SECOR
International Incorporated

October 31, 1997

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

WORK PLAN FOR ADDITIONAL SITE CHARACTERIZATION, 580 JULIE ANN WAY, OAKLAND, CALIFORNIA, St ID #4008, FOR METZ BAKING COMPANY

Dear Mr. Chan:

SECOR International Incorporated (*SECOR*) is pleased to submit this Work Plan for additional Site characterization at 580 Julie Ann Way in Oakland, California (the Site, see Figure 1, Site Location Map). *SECOR* is submitting this document on behalf of the Metz Baking Company (Metz) which operates the Site as a San Francisco French Bread Company (SFFBC) baking and distribution facility. This Work Plan proposes additional Site characterization activities to further define the source and distribution of petroleum hydrocarbons in soil and groundwater beneath the Site and vicinity.

INTRODUCTION

The Site is located in a mixed commercial/industrial area and consists of a large warehouse/bakery and an open asphalt parking/work area (Figure 2). The Site is used by the SFFBC to prepare and distribute baked food products. The Site formerly operated one 8,000-gallon capacity gasoline underground storage tank (UST) and one 10,000-gallon capacity diesel UST. Previous subsurface investigations conducted by Groundwater Technology, Inc. (GTI) in June 1991 and *SECOR* in November 1993 indicated the presence of total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) in most of the soil samples collected in the immediate vicinity of the USTs. At soil boring locations further away from the USTs, low to nondetectable concentrations of TPHg and TPHd were reported. However, relatively high concentrations of high-boiling point hydrocarbons (total oil and grease/total recoverable petroleum hydrocarbons) were reported at all boring locations where analyzed.

SECOR supervised the excavation and removal of the two USTs in September 1995. Petroleum hydrocarbon-impacted soil and groundwater was observed during UST removal activities that included TPHg, TPHd, and high-boiling hydrocarbons. Based on the apparent composition of these high-boiling point hydrocarbons and their pervasive presence in fill soil underlying the Site, it was determined that the source of these hydrocarbons is not related to the USTs. *SECOR* supervised the installation of four groundwater monitoring wells (MW-1 through MW-4) adjacent to and downgradient of the former USTs in February and August 1996. Soil and groundwater samples collected from theses wells revealed the presence of TPHg, TPH as motor oil (TPHmo), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

PRELIMINARY FIELD ACTIVITIES

Prior to initiation of field activities, *SECOR* will obtain well construction permits from the Alameda County Flood Control and Water Conservation District (Zone 7) and encroachment permits from the City of Oakland for work in the public right-of-way. The proposed well locations will be cleared with respect to underground utilities and other obstructions using a professional utility locator and Underground Service Alert (USA) will be notified. *SECOR* will also update the existing Site-specific Health and Safety Plan (HASP) to address the proposed scope of work.

90 New Montgomery Street, Suite 620, San Francisco, CA 94105-4503 (415) 882-1548 (415) 882-4406 FAX www.secor.com

FIELD ACTIVITIES

Drilling and Soil Sampling

SECOR will supervise the advancement of three boreholes at the locations shown on Figure 2. The boreholes will be advanced utilizing a truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers to approximately 10 feet below the first encountered groundwater. During borehole advancement, relatively undisturbed soil samples will be collected for lithologic description and possible chemical analysis at a minimum of 5-foot intervals using a California-modified split-spoon sampler lined with three 6-inch long brass tubes.

A *SECOR* geologist will describe the soil encountered according to the Unified Soil Classification System (USCS) and will maintain boring logs of these descriptions. A representative soil sample from each sample interval will be screened in the field for the presence of volatile organic compounds (VOCs) using a Photoionization Detector (PID). Screening results will be documented on the boring logs. *SECOR* will select one to two soil samples from each borehole location for chemical analysis from above the first encountered groundwater.

The ends of the brass tubes containing the soil samples will be covered with teflon sheeting, capped with plastic end caps, labeled, sealed in plastic bags, and stored in an ice-filled cooler. The samples selected for chemical analysis will be delivered to a California state-certified analytical laboratory with a completed chain-of-custody record.

Monitoring Well Installation

The three boreholes will be converted to groundwater monitoring wells upon reaching the desired well completion depths of approximately 10 feet below the first encountered groundwater. Each well will be completed with 10 to 15 feet of capped, flush threaded, 2-inch diameter Schedule 40 PVC 0.020-inch machine slotted well screen from the base of the borehole and completed with blank casing to the surface. Filter sand will be placed in the annular space between the wall of the borehole and casing to a height of one foot above the screened interval. One foot of bentonite pellets will be placed above the sand and hydrated. A cement grout mixture (5% bentonite) will then be placed into the remaining annular space to ground surface. A flush-mounted, protective water-tight monument cover will then be grouted slightly above ground surface to complete the well installation. Each well will also be fitted with a locking water-tight well cap. The newly-installed and existing monitoring well will then be surveyed by a California-licensed land surveyor for wellhead and top of casing elevation with respect to mean sea level (msl).

Monitoring Well Development and Sampling

The cement grout surface seal will be allowed to set for a minimum of 24 hours prior to monitoring well development. The wells will be developed by alternately bailing and surging using a PVC bailer and surge block. Well development will continue until the groundwater is reasonably free of sediment. During well development, measurements and observations of pH, electrical conductivity, temperature, color, and turbidity will be recorded. A minimum of ten casing volumes of water will be removed during well development from each well. The existing monitoring well will be purged of a minimum of three casing volumes of water prior to sampling.

Following well development, *SECOR* will collect groundwater samples from each of the monitoring wells for chemical analysis. Prior to sampling, the wells will be allowed to recover to 80% of the initial water level prior to development and purging. Groundwater samples will be collected from each well using a disposable PVC

bailer and decanted directly into laboratory-supplied sample containers. Each of the sample containers will be labeled, sealed in plastic bags, and placed in an ice-filled cooler. The samples will be submitted to a California state-certified analytical laboratory along with a completed chain-of-custody record.

LABORATORY ANALYSIS

Approximately one to two soil samples collected from each of three new boreholes will be analyzed for TPHg, TPHd, and TPHmo by EPA Method 8015, modified and BTEX and methyl tertiary butyl ether (MTBE) by EPA Method 8020. Additionally, up to four soil samples collected during the investigation will be analyzed for total organic carbon (TOC) by EPA Method 415.1. Groundwater samples from the seven monitoring well locations will be analyzed for TPHg, TPHd, and TPHmo by EPA Method 8015, modified, BTEX and MTBE by EPA Method 8020. Groundwater samples collected will also be analyzed for total dissolved solids (TDS) by EPA Method 160.1. All soil and groundwater samples will be submitted to a California-state certified analytical laboratory under completed chain-of-custody records.

REPORTING

SECOR will compile and interpret the information collected from the field investigation and laboratory analysis described above. *SECOR* will then prepare a Summary Report presenting the procedures and results of the investigation. The Summary Report will include an assessment of the subsurface distribution of petroleum hydrocarbons in the soil and groundwater beneath the Site based on this and previous investigations and provide recommendations for additional investigative work, monitoring, and/or remedial measures, if warranted.

SCHEDULE

SECOR is prepared to begin work immediately upon approval of this Work Plan by the ACDEH. The preliminary field activities will require approximately two weeks to complete. Drilling, soil sampling, well installation and development, and groundwater sampling will require one week to complete. Laboratory analyses will require two weeks from the sample submittal time. A Summary Report will be submitted to the ACDEH within four to six weeks of receipt of all analytical data from the laboratory.

If you have any questions or comments, please do not hesitate to contact us at (415) 882-1548.

Sincerely,

SECOR International Incorporated

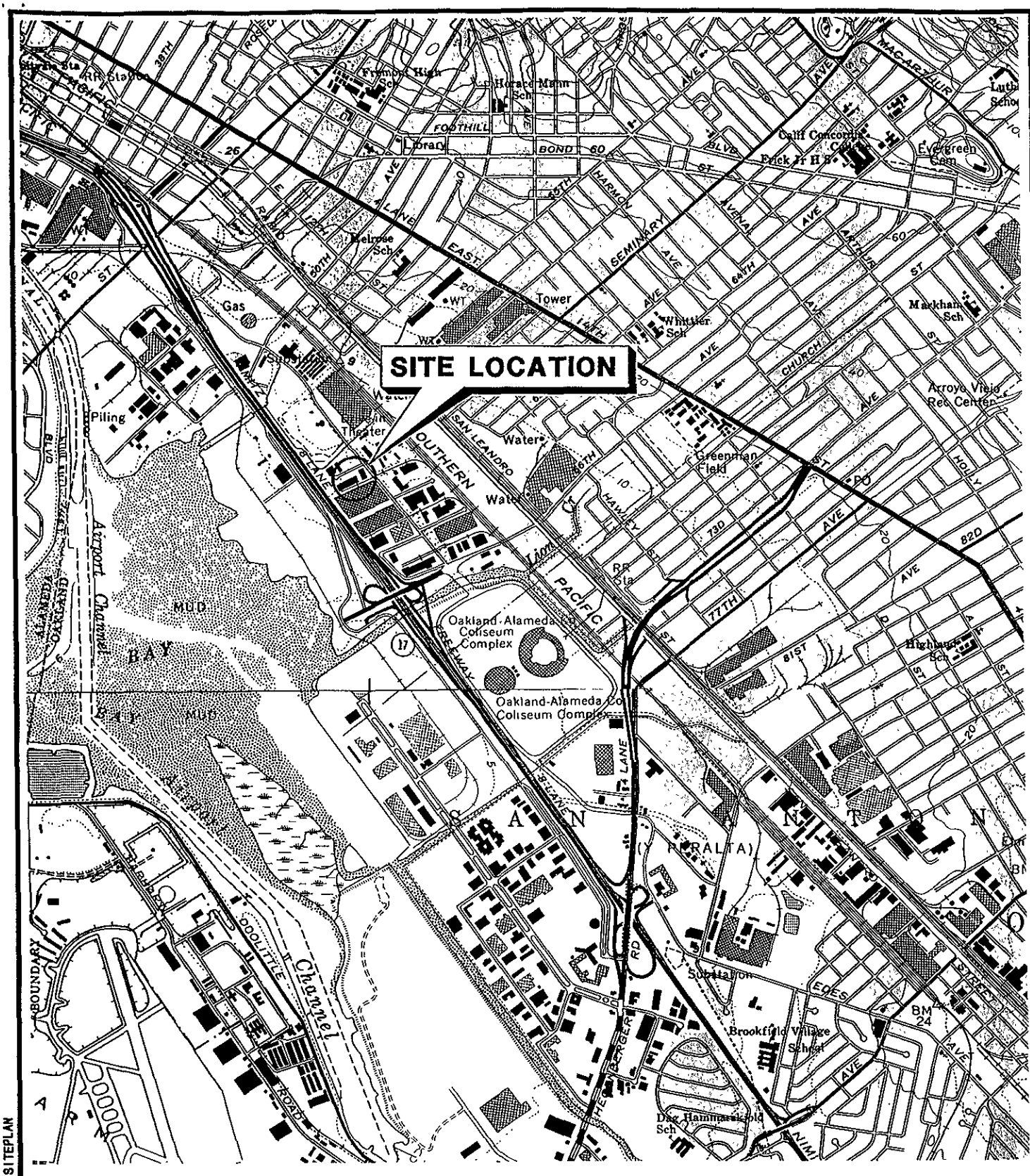
Liping Zhang
Project Manager

Bruce E. Scarbrough, R.G.
Principal Geologist

cc: Mr. Christopher Rants, Metz Baking Company

Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Plan with Proposed Monitoring Well Location



SOURCE: BASE MAP FROM U.S.G.S. OAKLAND EAST AND SAN LEANDRO CA QUADRANGLES. 7.5 MINUTE SERIES TOPOGRAPHIC MAP, PHOTOREVISED 1980.

NORTH

0 2000 4000

SCALE FEET

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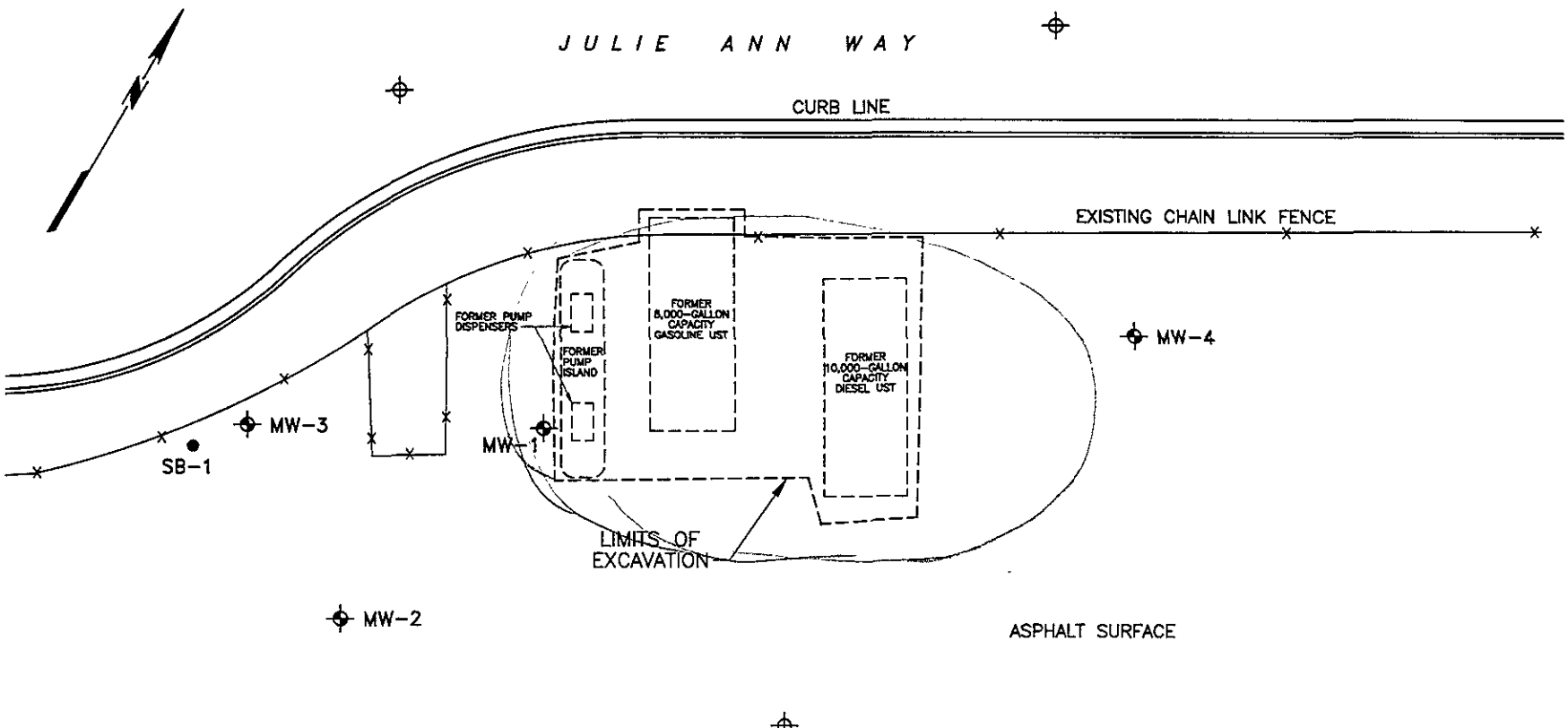
DATE	12OCT95
JOB NO.	70007-001-01

FIGURE 1
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

SITE LOCATION MAP

189510.171511 X:\19F-BREAD\JULIE\SITEPLAN

199709.172338 X:\SF-BREAD\JULIE\JULIE00



LEGEND:

- ⊕ PROPOSED GROUNDWATER MONITORING WELL
- ⊕ MW-1 EXISTING GROUNDWATER MONITORING WELL
- ● SB-1 SOIL BORING LOCATION

REFERENCE: RON ARCHER CIVIL ENGINEER INC., DATED AUGUST 15, 1996.

0 20 40
SCALE FEET

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DRAWN	CCR
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FIGURE 2
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

SITE PLAN WITH PROPOSED MONITORING WELL LOCATION