



THE SALVATION ARMY

Adult Rehabilitation Centers Command
180 East Ocean Boulevard, 3rd Floor
Long Beach, CA 90802-4709

WILLIAM BOOTH
Founder

SHAW CLIFTON
General

JAMES KNAGGS
Territorial Commander

MAN-HEE CHANG
ARC Commander

August 8, 2012

Re: Revised Subsurface Investigation Workplan
The Salvation Army Adult Rehabilitation Center
601 Webster Street
Oakland, CA 94607

"I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge."

Submitted by,

James Boyd, Captain
ARC Command Secretary of Program

JB:kp

RECEIVED

4:56 pm, Aug 20, 2012

Alameda County
Environmental Health



ATC Associates Inc.
1117 Lone Palm Avenue, Suite B
Modesto, California 95351
209-579-2221
Fax: 209-579-2222

June 21, 2012
54.25026.0001

Mr. Keith Nowell, PG,CHG
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services, Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Revised Subsurface Investigation Workplan,
The Salvation Army,
601 Webster Street,
Oakland, California
Fuel Leak Case No. RO0003084
Geotracker Global ID T10000003428

Dear Mr. Nowell,

ATC Associates Inc. (ATC) has prepared this workplan, on behalf of The Salvation Army to conduct a subsurface investigation at the above referenced site. The purpose of the investigation is to evaluate the presence of from petroleum hydrocarbon impacted soil and/or groundwater beneath the site. This work was the result of residual hydrocarbons detected in soil samples collected during underground tank removal activities on November 22 and 23, 2010.

The scope of work includes the initiation of a dynamic soil and groundwater investigation of the site. Multiple direct-push soil borings are proposed including the collection and analysis of soil and water samples; comparing analytical results to the Environmental Screening Levels (ESLs) as provided by the California Regional Water Quality Control Board (RWQCB) San Francisco Bay Region; and preparing a summary report detailing site activities. The scope of work is described in detail in the following paragraphs.

SITE LOCATION

The site is located at 601 Webster Street in Oakland, California, as shown on Figure 1. Principal land use in the vicinity of the site consists of commercial properties including restaurants, a hotel, and several gas stations.

BACKGROUND

The site is developed as warehouse and distribution center for The Salvation Army. According to verbal information provided by the The Salvation Army, one or more underground fuel storage tanks (USTs) of unknown size were removed from the site in approximately 2000. A visual soil investigation was performed following the removal and the pit was aerated before two new USTs were installed.



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In 2010, The Salvation Army made the decision to discontinue on-site fueling operations and remove the tanks and dispenser equipment from the site (Figure 2). Excavation and removal of a 12,000-gallon capacity diesel UST and an 8,000-gallon gasoline UST and the former fuel dispensers was started on November 22, 2010, and completed on November 23, 2010, by Terry Hamilton, Inc. The two tanks were triple rinsed and inerted with dry ice, tested and certified non-hazardous by a Marine Chemist, and loaded onto a flatbed truck and transported to Stanislaus County on November 23, 2010 for use as non-potable water tanks in a fire-suppression system. The tanks appeared to be in good condition, with no visible holes or signs of leakage. Analysis of soil samples collected from the UST pit indicated that petroleum hydrocarbons were present.

On March 18, 2011 an initial workplan was produced by ATC and addressed to Oakland City Fire and cced to Alameda County, Health Care Services Agency Environmental Health Services, Environmental Protection (ACEP) for an initial investigation at the site.

On May 18, 2012, ACEP issued a letter directing changes to the March 18, 2011 initial workplan. This revised workplan reflects the desired changes presented in that letter.

SCOPE OF WORK

Planning and Permitting

ATC will schedule field personnel and equipment, notify Underground Services Alert to locate underground utilities as required, and perform other necessary field preparation and job start-up activities. A private utility locating service will also be used to locate underground utilities that may be present in the work areas, especially in the public right of way. ATC will obtain the necessary Alameda County Public Works Agency-Water Resources drilling permits for the advancement of five soil borings.

Advancement of Soil Borings

It is ATC's intent to conduct a dynamic field investigation of the site with the ultimate goal of determining the lateral and vertical extent of the both the absorbed and dissolved phase hydrocarbons likely to be present at the site.

ATC will begin this investigation by attempting to define the vertical and lateral extent of the absorbed phase hydrocarbons present in the area of the former tank pit, and then proceed to define the vertical and lateral extent of any dissolved phase hydrocarbons on or off site. During this first mobilization, ATC will mobilize to the site and advance as many borings as can be completed in one day. It is anticipated that this mobilization will provide enough information to determine if additional investigation is warranted, or if the site could be considered for closure.

ATC will employ a California licensed C57 drilling company using a truck mounted Geoprobe® narrow diameter, direct push drill rig, as the means by which soil and groundwater samples will be collected. An ATC field geologist will be present to oversee field operations, examine and log the soil samples, and collect groundwater samples. The field geologist will also examine and describe soil types encountered, field screen the soil samples using a Photo Ionization Detector (PID) or similar instrument, and will record all this information on the boring logs. Soil samples



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will be collected at five-foot intervals, designating a sufficient number of samples to be analyzed to define the vertical extent of contamination present in each boring. The field geologist will also determine which soil samples will be submitted for analysis based on signs of contamination (odor, discoloration, PID responses, etc.), at significant changes in lithology, and at the soil/groundwater interface for all soil bores. All drill cuttings, if generated, will be stored on-site in a 5-gallon container pending laboratory results.

At least one groundwater sample will be collected from each boring at the depth groundwater is first encountered, anticipated to be approximately 16 to 25 feet bgs. Groundwater samples will be collected utilizing a Geoprobe® Screen Point 15 Groundwater Sampler threaded onto the leading end of the Geoprobe® direct pushrod train. While the sampler is advanced, O-ring seals and an expendable drive point will provide a watertight system to ensure sample integrity. When the sampler has been advanced to the desired depth, extension rods will be sent downhole to brace the bottom of the sample screen as the tool casing is retracted. When the casing is retracted, up to 41-inches of screen with slot sizes of 0.004 inches will be exposed. Teflon® tubing with a check valve attached to one end will be inserted down the casing until it is immersed in groundwater. Water will then be pumped through the tubing and to the ground surface using a peristaltic pump. Following soil and groundwater sample collection, the borings will be backfilled with neat cement grout to the ground surface.

ATC will start the investigation by attempting to establish a background reference value for “clean” soil at the site and confirm that the site is isolated from possible previous upgradient releases. This is planned to be accomplished by advancing a boring adjacent to, but separate from, the areas of known contamination in the former tank pit.

ATC will then attempt to establish the vertical extent of contamination within the former tank pit by advancing two boring, at points of known soil contamination at opposite sides of the former tank pit. These borings will be advanced into the contaminated zone but continuing deeper until indications are that the soil below is uncontaminated or is demonstrating signs of minimal contamination.

The fourth boring will be placed within the facility’s truck yard, but downgradient of the former tank pit. The results of this boring will allow for a three-point triangulation with the borings advanced within the former tank pit.

ATC then will begin the dynamic portion of the investigation by the determination of placement of additional borings, by the field and project geologist and ACEP (if they elect to participate), to improve upon the fledgling conceptual model developed from the visual clues and PID results of the day’s previous borings.

The anticipated boring locations and their order are shown on Figure 2, but as is true of dynamic investigations, are subject to change depending on the field results.



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Chemical Analyses

The soil and groundwater samples from the soil borings will be immediately placed in a cooler with ice and delivered under chain-of-custody documentation to a State-certified analytical laboratory. Soil and groundwater samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg) by method 8015M; benzene, toluene, ethyl benzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), 1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2-DCA), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) by EPA method 8260B.

Report Preparation

Upon receipt of the analytical data from soil and groundwater samples collected from the on-site soil borings, ATC will provide ACEP copies of the analytical data and make recommendations for a further course of action, if warranted.

Upon completion of the subsurface investigation activities and contingency activities, a summary report will be prepared and will include a description of field activities, boring/well logs, data presented in tabular form, isoconcentration maps depicting the estimated horizontal extent of petroleum impacted soil and groundwater.

Projected Schedule

Once approval of this workplan has been received, ATC will confirm a schedule for drilling activities. ATC will notify ACEP at least 48 hours prior to beginning any field activities. The summary report will be submitted to ACEP approximately 60 days following the completion of all field activities.

If you have any questions or require additional information regarding this workplan, please contact us at (209) 579-2221.

Respectfully submitted,
ATC Associates Inc.

A handwritten signature in black ink that reads "Michael D. Sonke".

Michael D. Sonke
Project Manager

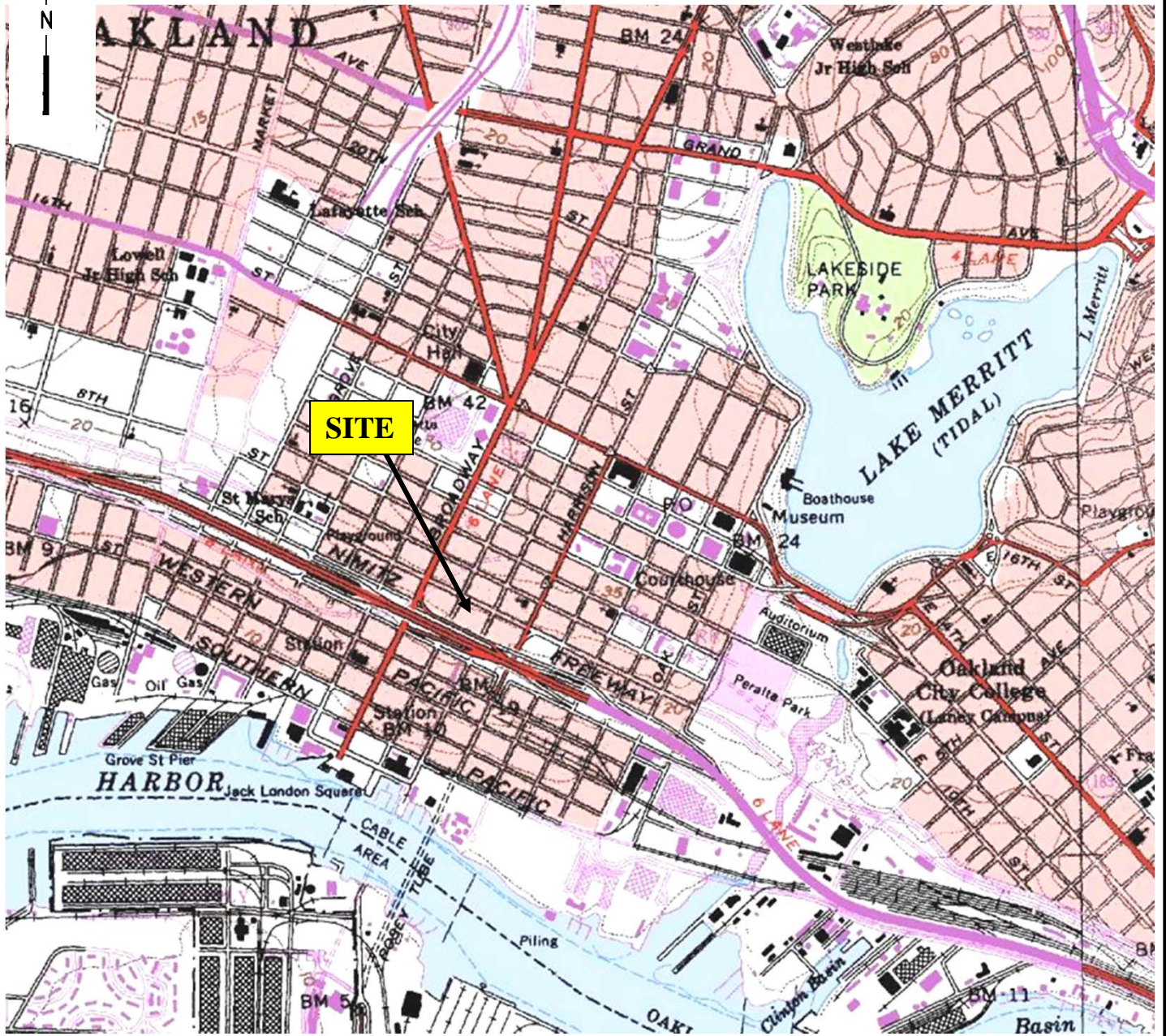
A handwritten signature in black ink that reads "Jeanne Homsey".

Jeanne Homsey, P.E.
CA Registered Civil Engineer No.47410

Attachments

cc: Kaye Patterson, Property Project Manager
The Salvation Army, ARC Command





SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP
 OAKLAND WEST QUADRANGLE, CALIFORNIA, DATED 1959, PHOTO-UPDATED 1980.

FIGURE 1
SITE LOCATION MAP

THE SALVATION ARMY
 601 WEBSTER STREET
 OAKLAND, CALIFORNIA



1117 Lone Palm Ave, Ste 201
 Modesto, CA 95351
 (209) 579-2221

PROJECT NO: 54.25026.0001

DESIGNED BY: JK

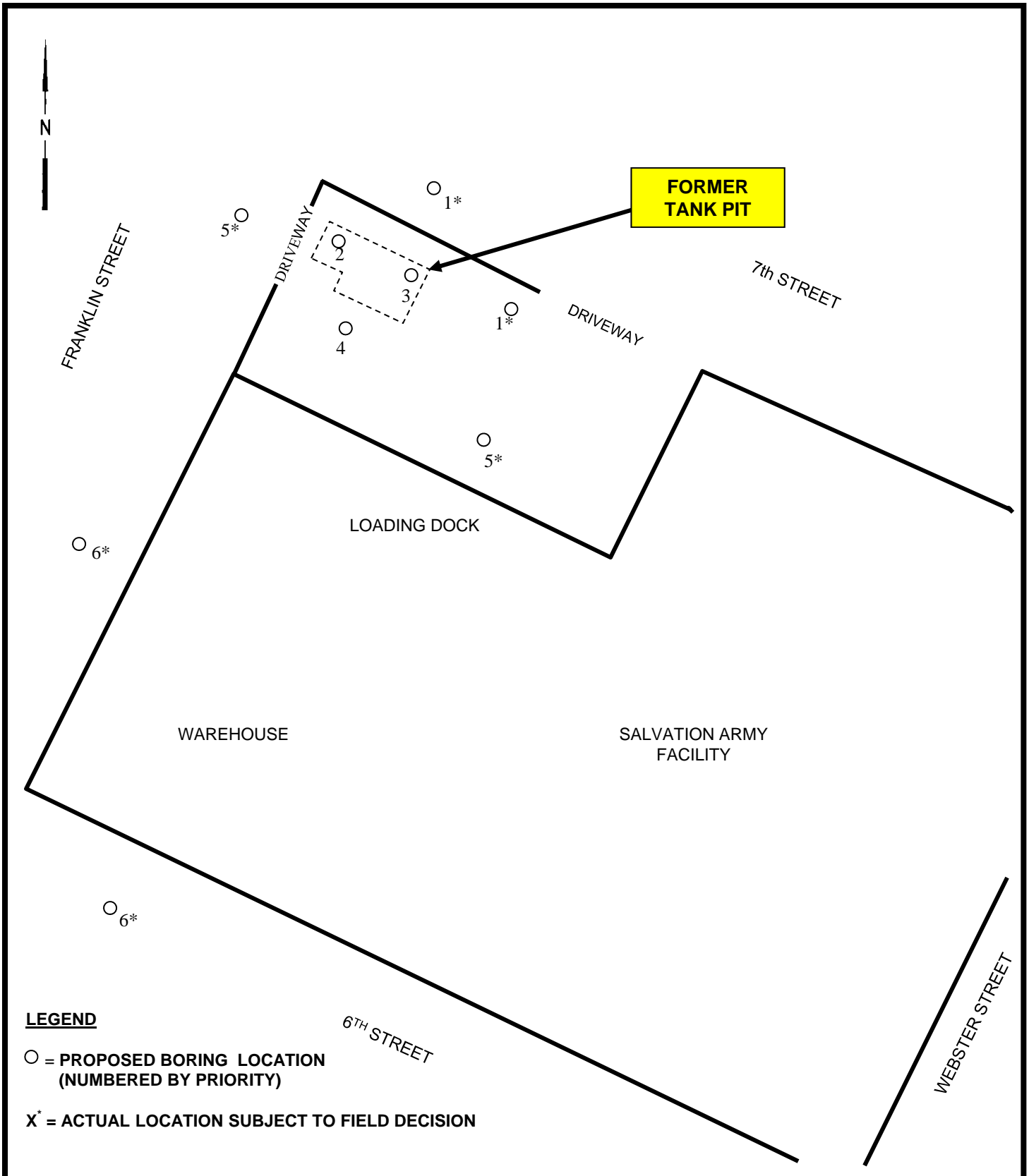
SCALE: 1:24,000

REVIEWED BY: JH

DRAWN BY: JK

DATE: 03/11

FILE: LOCATION




		
1117 Lone Palm Ave, Ste 201 Modesto, CA 95351 (209) 579-2221		
PROJECT NO: 54.25026.0001		
DESIGNED BY: JK	SCALE: 1:24,000	REVIEWED BY: JH
DRAWN BY: JK	DATE: 6/12	FILE: LOCATION

FIGURE 2
SITE MAP
WITH PROPOSED BORING LOCATIONS
 THE SALVATION ARMY
 601 WEBSTER STREET
 OAKLAND, CALIFORNIA