



FAX

from **Geomatrix Consultants, Inc.**
 2101 Webster Street, 12th Floor, Oakland, CA 94612
 www.geomatrix.com

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Date: April 19, 2000

Number of pages including cover sheet: 4

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cc: Susan Gallardo

From: Ann Holbrow and Tom Gavigan

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Project No.: 6262.000.0

Project Name: Canterbury Residential Development

REMARKS:

Hard copy to follow Urgent For your review Reply ASAP Please comment

Please find attached a summary table of detected compounds from the sampling of unoccupied lots performed on April 7 and 10, 2000. We are still awaiting data from sampling performed on April 11, 2000, and anticipate receiving the results by the end of the day today.

As shown in the table, two samples contained benzo(a)pyrene concentrations above the residential PRG. Therefore, in accordance with the work plan, Geomatrix will be collecting five additional samples at these two lots (lots 11 and 12 located on Stonehaven Court [figure attached]) and submitting them for analysis of TPHmo and PAHs. The work is planned for this Friday (April 21).

Please call if you have any questions. Thank you.

DRAFT

Summary of Detections
 Canterbury Residential Development
 Unoccupied Lots

Sample ID	Date Sampled	Measured Value	Data Qualifier	PRG - Residential	Units	Chemical Name
GMX-TRN-2A-1.0	4/7/00	150			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-3A-1.0	4/7/00	5		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-4A-1.0	4/7/00	6		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-4A-1.0	4/7/00	7		8,100	ug/kg (ppb)	Chrysene
GMX-TRN-4A-1.0	4/7/00	10		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-4A-1.0	4/7/00	9		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-5A-1.0	4/7/00	6		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-5A-1.0	4/7/00	6		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-5A-1.0	4/7/00	6		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-5A-1.0	4/7/00	7		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-6A-1.0	4/7/00	61		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-7A-1.0	4/7/00	56		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-7A-1.0	4/7/00	100		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-7A-1.0	4/7/00	110			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-7A-1.0	4/7/00	87		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-8A-1.0	4/7/00	300			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-9A-1.0	4/7/00	190			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-10A-1.0	4/7/00	160			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-11A-1.0	4/7/00	80		620	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-11A-1.0	4/7/00	85		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-11A-1.0	4/7/00	53		620	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-11A-1.0	4/7/00	63		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-11A-1.0	4/7/00	74		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-11A-1.0	4/7/00	100		8,100	ug/kg (ppb)	Chrysene
GMX-TRN-11A-1.0	4/7/00	170		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-11A-1.0	4/7/00	980			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-11A-1.0	4/7/00	180		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-11A-1.0	4/7/00	210		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-12A-1.0	4/7/00	71		22,000,000	ug/kg (ppb)	Anthracene
GMX-TRN-12A-1.0	4/7/00	260		620	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-12A-1.0	4/7/00	189		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-12A-1.0	4/7/00	190		620	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-12A-1.0	4/7/00	89		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-12A-1.0	4/7/00	160		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-12A-1.0	4/7/00	290		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-12A-1.0	4/7/00	630		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-12A-1.0	4/7/00	73		820	ug/kg (ppb)	Indeno(1,2,3-cd)pyrene
GMX-TRN-12A-1.0	4/7/00	110			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-12A-1.0	4/7/00	310		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-12A-1.0	4/7/00	560		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-13A-1.0	4/7/00	80		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-13A-1.0	4/7/00	63		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-13A-1.0	4/7/00	110		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-13A-1.0	4/7/00	360			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-13A-1.0	4/7/00	66		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-13A-1.0	4/7/00	110		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-14A-1.0	4/7/00	200			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-16A-1.0	4/7/00	65			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-52A-1.0	4/7/00	350			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-53A-1.0	4/7/00	8		620	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-53A-1.0	4/7/00	9		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-53A-1.0	4/7/00	9		620	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-53A-1.0	4/7/00	7		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-53A-1.0	4/7/00	8		8,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-53A-1.0	4/7/00	13		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-53A-1.0	4/7/00	13		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-53A-1.0	4/7/00	5		820	ug/kg (ppb)	Indeno(1,2,3-cd)pyrene
GMX-TRN-53A-1.0	4/7/00	100			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-53A-1.0	4/7/00	6		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-53A-1.0	4/7/00	17		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-54A-1.0	4/7/00	100			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-58A-1.0	4/7/00	300			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-57A-1.0	4/7/00	69		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-57A-1.0	4/7/00	420			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-58A-1.0	4/7/00	260			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-59A-1.0	4/7/00	160			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-60A-1.0	4/7/00	160			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-61A-1.0	4/7/00	260			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-62A-1.0	4/7/00	120			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-88A-1.0	4/7/00	51	lc		8,900	ug/kg (ppb) Methylene chloride
GMX-TRN-78A-1.5	4/10/00	230			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-78A-9.0	4/10/00	67	lc		8,900	ug/kg (ppb) Methylene chloride
GMX-TRN-79A-1.5	4/10/00	71			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-80A-1.0	4/10/00	53			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-81A-9.0	4/10/00	64			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-82A-5.0	4/10/00	8		620	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-82A-5.0	4/10/00	6		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-82A-5.0	4/10/00	5		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-82A-5.0	4/10/00	8		6,100	ug/kg (ppb)	Chrysene

DRAFT

Summary of Detections
 Canterbury Residential Development
 Unoccupied Lots

Sample ID	Date Sampled	Measured Value	Data Qualifier	PRG - Residential	Units	Chemical Name
GMX-TRN-82A-5.0	4/10/00	15		2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-82A-5.0	4/10/00	9		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-82A-5.0	4/10/00	15		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-3A-1.0	4/7/00	59 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-4A-1.0	4/7/00	50 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-5A-1.0	4/7/00	270			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-6A-1.0	4/7/00	50		6,100	ug/kg (ppb)	Chrysene
GMX-TRS-6A-1.0	4/7/00	60			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-7A-1.0	4/7/00	53 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-7A-1.0	4/7/00	59			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-1.0	4/10/00	92			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-5.0	4/10/00	83			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-9.0	4/10/00	85 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-12A-1.5	4/10/00	57	d	6,100	ug/kg (ppb)	Chrysene
GMX-TRS-12A-1.5	4/10/00	77			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-12A-1.5	4/10/00	51	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-13A-1.5	4/10/00	84	d	6,100	ug/kg (ppb)	Chrysene
GMX-TRS-13A-1.5	4/10/00	62	d	2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRS-13A-1.5	4/10/00	87			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-13A-1.5	4/10/00	81	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-13A-5.0	4/10/00	74	d	2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRS-13A-5.0	4/10/00	82	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-14A-1.5	4/10/00	60	d	620	ug/kg (ppb)	Benz(a)anthracene
GMX-TRS-14A-1.5	4/10/00	116	d	6,100	ug/kg (ppb)	Chrysene
GMX-TRS-14A-1.5	4/10/00	63 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-14A-1.5	4/10/00	1,200			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-14A-1.5	4/10/00	88	d	22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRS-14A-1.5	4/10/00	82	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-14A-5.0	4/10/00	130			ug/kg (ppb)	Acetone
GMX-TRS-14A-9.0	4/10/00	70 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST1-1.5	4/10/00	150		7,300,000	ug/kg (ppb)	2-Butanone (MEK)
GMX-UST1-1.5	4/10/00	1,000 va	va		ug/kg (ppb)	Acetone
GMX-UST1-1.5	4/10/00	79 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST1-1.5	4/10/00	52			ug/g	motor oil range TPH with silica gel cleanup
GMX-UST1-6.5	4/10/00	510 l	l	5,700	ug/kg (ppb)	1,2,4-Trimethylbenzene
GMX-UST1-6.5	4/10/00	9 l	l	370,000	ug/kg (ppb)	1,2-Dichlorobenzene
GMX-UST1-6.5	4/10/00	74 l	l	21,000	ug/kg (ppb)	1,3,5-Trimethylbenzene
GMX-UST1-6.5	4/10/00	52	d	3,700,000	ug/kg (ppb)	Acenaphthene
GMX-UST1-6.5	4/10/00	78			ug/kg (ppb)	Acetone
GMX-UST1-6.5	4/10/00	120	d	820	ug/kg (ppb)	Benz(a)anthracene
GMX-UST1-6.5	4/10/00	340	d	6,100	ug/kg (ppb)	Chrysene
GMX-UST1-6.5	4/10/00	21		230,000	ug/kg (ppb)	Ethylbenzene
GMX-UST1-6.5	4/10/00	170	d	2,600,000	ug/kg (ppb)	Fluorene
GMX-UST1-6.5	4/10/00	9		160,000	ug/kg (ppb)	Isopropylbenzene
GMX-UST1-6.5	4/10/00	14		210,000	ug/kg (ppb)	m,p-Xylene
GMX-UST1-6.5	4/10/00	78 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST1-6.5	4/10/00	5,400			ug/g	motor oil range TPH with silica gel cleanup
GMX-UST1-6.5	4/10/00	33 l	l	56,000	ug/kg (ppb)	Naphthalene
GMX-UST1-6.5	4/10/00	150	d	56,000	ug/kg (ppb)	Naphthalene
GMX-UST1-6.5	4/10/00	53 l	l	160,000	ug/kg (ppb)	n-Propylbenzene
GMX-UST1-6.5	4/10/00	24		210,000	ug/kg (ppb)	o-Xylene
GMX-UST1-6.5	4/10/00	440	d	22,000,000	ug/kg (ppb)	Phenanthrene
GMX-UST1-6.5	4/10/00	16 l	l		ug/kg (ppb)	p-Isopropyltoluene
GMX-UST1-6.5	4/10/00	150	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-UST1-6.5	4/10/00	14 l	l	110,000	ug/kg (ppb)	sec-Butylbenzene
GMX-UST1-9.0	4/10/00	51 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST2-1.5	4/10/00	6		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-UST2-1.5	4/10/00	17		6,100	ug/kg (ppb)	Chrysene
GMX-UST2-1.5	4/10/00	84 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST2-1.5	4/10/00	27		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-UST2-1.5	4/10/00	6		2,300,000	ug/kg (ppb)	Pyrene
GMX-UST2-5.5	4/10/00	57 lc	lc	8,900	ug/kg (ppb)	Methylene chloride

Notes:
 l - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.
 lc - The presence of the compound indicated is likely due to laboratory contamination.
 va - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.
 d - The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
 Bold indicates results exceeds the residential PRG.

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ENVIRONMENTAL
PROTECTION 
GEOMATRIX

00 APR 31 AM 9:17

Transmittal

Sent Via: Messenger U.S. Mail Overnight Mail

Date: April 28, 2000

To: Hugh Murphy – City of Hayward 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:

SAC 6669

Project Number: 6262.000.0
Project Name: Canterbury Residential Development

Item	Description
1	Final Soil Sampling Results – Unoccupied Residential Lots

Remarks

Enclosed is the final report for soil sampling at the unoccupied residential lots. While the general conclusions are consistent, this report has been revised from the fax you received earlier to accommodate laboratory duplicate results made available to us with the laboratory QA/QC reports in the final data packages. The faxed version was based on the electronic data deliverable, which did not include these results. Please disregard the faxed version and maintain this final copy.

If you have any questions, please contact us.

next week TSC

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April 28, 2000
Project 6262.000.0

SLIC 6669

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

Subject: Final Soil Sampling Results – Unoccupied Residential Lots
Canterbury Residential Development
Hayward, California

Dear Mr. Murphy:

On behalf of the City of Hayward, Geomatrix Consultants, Inc. (Geomatrix) has prepared this summary of the results of a soil sampling program performed on unoccupied lots in the Canterbury Residential Development in Hayward, California (Figure 1). The scope of work described herein was based on Geomatrix's April 6, 2000 work plan ("the work plan")¹.

Geomatrix's sampling effort was focussed on two objectives: 1) to evaluate the quality of soil likely to be contacted by residents during typical landscaping activities and 2) to further evaluate soil quality at lots located in the vicinity of previous soil removal. SummerHill Homes reportedly removed approximately 11,000 cubic yards of soil potentially impacted with chemicals ("soil removal area"). This soil was removed from lots in the vicinity of Chesterfield Court; most lots south of Silverstar Lane were considered adjacent to the soil removal area.

This report is divided into four sections. The first section describes the methods used to collect the soil samples. The second section describes the analytical methods used by the laboratories. The third section presents the results of the field and analytical programs. The fourth section compares the detected concentrations to U.S. Environmental Protection Agency (U.S. EPA) Preliminary Remediation Goals (PRGs) for residential land use.

FIELD PROGRAM

Prior to performing the field investigation, Geomatrix completed the following tasks: reviewed the existing Health and Safety Plan (no update required); obtained a boring permit from the Alameda County Public Works Department (Attachment A); and cleared boring locations for underground utilities by notifying appropriate utilities through Underground Service Alert (USA). Prior to drilling, Geomatrix consulted in the field with a representative

¹ Geomatrix Consultants, Inc., 2000, Work Plan for Subsurface Investigation: Unoccupied Lots, Canterbury Residential Development, Hayward, California, April 6.

Mr. Hugh Murphy
City of Hayward Fire Department
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of the City of Hayward Department of Public Works regarding the location of underground utilities.

LOTS OUTSIDE FORMER SOIL REMOVAL AREA

On April 7, 2000, Geomatrix supervised the advancement of 36 shallow soil borings on 35 unoccupied lots identified as outside the soil removal area (Figure 2). Two borings were advanced in Lot 5 of Tract 7069 as asphalt fragments were observed in the first boring.

Based on analytical results (discussed further in the Results Section), and in accordance with the work plan¹, seven additional shallow soil borings were advanced on April 21, 2000 at Lots 11 and 12 of Tract 7069.

Forty of the borings were advanced to 0.5 feet below ground surface (bgs) and two of the borings were advanced to 2.5 feet bgs using a hand auger. A hand-operated drive sampler lined with brass or stainless steel sleeves was used to collect soil samples at the bottom of each hand-augered boring. After retrieval of the soil core, the borehole was screened for volatile organic compounds (VOCs) using an organic vapor monitor equipped with a photoionization detector (PID). Soil descriptions, OVM readings and sample identifications were recorded on a shallow soil sampling log (Attachment B).

The soil samples were packaged for laboratory analysis by covering the ends of the sample sleeves with Teflon™ sheets and plastic caps. The caps were secured with silicon tape. The soil samples were labeled, placed in resealable plastic bags, and stored in coolers with ice, pending delivery to an analytical laboratory under Geomatrix chain-of-custody.

All downhole equipment including hand auger bucket and rods, drive sampler, and sleeves, were washed with an Alconox solution, rinsed with potable water, and rinsed with deionized water. Cleaning water was placed in a 55-gallon drum for characterization and disposal by SummerHill Homes.

LOTS WITHIN FORMER SOIL REMOVAL AREA

On April 10 and 11, 2000, Geomatrix supervised the advancement of 20 soil borings. Eighteen of the borings were advanced on lots in the vicinity of Chesterfield Court, and the remaining two borings were advanced near the former underground storage tank (UST) location. Fast-Tek Engineering Support Services, Inc., a California-licensed drilling firm from Richmond, California, advanced the borings using a Geoprobe® 5400 rig.

The borings were continuously cored to a depth of about 10 feet below ground surface (bgs) using Geoprobe®'s DT21 dual tube sampling system. The inner sample barrel consists of

Mr. Hugh Murphy
City of Hayward Fire Department
April 28, 2000
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1.25-inch-outside-diameter by 4-foot-long polybutyrate tubing. The recovered soil was logged in accordance with the Unified Soil Classification System visual-manual procedure (ASTM D2488-90) under the direction of a Geomatrix geologist registered in the State of California

Soil samples selected for laboratory analyses were cut from the polybutyrate sample barrel. The soil samples were collected from each boring at approximately 1, 5, and 9 feet bgs. Samples were packaged for laboratory analyses by covering the ends of each sampling tube with Teflon™ sheets and plastic caps. The caps were secured with silicon tape. The soil samples were labeled, placed in resealable plastic bags, and stored in coolers with ice, pending delivery to an analytical laboratory under Geomatrix chain-of-custody.

A dark gray, gravel-sized particle, identified at approximately 2.5 feet bgs at GMX-TRS-12A,- appeared to be friable and was considered to potentially contain asbestos. The particle was double-bagged in resealable plastic bags, labeled, and submitted to an analytical laboratory under Geomatrix chain-of-custody.

Downhole equipment, including outer drive casing, and drive rods, was steam cleaned prior to borehole advancement at each location. Soil cuttings were placed in labeled 5-gallon pails pending characterization for disposal by SummerHill Homes. Cleaning water was combined in the 55-gallon drum with the cleaning water from the shallow soil sampling program.

ANALYTICAL PROGRAM

As outlined in the work plan, initial soil samples were submitted to Friedman & Bruya, a California- certified analytical laboratory in Seattle, Washington for analysis of:

- total petroleum hydrocarbons quantified as motor oil (TPHmo), in accordance with U.S. EPA Method 8015 modified, after a silica gel cleanup;
- polycyclic aromatic hydrocarbons (PAHs), in accordance with U.S. EPA Method 8270C SIM (selected ion mode); and
- VOCs, in accordance with U.S. EPA Method 8260.

The additional samples collected at lots 11 and 12 on April 21, 2000 were analyzed for PAHs and TPHmo only.

The potential asbestos-containing material was analyzed for asbestos using polarized light microscopy by Forensic Analytical Specialties, Inc. (FAS), a California-certified laboratory located in Hayward, California. Based on the initial results (discussed further in the Results

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Section) splits of ten soil samples were sent by Friedman and Bruya under chain-of-custody to FAS for additional asbestos analysis.

For quality assurance/quality control (QA/QC) purposes, the Friedman and Bruya analyzed duplicate samples, method blanks, matrix spike/matrix spike duplicate samples, and laboratory control samples.

RESULTS OF FIELD PROGRAM

This section presents the results of the field program. A summary of the soil types observed during sampling and a discussion of the analytical results follow.

SOIL CLASSIFICATION

Soil observed during sampling is generally consistent with soil observed during sampling activities in other portions of the development². Site stratigraphy consists of a fill unit underlain by lean clay. Soil boring logs for the 20 borings advanced in the soil removal area are included as Attachment B.

The fill unit typically consists of firm gray to brown lean clay with minor amounts of fine to coarse sand and fine gravel. Shallow soil sampled from Lots 1 through 4 in Tract 7124 (designated by "TRS" in sample identification) consisted of clayey sand with gravel and appeared to be imported aggregate base material. The fill material is underlain by lean clay and lean clay with sand that typically grades in color from dark gray to light gray to brown.

Fill material in the six borings sampled west of Chesterfield Court (lots 76 to 83) ranged in thickness from approximately 2 to 4 feet. Fill material in the 12 borings sampled east of Chesterfield Court (lots 8 to 17 and lots 71 and 72) ranged in thickness from approximately 2 to 6 feet. Fill material thickness at the two locations advanced near the former UST ranged from approximately 4 to 8 feet. The variable thickness of this fill material is likely due to soil removal activities performed by SummerHill Homes, differences in final grade elevation, and grading operations (overexcavation, replacement, and compaction).

Saturated soil was encountered during soil sampling activities at location GMX-TRS-18a at 8.0 feet bgs; a lens of clayey sand was observed at this depth. Saturated soil was not observed in any of the other borings.

A slight odor, but no elevated PID readings, was observed by Geomatrix field personnel at location GMX-UST-01 at 6.5 feet bgs. This was one of two borings advanced near the former

² Geomatrix Consultants, 2000, Soil Sampling Results, Canterbury Residential Development, Hayward, California, March 30.

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UST. At this location, no sample recovery was achieved between 6.5 and 10 feet bgs, due to soft conditions and concrete debris. A companion boring, advanced adjacent to GMX-UST-01, was sampled from 8 to 10 feet bgs; no odor was detected in this soil. Neither odor nor elevated PID readings were noted in any of the other soil borings.

At approximately 2.5 feet bgs in boring GMX-TRS-12A, a gray particle approximately 1-inch in diameter with a white fibrous component was observed and collected for analysis; the particle was interpreted in the field to potentially contain asbestos.

ANALYTICAL LABORATORY RESULTS

Soil Sample Results

Analytical results for TPH_{mo} and PAHs are summarized in Table 1; analytical results for VOCs are summarized in Table 2. Laboratory analytical reports from Friedman and Bruya and FAS are presented in Attachments D and E, respectively. A review of the Quality Assurance/Quality Control data is presented in Attachment F.

TPH_{mo} was detected in 46 of the 102 soil samples at concentrations ranging from 52 to 1,600 milligrams per kilogram (mg/kg) and in one sample collected 6.5 feet bgs near the former UST (GMX-UST-01-6.5) at 5400 mg/kg. Of the 46 samples containing TPH_{mo}, 41 were collected at approximately 1-foot bgs (out of 53 lots sampled); one was collected at approximately 3 feet bgs; three were collected at depths of approximately 5 to 6 feet bgs; and one was collected at approximately 9 feet bgs.

Twenty-one of the 102 collected samples contained at least one PAH (Table-1); concentrations ranged from 5 to 630 micrograms per kilogram (ug/kg). Seventeen of these samples were collected at approximately 1.0 feet bgs and four were collected at approximately 5 to 6 feet bgs (GMX-TRS-13A-5.0, GMX-TRS-15A-5.5, GMX-TRN-82A-5.0, and GMX-UST-01-6.5). None of the samples collected at approximately 9 feet bgs contained detectable concentrations of PAHs.

Benzo(a)pyrene was detected in two samples (GMX-TRN-11A-1.0 at 85 ug/kg and GMX-TRN-12A-1.0 at 180 ug/kg) above the PRG (62 ug/kg; discussed further in the next section). In accordance with the work plan, these detections required four additional samples to be collected at each lot: three samples at approximately 20-feet from and surrounding the original location at 1.0 feet bgs and one at the original location at 2.5 to 3 feet bgs (Figure 3). Because lots 11 and 12 were adjacent in tract 7069, sample GMX-TRN-12D-1.0 served as one of the surrounding samples for both lots. In addition, each original sample was reanalyzed using remaining soil from the other end of the sample container. Up to three PAHs (chrysene, fluoranthene, and pyrene) were detected in three of the surrounding samples (GMX-TRN-

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11B-1.0, GMX-TRN-12C-1.0, and GMX-TRN-12D-1.0). Benzo(a)pyrene was not detected in any of these samples. Nine PAHs, phenanthrene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene, were detected in the laboratory duplicate sample at GMX-TRN-11D-1.0, but were below the detection limit of 50 ug/kg in the original sample as discussed in Appendix F. No PAHs were detected in the reanalysis of GMX-TRN-12A-1.0. Ten PAHs, including benzo(a)pyrene at a concentration of 70 ug/kg, were detected in the reanalysis of GMX-TRN-11A-1.0.

Methylene chloride was detected in 21 samples but was attributed to sample contamination by the laboratory. Four of the 95 samples (GMX-TRN-72A-5.0, GMX-TRS-14A-5.0, GMX-UST-01-1.5, and GMX-UST-01-6.5) contained detections of other VOCs. Acetone was detected in all of these samples from 73 to 1000 ug/kg. It should be noted that acetone is a common laboratory contaminant and its detection may not be representative of soil quality at those locations. In two of the four samples, acetone was the only VOC detected. In one of the four samples (GMX-UST-01-1.5), MEK was also detected at 150 ug/kg. In another sample near the former UST (GMX-UST-01-6.5), 12 VOCs in addition to acetone were detected at concentrations ranging from 9 to 510 ug/kg³. An odor associated with this sample was noted in the boring log.

The particle submitted for asbestos analysis from sample location GMX-TRS-12A at 2.5 feet bgs contained 20 percent asbestos. The ten soil samples submitted for asbestos analysis did not contain detectable concentrations of asbestos.

Discussion of Results

In accordance with the work plan, concentrations of PAHs and VOCs detected at the site were compared with residential Preliminary Remediation Goals (PRGs) established by U.S. EPA Region 9⁴. Total petroleum hydrocarbon measurements, such as TPH_{mo}, represent mixtures of chemicals that, because of their potentially highly variable composition, have no associated health criteria. Therefore, the toxicity of these mixtures is best described by the aggregate toxicity of key individual chemicals in the mixture. As is the practice in California⁵, only petroleum hydrocarbon constituents detected in soil, i.e., VOCs and PAHs, were considered for comparison to PRGs.

³ As discussed in Appendix F, several internal laboratory standards were beyond control limits, and, therefore, reported concentrations of seven of the 12 VOCs are estimated concentrations in this sample.

⁴ U.S. EPA, 1999, Region 9 Preliminary Remediation Goals (PRGs), October 1.

⁵ Cal-EPA, 1994, Preliminary Endangerment Assessment Guidance Manual: Department of Toxic Substances control, Sacramento, California.

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PRGs combine current EPA toxicity values with standard exposure factors to estimate concentrations in environmental media (e.g., soil) that are protective of human health, including sensitive subgroups, over a lifetime. For some chemicals, variations in exposure or toxicity assessment required in California have been applied and a "Cal-modified" PRG has been published. The Cal-modified PRGs have been used in this assessment, where available. If chemicals are present at concentrations below the PRGs, then exposure to these chemicals should not result in adverse health effects. If multiple chemicals are present, then the potential for adverse health effects associated with cumulative exposure may need to be evaluated. The presence of chemicals at concentrations exceeding PRGs does not indicate that adverse health effects will occur, but "suggests that further evaluation of the potential risks that may be posed by site contaminants is appropriate."⁵ The PRGs are listed at the bottom of the Tables 1 and 2 for detected chemicals.

The comparison to PRGs yielded the following results:

- With the exception of samples with benzo(a)pyrene above the residential PRG, concentrations of PAHs in other samples were at least 9 times lower than their respective PRGs. Eight of the fourteen PAHs were more than 100 times lower than their respective PRGs. Benzo(a)pyrene was detected in two samples (GMX-TRN-11A-1.0 at 85 ug/kg, GMX-TRN-12A-1.0 at 180 ug/kg), in the duplicate sample for GMX-TRN-11D-1.0 (66 ug/kg), and in a replicate sample (GMX-TRN-11A-1.0 at 70 ug/kg) above the PRG (62 ug/kg). With the exception of benzo(a)pyrene in the laboratory duplicate sample for GMX-TRN-11D, benzo(a)pyrene was not detected in samples surrounding these locations. PAHs also were not detected in samples collected below the two initial samples. These results indicate that the benzo(a)pyrene detected above the PRG is limited to shallow soil. Because the distribution of benzo(a)pyrene is discontinuous and detected benzo(a)pyrene concentrations are not significantly higher than the PRGs, concentrations of PAHs detected in soil do not present a significant source of potential exposure.
- Concentrations of VOCs were at least ten times lower than their respective PRGs in all samples where concentrations were detected. However, the detection of several VOCs and TPHmo near the former UST indicate residual petroleum hydrocarbons remain in the soil in this area.

A PRG has not been developed for asbestos in soil. However, since asbestos was not detected in any of the 10 soil samples analyzed, asbestos in soil does not appear to be an issue at the site. Particulates, similar to the one identified in the core from location GMX-TRS-12A, were

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not identified in any of the other 28 cores (8 at lots on Telford Court⁶ and 20 from the soil removal area).

CONCLUSIONS

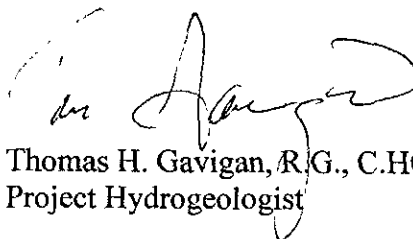
Based on data presented in this report and comparisons of detected soil concentrations to levels considered acceptable by U.S. EPA for residential site use, no further action is recommended, and the lots can be occupied for residential use.

Geomatrix appreciates this opportunity to provide consulting services to the City of Hayward. If you have any further questions, please contact any of the undersigned.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.



Ann M. Holbrow
Senior Scientist



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

Attachments:

- Tables 1 through 3
- Figures 1 and 2
- Attachment A – Permit
- Attachment B – Shallow Soil Sampling Log
- Attachment C – Boring Logs
- Attachment D – Laboratory Analytical Results – Friedman & Bruya
- Attachment E – Laboratory Analytical Results – Forensic Analytical Services
- Attachment F – Results of Quality Assurance/Quality Control

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

⁶ Geomatrix, 1999, Soil Sampling Results – Telford Court, March 30.

TABLES

TABLE 1

SOIL ANALYTICAL RESULTS FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL AND POLYCYCLIC AROMATIC HYDROCARBONS¹

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Polycyclic aromatic hydrocarbon concentrations are reported in micrograms per kilogram (µg/kg); total petroleum hydrocarbon concentrations are reported in milligrams per kilogram (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPH _{mo} ²	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
GMX-TRN-02A-1.0	1.0	4/7/00	160 ³	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-03A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5
GMX-TRN-04A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	6	<5	<5	7	<5	10	<5	<5	<5	<5	9
GMX-TRN-05A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	6	<5	6	<5	6	<5	<5	<5	<5	7
GMX-TRN-06A-1.0	1.0	4/7/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	61	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-07A-1.0	1.0	4/7/00	120	<50	<50	<50	<50	<50	<50	<50	<50	56	<50	100	<50	<50	<50	<50	87
GMX-TRN-08A-1.0	1.0	4/7/00	300	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-09A-1.0	1.0	4/7/00	190	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-10A-1.0	1.0	4/7/00	160	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-11A-1.0	1.0	4/7/00	1000	<50	<50	<50	80	85	53	63	74	100	<50	170	<50	<50	<50	180	210
GMX-TRN-11A-1.0*	1.0	4/7/00	NA ⁴	<50	<50	<50	70	70	72	91	54	100	<50	140	<50	69	<50	55	130
GMX-TRN-11B-1.0	1.0	4/21/00	160	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	(75)
GMX-TRN-11C-3.0	3.0	4/21/00	610	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-11D-1.0	1.0	4/21/00	130	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-12A-1.0	1.0	4/7/00	90	<50	<50	71	260	180	190	83	160	290	<50	630	<50	73	<50	310	560
GMX-TRN-12A-1.0*	1.0	4/7/00	NA	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-12B-3.0	3.0	4/21/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-12C-1.0	1.0	4/21/00	520	<50	<50	<50	<50	<50	<50	<50	<50	65	<50	110	<50	<50	<50	50	120
GMX-TRN-12D-1.0	1.0	4/21/00	530	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	60	<50	<50	<50	<50	71
GMX-TRN-12E-1.0	1.0	4/21/00	370	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-13A-1.0	1.0	4/7/00	360	<50	<50	<50	<50	<50	<50	60	<50	63	<50	110	<50	<50	<50	65	110
GMX-TRN-14A-1.0	1.0	4/7/00	200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-15A-1.0	1.0	4/7/00	65	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-52A-1.0	1.0	4/7/00	350	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-53A-1.0	1.0	4/7/00	100	<5	<5	<5	8	9	9	7	8	13	<5	13	<5	5	<5	6	17
GMX-TRN-54A-1.0	1.0	4/7/00	110	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-55A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-56A-1.0	1.0	4/7/00	300	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-57A-1.0	1.0	4/7/00	420	<50	<50	<50	<50	<50	<50	<50	<50	63	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-58A-1.0	1.0	4/7/00	280	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-59A-1.0	1.0	4/7/00	150	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-60A-1.0	1.0	4/7/00	160	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-61A-1.0	1.0	4/7/00	270	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-62A-1.0	1.0	4/7/00	120	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-68A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-69A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-70A-1.0	1.0	4/7/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-71A-1.0	1.0	4/11/00	120	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-71A-5.0	5.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-71A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-72A-1.5	1.5	4/11/00	<50	<50	<50	<50	66	59	<50	<50	60	89	<50	54	<50	<50	<50	<50	68
GMX-TRN-72A-5.0	5.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-72A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-78A-1.5	1.5	4/10/00	230	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-78A-5.5	5.5	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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TABLE 1

SOIL ANALYTICAL RESULTS FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL AND POLYCYCLIC AROMATIC HYDROCARBONS¹
 Canterbury Residential Development
 Hayward, California

Polycyclic aromatic hydrocarbon concentrations are reported in micrograms per kilogram (µg/kg); total petroleum hydrocarbon concentrations are reported in milligrams per kilogram (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPH _{mo} ²	Acenaph-thene	Acenaph-thylene	Anthracene	Benz(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoran-thene	Fluorene	Indeno(1,2,3-cd)-pyrene	Naphthalene	Phenan-threne	Pyrene
GMX-TRN-78A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-79A-1.5	1.5	4/10/00	71	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-79A-5.5	5.5	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-79A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-80A-1.0	1.0	4/10/00	53	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-80A-5.0	5.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-80A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-81A-1.5	1.5	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-81A-5.5	5.5	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-81A-9.0	9.0	4/10/00	64	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-82A-1.0	1.0	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-82A-5.0	5.0	4/10/00	<50	<5	<5	<5	8	6	<5	<5	5	8	<5	15	<5	<5	<5	9	15
GMX-TRN-82A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-83A-2.0	2.0	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-83A-5.5	5.5	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRN-83A-9.5	9.5	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-01A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-02A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-03A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-04A-1.0	1.0	4/7/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-05A-1.0	1.0	4/7/00	270	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-06A-1.0	1.0	4/7/00	60	<50	<50	<50	<50	<50	<50	<50	<50	50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-07A-1.0	1.0	4/7/00	59	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-08A-1.5	1.5	4/11/00	71	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-08A-5.5	5.5	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-08A-9.5	9.5	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-09A-1.0	1.0	4/11/00	92	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-09A-5.0	5.0	4/11/00	1,600	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
GMX-TRS-09A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-10A-1.5	1.5	4/11/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-10A-5.5	5.5	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-10A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-11A-1.0	1.0	4/10/00	92	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-11A-5.5	5.5	4/10/00	83	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-11A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-12A-1.5	1.5	4/10/00	77	<50	<50	<50	<50	<50	<50	<50	<50	57	<50	<50	<50	<50	<50	<50	51
GMX-TRS-12A-5.5	5.5	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-12A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-13A-1.5	1.5	4/10/00	87	<50	<50	<50	<50	<50	<50	<50	<50	64	<50	62	<50	<50	<50	<50	61
GMX-TRS-13A-5.0	5.5	4/10/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	74	<50	<50	<50	<50	62
GMX-TRS-13A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-14A-1.5	1.5	4/10/00	1,200	<50	<50	<50	<50	<50	<50	<50	<50	116	<50	<50	<50	<50	<50	88	82
GMX-TRS-14A-5.0	5.5	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-14A-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-15A-1.5	1.5	4/11/00	150	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

TABLE 1

SOIL ANALYTICAL RESULTS FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL AND POLYCYCLIC AROMATIC HYDROCARBONS¹
 Canterbury Residential Development
 Hayward, California

Polycyclic aromatic hydrocarbon concentrations are reported in micrograms per kilogram (µg/kg); total petroleum hydrocarbon concentrations are reported in milligrams per kilogram (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPHmo ²	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
GMX-TRS-15A-5.5	5.5	4/11/00	<50	<5	<5	<5	8	7	12	<5	<5	10	<5	12	<5	<5	<5	<5	12
GMX-TRS-15A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-16A-1.5	1.5	4/11/00	100	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-16A-5.0	5.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-16A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-17A-1.0	1.0	4/11/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-TRS-17A-5.0	5.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-17A-9.0	9.0	4/11/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-UST-01-1.5	1.5	4/10/00	52	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX-UST-01-6.5	6.5	4/10/00	5,400	52	<50	<50	120	<50	<50	<50	<50	340	<50	<50	170	<50	150	440	150
GMX-UST-01-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-UST-02-1.5	1.5	4/10/00	<50	<5	<5	<5	<5	<5	6	<5	<5	17	<5	<5	<5	<5	<5	27	6
GMX-UST-02-5.5	5.5	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-UST-02-9.0	9.0	4/10/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
PRGs ⁵			NA ⁶	3,700,000	-- ⁷	22,000,000	620	62	620	3700000 ⁸	6200	6100	--	2,300,000	2,600,000	620	56000	22000000 ⁸	2,300,000

Notes:

- * Replicate analysis of sample using soil from the other end of the sample container.
- 1. Analyzed in accordance with U.S. EPA Methods 8015 modified (TPHmo) and 8270 SIMS (polycyclic aromatic hydrocarbon), respectively.
- 2. TPHmo - Total Petroleum Hydrocarbons as Motor Oil
- 3. Detected values highlighted in bold.
- 4. NA - Not analyzed.
- 5. PRGs - Residential Preliminary Remediation Goals (U.S. EPA, 1999).
- 6. Not available; PRGs have not been developed for mixtures. TPHmo evaluated based on the individual constituents detected.
- 7. -- - PRGs only provided if analyte was detected.
- 8. A surrogate PRG was used because a PRG was not available for this compound. The surrogate selected based on physico-chemical properties was:
 Acenaphthene for benzo(g,h,i)perylene;
 Anthracene for phenanthrene.

*cal mod.
06/1*

TABLE 2

SOIL ANALYTICAL RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS¹

Canterbury Residential Development
Hayward, California

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Concentrations reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$)

Sample I.D.	Depth (feet)	Sample Date	Acetone	2-Butanone (MEK)	1,2-Dichlorobenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene chloride	Naphthalene	n-Propylbenzene	sec-Butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
GMX-TRN-02A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-03A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-04A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-05A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-06A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-07A-1.0	1.0	4/7/00	<50	<50	<5 I ²	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-08A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-09A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-10A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-11A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-12A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-13A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-14A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-15A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-52A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-53A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-54A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-55A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-56A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-57A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-58A-1.0	1.0	4/7/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-59A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-60A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-61A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-62A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-68A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	51 lc ⁴	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-69A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-70A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-71A-1.0	1.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-71A-5.0	5.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-71A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-72A-1.5	1.5	4/11/00	<50	<50	<5	<5	<5	<5	52 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-72A-5.0	5.0	4/11/00	73	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-72A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	61 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-78A-1.5	1.5	4/10/00	<50	<50	<5 I	<5	<5	<5 I	<50	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRN-78A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-78A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	67 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-79A-1.5	1.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-79A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-79A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5

TABLE 2

SOIL ANALYTICAL RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS¹

Canterbury Residential Development
Hayward, California

Concentrations reported in micrograms per kilogram (µg/kg)

Sample I.D.	Depth (feet)	Sample Date	Acetone	2-Butanone (MEK)	1,2-Dichlorobenzene	Ethylbenzene	Isopropyl-enzene	p-Isopropyl-toluene	Methylene chloride	Naphthalene	n-Propylbenzene	sec-Butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
GMX-TRN-80A-1.0	1.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-80A-5.0	5.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-80A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-81A-1.5	1.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-81A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-81A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-82A-1.0	1.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-82A-5.0	5.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-82A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-83A-2.0	2.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-83A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRN-83A-9.5	9.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-01A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-02A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-03A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	59 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-04A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	50 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-05A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-06A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-07A-1.0	1.0	4/7/00	<50	<50	<5	<5	<5	<5	53 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-08A-1.5	1.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-08A-5.5	5.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-08A-9.5	9.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-09A-1.0	1.0	4/11/00	<50	<50	<5 I	<5	<5	<5 I	55 lc	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRS-09A-5.0	5.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-09A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-10A-1.5	1.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-10A-5.5	5.5	4/11/00	<50	<50	<5	<5	<5	<5	57 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-10A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-11A-1.0	1.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-11A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-11A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	65 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-12A-1.5	1.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-12A-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-12A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-13A-1.5	1.5	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-13A-5.0	5.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-13A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-14A-1.5	1.5	4/10/00	<50	<50	<5 I	<5	<5	<5 I	63 lc	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRS-14A-5.0	5.0	4/10/00	130	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-14A-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	70 lc	<5	<5	<5	<5	<5	<5	<5

TABLE 2

SOIL ANALYTICAL RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS¹

Canterbury Residential Development
Hayward, California

Concentrations reported in micrograms per kilogram (µg/kg)

Sample I.D.	Depth (feet)	Sample Date	Acetone	2-Butanone (MEK)	1,2-Dichlorobenzene	Ethylbenzene	Isopropyl- ene	p-Isopropyl- toluene	Methylene chloride	Naphthalene	n-Propylbenzene	sec-Butylbenzene	1,2,4-Trimethyl- benzene	1,3,5-Trimethyl- benzene	m,p-Xylene	o-Xylene
GMX-TRS-15A-1.5	1.5	4/11/00	<50	<50	<5	<5	<5	<5	68 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-15A-5.5	5.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-15A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	67 lc	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-16A-1.5	1.5	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-16A-5.0	5.0	4/11/00	<50	<50	<5 I	<5	<5	<5 I	85 lc	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRS-16A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-17A-1.0	1.0	4/11/00	<50	<50	<5 I	<5	<5	<5 I	57 lc	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-TRS-17A-5.0	5.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-TRS-17A-9.0	9.0	4/11/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
GMX-UST-01-1.5	1.5	4/10/00	1000 ve ⁵	150	<5 I	<5	<5	<5 I	79 lc	<5 I	<5 I	<5 I	<5 I	<5 I	<5	<5
GMX-UST-01-6.5	6.5	4/10/00	78	<50	9 I	21	9	16 I	78 lc	33 I	53 I	14 I	510 I	74 I	14 I	24
GMX-UST-01-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	51 lc	<5	<5	<5	<5	<5	<5	<5
GMX-UST-02-1.5	1.5	4/10/00	<50	<50	<5	<5	<5	<5	64 lc	<5	<5	<5	<5	<5	<5	<5
GMX-UST-02-5.5	5.5	4/10/00	<50	<50	<5	<5	<5	<5	57 lc	<5	<5	<5	<5	<5	<5	<5
GMX-UST-02-9.0	9.0	4/10/00	<50	<50	<5	<5	<5	<5	<50	<5	<5	<5	<5	<5	<5	<5
PRG ⁶			1,600,000	7,300,000	370,000	230,000	160,000	--	8,900	56,000	140,000	110,000	5,700	21,000	210,000 ⁸	-- ⁸

Notes:

- Analyzed in accordance with U.S. EPA Method 8260. Only detected analytes included.
- I- The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.
- Detected values highlighted in bold.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- ve- The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.
- PRGs - Residential Preliminary Remediation Goals (U.S. EPA 1999).
- A PRG is not available for this compound.
- Concentrations of m,p-xylene and o-xylene should be summed for comparison to the PRG for total xylenes.

TABLE 3

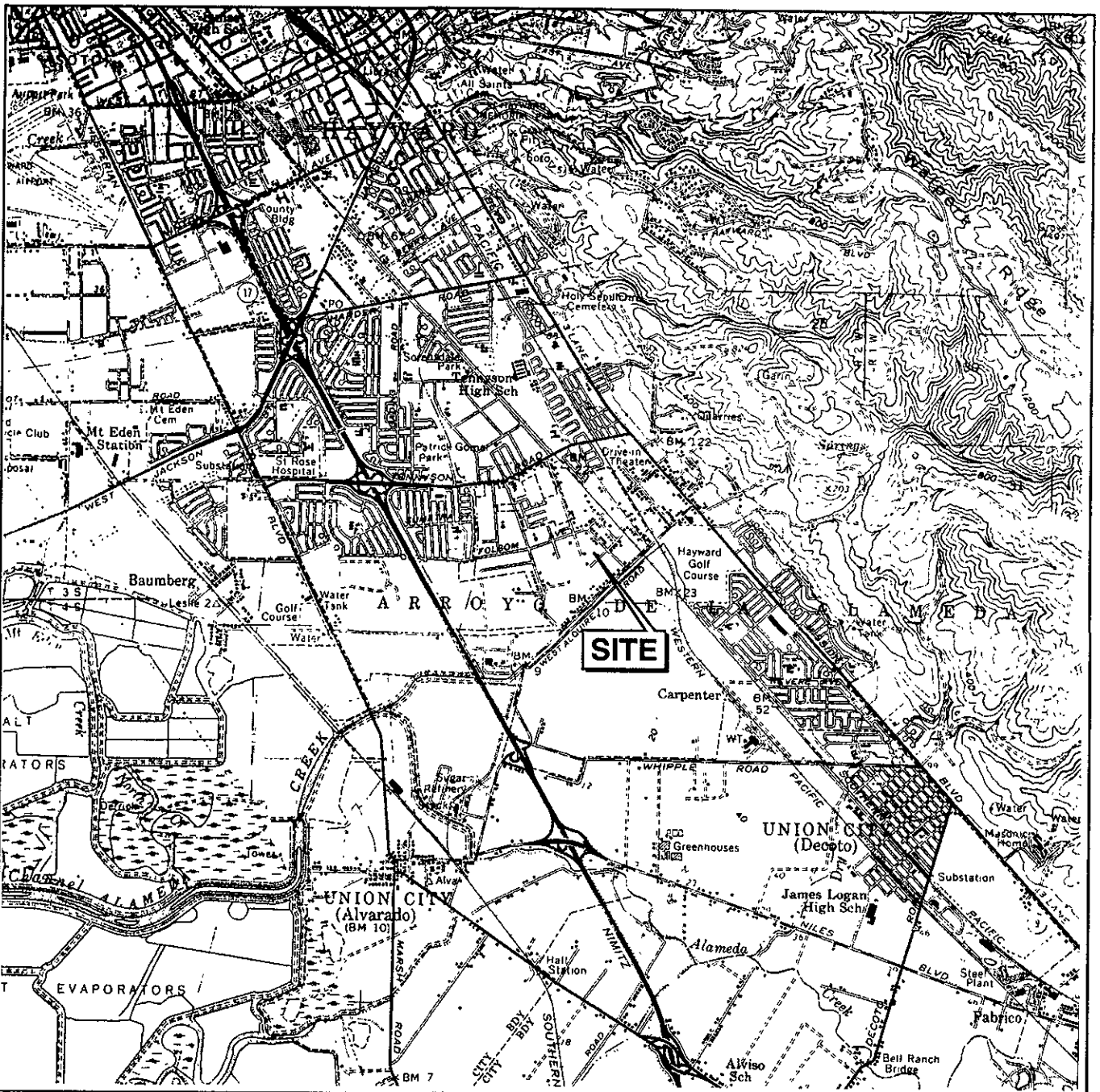
SOIL ANALYTICAL RESULTS FOR ASBESTOS¹
 Canterbury Residential Development
 Hayward, California

Sample I.D.	Depth (feet)	Sample Date	Asbestos Content (percent)
GMX-TRS-12A-2.5 ²	2.5	4/10/00	20³
GMX-TRN-08A-1.0	1.0	4/7/00	ND ⁴
GMX-TRN-13A-1.0	1.0	4/7/00	ND
GMX-TRN-53A-1.0	1.0	4/7/00	ND
GMX-TRN-58A-1.0	1.0	4/7/00	ND
GMX-TRN-69A-1.0	1.0	4/7/00	ND
GMX-TRN-80A-1.0	1.0	4/10/00	ND
GMX-TRS-11A-1.0	1.0	4/10/00	ND
GMX-TRS-12A-1.5	1.5	4/10/00	ND
GMX-TRS-13A-1.5	1.5	4/10/00	ND
GMX-TRS-14A-1.5	1.5	4/10/00	ND

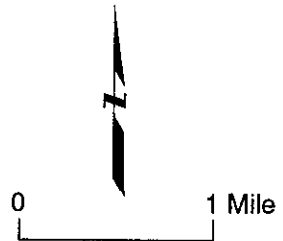
Notes:

1. Analyzed in accordance with U.S. EPA Method 600/R-93-116.
2. Analysis of gravel-sized particle in soil core. All other results represent soil samples.
3. Detected values highlighted in bold.
4. ND - Not detected.

FIGURES



Base map from U.S. Geological Survey; Hayward Quadrangle (California), 15 Minute series (topographic), 1959



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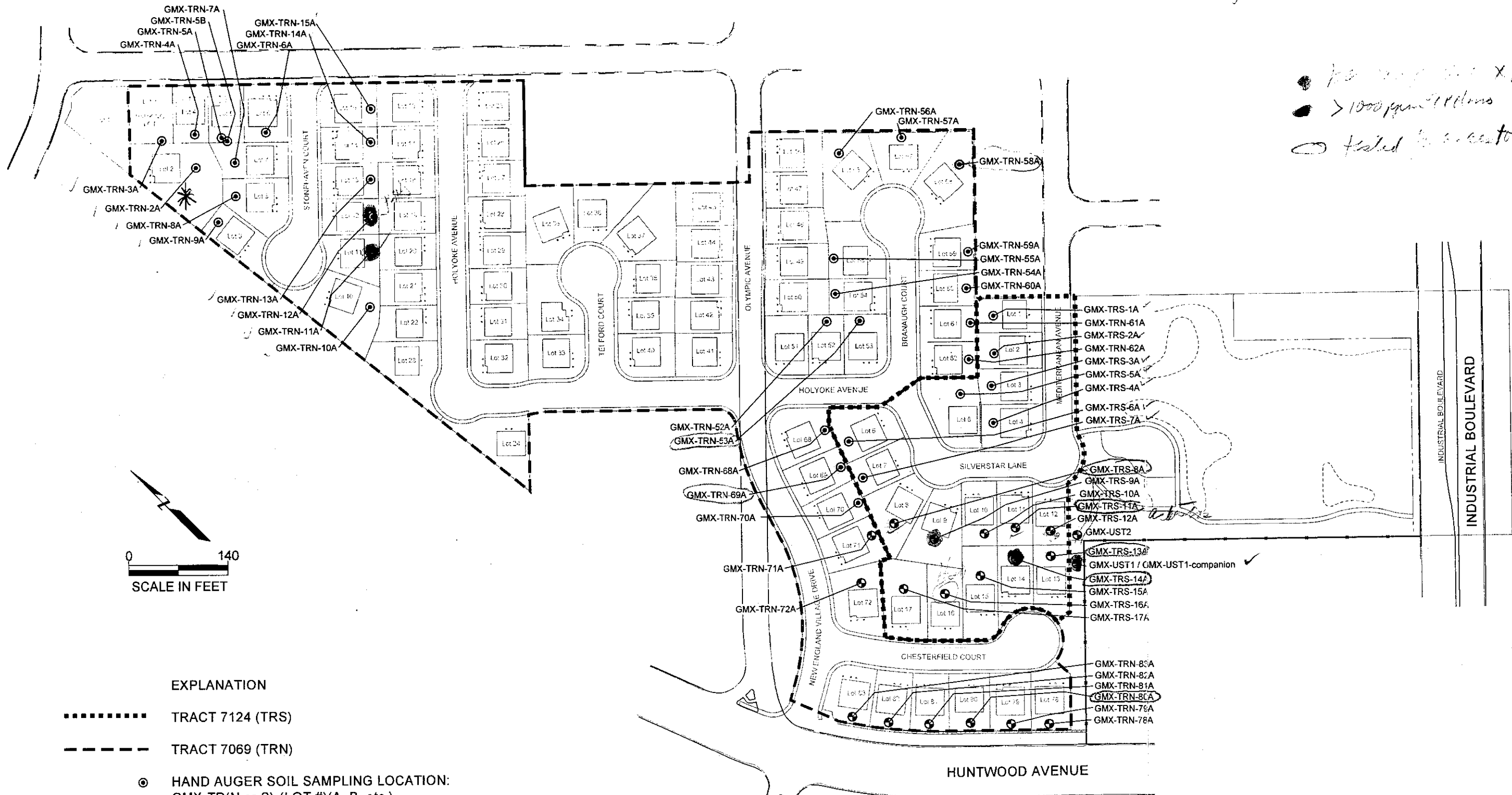
SITE VICINITY MAP
 Canterbury Residential Development
 Olympic Avenue
 Hayward, California

Project No.
 6262

Figure
 1

5/10


● for auger soil x REC
● > 1000 ppm PCBs
○ tested for asbestos



EXPLANATION

- TRACT 7124 (TRS)
- TRACT 7069 (TRN)
- ⊙ HAND AUGER SOIL SAMPLING LOCATION:
GMX-TR(N or S)-(LOT #)(A, B, etc.)
- ⊙ SOIL BORING (VICINITY OF SOIL REMOVAL AREA):
GMX-TR(N or S)-(LOT #)A
- FENCE

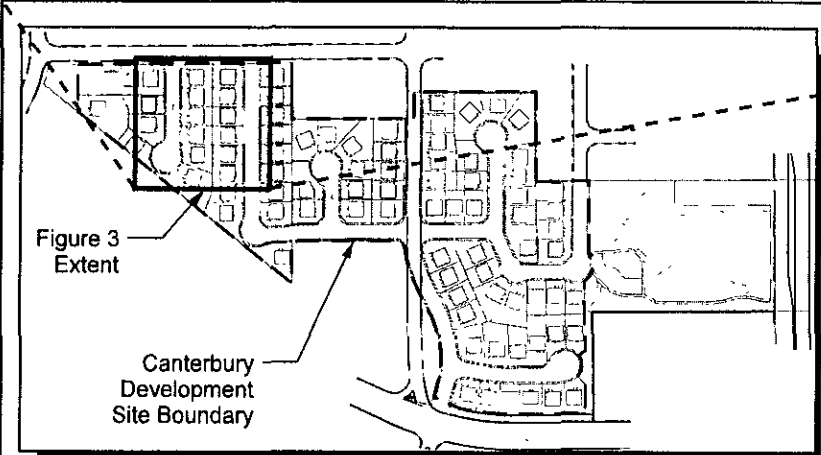
SITE PLAN SHOWING RESIDENTIAL
DEVELOPMENT AND INITIAL SAMPLE LOCATIONS
Canterbury Development
Hayward, California

 GEOMATRIX	Project No. 6262 6	Figure 2
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MAP_fm.v.pen



◎ SOIL SAMPLE LOCATIONS

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ADDITIONAL SAMPLE LOCATIONS
 Canterbury Development
 Hayward, California

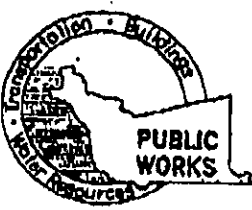
Project No
 6262 6

Figure
 3

CHECKED

ATTACHMENT A

Permit



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST., HAYWARD, CA 94544
 PHONE (510) 670-5554
 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Century Development,
OLYMPIC AVENUE, HAYWARD, CA

PERMIT NUMBER W00-153
 WELL NUMBER _____
 APN: _____

PERMIT CONDITIONS
 Circled Permit Requirements Apply

CLIENT Name CITY OF HAYWARD
 Address 777 B Street, Phone 510-583-4924
 City Hayward, CA Zip 94541

APPLICANT Name TOM BAVIGAN
Geotechnical Consultants Fax 510-663-4141
 Address 2101 Webster St., 12th Floor Phone 510-663-4100
 City Oakland, CA Zip 94612

- A. GENERAL**
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

SOIL BORINGS (Environmental sampling)

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- B. WATER SUPPLY WELLS**
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.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	(direct push)	

D. GEOTECHNICAL
 Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper 2-3 ft replaced in kind or with compacted cuttings.

DRILLER'S LICENSE NO. C57 589008 (Fast-tek)

WELL PROJECTS

Drill Hole Diameter	<u>2</u> in.	Maximum Depth	<u>10</u> ft.
Casing Diameter	<u>N/A</u> in.	Number	<u>20</u>
Surface Seal Depth	<u>N/A</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	<u>N/A</u>	Maximum Depth	<u>N/A</u> ft.
Hole Diameter	<u>N/A</u> in.		

ESTIMATED STARTING DATE 4/10/00
 ESTIMATED COMPLETION DATE 9/12/00

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

APPLICANT'S SIGNATURE Tom Bavigan DATE: 4/5/00

- E. CATHODIC** Fill hole above anode zone with concrete placed by tremie.
F. WELL DESTRUCTION See attached.
G. SPECIAL CONDITIONS

APPROVED Shank & Call DATE 4-11-00

FAXED
 4-11-00

ATTACHMENT B

Shallow Soil Sampling Log

APPENDIX B

SHALLOW SOIL SAMPLING LOG

Canterbury Residential Development

Hayward, California

Project No. 6262

Date	Time	Borehole Identification¹	Depth Interval²	Soil Description	OVM³ (ppm)	Sample ID⁴
4/7/00	0750	GMX-TRN-2A	0.0 – 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-2A-1.0
4/7/00	0930	GMX-TRN-3A	0.0 – 1.0	LEAN CLAY (CL), dark gray, moist	0	GMX-TRN-3A-1.0
4/7/00	0842	GMX-TRN-4A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-4A-1.0
4/7/00	0844	GMX-TRN-5A	0.0 – 0.4 0.4 – 1.0	LEAN CLAY (CL), dark brown, moist CLAYEY SAND (SC), olive gray, moist, asphalt in tip of shoe	0	GMX-TRN-5A-1.0
4/7/00	0925	GMX-TRN-5B	0.0 – 0.8 0.8 – 1.0	LEAN CLAY (CL), dark gray, moist SILTY SAND (SM) light gray, moist (stucco?)	0	GMX-TRN-5B-1.0
4/7/00	0900	GMX-TRN-6A	0.0 – 0.2 0.2 – 1.0	SILTY SAND (SM), dark gray, moist, ~50% organic LEAN CLAY (CL) dark gray, moist	0	GMX-TRN-6A-1.0
4/7/00	0810	GMX-TRN-7A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-7A-1.0
4/7/00	0800	GMX-TRN-8A	0.0 - 0.3 0.3 - 1.0	SILTY SAND WITH GRAVEL (SM), grayish brown, dry LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-8A-1.0
4/7/00	0820	GMX-TRN-9A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-9A-1.0
4/7/00	0950	GMX-TRN-10A	0.0 – 0.5 0.5 – 1.0	SILTY SAND (SM), brown, moist SANDY CLAY (CL), brown, moist	0	GMX-TRN-10A-1.0
4/7/00	0955	GMX-TRN-11A	0.0 – 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-11A-1.0
4/21/00	1205	GMX-TRN-11B	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-11B-1.0

APPENDIX B

SHALLOW SOIL SAMPLING LOG

Canterbury Residential Development

Hayward, California

Project No. 6262

Date	Time	Borehole Identification ¹	Depth Interval ²	Soil Description	OVM ³ (ppm)	Sample ID ⁴
4/21/00	1250	GMX-TRN-11C	1.0 - 0.4 0.4 - 2.0 2.0 - 3.0	SILTY SAND (SM) grayish brown, moist LEAN CLAY WITH SAND (CL), brown, moist LEAN CLAY WITH SAND (CL), dark gray, moist	0	GMX-TRN-11C-3.0
4/21/00	1225	GMX-TRN-11D	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-11D-1.0
4/7/00	1005	GMX-TRN-12A	0.0 - 0.5 0.5 - 1.0	SILTY SAND (SM), gray, dry LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-12A-1.0
4/21/00	1315	GMX-TRN-12B	0.0 - 1.5 1.5 - 2.0 2.0 - 2.5	SILTY SAND (SM) grayish brown, moist SANDY LEAN CLAY (CL), brown, moist LEAN CLAY WITH SAND (CL), black, moist	0	GMX-TRN-12B-3.0
4/21/00	1010	GMX-TRN-12C	0.0 - 1.0	SILTY SAND (SM) dark brown, moist	0	GMX-TRN-12C-1.0
4/21/00	1125	GMX-TRN-12D	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-12D-1.0
4/21/00	1145	GMX-TRN-12E	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-12E-1.0
4/7/00	1010	GMX-TRN-13A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-13A
4/7/00	1045	GMX-TRN-14A	0.0 - 0.3 0.3 - 1.0	SILTY SAND (SM), gray, dry LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-14A-1.0
4/7/00	1030	GMX-TRN-15A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-15A-1.0
4/7/00	1230	GMX-TRN-52A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-52A-1.0
4/7/00	1235	GMX-TRN-53A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist, piece of concrete in shoe	0	GMX-TRN-53A-1.0
4/7/00	1240	GMX-TRN-54A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-54A-1.0
4/7/00	1245	GMX-TRN-55A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-55A-1.0

APPENDIX B

SHALLOW SOIL SAMPLING LOG

Canterbury Residential Development

Hayward, California

Project No. 6262

Date	Time	Borehole Identification¹	Depth Interval²	Soil Description	OVM³ (ppm)	Sample ID⁴
4/7/00	1250	GMX-TRN-56A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-56A-1.0
4/7/00	1300	GMX-TRN-57A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-57A-1.0
4/7/00	1305	GMX-TRN-58A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-58A-1.0
4/7/00	1325	GMX-TRN-59A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-59A-1.0
4/7/00	1330	GMX-TRN-60A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-60A-1.0
4/7/00	1335	GMX-TRN-61A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-61A-1.0
4/7/00	1340	GMX-TRN-62A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-62A-1.0
4/7/00	1350	GMX-TRN-68A	0.0 - 0.2 0.2 - 1.0	LEAN CLAY WITH SAND (CL), grayish brown, dry LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-68A-1.0
4/7/00	1355	GMX-TRN-69A	0.0 - 0.2 0.2 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist CLAYEY SAND WITH GRAVEL (SC), brown, moist Note: Painting nearby during sampling	0	GMX-TRN-69A-1.0
4/7/00	1405	GMX-TRN-70A	0.0 - 0.4 0.4 - 1.0	LEAN CLAY WITH SAND (CL), grayish brown, dry CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRN-70A-1.0
4/7/00	1420	GMX-TRS-1A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-1A-1.0
4/7/00	1425	GMX-TRS-2A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-2A-1.0

APPENDIX B

SHALLOW SOIL SAMPLING LOG

Canterbury Residential Development

Hayward, California

Project No. 6262

Date	Time	Borehole Identification ¹	Depth Interval ²	Soil Description	OVM ³ (ppm)	Sample ID ⁴
4/7/00	1440	GMX-TRS-3A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-3A-1.0
4/7/00	1445	GMX-TRS-4A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-4A-1.0
4/7/00	1455	GMX-TRS-5A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-5A-1.0
4/7/00	1505	GMX-TRS-6A	0.0 - 0.4	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-6A-1.0
			0.4 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist		
4/7/00	1510	GMX-TRS-7A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRS-7A-1.0

Notes:

1. Borehole identification includes tract identification (TRN = Tract 7069; TRS = Tract 7124), lot number (e.g. 4), and boring identification (e.g. A, B....)
2. Borings advanced from 0.0 to 0.5 feet below ground surface (bgs) with a hand auger. Drive samples collected for chemical analysis from 0.5 to 1.0 feet bgs.
3. OVM = Thermo Environmental Instruments 580B PID calibrated with a 100 ppm isobutylene standard. Borehole screened with OVM after retrieval of drive sample.
4. Sample ID is the same as borehole identification with the addition of sample depth in feet.

ATTACHMENT C

Boring Logs

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Boring Log Explanation	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH (ft.): -	MEASURING POINT:
DRILLING EQUIPMENT:		DEPTH TO WATER	FIRST COMPL.
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation:	
1					1. Soil descriptions are in accordance with the USCS as set forth by ASTM D2488-90 "Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)."	
2					2. Soil color described according to Munsell Color Chart.	
3					3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions. Solid lines represent approximate boundaries observed within sampled intervals.	
4					4. Odor, if noted is subjective and not necessarily indicative of specific compounds or concentrations.	
5					5. NA = Not applicable.	
6					6. ND = No data.	
7						
8					Interval of recovered soil core.	
9					Interval of no recovery.	
10						
11					Sample collected for chemical analysis and sample identification.	
12						
13						
14						
15						

GMX-UST1-1.5



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-UST1	
BORING LOCATION: ~23 feet east of former UST		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not surveyed						
1	GMX-UST1-1.5	[Diagram: Solid black bar]	[Diagram: No blows]	0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace fine gravel, low to medium plasticity, hard	
2				0		
3				0		
4	GMX-UST1-6.5	[Diagram: X-pattern]	[Diagram: No blows]	0	slight odor at tip of core	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
5				0		
6				0		
7	GMX-UST1-9.0	[Diagram: X-pattern]	[Diagram: No blows]	0	LEAN CLAY (CL): gray (5Y 6/1), moist, 95% fines, 5% fine sand, low to medium plasticity, soft olive brown (2.5Y 4/3)	No recovery from 8' to 10' bgs (piece of concrete in tip of sampler). Companion boring advanced for sample collection between 8' and 10' bgs. Companion borehole advanced to 8' with plug, and cored from 8' to 10' bgs. Lithology and sample ID from companion bore.
8				0		
9				0		
10	Bottom of boring at 10.0 feet					Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						
15						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-UST2	
BORING LOCATION: ~ 20 feet west of former UST		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1	GMX-UST2-1.5	[Solid black]		0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, trace angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3	GMX-UST2-5.5	[X pattern]			SILTY SAND (SM): olive brown (2.5Y 4/3), moist, 85% fine to coarse sand, 15% low plasticity fines	
4						
5				0		
6				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm	
7				0		
8	GMX-UST2-9.0	[Solid black]			mottled with olive brown (2.5Y 4/3)	
9				0		
10				0		
11					mottled with olive brown (2.5Y 4/3) and gray (5Y 6/1)	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12					very soft	
13					Bottom of borehole at 10 feet	
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-9A	
BORING LOCATION: Lot 9 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1	GMX-TRS-9A-1.0			0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRS-9A-5.0			0		
5				0		
6				0		
7				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, trace organic material, low to medium plasticity, firm	
8				0	↓ gray (5Y 6/1)	
9	GMX-TRS-9A-9.0			0		
10				0	↓ olive brown (2.5Y 4/3), 90% fines, 10% fine sand	
11					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-10A	
BORING LOCATION: Lot 10 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125"]		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not surveyed						
1	GMX-TRS-10A-1.5	[Solid black]	[Solid black]	0	SANDY LEAN CLAY with GRAVEL (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 60% fines, 25% fine to coarse sand, 15% fine angular gravel, low to medium plasticity, hard	
2				0		
3				0		
4	GMX-TRS-10A-5.5	[Solid black]	[Solid black]	0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, soft	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
5				0		
6				0		
7	GMX-TRS-10A-9.0	[Solid black]	[Solid black]	0	LEAN CLAY with SAND (CL): olive brown (2.5Y 4/3), moist, 85% fines, 15% fine sand, low to medium plasticity, firm	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
8				0		
9				0		
10	Bottom of boring at 10.0 feet					
11						
12						
13						
14						
15						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-11A	
BORING LOCATION: Lot 11 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not surveyed	
1	GMX-TRS-11A-1.0				SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace angular gravel, low to medium plasticity, hard	
4					LEAN CLAY with SAND (CL): very dark gray (2.5Y 3/1), moist, 85% fines, 15% fine to coarse sand, low to medium plasticity, firm	
5	GMX-TRS-11A-5.5				LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm	
7					↓ mottled with olive brown (2.5Y 4/3)	
9	GMX-TRS-11A-9.0				↓ gray (5Y 6/1)	
					↓ olive brown (2.5Y 4/3), increase in sand content to 10%	
10					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-12A

BORING LOCATION: Lot 12 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED:
4/10/00

DATE FINISHED:
4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.):
10.0

MEASURING POINT:
Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER | FIRST | COMPL.
ND | ND | ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:
T. Gavigan

REG. NO.
RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo inter.	
					Surface Elevation: Not surveyed	
1	GMX-TRS-12A-1.5				SANDY LEAN CLAY (CL): mottled olive brown (2.5Y 4/3) and very dark gray (2.5Y 3/1), moist, 65% fines, 35% fine to coarse sand, low to medium plasticity, hard	
2	GMX-TRS-12A-2.5					
3	GMX-TRS-12A-3.5				1-inch diameter gray particle with white fibrous component	
4	GMX-TRS-12A-4.5					
5	GMX-TRS-12A-5.5					
6					LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm	
7						
8	GMX-TRS-12A-8.0				gray (5Y 6/1)	
9					olive brown (2.5Y 4/3), increase in sand content to 10%, soft	
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-13A

BORING LOCATION: Lot 13 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST ND | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA | DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/Foot			
1	GMX-TRS-13A-1.5	[Sample]	[Blows]	0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 65% fines, 35% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRS-13A-5.0	[Sample]	[Blows]	0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0		
6				0		
7	GMX-TRS-13A-9.0	[Sample]	[Blows]	0	mottled with gray (5Y 6/1) olive brown (2.5Y 4/3)	
8				0		
9				0		
10					SANDY LEAN CLAY (CL): soft Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-14A	
BORING LOCATION: Lot 14 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample	Blows/ Foot				
					Surface Elevation: Not surveyed		
1	GMX-TRS-14A-1.5	[Sample]	[Blows]	0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3				0			
4	GMX-TRS-14A-5.0	[Sample]	[Blows]	0	dark greenish gray (10GY 4/1)		
5				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, trace organic material, low to medium plasticity, firm		
6	GMX-TRS-14A-9.0	[Sample]	[Blows]	0	gray (5Y 6/1)		
7				0			
8				0			
9	GMX-TRS-14A-9.0	[Sample]	[Blows]	0	olive brown (2.5Y 4/3)		
10				0	LEAN CLAY with SAND (CL), soft Bottom of boring at 10.0 feet		
11							Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-15A

BORING LOCATION: Lot 15 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED: 4/11/00
DATE FINISHED: 4/11/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST ND | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA | DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS	
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		
					Surface Elevation: Not surveyed		
1	GMX-TRS-15A-1.5			0	SANDY LEAN CLAY with GRAVEL (CL): olive brown (2.5Y 4/3), moist, 60% fines, 20% fine to coarse sand, 20% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3				0			
4	GMX-TRS-15A-5.5			0	dark greenish gray (10GY 4/1)		
5				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm		
6				0			
7	GMX-TRS-15A-9.0			0	mottled with olive brown (2.5Y 4/3)		
8				0	gray (5Y 6/1), 90% fines, 10% fine to coarse sand		
9				0	olive brown (2.5Y 4/3), soft		
10					Bottom of boring at 10.0 feet		Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11							
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-16A

BORING LOCATION: Lot 16 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED: 4/11/00
DATE FINISHED: 4/11/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST 8.0 | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:
T. Gavigan

REG. NO.
RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample	Blows/ Foot				
Surface Elevation: Not surveyed							
1	GMX-TRS-16A-1.5	[Solid black]		0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3	GMX-TRS-16A-5.0	[X]		0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 95% fines, 5% fine sand, low to medium plasticity, soft		
4				0	mottled with very dark gray (2.5Y 3/1)		
5				0	SANDY LEAN CLAY (CL) very dark gray (2.5Y 3/1)		
6	GMX-TRS-16A-9.0	[Solid black]		0	mottled with gray (5Y 6/1)		
7				0			
8				0			SANDY LEAN CLAY (CL), olive brown (2.5Y 4/3)
9	GMX-TRS-16A-9.0	[Solid black]		0	CLAYEY SAND (SC): olive brown (2.5Y 4/3), wet, 70% fine sand, 30% low to medium plasticity fines		
10				0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm		
11					Bottom of boring at 10.0 feet		Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-17A	
BORING LOCATION: Lot 17 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1	GMX-TRS-17A-1.0			0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 30% fine to coarse sand, 10% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), 90% fines, 10% fine sand, low to medium plasticity, firm	
3						
4	GMX-TRS-17A-5.0			0	SANDY LEAN CLAY with GRAVEL (CL) very dark grey (2.5Y 3/1)	
5				0		
6				0	mottled with gray (5Y 6/1), sand fraction fine to coarse	
7				0	olive brown (2.5Y 4/3), sand fraction fine	
8	GMX-TRS-17A-9.0			0		
9				0	very soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-71A

BORING LOCATION: Lot 71 backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fas-Tek Engineering Support Services

DATE STARTED: 4/11/00
DATE FINISHED: 4/11/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: ND
FIRST: ND
COMPL.: ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA
DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan
REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-TRN-71A-1.0				SANDY LEAN CLAY (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, hard	
5	GMX-TRN-71A-5.0				LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, firm	
7					LEAN CLAY with SAND (CL), gray (5Y 6/1)	
8					olive brown (2.5Y 4/3), 90% fine, 10% fine to coarse sand, soft	
10					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.

OAKBOREV (REV. 3/00)

PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-72A	
BORING LOCATION: Lot 72 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-72A-1.5			0	SANDY LEAN CLAY (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 80% fines, 15% fine to coarse sand, 5% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRN-72A-5.0			0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, firm	
5				0		
6				0	mottled with gray (5Y 6/1)	
7				0	olive brown (2.5Y 4/3)	
8	GMX-TRN-72A-9.0			0		
9				0	90% fines, 10% fine sand, soft	
10				0	Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-78A	
BORING LOCATION: Lot 78 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not Surveyed						OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
1	GMX-TRN-78A-1.5	[Sample]	[Blows]	0	LEAN CLAY with SAND (CL): olive brown (2.5Y 4/3), moist, 85% fines, 15% fine to coarse sand, low to medium plasticity, firm	
2				0		
3				0		
4	GMX-TRN-78A-5.5	[Sample]	[Blows]	0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0		
6				0		
7	GMX-TRN-78A-9.0	[Sample]	[Blows]	0	color change to dark gray (5Y 4/1)	
8				0	color change to olive brown (2.5Y 4/3)	
9				0		
10	Bottom of boring at 10.0 feet					Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-79A

BORING LOCATION: Lot 79 backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fas-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST ND COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:
T. Gavigan

REG. NO.
RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-79A-1.5				LEAN CLAY with SAND (CL): dark gray (2.5Y 4/1), moist, 80% fines, 20% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm	
2						
3						
4						
5	GMX-TRN-79A-5.5				LEAN CLAY (CL): very dark gray (5Y 3/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
6						
7						
8						
9	GMX-TRN-79A-9.0				SANDY LEAN CLAY (CL): olive (5Y 5/3), moist, 60% fines, 40% fine sand, low to medium plasticity, firm	
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-80A

BORING LOCATION: Lot 80 backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fas-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: | FIRST ND | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA | DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-80A-1.0				SANDY LEAN CLAY (CL): dark grayish brown (2.5Y 4/2), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm to hard	
4	GMX-TRN-80A-5.0				LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand	
5					mottled with very dark gray (2.5Y 3/1)	
8	GMX-TRN-80A-9.0				very dark gray (2.5Y 3/1)	
9					SANDY LEAN CLAY (CL) soft	
10					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-81A	
BORING LOCATION: Lot 81 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample	Blows/ Foot				
					Surface Elevation: Not Surveyed		
1	GMX-TRN-81A-1.5	[Solid black bar]		0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
4	GMX-TRN-81A-5.5	[X symbol]		0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm		
5				0	mottled with very dark gray (2.5Y 3/1)		
6				0			
7				0	very dark gray (2.5Y 3/1)		
8	GMX-TRN-81A-9.0	[Solid black bar]		0	olive brown (2.5Y 4/3)		
9				0	LEAN CLAY with SAND (CL)		
10					Bottom of boring at 10.0 feet		Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11							
12							
13							
14							
15							



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-82A	
BORING LOCATION: Lot 82 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-82A-1.0			0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, firm to hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRN-82A-5.0			0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0	mottled with very dark gray (2.5Y 3/1)	
6				0		
7				0		
8	GMX-TRN-82A-9.0			0	olive brown (2.5Y 4/2)	
9				0	soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-83A	
BORING LOCATION: Lot 83 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-83A-2.0	[Solid black]	[Solid black]	0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), mottled with very dark gray (2.5Y 3/1), moist, 75% fines, 25% fine to coarse sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand	
3						
4	GMX-TRN-83A-5.5	[X symbol]	[X symbol]	0	mottled with very dark gray (2.5Y 3/1)	
5				0	very dark gray (2.5Y 3/1)	
6						
7					mottled very dark gray (2.5Y 3/1) and gray (5Y 6/1)	
8	GMX-TRN-83a-9.5	[Solid black]	[Solid black]	0	olive brown (2.5Y 4/3)	
9				0	soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

ATTACHMENT D

Laboratory Analytical Results - Friedman & Bruya

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
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April 19, 2000

Ann Holbrow, Project Manager
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

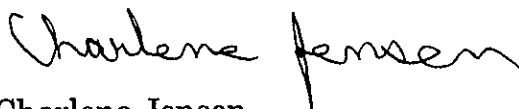
Dear Ms. Holbrow:

Included are the results from the testing of material submitted on April 10, 2000 from your 6262.000.0 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Charlene Jensen
Chemist

Enclosures
GMC0419R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 10, 2000 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. 6262.000.0 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>	<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>
004051-01	GMX-TRN-2A-1.0	004051-19	GMX-TRN-55A-1.0
004051-02	GMX-TRN-8A-1.0	004051-20	GMX-TRN-56A-1.0
004051-03	GMX-TRN-7A-1.0	004051-21	GMX-TRN-57A-1.0
004051-04	GMX-TRN-9A-1.0	004051-22	GMX-TRN-58A-1.0
004051-05	GMX-TRN-4A-1.0	004051-23	GMX-TRN-59A-1.0
004051-06	GMX-TRN-5A-1.0	004051-24	GMX-TRN-60A-1.0
004051-07	GMX-TRN-6A-1.0	004051-25	GMX-TRN-61A-1.0
004051-08	GMX-TRN-5B-1.0	004051-26	GMX-TRN-62A-1.0
004051-09	GMX-TRN-3A-1.0	004051-27	GMX-TRN-68A-1.0
004051-10	GMX-TRN-10A-1.0	004051-28	GMX-TRN-69A-1.0
004051-11	GMX-TRN-11A-1.0	004051-29	GMX-TRN-70A-1.0
004051-12	GMX-TRN-12A-1.0	004051-30	GMX-TRS-1A-1.0
004051-13	GMX-TRN-13A-1.0	004051-31	GMX-TRS-2A-1.0
004051-14	GMX-TRN-14A-1.0	004051-32	GMX-TRS-3A-1.0
004051-15	GMX-TRN-15A-1.0	004051-33	GMX-TRS-4A-1.0
004051-16	GMX-TRN-52A-1.0	004051-34	GMX-TRS-5A-1.0
004051-17	GMX-TRN-53A-1.0	004051-35	GMX-TRS-6A-1.0
004051-18	GMX-TRN-54A-1.0	004051-36	GMX-TRS-7A-1.0

For analysis by method 8260B internal standards were outside of normal acceptance criteria in several samples due to matrix interference. Results and/or reporting limits for affected analytes are reported as estimates. In addition, methylene chloride was detected in several samples due to laboratory contamination. Also, matrix spike recoveries for 8270C SIM analysis of sample GMX-TRS-5A-1.0 for pyrene, benz(a)anthracene and chrysene were outside of normal acceptance criteria due to interfering compounds. All other quality control requirements were within acceptable limits.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

Date Extracted: 04/11/00 and 04/18/00

Date Analyzed: 04/14/00, 04/15/00 and 04/19/00

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-2A-1.0 004051-01	160	111
GMX-TRN-8A-1.0 004051-02	300	116
GMX-TRN-7A-1.0 004051-03	120	99
GMX-TRN-9A-1.0 004051-04	190	99
GMX-TRN-4A-1.0 004051-05	<50	91
GMX-TRN-5A-1.0 004051-06	<50	104
GMX-TRN-6A-1.0 004051-07	<50	90
GMX-TRN-3A-1.0 004051-09	<50	118
GMX-TRN-10A-1.0 004051-10	160	110
GMX-TRN-11A-1.0 004051-11	1,000	107

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

Date Extracted: 04/11/00 and 04/18/00

Date Analyzed: 04/14/00, 04/15/00 and 04/19/00

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M

Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as $\mu\text{g/g}$ (ppm)

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-12A-1.0 004051-12	90	82
GMX-TRN-13A-1.0 004051-13	360	110
GMX-TRN-14A-1.0 004051-14	200	98
GMX-TRN-15A-1.0 004051-15	65	97
GMX-TRN-52A-1.0 004051-16	350	111
GMX-TRN-53A-1.0 004051-17	100	111
GMX-TRN-54A-1.0 004051-18	110	110
GMX-TRN-55A-1.0 004051-19	<50	105
GMX-TRN-56A-1.0 004051-20	300	117
GMX-TRN-57A-1.0 004051-21	420	118

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00
Date Received: 04/10/00
Project: 6262.000.0
Date Extracted: 04/11/00
Date Analyzed: 04/14/00 and 04/15/00

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-58A-1.0 004051-22	280	106
GMX-TRN-59A-1.0 004051-23	150	115
GMX-TRN-60A-1.0 004051-24	160	108
GMX-TRN-61A-1.0 004051-25	270	111
GMX-TRN-62A-1.0 004051-26	120	118
GMX-TRN-68A-1.0 004051-27	<50	105
GMX-TRN-69A-1.0 004051-28	<50	99
GMX-TRN-70A-1.0 004051-29	<50	102
GMX-TRS-1A-1.0 004051-30	<50	122
GMX-TRS-2A-1.0 004051-31	<50	113

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00
Date Received: 04/10/00
Project: 6262.000.0
Date Extracted: 04/11/00
Date Analyzed: 04/14/00 and 04/15/00

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRS-3A-1.0 004051-32	<50	103
GMX-TRS-4A-1.0 004051-33	<50	110
GMX-TRS-5A-1.0 004051-34	270	88
GMX-TRS-6A-1.0 004051-35	60	101
GMX-TRS-7A-1.0 004051-36	59	113
Method Blank	<50	117
Method Blank	<50	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-2A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-01
Date Analyzed:	04/10/00	Data File:	041022.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	120	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-8A-1.0
 Date Received: 04/10/00
 Date Extracted: 04/10/00
 Date Analyzed: 04/10/00
 Matrix: Soil
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.
 Project: 6262.000.0
 Lab ID: 004051-02
 Data File: 041024.D
 Instrument: 5972 -Ins
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	99	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	117 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-7A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-03
Date Analyzed: 04/10/00	Data File: 041025.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	125 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-9A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-04
Date Analyzed: 04/10/00	Data File: 041026.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	126 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-4A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-05
Date Analyzed:	04/11/00	Data File:	041027.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-5A-1.0
 Date Received: 04/10/00
 Date Extracted: 04/10/00
 Date Analyzed: 04/11/00
 Matrix: Soil
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.
 Project: 6262.000.0
 Lab ID: 004051-06
 Data File: 041028.D
 Instrument: 5972 -Ins
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	115	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-6A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-07
Date Analyzed: 04/11/00	Data File: 041029.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	97	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-3A-1.0
 Date Received: 04/10/00
 Date Extracted: 04/10/00
 Date Analyzed: 04/11/00
 Matrix: Soil
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.
 Project: 6262.000.0
 Lab ID: 004051-09
 Data File: 041030.D
 Instrument: 5972 -Ins
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	129	50	150

Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5
Chloromethane	<5
Vinyl chloride	<5
Bromomethane	<5
Chloroethane	<5
Trichlorofluoromethane	<5
Acetone	<50
1,1-Dichloroethene	<5
Methylene chloride	<50
trans-1,2-Dichloroethene	<5
1,1-Dichloroethane	<5
2,2-Dichloropropane	<5
cis-1,2-Dichloroethene	<5
Chloroform	<5
2-Butanone (MEK)	<50
1,2-Dichloroethane (EDC)	<5
1,1,1-Trichloroethane	<5
1,1-Dichloropropene	<5
Carbon Tetrachloride	<5
Benzene	<5
Trichloroethene	<5
1,2-Dichloropropane	<5
Bromodichloromethane	<5
Dibromomethane	<5
4-Methyl-2-pentanone	<50
cis-1,3-Dichloropropene	<5
Toluene	<5
trans-1,3-Dichloropropene	<5
1,1,2-Trichloroethane	<5
2-Hexanone	<50
1,3-Dichloropropane	<5

Compounds:	Concentration ug/kg (ppb)
Tetrachloroethene	<5
Dibromochloromethane	<5
1,2-Dibromoethane (EDB)	<5
Chlorobenzene	<5
Ethylbenzene	<5
1,1,1,2-Tetrachloroethane	<5
m,p-Xylene	<5
o-Xylene	<5
Styrene	<5
Isopropylbenzene	<5
Bromoform	<5
n-Propylbenzene	<5
Bromobenzene	<5
1,3,5-Trimethylbenzene	<5
1,1,2,2-Tetrachloroethane	<5
1,2,3-Trichloropropane	<5
2-Chlorotoluene	<5
4-Chlorotoluene	<5
tert-Butylbenzene	<5
1,2,4-Trimethylbenzene	<5
sec-Butylbenzene	<5
p-Isopropyltoluene	<5
1,3-Dichlorobenzene	<5
1,4-Dichlorobenzene	<5
1,2-Dichlorobenzene	<5
1,2-Dibromo-3-chloropropane	<5
1,2,4-Trichlorobenzene	<5
Hexachlorobutadiene	<5
Naphthalene	<5
1,2,3-Trichlorobenzene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-10A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-10
Date Analyzed: 04/11/00	Data File: 041031.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	107	50	150
1,2-Dichloroethane-d4	116	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	130 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-11A-1.0
 Date Received: 04/10/00
 Date Extracted: 04/10/00
 Date Analyzed: 04/11/00
 Matrix: Soil
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.
 Project: 6262.000.0
 Lab ID: 004051-11
 Data File: 041032.D
 Instrument: 5972 -Ins
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	104	50	150
1,2-Dichloroethane-d4	105	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-12A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-12
Date Analyzed: 04/11/00	Data File: 041033.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	106	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	130	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-13A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-13
Date Analyzed: 04/11/00	Data File: 041034.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	128 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-14A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-14 rr
Date Analyzed:	04/13/00	Data File:	041315.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	124	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-15A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-15
Date Analyzed:	04/13/00	Data File:	041316.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	105	50	150
1,2-Dichloroethane-d4	107	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-52A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-16
Date Analyzed:	04/11/00	Data File:	041045.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	97	50	150
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	120	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-53A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-17
Date Analyzed:	04/11/00	Data File:	041046.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	120	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-54A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-18
Date Analyzed:	04/11/00	Data File:	041047.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	96	50	150
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	115	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-55A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-19
Date Analyzed:	04/11/00	Data File:	041048.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	99	50	150
1,2-Dichloroethane-d4	107	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-56A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-20
Date Analyzed: 04/11/00	Data File: 041049.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	128	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-57A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-21
Date Analyzed: 04/11/00	Data File: 041050.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	104	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	92	50	150
4-Bromofluorobenzene	135 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-58A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-22
Date Analyzed:	04/11/00	Data File:	041051.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	106	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	91	50	150
4-Bromofluorobenzene	154 I vo	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-59A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-23
Date Analyzed:	04/11/00	Data File:	041052.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	98	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	118	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-60A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-24
Date Analyzed:	04/11/00	Data File:	041053.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	117	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-61A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-25
Date Analyzed:	04/11/00	Data File:	041054.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	130	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-62A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-26
Date Analyzed:	04/11/00	Data File:	041055.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	122	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-68A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-27
Date Analyzed:	04/13/00	Data File:	041317.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	107	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	51 lc	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-69A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-28
Date Analyzed:	04/11/00	Data File:	041057.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-70A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-29
Date Analyzed:	04/11/00	Data File:	041067.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	107	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	124	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-1A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-30
Date Analyzed:	04/11/00	Data File:	041068.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-2A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-31
Date Analyzed:	04/11/00	Data File:	041069.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-3A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-32
Date Analyzed:	04/11/00	Data File:	041070.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	107	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	59 lc	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-4A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-33
Date Analyzed:	04/12/00	Data File:	041071.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	112	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	50 lc	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-5A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-34
Date Analyzed:	04/12/00	Data File:	041072.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	98	50	150
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	113	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-6A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-35
Date Analyzed:	04/12/00	Data File:	041074.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	117	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRS-7A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-36
Date Analyzed:	04/12/00	Data File:	041075.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	104	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	124	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	53 lc	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	00-262mb
Date Analyzed:	04/10/00	Data File:	041020.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	105	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	00-263mb
Date Analyzed:	04/11/00	Data File:	041064.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	105	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-2A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-01 1/10
Date Analyzed:	04/12/00	Data File:	041146.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	110	50	150
Benzo(a)anthracene-d12	100	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-8A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-02 1/10
Date Analyzed:	04/12/00	Data File:	041215.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	109	50	150
Benzo(a)anthracene-d12	102	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-7A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-03 1/10
Date Analyzed:	04/12/00	Data File:	041143.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	132	50	150
Benzo(a)anthracene-d12	107	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	100
Pyrene	87
Benz(a)anthracene	<50
Chrysene	56
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-9A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-04 1/10
Date Analyzed:	04/12/00	Data File:	041211.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	107	50	150
Benzo(a)anthracene-d12	92	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-4A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-05
Date Analyzed:	04/12/00	Data File:	041142.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	85	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	10
Pyrene	9
Benz(a)anthracene	<5
Chrysene	7
Benzo(b)fluoranthene	6
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-5A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-06
Date Analyzed:	04/12/00	Data File:	041141.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	85	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	6
Pyrene	7
Benz(a)anthracene	<5
Chrysene	6
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-6A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-07 1/10
Date Analyzed:	04/12/00	Data File:	041216.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	126	50	150
Benzo(a)anthracene-d12	98	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	61
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-3A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-09
Date Analyzed:	04/12/00	Data File:	041138.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	70	50	150
Benzo(a)anthracene-d12	86	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-10A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-10 1/10
Date Analyzed:	04/12/00	Data File:	041217.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	117	50	150
Benzo(a)anthracene-d12	84	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-11A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-11 1/10
Date Analyzed:	04/12/00	Data File:	041208.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	103	50	150
Benzo(a)anthracene-d12	112	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	180
Anthracene	<50
Fluoranthene	170
Pyrene	210
Benz(a)anthracene	80
Chrysene	100
Benzo(b)fluoranthene	53
Benzo(k)fluoranthene	74
Benzo(a)pyrene	85
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	63

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-12A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-12 1/10
Date Analyzed:	04/12/00	Data File:	041212.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	134	50	150
Benzo(a)anthracene-d12	111	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	310
Anthracene	71
Fluoranthene	630
Pyrene	560
Benz(a)anthracene	260
Chrysene	290
Benzo(b)fluoranthene	190
Benzo(k)fluoranthene	160
Benzo(a)pyrene	180
Indeno(1,2,3-cd)pyrene	73
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	83

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-13A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-13 1/10
Date Analyzed:	04/12/00	Data File:	041209.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	109	50	150
Benzo(a)anthracene-d12	110	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	65
Anthracene	<50
Fluoranthene	110
Pyrene	110
Benz(a)anthracene	<50
Chrysene	63
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	60

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-14A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-14 1/10
Date Analyzed:	04/12/00	Data File:	041144.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	137	50	150
Benzo(a)anthracene-d12	91	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-15A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-15
Date Analyzed:	04/12/00	Data File:	041139.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	82	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-52A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-16 1/10
Date Analyzed:	04/12/00	Data File:	041218.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	120	50	150
Benzo(a)anthracene-d12	108	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-53A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-17
Date Analyzed:	04/12/00	Data File:	041140.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	68	50	150
Benzo(a)anthracene-d12	87	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	6
Anthracene	<5
Fluoranthene	13
Pyrene	17
Benz(a)anthracene	8
Chrysene	13
Benzo(b)fluoranthene	9
Benzo(k)fluoranthene	8
Benzo(a)pyrene	9
Indeno(1,2,3-cd)pyrene	5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	7

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ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-54A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-18 1/10
Date Analyzed:	04/12/00	Data File:	041145.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	139	50	150
Benzo(a)anthracene-d12	100	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-55A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-19
Date Analyzed:	04/12/00	Data File:	041135.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	63	50	150
Benzo(a)anthracene-d12	75	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-56A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-20 1/10
Date Analyzed:	04/12/00	Data File:	041210.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	99	50	150
Benzo(a)anthracene-d12	92	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-57A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-21 1/10
Date Analyzed:	04/14/00	Data File:	041334.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	94	50	150
Benzo(a)anthracene-d12	94	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	63
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-58A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-22 1/10
Date Analyzed:	04/14/00	Data File:	041335.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	106	50	150
Benzo(a)anthracene-d12	99	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-59A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-23 1/10
Date Analyzed:	04/13/00	Data File:	041326.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	112	50	150
Benzo(a)anthracene-d12	94	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-60A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-24 1/10
Date Analyzed:	04/14/00	Data File:	041333.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	98	50	150
Benzo(a)anthracene-d12	92	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-61A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-25 1/10
Date Analyzed:	04/13/00	Data File:	041327.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	101	50	150
Benzo(a)anthracene-d12	89	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-62A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-26 1/10
Date Analyzed:	04/14/00	Data File:	041832.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	102	50	150
Benzo(a)anthracene-d12	98	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-68A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-27
Date Analyzed:	04/13/00	Data File:	041317.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	73	50	150
Benzo(a)anthracene-d12	96	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-69A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-28
Date Analyzed:	04/13/00	Data File:	041318.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	76	50	150
Benzo(a)anthracene-d12	101	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRN-70A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-29 1/10
Date Analyzed:	04/13/00	Data File:	041824.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	111	50	150
Benzo(a)anthracene-d12	101	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-1A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-30
Date Analyzed:	04/13/00	Data File:	041319.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	66	50	150
Benzo(a)anthracene-d12	94	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-2A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-31
Date Analyzed:	04/13/00	Data File:	041320.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	71	50	150
Benzo(a)anthracene-d12	96	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-3A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-32
Date Analyzed:	04/13/00	Data File:	041321.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	93	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-4A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-33 qc
Date Analyzed:	04/13/00	Data File:	041322.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	93	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-5A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-34 1/10
Date Analyzed:	04/14/00	Data File:	041336.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	105	50	150
Benzo(a)anthracene-d12	94	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-6A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-35 1/10
Date Analyzed:	04/14/00	Data File:	041337.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	104	50	150
Benzo(a)anthracene-d12	99	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX-TRS-7A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-36 1/10
Date Analyzed:	04/13/00	Data File:	041325.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	110	50	150
Benzo(a)anthracene-d12	103	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/06/00	Lab ID:	00-258 mb
Date Analyzed:	04/12/00	Data File:	041134.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	62	50	150
Benzo(a)anthracene-d12	79	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	mb 00-259
Date Analyzed:	04/13/00	Data File:	041316.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	77	50	150
Benzo(a)anthracene-d12	103	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

Laboratory Code: 004051-09 (Duplicate) Silica

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Motor Oil	µg/g (ppm)	<50	<50	nm	0-20

Laboratory Code: 004051-01 (Matrix Spike) Silica

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	160	106	95	41-170	11

Laboratory Code: Laboratory Control Sample Silica

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Motor Oil	µg/g (ppm)	500	115	59-138

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

Laboratory Code: 004051-33 (Duplicate) Silica

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Motor Oil	µg/g (ppm)	<50	<50	nm	0-20

Laboratory Code: 004051-34 (Matrix Spike) Silica

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	270	132	149	41-170	12

Laboratory Code: Laboratory Control Sample Silica

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Motor Oil	µg/g (ppm)	500	92	59-138

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 004051-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
1,1-Dichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Benzene	µg/kg (ppb)	<5	<5	nm	0-20
Trichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Toluene	µg/kg (ppb)	<5	<5	nm	0-20
Chlorobenzene	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 004051-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
1,1-Dichloroethene	µg/kg (ppb)	50	<5	94	92	50-150	2
Benzene	µg/kg (ppb)	50	<5	89	88	50-150	1
Trichloroethene	µg/kg (ppb)	50	<5	81	76	50-150	6
Toluene	µg/kg (ppb)	50	<5	85	82	50-150	4
Chlorobenzene	µg/kg (ppb)	50	<5	67	65	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	Relative Percent Difference
1,1-Dichloroethene	µg/kg (ppb)	50	108	107	50-150	1
Benzene	µg/kg (ppb)	50	95	97	50-150	2
Trichloroethene	µg/kg (ppb)	50	98	101	50-150	3
Toluene	µg/kg (ppb)	50	98	101	50-150	3
Chlorobenzene	µg/kg (ppb)	50	95	100	50-150	5

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR VOLATILES BY EPA METHOD 8260B**

Laboratory Code: 004051-34 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
1,1-Dichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Benzene	µg/kg (ppb)	<5	<5	nm	0-20
Trichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Toluene	µg/kg (ppb)	<5	<5	nm	0-20
Chlorobenzene	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 004051-34 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
1,1-Dichloroethene	µg/kg (ppb)	50	<5	91	102	50-150	11
Benzene	µg/kg (ppb)	50	<5	81	97	50-150	18
Trichloroethene	µg/kg (ppb)	50	<5	70	85	50-150	19
Toluene	µg/kg (ppb)	50	<5	74	90	50-150	20
Chlorobenzene	µg/kg (ppb)	50	<5	56	66	50-150	16

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	Relative Percent Difference
1,1-Dichloroethene	µg/kg (ppb)	50	87	89	50-150	2
Benzene	µg/kg (ppb)	50	88	92	50-150	4
Trichloroethene	µg/kg (ppb)	50	82	88	50-150	7
Toluene	µg/kg (ppb)	50	85	93	50-150	9
Chlorobenzene	µg/kg (ppb)	50	83	94	50-150	12

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 004051-08 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD	Acceptance Criteria
Napthalene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthylene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthene	µg/kg (ppb)	<5	<5	nm	0-20
Fluorene	µg/kg (ppb)	<5	<5	nm	0-20
Phenanthrene	µg/kg (ppb)	<5	<5	nm	0-20
Anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Fluoranthene	µg/kg (ppb)	11	11	0	0-20
Pyrene	µg/kg (ppb)	14	12	15	0-20
Benz(a)anthracene	µg/kg (ppb)	9	6	40 a	0-20
Chrysene	µg/kg (ppb)	16	9	56 a	0-20
Benzo(b)fluoranthene	µg/kg (ppb)	16	8	67 a	0-20
Benzo(k)fluoranthene	µg/kg (ppb)	17	10	50 a	0-20
Benzo(a)pyrene	µg/kg (ppb)	15	9	50 a	0-20
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	17	8	72 a	0-20
Dibenzo(a,h)anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(g,h,i)perylene	µg/kg (ppb)	22	11	67 a	0-20

Laboratory Code: 004051-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Napthalene	µg/kg (ppb)	170	<50	93	110	54-110	17
Acenaphthylene	µg/kg (ppb)	170	<50	91	93	58-114	2
Acenaphthene	µg/kg (ppb)	170	<50	88	95	58-112	8
Fluorene	µg/kg (ppb)	170	<50	85	92	59-113	8
Phenanthrene	µg/kg (ppb)	170	<50	92	96	62-110	4
Anthracene	µg/kg (ppb)	170	<50	98	95	61-111	3
Fluoranthene	µg/kg (ppb)	170	<50	105	110	63-114	5
Pyrene	µg/kg (ppb)	170	<50	108	116	59-110	7
Benz(a)anthracene	µg/kg (ppb)	170	<50	96	100	60-116	4
Chrysene	µg/kg (ppb)	170	<50	107	113	57-118	5
Benzo(b)fluoranthene	µg/kg (ppb)	170	<50	104	114	52-133	4
Benzo(k)fluoranthene	µg/kg (ppb)	170	<50	92	89	57-130	3
Benzo(a)pyrene	µg/kg (ppb)	170	<50	93	95	52-132	2
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<50	103	105	54-112	2
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<50	97	96	50-121	1
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<50	104	98	40-114	6

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Napthalene	µg/kg (ppb)	170	78	71	51-124	9
Acenaphthylene	µg/kg (ppb)	170	75	74	52-125	1
Acenaphthene	µg/kg (ppb)	170	75	73	57-122	3
Fluorene	µg/kg (ppb)	170	77	76	55-126	1
Phenanthrene	µg/kg (ppb)	170	76	77	59-126	1
Anthracene	µg/kg (ppb)	170	70	74	45-134	7
Fluoranthene	µg/kg (ppb)	170	82	82	56-132	0
Pyrene	µg/kg (ppb)	170	82	83	54-125	1
Benz(a)anthracene	µg/kg (ppb)	170	77	77	51-130	0
Chrysene	µg/kg (ppb)	170	79	75	57-125	6
Benzo(b)fluoranthene	µg/kg (ppb)	170	90	89	54-135	1
Benzo(k)fluoranthene	µg/kg (ppb)	170	76	74	52-141	3
Benzo(a)pyrene	µg/kg (ppb)	170	71	75	38-140	6
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	80	80	58-122	0
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	79	77	58-130	2
Benzo(g,h,i)perylene	µg/kg (ppb)	170	77	74	54-124	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 004051-33 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD	Acceptance Criteria
Napthalene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthylene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthene	µg/kg (ppb)	<5	<5	nm	0-20
Fluorene	µg/kg (ppb)	<5	<5	nm	0-20
Phenanthrene	µg/kg (ppb)	<5	<5	nm	0-20
Anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Benz(a)anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Chrysene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(b)fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(k)fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(a)pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Dibenzo(a,h)anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(g,h,i)perylene	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 004051-34 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RP
Napthalene	µg/kg (ppb)	170	<50	88	87	54-110	1
Acenaphthylene	µg/kg (ppb)	170	<50	88	84	58-114	5
Acenaphthene	µg/kg (ppb)	170	<50	87	83	58-112	5
Fluorene	µg/kg (ppb)	170	<50	85	79	59-113	7
Phenanthrene	µg/kg (ppb)	170	<50	103	98	62-110	5
Anthracene	µg/kg (ppb)	170	<50	83	80	61-111	4
Fluoranthene	µg/kg (ppb)	170	<50	104	107	63-114	3
Pyrene	µg/kg (ppb)	170	<50	127 ip	118 ip	59-110	7
Benz(a)anthracene	µg/kg (ppb)	170	<50	129 ip	106	60-116	20
Chrysene	µg/kg (ppb)	170	<50	169 ip	120 ip	57-118	34 i
Benzo(b)fluoranthene	µg/kg (ppb)	170	<50	128	124	52-133	3
Benzo(k)fluoranthene	µg/kg (ppb)	170	<50	92	89	57-130	3
Benzo(a)pyrene	µg/kg (ppb)	170	<50	107	103	52-132	4
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<50	60	54	54-112	11
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<50	57	50	50-121	13
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<50	54	51	40-114	6

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR PNA'S BY EPA METHOD 8270C SIM**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting	Spike	% Recovery		Acceptance	RPD
	Units	Level	LCS	LCSD	Criteria	
Napthalene	µg/kg (ppb)	170	87	93	51-124	6
Acenaphthylene	µg/kg (ppb)	170	89	91	52-125	2
Acenaphthene	µg/kg (ppb)	170	86	89	57-122	3
Fluorene	µg/kg (ppb)	170	89	93	55-126	4
Phenanthrene	µg/kg (ppb)	170	86	92	59-126	6
Anthracene	µg/kg (ppb)	170	84	90	45-134	6
Fluoranthene	µg/kg (ppb)	170	94	99	56-132	5
Pyrene	µg/kg (ppb)	170	95	98	54-125	3
Benz(a)anthracene	µg/kg (ppb)	170	95	98	51-130	3
Chrysene	µg/kg (ppb)	170	91	93	57-125	2
Benzo(b)fluoranthene	µg/kg (ppb)	170	115	109	54-135	5
Benzo(k)fluoranthene	µg/kg (ppb)	170	94	97	52-141	4
Benzo(a)pyrene	µg/kg (ppb)	170	83	88	38-140	6
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	73	74	58-122	2
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	69	71	58-130	3
Benzo(g,h,i)perylene	µg/kg (ppb)	170	69	71	54-124	3

Chain-of-Custody Record

004500

CJ 4-10-2/2 LT-D2

Project No.: 6262.000.0

Date: April 7, 2000

Page 1 of 3

ANALYSES

REMARKS

Samplers (Signature):

[Signature]
[Signature]
[Signature]

Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BETX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers
4/7/00	0750	GMX-TRN-2A-1A				X	X	X		X	X		X	X		S	N	N	Y	1
	0800	GMX-TRN-8A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0810	GMX-TRN-7A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0820	GMX-TRN-6A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0842	GMX-TRN-4A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0844	GMX-TRN-5A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0900	GMX-TRN-6A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0925	GMX-TRN-5B1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0930	GMX-TRN-3A1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0950	GMX-TRN-10A-1D				X	X	X		X	X		X	X		S	N	N	Y	1
	0955	GMX-TRN-11A-1D				X	X	X		X	X		X	X		S	N	N	Y	1
	1005	GMX-TRN-12A-1D				X	X	X		X	X		X	X		S	N	N	Y	1
	1010	GMX-TRN-13A-1D				X	X	X		X	X		X	X		S	N	N	Y	1
	1045	GMX-TRN-14A-1D				X	X	X		X	X		X	X		S	N	N	Y	1
	1030	GMX-TRN-15A-1D				X	X	X		X	X		X	X		S	N	N	Y	1

Additional Comments

2" x 6" stainless steel liner
↓
2" x 6" BRASS LINER
2" x 6" STAINLESS STEEL LINER
2" x 6" STAINLESS STEEL LINER
2" x 6" BRASS LINER
↓
2" x 6" STAINLESS STEEL LINER
2" x 6" BRASS LINER

LA-10 #
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15

Laboratory: FRIEDMAN & BRUYA

Turnaround Time: 5-DAY

Results to: ANN Holbrow

Total No. of Containers: 15

Relinquished by (Signature): *[Signature]*

Date: Relinquished by (Signature):

Date: Relinquished by (Signature):

Method of Shipment: TRACKING No. FEDERAL EXPRESS 8136 2240 0633
Laboratory Comments and Log.No.:

Printed Name: FRED CHANDLER

Time: Printed Name:

Time: Printed Name:

Company: GEOMATRIX

Time: Company:

Time: Company:

Received by: *[Signature]*

Date: Received by:

Date: Received by:

Printed Name: S. OBERN

Time: Printed Name:

Time: Printed Name:

Company: F&B, Inc.

Time: Company: 8A

Time: Company:



2101 Webster Street, 12th Floor • Oakland, CA 94612
Phone: 510-663-4100 • Fax: 510-663-4141

004088

CJ 4.10.2K LT-A2

Chain-of-Custody Record

004088

Date: APRIL 7, 2000

Page 2 of 3

Project No.: 6262,000.0

Samples (Signature): *[Signature]*

ANALYSES

REMARKS

Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (hal. VOCs only)	EPA Method 8021 (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments		
4/7/00	1230	GMX-TRN-52A-1.0				X	X			X	X							1		
	1235	GMX-TRN-53A-1.0				X	X			X	X							1	2'x6" BRASS LINER	LAB ID # 16
	1240	GMX-TRN-54A-1.0				X	X			X	X									17
	1245	GMX-TRN-55A-1.0				X	X			X	X									18
	1250	GMX-TRN-56A-1.0				X	X			X	X									19
	1300	GMX-TRN-57A-1.0				X	X			X	X									20
	1305	GMX-TRN-58A-1.0				X	X			X	X									21
	1325	GMX-TRN-59A-1.0				X	X			X	X									22
	1330	GMX-TRN-60A-1.0				X	X			X	X									23
	1335	GMX-TRN-61A-1.0				X	X			X	X									24
	1340	GMX-TRN-62A-1.0				X	X			X	X									25
	1350	GMX-TRN-68A-1.0				X	X			X	X									26
	1355	GMX-TRN-69A-1.0				X	X			X	X									27
	1405	GMX-TRN-70A-1.0				X	X			X	X									28
	1420	GMX-TRN-1A-1.0				X	X			X	X									29
																				30

Laboratory: FRIEDMAN BRUYA

Turnaround Time: 5-DAY

Results to: ANN HOLBROW

Total No. of Containers: 15

Relinquished by (Signature): *[Signature]*

Date: 4/7/00

Printed Name: FRED CHANDLER

Time: 8:00

Company: GEOMATRIX

Received by: *[Signature]*

Date: 4/14/00

Printed Name: S. OBORN

Time: 8:00

Company: F&B, Inc.

Relinquished by (Signature):

Printed Name:

Company:

Received by:

Printed Name:

Company:

Method of Shipment:

FEDERAL EXPRESS / Tracking No. 8136 2240 0693

Laboratory Comments and Log No.:

Geomatrix Consultants

2101 Webster Street, 12th Floor • Oakland, CA 94612
Phone: 510-663-4100 • Fax: 510-663-4141

00905.1

TCJ 4.10.2K LT-A2

Chain-of-Custody Record

004089

Date: APRIL 7, 2000

Page 3 of 3

Project No.: 6262

ANALYSES

REMARKS

Sampler's Signature: *[Signature]*

Additional Comments

Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BIETX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	MS/MSD	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers
4/7/00		1425 GMX-TRS-2A-10				X	X				X	X		S	N	Y		1
		1440 GMY-TRS-3A-10				X	X				X	X						
		1445 GMX-TRS-4A-10				X	X				X	X						
		1455 GMY-TRS-5A-10				X	X				X	X	X					
		1505 GMY-TRS-6A-10				X	X				X	X						
		1510 GMX-TRS-7A-10				X	X				X	X						

LAB ID # 31 32 33 34 35 36

2" x 6" STAINLESS STEEL LINER

Laboratory: FRIEDMAN & BRUYA

Turnaround Time: 5-DAY

Results to: ANN HOLBROW

Total No. of Containers: 6

Relinquished by (Signature): *[Signature]*
Printed Name: FRED CHANDLER

Date: _____
Time: _____
Relinquished by (Signature): _____
Printed Name: _____
Company: _____


Date: _____
Time: _____
Relinquished by (Signature): _____
Printed Name: _____
Company: _____

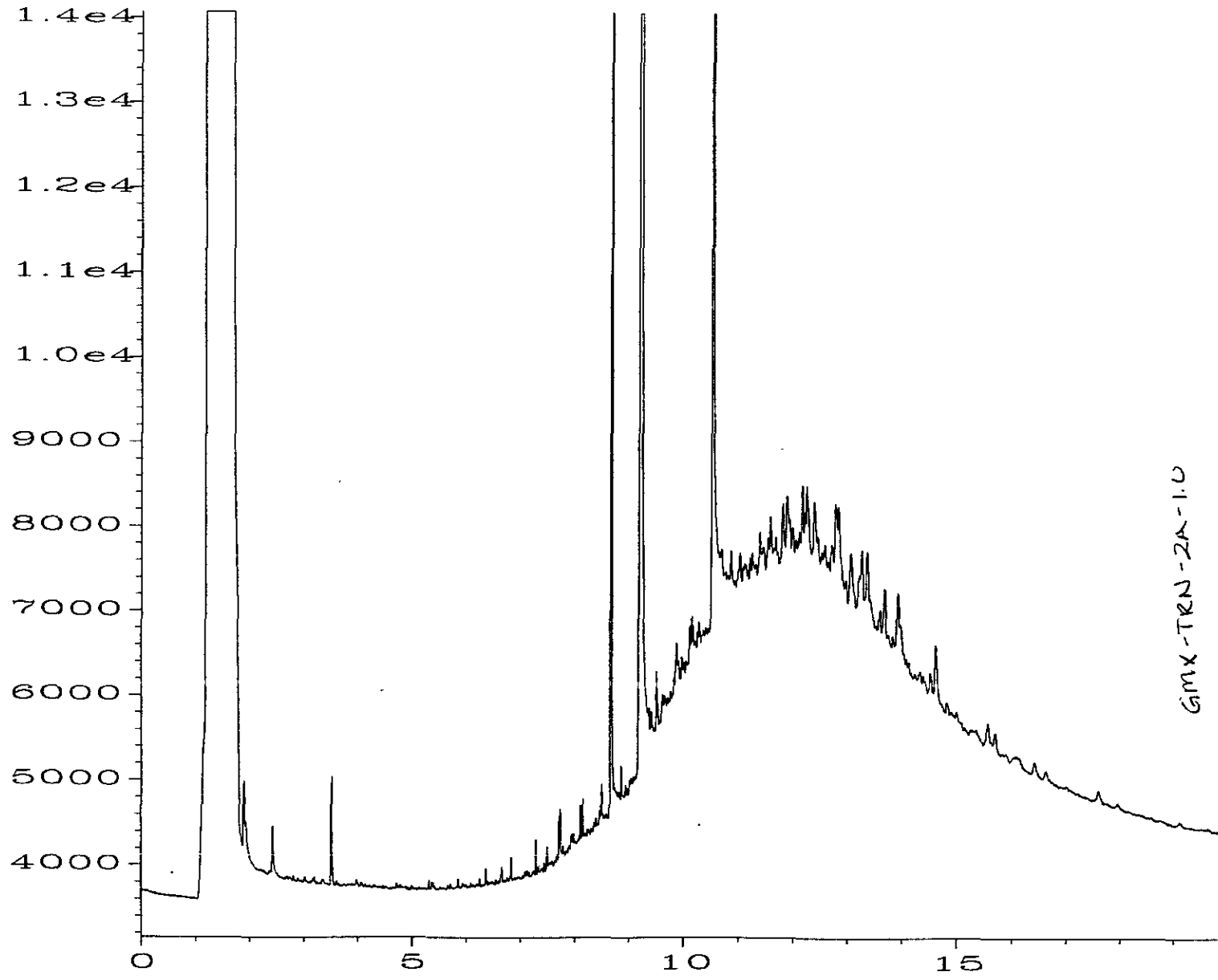
Date: _____
Time: _____
Method of Shipment: 8136 2240 0633
FEDERAL EXPRESS
Laboratory Comments and Log No.:

Received by: *[Signature]*
Printed Name: S. OBORN
Company: F & B, Inc.

Date: 4/10/00
Time: 8A
Received by: _____
Printed Name: _____
Company: _____

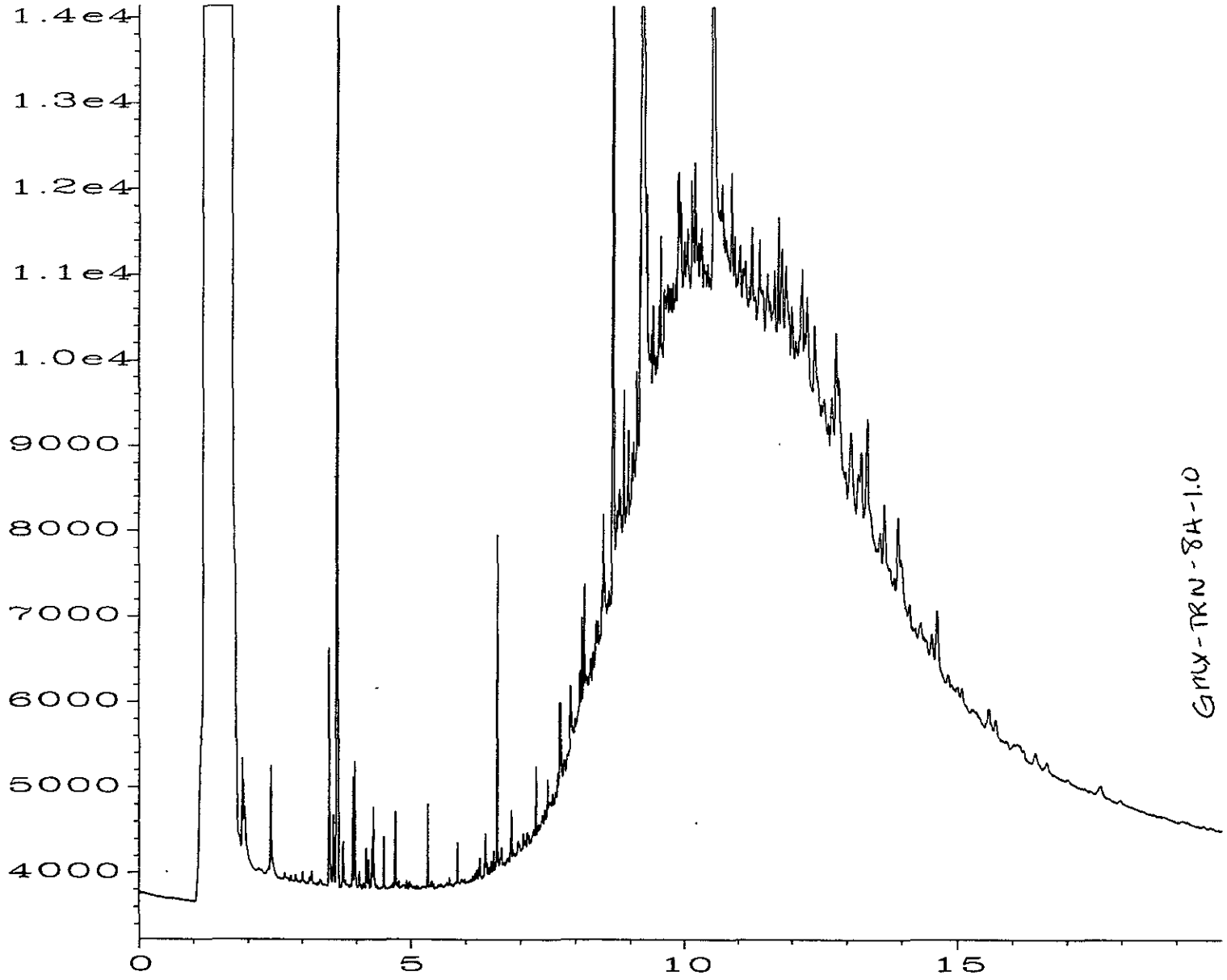
Date: _____
Time: _____
Received by: _____
Printed Name: _____
Company: _____

Time: _____
 **Geomatrix Consultants**
2101 Webster Street, 12th Floor • Oakland, CA 94612
Phone: 510-663-4100 • Fax: 510-663-4141



GMX-TRN-2A-1.0

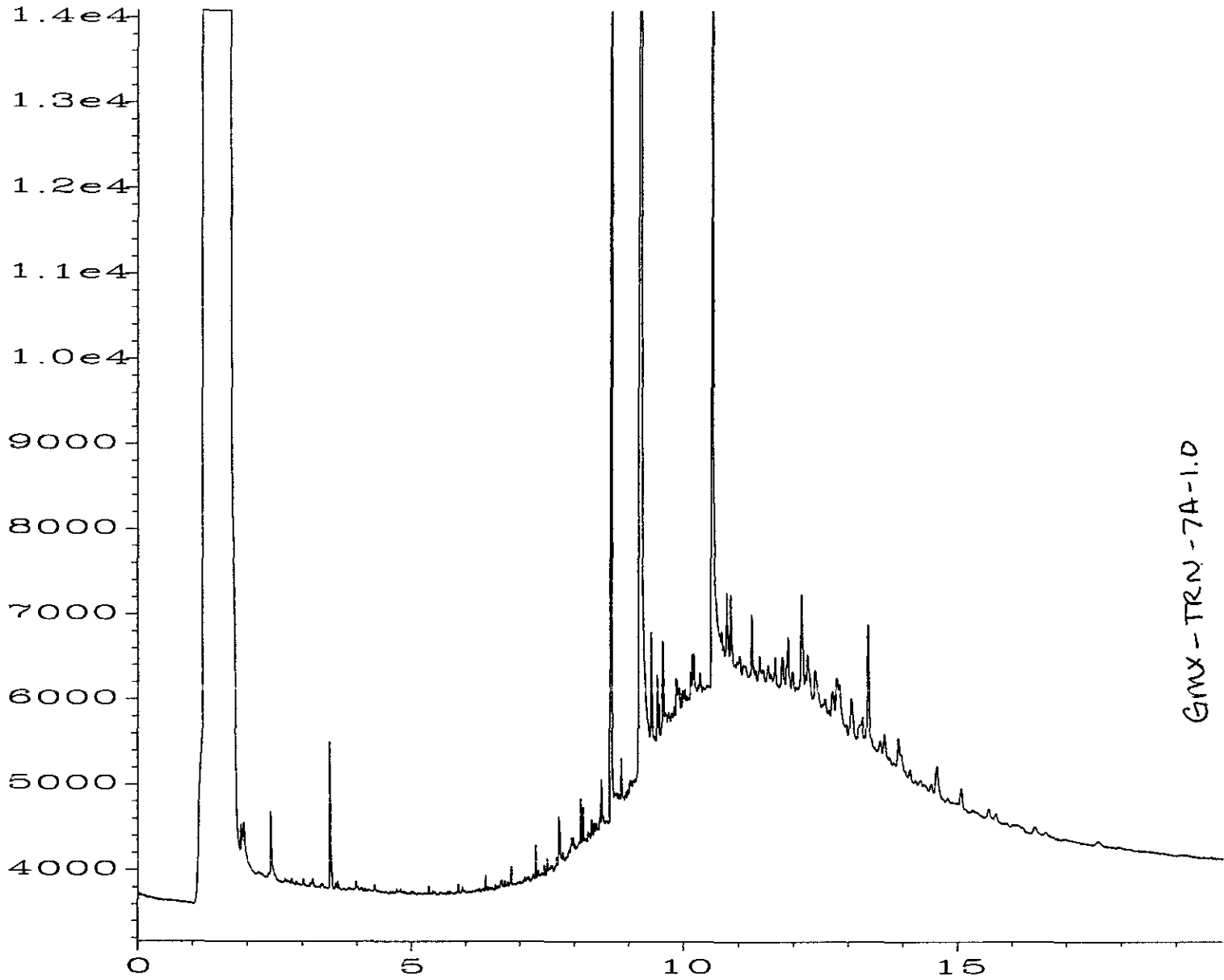
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 Instrument : GC #6
 Sample Name : 004051-01 SG
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 Report Created on: ~~10 Apr 01 07:29 PM~~
 Page Number : 1
 Vial Number : 41
 Injection Number : 1
 Sequence Line : 10
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH
 18 Apr 00 01:00 PM *ms*



GMLX-TRN-8A-1.0

Data File Name : E:\GC6\04-14-00\044F1001.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-02 SG
 Run Time Bar Code : 14 Apr 00 11:01 PM
 Acquired on : ~~10 Apr 01~~ 07:30 PM
 Report Created on: 18 Apr 00 01:00 PM *mm*

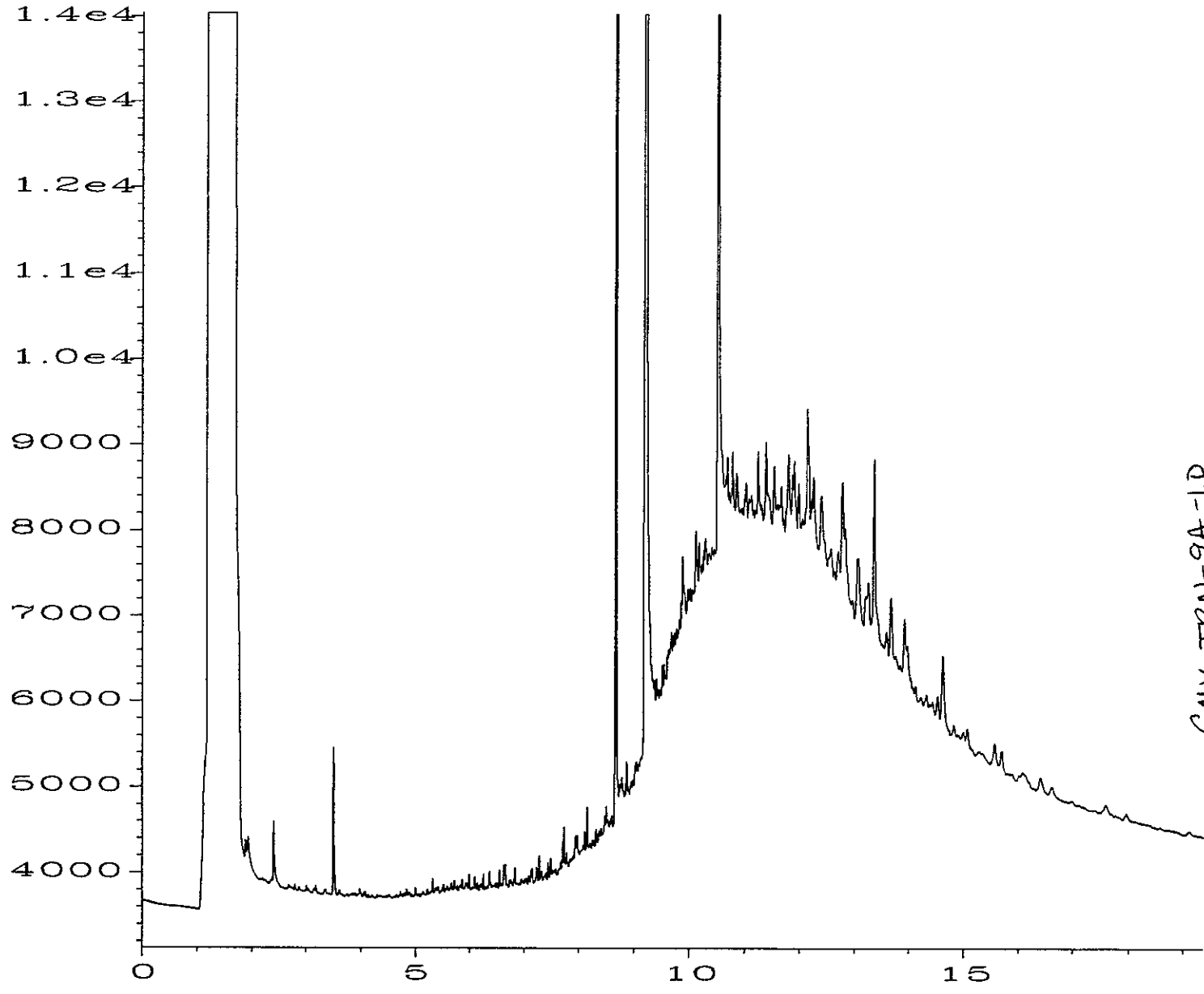
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 Injection Number : 1
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 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-7A-1.0

Data File Name : E:\GC6\04-14-00\045F1001.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-03 SG
 Run Time Bar Code : 14 Apr 00 11:26 PM
 Acquired on : ~~10 Apr 01 07:32 PM~~
 Report Created on: 18 Apr 00 01:00 PM *June*

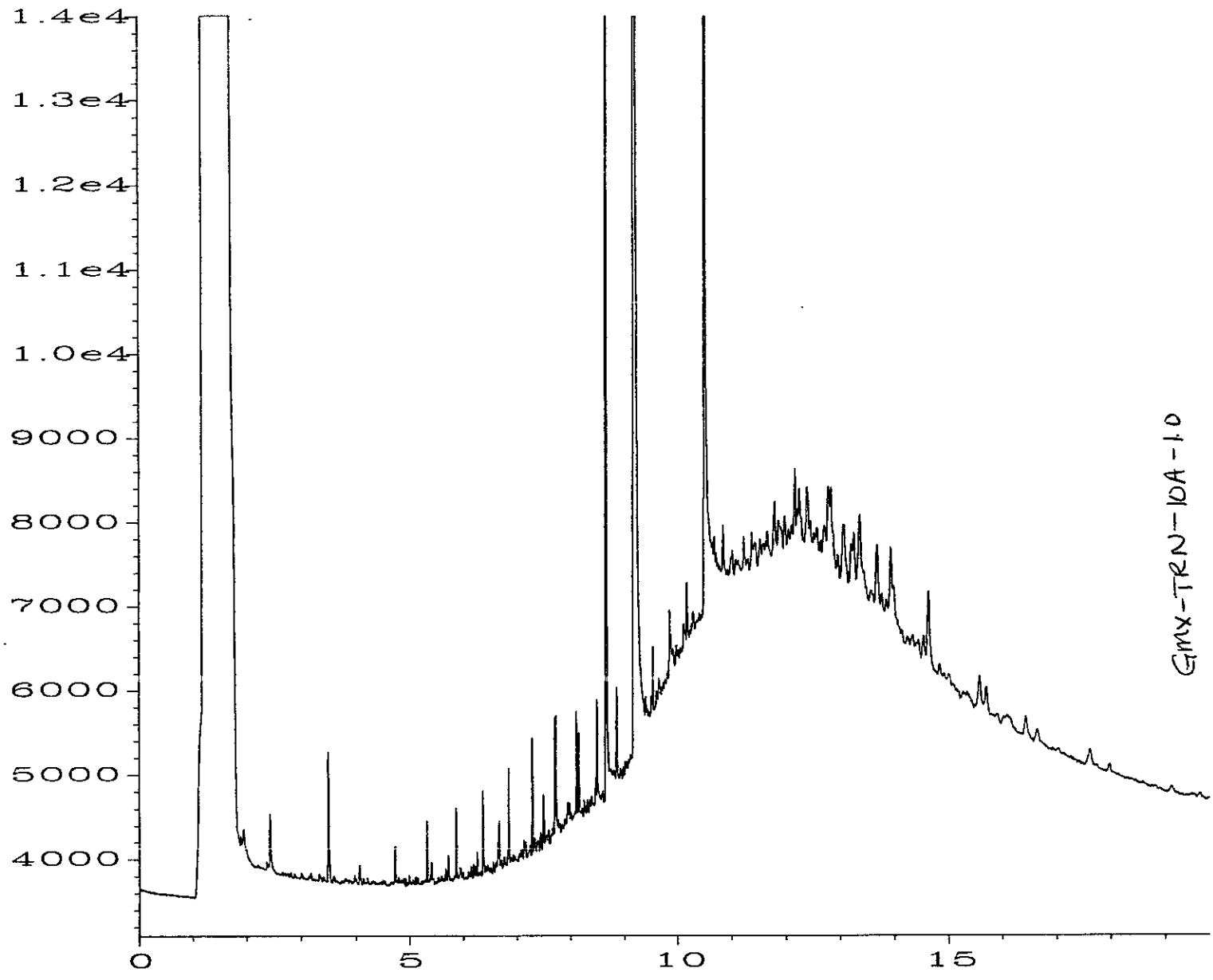
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 Vial Number : 45
 Injection Number : 1
 Sequence Line : 10
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-9A-1.D

Data File Name : E:\GC6\04-14-00\046F1001.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-04 SG
 Run Time Bar Code :
 Acquired on : 14 Apr 00 11:51 PM
 Report Created on: ~~10 Apr 01 07:32 PM~~
 18 Apr 00 01:00 PM *gmc*

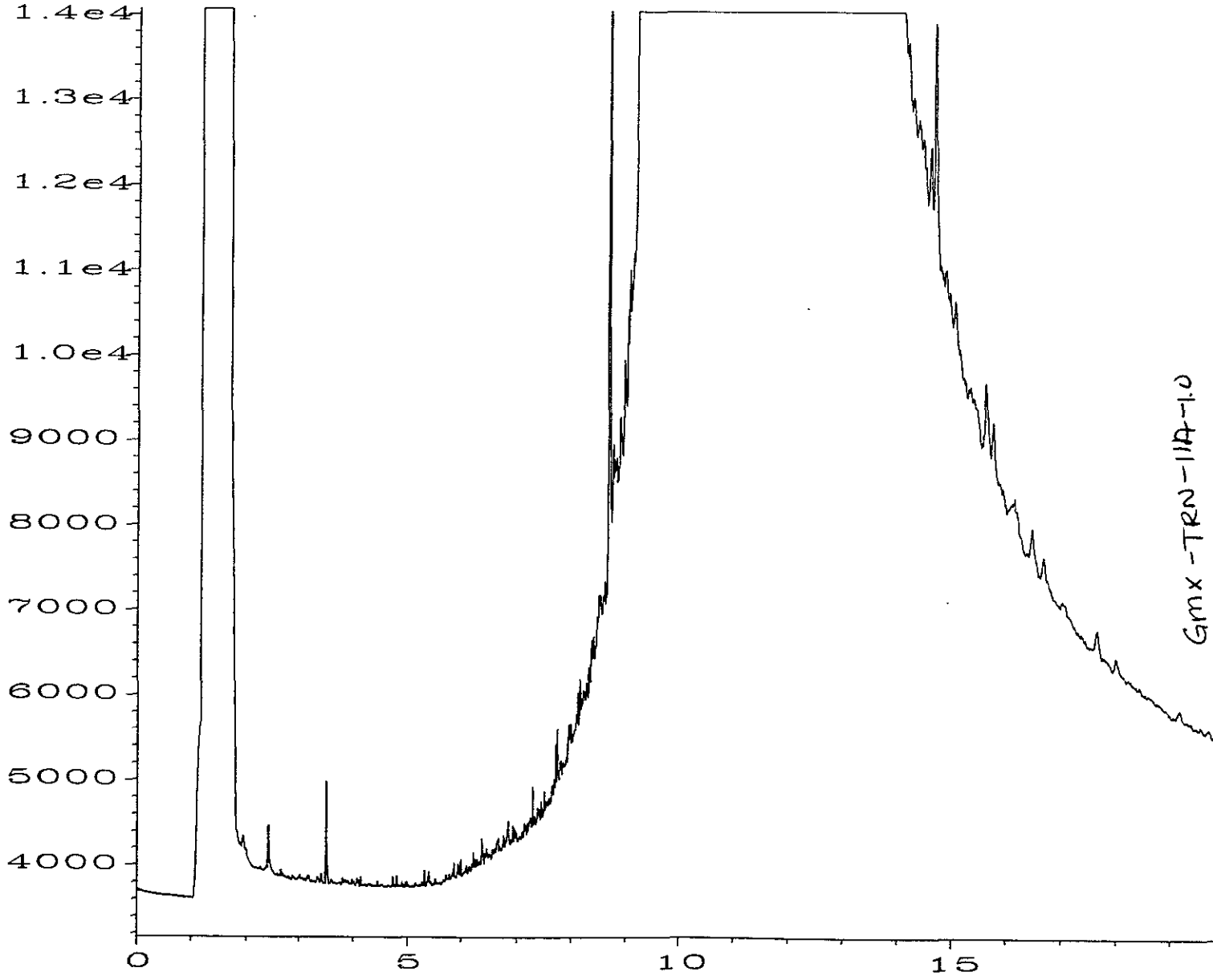
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 Injection Number : 1
 Sequence Line : 10
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-10A-10

Data File Name : E:\GC6\04-14-00\006F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-10 SG
 Run Time Bar Code : 15 Apr 00 03:40 AM
 Acquired on : ~~10 Apr 01 07:34 PM~~
 Report Created on: 16 Apr 00 01:00 PM *mm*

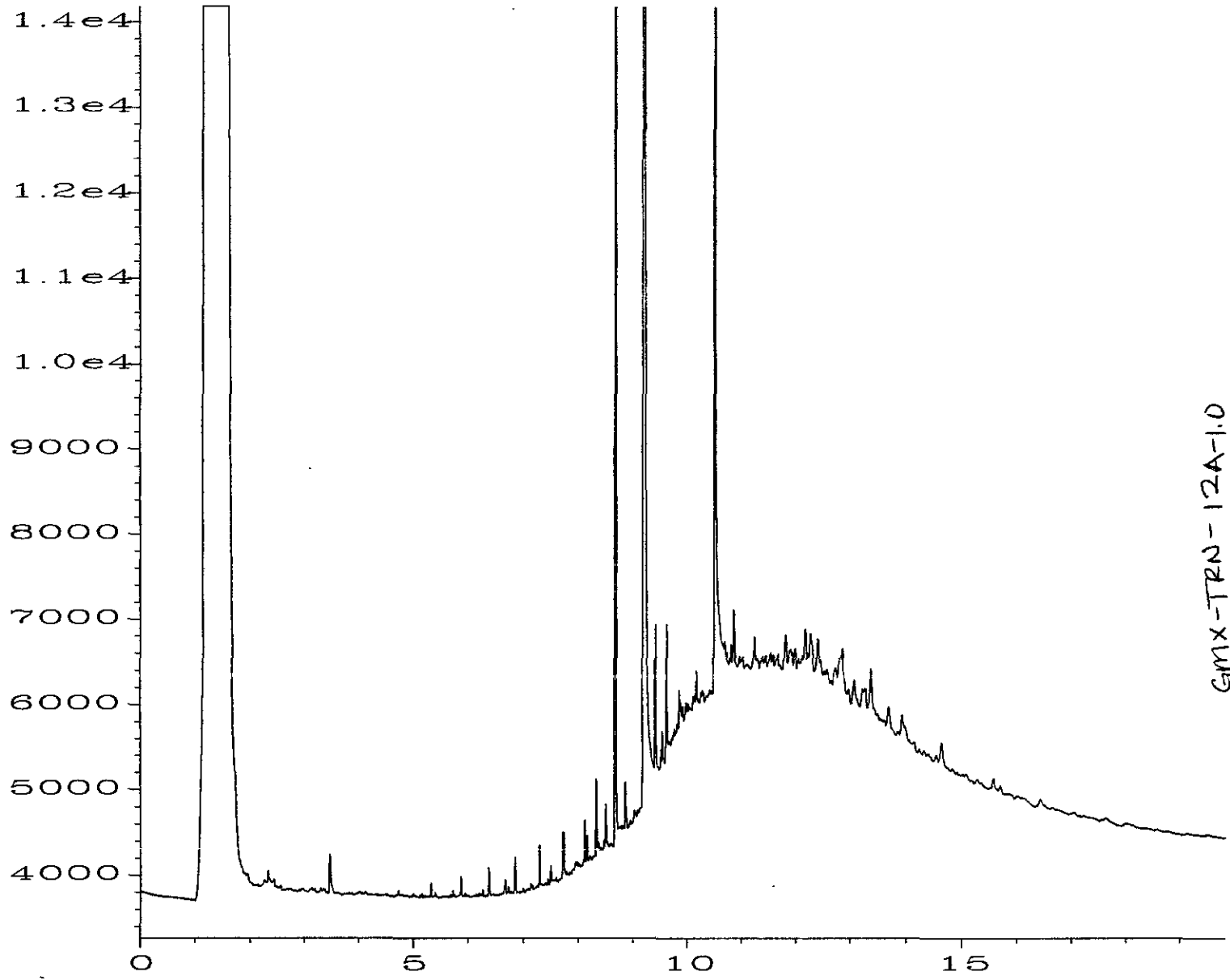
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 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GmX-TRN-11A-1.0

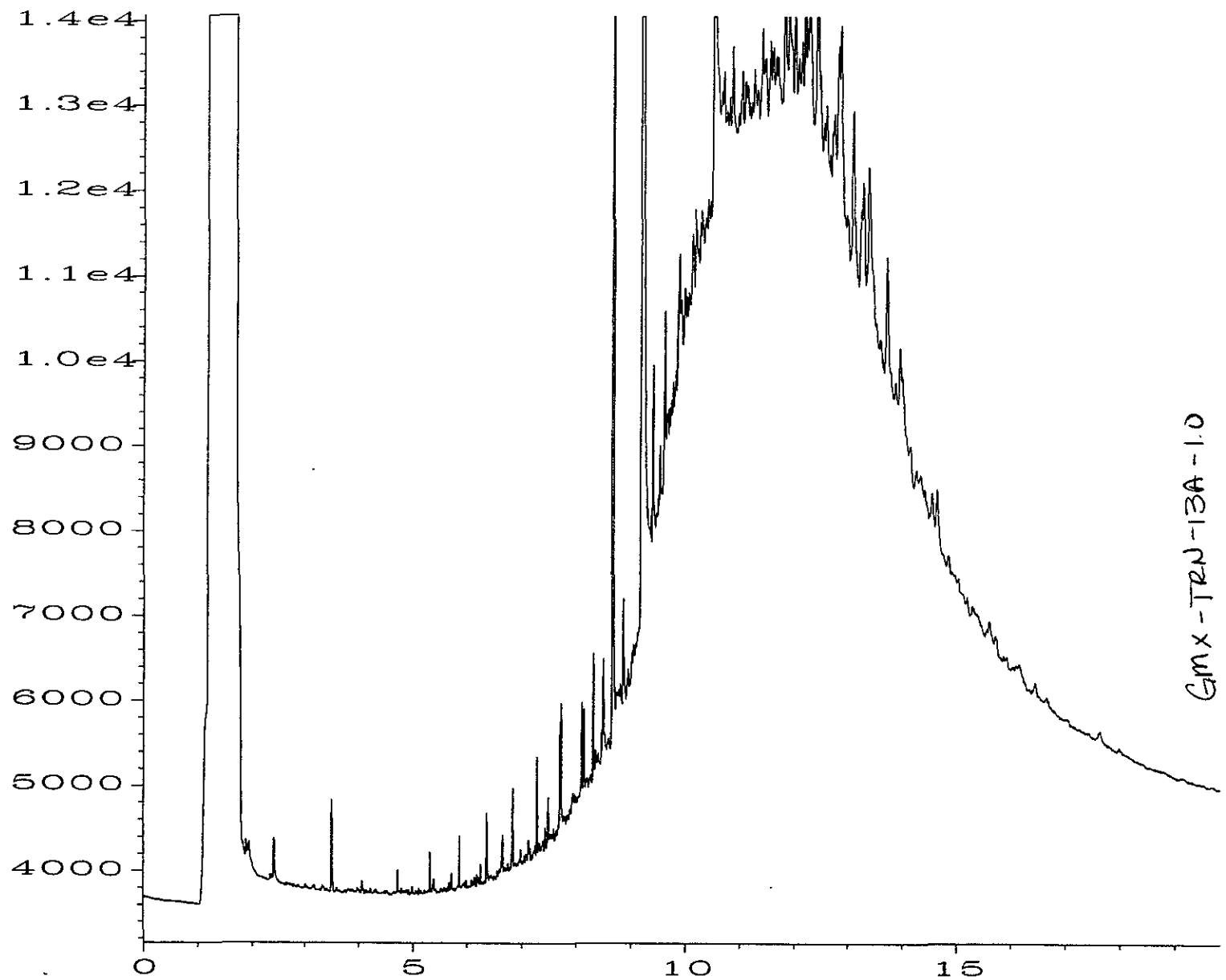
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 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-11 SG
 Run Time Bar Code:
 Acquired on : 15 Apr 00 04:05 AM
 Report Created on: ~~10 Apr 01 07:34 PM~~
 18 Apr 00 01:00 PM *gmc*

Page Number : 1
 Vial Number : 7
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-12A-1.0

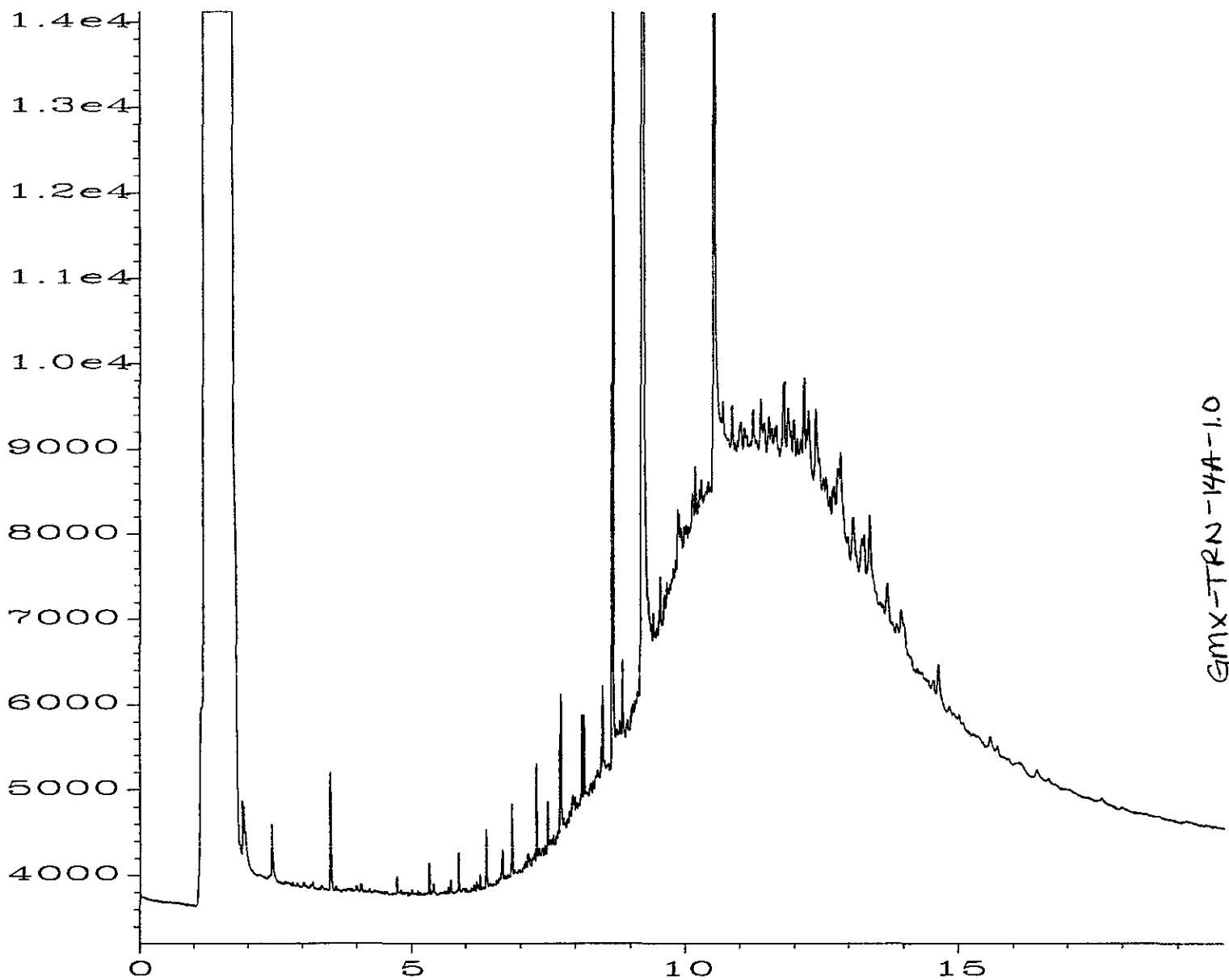
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Operator	: MC	Vial Number	: 8
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 004051-12 SG	Sequence Line	: 12
Run Time Bar Code	: 15 Apr 00 04:31 AM	Instrument Method	: TPHD.MTH
Acquired on	: 10 APR 01 07:34 PM	Analysis Method	: TPHD.MTH
Report Created on:	18 Apr 00 01:00 PM		



GMX-TRN-13A-1.0

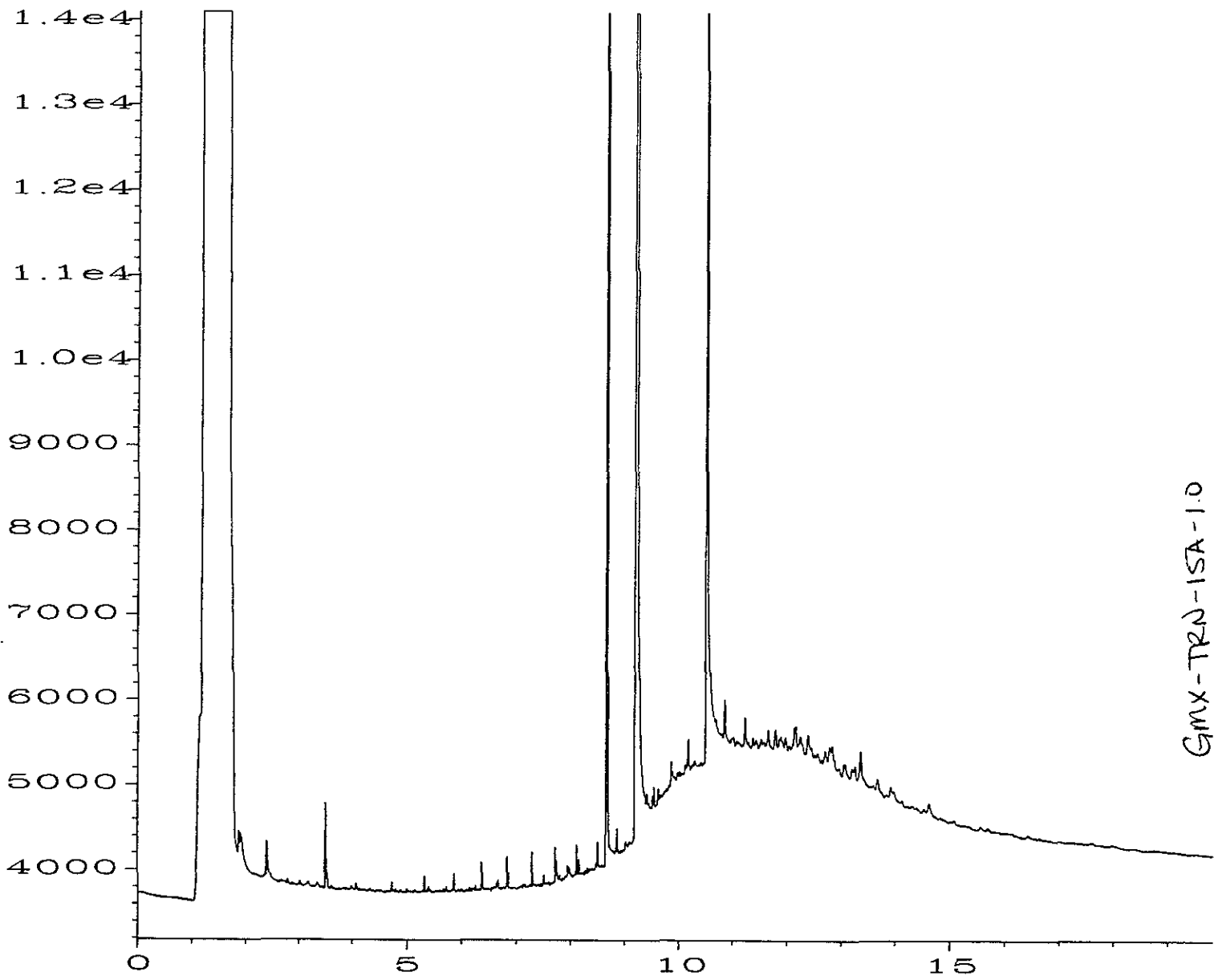
Data File Name : E:\GC6\04-14-00\009F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-13 SG
 Run Time Bar Code:
 Acquired on : 15 Apr 00 04:56 AM
 Report Created on: ~~10 Apr 01 07:35 PM~~
 18 Apr 00 01:00 PM *mm*

Page Number : 1
 Vial Number : 9
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-14A-1.0

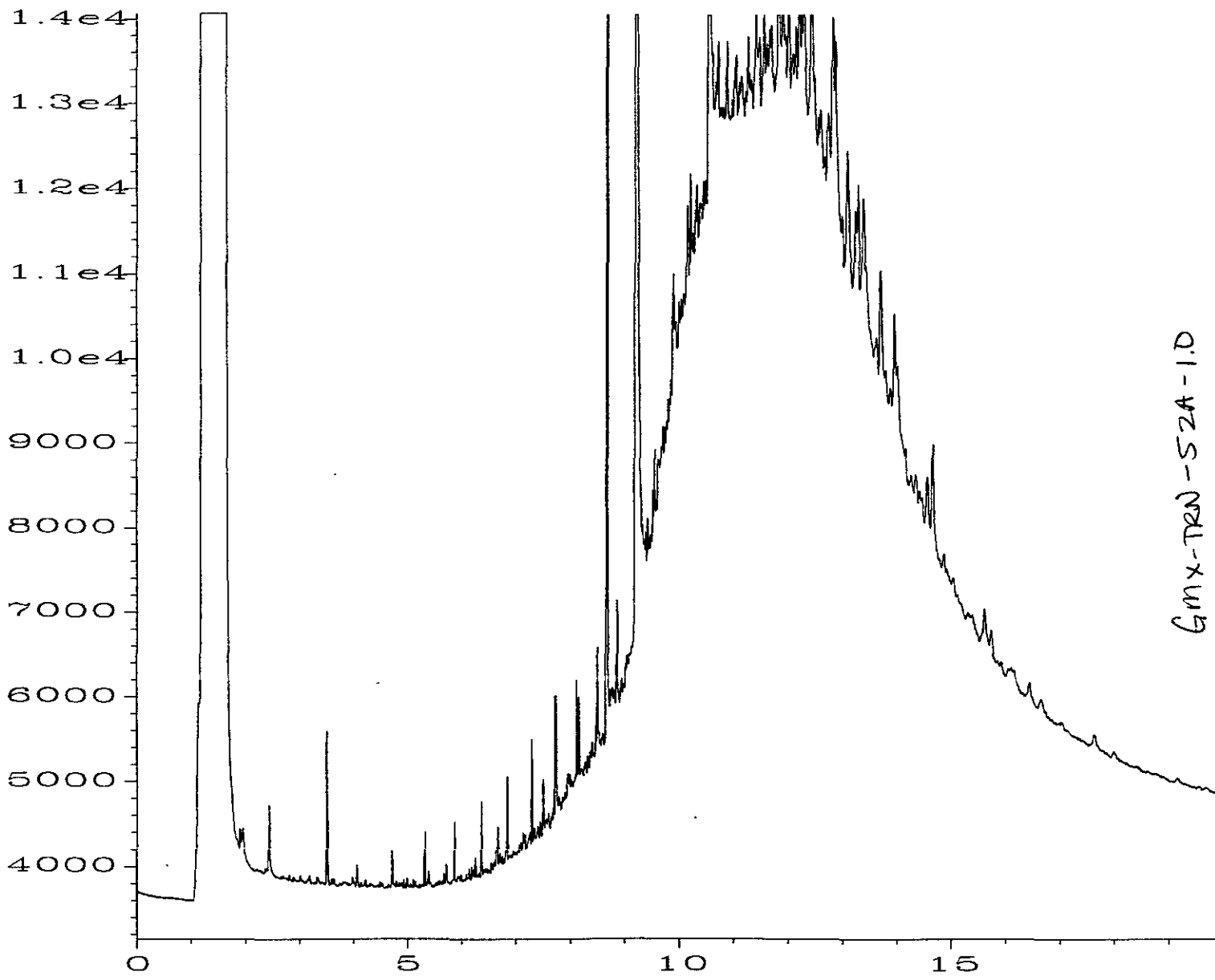
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 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-14 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 05:22 AM
 Report Created on: ~~10 Apr 01 07:58 PM~~
 Page Number : 1
 Vial Number : 10
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH
 18 Apr 00 01:00 PM *gma*



GMX-TRN-ISA-1.0

Data File Name : E:\GC6\04-14-00\011F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-15 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 05:47 AM
 Report Created on: ~~10 Apr 01 07:59 PM~~
 Page Number : 1
 Vial Number : 11
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH

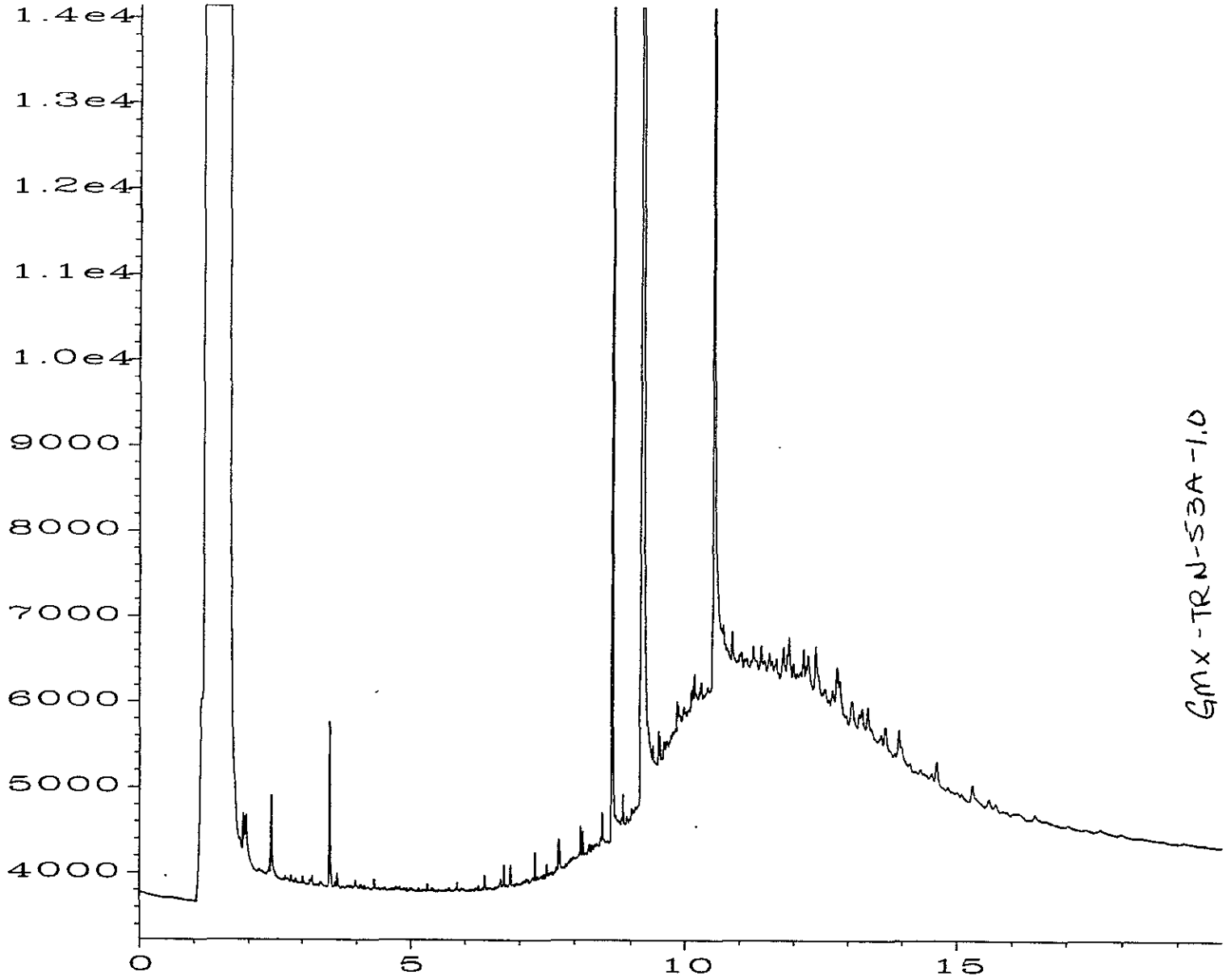
18 Apr 00 01:00 PM *mc*



GMX-TRN-52A-1.D

Data File Name : E:\GC6\04-14-00\012F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-16 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 06:12 AM
 Report Created on: ~~10 Apr 01 07:59 PM~~
 18 Apr 00 01:00 PM *gmc*

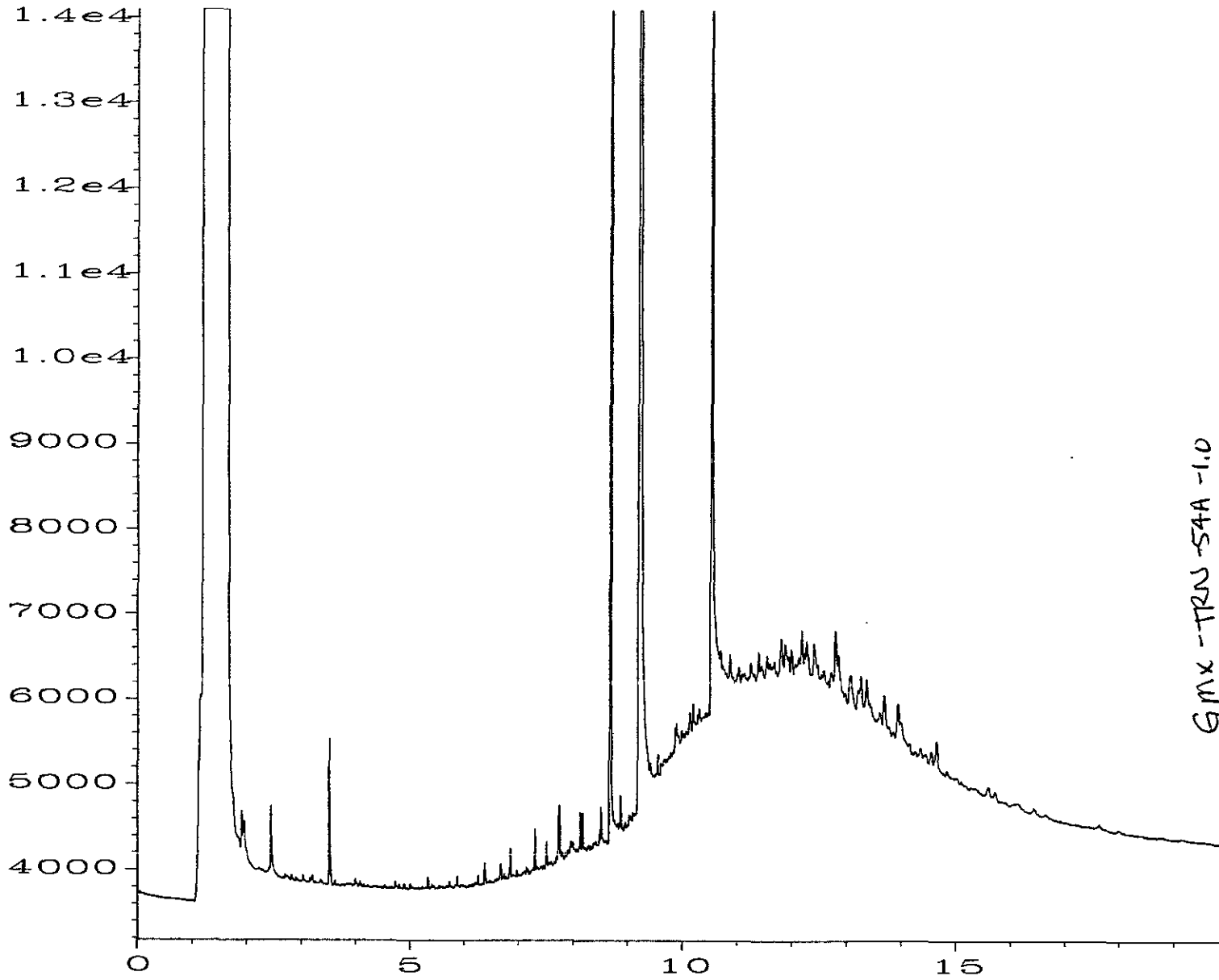
Page Number : 1
 Vial Number : 12
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-53A-1.0

Data File Name : E:\GC6\04-14-00\013F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-17 SG
 Run Time Bar Code : 15 Apr 00 06:38 AM
 Acquired on : ~~10 Apr 01 07:59 PM~~
 Report Created on : 18 Apr 00 01:00 PM *mc*

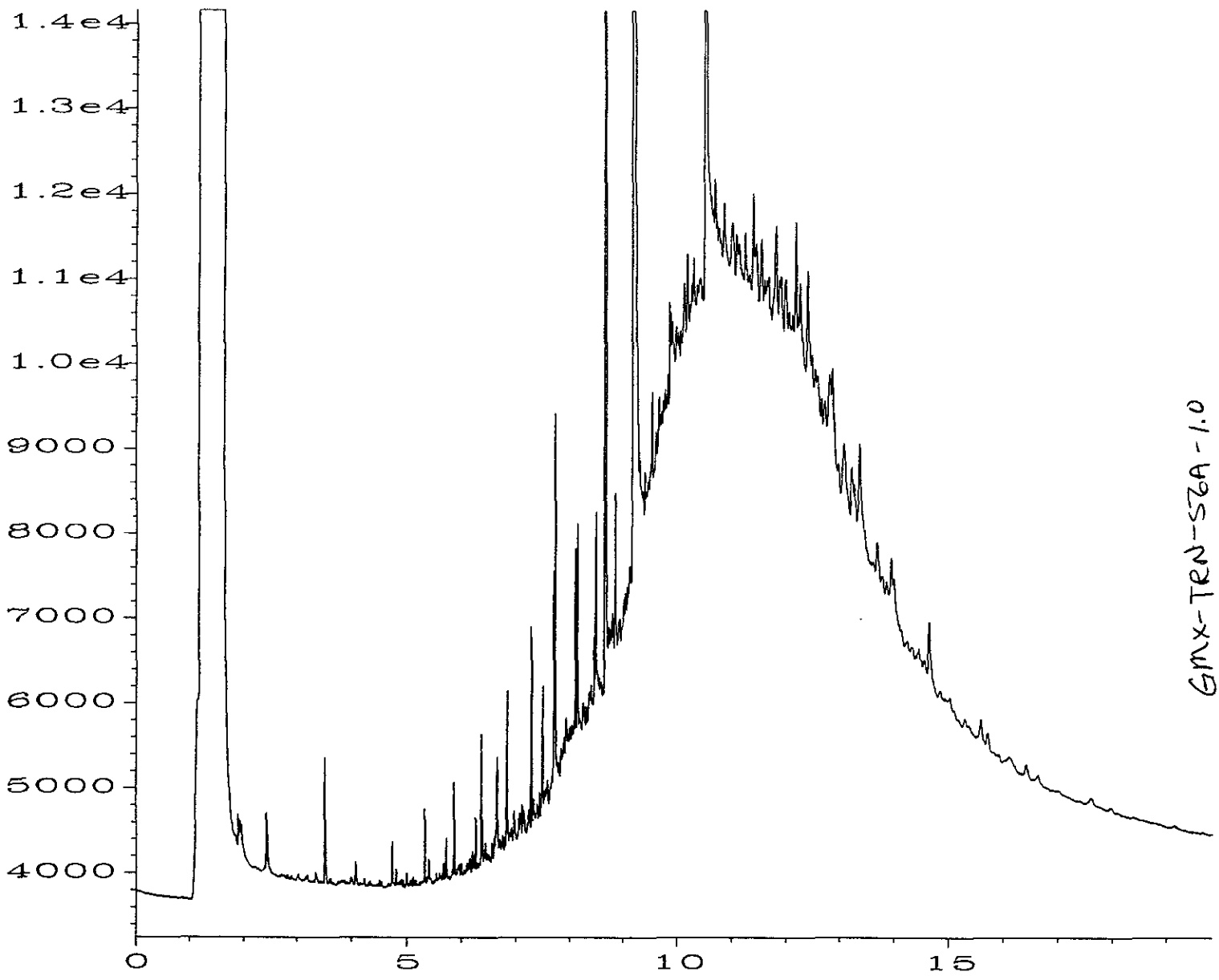
Page Number : 1
 Vial Number : 13
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-54A-1.0

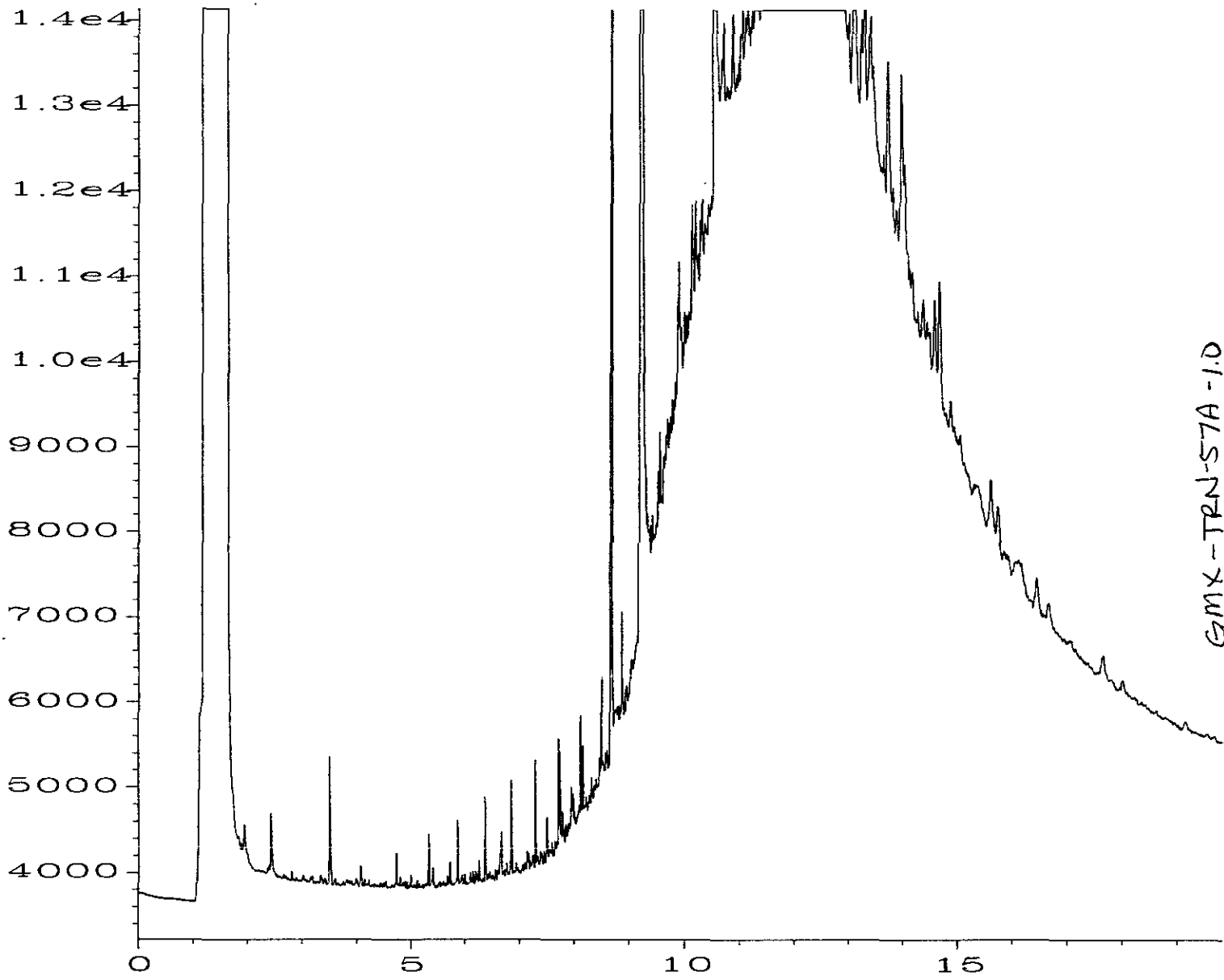
Data File Name : E:\GC6\04-14-00\014F1201.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-18 SG
 Run Time Bar Code:
 Acquired on : 15 Apr 00 07:03 AM
 Report Created on: ~~10 Apr 01 07:57 PM~~
 Page Number : 1
 Vial Number : 14
 Injection Number : 1
 Sequence Line : 12
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH

18 Apr 00 01:00 PM *gmk*



GMX-TRN-S2A-1.0

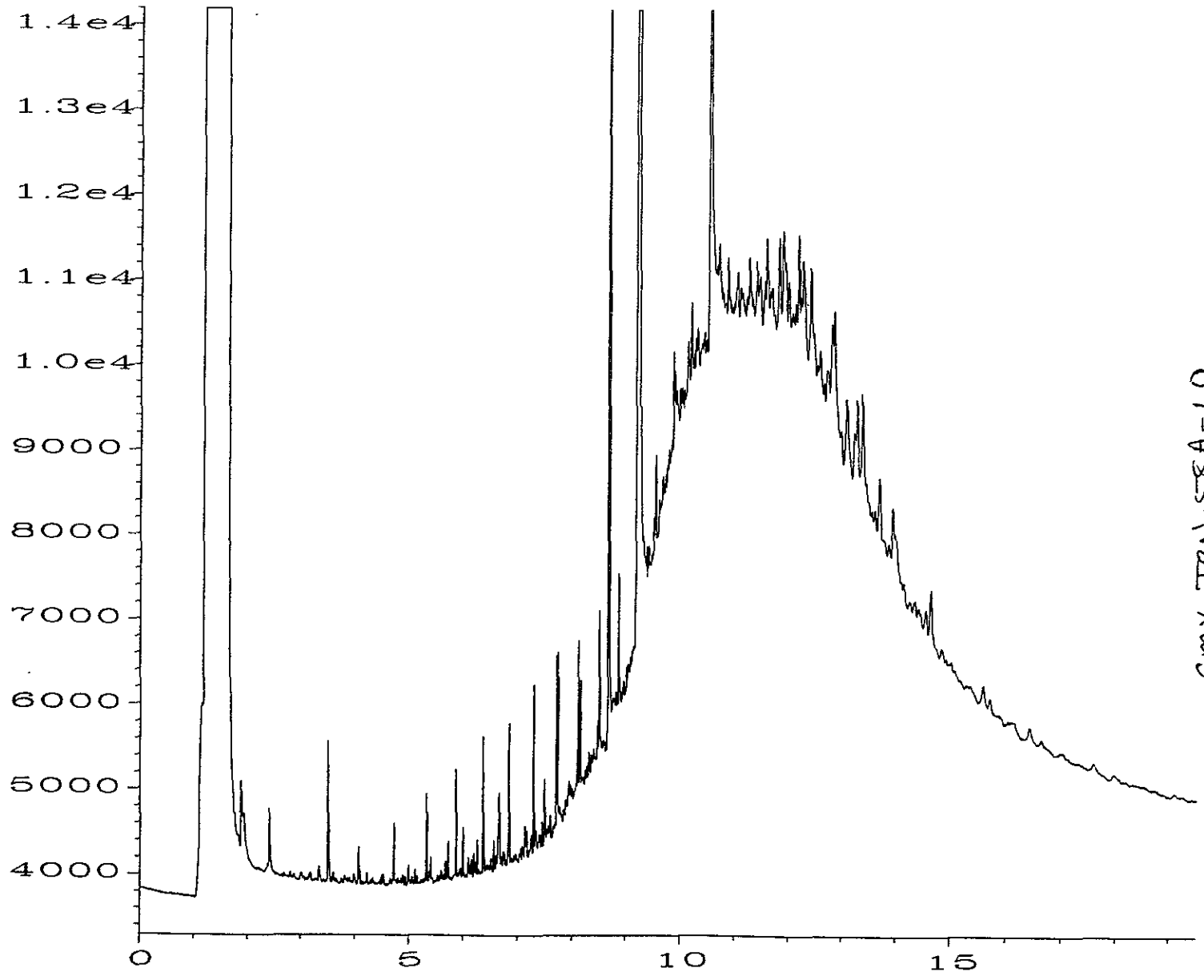
Data File Name : E:\GC6\04-14-00\016F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-20 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 08:44 AM
 Report Created on: ~~10 Apr 01 08:00 PM~~
 Page Number : 1
 Vial Number : 16
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH
 18 Apr 00 01:00 PM *mm*



GMX-TRN-57A-1.D

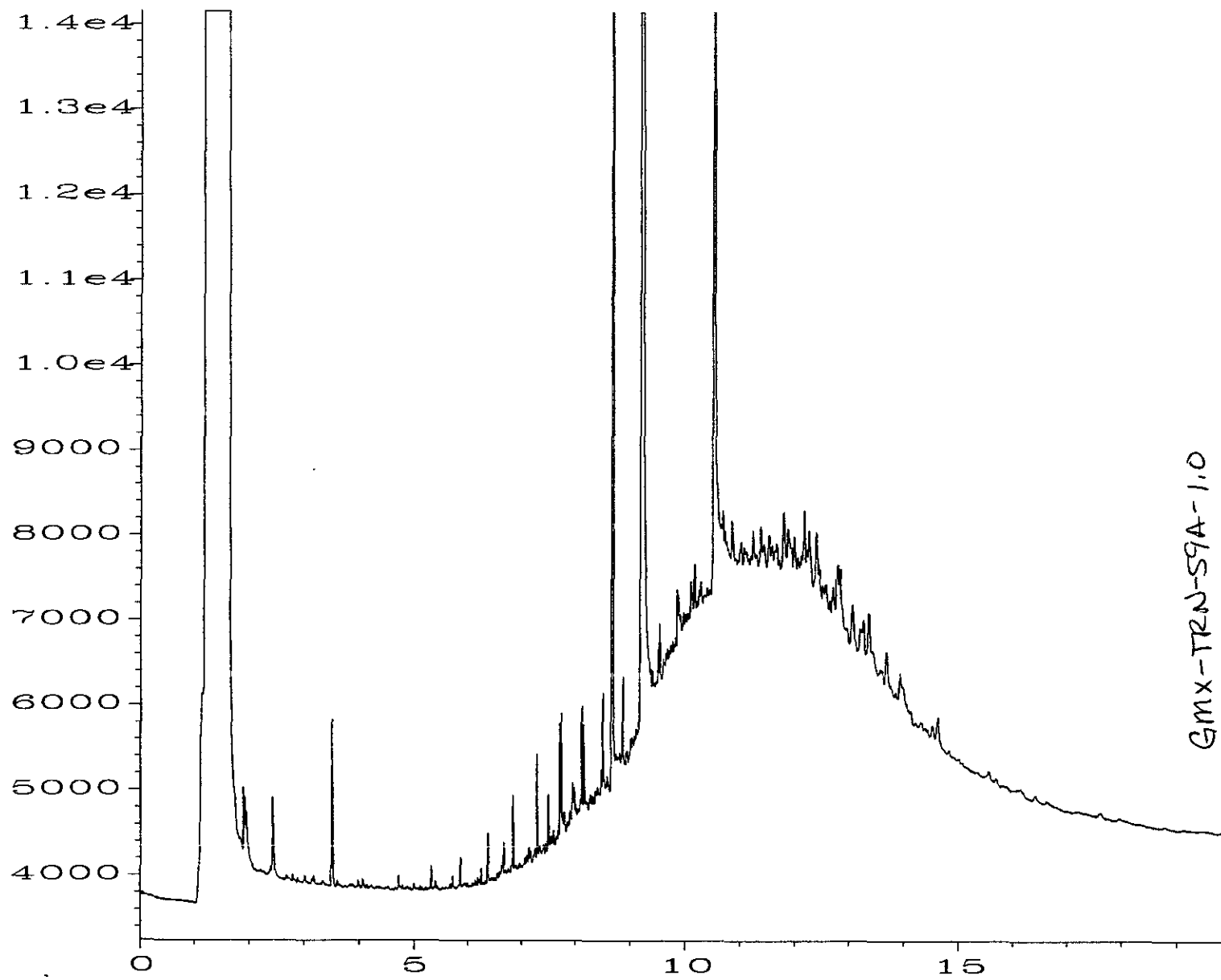
Data File Name : E:\GC6\04-14-00\019F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-21 SG
 Run Time Bar Code : 15 Apr 00 10:00 AM
 Acquired on : ~~10 Apr 01 08:01 PM~~
 Report Created on: 18 Apr 00 01:00 PM *me*

Page Number : 1
 Vial Number : 19
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



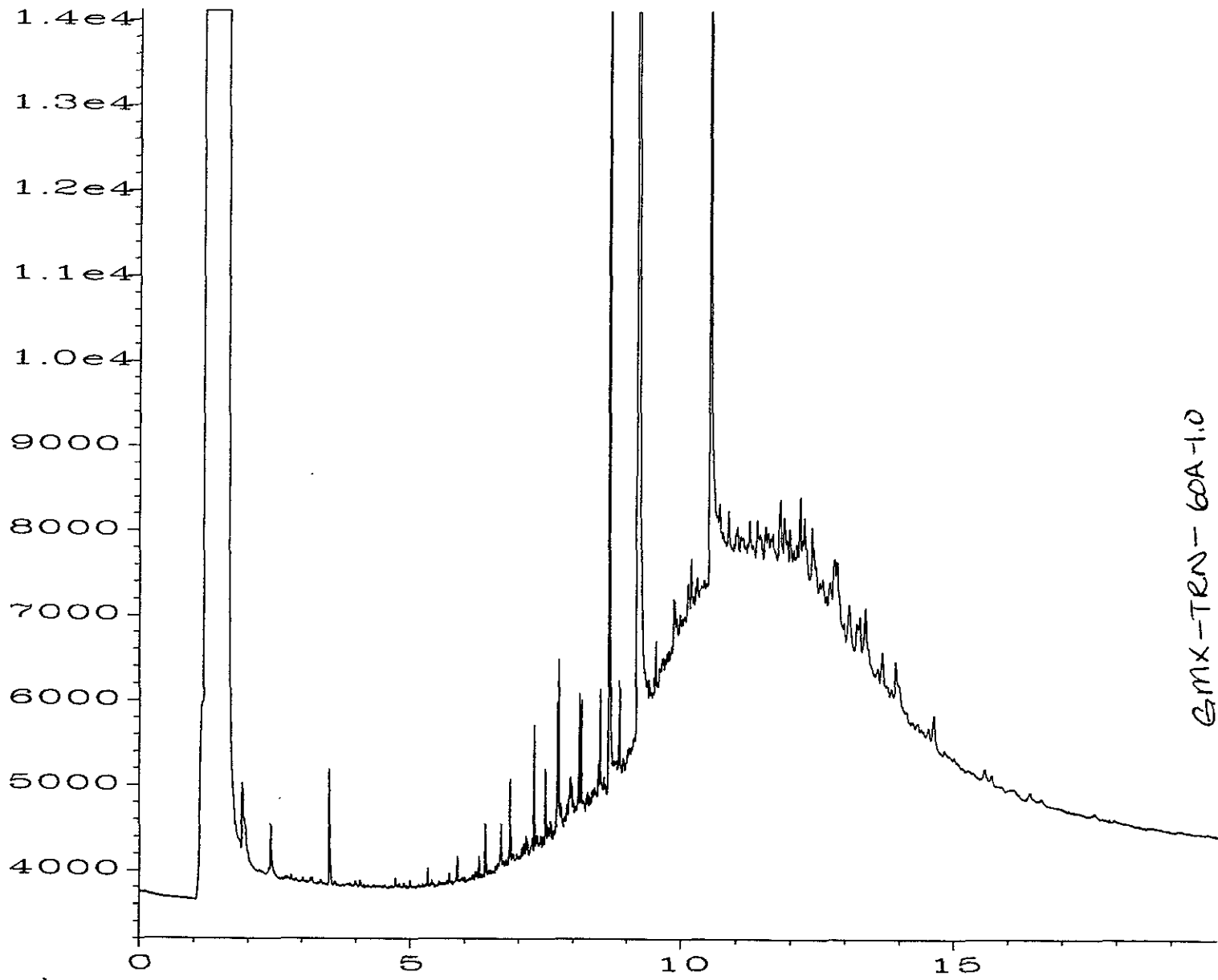
Gmx-TRN-58A-1.0

Data File Name : E:\GC6\04-14-00\020F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-22 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 10:26 AM
 Report Created on: ~~10 Apr 01 08:01 PM~~
 Page Number : 1
 Vial Number : 20
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH
 18 Apr 00 01:00 PM *gms*



GMX-TRN-S9A-1.0

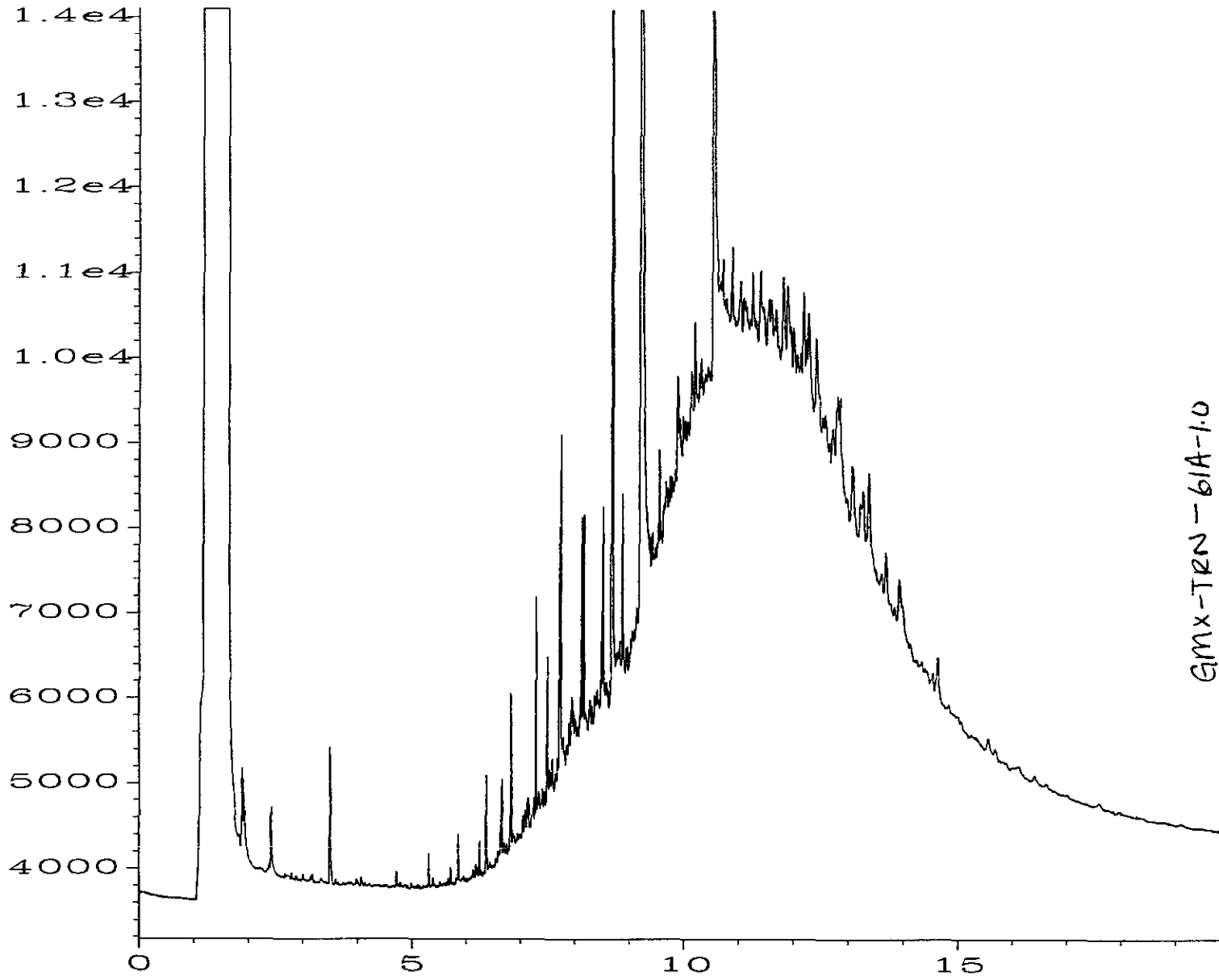
Data File Name : E:\GC6\04-14-00\021F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-23 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 10:51 AM
 Report Created on: ~~10 Apr 01 08:01 PM~~ 18 Apr 00 01:00 PM *mc*
 Page Number : 1
 Vial Number : 21
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-60A-1.0

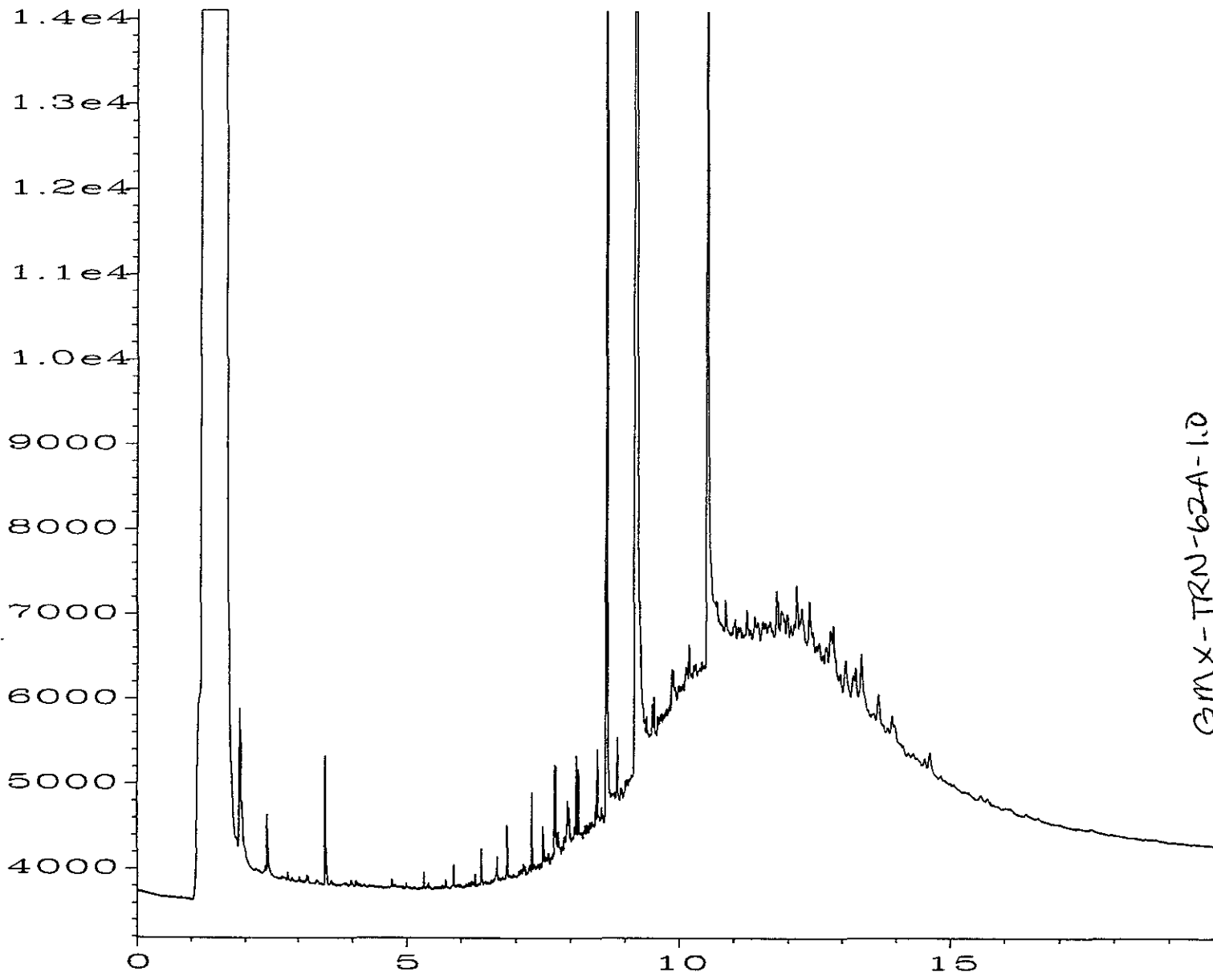
Data File Name : E:\GC6\04-14-00\022F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-24 SG
 Run Time Bar Code :
 Acquired on : 15 Apr 00 11:17 AM
 Report Created on: ~~10 Apr 01 08:02 PM~~
 10 Apr 00 01:00 PM *mm*

Page Number : 1
 Vial Number : 22
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRN-61A-1.0

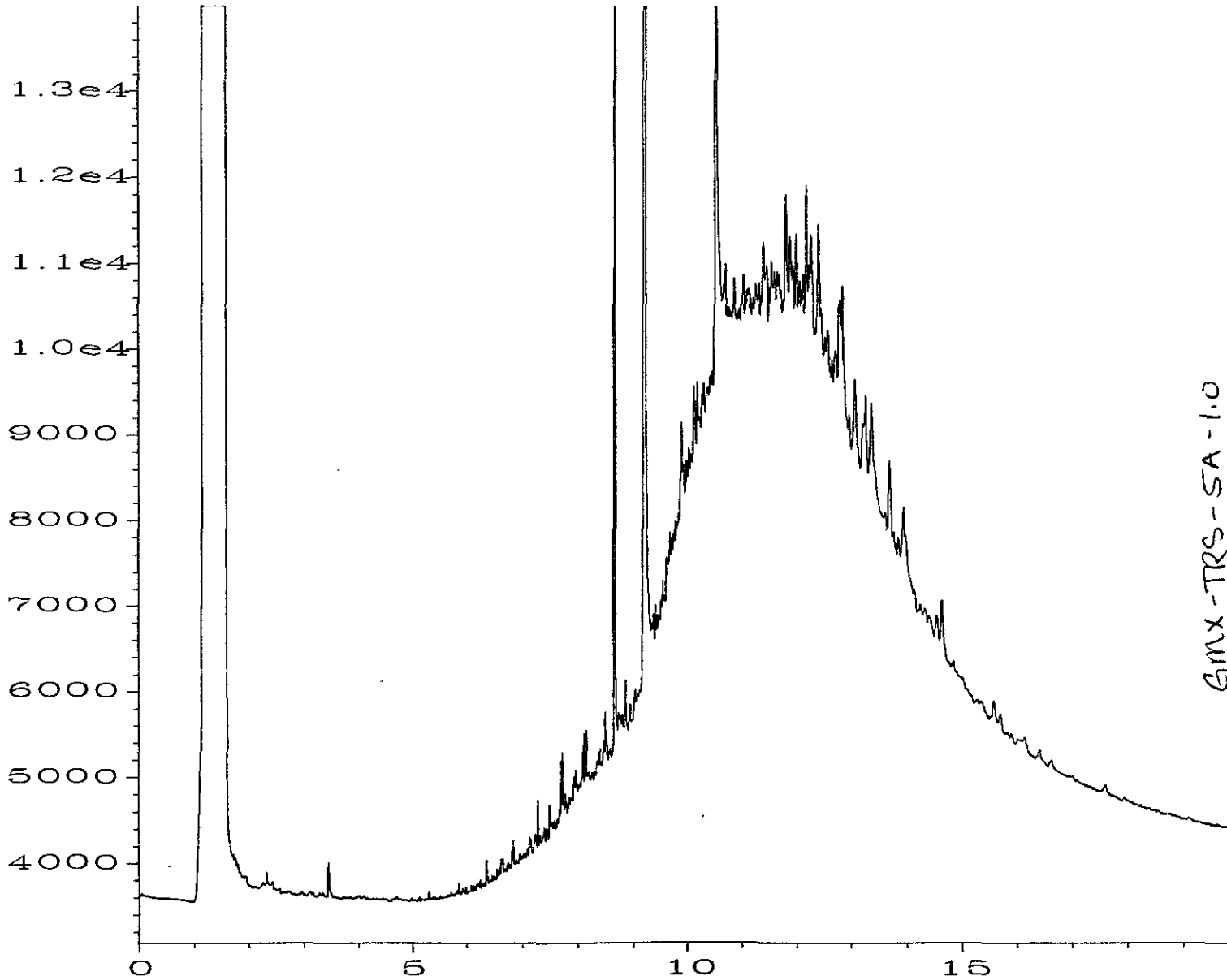
Data File Name	: E:\GC6\04-14-00\023F1401.D	Page Number	: 1
Operator	: MC	Vial Number	: 23
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 004051-25 SG	Sequence Line	: 14
Run Time Bar Code	: 15 Apr 00 11:42 AM	Instrument Method	: TPHD.MTH
Acquired on	: 10 Apr 01 08:03 PM	Analysis Method	: TPHD.MTH
Report Created on:	18 Apr 00 01:00 PM <i>mm</i>		



GM X-TRN-62A-1.D

Data File Name : E:\GC6\04-14-00\024F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-26 SG
 Run Time Bar Code : 15 Apr 00 12:07 PM
 Acquired on: ~~10 Apr 01 08:04 PM~~
 Report Created on: 15 Apr 00 01:00 PM

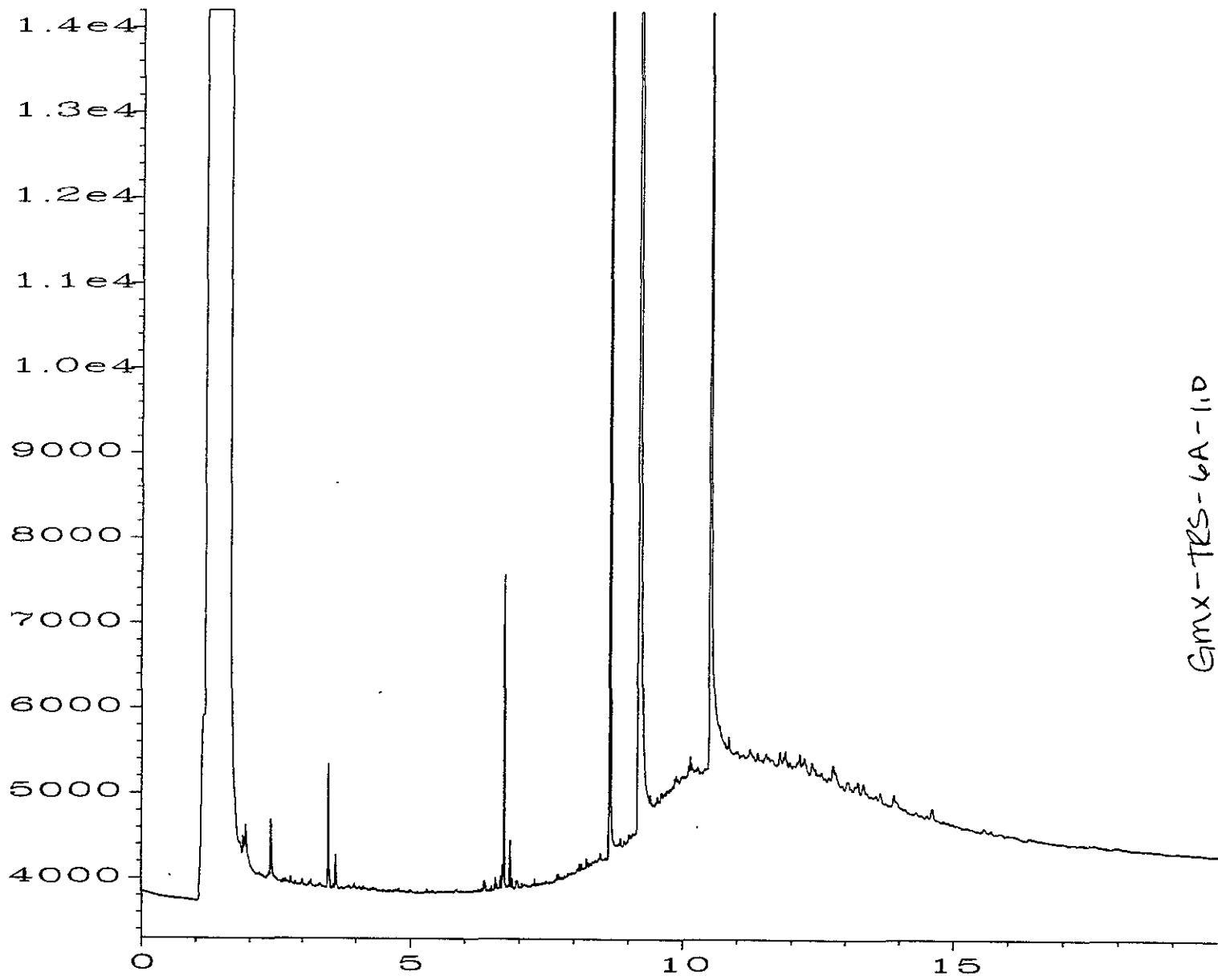
Page Number : 1
 Vial Number : 24
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



GMX-TRS-SA-1.0

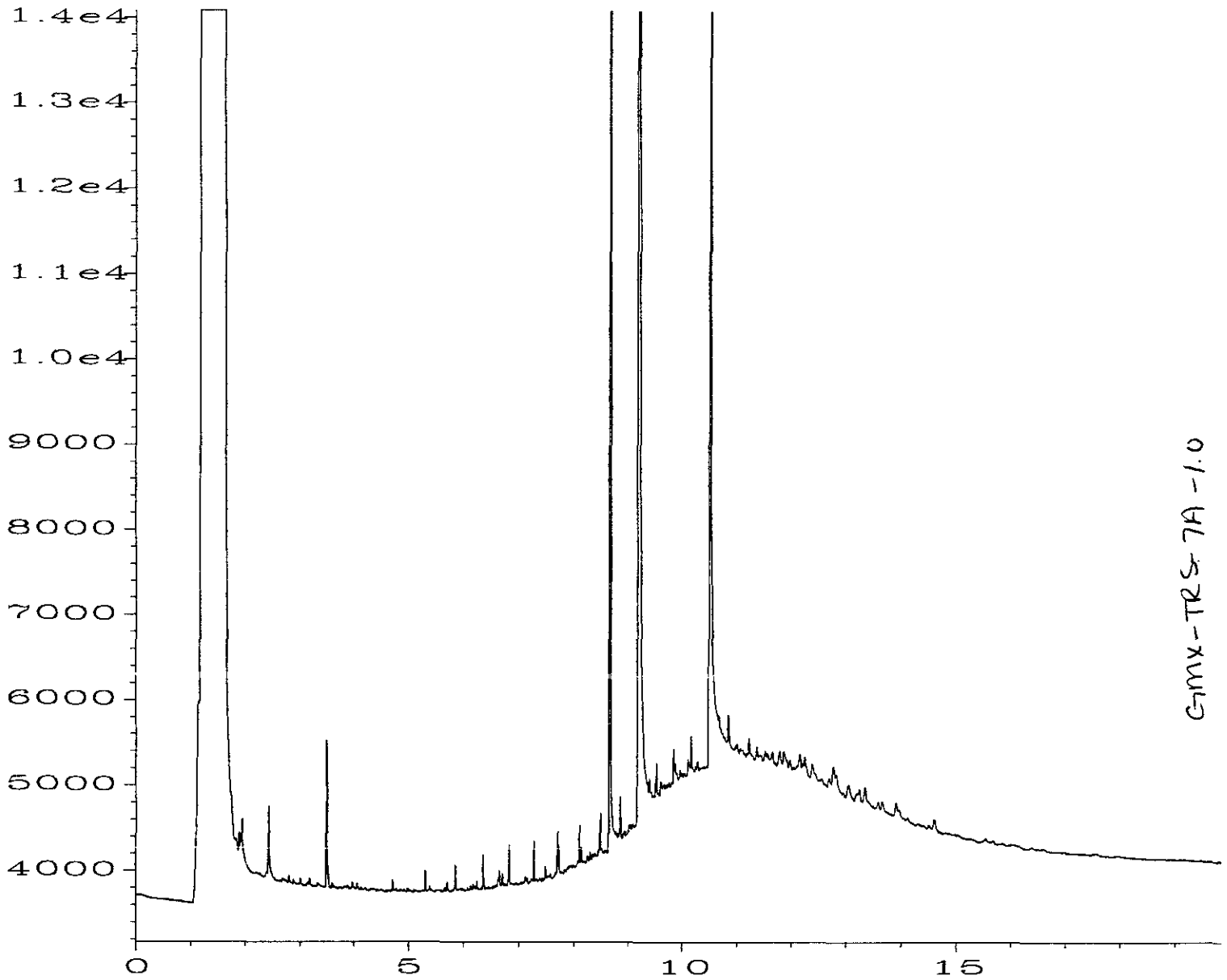
Data File Name : E:\GC6\04-14-00\058F1601.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 004051-34 SG
 Run Time Bar Code : 15 Apr 00 04:48 PM
 Acquired on : ~~10 Apr 01 08:04 PM~~
 Report Created on: 10 Apr 00 01:00 PM *jm*

Page Number : 1
 Vial Number : 58
 Injection Number : 1
 Sequence Line : 16
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



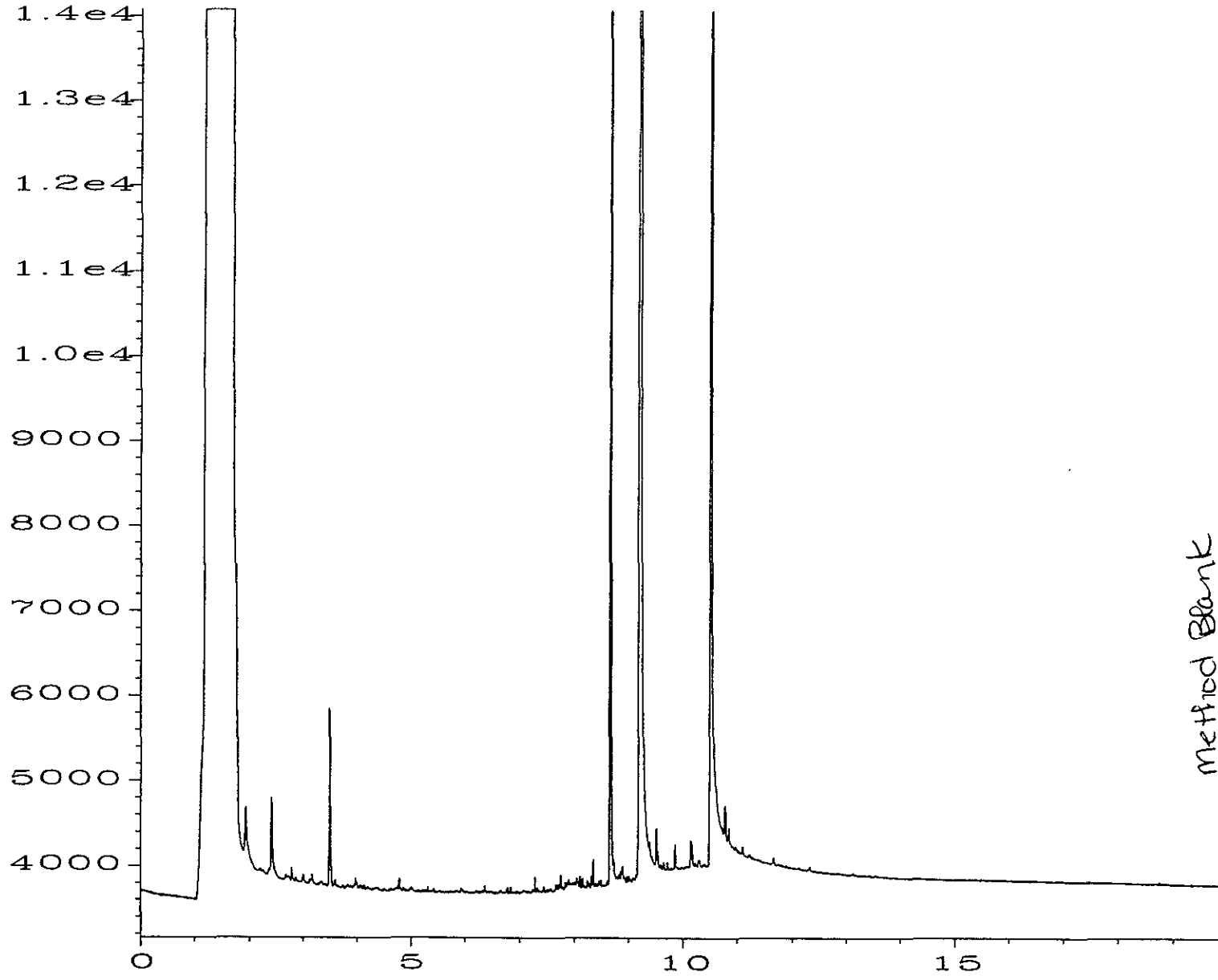
GMX-TRS-6A-1.D

Data File Name	: E:\GC6\04-14-00\061F1601.D	Page Number	: 1
Operator	: MC	Vial Number	: 61
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 004051-35 SG	Sequence Line	: 16
Run Time Bar Code		Instrument Method	: TPHD.MTH
Acquired on	: 15 Apr 00 06:05 PM	Analysis Method	: TPHD.MTH
Report Created on:	10 Apr 01 08:04 PM		
	10 Apr 00 01:00 PM <i>mc</i>		



C:\MX-TR\S 7A -1.0

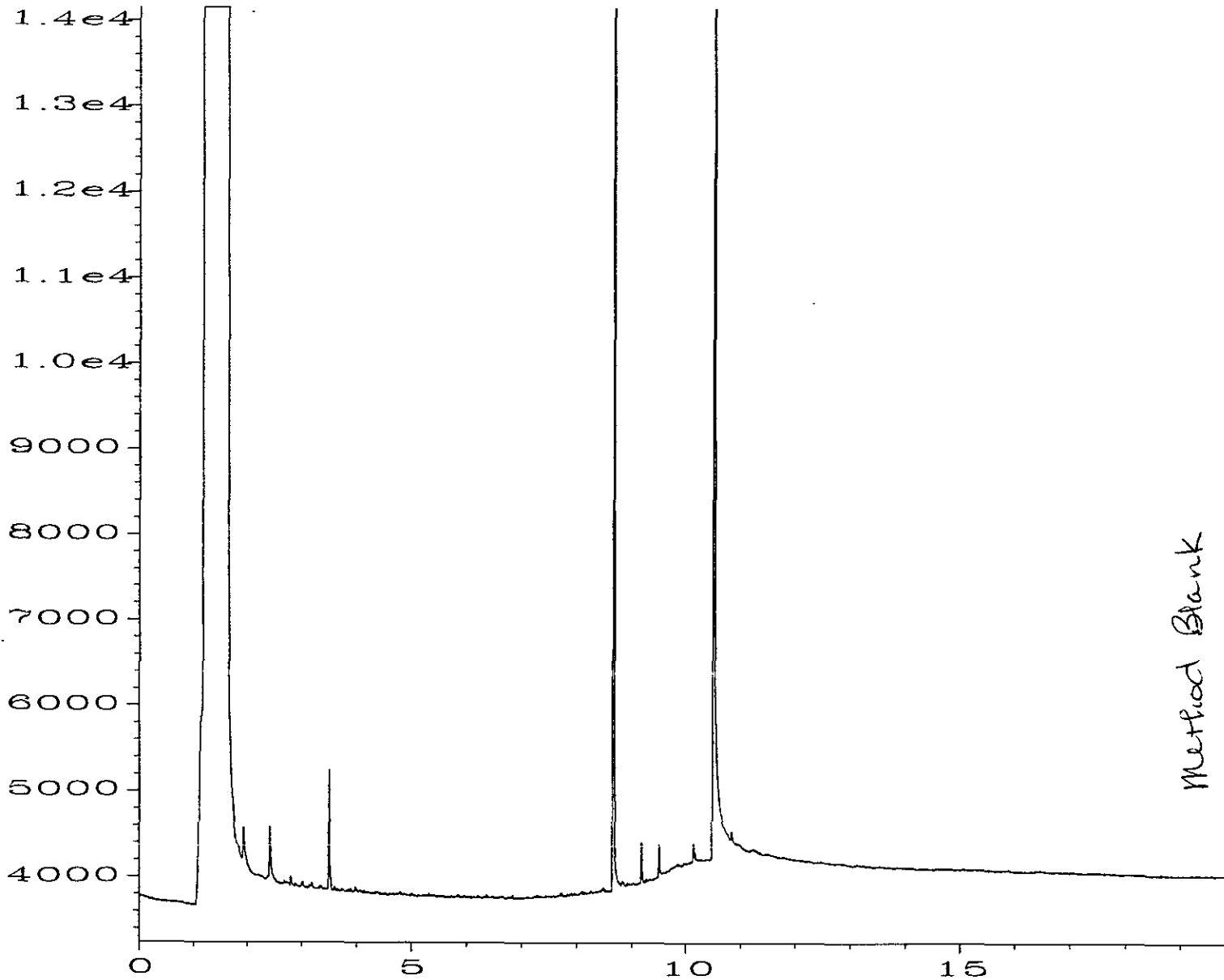
Data File Name	: E:\GC6\04-14-00\062F1601.D	Page Number	: 1
Operator	: MC	Vial Number	: 62
Instrument	: GC #6	Injection Number	: 1
Sample Name	: 004051-36 SG	Sequence Line	: 16
Run Time Bar Code	: 15 Apr 00 06:31 PM	Instrument Method	: TPHD.MTH
Acquired on	: 10 Apr 01 08:05 PM	Analysis Method	: TPHD.MTH
Report Created on:	18 Apr 00 01:00 PM <i>me</i>		



Method Blank

Data File Name : E:\GC6\04-14-00\039F1001.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 00-260 MB SG
 Run Time Bar Code : 14 Apr 00 08:53 PM
 Acquired on : ~~10 Apr 01 06:56 PM~~
 Report Created on: 10 Apr 00 01:00 PM *me*

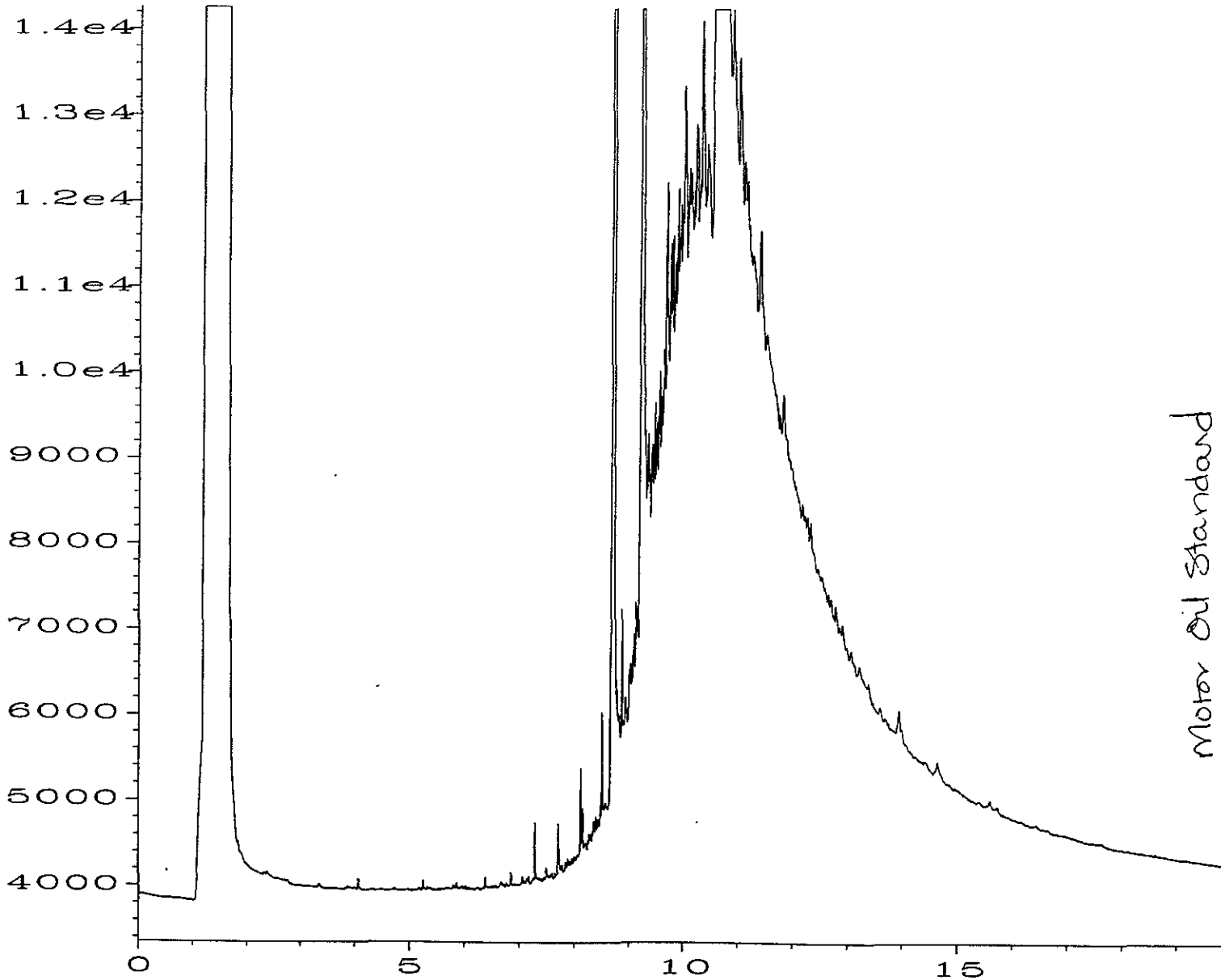
Page Number : 1
 Vial Number : 39
 Injection Number : 1
 Sequence Line : 10
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



Method Blank

Data File Name : E:\GC6\04-14-00\017F1401.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 00-261 MB
 Run Time Bar Code :
 Acquired on : 15 Apr 00 09:10 AM
 Report Created on: ~~10 Apr 01 08:05 PM~~
 18 Apr 00 01:00 PM *mm*

Page Number : 1
 Vial Number : 17
 Injection Number : 1
 Sequence Line : 14
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH



Motor Oil Standard

Data File Name : E:\GC6\04-14-00\002F0101.D
 Operator : MC
 Instrument : GC #6
 Sample Name : 500 MO 9-32
 Run Time Bar Code :
 Acquired on : 14 Apr 00 08:43 AM
 Report Created on: ~~14 Apr 01 08:06 PM~~
 Page Number : 1
 Vial Number : 2
 Injection Number : 1
 Sequence Line : 1
 Instrument Method: TPHD.MTH
 Analysis Method : TPHD.MTH
 18 Apr 00 01:00 PM *gmc*

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-11A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-11
Date Analyzed: 04/11/00	Data File: 041032.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	104	50	150
1,2-Dichloroethane-d4	105	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-10A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-10
Date Analyzed:	04/11/00	Data File:	041031.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	107	50	150
1,2-Dichloroethane-d4	116	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	130 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-3A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-09
Date Analyzed:	04/11/00	Data File:	041030.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	129	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-6A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-07
Date Analyzed: 04/11/00	Data File: 041029.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	97	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-5A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-06
Date Analyzed: 04/11/00	Data File: 041028.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	115	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-4A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-05
Date Analyzed: 04/11/00	Data File: 041027.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-9A-1.0
 Date Received: 04/10/00
 Date Extracted: 04/10/00
 Date Analyzed: 04/10/00
 Matrix: Soil
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.
 Project: 6262.000.0
 Lab ID: 004051-04
 Data File: 041026.D
 Instrument: 5972 -Ins
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	126 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-7A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-03
Date Analyzed: 04/10/00	Data File: 041025.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	125 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX-TRN-8A-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	04/10/00	Project:	6262.000.0
Date Extracted:	04/10/00	Lab ID:	004051-02
Date Analyzed:	04/10/00	Data File:	041024.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	99	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	117 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5 I
cis-1,2-Dichloroethene	<5	Bromobenzene	<5 I
Chloroform	<5	1,3,5-Trimethylbenzene	<5 I
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5 I
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5 I
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	4-Chlorotoluene	<5 I
Carbon Tetrachloride	<5	tert-Butylbenzene	<5 I
Benzene	<5	1,2,4-Trimethylbenzene	<5 I
Trichloroethene	<5	sec-Butylbenzene	<5 I
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5 I
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5 I
Dibromomethane	<5	1,4-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5 I
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5 I
Toluene	<5	1,2,4-Trichlorobenzene	<5 I
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5 I
1,1,2-Trichloroethane	<5	Naphthalene	<5 I
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5 I
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX-TRN-2A-1.0	Client: Geomatrix Consultants, Inc.
Date Received: 04/10/00	Project: 6262.000.0
Date Extracted: 04/10/00	Lab ID: 004051-01
Date Analyzed: 04/10/00	Data File: 041022.D
Matrix: Soil	Instrument: 5972 -Ins
Units: ug/kg (ppb)	Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	101	50	150
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	120	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
trans-1,2-Dichloroethene	<5	Isopropylbenzene	<5
1,1-Dichloroethane	<5	Bromoform	<5
2,2-Dichloropropane	<5	n-Propylbenzene	<5
cis-1,2-Dichloroethene	<5	Bromobenzene	<5
Chloroform	<5	1,3,5-Trimethylbenzene	<5
2-Butanone (MEK)	<50	1,1,2,2-Tetrachloroethane	<5
1,2-Dichloroethane (EDC)	<5	1,2,3-Trichloropropane	<5
1,1,1-Trichloroethane	<5	2-Chlorotoluene	<5
1,1-Dichloropropene	<5	4-Chlorotoluene	<5
Carbon Tetrachloride	<5	tert-Butylbenzene	<5
Benzene	<5	1,2,4-Trimethylbenzene	<5
Trichloroethene	<5	sec-Butylbenzene	<5
1,2-Dichloropropane	<5	p-Isopropyltoluene	<5
Bromodichloromethane	<5	1,3-Dichlorobenzene	<5
Dibromomethane	<5	1,4-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dichlorobenzene	<5
cis-1,3-Dichloropropene	<5	1,2-Dibromo-3-chloropropane	<5
Toluene	<5	1,2,4-Trichlorobenzene	<5
trans-1,3-Dichloropropene	<5	Hexachlorobutadiene	<5
1,1,2-Trichloroethane	<5	Naphthalene	<5
2-Hexanone	<50	1,2,3-Trichlorobenzene	<5
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00
Date Received: 04/10/00
Project: 6262.000.0
Date Extracted: 04/11/00
Date Analyzed: 04/14/00 and 04/15/00

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M

Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as $\mu\text{g/g}$ (ppm)

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRS-3A-1.0 004051-32	<50	103
GMX-TRS-4A-1.0 004051-33	<50	110
GMX-TRS-5A-1.0 004051-34	270	88
GMX-TRS-6A-1.0 004051-35	60	101
GMX-TRS-7A-1.0 004051-36	59	113
Method Blank	<50	117
Method Blank	<50	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00
Date Received: 04/10/00
Project: 6262.000.0
Date Extracted: 04/11/00
Date Analyzed: 04/14/00 and 04/15/00

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M

Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as $\mu\text{g/g}$ (ppm)

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-58A-1.0 004051-22	280	106
GMX-TRN-59A-1.0 004051-23	150	115
GMX-TRN-60A-1.0 004051-24	160	108
GMX-TRN-61A-1.0 004051-25	270	111
GMX-TRN-62A-1.0 004051-26	120	118
GMX-TRN-68A-1.0 004051-27	<50	105
GMX-TRN-69A-1.0 004051-28	<50	99
GMX-TRN-70A-1.0 004051-29	<50	102
GMX-TRS-1A-1.0 004051-30	<50	122
GMX-TRS-2A-1.0 004051-31	<50	113

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

Date Extracted: 04/11/00 and 04/18/00

Date Analyzed: 04/14/00, 04/15/00 and 04/19/00

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-12A-1.0 004051-12	90	82
GMX-TRN-13A-1.0 004051-13	360	110
GMX-TRN-14A-1.0 004051-14	200	98
GMX-TRN-15A-1.0 004051-15	65	97
GMX-TRN-52A-1.0 004051-16	350	111
GMX-TRN-53A-1.0 004051-17	100	111
GMX-TRN-54A-1.0 004051-18	110	110
GMX-TRN-55A-1.0 004051-19	<50	105
GMX-TRN-56A-1.0 004051-20	300	117
GMX-TRN-57A-1.0 004051-21	420	118

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/19/00

Date Received: 04/10/00

Project: 6262.000.0

Date Extracted: 04/11/00 and 04/18/00

Date Analyzed: 04/14/00, 04/15/00 and 04/19/00

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
USING EPA METHOD 8015M**

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as $\mu\text{g/g}$ (ppm)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX-TRN-2A-1.0 004051-01	160	111
GMX-TRN-8A-1.0 004051-02	300	116
GMX-TRN-7A-1.0 004051-03	120	99
GMX-TRN-9A-1.0 004051-04	190	99
GMX-TRN-4A-1.0 004051-05	<50	91
GMX-TRN-5A-1.0 004051-06	<50	104
GMX-TRN-6A-1.0 004051-07	<50	90
GMX-TRN-3A-1.0 004051-09	<50	118
GMX-TRN-10A-1.0 004051-10	160	110
GMX-TRN-11A-1.0 004051-11	1,000	107

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 10, 2000 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. 6262.000.0 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>	<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>
004051-01	GMX-TRN-2A-1.0	004051-19	GMX-TRN-55A-1.0
004051-02	GMX-TRN-8A-1.0	004051-20	GMX-TRN-56A-1.0
004051-03	GMX-TRN-7A-1.0	004051-21	GMX-TRN-57A-1.0
004051-04	GMX-TRN-9A-1.0	004051-22	GMX-TRN-58A-1.0
004051-05	GMX-TRN-4A-1.0	004051-23	GMX-TRN-59A-1.0
004051-06	GMX-TRN-5A-1.0	004051-24	GMX-TRN-60A-1.0
004051-07	GMX-TRN-6A-1.0	004051-25	GMX-TRN-61A-1.0
004051-08	GMX-TRN-5B-1.0	004051-26	GMX-TRN-62A-1.0
004051-09	GMX-TRN-3A-1.0	004051-27	GMX-TRN-68A-1.0
004051-10	GMX-TRN-10A-1.0	004051-28	GMX-TRN-69A-1.0
004051-11	GMX-TRN-11A-1.0	004051-29	GMX-TRN-70A-1.0
004051-12	GMX-TRN-12A-1.0	004051-30	GMX-TRS-1A-1.0
004051-13	GMX-TRN-13A-1.0	004051-31	GMX-TRS-2A-1.0
004051-14	GMX-TRN-14A-1.0	004051-32	GMX-TRS-3A-1.0
004051-15	GMX-TRN-15A-1.0	004051-33	GMX-TRS-4A-1.0
004051-16	GMX-TRN-52A-1.0	004051-34	GMX-TRS-5A-1.0
004051-17	GMX-TRN-53A-1.0	004051-35	GMX-TRS-6A-1.0
004051-18	GMX-TRN-54A-1.0	004051-36	GMX-TRS-7A-1.0

For analysis by method 8260B internal standards were outside of normal acceptance criteria in several samples due to matrix interference. Results and/or reporting limits for affected analytes are reported as estimates. In addition, methylene chloride was detected in several samples due to laboratory contamination. Also, matrix spike recoveries for 8270C SIM analysis of sample GMX-TRS-5A-1.0 for pyrene, benz(a)anthracene and chrysene were outside of normal acceptance criteria due to interfering compounds. All other quality control requirements were within acceptable limits.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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April 19, 2000

Ann Holbrow, Project Manager
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Oakland, CA 94612

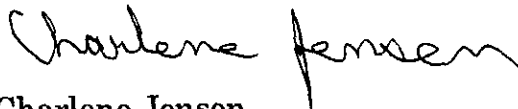
Dear Ms. Holbrow:

Included are the results from the testing of material submitted on April 10, 2000 from your 6262.000.0 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Charlene Jensen
Chemist

Enclosures
GMC0419R.DOC

ATTACHMENT D

Laboratory Analytical Results - Friedman & Bruya

PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-83A	
BORING LOCATION: Lot 83 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA		DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan
			REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-83A-2.0	[Solid black bar]		0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), mottled with very dark gray (2.5Y 3/1), moist, 75% fines, 25% fine to coarse sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand	
3						
4	GMX-TRN-83A-5.5	[X symbol]		0	mottled with very dark gray (2.5Y 3/1)	
5				0	very dark gray (2.5Y 3/1)	
6						
7					mottled very dark gray (2.5Y 3/1) and gray (5Y 6/1)	
8	GMX-TRN-83A-9.5	[Solid black bar]		0	olive brown (2.5Y 4/3)	
9				0	soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

OAKBOREV (REV. 3/00)



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-82A	
BORING LOCATION: Lot 82 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-82A-1.0			0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, firm to hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRN-82A-5.0			0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0	mottled with very dark gray (2.5Y 3/1)	
6				0		
7				0		
8	GMX-TRN-82A-9.0			0	olive brown (2.5Y 4/2)	
9				0	soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

OAKBOREV (REV. 3/00)



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-81A

BORING LOCATION: Lot 81 backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fas-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: | FIRST ND | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA | DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-TRN-81A-1.5	[Solid black bar]	[Blank]	0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3	GMX-TRN-81A-5.5	[X symbol]	[Blank]	0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
4				0		
5	GMX-TRN-81A-5.5	[Solid black bar]	[Blank]	0	mottled with very dark gray (2.5Y 3/1)	
6				0		
7	GMX-TRN-81A-9.0	[Solid black bar]	[Blank]	0	very dark gray (2.5Y 3/1)	
8				0		
9	GMX-TRN-81A-9.0	[Solid black bar]	[Blank]	0	olive brown (2.5Y 4/3)	
10				0		
10					LEAN CLAY with SAND (CL)	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11					Bottom of boring at 10.0 feet	
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-80A	
BORING LOCATION: Lot 80 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-80A-1 0				SANDY LEAN CLAY (CL): dark grayish brown (2.5Y 4/2), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm to hard	
4	GMX-TRN-80A-5 0				LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand	
5					mottled with very dark gray (2.5Y 3/1)	
8	GMX-TRN-80A-9 0				very dark gray (2.5Y 3/1)	
9					SANDY LEAN CLAY (CL) soft	
10					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-79A

BORING LOCATION: Lot 79 backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fas-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: | FIRST ND | COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY: T. Gavigan

HAMMER WEIGHT: NA | DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG NO RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-TRN-79A-1.5				LEAN CLAY with SAND (CL): dark gray (2.5Y 4/1), moist, 80% fines, 20% fine to coarse sand, trace fine angular gravel, low to medium plasticity, firm	
2						
3	GMX-TRN-79A-5.5					
4					↓ sand fraction is fine-grained	
5						
6					LEAN CLAY (CL): very dark gray (5Y 3/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
7						
8	GMX-TRN-79A-9.0					
9					SANDY LEAN CLAY (CL): olive (5Y 5/3), moist, 60% fines, 40% fine sand, low to medium plasticity, firm	
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRN-78A	
BORING LOCATION: Lot 78 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125"]		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not Surveyed						OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
1	GMX-TRN-78a-1 5			0	LEAN CLAY with SAND (CL): olive brown (2.5Y 4/3), moist, 85% fines, 15% fine to coarse sand, low to medium plasticity, firm	
2				0		
3				0		
4	GMX-TRN-78A-5 5			0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0		
6				0		
7	GMX-TRN-78A-9 0			0	color change to dark gray (5Y 4/1)	
8				0	color change to olive brown (2.5Y 4/3)	
9				0		
10	Bottom of boring at 10.0 feet					Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						
15						

PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-72A

BORING LOCATION: Lot 72 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not Surveyed	
1	GMX-TRN-72A-1.5	[Sample]	[Blows]	0	SANDY LEAN CLAY (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 80% fines, 15% fine to coarse sand, 5% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRN-72A-5.0	[Sample]	[Blows]	0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, firm	
5				0	mottled with gray (5Y 6/1)	
6				0	olive brown (2.5Y 4/3)	
7	GMX-TRN-72A-9.0	[Sample]	[Blows]	0	90% fines, 10% fine sand, soft	
8				0		
9				0		
10	Bottom of boring at 10.0 feet					
11						
12						
13						
14						
15						



PROJECT: CENTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRN-71A

BORING LOCATION: Lot 71 backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fas-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not Surveyed	
1	GMX-TRN-71A-1.0				SANDY LEAN CLAY (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, hard	
2						
3						
4	GMX-TRN-71A-5.0				LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, firm	
5						
6						
7					LEAN CLAY with SAND (CL), gray (5Y 6/1)	
8					olive brown (2.5Y 4/3), 90% fine, 10% fine to coarse sand, soft	
9	GMX-TRN-71A-9.0					
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California	Log of Boring No. GMX-TRS-17A
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BORING LOCATION: Lot 17 (south tract) backyard	ELEVATION AND DATUM: Not surveyed; datum is ground surface
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DRILLING CONTRACTOR: Fast-Tek Engineering Support Services	DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
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DRILLING METHOD: Direct push	TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
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DRILLING EQUIPMENT: Geoprobe 5400	DEPTH TO WATER	FIRST ND	COMPL. ND
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SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']	LOGGED BY: T. Gavigan
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HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782
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DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not surveyed	
1	GMX-TRS-17A-1.0	█		0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 30% fine to coarse sand, 10% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), 90% fines, 10% fine sand, low to medium plasticity, firm	
3						
4	GMX-TRS-17A-5.0	⊗		0	SANDY LEAN CLAY with GRAVEL (CL) ↓ very dark grey (2.5Y 3/1)	
5		█		0		
6				0	↓ mottled with gray (5Y 6/1), sand fraction fine to coarse	
7				0	↓ olive brown (2.5Y 4/3), sand fraction fine	
8	GMX-TRS-17A-9.0	█		0		
9				0	↓ very soft	
10					Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						

OAKBOREV (REV. 3/00)

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-16A

BORING LOCATION: Lot 16 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED: 4/11/00
DATE FINISHED: 4/11/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST 8.0
COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:
T. Gavigan

REG NO.
RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
0					Surface Elevation: Not surveyed	
1	GMX-TRS-16A-1.5			0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, low to medium plasticity, hard	
2				0		
3				0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 95% fines, 5% fine sand, low to medium plasticity, soft	
4	GMX-TRS-16A-5.0			0	mottled with very dark gray (2.5Y 3/1)	
5				0	SANDY LEAN CLAY (CL) very dark gray (2.5Y 3/1)	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
6				0		
7				0	mottled with gray (5Y 6/1)	
8	GMX-TRS-16A-9.0			0	SANDY LEAN CLAY (CL), olive brown (2.5Y 4/3)	
9				0	CLAYEY SAND (SC): olive brown (2.5Y 4/3) wet, 70% fine sand, 30% low to medium plasticity fines	
10				0	LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
11					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-15A	
BORING LOCATION: Lot 15 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS	
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		
					Surface Elevation: Not surveyed		
1	GMX-TRS-15A-1.5			0	SANDY LEAN CLAY with GRAVEL (CL): olive brown (2.5Y 4/3), moist, 60% fines, 20% fine to coarse sand, 20% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3				0			
4	GMX-TRS-15A-5.5			0	dark greenish gray (10GY 4/1)		
5				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm		
6				0			
7	GMX-TRS-15A-9.0			0	mottled with olive brown (2.5Y 4/3)		
8				0	gray (5Y 6/1), 90% fines, 10% fine to coarse sand		
9				0	olive brown (2.5Y 4/3), soft		
10					Bottom of boring at 10.0 feet		Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11							
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-14A	
BORING LOCATION: Lot 14 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample	Blows/ Foot				
					Surface Elevation: Not surveyed		
1	GMX-TRS-14A-1.5	[Sample]	[Blows]	0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3				0			
4	GMX-TRS-14A-5.0	[Sample]	[Blows]	0	dark greenish gray (10GY 4/1)		
5				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, trace organic material, low to medium plasticity, firm		
6							
7				0	gray (5Y 6/1)		
8	GMX-TRS-14A-9.0	[Sample]	[Blows]	0	olive brown (2.5Y 4/3)		
9				0			
10					LEAN CLAY with SAND (CL), soft Bottom of boring at 10.0 feet		
11							Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12							
13							
14							
15							

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-13A

BORING LOCATION: Lot 13 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED: 4/10/00
DATE FINISHED: 4/10/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 10.0
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER: FIRST ND
COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan
REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not surveyed	
1	GMX-TRS-13A-1.5	[Sample]	[Blows/ Foot]	0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 65% fines, 35% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard. Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
2				0		
3				0		
4	GMX-TRS-13A-5.0	[Sample]	[Blows/ Foot]	0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	
5				0		
6				0		
7	GMX-TRS-13A-9.0	[Sample]	[Blows/ Foot]	0	↓ mottled with gray (5Y 6/1) ↓ olive brown (2 5Y 4/3)	
8				0		
9				0		
10					SANDY LEAN CLAY (CL): soft Bottom of boring at 10.0 feet	
11						
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-12A	
BORING LOCATION: Lot 12 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (pppt)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-TRS-12A-1.5	[Black bar]	[Black bar]		Surface Elevation: Not surveyed	
2					<p>SANDY LEAN CLAY (CL): mottled olive brown (2.5Y 4/3) and very dark gray (2.5Y 3/1), moist, 65% fines, 35% fine to coarse sand, low to medium plasticity, hard</p> <p>1-inch diameter gray particle with white fibrous component</p>	
3	GMX-TRS-12A-2.5	[Black bar]	[Black bar]			
4						
5	GMX-TRS-12A-5.5	[Black bar]	[Black bar]			
6					<p>LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm</p>	
7	GMX-TRS-12A-9.0	[Black bar]	[Black bar]		gray (5Y 6/1)	
8						
9					olive brown (2.5Y 4/3), increase in sand content to 10%, soft	
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-11A

BORING LOCATION: Lot 11 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
0	GMX-TRS-11A-1.0				Surface Elevation: Not surveyed	
1					SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace angular gravel, low to medium plasticity, hard	
2						
3						
4					LEAN CLAY with SAND (CL): very dark gray (2.5Y 3/1), moist, 85% fines, 15% fine to coarse sand, low to medium plasticity, firm	
5	GMX-TRS-11A-5.5				LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm	
6						
7					↓ mottled with olive brown (2.5Y 4/3)	
8					↓ gray (5Y 6/1)	
9	GMX-TRS-11A-9.0				↓ olive brown (2.5Y 4/3), increase in sand content to 10%	
10					Bottom of boring at 10.0 feet	
11						Boring destroyed using Type 1/11 neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT
Hayward, California

Log of Boring No. GMX-TRS-10A

BORING LOCATION: Lot 10 (south tract) backyard

ELEVATION AND DATUM:
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Fast-Tek Engineering Support Services

DATE STARTED:
4/11/00

DATE FINISHED:
4/11/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.):
10.0

MEASURING POINT:
Ground surface

DRILLING EQUIPMENT: Geoprobe 5400

DEPTH TO WATER

FIRST ND

COMPL. ND

SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']

LOGGED BY:
T. Gavigan

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:
T. Gavigan

REG NO.
RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS	
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		
					Surface Elevation: Not surveyed		
1	GMX-TRS-10A-1.5	[Solid black]	[Solid black]	0	SANDY LEAN CLAY with GRAVEL (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 4/3), moist, 60% fines, 25% fine to coarse sand, 15% fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard. Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.	
2				0			
3				0			
4	GMX-TRS-10A-5.5	[Solid black]	[Solid black]	0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, low to medium plasticity, soft		
5				0			
6				0			
7	GMX-TRS-10A-9.0	[Solid black]	[Solid black]	0	LEAN CLAY with SAND (CL): olive brown (2.5Y 4/3), moist, 85% fines, 15% fine sand, low to medium plasticity, firm		
8				0			
9				0			
10					Bottom of boring at 10.0 feet		
11							
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-9A	
BORING LOCATION: Lot 9 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1	GMX-TRS-9A-1.0			0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 70% fines, 30% fine to coarse sand, trace fine angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0		
3				0		
4	GMX-TRS-9A-5.0			0		
5				0		
6				0		
7				0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 100% fines, trace organic material, low to medium plasticity, firm	
8				0	↓ gray (5Y 6/1)	
9	GMX-TRS-9A-9.0			0		
10				0	↓ olive brown (2.5Y 4/3), 90% fines, 10% fine sand	
11					Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-TRS-8A	
BORING LOCATION: Lot 8 (south tract) backyard		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/11/00	DATE FINISHED: 4/11/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-TRS-8A-1.5	[Black bar]		0	SANDY LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 70% fines, 25% fine to coarse sand, 5% fine angular gravel, low to medium plasticity, hard	
2				0		
3				0		
4	GMX-TRS-8A-5.5	[Black bar]		0	LEAN CLAY (CL): mottled very dark gray (2.5Y 3/1) and olive brown (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
5				0		
6				0		
7	GMX-TRS-8A-9.5	[Black bar]		0	olive brown (2.5Y 4/3) LEAN CLAY with SAND (CL), soft Bottom of boring at 10.0 feet	Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
8				0		
9				0		
10						
11						
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California	Log of Boring No. GMX-UST2
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BORING LOCATION: ~ 20 feet west of former UST	ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services	DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00	
DRILLING METHOD: Direct push	TOTAL DEPTH (ft.): 10.0	MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: Geoprobe 5400	DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']	LOGGED BY: T. Gavigan		
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS	
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		
					Surface Elevation: Not surveyed		
1	GMX-UST2-1.5			0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 70% fines, 30% fine to coarse sand, trace angular gravel, low to medium plasticity, hard	OVM = Thermo Environmental instruments 580B PID calibrated with 100 ppm isobutylene standard.	
2				0			
3		X			SILTY SAND (SM): olive brown (2.5Y 4/3), moist, 85% fine to coarse sand, 15% low plasticity fines		
4							
5	GMX-UST2-5.5			0	LEAN CLAY (CL): very dark gray (2.5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm		
6				0			
7					↓ mottled with olive brown (2.5Y 4/3)		
8					↓ mottled with olive brown (2.5Y 4/3) and gray (5Y 6/1)		
9	GMX-UST2-9.0			0			
10				0			
10					↓ very soft		
11					Bottom of borehole at 10 feet		Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
12							
13							
14							
15							

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Log of Boring No. GMX-UST1	
BORING LOCATION: ~23 feet east of former UST		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Fast-Tek Engineering Support Services		DATE STARTED: 4/10/00	DATE FINISHED: 4/10/00
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 10.0	MEASURING POINT Ground surface
DRILLING EQUIPMENT: Geoprobe 5400		DEPTH TO WATER	FIRST ND COMPL ND
SAMPLING METHOD: Geoprobe DT21 dual tube soil sampler [4' x 1.125']		LOGGED BY: T. Gavigan	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan	REG NO. RG 6782

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	GMX-UST1-1.5	[Solid black bar]	[Solid black bar]	0	SANDY LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 60% fines, 40% fine to coarse sand, trace fine gravel, low to medium plasticity, hard	
2				0		
3				0		
4	GMX-UST1-6.5	[X-pattern]	[X-pattern]	0	slight odor at tip of core	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
5				0		
6				0		
7	GMX-UST1-9.0	[Solid black bar]	[Solid black bar]	0	LEAN CLAY (CL): gray (5Y 6/1), moist, 95% fines, 5% fine sand, low to medium plasticity, soft olive brown (2.5Y 4/3)	No recovery from 8' to 10' bgs (piece of concrete in tip of sampler). Companion boring advanced for sample collection between 8' and 10' bgs. Companion borehole advanced to 8' with plug, and cored from 8' to 10' bgs. Lithology and sample ID from companion bore.
8				0		
9				0		
10	Bottom of boring at 10.0 feet					Boring destroyed using Type I/II neat cement grout placed from total depth to ground surface.
11						
12						
13						
14						
15						



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California		Boring Log Explanation	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH (ft.):	MEASURING POINT
DRILLING EQUIPMENT:		DEPTH TO WATER	FIRST COMPL
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation:	
1					1. Soil descriptions are in accordance with the USCS as set forth by ASTM D2488-90 "Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)."	
2					2. Soil color described according to Munsell Color Chart.	
3					3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions. Solid lines represent approximate boundaries observed within sampled intervals.	
4					4. Odor, if noted is subjective and not necessarily indicative of specific compounds or concentrations.	
5					5. NA = Not applicable.	
6					6. ND = No data.	
7						
8					Interval of recovered soil core.	
9					Interval of no recovery.	
10						
11					Sample collected for chemical analysis and sample identification.	
12						
13						
14						
15						

GMX-UST1-1.5



APPENDIX B

SHALLOW SOIL SAMPLING LOG
 Canterbury Residential Development
 Hayward, California
 Project No. 6262

Date	Time	Borehole Identification¹	Depth Interval²	Soil Description	OVM³ (ppm)	Sample ID⁴
4/7/00	1440	GMX-TRS-3A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-3A-1.0
4/7/00	1445	GMX-TRS-4A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-4A-1.0
4/7/00	1455	GMX-TRS-5A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-5A-1.0
4/7/00	1505	GMX-TRS-6A	0.0 - 0.4	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-6A-1.0
			0.4 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist		
4/7/00	1510	GMX-TRS-7A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRS-7A-1.0

Notes:

1. Borehole identification includes tract identification (TRN = Tract 7069; TRS = Tract 7124), lot number (e.g. 4), and boring identification (e.g. A, B....)
2. Borings advanced from 0.0 to 0.5 feet below ground surface (bgs) with a hand auger. Drive samples collected for chemical analysis from 0.5 to 1.0 feet bgs.
3. OVM = Thermo Environmental Instruments 580B PID calibrated with a 100 ppm isobutylene standard. Borehole screened with OVM after retrieval of drive sample.
4. Sample ID is the same as borehole identification with the addition of sample depth in feet.

APPENDIX B

SHALLOW SOIL SAMPLING LOG
 Canterbury Residential Development
 Hayward, California
 Project No. 6262

Date	Time	Borehole Identification¹	Depth Interval²	Soil Description	OVM³ (ppm)	Sample ID⁴
4/7/00	1250	GMX-TRN-56A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-56A-1.0
4/7/00	1300	GMX-TRN-57A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-57A-1.0
4/7/00	1305	GMX-TRN-58A	0.0 - 1.0	LEAN CLAY WITH SAND AND GRAVEL (CL), dark brown, moist	0	GMX-TRN-58A-1.0
4/7/00	1325	GMX-TRN-59A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-59A-1.0
4/7/00	1330	GMX-TRN-60A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-60A-1.0
4/7/00	1335	GMX-TRN-61A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-61A-1.0
4/7/00	1340	GMX-TRN-62A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-62A-1.0
4/7/00	1350	GMX-TRN-68A	0.0 - 0.2 0.2 - 1.0	LEAN CLAY WITH SAND (CL), grayish brown, dry LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-68A-1.0
4/7/00	1355	GMX-TRN-69A	0.0 - 0.2 0.2 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist CLAYEY SAND WITH GRAVEL (SC), brown, moist Note: Painting nearby during sampling	0	GMX-TRN-69A-1.0
4/7/00	1405	GMX-TRN-70A	0.0 - 0.4 0.4 - 1.0	LEAN CLAY WITH SAND (CL), grayish brown, dry CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRN-70A-1.0
4/7/00	1420	GMX-TRS-1A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-1A-1.0
4/7/00	1425	GMX-TRS-2A	0.0 - 1.0	CLAYEY SAND WITH GRAVEL (SC), brown, moist	0	GMX-TRS-2A-1.0

APPENDIX B

SHALLOW SOIL SAMPLING LOG
 Canterbury Residential Development
 Hayward, California
 Project No. 6262

Date	Time	Borehole Identification ¹	Depth Interval ²	Soil Description	OVM ³ (ppm)	Sample ID ⁴
4/21/00	1250	GMX-TRN-11C	1.0 - 0.4	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-11C-3.0
			0.4 - 2.0	LEAN CLAY WITH SAND (CL), brown, moist		
			2.0 - 3.0	LEAN CLAY WITH SAND (CL), dark gray, moist		
4/21/00	1225	GMX-TRN-11D	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-11D-1.0
4/7/00	1005	GMX-TRN-12A	0.0 - 0.5	SILTY SAND (SM), gray, dry	0	GMX-TRN-12A-1.0
			0.5 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist		
4/21/00	1315	GMX-TRN-12B	0.0 - 1.5	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-12B-3.0
			1.5 - 2.0	SANDY LEAN CLAY (CL), brown, moist		
			2.0 - 2.5	LEAN CLAY WITH SAND (CL), black, moist		
4/21/00	1010	GMX-TRN-12C	0.0 - 1.0	SILTY SAND (SM) dark brown, moist	0	GMX-TRN-12C-1.0
4/21/00	1125	GMX-TRN-12D	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-12D-1.0
4/21/00	1145	GMX-TRN-12E	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-12E-1.0
4/7/00	1010	GMX-TRN-13A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-13A
4/7/00	1045	GMX-TRN-14A	0.0 - 0.3	SILTY SAND (SM), gray, dry	0	GMX-TRN-14A-1.0
			0.3 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist		
4/7/00	1030	GMX-TRN-15A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-15A-1.0
4/7/00	1230	GMX-TRN-52A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-52A-1.0
4/7/00	1235	GMX-TRN-53A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist, piece of concrete in shoe	0	GMX-TRN-53A-1.0
4/7/00	1240	GMX-TRN-54A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-54A-1.0
4/7/00	1245	GMX-TRN-55A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-55A-1.0

APPENDIX B

SHALLOW SOIL SAMPLING LOG

Canterbury Residential Development

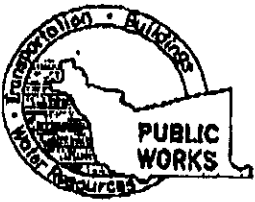
Hayward, California

Project No. 6262

Date	Time	Borehole Identification¹	Depth Interval²	Soil Description	OVM³ (ppm)	Sample ID⁴
4/7/00	0750	GMX-TRN-2A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-2A-1.0
4/7/00	0930	GMX-TRN-3A	0.0 - 1.0	LEAN CLAY (CL), dark gray, moist	0	GMX-TRN-3A-1.0
4/7/00	0842	GMX-TRN-4A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-4A-1.0
4/7/00	0844	GMX-TRN-5A	0.0 - 0.4 0.4 - 1.0	LEAN CLAY (CL), dark brown, moist CLAYEY SAND (SC), olive gray, moist, asphalt in tip of shoe	0	GMX-TRN-5A-1.0
4/7/00	0925	GMX-TRN-5B	0.0 - 0.8 0.8 - 1.0	LEAN CLAY (CL), dark gray, moist SILTY SAND (SM) light gray, moist (stucco?)	0	GMX-TRN-5B-1.0
4/7/00	0900	GMX-TRN-6A	0.0 - 0.2 0.2 - 1.0	SILTY SAND (SM), dark gray, moist, ~50% organic LEAN CLAY (CL) dark gray, moist	0	GMX-TRN-6A-1.0
4/7/00	0810	GMX-TRN-7A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-7A-1.0
4/7/00	0800	GMX-TRN-8A	0.0 - 0.3 0.3 - 1.0	SILTY SAND WITH GRAVEL (SM), grayish brown, dry LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-8A-1.0
4/7/00	0820	GMX-TRN-9A	0.0 - 1.0	LEAN CLAY (CL), dark brown, moist	0	GMX-TRN-9A-1.0
4/7/00	0950	GMX-TRN-10A	0.0 - 0.5 0.5 - 1.0	SILTY SAND (SM), brown, moist SANDY CLAY (CL), brown, moist	0	GMX-TRN-10A-1.0
4/7/00	0955	GMX-TRN-11A	0.0 - 1.0	LEAN CLAY WITH SAND (CL), dark brown, moist	0	GMX-TRN-11A-1.0
4/21/00	1205	GMX-TRN-11B	0.0 - 1.0	SILTY SAND (SM) grayish brown, moist	0	GMX-TRN-11B-1.0

ATTACHMENT B

Shallow Soil Sampling Log



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST., HAYWARD, CA 94544
 PHONE (510) 678-2210 MARLON MACGABRINE, CHIEF ENGINEER (510) 670-5554
 FAX (510) 678-2260 (510) 782-1939 fax

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Conterbury Development,
OLMERIC AVENUE, HAYWARD, CA

PERMIT NUMBER W00-153
 WELL NUMBER _____
 APN: _____

PERMIT CONDITIONS
 Circled Permit Requirements Apply

CLIENT Name City of Hayward
 Address 777 B Street, Phone 510-589-4924
 City Hayward, CA Zip 94541

- A. GENERAL**
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Well Completion Report.

APPLICANT Name TOM AAVIGAN
Geomatrix Consultants Fax 510-663-4141
 Address 2101 Webster St., 12th Floor Phone 510-663-4100
 City Oakland, CA Zip 94612

3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Wall Destruction	<input type="checkbox"/>
<u>SOIL BORINGS</u>	<input checked="" type="checkbox"/>	<u>(environmental sampling)</u>	

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

B. WATER SUPPLY WELLS

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.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper 2-3 ft replaced in kind or with compacted cuttings.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<u>(direct push)</u>	

E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. C57 589008 (Fast-Tek)

WELL PROJECTS

Drill Hole Diameter	<u>2</u> in.	Maximum Depth	<u>10</u> ft.
Casing Diameter	<u>N/A</u> in.	Number	<u>20</u>
Surface Seal Depth	<u>N/A</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	<u>N/A</u>	Maximum Depth	<u>N/A</u> ft.
Hole Diameter	<u>N/A</u> in.		

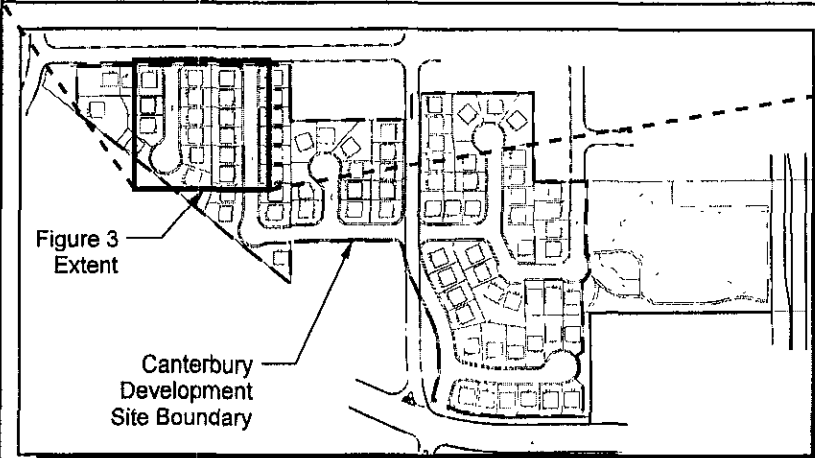
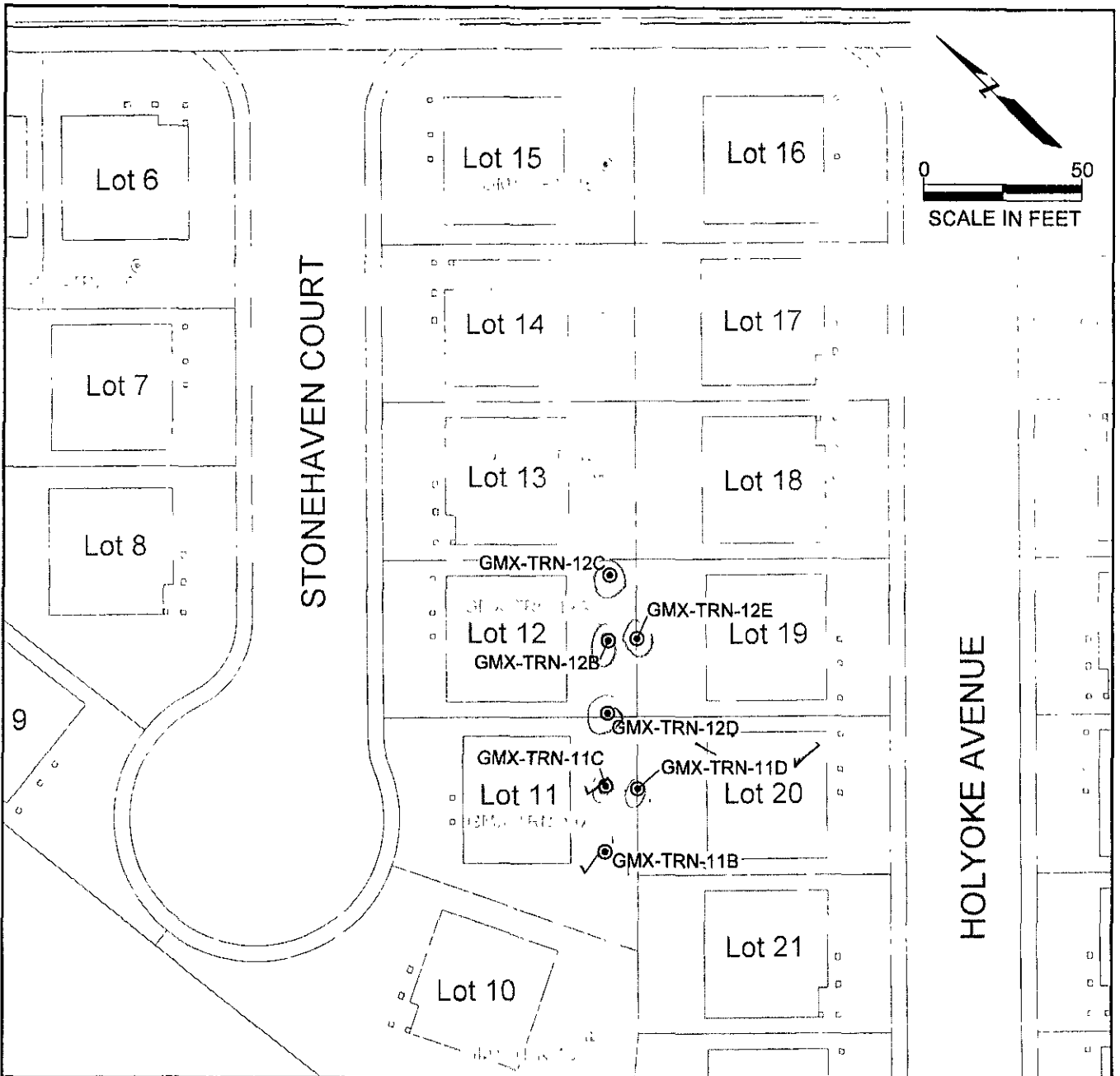
ESTIMATED STARTING DATE 4/10/00
 ESTIMATED COMPLETION DATE 9/12/00

APPROVED Frank Col DATE 4-11-00

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

APPLICANT'S SIGNATURE Tom Aavigan DATE: 4/5/00

FAXED
4-11-00



◎ SOIL SAMPLE LOCATIONS

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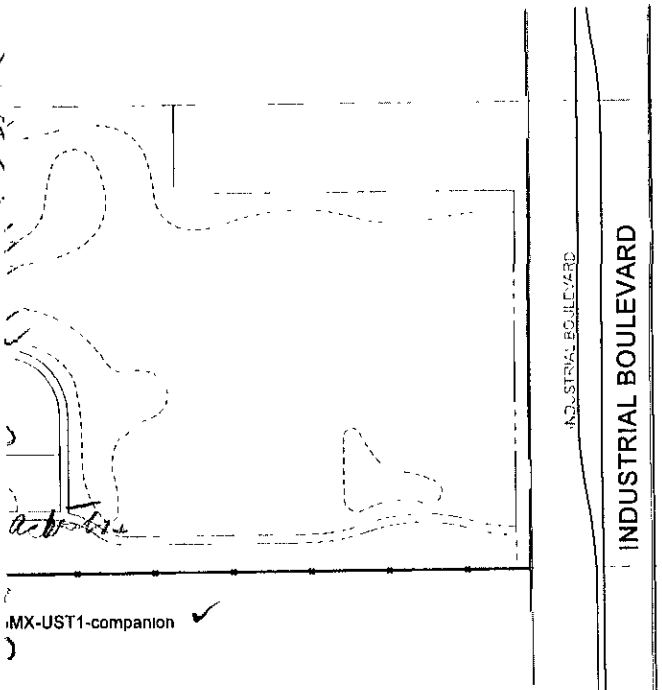
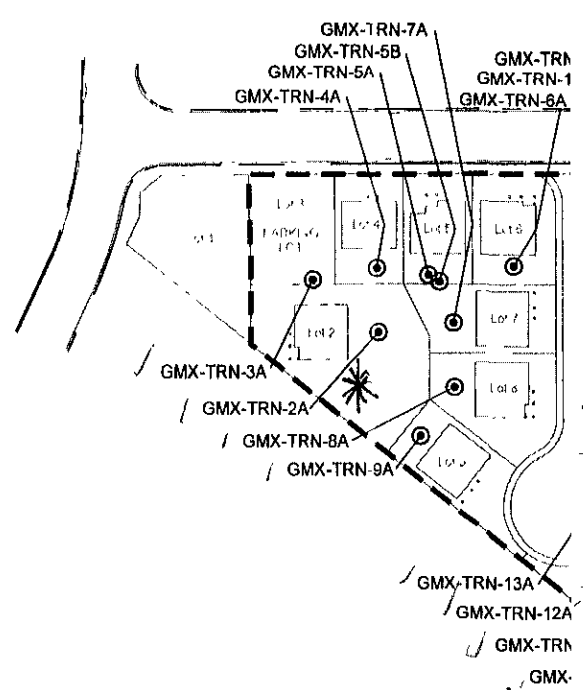
ADDITIONAL SAMPLE LOCATIONS
 Canterbury Development
 Hayward, California

Project No.
 6262 6

Figure
 3

510

plan to place X marks
> 1000 ppm
failed for 6/6/02



INDUSTRIAL BOULEVARD



MX-UST1-companion ✓

EXPLANATION

- TRACT 7124 (TRS)
- . - . - . TRACT 7069 (TRN)
- ⊙ HAND AUGER SOIL
GMX-TR(N or S)-(LO)
- ⊕ SOIL BORING (VICIN
GMX-TR(N or S)-(LO)
- — — — — FENCE

A
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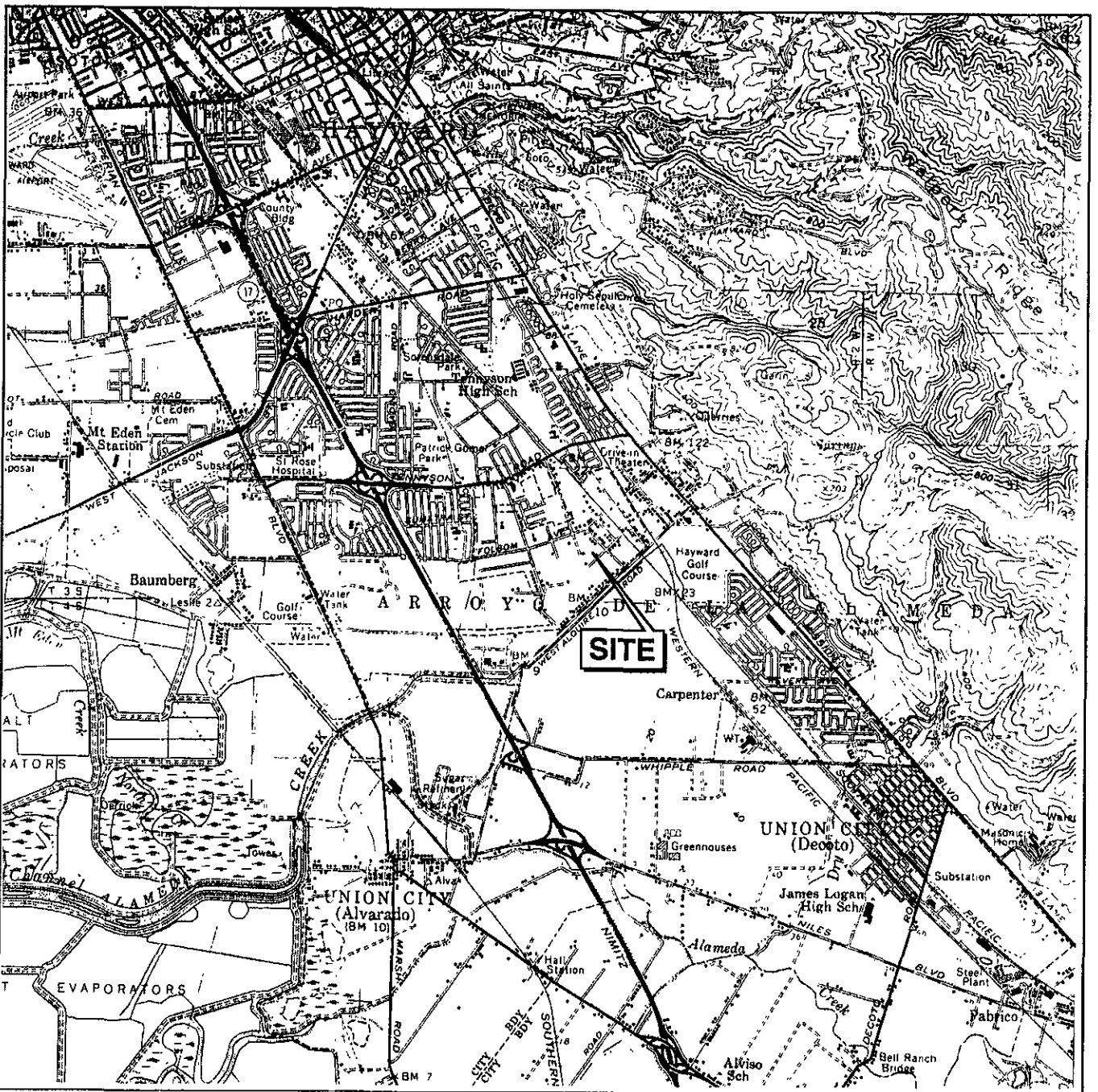
SITE PLAN SHOWING RESIDENTIAL
DEVELOPMENT AND INITIAL SAMPLE LOCATIONS
Canterbury Development
Hayward, California



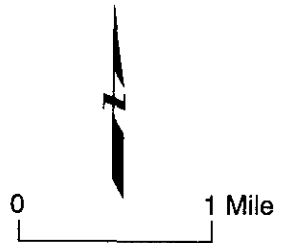
Project No.
6262 6

Figure
2

25-APR-2000 11:35 dcshep
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Base map from U.S. Geological Survey; Hayward Quadrangle (California), 15 Minute series (topographic), 1959



S:\22000s\2262\htra0031_fig_01(01).ai



SITE VICINITY MAP
 Canterbury Residential Development
 Olympic Avenue
 Hayward, California

Project No.
 6262

Figure
 1

TABLE 3

SOIL ANALYTICAL RESULTS FOR ASBESTOS¹
 Canterbury Residential Development
 Hayward, California

Sample I.D.	Depth (feet)	Sample Date	Asbestos Content (percent)
GMX-TRS-12A-2.5 ²	2.5	4/10/00	20³
GMX-TRN-08A-1.0	1.0	4/7/00	ND ⁴
GMX-TRN-13A-1.0	1.0	4/7/00	ND
GMX-TRN-53A-1.0	1.0	4/7/00	ND
GMX-TRN-58A-1.0	1.0	4/7/00	ND
GMX-TRN-69A-1.0	1.0	4/7/00	ND
GMX-TRN-80A-1.0	1.0	4/10/00	ND
GMX-TRS-11A-1.0	1.0	4/10/00	ND
GMX-TRS-12A-1.5	1.5	4/10/00	ND
GMX-TRS-13A-1.5	1.5	4/10/00	ND
GMX-TRS-14A-1.5	1.5	4/10/00	ND

Notes:

1. Analyzed in accordance with U.S. EPA Method 600/R-93-116.
2. Analysis of gravel-sized particle in soil core. All other results represent soil samples.
3. Detected values highlighted in bold.
4. ND - Not detected.

Sample I.D.	Depth (feet)	Sample Date	Acet	2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
GMX-TRS-15A-1.5	1.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-15A-5.5	5.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-15A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-16A-1.5	1.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-16A-5.0	5.0	4/11/00	<5	<5 I	<5 I	<5	<5
GMX-TRS-16A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-17A-1.0	1.0	4/11/00	<5	<5 I	<5 I	<5	<5
GMX-TRS-17A-5.0	5.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-17A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-UST-01-1.5	1.5	4/10/00	100	<5 I	<5 I	<5	<5
GMX-UST-01-6.5	6.5	4/10/00	7	510 I	74 I	14 I	24
GMX-UST-01-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-UST-02-1.5	1.5	4/10/00	<5	<5	<5	<5	<5
GMX-UST-02-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-UST-02-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
PRG ⁶			1,600	5,700	21,000	210,000 ⁸	-- ⁸

Notes:

1. Analyzed in accordance with U.S. EPA Method 8260.
2. I- The internal standard associated with the analyte is out of range.
3. Detected values highlighted in bold.
4. lc - The presence of the compound indicated is likely due to contamination.
5. ve- The value reported exceeded the calibration range of the instrument.
6. PRGs - Residential Preliminary Remediation Goals (U.S. EPA).
7. -- A PRG is not available for this compound.
8. Concentrations of m,p-xylene and o-xylene should be based on the sum of the two isomers.

Sample I.D.	Depth (feet)	Sample Date	Acet	1,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
GMX-TRN-80A-1.0	1.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-80A-5.0	5.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-80A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-81A-1.5	1.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-81A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-81A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-82A-1.0	1.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-82A-5.0	5.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-82A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-83A-2.0	2.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-83A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-83A-9.5	9.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-01A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-02A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-03A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-04A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-05A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-06A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-07A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRS-08A-1.5	1.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-08A-5.5	5.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-08A-9.5	9.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-09A-1.0	1.0	4/11/00	<5	<5 I	<5 I	<5	<5
GMX-TRS-09A-5.0	5.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-09A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-10A-1.5	1.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-10A-5.5	5.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-10A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRS-11A-1.0	1.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-11A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-11A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-12A-1.5	1.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-12A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-12A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-13A-1.5	1.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-13A-5.0	5.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-13A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRS-14A-1.5	1.5	4/10/00	<5	<5 I	<5 I	<5	<5
GMX-TRS-14A-5.0	5.0	4/10/00	13	<5	<5	<5	<5
GMX-TRS-14A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5

Sample I.D.	Depth (feet)	Sample Date	Acet	2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
GMX-TRN-02A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-03A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-04A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-05A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-06A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-07A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-08A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-09A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-10A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-11A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-12A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-13A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-14A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-15A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-52A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-53A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-54A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-55A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-56A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-57A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-58A-1.0	1.0	4/7/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-59A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-60A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-61A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-62A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-68A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-69A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-70A-1.0	1.0	4/7/00	<5	<5	<5	<5	<5
GMX-TRN-71A-1.0	1.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-71A-5.0	5.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-71A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-72A-1.5	1.5	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-72A-5.0	5.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-72A-9.0	9.0	4/11/00	<5	<5	<5	<5	<5
GMX-TRN-78A-1.5	1.5	4/10/00	<5	<5 I	<5 I	<5	<5
GMX-TRN-78A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-78A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-79A-1.5	1.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-79A-5.5	5.5	4/10/00	<5	<5	<5	<5	<5
GMX-TRN-79A-9.0	9.0	4/10/00	<5	<5	<5	<5	<5

SOIL ANALYD CARBONS¹

Polycyclic m (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPH	benzo(1,2,3-cd)-pyrene	Naphthalene	Phenanthrene	Pyrene
GMX-TRS-15A-5.5	5.5	4/11/00	<	<5	<5	<5	12
GMX-TRS-15A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-16A-1.5	1.5	4/11/00	10	<50	<50	<50	<50
GMX-TRS-16A-5.0	5.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-16A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-17A-1.0	1.0	4/11/00	<	<50	<50	<50	<50
GMX-TRS-17A-5.0	5.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-17A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-UST-01-1.5	1.5	4/10/00	5	<50	<50	<50	<50
GMX-UST-01-6.5	6.5	4/10/00	5,4	<50	150	440	150
GMX-UST-01-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-UST-02-1.5	1.5	4/10/00	<	<5	<5	27	6
GMX-UST-02-5.5	5.5	4/10/00	<	<5	<5	<5	<5
GMX-UST-02-9.0	9.0	4/10/00	<	<5	<5	<5	<5
PRGs ⁵			N	620	56000	22000000 ⁸	2,300,000

Notes:

- * Replicate analysis of sample using soil from the other
- 1. Analyzed in accordance with U.S. EPA Methods 80
- 2. TPHmo - Total Petroleum Hydrocarbons as Motor Oil
- 3. Detected values highlighted in bold.
- 4. NA - Not analyzed.
- 5. PRGs - Residential Preliminary Remediation Goals
- 6. Not available; PRGs have not been developed for n
- 7. -- - PRGs only provided if analyte was detected.
- 8. A surrogate PRG was used because a PRG was not available for:
 Acenaphthene for benzo(g,h,i)perylene;
 Anthracene for phenanthrene.

SOIL ANALYCARBONS¹

Polycyclien (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPI	eno(1,2,3-cd)-pyrene	Naphthalene	Phenan-threne	Pyrene
GMX-TRN-78A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRN-79A-1.5	1.5	4/10/00	7	<50	<50	<50	<50
GMX-TRN-79A-5.5	5.5	4/10/00	<	<5	<5	<5	<5
GMX-TRN-79A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRN-80A-1.0	1.0	4/10/00	5	<50	<50	<50	<50
GMX-TRN-80A-5.0	5.0	4/10/00	<	<5	<5	<5	<5
GMX-TRN-80A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRN-81A-1.5	1.5	4/10/00	<	<50	<50	<50	<50
GMX-TRN-81A-5.5	5.5	4/10/00	<	<50	<50	<50	<50
GMX-TRN-81A-9.0	9.0	4/10/00	6	<5	<5	<5	<5
GMX-TRN-82A-1.0	1.0	4/10/00	<	<50	<50	<50	<50
GMX-TRN-82A-5.0	5.0	4/10/00	<	<5	<5	9	15
GMX-TRN-82A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRN-83A-2.0	2.0	4/10/00	<	<50	<50	<50	<50
GMX-TRN-83A-5.5	5.5	4/10/00	<	<50	<50	<50	<50
GMX-TRN-83A-9.5	9.5	4/10/00	<	<5	<5	<5	<5
GMX-TRS-01A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRS-02A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRS-03A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRS-04A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRS-05A-1.0	1.0	4/7/00	2	<50	<50	<50	<50
GMX-TRS-06A-1.0	1.0	4/7/00	6	<50	<50	<50	<50
GMX-TRS-07A-1.0	1.0	4/7/00	5	<50	<50	<50	<50
GMX-TRS-08A-1.5	1.5	4/11/00	7	<50	<50	<50	<50
GMX-TRS-08A-5.5	5.5	4/11/00	<	<5	<5	<5	<5
GMX-TRS-08A-9.5	9.5	4/11/00	<	<5	<5	<5	<5
GMX-TRS-09A-1.0	1.0	4/11/00	9	<50	<50	<50	<50
GMX-TRS-09A-5.0	5.0	4/11/00	14	<250	<250	<250	<250
GMX-TRS-09A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-10A-1.5	1.5	4/11/00	<	<50	<50	<50	<50
GMX-TRS-10A-5.5	5.5	4/11/00	<	<5	<5	<5	<5
GMX-TRS-10A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRS-11A-1.0	1.0	4/10/00	9	<50	<50	<50	<50
GMX-TRS-11A-5.5	5.5	4/10/00	8	<50	<50	<50	<50
GMX-TRS-11A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRS-12A-1.5	1.5	4/10/00	7	<50	<50	<50	51
GMX-TRS-12A-5.5	5.5	4/10/00	<	<50	<50	<50	<50
GMX-TRS-12A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRS-13A-1.5	1.5	4/10/00	8	<50	<50	<50	61
GMX-TRS-13A-5.0	5.5	4/10/00	<	<50	<50	<50	62
GMX-TRS-13A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRS-14A-1.5	1.5	4/10/00	12	<50	<50	88	82
GMX-TRS-14A-5.0	5.5	4/10/00	<	<5	<5	<5	<5
GMX-TRS-14A-9.0	9.0	4/10/00	<	<5	<5	<5	<5
GMX-TRS-15A-1.5	1.5	4/11/00	11	<50	<50	<50	<50

SOIL ANALYCARBONS¹

Polycyclion (mg/kg).

Sample I.D.	Depth (feet)	Sample Date	TPI	leno(1,2,3-cd)-pyrene	Naphthalene	Phenan-threne	Pyrene
GMX-TRN-02A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-03A-1.0	1.0	4/7/00	<	<5	<5	<5	5
GMX-TRN-04A-1.0	1.0	4/7/00	<	<5	<5	<5	9
GMX-TRN-05A-1.0	1.0	4/7/00	<	<5	<5	<5	7
GMX-TRN-06A-1.0	1.0	4/7/00	<	<50	<50	<50	<50
GMX-TRN-07A-1.0	1.0	4/7/00	1	<50	<50	<50	87
GMX-TRN-08A-1.0	1.0	4/7/00	3	<50	<50	<50	<50
GMX-TRN-09A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-10A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-11A-1.0	1.0	4/7/00	1	<50	<50	180	210
GMX-TRN-11A-1.0*	1.0	4/7/00	1	69	<50	55	130
GMX-TRN-11B-1.0	1.0	4/21/00	1	<50	<50	<50	(75)
GMX-TRN-11C-3.0	3.0	4/21/00	6	<50	<50	<50	<50
GMX-TRN-11D-1.0	1.0	4/21/00	1	<50	<50	<50	<50
GMX-TRN-12A-1.0	1.0	4/7/00	1	73	<50	310	560
GMX-TRN-12A-1.0*	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-12B-3.0	3.0	4/21/00	<	<50	<50	<50	
GMX-TRN-12C-1.0	1.0	4/21/00	5	<50	<50	50	120
GMX-TRN-12D-1.0	1.0	4/21/00	5	<50	<50	<50	71
GMX-TRN-12E-1.0	1.0	4/21/00	3	<50	<50	<50	<50
GMX-TRN-13A-1.0	1.0	4/7/00	3	<50	<50	65	110
GMX-TRN-14A-1.0	1.0	4/7/00	2	<50	<50	<50	<50
GMX-TRN-15A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRN-52A-1.0	1.0	4/7/00	3	<50	<50	<50	<50
GMX-TRN-53A-1.0	1.0	4/7/00	1	5	<5	6	17
GMX-TRN-54A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-55A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRN-56A-1.0	1.0	4/7/00	3	<50	<50	<50	<50
GMX-TRN-57A-1.0	1.0	4/7/00	4	<50	<50	<50	<50
GMX-TRN-58A-1.0	1.0	4/7/00	2	<50	<50	<50	<50
GMX-TRN-59A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-60A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-61A-1.0	1.0	4/7/00	2	<50	<50	<50	<50
GMX-TRN-62A-1.0	1.0	4/7/00	1	<50	<50	<50	<50
GMX-TRN-68A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRN-69A-1.0	1.0	4/7/00	<	<5	<5	<5	<5
GMX-TRN-70A-1.0	1.0	4/7/00	<	<50	<50	<50	<50
GMX-TRN-71A-1.0	1.0	4/11/00	1	<50	<50	<50	<50
GMX-TRN-71A-5.0	5.0	4/11/00	<	<5	<5	<5	<5
GMX-TRN-71A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRN-72A-1.5	1.5	4/11/00	<	<50	<50	<50	68
GMX-TRN-72A-5.0	5.0	4/11/00	<	<5	<5	<5	<5
GMX-TRN-72A-9.0	9.0	4/11/00	<	<5	<5	<5	<5
GMX-TRN-78A-1.5	1.5	4/10/00	2	<50	<50	<50	<50
GMX-TRN-78A-5.5	5.5	4/10/00	<	<5	<5	<5	<5

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not identified in any of the other 28 cores (8 at lots on Telford Court⁶ and 20 from the soil removal area).

CONCLUSIONS

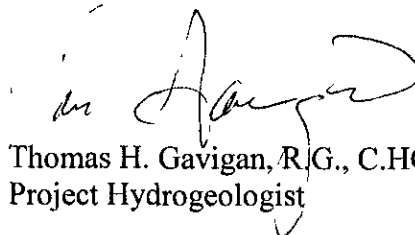
Based on data presented in this report and comparisons of detected soil concentrations to levels considered acceptable by U.S. EPA for residential site use, no further action is recommended, and the lots can be occupied for residential use.

Geomatrix appreciates this opportunity to provide consulting services to the City of Hayward. If you have any further questions, please contact any of the undersigned.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.



Ann M. Holbrow
Senior Scientist



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

Attachments:

- Tables 1 through 3
- Figures 1 and 2
- Attachment A – Permit
- Attachment B – Shallow Soil Sampling Log
- Attachment C – Boring Logs
- Attachment D – Laboratory Analytical Results – Friedman & Bruya
- Attachment E – Laboratory Analytical Results – Forensic Analytical Services
- Attachment F – Results of Quality Assurance/Quality Control

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

⁶ Geomatrix, 1999, Soil Sampling Results – Telford Court, March 30.

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PRGs combine current EPA toxicity values with standard exposure factors to estimate concentrations in environmental media (e.g., soil) that are protective of human health, including sensitive subgroups, over a lifetime. For some chemicals, variations in exposure or toxicity assessment required in California have been applied and a "Cal-modified" PRG has been published. The Cal-modified PRGs have been used in this assessment, where available. If chemicals are present at concentrations below the PRGs, then exposure to these chemicals should not result in adverse health effects. If multiple chemicals are present, then the potential for adverse health effects associated with cumulative exposure may need to be evaluated. The presence of chemicals at concentrations exceeding PRGs does not indicate that adverse health effects will occur, but "suggests that further evaluation of the potential risks that may be posed by site contaminants is appropriate."⁵ The PRGs are listed at the bottom of the Tables 1 and 2 for detected chemicals.

The comparison to PRGs yielded the following results:

- With the exception of samples with benzo(a)pyrene above the residential PRG, concentrations of PAHs in other samples were at least 9 times lower than their respective PRGs. Eight of the fourteen PAHs were more than 100 times lower than their respective PRGs. Benzo(a)pyrene was detected in two samples (GMX-TRN-11A-1.0 at 85 ug/kg, GMX-TRN-12A-1.0 at 180 ug/kg), in the duplicate sample for GMX-TRN-11D-1.0 (66 ug/kg), and in a replicate sample (GMX-TRN-11A-1.0 at 70 ug/kg) above the PRG (62 ug/kg). With the exception of benzo(a)pyrene in the laboratory duplicate sample for GMX-TRN-11D, benzo(a)pyrene was not detected in samples surrounding these locations. PAHs also were not detected in samples collected below the two initial samples. These results indicate that the benzo(a)pyrene detected above the PRG is limited to shallow soil. Because the distribution of benzo(a)pyrene is discontinuous and detected benzo(a)pyrene concentrations are not significantly higher than the PRGs, concentrations of PAHs detected in soil do not present a significant source of potential exposure.
- Concentrations of VOCs were at least ten times lower than their respective PRGs in all samples where concentrations were detected. However, the detection of several VOCs and TPHmo near the former UST indicate residual petroleum hydrocarbons remain in the soil in this area.

A PRG has not been developed for asbestos in soil. However, since asbestos was not detected in any of the 10 soil samples analyzed, asbestos in soil does not appear to be an issue at the site. Particulates, similar to the one identified in the core from location GMX-TRS-12A, were

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11B-1.0, GMX-TRN-12C-1.0, and GMX-TRN-12D-1.0). Benzo(a)pyrene was not detected in any of these samples. Nine PAHs, phenanthrene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene, were detected in the laboratory duplicate sample at GMX-TRN-11D-1.0, but were below the detection limit of 50 ug/kg in the original sample as discussed in Appendix F. No PAHs were detected in the reanalysis of GMX-TRN-12A-1.0. Ten PAHs, including benzo(a)pyrene at a concentration of 70 ug/kg, were detected in the reanalysis of GMX-TRN-11A-1.0.

Methylene chloride was detected in 21 samples but was attributed to sample contamination by the laboratory. Four of the 95 samples (GMX-TRN-72A-5.0, GMX-TRS-14A-5.0, GMX-UST-01-1.5, and GMX-UST-01-6.5) contained detections of other VOCs. Acetone was detected in all of these samples from 73 to 1000 ug/kg. It should be noted that acetone is a common laboratory contaminant and its detection may not be representative of soil quality at those locations. In two of the four samples, acetone was the only VOC detected. In one of the four samples (GMX-UST-01-1.5), MEK was also detected at 150 ug/kg. In another sample near the former UST (GMX-UST-01-6.5), 12 VOCs in addition to acetone were detected at concentrations ranging from 9 to 510 ug/kg³. An odor associated with this sample was noted in the boring log.

The particle submitted for asbestos analysis from sample location GMX-TRS-12A at 2.5 feet bgs contained 20 percent asbestos. The ten soil samples submitted for asbestos analysis did not contain detectable concentrations of asbestos.

Discussion of Results

In accordance with the work plan, concentrations of PAHs and VOCs detected at the site were compared with residential Preliminary Remediation Goals (PRGs) established by U.S. EPA Region 9⁴. Total petroleum hydrocarbon measurements, such as TPHmo, represent mixtures of chemicals that, because of their potentially highly variable composition, have no associated health criteria. Therefore, the toxicity of these mixtures is best described by the aggregate toxicity of key individual chemicals in the mixture. As is the practice in California⁵, only petroleum hydrocarbon constituents detected in soil, i.e., VOCs and PAHs, were considered for comparison to PRGs.

³ As discussed in Appendix F, several internal laboratory standards were beyond control limits, and, therefore, reported concentrations of seven of the 12 VOCs are estimated concentrations in this sample.

⁴ U.S. EPA, 1999, Region 9 Preliminary Remediation Goals (PRGs), October 1.

⁵ Cal-EPA, 1994, Preliminary Endangerment Assessment Guidance Manual: Department of Toxic Substances control, Sacramento, California.

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UST. At this location, no sample recovery was achieved between 6.5 and 10 feet bgs, due to soft conditions and concrete debris. A companion boring, advanced adjacent to GMX-UST-01, was sampled from 8 to 10 feet bgs; no odor was detected in this soil. Neither odor nor elevated PID readings were noted in any of the other soil borings.

At approximately 2.5 feet bgs in boring GMX-TRS-12A, a gray particle approximately 1-inch in diameter with a white fibrous component was observed and collected for analysis; the particle was interpreted in the field to potentially contain asbestos.

ANALYTICAL LABORATORY RESULTS

Soil Sample Results

Analytical results for TPHmo and PAHs are summarized in Table 1; analytical results for VOCs are summarized in Table 2. Laboratory analytical reports from Friedman and Bruya and FAS are presented in Attachments D and E, respectively. A review of the Quality Assurance/Quality Control data is presented in Attachment F.

TPHmo was detected in 46 of the 102 soil samples at concentrations ranging from 52 to 1,600 milligrams per kilogram (mg/kg) and in one sample collected 6.5 feet bgs near the former UST (GMX-UST-01-6.5) at 5400 mg/kg. Of the 46 samples containing TPHmo, 41 were collected at approximately 1-foot bgs (out of 53 lots sampled); one was collected at approximately 3 feet bgs; three were collected at depths of approximately 5 to 6 feet bgs; and one was collected at approximately 9 feet bgs.

Twenty-one of the 102 collected samples contained at least one PAH (Table 1); concentrations ranged from 5 to 630 micrograms per kilogram (ug/kg). Seventeen of these samples were collected at approximately 1.0 feet bgs and four were collected at approximately 5 to 6 feet bgs (GMX-TRS-13A-5.0, GMX-TRS-15A-5.5, GMX-TRN-82A-5.0, and GMX-UST-01-6.5). None of the samples collected at approximately 9 feet bgs contained detectable concentrations of PAHs.

Benzo(a)pyrene was detected in two samples (GMX-TRN-11A-1.0 at 85 ug/kg and GMX-TRN-12A-1.0 at 180 ug/kg) above the PRG (62 ug/kg; discussed further in the next section). In accordance with the work plan, these detections required four additional samples to be collected at each lot: three samples at approximately 20-feet from and surrounding the original location at 1.0 feet bgs and one at the original location at 2.5 to 3 feet bgs (Figure 3). Because lots 11 and 12 were adjacent in tract 7069, sample GMX-TRN-12D-1.0 served as one of the surrounding samples for both lots. In addition, each original sample was reanalyzed using remaining soil from the other end of the sample container. Up to three PAHs (chrysene, fluoranthene, and pyrene) were detected in three of the surrounding samples (GMX-TRN-

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Section) splits of ten soil samples were sent by Friedman and Bruya under chain-of-custody to FAS for additional asbestos analysis.

For quality assurance/quality control (QA/QC) purposes, the Friedman and Bruya analyzed duplicate samples, method blanks, matrix spike/matrix spike duplicate samples, and laboratory control samples.

RESULTS OF FIELD PROGRAM

This section presents the results of the field program. A summary of the soil types observed during sampling and a discussion of the analytical results follow.

SOIL CLASSIFICATION

Soil observed during sampling is generally consistent with soil observed during sampling activities in other portions of the development². Site stratigraphy consists of a fill unit underlain by lean clay. Soil boring logs for the 20 borings advanced in the soil removal area are included as Attachment B.

The fill unit typically consists of firm gray to brown lean clay with minor amounts of fine to coarse sand and fine gravel. Shallow soil sampled from Lots 1 through 4 in Tract 7124 (designated by "TRS" in sample identification) consisted of clayey sand with gravel and appeared to be imported aggregate base material. The fill material is underlain by lean clay and lean clay with sand that typically grades in color from dark gray to light gray to brown.

Fill material in the six borings sampled west of Chesterfield Court (lots 76 to 83) ranged in thickness from approximately 2 to 4 feet. Fill material in the 12 borings sampled east of Chesterfield Court (lots 8 to 17 and lots 71 and 72) ranged in thickness from approximately 2 to 6 feet. Fill material thickness at the two locations advanced near the former UST ranged from approximately 4 to 8 feet. The variable thickness of this fill material is likely due to soil removal activities performed by SummerHill Homes, differences in final grade elevation, and grading operations (overexcavation, replacement, and compaction).

Saturated soil was encountered during soil sampling activities at location GMX-TRS-18a at 8.0 feet bgs; a lens of clayey sand was observed at this depth. Saturated soil was not observed in any of the other borings.

A slight odor, but no elevated PID readings, was observed by Geomatrix field personnel at location GMX-UST-01 at 6.5 feet bgs. This was one of two borings advanced near the former

² Geomatrix Consultants, 2000, Soil Sampling Results, Canterbury Residential Development, Hayward, California, March 30.

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1.25-inch-outside-diameter by 4-foot-long polybutyrate tubing. The recovered soil was logged in accordance with the Unified Soil Classification System visual-manual procedure (ASTM D2488-90) under the direction of a Geomatrix geologist registered in the State of California

Soil samples selected for laboratory analyses were cut from the polybutyrate sample barrel. The soil samples were collected from each boring at approximately 1, 5, and 9 feet bgs. Samples were packaged for laboratory analyses by covering the ends of each sampling tube with Teflon™ sheets and plastic caps. The caps were secured with silicon tape. The soil samples were labeled, placed in resealable plastic bags, and stored in coolers with ice, pending delivery to an analytical laboratory under Geomatrix chain-of-custody.

A dark gray, gravel-sized particle, identified at approximately 2.5 feet bgs at GMX-TRS-12A,- appeared to be friable and was considered to potentially contain asbestos. The particle was double-bagged in resealable plastic bags, labeled, and submitted to an analytical laboratory under Geomatrix chain-of-custody.

Downhole equipment, including outer drive casing, and drive rods, was steam cleaned prior to borehole advancement at each location. Soil cuttings were placed in labeled 5-gallon pails pending characterization for disposal by SummerHill Homes. Cleaning water was combined in the 55-gallon drum with the cleaning water from the shallow soil sampling program.

ANALYTICAL PROGRAM

As outlined in the work plan, initial soil samples were submitted to Friedman & Bruya, a California- certified analytical laboratory in Seattle, Washington for analysis of:

- total petroleum hydrocarbons quantified as motor oil (TPHmo), in accordance with U.S. EPA Method 8015 modified, after a silica gel cleanup;
- polycyclic aromatic hydrocarbons (PAHs), in accordance with U.S. EPA Method 8270C SIM (selected ion mode); and
- VOCs, in accordance with U.S. EPA Method 8260.

The additional samples collected at lots 11 and 12 on April 21, 2000 were analyzed for PAHs and TPHmo only.

The potential asbestos-containing material was analyzed for asbestos using polarized light microscopy by Forensic Analytical Specialties, Inc. (FAS), a California-certified laboratory located in Hayward, California. Based on the initial results (discussed further in the Results

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of the City of Hayward Department of Public Works regarding the location of underground utilities.

LOTS OUTSIDE FORMER SOIL REMOVAL AREA

On April 7, 2000, Geomatrix supervised the advancement of 36 shallow soil borings on 35 unoccupied lots identified as outside the soil removal area (Figure 2). Two borings were advanced in Lot 5 of Tract 7069 as asphalt fragments were observed in the first boring.

Based on analytical results (discussed further in the Results Section), and in accordance with the work plan, seven additional shallow soil borings were advanced on April 21, 2000 at Lots 11 and 12 of Tract 7069.

Forty of the borings were advanced to 0.5 feet below ground surface (bgs) and two of the borings were advanced to 2.5 feet bgs using a hand auger. A hand-operated drive sampler lined with brass or stainless steel sleeves was used to collect soil samples at the bottom of each hand-augered boring. After retrieval of the soil core, the borehole was screened for volatile organic compounds (VOCs) using an organic vapor monitor equipped with a photoionization detector (PID). Soil descriptions, OVM readings and sample identifications were recorded on a shallow soil sampling log (Attachment B).

The soil samples were packaged for laboratory analysis by covering the ends of the sample sleeves with Teflon™ sheets and plastic caps. The caps were secured with silicon tape. The soil samples were labeled, placed in resealable plastic bags, and stored in coolers with ice, pending delivery to an analytical laboratory under Geomatrix chain-of-custody.

All downhole equipment including hand auger bucket and rods, drive sampler, and sleeves, were washed with an Alconox solution, rinsed with potable water, and rinsed with deionized water. Cleaning water was placed in a 55-gallon drum for characterization and disposal by SummerHill Homes.

LOTS WITHIN FORMER SOIL REMOVAL AREA

On April 10 and 11, 2000, Geomatrix supervised the advancement of 20 soil borings. Eighteen of the borings were advanced on lots in the vicinity of Chesterfield Court, and the remaining two borings were advanced near the former underground storage tank (UST) location. Fast-Tek Engineering Support Services, Inc., a California-licensed drilling firm from Richmond, California, advanced the borings using a Geoprobe® 5400 rig.

The borings were continuously cored to a depth of about 10 feet below ground surface (bgs) using Geoprobe®'s DT21 dual tube sampling system. The inner sample barrel consists of

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April 28, 2000
Project 6262.000.0

SLIC 6669

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

Subject: Final Soil Sampling Results – Unoccupied Residential Lots
Canterbury Residential Development
Hayward, California

Dear Mr. Murphy:

On behalf of the City of Hayward, Geomatrix Consultants, Inc. (Geomatrix) has prepared this summary of the results of a soil sampling program performed on unoccupied lots in the Canterbury Residential Development in Hayward, California (Figure 1). The scope of work described herein was based on Geomatrix's April 6, 2000 work plan ("the work plan")¹.

Geomatrix's sampling effort was focussed on two objectives: 1) to evaluate the quality of soil likely to be contacted by residents during typical landscaping activities and 2) to further evaluate soil quality at lots located in the vicinity of previous soil removal. SummerHill Homes reportedly removed approximately 11,000 cubic yards of soil potentially impacted with chemicals ("soil removal area"). This soil was removed from lots in the vicinity of Chesterfield Court; most lots south of Silverstar Lane were considered adjacent to the soil removal area.

This report is divided into four sections. The first section describes the methods used to collect the soil samples. The second section describes the analytical methods used by the laboratories. The third section presents the results of the field and analytical programs. The fourth section compares the detected concentrations to U.S. Environmental Protection Agency (U.S. EPA) Preliminary Remediation Goals (PRGs) for residential land use.

FIELD PROGRAM

Prior to performing the field investigation, Geomatrix completed the following tasks: reviewed the existing Health and Safety Plan (no update required); obtained a boring permit from the Alameda County Public Works Department (Attachment A); and cleared boring locations for underground utilities by notifying appropriate utilities through Underground Service Alert (USA). Prior to drilling, Geomatrix consulted in the field with a representative

¹ Geomatrix Consultants, Inc., 2000, Work Plan for Subsurface Investigation: Unoccupied Lots, Canterbury Residential Development, Hayward, California, April 6.

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00 APR 31 AM 9:17

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:

SHIC 6669

Project Number: 6262.000.0

Project Name: Canterbury Residential Development

Item	Description
1	Final Soil Sampling Results – Unoccupied Residential Lots

Remarks

Enclosed is the final report for soil sampling at the unoccupied residential lots. While the general conclusions are consistent, this report has been revised from the fax you received earlier to accommodate laboratory duplicate results made available to us with the laboratory QA/QC reports in the final data packages. The faxed version was based on the electronic data deliverable, which did not include these results. Please disregard the faxed version and maintain this final copy.

If you have any questions, please contact us.

next week PSC

DRAFT

Summary of Detections
 Canterbury Residential Development
 Unoccupied Lots

Sample ID	Date Sampled	Measured Value	Data Qualifier	PRG - Residential	Units	Chemical Name
GMX-TRN-82A-5.0	4/10/00	15		2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-82A-5.0	4/10/00	9		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-82A-5.0	4/10/00	15		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-3A-1.0	4/7/00	59 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-4A-1.0	4/7/00	50 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-5A-1.0	4/7/00	270			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-6A-1.0	4/7/00	50		8,100	ug/kg (ppb)	Chrysene
GMX-TRS-6A-1.0	4/7/00	60			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-7A-1.0	4/7/00	53 lc	lc	8,800	ug/kg (ppb)	Methylene chloride
GMX-TRS-7A-1.0	4/7/00	50			ug/L	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-1.0	4/10/00	92			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-5.5	4/10/00	83			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-11A-9.0	4/10/00	65 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-12A-1.5	4/10/00	57	d	8,100	ug/kg (ppb)	Chrysene
GMX-TRS-12A-1.5	4/10/00	77			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-12A-1.5	4/10/00	51	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-13A-1.5	4/10/00	64	d	8,100	ug/kg (ppb)	Chrysene
GMX-TRS-13A-1.5	4/10/00	62	d	2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRS-13A-1.5	4/10/00	87			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-13A-1.5	4/10/00	61	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-13A-5.0	4/10/00	74	d	2,300,000	ug/kg (ppb)	Fluoranthene
GMX-TRS-13A-5.0	4/10/00	82	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-14A-1.5	4/10/00	60	d	820	ug/kg (ppb)	Benz(a)anthracene
GMX-TRS-14A-1.5	4/10/00	118	d	8,100	ug/kg (ppb)	Chrysene
GMX-TRS-14A-1.5	4/10/00	63 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRS-14A-1.5	4/10/00	1,200			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRS-14A-1.5	4/10/00	88	d	22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRS-14A-1.5	4/10/00	82	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-TRS-14A-5.0	4/10/00	130			ug/kg (ppb)	Acetone
GMX-TRS-14A-9.0	4/10/00	70 lc	lc	8,800	ug/kg (ppb)	Methylene chloride
GMX-UST1-1.5	4/10/00	150		7,300,000	ug/kg (ppb)	2-Butanone (MEK)
GMX-UST1-1.5	4/10/00	1,000 va	va		ug/kg (ppb)	Acetone
GMX-UST1-1.5	4/10/00	79 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST1-1.5	4/10/00	52			ug/g	motor oil range TPH with silica gel cleanup
GMX-UST1-6.5	4/10/00	510 l	l	8,700	ug/kg (ppb)	1,2,4-Trimethylbenzene
GMX-UST1-6.5	4/10/00	91	l	370,000	ug/kg (ppb)	1,2-Dichlorobenzene
GMX-UST1-6.5	4/10/00	74 l	l	21,000	ug/kg (ppb)	1,3,5-Trimethylbenzene
GMX-UST1-6.5	4/10/00	52	d	3,700,000	ug/kg (ppb)	Acenaphthene
GMX-UST1-6.5	4/10/00	78			ug/kg (ppb)	Acetone
GMX-UST1-6.5	4/10/00	120	d	820	ug/kg (ppb)	Benz(a)anthracene
GMX-UST1-6.5	4/10/00	340	d	8,100	ug/kg (ppb)	Chrysene
GMX-UST1-6.5	4/10/00	21		230,000	ug/kg (ppb)	Ethylbenzene
GMX-UST1-6.5	4/10/00	170	d	2,800,000	ug/kg (ppb)	Fluorene
GMX-UST1-6.5	4/10/00	9		180,000	ug/kg (ppb)	Isopropylbenzene
GMX-UST1-6.5	4/10/00	14		210,000	ug/kg (ppb)	m,p-Xylene
GMX-UST1-6.5	4/10/00	78 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST1-6.5	4/10/00	3,400			ug/g	motor oil range TPH with silica gel cleanup
GMX-UST1-6.5	4/10/00	33 l	l	58,000	ug/kg (ppb)	Naphthalene
GMX-UST1-6.5	4/10/00	150	d	58,000	ug/kg (ppb)	Naphthalene
GMX-UST1-6.5	4/10/00	53 l	l	160,000	ug/kg (ppb)	n-Propylbenzene
GMX-UST1-6.5	4/10/00	24		210,000	ug/kg (ppb)	o-Xylene
GMX-UST1-6.5	4/10/00	440	d	22,000,000	ug/kg (ppb)	Phenanthrene
GMX-UST1-6.5	4/10/00	16 l	l		ug/kg (ppb)	p-Isopropyltoluene
GMX-UST1-6.5	4/10/00	150	d	2,300,000	ug/kg (ppb)	Pyrene
GMX-UST1-6.5	4/10/00	14 l	l	110,000	ug/kg (ppb)	sec-Butylbenzene
GMX-UST1-9.0	4/10/00	61 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST2-1.5	4/10/00	6		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-UST2-1.5	4/10/00	17		8,100	ug/kg (ppb)	Chrysene
GMX-UST2-1.5	4/10/00	84 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-UST2-1.5	4/10/00	27		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-UST2-1.5	4/10/00	6		2,300,000	ug/kg (ppb)	Pyrene
GMX-UST2-5.5	4/10/00	57 lc	lc	8,800	ug/kg (ppb)	Methylene chloride
Notes:						
l - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.						
lc - The presence of the compound indicated is likely due to laboratory contamination						
va - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.						
d - The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.						
Bold indicates results exceeds the residential PRG.						

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Summary of Detections
 Canterbury Residential Development
 Unoccupied Lots

Sample ID	Date Sampled	Measured Value	Data Qualifier	PRG - Residential	Units	Chemical Name
GMX-TRN-2A-1.0	4/7/00	180			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-3A-1.0	4/7/00	5		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-4A-1.0	4/7/00	6		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-4A-1.0	4/7/00	7		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-4A-1.0	4/7/00	10		2,800,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-4A-1.0	4/7/00	9		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-5A-1.0	4/7/00	6		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-5A-1.0	4/7/00	6		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-5A-1.0	4/7/00	6		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-5A-1.0	4/7/00	7		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-6A-1.0	4/7/00	61		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-7A-1.0	4/7/00	56		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-7A-1.0	4/7/00	100		2,800,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-7A-1.0	4/7/00	110			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-7A-1.0	4/7/00	87		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-9A-1.0	4/7/00	300			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-9A-1.0	4/7/00	180			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-10A-1.0	4/7/00	180			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-11A-1.0	4/7/00	80		820	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-11A-1.0	4/7/00	86		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-11A-1.0	4/7/00	63		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-11A-1.0	4/7/00	63		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-11A-1.0	4/7/00	74		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-11A-1.0	4/7/00	100		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-11A-1.0	4/7/00	170		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-11A-1.0	4/7/00	980			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-11A-1.0	4/7/00	180		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-11A-1.0	4/7/00	210		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-12A-1.0	4/7/00	71		22,000,000	ug/kg (ppb)	Anthracene
GMX-TRN-12A-1.0	4/7/00	260		620	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-12A-1.0	4/7/00	180		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-12A-1.0	4/7/00	190		620	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-12A-1.0	4/7/00	63		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-12A-1.0	4/7/00	160		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-12A-1.0	4/7/00	290		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-12A-1.0	4/7/00	630		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-12A-1.0	4/7/00	73		820	ug/kg (ppb)	Indeno(1,2,3-cd)pyrene
GMX-TRN-12A-1.0	4/7/00	110			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-12A-1.0	4/7/00	310		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-12A-1.0	4/7/00	560		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-13A-1.0	4/7/00	60		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-13A-1.0	4/7/00	63		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-13A-1.0	4/7/00	110		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-13A-1.0	4/7/00	360			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-13A-1.0	4/7/00	66		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-13A-1.0	4/7/00	110		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-14A-1.0	4/7/00	200			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-16A-1.0	4/7/00	65			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-52A-1.0	4/7/00	350			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-53A-1.0	4/7/00	6		820	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-53A-1.0	4/7/00	9		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-53A-1.0	4/7/00	9		820	ug/kg (ppb)	Benzo(b)fluoranthene
GMX-TRN-53A-1.0	4/7/00	7		3,700,000	ug/kg (ppb)	Benzo(g,h,i)perylene
GMX-TRN-53A-1.0	4/7/00	6		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-53A-1.0	4/7/00	13		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-53A-1.0	4/7/00	13		2,600,000	ug/kg (ppb)	Fluoranthene
GMX-TRN-53A-1.0	4/7/00	5		820	ug/kg (ppb)	Indeno(1,2,3-cd)pyrene
GMX-TRN-53A-1.0	4/7/00	100			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-53A-1.0	4/7/00	8		22,000,000	ug/kg (ppb)	Phenanthrene
GMX-TRN-53A-1.0	4/7/00	17		2,300,000	ug/kg (ppb)	Pyrene
GMX-TRN-54A-1.0	4/7/00	100			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-58A-1.0	4/7/00	300			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-57A-1.0	4/7/00	63		6,100	ug/kg (ppb)	Chrysene
GMX-TRN-57A-1.0	4/7/00	420			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-58A-1.0	4/7/00	260			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-59A-1.0	4/7/00	160			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-60A-1.0	4/7/00	160			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-61A-1.0	4/7/00	280			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-62A-1.0	4/7/00	120			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-88A-1.0	4/7/00	51 lc	lc	8,900	ug/kg (ppb)	Methylene chloride
GMX-TRN-78A-1.5	4/10/00	230			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-78A-8.0	4/10/00	67 lc	lc	8,600	ug/kg (ppb)	Methylene chloride
GMX-TRN-79A-1.5	4/10/00	71			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-80A-1.0	4/10/00	53			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-81A-9.0	4/10/00	64			ug/g	motor oil range TPH with silica gel cleanup
GMX-TRN-82A-5.0	4/10/00	8		820	ug/kg (ppb)	Benzo(a)anthracene
GMX-TRN-82A-5.0	4/10/00	6		62	ug/kg (ppb)	Benzo(a)pyrene
GMX-TRN-82A-5.0	4/10/00	6		6,200	ug/kg (ppb)	Benzo(k)fluoranthene
GMX-TRN-82A-5.0	4/10/00	6		6,100	ug/kg (ppb)	Chrysene



FAX

from **Geomatrix Consultants, Inc.**
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 www.geomatrix.com

The information in this telecopy is intended for the named recipient(s) only. It may contain privileged and confidential matter. If you have received this telecopy in error, please notify the sender immediately. Thank you.

Date: April 19, 2000

Number of pages including cover sheet: 4

To: **Hugh Murphy: 510-583-3641**From: **Ann Holbrow and Tom Gavigan**

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cc: Susan Gallardo

Direct dial: _____

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Project No.: **6262.000.0**Project Name: **Canterbury Residential Development**

REMARKS:

Hard copy to follow Urgent For your review Reply ASAP Please comment

Please find attached a summary table of detected compounds from the sampling of unoccupied lots performed on April 7 and 10, 2000. We are still awaiting data from sampling performed on April 11, 2000, and anticipate receiving the results by the end of the day today.

As shown in the table, two samples contained benzo(a)pyrene concentrations above the residential PRG. Therefore, in accordance with the work plan, Geomatrix will be collecting five additional samples at these two lots (lots 11 and 12 located on Stonehaven Court [figure attached]) and submitting them for analysis of TPH_{mo} and PAHs. The work is planned for this Friday (April 21).

Please call if you have any questions. Thank you.