Gary Rogers, Ph.D.

2657 Bailey Ct. Fremont, CA 94536 510-791-7157 E-mail: rogers1@ix.netcom.com

February 27, 1996

REF: 1004-1Q.RPT

Mr. Barney Chan
Environmental Health
Alameda County
1131 Harbor Bay Pkwy
Alameda, CA 94502-6577

SUBJECT: REPORT OF MONITORING WELL INSTALLATION AND QUARTERLY SAMPLING AT 1234 40TH AVE., OAKLAND, CA

Dear Barney:

We have enclosed a copy of the Monitoring Well Installation and Quarterly Sampling report prepared for the Motor Partners site, 1234 40th Ave., Oakland, California. The project included; 1) drilling and installation of one additional monitoring well, and 2) groundwater sampling results for the first quarterly monitoring period in 1996.

If you have any questions or comments regarding the report, please give us a call.

Sincerely,

Gary Rogers

Gary Rogers, Ph.D.

Stanley L. Klemetson, Ph.D., P.E.

cc: Bill Owens

REGISTERED PROFESSIONAL ENGINEER
STANLEY LOUIS KLEMETSON
No. 40087
Exp.
CIVIL
STATE OF CALIFORNIA

REPORT OF MONITORING WELL INSTALLATION, AND 1ST QUARTERLY MONITORING

PROJECT SITE:

MOTOR PARTNERS
1234 40TH AVE., OAKLAND, CALIFORNIA
StID #3682

PREPARED FOR:

Mr. Bill Owens
2221 Olympic Blvd.
Walnut Creek, CA 94595
510-935-3840

SUBMITTED TO:

Mr. Barney Chan
Environmental Health
Alameda County
1131 Harbor Bay Pkwy
Alameda, CA 94502-6577

PREPARED BY:

Gary Rogers, Ph.D.
2657 Bailey Ct.
Fremont, CA 94536
(510) 791-7157

PROJECT NO. 1004.95

February 27, 1996

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INTRODUCTION

PROJECT DESCRIPTION

This report discusses the installation of one additional monitoring well and quarterly sampling for the first quarter, 1996, at the Motor Partners site, 1234 40th Ave., Oakland, California.

SITE LOCATION AND DESCRIPTION

The project site is known as Motor Partners, 1234 40th Avenue, Oakland, California (Figure 1), located in a commercial/light industrial area. The elevation of the site is approximately 25 feet above mean sea level.

Motor Partners is located at 1234 40th Avenue near Nimitz Highway (880) in the Fruitvale District of Oakland, California (Figure 1). The BART rail tracks are about 500 ft. west of the site and San Leandro Bay is less than one mile to the southwest.

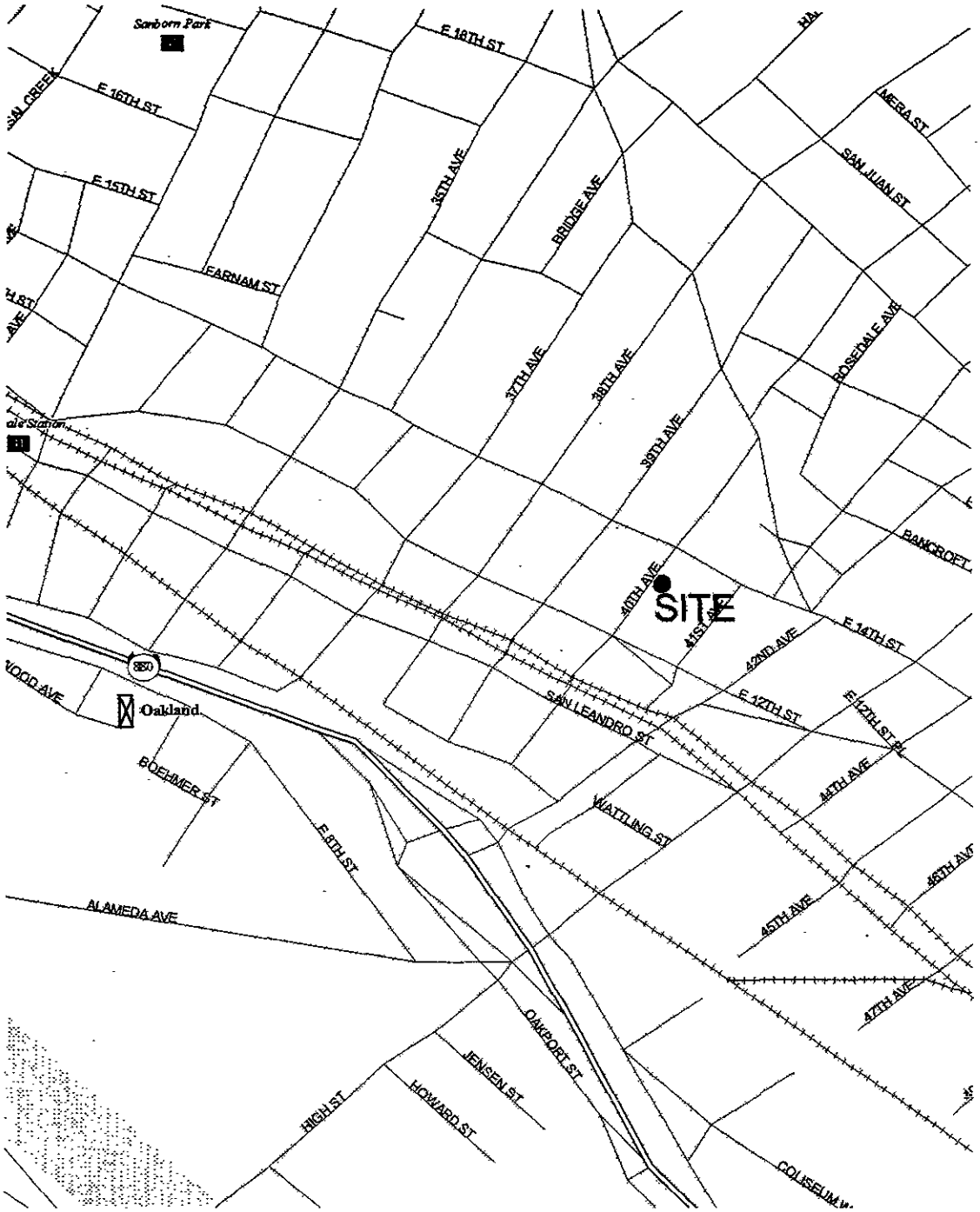
Motor Partners utilized the site for auto repair shops. Two underground storage tanks were maintained outside the 1234 40th Avenue building. A 1,000-gallon underground gasoline tank and a 500-gallon underground waste oil tank were located below the sidewalk (Figure 2). No reliable records exist to determine if inventory was lost.

Previous Subsurface Investigations

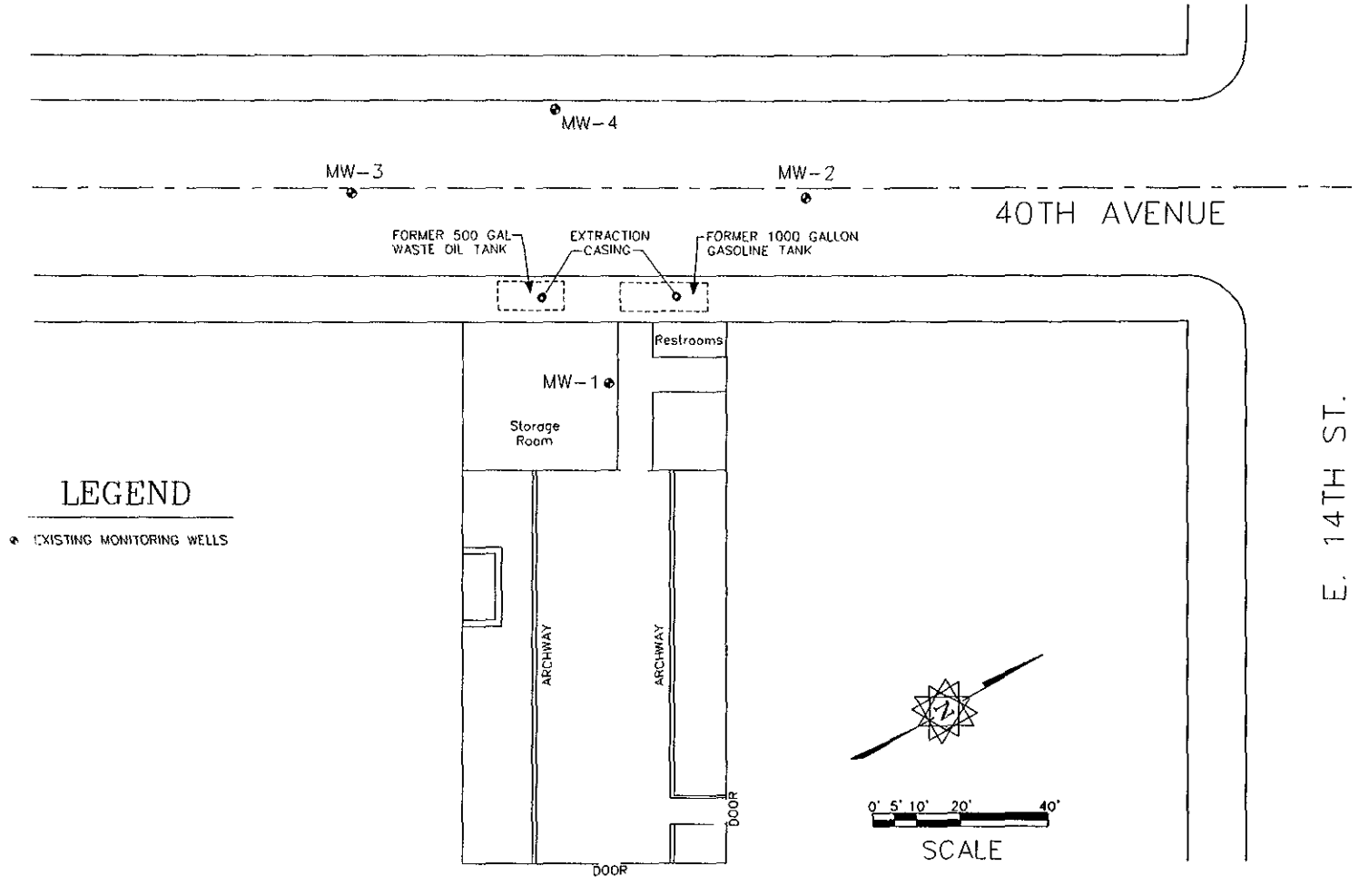
On Oct. 12, 1990, Semco, Inc. of Modesto, California removed both the 1,000-gallon gasoline tank and the 500-gallon waste oil tank. The concentration of total petroleum hydrocarbons in the gasoline range (TPH-G) below the 1,000-gallon tank was 1,600 mg/Kg. The TPH-G and TPH-D concentrations below the 500-gallon tank were 570 mg/Kg and 650 mg/Kg, respectively. There was no record of groundwater in the excavations. The excavations were backfilled to grade with original spoils.

In January, 1994, SEMCO re-excavated the area to remove contaminated soil, and dispose of the contaminated backfill. During the course of over excavation, it was noted that contamination extended beneath the building and into the street. Utilities prevented further excavation. The over excavation was halted and samples taken from the sidewalls of each excavation. An extraction well casing was installed in each excavation. Clean imported soil was used to backfill the two areas and the sidewalk was resurfaced with Christy boxes housing the two extraction casings.

Sampling conducted on January 11, 1994 indicated levels of TPH-gasoline for the former waste oil tank area between 100 and 700 ppm. Levels of TPH-gasoline for the former gasoline tank area ranged from 150 to 1,200 ppm.



GARY ROGERS, PH.D. ENVIRONMENTAL CONSULTANT 2657 BAILEY CT. FREMONT, CA 94536 (510) 791-7157	DESCRIPTION: Site Location			FIGURE: 1
	PROJECT/LOCATION: Motor Partners 1234 40th Ave. Oakland CA			
DRAWN BY: GLR	DRAWING DATE: 2 27 96	PROJECT NUMBER: 1004	FILE NAME: 1004-1Q DWG	PROJECT MANAGER: GLR



GARY ROGERS, PH.D. ENVIRONMENTAL CONSULTANT 2657 BAILEY CT. FREMONT, CA 94536 (510) 791-7157	DRAWN BY: GLR DRAWING DATE: 2/27/96 REVISION BY: REVISION BY:	PROJECT NUMBER: 1004 FILE NAME: 1004-1Q.DWG PROJECT MANAGER: GLR CHECKED BY:	DESCRIPTION: Site Layout PROJECT/LOCATION: Motor Partners 1234 40th Ave., Oakland	FIGURE: 2

Motor Partners, 1234 40th Ave. Oakland CA
Well installation and sampling report
February 27, 1996
File 1004-1Q.RPT

GEOLOGY AND HYDROGEOLOGY

Regional Geology.

The site is located on the East Bay Plain about 1.0 mile west of the Oakland Hills, about 1.0 mile east of the San Francisco Bay, and about 0.5 miles north of San Leandro Bay. The property is bounded on the northeast by 14th Street.

The site rests on Quaternary Deposits of various physical and compositional properties. The predominant formation is the Temescal Formation consisting of contemporaneous alluvial units of different origin, lithology, and physical properties. The material ranges from irregularly bedded clay, silt, sand and gravel to lenses of clay, silt, sand, and gravel with Claremont Chert.

The Hayward Fault is approximately 1.5 miles East of the site and is an active historic Fault. The Hayward Fault is the only active fault in the Oakland East Quadrangle.

Regional Hydrogeology.

The site is located within the East Bay Plain which makes up the ground water reservoir in the area. The water bearing capacity varies within the area due to the juxtaposed positions of the various types of soils and strata encountered underneath the East Bay Plain.

In General the water bearing capacities of the Younger Alluvium range from moderately permeable to low permeable soils. Below the Younger Alluvium at a depth of approximately 70 feet lies the Older Alluvium, which yields large to small quantities of well water.

Site Geology. The site soils were characterized using the United Soil Classification System (USCS). During on-site subsurface drilling, CEC (GROWTH) encountered up to two feet of baserock (fill) followed by a 4 to 5 foot layer of dark sandy clay (CL). Below the dark clay to a depth between 7 and 15 feet, a grey sandy gravel was found. Below the sandy gravel the soil varied between a clayey sand to a sandy silty clay (SC). The gravels are poorly sorted, angular to rounded clasts ranging in size from 0.2 cm to 3.0 cm.

Site Hydrogeology. The depth of first water ranged from 8 to 10 feet below the ground surface (bgs) in the borings. Groundwater was encountered within the grey clayey sandy gravel layers.

SITE WORK

INSTALLATION OF MONITORING WELL

On February 1, 1996, Bay Area Exploration drilled one soil boring across the street from the former underground storage tank excavations at the Motor Partners site (location shown in Figure 3). A two-inch groundwater monitoring well (MW-4) was installed in the boring.

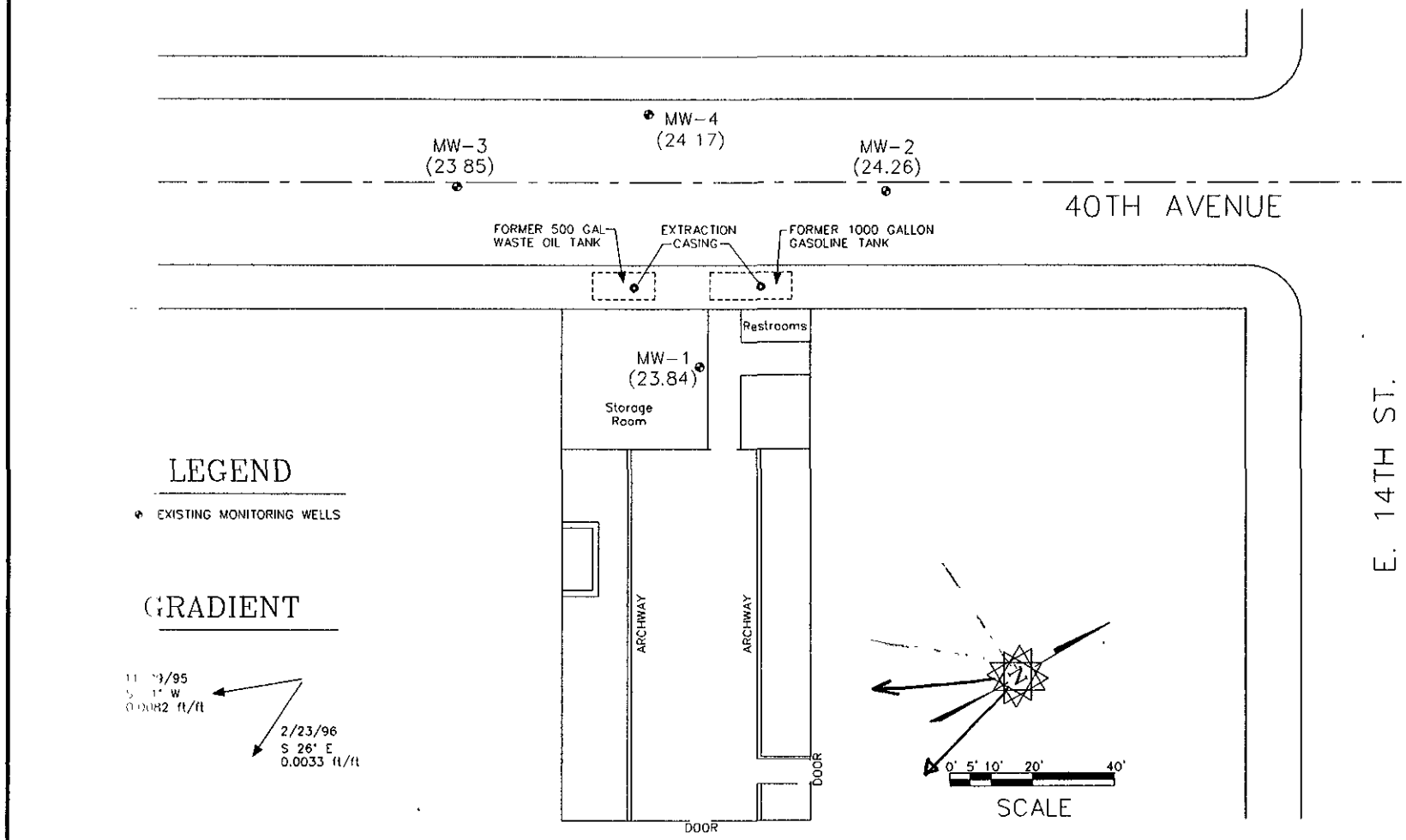
The monitoring well was installed according to State of California Water Resource Control Board standards. The well was installed to a depth of 25 feet below grade surface (bgs) and screened from 5 to 25 feet bgs. The well construction data are presented in Table 1.

During the drilling, soil samples were collected at 5-ft. intervals using a modified split spoon sampler. One soil sample from the boring was submitted to North State Analytical Laboratory for analysis of TPH-D, TPH-G, and BTEX. All of the sampling results are summarized in Table 2. The analytical data sheets from North State Environmental lab are presented in Appendix A.

The boring was logged using the Universal Soil Classification System. The boring log is presented in Appendix B. Organic Vapor Meter (OVM) readings, blow counts, and sample locations are shown on the boring log. A copy of the City of Oakland and Zone 7 water agency permits for installation of the well are presented in Appendix C.

After installation of the wells, the top of casing elevations were determined by surveying to mean sea level using a city of Oakland benchmark The elevation of the top of casings for the new well (MW-4) is 27.34 feet above mean sea level. The surveying data sheet is shown in Appendix E.

Motor Partners, 1234 40th Ave Oakland CA
Well Installation and Sampling Report



GARY ROGERS, PH.D. ENVIRONMENTAL CONSULTANT 2657 BAILEY CT. FREMONT, CA 94536 (510) 791-7157	DRAWN BY: GLR	PROJECT NUMBER: 1004	DESCRIPTION: Groundwater Gradient	FIGURE: 3
	DRAWING DATE: 2/27/96	FILE NAME: 1004-1Q DWG		
	REVISION BY:	PROJECT MANAGER: GLR	PROJECT/LOCATION: Motor Partners 1234 40th Ave., Oakland	
	REVISION BY:	CHECKED BY:		

February 27, 1996
File 1004 1Q RPT

Table 1
Monitoring Well Construction Data for Motor Partners Site
1234 40th Ave., Oakland, California

	MW-1	MW-2	MW-3	MW-4
Date Drilled	6/15/94	6/14/94	6/14/94	2/1/96
Total Depth	22.5 ft.	22.0 ft.	23.0 ft.	23.0 ft.
Bore Diameter	10 inches	10 inches	10 inches	10 inches
Casing Diameter	2 inch	2 inch	2 inch	2 inch
Well Seal Type	Bentonite Pellets	Bentonite Pellets	Bentonite Pellets	Bentonite Pellets
Well Seal Interval	5.0 - 6.0 bgs	5.0 - 6.0 bgs	5.0 - 6.0 bgs	3.0 - 4.0 bgs
Filter Pack Material	2/14 Lonestar Sand	2/14 Lonestar Sand	2/14 Lonestar Sand	2/14 Lonestar Sand
Filter Pack Interval	6.0 - 17.0 bgs	9.0 - 20.0 bgs	6.5 - 20.0 bgs	4.0 - 25.0 bgs
Screen Slot Size	0.020 in.	0.020 in.	0.020 in.	0.010 in.
Screened Interval	7.0 - 17.0 bgs	10.0 - 20.0 bgs	7.0 - 20.0 bgs	5.0 - 25.0 bgs
Well Elevation[1]	28.43 ft.	28.03 ft.	27.41 ft.	27.34 ft.

[1]TOC - Top of Casing Elevations for MW-1, MW-2, and MW-3 were surveyed on 11/17/95 to a City of Oakland benchmark at the northwest corner of the block using an elevation of 29.07 feet above mean sea level. The Top of Casing Elevation for MW-4 was surveyed on 2/14/96 to the TOC Elevations for MW-2 and MW-3.

Table 2

Soil Sampling Results From Monitoring Well Installation
Motor Partners Site, 1234 40th Ave., Oakland, California

SOIL RESULTS								
Sample I.D. Number	**Date Collected**	**Depth (ft)**	**TPH-D (mg/kg)**	**TPH-G (mg/kg)**	**Benzene (mg/kg)**	**Toluene (mg/kg)**	**Ethyl Benzene (mg/kg)**	**Total Xylenes (mg/kg)**
MW-4-2	2-1-96	10	350	470	0.05	0.14	4.3	1.8
COMP	2-1-96		140	180	0.04	0.13	1.8	0.48
Reporting Limit			1	0.5	0.005	0.005	0.005	0.01

Notes: All soil results in mg/kg (ppm)
ND = Not Detected
NA = Not Analyzed

GROUNDWATER MONITORING

GROUNDWATER ELEVATION MEASUREMENTS

The static water level was measured in all four monitoring wells (MW-1, MW-2, MW-3, and MW-4) on Feb. 23, 1996 and the depths were recorded to the nearest 0.01 foot using an electronic water level sounder. All of the results were recorded on Quarterly Monitoring Data Sheets presented in Appendix D.

MONITORING WELL SAMPLING

The monitoring wells were purged by withdrawing a minimum of three casing volumes from each well. The purging continued until the turbidity was less than 100 NTU and the temperature, electric conductivity, and pH were relatively stable. Samples were collected when the water levels recovered to at least 80% of the original static level.

A groundwater sample was collected with a disposable Teflon bailer and placed in two 40-ml VOA's and one one-liter amber bottle. The samples were labeled and stored on ice until delivered under a chain of custody to the state certified laboratory. Samples from all four wells (MW-1, MW-2, MW-3, and MW-4) were analyzed for total petroleum hydrocarbons as diesel (TPH-D), using EPA methods modified 8015; as gasoline (TPH-G) using EPA methods 8015/5030; and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA methods 8020.

ANALYTICAL RESULTS

GROUNDWATER HYDRAULIC CONDITIONS

Groundwater Elevation. The groundwater elevation data for the monitoring wells is presented in Table 3. Based on groundwater level measurements collected on February 23, 1996, the depth to groundwater in the wells ranged from 3.2 to 4.6 feet below the top of the casing. The groundwater elevations for the wells were as follows; MW-1 was 23.84 feet above mean sea level (msl), MW-2 was 24.26 feet above msl, MW-3 was 23.85 feet above msl, and MW-4 was 24.17 feet above msl.

Groundwater Flow Direction and Gradient. Groundwater flow direction was calculated using three wells (MW-1, MW-2, and MW-3). Groundwater flow direction trended to the southwest (S 26°E) at a gradient of 0.0033 ft/ft. The flow direction and gradient is shown in Figure 3.

A summary of the analytical results for the monitoring well sampling is presented in Table 4. The analytical data sheets are presented in Appendix A.

Table 3
Groundwater Elevation Results at Motor Partners Site
1234 40th Ave., Oakland, California

	DATE	MW-1	MW-2	MW-3	MW-4	GRADIENT
TOC		28.43 ft	28.03 ft	27.41 ft.	27. 34	
SWL	11/29/95	10.13	9.31	9.53		S 21° W
GSE		18.30	18.72	17.88		0.0082 ft/ft
DTW		8.17				
SWL	2/23/96	4.59	3.77	3.56	3.17	S 26° E
GSE		23.84	24.26	23.85	24.17	0.0033 ft/ft
	DTW	19.25				
SWL						
GSE						

TOC - Top of Casing Elevations for MW-1, MW-2, and MW-3 were surveyed on 11/17/95 to City of Oakland benchmark at northwest corner of block, using an elevation of 29.07 feet above mean sea level. The Top of Casing Elevation for MW-4 was surveyed on 2/14/96 to MW-2 and MW-3.
SWL - Static Water Level (ft)
GSE - Groundwater Surface Elevation (feet relative to mean sea level)

Table 4
Quarterly Groundwater Sampling Results at Motor Partners
1234 40th Ave., Oakland, California

Sample I.D. Number	Date Collected	TPH-D (μg/L)	TPH-G (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl Benzene (μg/L)	Total Xylenes (μg/L)
MW-1	6/17/94	2,400	17,000	1,200	220	1,000	2,600
	11/29/95	53,000	67,000	860	180	1,300	3,100
	2/23/96	25,000	16,000	360	ND	370	740
MW-2	6/17/94	370	990	ND	1.3	2.3	4.4
	12/07/94	ND	170	2.1	0.70	0.60	1.7
	11/29/95	200	400	ND	ND	ND	3
	2/23/96	ND	500	ND	ND	ND	ND
MW-3	6/17/94	2,200	9,500	330	40	100	74
	12/07/94	1,700	7,500	380	42	130	72
	11/29/95	14,000	9,000	300	49	300	16
	2/23/96	14,000	13,000	270	83	260	67
MW-4	2/23/96	3,000	6,000	58	36	6	28
California Drinking Water MCL		None Listed	None Listed	1.0	1,000	680	1,750
Reporting Limit		50	50	0.5	0.5	0.5	1.0

Notes: All results in μg/l (ppb)
ND = Not Detected
NA = Not Analyzed

SUMMARY AND RECOMMENDATIONS

A 2-inch diameter monitoring well (MW-4) was installed in the street, west of the Motor Partners site. Soil contamination was reported from the boring. The well was developed and sampled at the same time as the other three wells located on or near the property. The results of quarterly sampling fort the first monitoring period in 1996 indicate that hydrocarbon contamination is present in groundwater samples from each of the wells.

TPH-Diesel, TPH-Gasoline, and Benzene contamination exists on the property. The highest concentrations reported from the four wells were from the groundwater sample collected at MW-1 (inside the building). Levels of hydrocarbon contamination at MW-2 are lower than those of the previous sampling period. Groundwater flow direction for this sampling period was shown to be in a south easterly direction.

Phase II investigation activities are on-going at the site. It is recommended that quarterly groundwater sampling be continued.

LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied is made as to the professional advice presented herein. The analysis, conclusions, and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of the said user.

Stanley L. Klemetson Ph.D., P.E.
P.E No. 40087

APPENDIX A

Analytical Results

North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

JOB NO: 96-047
CLIENT: GARY ROGERS
PROJECT NAME:1234 40th Ave
Oakland

DATE SAMPLED: 02-01-96
DATE EXTRACTED:02-05-96
DATE ANALYZED: 02-05-96

BTXE AND GASOLINE RANGE ORGANICS BY
EPA METHOD 8020/5030 AND 8015 M
DIESEL RANGE HYDROCARBONS BY EPA METHOD 8015 M
TEPH (OIL AND GREASE) BY EPA METHOD 5520 F
LEAD BY EPA METHOD 7420

Sample No.	Client ID	Analyte	Result	
96-047-02	MW-4-2	Benzene	50	ug/Kg
		Toluene	140	ug/Kg
		Ethylbenzene	4300	ug/Kg
		Xylenes	1800	ug/Kg
		Gasoline	470	mg/Kg
		Diesel	350	
96-047-05	COMP	Benzene	40	ug/Kg
	MW-4-1,2,3,4	Toluene	130	ug/Kg
		Ethylbenzene	1800	ug/Kg
		Xylenes	480	ug/Kg
		Gasoline	180	mg/Kg
		Diesel	140	mg/Kg
		TEPH (5520 F)	ND	
		LEAD	10	mg/Kg

Quality Control Quality Assurance Summary:Soil

Analyte	Method	Reporting limit		Blank	MS/MSD Recovery		RPD
MTBE	8020	5	ug/Kg	ND	AVG	95%	2
Benzene	8020	5	ug/Kg	ND			
Toluene	8020	5	ug/Kg	ND			
Ethylbenzene	8020	5	ug/Kg	ND			
Xylenes	8020	10	ug/Kg	ND			
Gasoline	8015/5030	0.5	mg/Kg	ND	AVG	98%	1
Diesel	8015 M	1	mg/Kg	ND	AVG	85%	2
TEPH	5520 F	50	mg/Kg	ND	AVG	59%	5
Lead	7420	10	mg/Kg	ND	AVG	96%	3

ELAP CERTIFICATION NUMBER 1753

Reviewed and Approved by

John Murphy
Laboratory Director

P O Box 5624 • South San Francisco California 94083 • 415-588-2838 FAX 588-1950

North State Environmental
Chemical Waste Disposal · Trucking · Consulting

C E R T I F I C A T E O F A N A L Y S I S

JOB NO: 96-047
CLIENT: GARY ROGERS
PROJECT NAME: 1234 40th Ave Oakland

DATE SAMPLED: 02-01-96
DATE EXTRACTED: 02-02-96
DATE ANALYZED: 02-02-96

PH OF SOIL WASTES BY METHOD 9045

SAMPLE NO.	CLIENT ID	ANALYTE/METHOD	RESULT
96-047-05	COMP MW-4	pH 9045	7.66

pH meter was calibrated using 3 buffer solutions from Spectrum Chemical Co., at pH 4, 7 and 10.

ELAP CERTIFICATION NUMBER 1753

Reviewed and Approved by

John Murphy
Laboratory Director

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C E R T I F I C A T E O F A N A L Y S I S

JOB NO: 96-047
CLIENT: GARY ROGERS
PROJECT NAME:1234 40th Ave
Oakland

DATE SAMPLED: 02-01-96
DATE EXTRACTED: 02-02-96
DATE ANALYZED: 02-02-96

FLASHPOINT BY METHOD 1010 CLOSED CUP PENSKY-MARTENS

SAMPLE NO.	CLIENT ID	ANALYTE/METHOD	RESULT
96-047-05	COMP MW-4	Flashpoint 1010	> 200 0 F

Flashpoint test was run in duplicate

ELAP CERTIFICATION NUMBER 1753

Reviewed and Approved by

John Murphy
Laboratory Director

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C E R T I F I C A T E O F A N A L Y S I S

JOB NO: 96-047
CLIENT: GARY ROGERS
PROJECT NAME:1234 40th Ave
Oakland

DATE SAMPLED: 02-01-96
DATE EXTRACTED: 02-02-96
DATE ANALYZED: 02-02-96

REACTIVITY CYANIDE BY SW-846 CHAPTER 7, SEC. 7.3.3.2
REACTIVE SUFIDE BY SW-846 CHAPTER 7, SEC. 7.3.4.2

SAMPLE NO.	CLIENT ID	ANALYTE/METHOD	RESULT	
96-047-05	COMP MW-4	Sulfide	ND<10	mg/Kg
		Cyanide	ND<20	mg/Kg

ELAP Certification # 1753

Reviewed and Approved by

John Murphy
Laboratory Director

P O Box 5624 • South San Francisco California 94083 • 415-588-2838 FAX 588-1950

96-047

North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis

(415) 588-9652

Client: Gary Rogers	Phone: 510-791-7157	Report to: Gary Rogers	Turnaround Time
Mailing Address: 2657 Bailey Ct, Fremont, CA 94536		Billing to: Same	8 Hr ☐ 24 Hr ☐ 40 Hr ☐ 5 Days ☐ Other ☐
Site Address: 1234 40th Ave, Oakland, CA		PO # / Billing Reference:	
Sampler: G. Rogers	Date: 2-1-96		

Sample ID	Sample Description	Container # / type	Sampling Time/Date	TPH-D	TPH-G	BTEX	O+G	Total Lead	RCI				Remarks
MW-4-1	5'	1 Brass Tube	1:30 pm 2-1-96	$									hold
MW-4-2	10'	"	1:45 pm 2-1-96	X	X	X							
MW-4-3	15'	"	2:00 pm 2-1-96										hold
MW-4-4	20'	"	2:15 pm 2-1-96										hold
	Composite of 1,2,3,4 Above			X	X	X	X	X	X				

ANALYSIS REQUESTED

Relinquished by: Gary Rogers	Date: 2-2-96 Time: 10:26 am	Received by: [signature] 2-2-96 10:26A		Yes	No
Relinquished by:	Date: Time:	Received by:	Were samples Preserved ?		
Relinquished by:	Date: Time:	Received in lab by:	In good condition ?		

North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

JOB NO: 96-084
CLIENT: OWENS FINANCIAL
PROJECT NAME: 1234 40th Ave
Oakland

DATE SAMPLED: 02-23-96
DATE EXTRACTED: 02-26-96
DATE ANALYZED: 02-26-96

BTXE AND GASOLINE RANGE ORGANICS BY
EPA METHOD 8020/5030 AND 8015 M
DIESEL RANGE HYDROCARBONS BY EPA METHOD 8015 M

Sample No.	Client ID	Analyte	Result	
96-084-01	MW-3	Benzene	270	ug/L
	Water	Toluene	83	ug/L
		Ethylbenzene	260	ug/L
		Xylenes	67	ug/L
		Gasoline	13	mg/L
		Diesel	14	mg/L
96-084-02	MW-4	Benzene	58	ug/L
	Water	Toluene	36	ug/L
		Ethylbenzene	6	ug/L
		Xylenes	28	ug/L
		Gasoline	6	mg/L
		Diesel	3	mg/L
96-084-03	MW-2	Benzene	ND	
	Water	Toluene	ND	
		Ethylbenzene	ND	
		Xylenes	ND	
		Gasoline	0.5	mg/L
		Diesel	ND	
96-084-04	MW-1	Benzene	360	ug/L
	Water	Toluene	ND	
		Ethylbenzene	370	ug/L
		Xylenes	740	ug/L
		Gasoline	16	mg/L
		Diesel	25	mg/L

P.O.Box 5624 • South San Francisco California 94083 • 415-588-2838 FAX 588-1930

North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

JOB NO: 96-084
CLIENT: OWENS FINANCIAL
PROJECT NAME: 1234 40th Ave
Oakland

DATE SAMPLED: 02-23-96
DATE EXTRACTED: 02-26-96
DATE ANALYZED: 02-26-96

BTXE AND GASOLINE RANGE ORGANICS BY
EPA METHOD 8020/5030 AND 8015 M
DIESEL RANGE HYDROCARBONS BY EPA METHOD 8015 M

Quality Control Quality Assurance Summary:Water

Analyte	Method	Reporting limit		Blank	MS/MSD Recovery	RPD
MTBE	8020	0.5	ug/L	ND	AVG 89%	4
Benzene	8020	0.5	ug/L	ND		
Toluene	8020	0.5	ug/L	ND		
Ethylbenzene	8020	0.5	ug/L	ND		
Xylenes	8020	1	ug/L	ND		
Gasoline	8015/5030	50	ug/L	ND	AVG 104%	10
Diesel	8015 M	50	ug/L	ND	AVG 86%	9

ELAP CERTIFICATION NUMBER 1753

Reviewed and Approved by

John Murphy
Laboratory Director

P.O.Box 5624 · South San Francisco California 94083 · 415-588-2838 FAX 588-1950

North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis

(415) 588-9652

Client: B. Il Owens	Phone:	Report to: Gary Rogers	Turnaround Time
Mailing Address: 2221 Olympic Blvd. Walnut Creek, CA		Billing to: B. Il Owens	8 Hr ☐ 24 Hr ☐
Site Address: 1234 40th Ave, Oakland		PO# / Billing Reference:	40 Hr ☐ 5 Days ☐
Sampler: G Rogers	Date: 2-23-96		Other ☐

Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED TPH-D	TPH-G	BTEX	O+G						Remarks
MW-3	water	1 L.liter + 2 VOA's	12:48 2-23-96	X	X	X							
MW-4	"	"	1:00 2-23-96	X	X	X							
MW-2	"	"	1:15 2-23-96	X	X	X							
MW-1	water	1L.liter + 2 VOA	1:30 2-23-96	X	X	X							

					Yes	No
Relinquished by: Mary Rogers	Date: 2-23-96	Time: 7:04	Received by:			
Relinquished by:	Date:	Time:	Received by:	Were samples Preserved ?		
Relinquished by:	Date:	Time:	Received in lab by:	In good condition ?		

APPENDIX B

Soil Boring Logs

BORING NUMBER **MW-4** SHEET **1** OF **1**

PROJECT **Motor Partners**

LOCATION **1234 40th Ave, Oakland, CA**

CONTRACT NUMBER **1004**

COORDINATES

SURFACE ELEVATION DATUM

LOGGED BY **G. Rogers**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
							Concrete Surface -- 8" Thick		
							Baserock Brown Color		
							SILTY CLAY (CL) Dark Black Color Moist		
5	MW-4-1	MC	2 5 6		11		Color change to Brown Soil Gravelly Clay (1/2" gravels)		
10	MW-4-2	MC	3 8 13		356		Petroleum Odor **CLAYEY SANDY GRAVEL (GC)** Grey Green Color 1/4" to 1/2" Gravels		
15	MW-4-3	MC	3 11 15		94		Saturated Brown Sandy Soil		
20	MW-4-4	MC	4 6 9		24				
25							Bottom of Borehole 25'		

DRILLING CONTRACTOR **Bay Area Exploration**

DRILLING METHOD **Hollow Stem Auger**

DRILLING EQUIPMENT **CME-55**

DRILLING STARTED **2/1/96** ENDED **2/1/96**

REMARKS **Monitoring Well MW-4**

See key sheet for symbols and abbreviations used above

WLL MP 2/27/96

APPENDIX C

Permits

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PERMIT NUMBER	SITE ADDRESS/LOCATION
X 9600086	1234 40TH AV
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS	CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: _____

2) **48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.**

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Chapter 6, Article 2 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X Gary Rogers — 1/26/96

Signature of Permittee ☒ Agent for ☐ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED?	HOLIDAY RESTRICTION? (NOV 1 - JAN 1)	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM)
72	☐ YES ☒ NO	☒ YES ☐ NO	☐ YES ☒ NO
ISSUED BY: Mario Millan		DATE ISSUED: 1/26/96	

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1234 40th Ave
Oakland, CA

CLIENT
Name Mr. Bill Owens
Address 2221 Olympic Blvd Voice 510-935-3840
City Walnut Creek, CA Zip 94595

APPLICANT
Name Gary Rogers
Fax 510-791-7157
Address 2657 Bailey Ct Voice 510-791-7157
City Fremont, CA Zip 94536

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE

Domestic	___	Industrial	___	Other	___
Municipal	___	Irrigation	___		

DRILLING METHOD:

Mud Rotary	___	Air Rotary	___	Auger	X
Cable	___	Other	GEOPROBE		

DRILLER'S LICENSE NO. 538628

WELL PROJECTS

Drill Hole Diameter	8	in.	Maximum		
Casing Diameter	2	in.	Depth	30	ft.
Surface Seal Depth	4-10	ft.	Number	1	

GEOTECHNICAL PROJECTS

Number of Borings	6		Maximum		
Hole Diameter	1	in	Depth	25	ft

ESTIMATED STARTING DATE ~~Nov 30, 1995~~ Dec 15, 1995
ESTIMATED COMPLETION DATE Jan 1, 1996

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68

APPLICANT'S SIGNATURE Gary L Rogers Date 11-14-95

FOR OFFICE USE

PERMIT NUMBER 95788
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 29 Nov 95
Wyman Hong

91992

APPENDIX D

Quarterly Monitoring Data Sheet

Quarterly Monitoring Data Sheet

Date: 2/23/96	Well Diameter: 2 Inches Well ID: MW-1
Project Location: Motor Partners Site 1234 40th Ave., Oakland	Well Type: Monitoring Well
	Total Depth as Built: 19 ft
Sampler: G. Rogers	Screened Interval: 7 ft to 17 ft

Water Level Data	**Purge Calculation(Min 3 Casing Volumes)**
Time Depth Sounded: 11:30 AM	gal/ft X ft = gal X 3 = gal
Measured Depth to Water: 4.59 ft	
Measured Total Depth: 18.9 ft	0.163 X 14.31 = 2.3 X 3 = 7.0

Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (μs/cm)	pH	Turbidity (NTU)	
12:00		0	60.9	746	7.13	>200	
12:04		2	62.1	758	7.1	94.1	
12:08		4	61.9	750	6.95	29.8	
12:18		8	62.2	752	6.81	10.2	
12:22		10	62.3	756	6.83	7.1	

Observations/Comments:

Inside Building

Laboratory Analysis:

Sample at 1:30 PM
Water depth - 4.57 ft
Analyze for TPH-D, TPH-G and BTEX

Data for Volume Calculation:

1 cu. ft. = 7.48 gal = 62.4 lbs (approx) — 1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft. — 3" well = 0.367 gal/linear ft.
4" well = 0.653 gal/linear ft. — 6" well = 1.469 gal/linear ft.

Quarterly Monitoring Data Sheet

Date: 2/23/96	Well Diameter: 2 Inches Well ID: MW-2
Project Location: Motor Partners Site	Well Type: Monitoring Well
1234 40th Ave., Oakland	Total Depth as Built: 22 ft
Sampler: G. Rogers	Screened Interval: 10 ft to 20 ft

Water Level Data	Purge Calculation(Min 3 Casing Volumes)
Time Depth Sounded: 10:52 AM	gal/ft X ft = gal X 3 = gal
Measured Depth to Water: 3.77 ft	
Measured Total Depth: 19.7 ft	0.163 X 15.93 = 2.6 X 3 = 7.79

Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (μs/cm)	pH	Turbidity (NTU)	
10:55		0	64	685	7.56	64.3	
10:58		2	65.5	698	7.32	66.6	
11:06		6	65.7	696	7.34	25	
11:13		10	65.4	698	7.34	7.5	

Observations/Comments:

Clear and Sunny

Laboratory Analysis:

Sample at 1:15 PM
Water depth - 3.90 ft
Analyze for TPH-D, TPH-G and BTEX

Data for Volume Calculation:

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)
2" well = 0.163 gal/linear ft.
4" well = 0.653 gal/linear ft.
1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
3" well = 0.367 gal/linear ft.
6" well = 1.469 gal/linear ft.

Quarterly Monitoring Data Sheet

Date: 2/23/96	Well Diameter: 2 Inches Well ID: MW-3
Project Location: Motor Partners Site	Well Type: Monitoring Well
1234 40th Ave., Oakland	Total Depth as Built: 23 ft
Sampler: G. Rogers	Screened Interval: 7 ft to 20 ft

Water Level Data	**Purge Calculation(Min 3 Casing Volumes)**
Time Depth Sounded: 9:45 AM	gal/ft X ft = gal X 3 = gal
Measured Depth to Water: 3.56 ft	
Measured Total Depth: 21.8 ft	0.163 X 18.24 = 3.0 X 3 = 8.92

Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (μs/cm)	pH	Turbidity (NTU)	
9:50		0	69.4	856	7.53	113	
9:54		2	68.6	904	7.32	115	
9:58		4	67.6	846	7.23	81	
10:02		6	66	820	6.9	58	
10:05		8	65.8	833	6.85	21.8	

Observations/Comments:

Clear and Sunny

Laboratory Analysis:

Sample at 12:48 PM
Water depth - 3.59 ft
Analyze for TPH-D, TPH-G and BTEX

Data for Volume Calculation:

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)	1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft.	3" well = 0.367 gal/linear ft.
4" well = 0.653 gal/linear ft.	6" well = 1.469 gal/linear ft.

Quarterly Monitoring Data Sheet

Date: 2/23/96	Well Diameter: 2 Inches Well ID: MW-4
Project Location: Motor Partners Site	Well Type: Monitoring Well
1234 40th Ave., Oakland	Total Depth as Built: 25 ft
Sampler: G. Rogers	Screened Interval: 5 ft to 25 ft

Water Level Data	**Purge Calculation(Min 3 Casing Volumes)**
Time Depth Sounded: 10:20 AM	gal/ft X ft = gal X 3 = gal
Measured Depth to Water: 3.17 ft	
Measured Total Depth: 24.6 ft	0.163 X 21.43 = 3.49 X 3 = 10.5

Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (μs/cm)	pH	Turbidity (NTU)	
10:25		0	64.8	685	7.53	>200	
10:32		4	65.7	712	7.25	>200	
10:36		8	66.6	722	7.26	196	
10:42		12	65.9	716	7.23	94.5	

Observations/Comments:

Clear and Sunny

Laboratory Analysis:

Sample at 1:00 PM
Water depth - 3.21 ft
Analyze for TPH-D, TPH-G and BTEX

Data for Volume Calculation:

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)	1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft.	3" well = 0.367 gal/linear ft.
4" well = 0.653 gal/linear ft.	6" well = 1.469 gal/linear ft.

APPENDIX E

Surveying Results

FIELD SURVEY RECORD						
Date: February 14, 1996						
Page:1						
CLIENT: Motor Partners Site			LOCATION: 1234 40th Ave., Oakland, CA			
SURVEYORS: Klemetson/Rogers			WEATHER: Clear and Sunny			
STATION	BACKSIGHT	HI	FORESIGHT	ELEVATION	WATER DEPTH	WATER ELEV.
MW-3	5.76	33.17		27.41		
MW-4			5.83	27.34		
MW-2			5.14	28.03		
Well			4.94	28.23