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ENVIRONMENTAL PROTECTION

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GEOMATRIX

Transmittal

Sent Via: ☐ Messenger ☒ U.S. Mail ☐ Overnight Mail

Date: April 28, 2000

To: Hugh Murphy – City of Haward Fire Department
Susan Hugo – Alameda County Health Care Services Agency
Roger Brewer – Regional Water Quality Control Board
Denise Tsuji – Department of Toxic Substances Control
Kim Brandt – Levine*Fricke
Mark Beskind – SummerHill Homes

From: *Ann Holbrow and Tom Gavigan*

cc:

Project Number: 6262.000.0

Project Name: Canterbury Residential Development

Item	Description
1	Revised Groundwater Summary

Remarks

This letter is a revision to replace the letter dated May 9, 2000. The only change was to remove the sentence on the second page that described a determination by the RWQCB regarding installation of additional groundwater monitoring wells. Roger Brewer of the RWQCB requested that the statement be removed because it may cause confusion regarding which agency was taking the lead at the site. His concern was to avoid cases where DTSC is overseeing one aspect of the project (e.g., direct exposure concerns) while RWQCB is overseeing another (e.g., impacts to groundwater).

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GEOMATRIX

May 12, 2000
Project 6262.000.0

Mr. Hugh Murphy
City of Hayward Fire Department
777 B Street
Hayward, California 94541-5007

Subject: Revised Summary of Groundwater Conditions
Canterbury Residential Development
Hayward, California

Dear Mr. Murphy:

On behalf of the City of Hayward, Geomatrix Consultants, Inc. (Geomatrix) has prepared this summary of groundwater sampling results at the Canterbury Residential Development (the Development) in Hayward, California. These results were discussed in the Phase I Environmental Site Assessment (Geomatrix, April 11, 2000) and represent a compilation of data collected by various consultants at the Development.

Nineteen grab groundwater samples have been collected at the Development. These results are summarized in Tables 1 and 2, and discussed below.

- Total petroleum hydrocarbons quantified against a diesel standard (TPHd, EPA Method 8015) were detected in six groundwater samples at concentrations ranging from 77 to 190 µg/l (Figure 1). Four of these samples were located along Holyoke Avenue Branaugh Court, and Silverstar Lane, and two were located along Olympic Avenue adjacent to 687 Olympic Avenue. Silica gel cleanup to remove biogenic compounds was only conducted on the four samples along Holyoke Avenue, Branaugh Court, and Silverstar Lane. TPHd was identified in shallow soil throughout the Development; TPHd was detected in deeper soil beneath Holyoke Avenue, Branaugh Court, and Silverstar Lane where it was reportedly placed.

- Volatile organic compounds (VOCs) consisting of naphthalene, 2-methylnaphthalene, isopropyl benzene, chlorobenzene, ethylbenzene, and/or total xylenes) were detected in four groundwater samples beneath Holyoke Avenue, Branaugh Court, and Silverstar Lane (Figure 1). These VOCs were detected at concentrations below maximum contaminant levels (MCLs). MTBE was also reported in three of six samples analyzed (Figure 1); however, these results were not confirmed by a mass spectrometer method and may reflect false positive results from the analysis method used (U.S. EPA 8020). MTBE was not detected in any soil samples collected at the site where results were confirmed by mass spectrometer. Three soil samples in the vicinity of the former UST had unconfirmed detections of MTBE between 12 and 16 µg/kg.

- One or more metals were detected in fourteen of the fifteen samples analyzed for metals. The detections may be associated with suspended sediment in the grab groundwater samples. The reports of results do not indicate that the samples were filtered in the field or by the lab. A source of metals in soil was not identified during any phase of sampling; all metal results were consistent with background concentrations.

These results, the results of soil sampling performed throughout the Development, and soil removal at the former UST and lots along Chesterfield Court suggest that existing and potential future groundwater impacts do not pose a significant threat to beneficial uses of groundwater resources. Thus, no further action for groundwater at the site is recommended.

The Regional Water Quality Control Board, San Francisco Bay Region concurred with a letter dated May 3, 2000 from the City of Hayward Fire Department that no further action at Telford Court and beneath Holyoke Avenue, Branaugh Court, and Silverstar Lane is required.

Please call either of the undersigned if you have any questions regarding this summary of groundwater results from the Canterbury Development.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Ann M. Holbrow
Senior Scientist

Thomas H. Gavigan, R.G., C.HG.
Project Hydrogeologist

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Attachments: Tables 1 and 2
Figure 1

cc: Susan Hugo – Alameda County Health Care Services
Denise Tsuji – Department of Toxic Substances Control
Roger Brewer – California Regional Water Quality Control Board, San Francisco Bay Region
Mark Beskind – SummerHill Homes
Kim Brandt – LFR Levine*Fricke

TABLE 1

GROUNDWATER ANALYTICAL RESULTS FOR PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND SEMI-VOLATILE ORGANIC COMPOUNDS[1]

Canterbury Residential Development
Hayward, California

			Petroleum Hydrocarbons				Volatile Organic Compounds[2]						SVOCs
Sample ID	Date Sample	Sample Depth feet	TPHg µg/L	TPHd µg/L	TOG mg/L	TRPH mg/L	Chlorobenzene µg/L	Ethyl-benzene[3] µg/L	Isopropyl-benzene µg/L	MTBE µg/L	Naphthalene[4] µg/L	Total Xylenes[3] µg/L	2-methylnaphthalene µg/L
B-1	2/26/98	15.5	<50	<120	<2.5	--	--	--	--	--	--	--	--
B-2	2/26/98	11.5	<50	<120	<2.5	--	--	--	--	--	--	--	--
B-3	2/26/98	10	<50	<200	<2.0	--	--	--	--	--	--	--	--
B-4	2/26/98	9	<50	<100	<4.0	--	--	--	--	--	--	--	--
599B-1	5/4/99	5	<50	**130**	--	--	--	<0.3	--	<1.0	--	<0.3	--
599B-2	5/4/99	7	<50	<50	--	--	--	<0.3	--	<1.0	--	<0.3	--
599B-3	5/4/99	6	<50	<50	--	--	--	<0.3	--	**26**	--	<0.3	--
599B-4	5/4/99	7	<50	**80**	--	--	--	<0.3	--	**1.8**	--	<0.3	--
799B-1	7/2/99	9	<50	<50	--	<5	--	<0.3	--	<1.0	--	<0.3 to 0.6	--
799B-2	7/2/99	8	<50	<50	--	<5	--	<0.3	--	<1.0	--	<0.3 to 0.6	--
799B-5	7/2/99	9	<50	<50	--	<5	--	<3.0	--	**2.6**	--	<3.0	--
EB1	3/6/00	--	<50	**130**	**4.0**	--	<0.5	<0.5/<0.5[5]	**0.77**	<5.0	**11/11**	**1.4/0.99**	**13**
EB2	3/6/00	--	<50	**190**	**4.0**	--	<0.5	<0.5/<0.5	<0.5	<5.0	**9.5**/<1.0	**1.2/1.1**	**13**
EB3	3/6/00	--	<50	<50	**4.0**	--	<0.5	<0.5/<0.5	<0.5	<5.0	<1.0/<2.5	**4.0**/<0.5	<2.5
EB4	3/6/00	--	<50	<50	**4.0**	--	<0.5	<0.5/<0.5	<0.5	<5.0	<1.0/<2.4	**1.6/3.4**	<2.4
EB5	3/6/00	--	<50	**85**	**4.0**	--	<0.5	<0.5/<0.5	<0.5	<5.0	<1.0/<2.9	<1.0/<0.5	<2.9
EB6	3/6/00	--	<50	<50	**4.0**	--	**0.66**	**0.77/0.70**	**2.3**	<5.0	**9.7**/<2.8	**1.7/2.7**	<2.8
EB7	3/6/00	--	<50	77	**4.0**	--	<0.5	<0.5/<0.5	<0.5	<5.0	**1.1**/<2.8	**4.0**/<0.5	<2.8
EB8	3/6/00	--	<50	ND	**4.0**	--	<0.5	ND	<0.5	<5.0	<1.0/<2.9	**1.8/2.1**	<2.9

Notes:

TPHg = Total petrolem hydrocarbons reported as gasoline
TPHd = Total petroleum hydrocarbons reported as diesel
TRPH = Total recoverable petroleum hydrocarbons
MTBE = Methyl tert-Butyl Ether
SVOCs = Semi-volatile organic compounds
-- = Not analyzed
ND = Not detected
mg/L = Milligrams per liter (equivalent to parts per million [ppm]), in water.
µg/L = Micrograms per liter (equivalent to parts per billion [ppb]), in water.
1 = Concentrations for analytes detected in one or more samples are presented.
2 = Halogenated volatile organic compounds were not detected in samples analyzed.
3 = X/Y - First by EPA Method 8260 and second by EPA Method 8020/8015.
4 = X/Y - First by EPA Method 8270 and second by EPA Method 8260.

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TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR METALS

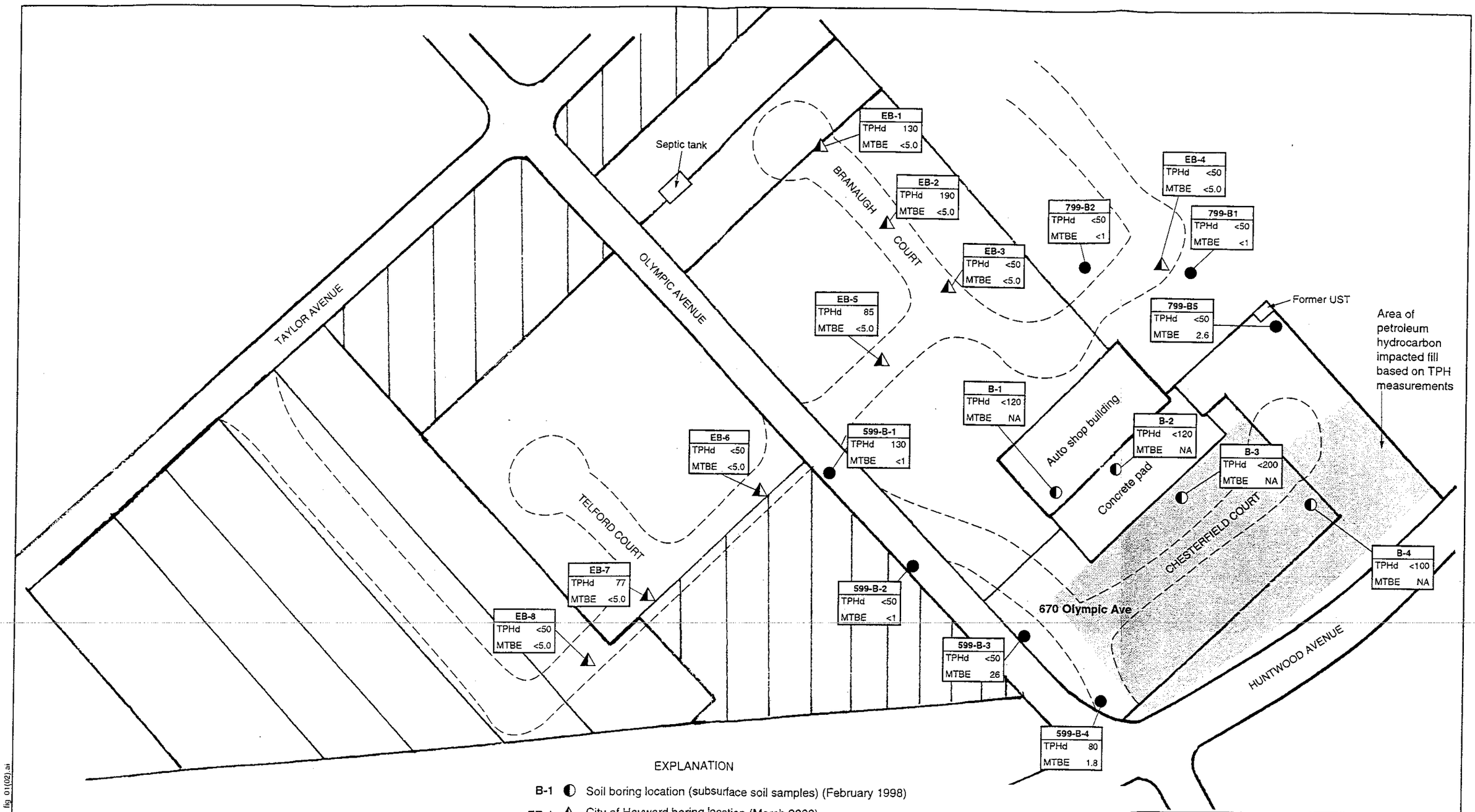
Canterbury Development
Olympic Avenue
Hayward, California

Sample ID	Sample Date	Antimony mg/L	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Nickel mg/L	Silver mg/L	Zinc mg/L	Mercury mg/L
B-1	2/26/98	0.017	0.056	0.0057	0.020	0.54	0.39	0.065	0.62	<0.005	0.69	0.0023
B-2	2/26/98	0.0056	0.016	<0.005	0.0083	0.28	0.15	0.034	0.25	0.0071	0.32	0.0018
B-3	2/26/98	0.060	0.17	0.024	0.083	1.7	1.5	0.24	1.9	<0.005	2.3	0.0088
B-4	2/26/98	0.018	0.072	0.0064	0.023	0.64	0.38	0.11	0.68	0.0062	0.73	0.0007
599B-1	5/4/99	--	--	--	--	--	--	<0.01	--	--	--	--
599B-2	5/4/99	--	--	--	--	--	--	<0.01	--	--	--	--
599B-3	5/4/99	--	--	--	--	--	--	<0.01	--	--	--	--
599B-4	5/4/99	--	--	--	--	--	--	<0.01	--	--	--	--
799B-1	7/2/99	--	--	--	<0.001	0.02	--	<0.01	<0.05	--	<0.05	--
799B-2	7/2/99	--	--	--	<0.001	<0.01	--	<0.01	<0.05	--	<0.05	--
799B-5	7/2/99	--	--	--	<0.001	0.02	--	<0.01	<0.05	--	<0.05	--
EB1	3/6/00	--	--	--	0.015	0.70	--	0.16	0.71	--	1.2	--
EB2	3/6/00	--	--	--	0.0078	0.48	--	0.14	0.49	--	0.78	--
EB3	3/6/00	--	--	--	0.0093	0.53	--	0.24	0.56	--	0.93	--
EB4	3/6/00	--	--	--	<0.0020	0.051	--	<0.0050	0.046	--	0.10	--
EB5	3/6/00	--	--	--	0.019	1.0	--	0.21	1.3	--	1.4	--
EB6	3/6/00	--	--	--	0.0076	0.40	--	0.069	0.47	--	0.59	--
EB7	3/6/00	--	--	--	0.0078	0.50	--	0.077	0.54	--	0.68	--
EB8	3/6/00	--	--	--	0.023	1.2	--	0.23	1.3	--	1.7	--

Notes:

-- = Not analyzed.

mg/L = Milligrams per liter (equivalent to parts per million [ppm]), in water



Note

All samples collected by TERRASEARCH unless noted.

GROUNDWATER ANALYTICAL RESULTS
FOR TPHd and MTBE
Canterbury Residential Development
Olympic Avenue
Hayward, California

GEOMATRIX	Project No. 6262	Figure 1

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