11.4	50	
Surrogate: n-Pentacosane	*39.6*		"	*50.0*		*79.2*	*50-150*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Total Purgeable Hydrocarbons (C6-C10) by 8015B modified, BTEX and MTBE by 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K16004 - EPA 5030B [P/T]										
Blank (1K16004-BLK1)				Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*8.61*		"	*10.0*		*86.1*	*70-130*			
LCS (1K16004-BS1)				Prepared & Analyzed: 11/16/01						
Benzene	10.7	0.50	ug/l	10.0		107	70-130			
Toluene	10.3	0.50	"	10.0		103	70-130			
Ethylbenzene	10.4	0.50	"	10.0		104	70-130			
Xylenes (total)	31.9	0.50	"	30.0		106	70-130			
Surrogate: a,a,a-Trifluorotoluene	*8.41*		"	*10.0*		*84.1*	*70-130*			
LCS (1K16004-BS2)				Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	228	50	ug/l	250		91.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.0*		"	*10.0*		*100*	*70-130*			
Matrix Spike (1K16004-MS1)		**Source: MKK0339-01**		Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	562	50	ug/l	550	ND	102	60-140			
Benzene	8.00	0.50	"	6.60	ND	121	60-140			
Toluene	40.0	0.50	"	39.7	ND	101	60-140			
Ethylbenzene	9.39	0.50	"	9.20	ND	102	60-140			
Xylenes (total)	46.1	0.50	"	46.1	ND	100	60-140			
Surrogate: a,a,a-Trifluorotoluene	*8.67*		"	*10.0*		*86.7*	*70-130*			
Matrix Spike Dup (1K16004-MSD1)		**Source: MKK0339-01**		Prepared & Analyzed: 11/16/01						
Gasoline Range Organics (C6-C10)	529	50	ug/l	550	ND	96.2	60-140	6.05	25	
Benzene	7.66	0.50	"	6.60	ND	116	60-140	4.34	25	
Toluene	38.2	0.50	"	39.7	ND	96.2	60-140	4.60	25	
Ethylbenzene	9.10	0.50	"	9.20	ND	98.9	60-140	3.14	25	
Xylenes (total)	45.7	0.50	"	46.1	ND	99.1	60-140	0.871	25	
Surrogate: a,a,a-Trifluorotoluene	*8.65*		"	*10.0*		*86.5*	*70-130*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K20017 - EPA 5030B P/T										
Blank (1K20017-BLK1)				Prepared & Analyzed: 11/19/01						
Ethanol	ND	400	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	1.0	"							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
tert-Amyl methyl ether	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Ethylene dibromide	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	*9.54*		"	*10.0*		*95.4*	*60-140*			
LCS (1K20017-BS1)				Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	7.79	1.0	ug/l	10.0		77.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.18*		"	*10.0*		*91.8*	*60-140*			
Matrix Spike (1K20017-MS1)		Source: MKK0334-05		Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	2010	100	ug/l	1000	1200	81.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.48*		"	*10.0*		*94.8*	*60-140*			
Matrix Spike Dup (1K20017-MSD1)		Source: MKK0334-05		Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	2010	100	ug/l	1000	1200	81.0	70-130	0.00	25	
Surrogate: 1,2-Dichloroethane-d4	*9.21*		"	*10.0*		*92.1*	*60-140*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K19008 - EPA 5030B [P/T]										
Blank (1K19008-BLK1)			Prepared & Analyzed: 11/19/01							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	1.0	"							
Dibromochloromethane	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Methylene chloride	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
1,1,2-Trichlorotrifluoroethane	ND	1.0	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
Vinyl chloride	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
Surrogate: 4-Bromofluorobenzene	*10.7*		"	*10.0*		*107*	*70-130*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K20017 - EPA 5030B P/T										
Blank (1K20017-BLK1)				Prepared & Analyzed: 11/19/01						
Ethanol	ND	400	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	1.0	"							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
tert-Amyl methyl ether	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Ethylene dibromide	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	*9.54*		"	*10.0*		*95.4*	*60-140*			
LCS (1K20017-BS1)				Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	7.79	1.0	ug/l	10.0		77.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.18*		"	*10.0*		*91.8*	*60-140*			
Matrix Spike (1K20017-MS1)		**Source: MKK0334-05**		Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	2010	100	ug/l	1000	1200	81.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.48*		"	*10.0*		*94.8*	*60-140*			
Matrix Spike Dup (1K20017-MSD1)		**Source: MKK0334-05**		Prepared & Analyzed: 11/19/01						
Methyl tert-butyl ether	2010	100	ug/l	1000	1200	81.0	70-130	0.00	25	
Surrogate: 1,2-Dichloroethane-d4	*9.21*		"	*10.0*		*92.1*	*60-140*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K19008 - EPA 5030B [P/T]										
LCS (1K19008-BS1)			Prepared & Analyzed: 11/19/01							
Chlorobenzene	9.04	0.50	ug/l	10.0		90.4	70-130			
1,1-Dichloroethene	10.5	0.50	"	10.0		105	65-135			
Trichloroethene	11.6	0.50	"	10.0		116	70-130			
Surrogate: 4-Bromofluorobenzene	*12.4*		"	*10.0*		*124*	*70-130*			
Matrix Spike (1K19008-MS1)		Source: MKK0376-05		Prepared: 11/19/01		Analyzed: 11/20/01				
Chlorobenzene	8.39	0.50	ug/l	10.0	ND	83.9	60-140			
1,1-Dichloroethene	26.0	0.50	"	10.0	16	100	60-140			
Trichloroethene	26.3	0.50	"	10.0	18	83.0	60-140			
Surrogate: 4-Bromofluorobenzene	*11.5*		"	*10.0*		*115*	*70-130*			
Matrix Spike Dup (1K19008-MSD1)		Source: MKK0376-05		Prepared: 11/19/01		Analyzed: 11/20/01				
Chlorobenzene	10.1	0.50	ug/l	10.0	ND	101	60-140	18.5	25	
1,1-Dichloroethene	23.1	0.50	"	10.0	16	71.0	60-140	11.8	25	
Trichloroethene	24.7	0.50	"	10.0	18	67.0	60-140	6.27	25	
Surrogate: 4-Bromofluorobenzene	*10.3*		"	*10.0*		*103*	*70-130*			

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Lowney Associates (MV)	Project: Lowney	
405 Clyde Avenue	Project Number: 645 Horning St.	**Reported:**
Mountain View CA, 94043	Project Manager: Leonardo Alvarez	11/21/01 16:55

Volatile Organic Compounds by EPA Method 8021B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1K19008 - EPA 5030B [P/T]										
LCS (1K19008-BS1)				Prepared & Analyzed: 11/19/01						
Chlorobenzene	9.04	0.50	ug/l	10.0		90.4	70-130			
1,1-Dichloroethene	10.5	0.50	"	10.0		105	65-135			
Trichloroethene	11.6	0.50	"	10.0		116	70-130			
Surrogate: 4-Bromofluorobenzene	*12.4*		"	*10.0*		*124*	*70-130*			
Matrix Spike (1K19008-MS1)		**Source: MKK0376-05**		Prepared: 11/19/01		Analyzed: 11/20/01				
Chlorobenzene	8.39	0.50	ug/l	10.0	ND	83.9	60-140			
1,1-Dichloroethene	26.0	0.50	"	10.0	16	100	60-140			
Trichloroethene	26.3	0.50	"	10.0	18	83.0	60-140			
Surrogate: 4-Bromofluorobenzene	*11.5*		"	*10.0*		*115*	*70-130*			
Matrix Spike Dup (1K19008-MSD1)		**Source: MKK0376-05**		Prepared: 11/19/01		Analyzed: 11/20/01				
Chlorobenzene	10.1	0.50	ug/l	10.0	ND	101	60-140	18.5	25	
1,1-Dichloroethene	23.1	0.50	"	10.0	16	71.0	60-140	11.8	25	
Trichloroethene	24.7	0.50	"	10.0	18	67.0	60-140	6.27	25	
Surrogate: 4-Bromofluorobenzene	*10.3*		"	*10.0*		*103*	*70-130*			

LUNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

☒ Mountain View Office
405 Clyde Ave.
Mountain View 94043
Tel: 650.967.2365
Fax: 650.967.2785

☐ Oakland Office
129 Filbert St.
Oakland 94607
Tel: 510.267.1970
Fax: 510.267.1972

☐ Pasadena Office
1785 Locust St., #10
Pasadena 91106
Tel: 626.396.1490
Fax: 626.396.1491

☐ San Ramon Office
2258 Camino Ramon
San Ramon 94583
Tel: 925.275.2555
Fax: 925.275.2555

CHAIN OF CUSTODY RECORD

Project Name: 645 Horning St
Job No.: 1754-1
Report To: Leonardo Alvarez
Sampler (print): Kurt Soenen
Sampler (signature): Kurt Soenen
QC Requirement: ☒ Level A (standard)

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH
☐ _____

ANALYSES REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX/MTBE (8015/8020)	TPH as diesel (8015M) ~~silica gel column~~	TRPH (418.1) silica gel column	Halogenated VOCs (8010) ~~(8021 or 8260)~~ *	Organochlorine Pesticides (8081)	Metals - As, Hg, Pb, Cd (filer and preserve GW samples in lab)	Fuel Oxygenates (~~8260B~~)	PAHs (8310)	PCBs (8082)	Fuel Scan 8020/8015M) (Purgeable and Extractable)			Remarks
MW-1	11/14/01	0845	-	Water	11	X	X		X			X						

* Only Report 1,2-Dichloroethane and Ethylene dibromide

Relinquished By:	Kurt Soenen	Date: 11/14/01	Time: 0930	Received By:		Date:	Time:	PM Initial:
Relinquished By:		Date:	Time:	Received By:		Date:	Time:	
Relinquished By:		Date:	Time:	Lab of Record:				Temp:
				Received by Lab:		Date:	Time:	

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

CHAIN OF CUSTODY RECORD

☒ **Mountain View Office**
405 Clyde Ave.
Mountain View 94043
Tel: 650.967.2365
Fax: 650.967.2785

☐ **Oakland Office**
129 Filbert St.
Oakland 94607
Tel: 510.267.1970
Fax: 510.267.1972

☐ **Pasadena Office**
1785 Locust St., #10
Pasadena 91106
Tel: 626.396.1490
Fax: 626.396.1491

☐ **San Ramon Office**
2258 Camino Ramon
San Ramon 94583
Tel: 925.275.2555
Fax: 925.275.2555

Project Name: 645 Horning St
Job No.: 1754-1
Report To: Leonardo Alvarez
Sampler (print): Kurt Soenen
Sampler (signature): Kurt Soenen
QC Requirement: ☒ Level A (standard)

Turnaround Requirements
☒ ☐ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH
☐ _____

ANALYSES REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX/MTBE (8015/8020)	TPH as diesel (8015M) ~~silica gel column~~	TRPH (418.1) silica gel column	Halogenated VOCs (8010) ~~(8021 or 8260)~~ *	Organochlorine Pesticides (8081)	Metals - As, Hg, Pb, Cd (filer and preserve GW samples in lab)	Fuel Oxygenates (~~8260B~~)	PAHs (8310)	PCBs (8082)	Fuel Scan 8020/8015M) (Purgeable and Extractable)			Remarks
MW-1	11/14/01	0845	-	water	11	X	X		X			X						

* Only Report 1,2-Dichloroethane and Ethylene dibromide

Relinquished By: Kurt Soenen	Date: 11/14/01	Time: 0930	Received By:	Date:	Time:	PM Initial:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Lab of Record:			Temp:
			Received by Lab:	Date:	Time:	

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services