URS

December 18, 2001

Amir K. Gholami, REHS
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway
Alameda, California 94502-6577

RE: Case I.D. # STID 1082
Heating Oil Underground Storage Tank
Revisions to Additional Site Assessment and Well Installation Work Plan
Former Sears Retail Center #1058
2633 Telegraph Avenue
Oakland, California
URS Job No. 22-00000139.01
For Sears, Roebuck and Co.

Dear Mr. Gholami:

In response to your August 28, 2001 correspondence regarding the August 23, 2001 work plan for additional site assessment and groundwater monitoring well installation at the above referenced site, URS proposes the following changes to the proposed scope of work:

- Two down-gradient wells will be installed onsite, one in close proximity to the slurry filled UST.
- One 30-foot depth continuous core soil boring will be installed on the northeast side of the UST.
- One 30-foot depth continuous core soil boring will be installed on the southwest side of the UST.
- Hydropunch samples will be collected and analyzed from the continuous core borings
- One 30-foot depth soil boring will be installed northwest of the UST, and sampled at five-foot intervals.

The revised soil boring and groundwater well locations are shown on the attached figure. Please feel free to contact me at (714) 648-2793 if you have any questions or comments.

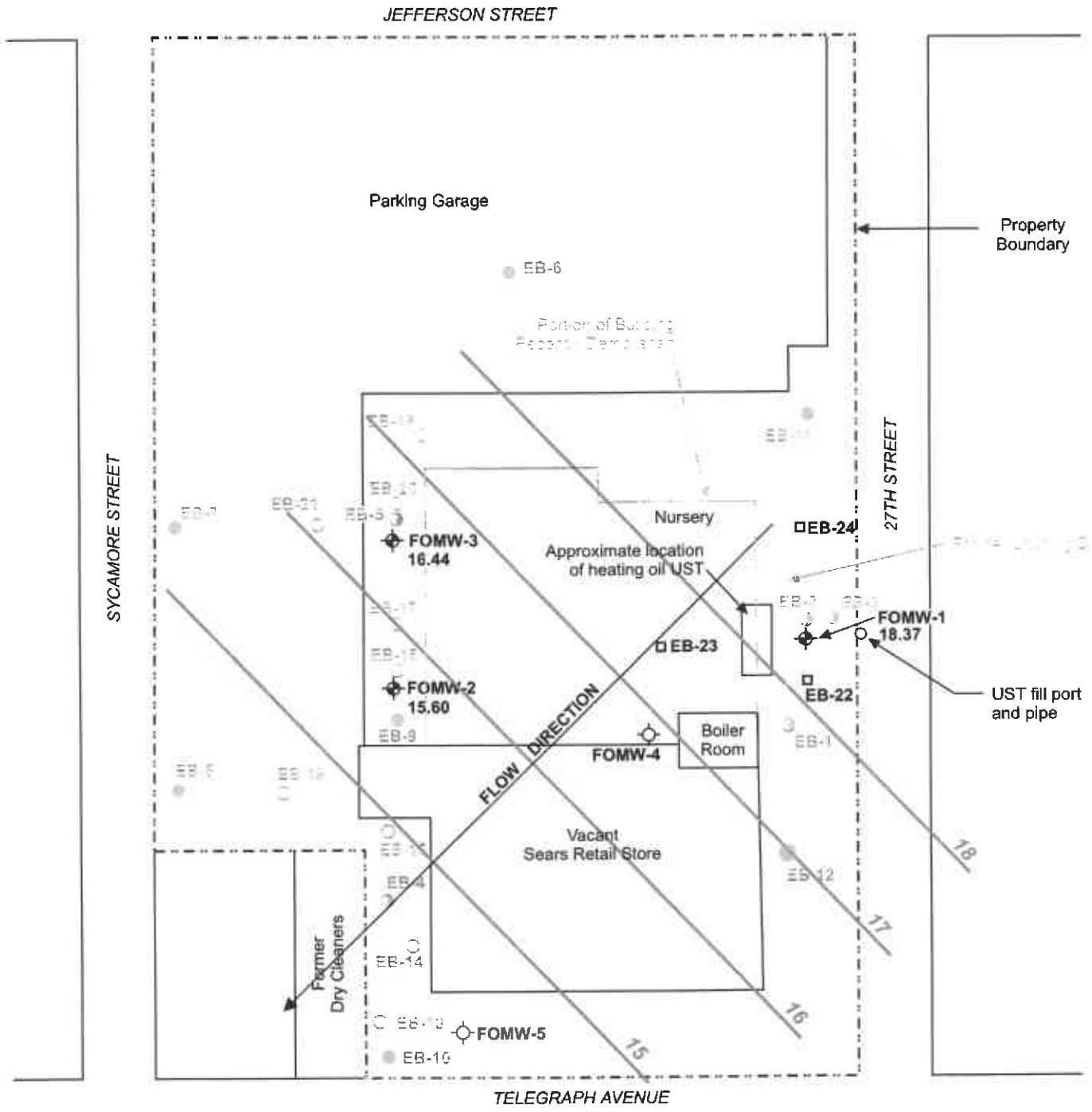
Very truly yours,
URS CORPORATION

Scott Rowlands, R.G., C.HG.
Project Manager

w/Attach.

cc: Mr. Scott DeMuth, Sears, Roebuck and Co.
Mr. Ryan Hartley, URS
Mr. Tim Lester, Environmental Equalizers

URS Corporation
2020 East First Street, Suite 400
Santa Ana, CA 92705
Tel: 714.835.6886
Fax: 714.667.7147



LEGEND

- Approximate location of exploratory boring (Lowney, May 1998)
- Approximate location of exploratory boring (Lowney, April 1998)
- Approximate location of exploratory boring (SECOR, November 1998)
- Groundwater monitoring well locations (URS/Dames & Moore)
- Proposed monitoring well location
- Proposed soil boring location

NOTES

(1) Ground water grab samples were collected at EB-1 to EB-5, EB-6, EB-10, EB-11, EB-12, EB-13, EB-14, EB-15 and EB-18.
(2) Soil and groundwater anlaytical results presented in tables 1 and 2.
(3) Groundwater elevations in feet above mean sea level (MSL)

N

0 100

Approximate Scale in Feet

Reference: Lowney Associates (1998)
SECOR (1998)
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SITE PLAN

Sears Roebuck & Company
Site Assessment
Oakland, California

October 2001

URS

FIGURE 2

URS

STID 1082

October 4, 2001

Amir K. Gholami, REHS
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway
Alameda, California 94502-6577

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Heating Oil Underground Storage Tank
Revisions to Additional Site Assessment and Well Installation Work Plan
Former Sears Retail Center #1058
2633 Telegraph Avenue
Oakland, California
URS Job No. 22-00000139.01
For Sears, Roebuck and Co.

Dear Mr. Gholami:

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- One 30-foot depth soil boring will be installed northwest of the UST, and sampled at five-foot intervals.

The revised soil boring and groundwater well locations are shown on the attached figure. Please feel free to contact me at (714) 433-7693 if you have any questions or comments.

Very truly yours,
URS CORPORATION

Scott Rowlands, R.G., C.HG.
Project Manager

w/Attach.

cc: Mr. Scott DeMuth, Sears, Roebuck and Co.
Mr. Ryan Hartley, URS
Mr. Tim Lester, Environmental Equalizers

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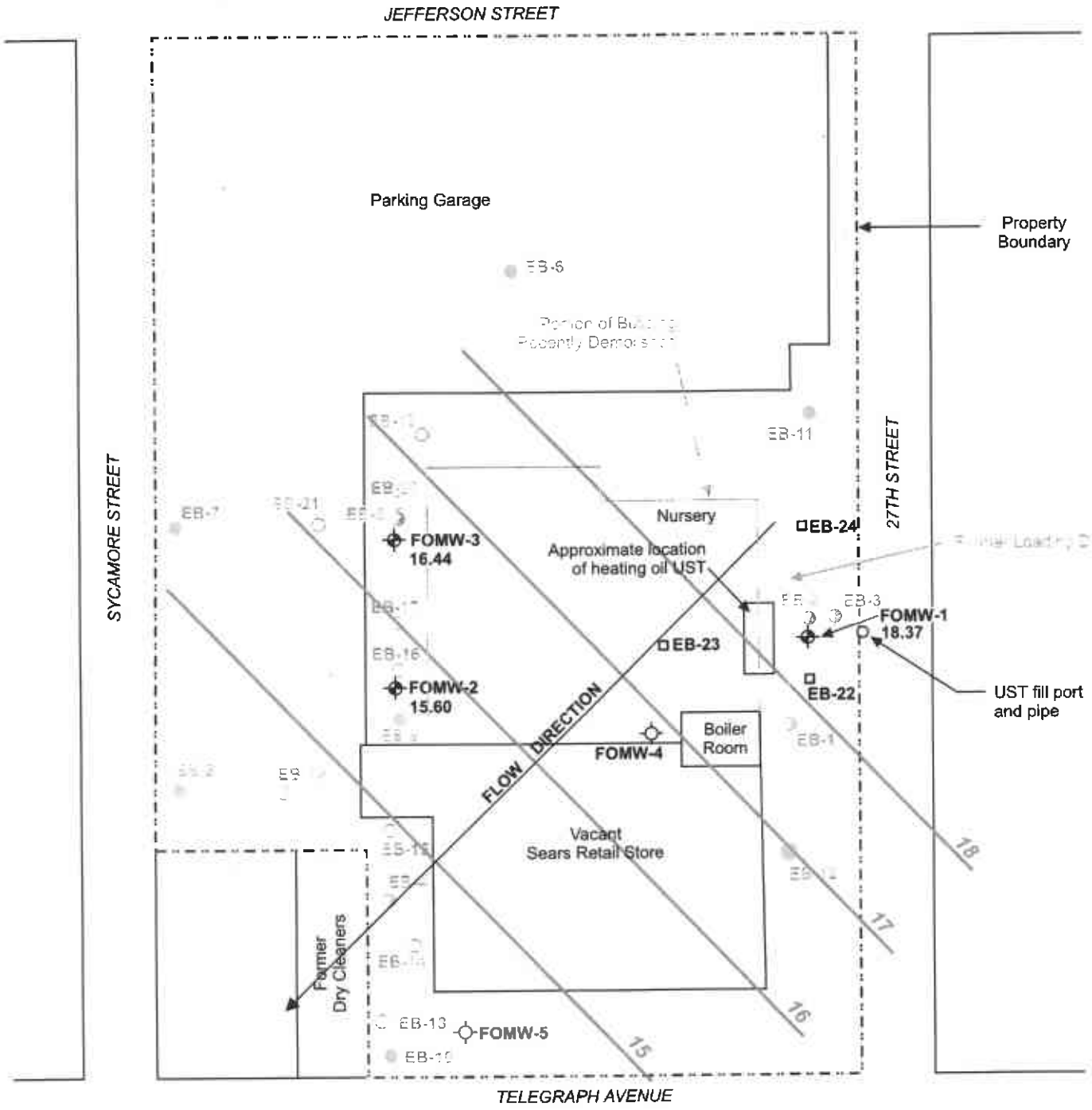

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(3) Groundwater elevations in feet above mean sea level (MSL)

SITE PLAN

Sears Roebuck & Company
Site Assessment
Oakland, California

October 2001

URS

FIGURE 2

URS

R0 2600

August 24, 2001

1082

Amir K. Gholami, REHS
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway
Alameda, California 94502-6577

AUG 2 8 2001

RE: Case I.D. # STID 1082
Heating Oil Underground Storage Tank
Additional Site Assessment and Groundwater Monitoring Well Installation Work Plan
Former Sears Retail Center #1058
2633 Telegraph Avenue
Oakland, California
URS Job No. 22-00000139.01
For Sears, Roebuck and Co.

Dear Mr. Gholami:

On behalf of Sears, Roebuck and Co. (Sears), URS Corporation is pleased to transmit the enclosed work plan for additional site assessment and groundwater monitoring well installation at the former Sears retail center located at 2633 Telegraph Avenue in Oakland, California.

Please feel free to contact me at (714) 433-7693 if you have any questions or comments.

Very truly yours,

URS CORPORATION

Scott Rowlands, R.G., C.HG.
Project Manager

w/Attach.

cc: Mr. Scott DeMuth, Sears, Roebuck and Co.
Mr. Ryan Hartley, URS
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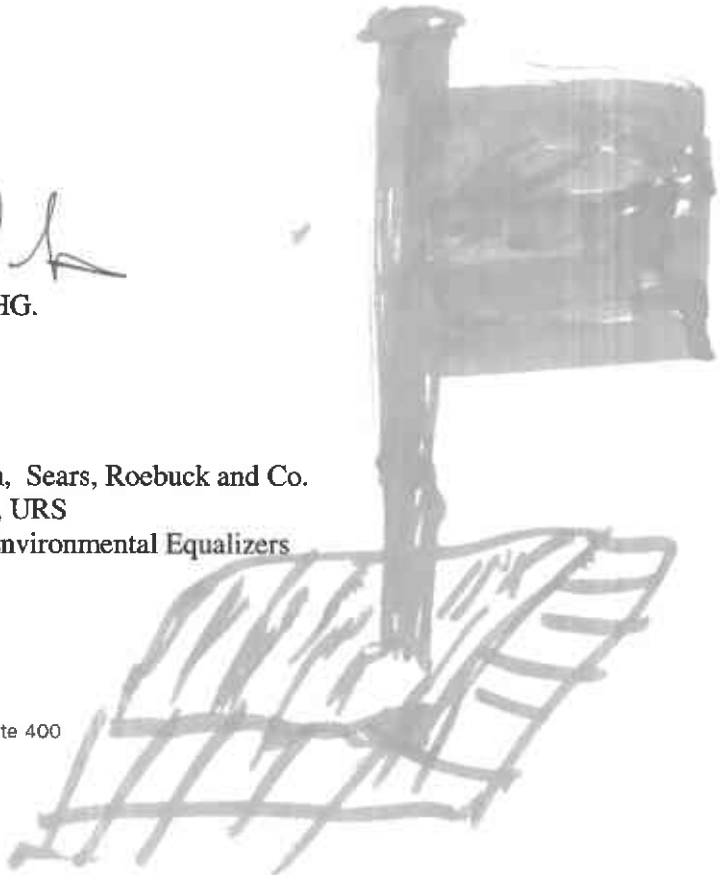

URS Corporation
2020 East First Street, Suite 400
Santa Ana, CA 92705
Tel: 714.835.6886
Fax: 714.667.7147

URS

AUG 2 8 2001

WORK PLAN
ADDITIONAL SITE ASSESSMENT AND
GROUNDWATER MONITORING
WELL INSTALLATION
HEATING OIL UNDERGROUND
STORAGE TANK
FORMER SEARS RETAIL CENTER
2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA
CASE I.D. # STID 1082
FOR SEARS, ROEBUCK AND CO.

Job No. 22-00000139.01
August 23, 2001

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WORK PLAN
ADDITIONAL SITE ASSESSMENT AND GROUNDWATER MONITORING WELL INSTALLATION HEATING OIL UNDERGROUND STORAGE TANK FORMER SEARS RETAIL CENTER 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA CASE I.D. # STID 1082 URS JOB NO. 22-00000139.01 FOR SEARS, ROEBUCK AND CO.

1.0 INTRODUCTION

This Work Plan has been prepared by URS Corporation (URS) on behalf of Sears, Roebuck and Co. (Sears). It presents the proposed scope of work for further assessment of subsurface soil and groundwater conditions in the vicinity of a former slurry-filled 10,000-gallon heating oil underground storage tank (UST) located at the former Sears retail center at 2633 Telegraph Avenue, Oakland, California (Figure 1). The purpose of the additional assessment is to characterize the nature and extent of impacted soil and groundwater to evaluate closure under the City of Oakland Urban Land Redevelopment Program. The work is being performed under the regulatory oversight of Alameda County Environmental Health Services (ACEHS).

2.0 SITE DESCRIPTION

The property is occupied by a vacant Sears retail store (currently undergoing redevelopment) that was constructed in 1930 and an above-grade parking garage that was constructed in the 1960s (Figure 2). Prior to construction of the store, single and multi-family residences dating to the turn of the century occupied the site. The former Sears retail center is three stories tall (approximately 120,000 square feet) with a basement. As shown on Figure 2, the western portion of the store has recently been demolished. The Sears no longer owns the site but maintains responsibility for environmental issues related to the slurry-filled 10,000-gallon heating oil UST. The Site elevation is approximately 30 feet above mean sea level (MSL) and slopes gently to the south towards San Francisco Bay. The Site is bounded by 27th Street to the north, Telegraph Avenue to the east, Sycamore Street to the south, and Northgate Avenue to the west. The site vicinity consists primarily of commercial facilities, including a dry cleaning facility located adjacent to the southeast of the site.

A slurry-filled 10,000-gallon heating oil UST is located at the northern end of the former retail center along 27th Street. It is constructed of single-walled steel with product piping that extends into a nearby basement (former boiler room) of the retail center. The top of the UST is located beneath the

former loading dock of the store approximately 25 to 30 feet below ground surface (bgs). It is accessible through an opening where a 5 feet by 5 feet shaft extends down to the UST. The UST is contained in a concrete vault estimated to be about 10 feet high and 30 feet long. The product piping was sealed and capped when the UST was taken out of commission sometime during the 1960's. The UST was abandoned in-place during October and November 1998 by Foss Environmental, acting as subcontractor to Dames & Moore, under the regulatory oversight of the City of Oakland Fire Prevention Bureau. The site is currently being redeveloped and portions of the former Sears building, including the area of the heating oil UST, have recently been demolished.

3.0 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is approximately 1½ miles east of the San Francisco Bay and three miles west of the Diablo Range in Oakland, California. The Site is located on the eastern flank of The San Francisco Basin, a broad Franciscan depression. The basement rock is respectively overlain by the Santa Clara Formation, the Alameda Formation, and the Temescal Formation. These formations consist of unconsolidated sediments ranging in total thickness to approximately 1000 feet. The Pleistocene Santa Clara Formation consists primarily of alluvial fan deposits that are interspersed with lake, swamp, river channel, and flood plain deposits. The overlying Alameda Formation was deposited in an estuary environment and consists for organic clays and alluvial fan deposits of sands, gravels and silts. The uppermost Holocene Temescal Formation is an alluvial deposit ranging in thickness from one to 50 feet and consists primarily of silts and clays with a basal gravel unit. (CRWQCB, San Francisco Bay Region, June 1999).

The site is located within the Oakland sub-area East Bay Plain groundwater basin. The East Bay Plain groundwater basin encompasses approximately 115 square miles and is bounded by San Pablo Bay to the north, Alameda County to the south, the Hayward Fault to the east, and San Francisco Bay to the west. Groundwater flow direction in the basin typically follows surface topography. Based on groundwater gauging activities during recent groundwater monitoring events at the site, the groundwater gradient is toward the south-southeast.

Historical high production wells in the Oakland sub-area were screened at depths greater than 200 feet bgs beneath the Yerba Buena Mud Member of the Alameda Formation. The Yerba Buena Mud is a black organic clay with an average thickness of 25 to 50 feet that forms an aquitard between upper and lower groundwater bearing units. From the 1860's until water importation programs were initiated in the 1930's, groundwater in the East Bay Plain was utilized as the primary municipal water source. Current beneficial uses of groundwater in the basin are minimal (CRWQCB, San Francisco Bay Region, June 1999).

4.0 BACKGROUND

Lowney Associates (Lowney) performed a "Phase I Environmental Site Assessment (ESA) and Soil and Groundwater Quality Evaluation" in April, 1998 and a "Phase II Soil and Groundwater Evaluation," in July, 1998. The first assessment included advancing five exploratory borings (EB-1 to EB-5) in three areas of recognized environmental concerns for collection of soil samples and groundwater grab samples (Figure 2). Borings EB-1, EB-2, and EB-3 were advanced in an area between the boiler room and a suspect pipe in the 27th Street sidewalk (the pipe was later determined to be the fill line for the heating oil UST). One boring was advanced within 10 feet of an adjacent dry cleaners (EB-4) and one boring was advanced in the vicinity of a possible former tire and oil shop at the southwest corner of the retail store (EB-5). Detectable concentrations of total petroleum hydrocarbons (TPH) ranging from 79 milligrams per kilogram (mg/kg) to 9,500 mg/kg were present in soil samples collected from borings EB-1, EB-2, EB-3 and EB-5. The only detection of benzene, toluene, ethylbenzene, or xylenes (BTEX) was that of 0.41 mg/kg xylenes in the 14-foot sample from Boring EB-5. **Historical soil sample analytical results are provided in Table 1.**

During the second assessment conducted by Lowney, seven additional borings (EB-6 to EB-12) were advanced downgradient of the anticipated groundwater flow direction to collect selected soil and groundwater grab samples (Figure 2). The investigation also confirmed the location and existence of the 10,000-gallon UST beneath the loading dock of the retail center and identified the piping beneath the sidewalk of 27th Street as the UST fill line. Soil samples collected from borings EB-6 through EB-12 did not contain detectable concentrations of TPH or BTEX.

Groundwater grab samples were collected by Lowney during the two assessments from borings EB-1 through EB-6, EB-10, EB-11, and EB-12. Groundwater grab samples collected from borings EB-1, EB-2, EB-3, and EB-5 contained detectable concentrations of TPH ranging from 38,000 micrograms per liter (µg/L) to 480,000 µg/L. Groundwater grab samples collected from borings EB-2 and EB-4 contained detectable concentrations of benzene at 4.8 µg/L and 4.3 µg/L, respectively. The remaining groundwater grab samples did not contain detectable concentrations of TPH or BTEX. **Historical groundwater grab sample analytical results are provided in Table 2.**

SECOR International Incorporated (SECOR) performed an additional soil and groundwater investigation during November 1998 to further assess subsurface soils and groundwater near the southeastern corner of the property. The results and conclusions are presented in SECOR's Summary Report, "Subsurface Investigation and Site Closure Tasks", December 8, 1999. The scope of work was approved by the ACEHS and included the advancement of nine soil borings (EB-13

through EB-21) for the collection of soil and groundwater grab samples (Figure 2). Soil samples collected from borings EB-19, EB-20, and EB-21 contained detectable concentrations of TPH ranging from 4 mg/kg to 160 mg/kg. All soil samples, excluding EB-20-7, analyzed during the investigation did not contain detectable concentrations of BTEX. Soil sample EB-20-7 contained 0.044 mg/kg of ethylbenzene and ND concentrations of benzene, toluene and total xylenes. Soil samples collected from borings EB-13 to EB-18 did not contain detectable concentrations of Stoddard solvent or BTEX.

Groundwater grab samples were collected by SECOR from borings EB-13, EB-14, EB-15 and EB-18. The groundwater sample collected from EB-14 contained 2,300 µg/L Stoddard solvent, 3.2 µg/L ethylbenzene, and 6.1 µg/L total xylenes. The groundwater grab samples collected from borings EB-13, EB-15 and EB-18 contained did not contain detectable concentrations of Stoddard solvent or BTEX.

From October 19 to December 2, 1998, Dames & Moore and its subcontractor, Foss Environmental, conducted in-place closure activities for the heating oil UST in accordance with City of Oakland Fire Prevention Bureau, Closure Permit #94-98. After obtaining the permit and preparing a site-specific health and safety plan, the UST was slurry filled and Dames & Moore submitted a letter report to the City of Oakland Fire Prevention Bureau dated February 22, 1999 that documents the in-place closure activities. The letter report provides a tank description, scope of work performed, hazardous waste management activities and attached forms and bills of lading, conclusions, and recommendations. The City of Oakland Fire Prevention Bureau forwarded the UST closure report to ACEHS, the current regulatory oversight agency.

URS installed three groundwater monitoring wells (FOMW-1, FOMW-2, FOMW-3) on the Site in May 2000 (Figure 2). Monitoring well FOMW-1 was installed adjacent to the slurry-filled UST and wells FOMW-2 and FOMW-3 were installed south of the slurry-filled UST. Soil samples collected from the borings contained concentrations of total extractable petroleum hydrocarbons (TEPH) as diesel fuel or bunker oil ranging from ND to 3,200 mg/kg. BTEX and methyl tertiary butyl ether (MTBE) were not detected in any of the soil samples analyzed. In addition, a visible hydrocarbon product was observed in the soil column at approximately 20 feet bgs in FOMW-1. Groundwater samples have been collected from the wells on a quarterly basis since June 2000. A free product sheen (thickness of 0.01 foot) has been measured in FOMW-1 in each of the last three quarterly groundwater monitoring events. TEPH as diesel or bunker oil has been detected in FOMW-3 at concentrations ranging from 100 µg/L to 1,200 µg/L. TPH has not been detected in well FOMW-2.

BTEX or MTBE have not been detected in any of the three wells. Analytical results for previous quarterly sampling events are provided in Table 3.

5.0 PROPOSED SCOPE OF INVESTIGATION

The proposed scope of investigation will be used to further characterize the nature and extent of impacted soil and groundwater at the site. Specifically, the thickness and characteristics of free product will be assessed, the extent of heating oil-impacted soil to the north and west of the UST will be assessed, and the downgradient extent of impacted groundwater will be assessed. Results of the investigation will be used to evaluate closure under City of Oakland Urban Land Redevelopment Program guidelines and presented in a report submitted to ACEHS. In addition, interim remedial activities will be initiated at the site, as requested by ACEHS.

To meet the above objectives, URS proposes the following tasks:

Task 1 - Determine the thickness and characteristics of heating oil free product.

- Drill two soil borings (EB-22 and EB-23) at the locations shown on Figure 2. The borings will be drilled to approximately 15 to 20 feet bgs (approximately 5 feet below the soil/water interface) and sampled continuously to visually assess the thickness of free product. Boring EB-22 will be located adjacent to boring FOMW-1, where a free product-like liquid was reportedly encountered and boring EB-23 will be located adjacent to the western side of the UST.
- The entire soil column will be submitted to the laboratory and photographed to document visual observations. Soil samples will be collected from the zone of free product, if encountered. Selected soil samples will be analyzed for TEPH as diesel-range (TEPH diesel) and bunker oil-range (TEPH-bunker oil) by modified EPA Method 8015, fuel fingerprinting by IP 318/78M, and for the volatile fuel constituents BTEX and MTBE by EPA Method 8260A. Selected samples will also be analyzed for CAM metals by EPA Method 6010B/7471A. In addition, the soil containing free product material, if encountered, will also be analyzed for viscosity and density by ASTM Method D445 and ASTM Method D1481, respectively, hydraulic conductivity by API Method RP40, and initial and residual saturation by API Method RP40 and ASTM Method D425M, respectively.

Task 2 - Assess the extent of heating oil-impacted soil.

- Drill two soil borings (EB-24 and EB-25) at the locations shown on Figure 2. The borings will be drilled to the depth of groundwater (approximately 15 feet bgs).
- Collect soil samples at 5-foot intervals to the depth of groundwater. One soil sample will also be collected from the capillary fringe just above groundwater (approximately 9 feet bgs). Selected soil samples will be analyzed for TEPH diesel and TEPH-bunker oil by modified EPA Method 8015, and for the volatile fuel constituents BTEX and MTBE by EPA Method 8260A. Selected samples will also be analyzed for CAM metals by EPA Method 6010/7471A.

Task 3 - Assess the downgradient extent of groundwater impact.

- Install one groundwater monitoring well (FOMW-4) at the location shown on Figure 2. The proposed well will be located in the assumed downgradient direction (southeast) of the source area.
- Survey the relative location and elevation of the monitoring well
- Sample the well during upcoming quarterly groundwater monitoring activities

Task 4 – Implement interim remedial action at the site.

- Remove free product from well FOMW-1 on a monthly cycle

Task 5 - Prepare a report presenting the results of additional assessment activities. The report will:

- Identify the extent of impacted soil and groundwater
- Discuss the thickness and characteristics of heating oil free product, if encountered
- Evaluate the mobility of the heating oil free product
- Contain recommendations for future monitoring or remedial site activities.

6.0 PROPOSED INVESTIGATIVE METHODS

The proposed scope of work consists of four soil borings and installation of one groundwater monitoring well at the site. The proposed boring and monitoring well locations are shown on Figure 2. The proposed field investigative methods are presented below.

6.1 PERMITS

Prior to initiating field activities, a required well construction permit will be obtained from the Alameda County Public Works Agency.

6.2 HEALTH AND SAFETY PLAN

A site-specific Health & Safety Plan was previously prepared prior to past groundwater monitoring well installation and sampling activities. The Health and Safety Plan addresses the following:

- Identify and describe potentially hazardous substances which may be encountered during field operations;
- Specify protective equipment and clothing for on-site activities; and
- Outline measures to be implemented in the event of an emergency.

URS field personnel will review the Health & Safety Plan prior to commencing the field procedures. Field monitoring activities will be recorded and the Health and Safety Plan will be maintained in the project files. A copy of the Health and Safety Plan will remain onsite during field operations.

6.3 UTILITY CLEARANCE

In accordance with California State Assembly Bill 73, URS will notify Underground Services Alert (USA) at least 48 hours prior to initiation of intrusive field tasks. Proposed locations of subsurface investigation will be marked with white paint or surveyors flagging as required by USA. USA will contact utility owners of record within the Site vicinity and notify them of our intention to conduct subsurface investigations in proximity to buried utilities. All utility owners of record, or their designated agents, will be expected to clearly mark the position of their utilities on the ground surface throughout the area designated for investigation.

For investigative areas where the presence of underground services or utilities is unclear or unknown, surface geophysics will be used in an effort to identify subsurface lines and obstructions. Geophysical methods may include: magnetics, electromagnetics, ground penetrating radar (GPR), and electromagnetic line location. Magnetics and electromagnetics are used to identify underground tanks, drums, and conduits. These features are detected due to the ferrous and electrically conductive material of their construction. GPR may be used as a follow-up technology to characterize identified magnetic or electromagnetic anomalies.

6.4 SOIL BORINGS

The soil borings will be drilled with a CME-75 or equivalent drill rig equipped with 8-inch diameter hollow-stem augers. The first 5 to 6 feet of each boring will be hand-augered to assess the potential presence of subsurface utilities or other structures. Borings EB-22 and EB-23, drilled to assess the thickness of free product, will be sampled continuously while borings EB-24 and EB-25, drilled to assess the extent of impacted soil, will be sampled discreetly. The following sections provide a description of each drilling method.

6.4.1 Continuous Core Borings

Borings EB-22 and EB-23 will be sampled continuously to assess the thickness of free product in the immediate vicinity of the UST. Soil cores will be collected through the hollow stem of the auger using a 5-foot continuous core sampler. The soil column will be screened for organic gases using an Organic Vapor Analyzer (OVA) equipped with a Flame Ionization Detector (FID). For OVA evaluation, each soil sample will be extruded into a clean stainless steel sample sleeve, disaggregated, and then capped and allowed to equilibrate. The OVA probe will then be inserted into the sample sleeve and a reading will be obtained. A detailed log of the subsurface materials and organic vapor readings encountered will be maintained during the drilling program. Soils will be classified in accordance with the Unified Soil Classification System (USCS). A description of the subsurface materials and OVA measurements will be entered onto the boring logs.

The soil cores will be collected in 5-foot acetate sleeves. The sample ends will be covered with Teflon™ film and fitted with snug-fitting plastic end caps, which will then be sealed with Parafilm™ (a volatile-organics-free laboratory film). The cores will be labeled with the following information: boring designation, sample number, sample depth interval, date, collector initials, owner, sample location, and time of collection. The sealed and labeled samples will then be transferred to an ice chest containing blue ice and transported to PTS Laboratories Inc., a California Department of Health Services (DHS) certified laboratory. The samples will be entered onto Chain of Custody forms to be maintained through delivery to the laboratory. Once at the laboratory, the cores will be photographed and a URS representative will sub-core portions of the soil column for analysis.

Analysis will be conducted on two soil samples from each boring. Samples will be chosen for laboratory analysis based on core observations. Samples collected from soil which appears to contain free product and/or staining/elevated OVA readings will be chosen for analysis of heating oil characteristics including viscosity, density, hydraulic conductivity, initial saturation, and residual saturation. In addition, selected samples may be analyzed for TEPH, BTEX, and MTBE. The laboratory analytical program is described in Section 6.6 below.

6.4.2 Discreetly Sampled Borings

Borings EB-24 and EB-25 will be sampled discreetly at approximate 5-foot intervals to the depth of groundwater. Soil samples will be collected through the hollow stem of the auger at 5-foot intervals using a split-spoon sampler equipped with stainless steel sleeves. The sampler will be driven 18 inches with a standard 30-inch drop of a 140-pound hammer. Hammer blow counts will be recorded on the boring logs. Upon retrieval of the sampler at each sampling interval, the sample sleeves will be separated and observed for possible staining. Samples will also be screened for organic gases using the OVA as described above and recorded on the boring logs. Soils will be classified in accordance with the USCS. A description of the subsurface materials and OVA measurements encountered will be entered onto the boring logs.

Undisturbed soil samples will be collected using stainless steel rings at approximate five-foot intervals and at any locations were field evidence of contamination is encountered. The sample ends will be covered with Teflon™ film and fitted with snug-fitting plastic end caps, which will then be sealed with Parafilm™. Sample labels will then be affixed to the end caps with the following information: boring designation, sample number, sample depth, date, collector initials, owner, sample location, and time of collection. The sealed and labeled samples will then be transferred to an ice chest containing blue ice and transported to a California Department of Health Services (DHS) certified laboratory for analysis. The samples will be entered onto Chain of Custody forms to be maintained through delivery to the laboratory.

Two soil samples from each boring will be submitted to the laboratory for analysis. Samples will be chosen for laboratory analysis based on field observations. Samples collected from soil which appears to contain staining and/or elevated OVA readings will be chosen for analysis. If all OVA measurements are at background levels and there is no apparent hydrocarbon staining, then the two deepest samples collected above groundwater will be submitted for laboratory analysis. The laboratory analytical program is described in Section 6.6 below.

6.5 GROUNDWATER MONITORING WELL INSTALLATION

One groundwater monitoring well (FOMW-4) will be installed at the site at the location shown on Figure 2. The monitoring well boring will be drilled with a CME-75 or equivalent drill rig equipped with 8-inch diameter hollow-stem augers. The groundwater monitoring wells will be completed at a depth of approximately 27 feet bgs, based on a known depth to groundwater at the site of approximately 10 feet bgs. The well will be installed through the hollow stem of the 8-inch diameter augers. The well will be constructed of blank 2-inch diameter, flush-threaded, schedule 40 PVC casing from the ground surface to 7 feet bgs. 2-inch diameter flush-threaded schedule 40 PVC, 0.01-

inch slotted casing will be installed from 7 feet bgs to 27 feet bgs. The bottom of the slotted casing will be fitted with a threaded bottom cap. The top of blank casing will be secured with a locking, air-tight, PVC cap.

The annular space between slotted casing (well screen) and the borehole will be filled with #2/12 sand filter-pack to approximately two feet above the top of the well screen (5 feet bgs). The well will be surged following sand pack installation and the sand pack checked for settlement. A three-foot bentonite chip seal (2 feet to 5 feet bgs) will be placed above the filter pack and hydrated with deionized water. The remainder of the well boring will be sealed with concrete. A concrete vaulted, traffic-rated, flush-mount well box will be installed at the ground surface to secure the well head. Well construction details will be included in the boring logs. A diagram showing the proposed groundwater monitoring well construction detail is provided as Figure 3.

The monitoring well will be developed by surging with a surge block, followed by bailing. Well development will proceed after well construction until the produced water is relatively free of sediment. Drill cuttings and purged groundwater removed during development and purging will be temporarily stored on-site in 55-gallon DOT-approved steel drums. The drums will be properly disposed following receipt of laboratory analysis results and waste profiling. The groundwater monitoring well will be gauged, purged, and sampled during subsequent quarterly groundwater monitoring events. Monitoring and sampling protocol currently utilized at the site, and described in the quarterly monitoring reports, will be followed.

The groundwater monitoring well will be surveyed by licensed California Land Surveyors with respect to the California State Plane Coordinate System horizontal (NAD27) and vertical (NGVD29) datums. The well location and elevation will be provided in the project report.

6.6 EQUIPMENT DECONTAMINATION

Equipment used during field investigations and sampling will be decontaminated prior to use at each sampling point to reduce the potential for the introduction of contamination and cross-contamination in accordance with the guidelines and procedures discussed below. These procedures are necessary to ensure quality control in decontamination of field equipment and to serve as a means to identify and correct potential errors in the sample collection and sample handling procedures.

Decontamination of all drilling and field sampling equipment will be conducted in a thorough and step-wise manner and documented in the field log book. All drilling equipment will be cleaned thoroughly (inside and outside) using a steam cleaner. Downhole equipment will be cleaned prior to

drilling each boring. Downhole sampling equipment will be cleaned prior to each sampling event using a dilute Alconox solution followed by double rinsing with fresh water, followed by a distilled water rinse.

Decontamination water produced will be placed in DOT-approved 55-gallon drums and labeled as decontamination water with the date and boring/sample numbers. The ground beneath the decontamination area will be covered with plastic sheeting to minimize potential contact between produced fluids and the ground surface. Disposition of decontamination fluids will be determined upon receipt of analytical results.

6.7 LABORATORY ANALYSIS PROGRAM

Soil samples will be submitted to a DHS-certified laboratory and analyzed for TEPH as diesel-range (TEPH diesel) and bunker oil-range (TEPH-bunker oil) by modified EPA Method 8015, and for the volatile fuel constituents BTEX and MTBE by EPA Method 8260A. Up to four soil samples will also be analyzed for CAM Metals by EPA Method 6010B/7471A. Groundwater samples, to be collected during all future quarterly groundwater monitoring events, will be analyzed for TEPH-diesel and TEPH-bunker oil by modified EPA Method 8015 and BTEX and MTBE by EPA Method 8260A. The free product material, if encountered, will also be analyzed for viscosity and density by ASTM Method D445 and ASTM Method D1481, respectively, hydraulic conductivity by API Method RP40, and initial and residual saturation by API Method RP40 and ASTM Method D425M, respectively.

6.8 WASTE MANAGEMENT

Soil cuttings and liquid wastes (decontamination water and well purge water) will be collected and stored in 55-gallon Department of Transportation (DOT)-approved drums. Containers will be numbered to identify the source of the wastes. The containers will be stored onsite and properly disposed following review of the chemical analysis data.

6.9 FREE PRODUCT REMOVAL

Due to the presence of free product in well FOMW-1, removal of free product will be initiated at the site. Due to the free product high viscosity and slow recovery, removal will occur approximately once a month using a vacuum truck fitted with a dedicated PVC stinger to be inserted into the well. The removed product and water will be disposed at an appropriate facility. The free product removal activities will be documented in future quarterly groundwater monitoring reports.

6.10 DATA ANALYSIS AND REPORT PREPARATION

Upon completion of the field investigation, URS will complete an assessment of site conditions. The results of our findings will be presented in a report, which will include the following details:

- Review of the site history, as well as soil and groundwater analytical data
- Review of the regional and site-specific hydrogeology
- Description of the field investigative methods
- A summary of the analytical testing results
- A discussion of the extent of impacted soil and groundwater
- A discussion of free product thickness and mobility. Free product mobility may be assessed using WinTran and WinFlow modeling programs.
- Recommendations for future monitoring or remedial site activities

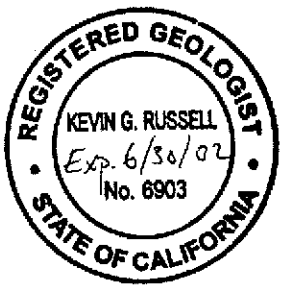
7.0 SCHEDULE

URS proposes to implement field work for the proposed soil borings and well installation within one month after receiving written approval of this work plan from the ACEHS. Laboratory analyses will take approximately two to three weeks to complete. A report will be prepared for submittal to Sears, Roebuck & Co. and the ACEHS following completion of the field program. Sampling results for the proposed new groundwater monitoring well will be included in subsequent quarterly groundwater monitoring reports for the site.

-o0o-

Should you have any questions or comments, please do not hesitate to contact us.

Respectfully submitted,
URS CORPORATION



Kevin G. Russell, R.G.
Project Geologist

Taras B. Kruk, R.G., C.HG.
Project Director

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TABLE 1
HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS
FORMER SEARS PROPERTY #1058
2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

Sample Number and Depth	Date of Sample	TPH-Diesel	TPH-Bunker Oil	TPH-Fuel Oil	TPH-Motor Oil	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Stoddard Solvent	VOCs
Sampling performed by Lowney, 1998													
EB-1-12	4/7/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	-	-
EB-1-16	4/7/98	ND	**3,800**	ND	-	-	ND	ND	ND	ND	-	-	-
EB-2-16	4/7/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	-	-
EB-2-20	4/7/98	ND	**9,500**	ND	-	-	ND	ND	ND	ND	-	-	-
EB-3-13	4/7/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	-	-
EB-3-17	4/7/98	ND	**1,300**	ND	-	-	ND	ND	ND	ND	-	-	-
EB-4-8	4/7/98	-	-	-	-	-	-	-	-	-	-	-	ND
EB-4-12	4/7/98	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND
EB-5-6	4/7/98	ND	**79**	ND	ND	**2.5**	ND	ND	ND	ND	-	ND	ND
EB-5-14	4/7/98	**530**	ND	ND	ND	**240***	ND	ND	ND	**0.41**	-	**280**	ND
EB-6-11	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-6-17	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-7-10	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-7-14	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-8-9	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-8-11	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-9-11	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-9-15	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-10-11	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-10-16	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-11-9	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-11-13	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-12-9	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
EB-12-13	5/12/98	ND	ND	ND	-	-	ND	ND	ND	ND	-	ND	-
Sampling performed by Secor, 1998													
EB-13-7	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	**0.0191**
EB-13-16	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-14-4	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-14-7	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-15-6	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-15-13	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-16-7	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-16-13	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-18-4	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-18-16	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-18-22	11/9/98	-	-	-	-	-	ND	ND	ND	ND	-	ND	-
EB-19-22	11/10/98	**5.8**	ND	-	ND	-	ND	ND	ND	ND	-	ND	ND
EB-20-7	11/10/98	**160**	ND	-	**70**	-	ND	ND	**0.044**	ND	-	ND	**0.0452**
EB-20-13	11/10/98	**140**	ND	-	ND	-	ND	ND	ND	ND	-	ND	ND
EB-20-22	11/10/98	**4**	ND	-	ND	-	ND	ND	ND	ND	-	ND	ND
EB-21-22	11/10/98	**4.7**	ND	-	ND	-	ND	ND	ND	ND	-	ND	ND
Sampling performed by URS, 2000													
FOMW-1-11	5/18/00	ND	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-1-16	5/18/00	ND	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-1-20	5/18/00	ND	**3200**	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-2-6	5/19/00	ND	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-2-11	5/19/00	ND	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-2-16	5/19/00	ND	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-3-6	5/19/00	**51**	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-3-11	5/19/00	**1900**	ND	-	-	-	ND	ND	ND	ND	ND	-	-
FOMW-3-16	5/19/00	**19**	ND	-	-	-	ND	ND	ND	ND	ND	-	-

Notes:
All concentrations in mg/kg
ND = Not Detected at or above the state laboratory reporting limit
- = Not Analyzed
* TPH-Gas chromatogram, although within reporting limits, does not match typical Gas pattern.
[1] Tetrachloroethene
[2] Isopropyl-benzene

TABLE 2
HISTORICAL GROUNDWATER GRAB SAMPLE ANALYTICAL RESULTS
FORMER SEARS PROPERTY #1058
2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

Sample Number	Date of Sample	TPH-Diesel	TPH-Bunker Oil	TPH-Fuel Oil	TPH-Motor Oil	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Stoddard Solvent	VOCs (8010)
Sampling performed by Lowney, 1998												
EB-1	4/7/98	ND	**38,000**	ND	-	-	ND	ND	ND	ND	-	-
EB-2	4/7/98	ND	**480,000**	ND	-	-	**4.8**	**1.8**	**1.4**	**5.2**	-	-
EB-3	4/7/98	ND	**150,000**	ND	-	-	ND	ND	ND	ND	-	-
EB-4	4/7/98	ND	ND	ND	ND	**1,600**	**4.3**	**3.7**	ND	ND	**9,100**	ND
EB-5	4/7/98	ND	**330,000**	ND	ND	**100***	ND	ND	ND	ND	ND	**1**
EB-6	5/12/98	ND	ND	-	-	-	ND	ND	ND	ND	ND	-
EB-10	5/12/98	ND	ND	-	-	-	ND	ND	ND	ND	ND	-
EB-11	5/12/98	ND	ND	-	-	-	ND	ND	ND	ND	ND	-
EB-12	5/12/98	ND	ND	-	-	-	ND	ND	ND	ND	ND	-
Sampling performed by Secor, 1998												
EB-13	11/9/98	-	-	-	-	-	ND	ND	ND	ND	ND	-
EB-14	11/9/98	-	-	-	-	-	ND	ND	**3.2**	**6.1**	**2,300**	**2,3,4**
EB-15	11/9/98	-	-	-	-	-	ND	ND	ND	ND	ND	-
EB-18	11/9/98	-	-	-	-	-	ND	ND	ND	ND	ND	-

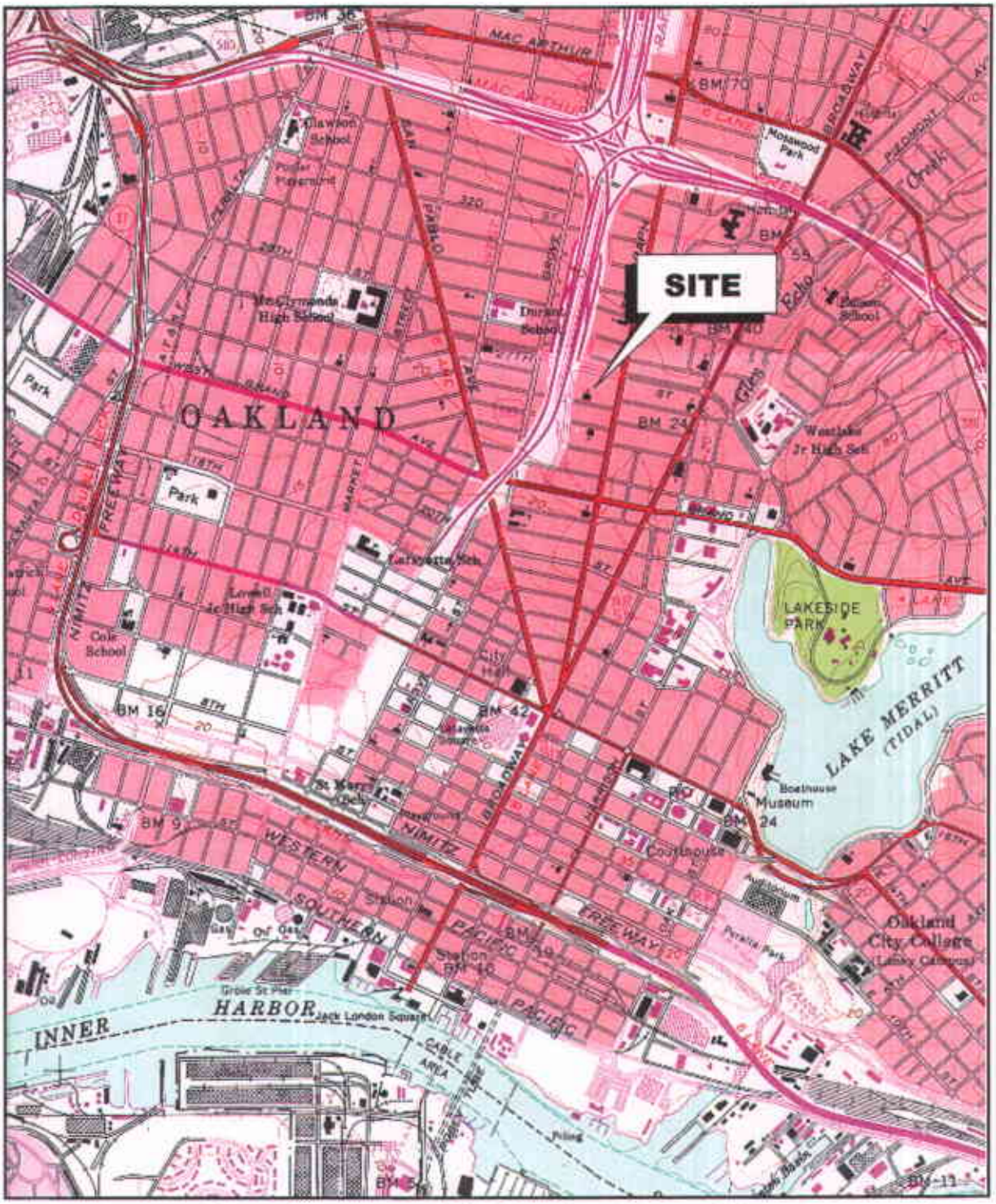
Notes:
Results in µg/L
ND = Not Detected at or above laboratory reporting limits
- = Not Analyzed
* TPH-Gas chromatogram, although within reporting limits, does not match typical Gas pattern; see laboratory results
[1] Tetrachloroethene detected at 0.6 µg/L.
[2] Naphthalene detected at 11 µg/L.
[3] Trichloroethene detected at 5.7 µg/L.
[4] Isopropylbenzene detected at 62 µg/L.

TABLE 3
HISTORICAL GROUNDWATER MONITORING WELL ANALYTICAL RESULTS
FORMER SEARS PROPERTY #1058
2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

Monitoring Well No.	Sample Date	Notes	LABORATORY ANALYTICAL RESULTS							PHYSICAL PARAMETERS						
			Volatile Organics by GC/MS 8260A					TEPH by EPA 8015M								
			B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Diesel (ug/L)	Bunker Oil (ug/L)	Nitrate (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Total Alkalinity (mg/L)	Dissolved Methane (ug/ML)	Hydrocarbon Degraders (CFU/ML)	Heterotrophic Plate Count (CFU/ML)
FOMW-1	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1200	NA	NA	360	230	< 0.01	390	4000
	10/10/00	SP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/15/00	SP	< 0.5	< 0.5	< 0.5	< 1	< 5	260	< 50	NA	NA	NA	NA	NA	NA	NA
	12/15/00	1	< 0.5	< 0.5	< 0.5	< 1	< 5	370	< 50	NA	NA	NA	NA	NA	NA	NA
	3/27/01	SP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FOMW-2	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	NA	NA	250	150	< 0.01	1	110
	10/10/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	NA	NA	260	140	< 0.01	170	1600
	12/15/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	7.8	30	210	190	< 0.01	550	1000
	3/27/01	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	NA	8.4	47	290	130	< 0.01	30	170
	3/27/01	1	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	NA	9.1	47	320	130	< 0.01	40	70
FOMW-3	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1200	NA	NA	330	190	< 0.01	440	110000
	6/8/00	1	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1100	NA	NA	330	180	< 0.01	50	8000
	10/10/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	230	< 50	NA	NA	300	170	< 0.01	800	4000
	12/15/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	100	< 50	3.2	30	290	190	< 0.01	1200	1800
	3/27/01	--	< 0.5	< 0.5	< 0.5	< 1	< 5	170	NA	3.3	51	420	130	< 0.01	400	300

Notes:

TEPH - Total extractable petroleum hydrocarbons
B T E X - Benzene, Toluene, Ethylbenzene, Total Xylenes
MTBE - Methyl tertiary-butyl ether
TDS = Toal Dissolved Soilds
1: Duplicate sample
J - Bunker-C detections were quantitated against the diesel standard and flagged as estimated concentrations
< - Analyte not detected above indicated method detection limit
NA: Not analyzed/Not available.
SP: Separate Phase Product



Source: USGS, Oakland West Quadrangle, California, 7.5 Minute Series Topographic, 1959 (photorevised, 1980)

SITE LOCATION MAP

Sears Roebuck & Company
Site Assessment
Oakland, California

August 2001

URS

FIGURE 1

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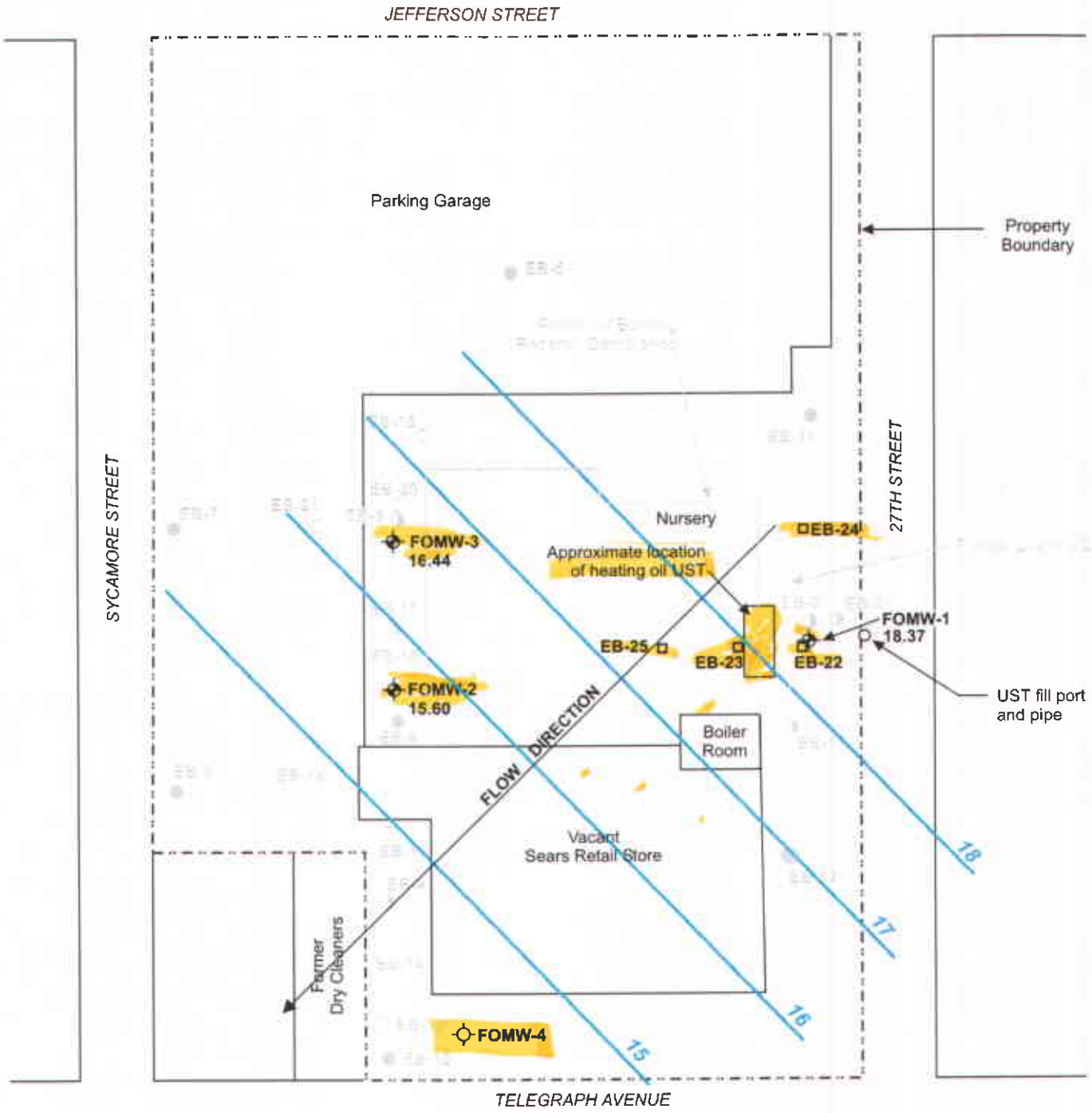

LEGEND

- Approximate location of exploratory boring (Lowney, May 1998)
- Approximate location of exploratory boring (Lowney, April 1998)
- Approximate location of exploratory boring (SECOR, November 1998)
- Groundwater monitoring well locations (URS/Dames & Moore)
- Proposed monitoring well location
- Proposed soil boring location

N

0 100

Approximate Scale in Feet

Reference: Lowney Associates (1998)
SECOR (1998)

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NOTES

(1) Ground water grab samples were collected at EB-1 to EB-5, EB-6, EB-10, EB-11, EB-12, EB-13, EB-14, EB-15 and EB-18.
(2) Soil and groundwater anlaytical results presented in tables 1 and 2.
(3) Groundwater elevations in feet above mean sea level (MSL)

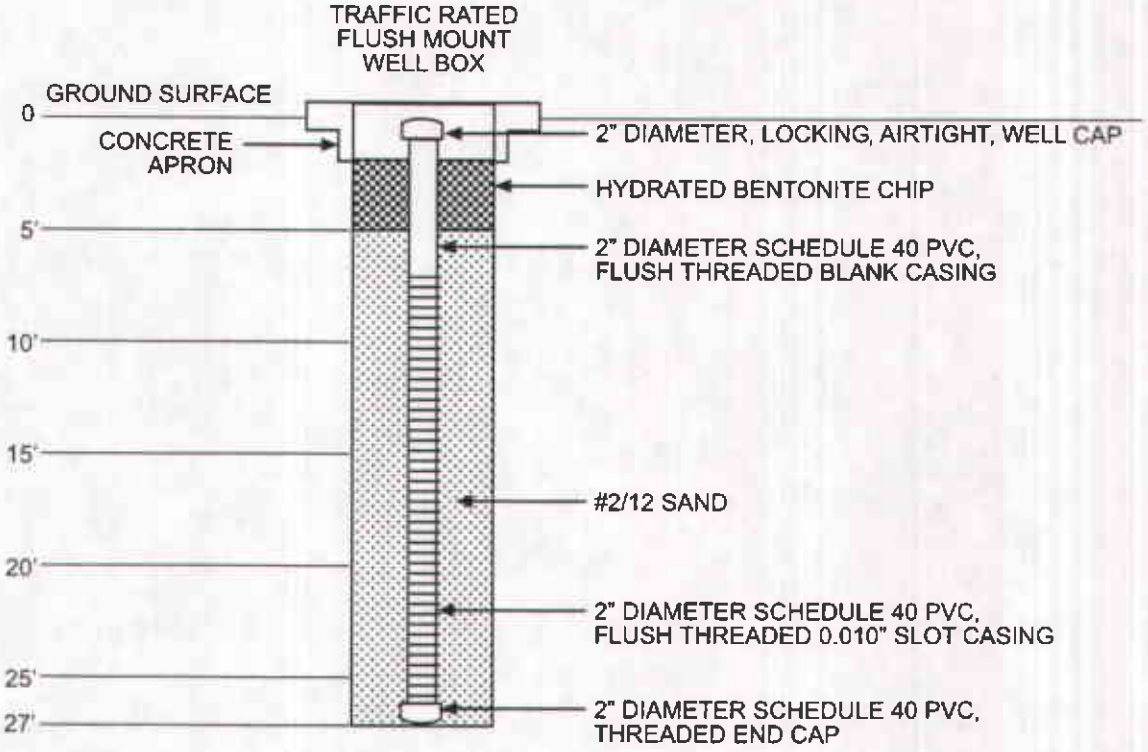
SITE PLAN

Sears Roebuck & Company
Site Assessment
Oakland, California

August 2001

URS

FIGURE 2



GROUNDWATER MONITORING WELL DIAGRAM

Sears Roebuck & Company
Site Assessment
Oakland, California

August 2001

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FIGURE 3

L:/sears oakland/GW monitoring well diag.fh9