



7901 Stoneridge Drive, Suite 123 Pleasanton, California 94588 (510) 416-2900 Fax (510) 416-0957

May 10, 1993

Ms. Eva Chu Alameda County Health Care Services Hazardous Materials Division 80 Swan Way, Room 200 Oakland, California 94621

SUBJECT: Quarterly Monitoring and Sampling Reports

Third Quarter 1992, Fourth Quarter 1992

6700 Golden Gate Drive

Dublin, California

Dear Ms. Chu:

Enclosed please find a copy of both the Third Quarter 1992 and the Fourth Quarter 1992 Quarterly Monitoring and Sampling Reports for the site at 6700 Golden Gate Drive, Dublin, California.

If you have any questions, please contact Mr. David Blunt at (510) 416-2900.

Sincerely,

MITTELHAUSER CORPORATION

Kate Woodman Senior Secretary

KW/

Enclosures: 1. Third Quarter 1992 Quarterly Monitoring and Sampling Report

2. Fourth Quarter 1992 Quarterly Monitoring and Sampling Report

1753L010.WP

7901 Stoneridge Drive, Suite 123 Pleasanton, California 94588

Bus: (510) 416-2900 Fax: (510) 416-0957

October 27, 1992

Ms. Gina DiMatteo Kemper Real Estate 2000 Crow Canyon Place, Suite 120 San Ramon, California 94583

Subject: Quarterly Monitoring and Sampling Report -

Third Quarter 1992 6700 Golden Gate Drive Dublin, California

Dear Ms. DiMatteo:

Mittelhauser Corporation (Mittelhauser) is pleased to present this report documenting the results of monitoring and sampling the groundwater during the third quarter of 1992 at the subject site, in accordance with our proposal dated January 22, 1992. This report discusses sampling performed at the site on October 12, 1992. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached.

BACKGROUND

It is Mittelhauser's understanding that one diesel fuel and one unleaded gasoline underground storage tank (UST) were removed from the subject site by W.A. Craig Contractors. After the tank removal, contaminated soil was encountered on the floor of the tank pit. According to a report by Uriah, Inc., approximately 82 cubic yards of soil was subsequently excavated from the pit. Laboratory analysis of the stockpiled soil detected up to 360 ppm of total oil and grease (TOG) and minimal gasoline components.

On August 14, 1991, Mittelhauser observed additional soil removal from the tank pit near the juncture of the two USTs until no visual contamination was evident, and the photoionization detector (PID) did not detect any organic volatiles. Laboratory analyses of soil samples collected from the floor of the excavation did not detect any total petroleum hydrocarbons as gasoline (TPH-G) or diesel (TPH-D), benzene, toluene, ethylbenzene, and xylenes (BTEX), TOG, and organic lead.

The excavated soils were added to the previous stockpile which was flattened to an average height of approximately 5 feet

for composite sampling purposes. The stockpiled soil was sampled, analyzed, and disposed of properly.

On November 20, 1991 Mittelhauser personnel observed the installation of one 2-inch-diameter monitoring well designated as MW-1. The monitoring well was installed in the area of the tank juncture which was identified in the Uriah report as the main area of contamination. The location of the monitoring well is shown on the attached Site Plan.

A quarterly monitoring and sampling program was initiated at the site on December 5, 1991. The results of the second quarter of monitoring and sampling are presented in this report.

FIELD ACTIVITIES

Monitoring well MW-1 was monitored for depth to water and the presence of free product or sheen on October 12, 1992. No free product or sheen were observed in this well during this sampling episode.

On October 12, 1992, the well MW-1 was sampled. A summary of the field parameters recorded during well purging along with field protocol is presented in the attached Field Notes.

HYDROLOGY

In well MW-1, the measured depth to water at the site on October 12, 1992 was 16.69 feet below top of casing. Since the last monitoring and sampling episode on June 3, 1992, the water level dropped approximately two feet in the well.

LABORATORY RESULTS

The groundwater sample collected from well MW-1 was analyzed for TPH-G using EPA Method 5030 in conjunction with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA Method 602. In addition, the water sample from MW-1 was analyzed for TPH-D using EPA Method 3510 in conjunction with modified EPA Method 8015.

ChromaLab reported that analysis of the water sample from MW-1 did not detect any of the tested constituents. The laboratory analytical results for the water sample are summarized in Table 2. Copies of the laboratory analytical results and chain-of-custody documentation are attached.

DISCUSSION AND RECOMMENDATIONS

This is the third sampling episode with no positive analytical results shown for the tested constituents. This program will be continued for one more quarter. If the groundwater analytical results for all parameters continue to remain below method detection limits for these three quarters, site closure will be requested from the agency.

DISTRIBUTION

We recommend that copies of this report be sent to Ms. Eva Chu at the Alameda County Department of Health Services.

LIMITATIONS

This report was prepared solely for the use of Bedford Properties, Inc. The content and conclusions provided by Mittelhauser in this assessment are based on information collected during our investigation, which may include, but is not limited to, visual site inspections, interviews with site owner, regulatory agencies and other pertinent individuals, a review of available public documents, subsurface exploration and laboratory testing of soil and groundwater samples and our professional judgment based on said information at time of preparation of this document. subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the conclusions of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. Mittelhauser is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and the interpretation of such data based upon our experience and background, and no warranty, either express

or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 416-2900.

Sincerely,

MITTELHAUSER CORPORATION

Roger W. Papler Project Geologist

David J. Blunt

Geoscience Manager, RG 4516

RWP:DJB/dlp P1753R003.WP

Attachments: Figure 1: Site Location Map

Nº 4516

Figure 2: Site Plan

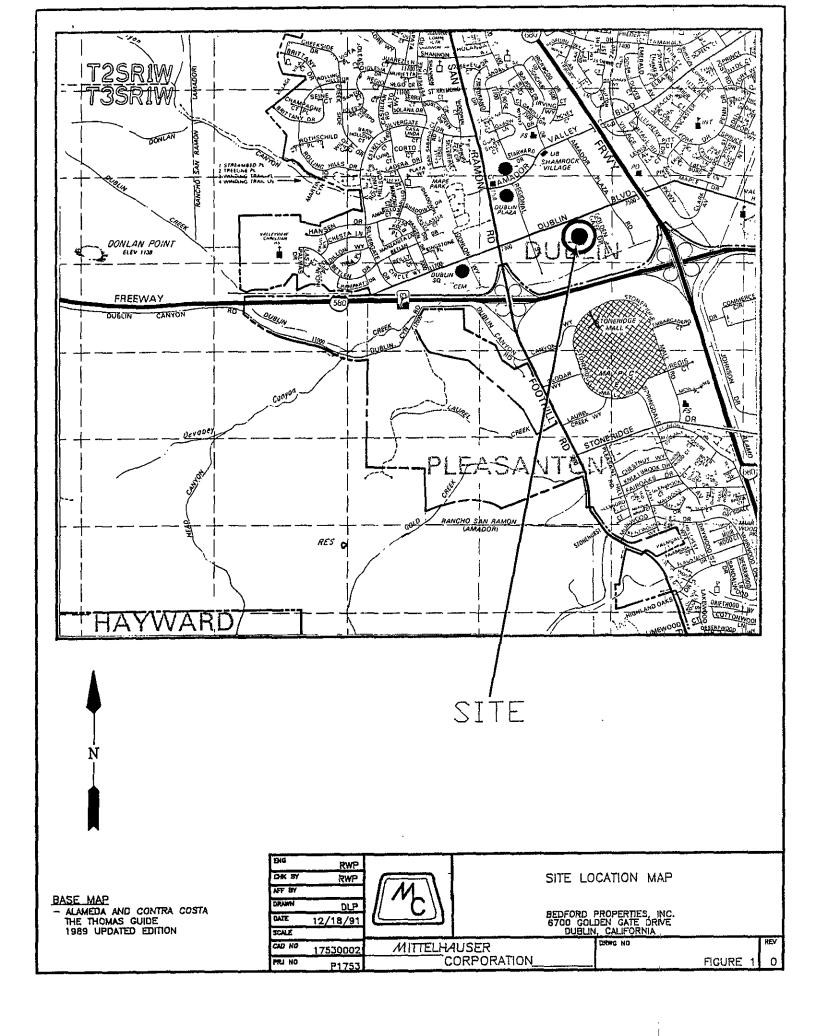
Table 1: Well Monitoring Data

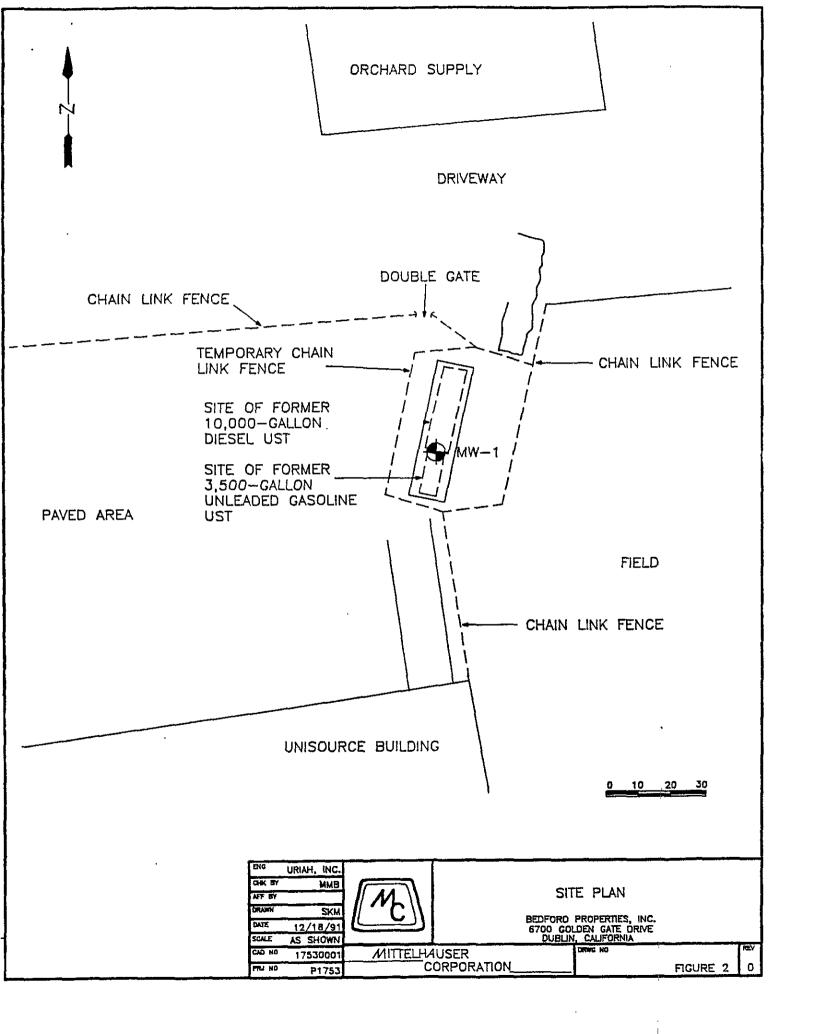
Table 2: Summary of Water Sample Analytical Results

Laboratory Analytical Report Chain-of-Custody Documentation

Field Notes

MITTELHAUSER corporation _____ October 27, 1992 Ms. Gina DiMatteo FIGURES





MITTELHAUSER corporation _____

Ms. Gina DiMatteo

October 27, 1992

TABLES

Kemper Real Estate Dublin, California

Quarterly Monitoring and Sampling Report

October 1992

Rev.: 1

1753T004.WK1

TABLE 1 WELL MONITORING DATA

WELL	DATE	DEPTH TO	FREE	SHEEN	WATER	
NUMBER		WATER *	PRODUCT THICKNESS	PRESENCE	REMOVED	
		(FEET)	(FEET)		(GALLONS)	
	20105104			None	9 5	
- MW-1	12/05/91	16.36	-0	None	8.5	
MW-1	12/05/91	16.36 12.61	-0- -0-	None	8.5 12.5	
MW-1						

^{*} Measured from Top of Casing

Kemper Real Estate

Dublin, California

Quarterly Monitoring and Summary Report

October 1992

Rev.: 1

1753T005.WK1

TABLE 2 SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS

SAMPLE NUMBER	DATE	TPH-D	TPH-G	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES
MW-1	12/05/91	660	ND	ND	ND	* ND	ND
1,1,1,1	03/06/92	ND	ND	ND	ND	ND	ND
	06/04/92	ND	ND	ND	ND	ND	ND
	10/12/92	ND	ND	ND	ND	ND	ND

NOTES:

ND = Not detectable at detection limits of 50 ppb for TPH-D and

TPH-G and 0.5 ppb for BTEX

Detection limits for October 12, 1992 were 500 ppb for TPH-D and TPH-G,

0.3 ppb for BTEX and 0.6 ppb for xylene.

TPH-D = Total Petroleum Hydrocarbons as diesel.

TPH-G = Total Petroleum Hydrocarbons as gasoline.

Results are in micrograms per liter (ug/L) and are reported as parts per

billion (ppb) in the text.

MITTELHAUSER			
Ms. Gina DiMatteo		October 27,	1992
	LABORATORY ANALYTICAL REPORT		

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

October 20, 1992

ChromaLab File No.: 1092124

MITTELHAUSER CORPORATION

Attn: Roger W. Papler

RE: One water sample for Gasoline/BTEX and Diesel analyses

Project Name: BEDFORD / DUBLIN

Project Number: 1753-06

Date Sampled: Oct. 12, 1992 Date Submitted: Oct. 12, 1992

Date Analyzed: Oct. 16, 1992

RESULTS:

Gasoline (µg/L)	Diesel (μq/L)	Benzene (μg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D. 85% REC 500 5030/	N.D. 94% 95% 500 3510/	N.D. 102% 98% 0.3	N.D. 104% 99% 0.3	N.D. 104% 98% 0.3	N.D. 103% 98% 0.6
8015	8015	602	602	602	602
	N.D. N.D. 85% REC 500 5030/	(μg/L) (μg/L) N.D. N.D. N.D. N.D. 85% 94% 85% 94% 500 500 5030/ 3510/	(μg/L) (μg/L) (μg/L) N.D. N.D. N.D. N.D. N.D. N.D. 85% 94% 102% REC 95% 98% 500 500 0.3 5030/ 3510/	(μg/L) (μg/L) (μg/L) (μg/L) N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.	Gasoline Diesel Benzene Toluene Benzene (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D

ChromaLab, Inc.

Billy Thach

Analytical Chemist

Eric Tam

Laboratory Director

Ms. Gina DiMatteo

October 27, 1992

CHAIN-OF-CUSTODY DOCUMENTATION

MITTELHAUSER CORPORATION 7901 STONERIDGE DR. SUITE 123 PLEASANTON, CA 94588 (510) 416-2900

CHROMALAB FILE # 1092124 ORDER #8144

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MITTELHAUSER corporation	
Ms. Gina DiMatteo	October 27, 1992

FIELD NOTES

MONITORING WELL DATA SHEET

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PROJECT #: 1753-06

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FIELD TECH: Roger P.

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	is CA		DATE & TIME SAMPLED: 12 Oct 92						
SAMPLING LOCATION:	WW 1		SAMPLING METHOD:	ellou trailer					
DEPTH TO WATER:	16 69		SAMPLE TYPE:GRA	BCOMPOSITE					
WELL BOTTOM DEPTH:	29.86		PRESERVATIVES:	(1)					
WELL CASING VOLUME:	1£ 0		# OF CONTAINERS:	3					
CASING VOLUMES PURI	GED: US		FIELD TECH: PW						
PURGE RATE:			WEATHER CONDITIONS		A.				
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MITTELHAUSER CORPORATION GROUNDWATER MONITORING AND SAMPLE COLLECTION FIELD PROTOCOL

WATER LEVEL MEASUREMENT

Monitoring well reference elevations are measured to a marked or notched location at the top of the well pipe which has been surveyed by a licensed surveyor. Depth to water is measured using an electric water level indicator and referenced to the surveyed mark at the top of the well pipe. Alternatively, a steel or aluminum yardstick covered with water-finding paste is attached to a steel tape and lowered until part of the yardstick encounters the water in the well. The measured length of the steel tape is added to the unaffected length of the yardstick as measured from the top of the yardstick to a point where the discoloration of the water-finding paste begins. Depth to water-level measurements are made to the nearest 0.01 foot.

Water levels are measured prior to well development and well purging for the purpose of sampling.

FREE PRODUCT LAYER THICKNESS MEASUREMENT

Free product measurements are made to the same reference point as described above for water-level measurements. Free-product layer thickness measurements are performed in one of several ways.

Measurement to the top of the free-product layer may be performed using an electric petroleum hydrocarbon indicator. An electric water-level indicator is covered with product-finding paste and is lowered into the well until the water-level sensor indicates that water has been encountered. The probe is then withdrawn from the well and the affected length of the product-finding paste is measured. Alternatively, a steel or aluminum yardstick covered with product-finding paste is attached to a steel tape and lowered until part of the yardstick encounters the free-product layer. The measured length of the steel tape is added to the unaffected length of the yardstick as measured from the top of the yardstick to the point where discoloration of the product-finding paste begins.

The total product layer thickness is determined by finding the difference between the measured depth to product and the measured depth to water.

In most instances it is possible to place both water-finding paste and product-finding paste side by side on the same yardstick and directly measure the thickness of the discolored product-finding paste from the yardstick. Depth to free product or free-product thickness measurements are made to the nearest 0.01 foot.

Field Protocol

2

June 1991

DETERMINATION OF SHEEN

After depth to water and free-product thickness measurements are performed, a test for the presence of sheen is conducted. A transparent bailer is lowered into the well in a manner such that only part of the bailer is submerged. The bailer is withdrawn from the well and the surface of the water in the bailer is examined for the presence of sheen as determined by the presence of iridescence or emulsification. Presence of sheen is not investigated if it is determined that free product is present in the well. Use of a cleaned dark colored bucket is helpful for sheen-determination purposes.

TOTAL WELL DEPTH MEASUREMENT

Once the test for sheen presence has been conducted, the total depth of the well is measured. Total well depth is determined by measuring from the reference elevation described in the section for Water Level Measurement, above, to the depth at which tension in the tape measure (to which the electric probe is attached or the steel tape is attached) becomes slack. The tape measurement is corrected for probe length. Total well depth measurements are made to the nearest 0.05 feet.

WELL PURGING

In order to obtain a representative sample of the water in the aquifer being sampled, stagnant water in the well casing must be removed to permit well recharge with non-stagnant aquifer water. The removal of stagnant water is accomplished by the removal of the water to the surface where it will be either disposed of or stored for future disposal.

The purging rate used at a particular monitoring well will depend on the expected or known hydraulic yield of the well.

In moderate to high yield formation wells the purging device will be placed near the top of the screened interval of the well to ensure that non-stagnant formation water will move upward in the screened interval. When purging low-yield formation wells, water will be removed from the bottom of the screened interval.

When purging low-yield wells (wells which yield less than 3 casing volumes), the wells will be purged to dryness once. As soon as the well has recovered to a volume sufficient for sampling, samples will be collected. At no time will a well be purged to dryness if the rate of recharge is such that formation water will cascade down the sides of the casing.

Field Protocol

3

June 1991

During purging operations, the field parameters of pH, temperature, and electrical conductivity (EC) in the purged water will be monitored and recorded at a minimum rate of two (2) readings per casing volume purged. Stabilization of the parameters of pH, temperature and EC will be used to indicate that the well has been sufficiently purged for sampling. Parameter stabilization will be indicated by at least three near-constant pH, temperature, and EC values for a minimum of one (1) casing volume. The acceptable range of values for stabilization of the field parameters are \pm 1-0.6 degrees Fahrenheit (F) for temperature, \pm 1-0.2 for pH, and \pm 1-10 percent of the total value of EC.

Once the field parameters have been observed to stabilize, and a minimum of four (4) casing volumes have been purged from a well, groundwater samples will be collected using a Teflon bailer. All samples will be collected in such a manner as to minimize the volatilization or oxidation of a sample due to agitation during transfer from the bailer to the sample container. A well-purging/sampling log will be maintained for purging of each monitoring well.

Calibration of field equipment will be performed at the beginning of each day, according to manufacturer's specifications and consistent with methods described in EPA SW-846, Test Methods for Evaluation Solid Waste Physical/Chemical Methods.

SAMPLE COLLECTION

Samples of non-stagnant formation water will be collected only after a minimum of four (4) casing volumes of water have been purged from the well casing and the field parameters have been observed to stabilize. In low-yield formation wells which were purged to dryness, the sample(s) will be collected as soon as the well has recovered sufficiently for sample collection.

All samples will be collected in an order such that those parameters most sensitive to volatilization will be sampled first. A general order of collection for some common groundwater parameters follows:

- Volatile Organic Compounds (VOCs)
- Total Organic Halogens (TOX)
- Total Organic Carbon (TOC)
- Total Metals
- Dissolved Metals
- Phenols
- Sulfate and Chloride
- Turbidity
- Nitrate and Ammonia



Field Protocol

4

June 1991

The type of sample container used for sample collected will depend upon the sample analysis to be performed and will be in accordance with EPA requirements for sample-analysis container type.

EQUIPMENT DECONTAMINATION

All equipment which will be placed in any well will be cleaned with a biodegradable or non-phosphate detergent solution, and thoroughly rinsed with steam-distilled water prior to each use.