**Environmental Consultants** 

October 23, 2007 Project No. 0589,002.07

The Blank Family Trust % Mrs. Muriel T. Blank 1164 Solano Avenue Albany, California 94706

Workplan for Phase II Environmental Site Assessment 990 San Pablo Avenue Albany, California 94706

Dear Mrs. Blank:

## RECEIVED

2:40 pm, Apr 25, 2008

Alameda County Environmental Health

Please accept the following as Edd Clark & Associates, Inc.'s (EC&A's) workplan for a Phase II Environmental Site Assessment (Phase II ESA) of the property located at 990 San Pablo Avenue (site) in Albany, California (Figure 1). During the preparation of a Phase I ESA of the property site, a review of available historical documents revealed that a fueling service station operated at the site from approximately the late 1950s to the early 1980s. In 1983 the service station structures and underground storage tanks (USTs) were reportedly removed under a March 28, 1983 permit from the Albany Building Department. The Albany Building Department permit indicates that four USTs were removed under this permit; however, it does not detail the contents of the USTs, the former locations of the USTs, dispensers, and product piping, the final disposition of the USTs and ancillary equipment, and whether or not product piping was removed. No information was available regarding soil and/or groundwater sampling being conducted during the UST removal activities, or field observations of the UST excavation area.

Historically an automotive-repair facility also appears to have been historically present and operating on the northern portion of the site; however, EC&A was unable to verify whether or not this facility was actually the onsite or on an adjacent parcel to the north. No information was available regarding the USTs or associated piping, or whether any other underground structures such as hydraulic hoists or oil/water separators were present at this location.

As a result of recommendations made by EC&A in the July 17, 2007 *Phase I ESA*, the Blank Family Trust, which is the current property owner, requested that EC&A prepare a workplan and site safety plan (SSP) for a Phase II ESA to evaluate whether or not these historical operations at the site have caused an impact by fuel hydrocarbons (FHCs) to soil and/or groundwater beneath the property. A copy of the proposed boring locations, along with the required permit application and associated fee, will be submitted to the Alameda County Public Works Agency (ACPWA) for review and approval prior to EC&A proceeding with the field work.

## PROPOSED SCOPE OF WORK

The proposed scope of work for the Phase II ESA includes the following activities.

- Preparation and submittal of a soil boring permit to the ACPWA;
- Advancement of six exploratory soil borings;
- Collection of soil samples from the borings for chemical analyses and evaluation of soil conditions;
- Collection of grab-groundwater samples from the borings for chemical analyses and evaluation of groundwater conditions; and
- Preparation of a report summarizing the work completed and presenting conclusions and recommendations regarding site conditions.

### SITE DESCRIPTION

The site is located at 990 San Pablo Avenue in the city of Albany, California. The city of Albany is located on the east side of San Francisco Bay between the cities of El Cerrito and Berkeley. The site is situated on the west side of Albany and occupies the northwest corner of the intersection of San Pablo Avenue and Buchanan Street (Figures 1 and 2). The corner parcel of the site is currently an asphalt-paved driveway/parking area for the Paint Center that features Benjamin Moore paints and paint products. The Paint Center is a retail outlet for paint and painting products and occupies the entire north end of the site. The asphalt-paved driveway/parking area has parking spaces on the north and south sides and entry and exit locations on the east to San Pablo Avenue and south to Buchanan Street.

#### GEOLOGY AND HYDROGEOLOGY

The site is located within the California geomorphic province known as the Coast Ranges. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges and valleys. Prevalent bedrock in the area consists of the Jurassic-Cretaceous Franciscan Complex originally deposited in a marine environment. Extensive folding and faulting during late Cretaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography typical of the region. In valleys, the bedrock is covered by alluvial soils.

According to U.S. Geologic Survey (USGS), Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa and San Francisco Counties, California, R.W. Graymer, 2000, the site is underlain by Quaternary (Holocene) age alluvial fan and fluvial deposits (Qhaf). The nearest major fault is the Hayward Fault Zone, approximately one-and-one-half miles northeast of the site. The San Andreas fault zone is located approximately 17 miles to the southwest.

Topographic maps of the area indicate a generally westerly or southwesterly surface gradient in the

site vicinity. The groundwater flow-direction is likely also generally westerly to southwesterly, toward San Francisco Bay. A review of groundwater depths and groundwater flow-direction in reports reviewed for a nearby Leaking Underground Storage Tank (LUST) site (1001 San Pablo Avenue, approximately 100 feet to the south/southeast) indicates shallow groundwater in the vicinity generally flows to the south/southwest and has been encountered at depths ranging from approximately 8 to 13 feet (ft) below ground surface (bgs).

### PROPOSED PHASE II ENVIRONMENTAL SITE ASSESSMENT

The purpose of this Phase II ESA is to ascertain whether or not an impact by FHCs to soil and groundwater beneath the site has occurred as a result of the historical operation of a fueling service station and automotive repair facility at or in the vicinity of the subject site. The proposed scope of work includes the advancement and logging of six exploratory borings, collection and laboratory analyses of samples of soil and groundwater from the borings, evaluation of the data, and preparation of a summary report. The proposed work will be performed in the following tasks:

## Task 1 - Project Management, Acquisition of Permits and Utility Location

EC&A will prepare a soil boring permit application and submit to the ACPWA along with a copy of this workplan and a SSP. Proposed boring locations will be marked at the site by EC&A personnel and cleared by Underground Service Alert prior to drilling. A private utility marker will also be contracted to identify any onsite underground utilities within the proposed work area. The ACPWA will be notified at least 48 hours prior to commencement of field work.

# Task 2 - Soil Boring Advancement and Sample Collection

EC&A personnel will direct the advancement of six exploratory soil borings (B-1 through B-6) at the approximate locations shown on Figure 2. EC&A anticipates that the borings will be drilled to 15 ft to 20 ft bgs, depending on site conditions encountered, using a truck-mounted drill rig equipped with 4-inch-outside-diameter, solid-stem augers. Clear Heart Drilling, Inc., of Santa Rosa, California, will provide drilling services. The drilling will be performed under the technical direction of an EC&A field geologist who will classify the soils encountered, maintain a log of the lithology and assist in obtaining soil and groundwater samples. The field work will be performed under the supervision of a California Professional Geologist. EC&A will field screen the breathing zone and samples of the soil for organic vapors, with a photo-ionization detector (PID).

### Soil Sampling Procedures

Soil samples will be collected from each boring at a minimum of every 5 ft, at any change in lithology, any obviously impacted soil, and at the approximate soil/groundwater interface. Soil samples will be collected using a split-spoon sampling apparatus containing 2-inch-diameter by 6-inch-long brass liners. When a boring is advanced to the selected sampling depth, the augers will be withdrawn and the sampler lowered into the bottom of the hole and driven approximately 18 inches into the soil with a 140-pound, drill-rig-operated hammer. Samples of soil will be selected for laboratory analyses based on field (odor, staining, etc.) and PID screening. The sample tube ends will be sealed with Teflon™ squares and plastic end caps. Soil samples submitted for laboratory

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analyses will be labeled, logged on a chain-of-custody form and placed on ice for transport to a State-certified laboratory.

## Groundwater Sampling Procedures

A grab-groundwater sample will be collected from each boring as soon as possible after drilling is complete. Each groundwater sample will be collected by lowering a new disposable bailer into new, temporary, slotted well screen that has been placed in the boring without sandpack. Groundwater will be transferred from the bailer to the appropriate laboratory-supplied, sterile sample containers, labeled, logged on a chain-of-custody form and placed on ice for transport to a State-certified laboratory.

## Equipment Cleaning Procedures and Waste Containment

In order to minimize the possibility of cross-contamination, all downhole drilling and sampling equipment will be appropriately cleaned prior to use. The augers will be steam cleaned before drilling commences and between borings. The soil- and water-sampling equipment will be either steam cleaned or washed in a soap and water solution and double rinsed with tap water before samples are collected.

Drill cuttings from the soil borings and rinsate water from decontamination procedures will be contained in appropriately labeled DOT 17H 55-gallon drums. The drums will be sealed and stored onsite pending later characterization and disposal.

## Soil Boring Abandonment

Following sample collection, the borings will be backfilled by tremie grouting with cement grout to within 1 ft of the ground surface. The remainder of each boring will be capped with concrete or asphalt to match surrounding surface grade materials.

## Task 3 - Sample Analyses

All soil and grab-groundwater samples will be analyzed for total petroleum hydrocarbons (TPH) by multi-scan with silica gel cleanup, to quantify TPH as gasoline (g), TPH as diesel (d) and TPH as motor oil (mo) by Analytical Methods SW8015C/8015Cm. The soil samples will also be analyzed for benzene, toluene, ethyl benzene and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by Analytical Method SW8021B. The grab-groundwater samples will also be analyzed for full-scan volatile organic compounds (VOCs) by Analytical Method SW8260B.

In addition, one grab-groundwater sample with the highest suspected heavier-fraction FHCs (based on the results of field screening for odor and staining) will be selected for analyses for total petroleum oil and grease (TPOG) by Analytical Method SW5520B/F, semi-volatile organic compounds (SVOCs) by Analytical Method SW8270D and the 5 LUFT metals (cadmium, chromium, lead, nickel and zinc). EC&A anticipates that up to two soil samples and one grabgroundwater sample from each boring will be submitted to the laboratory for chemical analyses.

## Task 4 - Report Preparation

Following receipt of the results of laboratory analyses of the soil and grab-groundwater samples, EC&A will prepare a brief written report summarizing the work performed. The report will contain a description of investigation activities, logs of the borings, results of analyses of the samples, and conclusions and recommendations regarding site conditions.

## SITE SAFETY PLAN

Work will be performed in accordance with the SSP provided in Appendix A. The SSP identifies the potentially hazardous chemicals that may be encountered during the investigation, describes precautionary measures to be taken when in the presence of these chemicals, and contains a map to the nearest hospital.

#### **SCHEDULE**

EC&A anticipates implementing the scope of work within about two weeks following receipt of the required permit from the ACPWA.

Thank you for choosing EC&A to provide environmental consulting services on this project. Please do not hesitate to contact us if you have any questions or concerns regarding this project.

Sincerely,

Edd Clark

Principal

Lísa Scoralle, PG #6101

Project Geologist

Attachments: Figure 1 - Site Location Map

Figure 2 - Site Plan with Proposed Borings

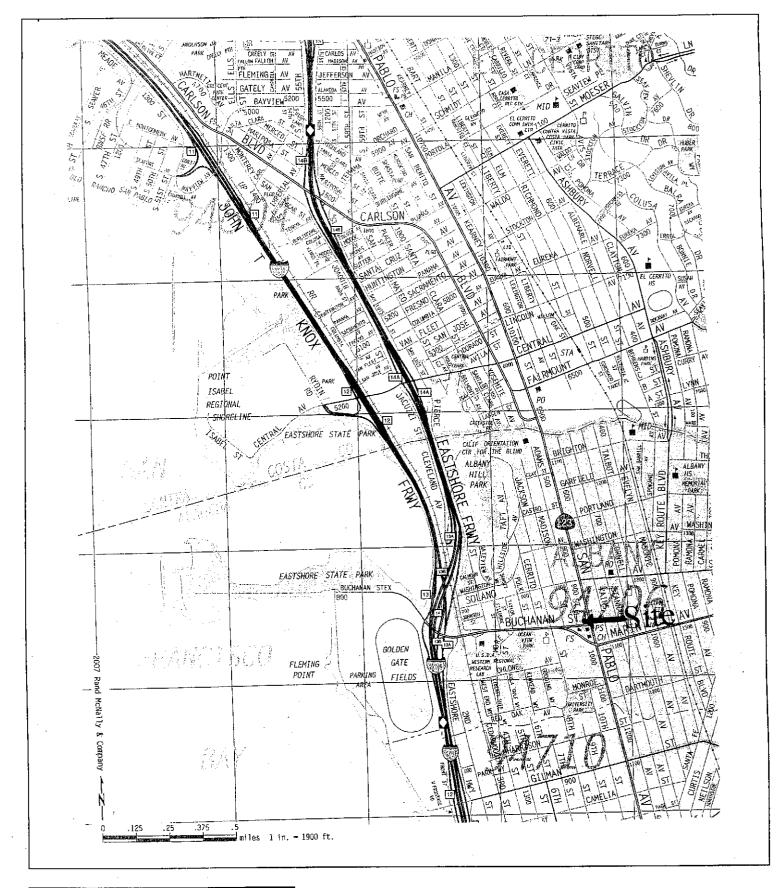
Appendix A - Site Safety Plan

cc:

Rev. Deborah Blank

Ms. Marcia Kelly

0589\Phase II ESA workplan



EDD CLARK & ASSOCIATES, INC. ENVIRONMENTAL CONSULTANTS

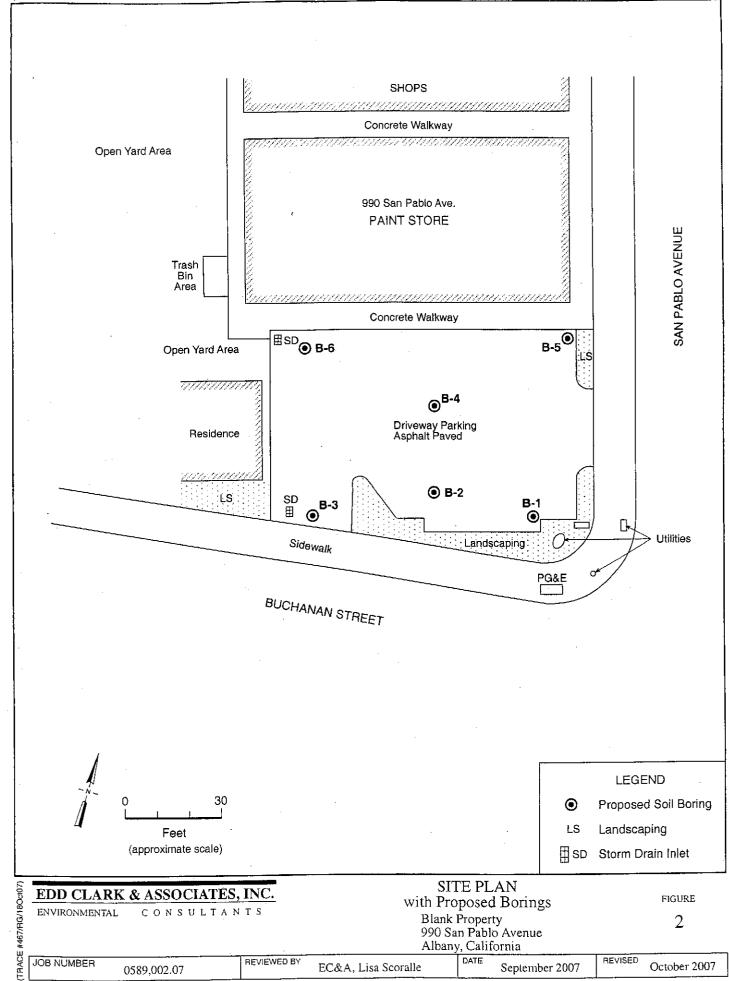
Site Location Map 990 San Pablo Avenue Albany, California

FIGURE

1

JOB NUMBER 0589,001.07 REVIEWED BY Edd Clark

DATE June 2007 REVISED DATE



JOB NUMBER REVIEWED BY DATE REVISED October 2007 EC&A, Lisa Scoralle September 2007 0589,002.07

# Appendix A Site Safety Plan

#### A. GENERAL INFORMATION

Site Location: 990 San Pablo Avenue, Albany, California

Plan Prepared By: Date: October 23, 2007

Kevin Coker, Project Scientist

Objective(s): Advance six 15-ft- to 20-ft-deep exploratory soil borings, collect soil and grab-

groundwater samples from the borings, grout borings.

Background Review: Complete: X Preliminary:

Documentation/Summary: Overall Hazard: Serious: Moderate: Low: X

Unknown:

Unusual Features (power lines, terrain, utilities, etc.): Underground utilities and traffic

STATUS: Active: x Inactive: Unknown: Other:

HISTORY: (Agency Action, Complaints, Injuries, etc.) During the preparation of a Phase I ESA conducted for the site, a review of available historical documentation indicated that a gasoline service station operated at the site from approximately the late 1950s to early 1960s up until approximately the 1980s. In 1983 the service station structures and underground storage tanks (USTs) were reportedly removed under a March 28, 1983 permit from the Albany Building Department (ABD). The ABD permit indicates that four USTs were removed under this permit; however, the permit does not detail the contents of the USTs, the final disposition of these USTs and whether or not the product piping was removed. No information was available regarding any soil and/or groundwater sampling being conducted during the UST removal activities or any field observations of the UST excavation area and immediate area. Because of these conditions, the Blank Family Trust requested that EC&A prepare a workplan and site safety plan (SSP) for a Phase II investigation to ascertain whether or not an impact to soil and groundwater beneath the site has occurred as a result of historical site operations.

## B. SITE WASTE CHARACTERISTICS

Waste Type(s): Liquid: X (water) Solid: X (soil) Sludge: Gas:

Characteristic(s): Corrosive: Ignitable: Radioactive: Volatile: X

Toxic: X Reactive: Unknown Other (name): Flammable

Facility Description: Benjamin Moore Paint store; parking area

Principle Disposal Method (type and location): Soil cuttings and decontamination water to be placed in covered and properly labeled 55-gallon drums. Disposal pending results of the investigation.

## C. HAZARD EVALUATION

Chemica I Name	Description	Threshold Limit Values (TLVs)		Persons Exposed and	Symptoms of Acute	TLV Basis
		8-hr TWA	Short-term Exposure Limit (STEL)	Potential Routes of Exposure	Exposure	-
Benzene	Carcinogen, aromatic HC	0.5 ppm	2.5 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Cancer
Toluene	Aromatic HC	50 ppm	_	Inhalation, dermal, ingestion	Headache, dizziness	Central nervous system (CNS), irritation
Ethyl- benzene	Aromatic HC	100 ppm	125 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Irritation, CNS
Xylenes	Aromatic HC	100 ppm	150 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Irritation
Gasoline	Flammable liquid	300 ppm	500 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Irritation, CNS
Diesel	Flammable liquid	pending		Inhalation, dermal, ingestion	Headache, dizziness, eye/skin irritation	_
МТВЕ	Flammable liquid, Oxygenate	40 ppm		dermal, inhalation & ingestion	Headache, dizziness, eye/skin irritation Nausea	Mucus Membrane Irritation, CNS

# D. SITE SAFETY WORKPLAN

Perimeter Establishment: Map/Sketch Attached: X Site Secured: X

Perimeter Identified: X

Zone(s) of Contamination Identified: X

Personal Protection:

Level of Protection: A: B: C: D: X

Modifications: Upgrade to level C upon continuous high OVA readings (>5 ppm) in the

breathing zone

Surveillance Equipment and Materials:

Instrument: PID

Action Level:

5 ppm

SITE PROCEDURES: Advance six 15-ft- to 20-ft-deep exploratory soil borings, collect soil and grab-groundwater samples from the borings, grout borings.

HAZARDS: Potential hazards onsite comprise proximity to drilling equipment, exposure to FHCs in soil and/or groundwater; vehicular traffic entering and exiting parking area.

LEVEL OF PROTECTION: Equipment to protect the body from contact with chemical hazards has been categorized by the Environmental Protection Agency into levels A, B, C, & D. Level A equipment is used when the highest level of protection is needed; Level D equipment is used when minimum protection is needed. The chemical hazard associated with petroleum hydrocarbons is typically low and Level D protection (see equipment list below) is adequate. In case of high levels of contamination, an upgrade to Level C protection equipment may be advised. Level C and D equipment are listed below.

<u>Level C Equipment</u>: NIOSH/MSHA approved air purifying respirator, chemical resistant clothing, chemical resistant inner and outer gloves, chemical resistant boots with steel toe and shank, safety glasses and hard hat.

<u>Level D Equipment</u>: Coveralls, gloves, chemical resistant boots or shoes with steel toe and shank, safety glasses or chemical splash goggles, and hard hat. Tyvex overalls and Solvex or equivalent gloves are recommended.

EQUIPMENT REQUIRED: Modified Level D; normal work clothing may be worn with the following additions:

<u>Excavations</u>: Wear neoprene boots if walking in the excavation or in or around waste soils. Wear a hard hat when near excavation equipment.

Drilling: Wear a hard hat when near the drill rig.

Soil Sampling: Chemical resistant gloves are required when sampling.

Groundwater Sampling: Chemical resistant gloves are required when sampling.

A First Aid Kit and fire extinguisher are also required. Drill rig has both.

#### AIR MONITORING:

A photoionization detector (PID) should be used to monitor the breathing zone during drilling activities. Readings above 5 ppm are cause for concern. Continuous readings of 5 ppm or greater in the breathing zone requires an upgrade to Level C, including use of half-face respirator with organic vapor cartridges. Continuous readings of 50 ppm or greater in the breathing zone requires stopping the work.

### **DECONTAMINATION PROCEDURES:**

Personal: Remove gloves, wash hands; clean boots in decontamination area.

<u>Equipment</u>: Steam cleaning of all drilling equipment in the decontamination area. TSP wash of sampler between samples.

FIRST AID: Consultant's vehicle and drill rig have a first aid kit

WORK LIMITATIONS (time of day, weather, heat/cold, stress): None

INVESTIGATION-DERIVED MATERIAL DISPOSAL: Drum soil cuttings and decon water. Disposal pending results of the investigation.

### E. EMERGENCY INFORMATION

LOCAL RESOURCES:

Ambulance: 911

Hospital Emergency Room:

Alta Bates Medical Center

2001 Dwight Way

Berkeley, California 94704

(510) 204-4444

Poison Control Center: 911

Police: 911

Fire Department: 911 Explosives Unit: 911

Agency Contact:

Alameda County Public Works Agency

Water Resources Section James Yoo (510) 670-6633

#### SITE RESOURCES:

Water Supply: On drill rig Telephone: Paint Store

Radio: None

Other:

### **EMERGENCY CONTACT:**

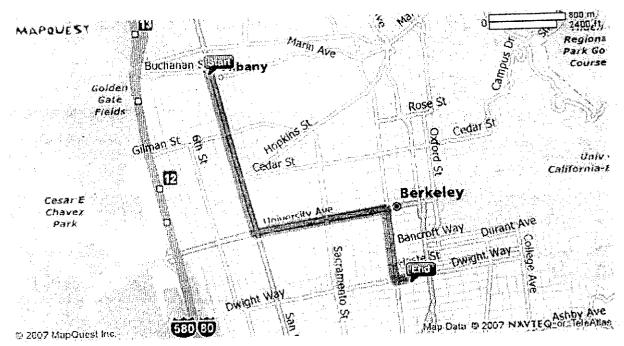
Name: Kevin Coker Phone: (707) 792-9500 Name: Sandy Hryciuk Phone: (510) 841-0929

EMERGENCY ROUTE: See Figure H

SITE SKETCH: (Work zones, command post, etc.): See Workplan

Signature

Date



**Start: 990 San Pablo Ave** Albany, CA 94706-2010, US **End: 2001 Dwight Way** Berkeley, CA 94704-2608, US

Directio	ns		Distance
Total E	st. Time: 10 minutes	Total Est. Distance: 3.09 miles	
BIANT	ST.	TH on SAN PABLO AVE / CA-123 toward BUCHANA	N 1.3 miles
	2: Turn LEFT onto UNIV	ERSITY AVE.	1.0 miles
	3: Turn RIGHT onto MAI to follow MARTIN LUT	RTIN LUTHER KING JR WAY / GROVE ST. Continue THER KING JR WAY.	e 0.5 miles
	4: Turn LEFT onto DWIC	GHT WAY.	0.1 miles
END	5: End at 2001 Dwight Berkeley, CA 94704-	t Way	
Total F	st. Time: 10 minutes	Total Est. Distance: 3.09 miles	

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Hospital Map Alta Bates Medical Center 2001 Dwight Way Berkeley, California **FIGURE** 

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JOB NUMBER 0589,002.07

REVIEWED BY Kevin Coker DATE October 2007

REVISED DATE