BALCO
PROPERTIES

August 14, 2012

Mr. Keith Nowell
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Work Plan for Additional Investigation, Balco Properties LLC, 2855 Mandela Parkway, Oakland, California (Fuel Leak Case Number RO0000378)

Dear Mr. Nowell:

The property located 2855 Mandela Parkway in Oakland, California (the Site) has been under the jurisdiction of Alameda County Department of Environmental Health's (ACEH) Local Oversight Program (LOP) Fuel Leak Case Number RO0000378 since December 2001. Balco Properties LLC (Balco) has been working with ACEH after acquiring the Site in 2006.

Please find an enclosed Work Plan, proposing supplemental field activities, to address remaining data gaps at the Site and supplement the Feasibility Study Corrective Action Plan (FS/CAP) dated August 23, 2011. Balco appreciates ACEH's continued assistance with this project. If you have any questions regarding this Work Plan, please free to call me at (510) 763-2911 or Gregory Johnson (Trihydro Corporation) at (925) 270-0036.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document *Work Plan for Additional Investigation, 2855 Mandela Parkway, Oakland, California*, are true and correct to the best of my knowledge.

Sincerely yours,

Reed Westphal
Balco Properties, LLC

21B-001-001

CERTIFICATION STATEMENT

WORK PLAN FOR ADDITIONAL INVESTIGATION

BALCO PROPERTIES LLC

2855 MANDELA PARKWAY

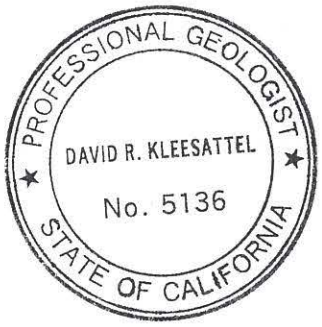
OAKLAND, CALIFORNIA

I certify that this work plan was prepared under my supervision. To the best of my knowledge, the data contained herein are true and accurate and the work plan was prepared in accordance with professional standards.

August 14, 2012

David R. Kleesattel, PG.
California Professional Geologist #5136

Date



Trihydro

WORK PLAN FOR ADDITIONAL INVESTIGATION

BALCO PROPERTIES LLC

2855 MANDELA PARKWAY

OAKLAND, CALIFORNIA

August 14, 2012

Project #: 21B-001-001

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

PREPARED FOR: Balco Properties, LLC

1624 Franklin Street, Suite 310, Oakland CA 94612

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1.0 INTRODUCTION

The Mandela Parkway Balco Properties, LLC (Balco) site is located at 2855 Mandela Parkway in Oakland, California (the Site; Figure 1). Current corrective action activities are conducted pursuant to Alameda County Department of Environmental Health's (ACEH) Local Oversight Program (LOP) via Fuel Leak Case Number RO0000378. Balco has been working with ACEH since 2006, after acquiring the property. The nature, degree, and extent of hydrocarbons in the subsurface at the Site are generally defined. Trihydro Corporation, Inc. (Trihydro) recently performed a document review for the Site and believes further evaluating the current degree and extent of the light non-aqueous phase liquid (LNAPL) plume and associated dissolved groundwater distribution would help to refine the site conceptual model and assist in evaluation possible remedial option(s). Trihydro has prepared this Work Plan to provide an approach to address remaining data gaps at the Site and supplement the Feasibility Study Corrective Action Plan (FS/CAP) dated August 23, 2011 (Treadwell and Rollo 2011).

1.1 ORGANIZATION OF THE WORK PLAN

This section outlines the organization of the Work Plan. The following sections are summarized below:

- Section 2 Facility Background
- Section 3 Field Activity Procedures
- Section 4 Future Activities and Scheduling
- Section 5 References

2.0 FACILITY BACKGROUND

Extensive activities to characterize the local geology/hydrogeology and determine the nature, degree, and extent of subsurface hydrocarbons have been performed at the Site. A brief description of the Site, ownership history, and corrective action and remediation activities are summarized below.

2.1 SITE DESCRIPTION

The Site consists of an approximate 4-acre parcel, occupied by a 143,000 square foot building located in West Oakland (Figure 1). The Site is bordered by 32nd Street to the north, Mandela Parkway and Willow Street to the east and southeast, 26th Street to the southwest, and Wood Street to the northwest. Surrounding properties are predominantly light/heavy industrial and commercial (Treadwell and Rollo 2000).

2.2 SITE OWNERSHIP HISTORY

The building currently occupying the Site was constructed by International Harvester Company as the Branch House and Service Station in 1941. A construction drawing from 1941 showed a feature that included a possible fuel dispensing pump. Sometime after 1970 International Harvester vacated the premises. A property transfer document from 1982 indicated the property was still owned by International Harvester in 1982 when it was transferred to Cypress General Partnership (Cypress). In 1983 Cypress transferred the property to Wareham Property Group (Wareham), who in turn transferred the property in 1998 to 2855 Mandela Property, LLC. The property was transferred to the current owner, Balco, in late October 2006. Since the property transfer to Cypress in 1983, space at the property has been leased by the respective owners to third-party commercial tenants (Treadwell and Rollo 2000).

2.3 INVESTIGATION AND REMEDIATION HISTORY

Numerous investigation, remediation, and reporting activities have occurred at the site from 1990 through 2011. These activities are summarized in the following subsections.

2.3.1 1990 PHASE I ENVIRONMENTAL SITE ASSESSMENT AND 1991 UNDERGROUND STORAGE TANK REMOVAL

In 1990, a Phase I Environmental Site Assessment (ESA) was performed at the Site by Harding Lawson Associates (HLA) on behalf of Wareham. In 1991 a waste oil underground storage tank (UST with an unknown volume) and 350-gallon gasoline UST, located in the southeast portion of the Site (Figure 2), were removed by HLA. Upon removal,

both USTs were noted to be in a deteriorated condition with numerous holes and visibly stained soil observed surrounding the tank (Treadwell and Rollo 2000).

2.3.2 1992 SOIL AND SOIL GAS INVESTIGATION

An investigation was conducted at the site in 1992 by ATEC Environmental (ATEC) which focused on the collection of soil samples and soil vapor samples in the vicinity of the former USTs. Results of soil and soil vapor sampling showed the presence of total volatile petroleum hydrocarbons quantified as gasoline (TVPHg/TPHg) and benzene, toluene, ethyl-benzene, and xylenes (BTEX) present in shallow subsurface soil samples and soil gas samples collected from the interior of the building and from exterior locations in the yard. The highest concentrations of BTEX were detected from exterior locations, south of the former USTs (ATEC 2002).

2.3.3 1998 SUBSURFACE INVESTIGATIONS

Three additional investigations were conducted by Ceres Associates (Ceres) in 1998 which included soil vapor, soil, and groundwater sampling. A geophysical survey was also conducted to investigate the potential existence of additional USTs. Soil and groundwater sampling focused on areas south and southeast of the former USTs and included locations adjacent to the Site along Willow Street. The offsite property investigation was conducted in the vicinity of the former UST at 2607 Mandela Parkway, which had previously been closed in place, to assess the UST as a potential offsite source (Figure 2; Ceres 1998).

Soil vapor samples were collected from 20 locations and analyzed for BTEX and methyl tert-butyl ether (MTBE). Results from the soil gas survey confirmed the presence of BTEX at elevated concentrations. The highest concentrations of BTEX were detected outside the building southwest of the onsite former USTs (Treadwell and Rollo, 2000). MTBE was not detected in any of the samples. The validity of the soil vapor data collected during this investigation was later brought into question by ACEH and additional soil gas investigations were conducted in 2001 and 2008 (See Sections 2.3.6 and 2.3.10).

Soil samples were collected from 18 locations and analyzed for total petroleum hydrocarbons as gasoline (TPHg), BTEX, and MTBE. The highest hydrocarbon concentrations were detected offsite in Willow Street, southeast of the former USTs (Figure 2; Ceres 1998).

Grab groundwater samples were collected from several borings and analyzed for TPHg, BTEX, and MTBE. The highest concentrations of TPHg, benzene, toluene, ethyl-benzene, and xylenes in groundwater were detected east of the

former onsite USTs. LNAPL was observed in onsite borings SB-3, SB-3B, SB-3C and SB-12 and offsite borings SB-8 and SB-9, located on Willow Street (Figure 2; Ceres 1998).

Ceres summarized the results of the 1998 investigations as inconclusive with respect to the former UST at 2607 Willow Street as a potential source of contamination. No additional USTs were discovered during the geophysical survey (Ceres 1998).

2.3.4 1999 SUBSURFACE INVESTIGATIONS AND LNAPL REMOVAL

Treadwell and Rollo, Inc. (T&R) submitted three separate work plans, between April 1999 and November 1999 to further define the nature, degree, and extent of subsurface hydrocarbons at the Site. The 1999 investigations included the collection of soil and groundwater samples, the installation of three temporary piezometers (TR-1 through TR-3), the installation of three 4-inch diameter monitoring wells (TR-4 through TR-6), and the extraction of LNAPL. Historical investigation locations are shown on Figure 2.

Soil samples were collected from eight onsite locations, TR-4 through TR-6, SB-25, SB-28, SB-31, SB-33A, and SB-34. Groundwater samples were collected onsite and offsite from 16 locations: TR-2 and TR-3, SB-17, SB-19 through SB-24, SB-26, SB-27, and SB-29 through SB-33. All soil and groundwater samples were submitted for analyses of TPHg, BTEX, and MTBE. In soil samples, TPHg and BTEX were detected in TR-5 (highest concentrations) and TR-6. No TPHg, BTEX, or MTBE were detected in other soil samples. MTBE was detected in TR-5, but was considered a likely false positive based on the analytical method used (Treadwell and Rollo 2000).

In groundwater, the highest concentration of TPHg, BTEX, and MTBE were detected in samples collected east of the UST on Willow Street along the perimeter of the eastern property boundary. MTBE was not detected in the groundwater samples collected.

During the 1999 investigation, LNAPL was observed in areas immediately southeast and east of the former UST (boring SB-18 and monitoring well TR-5) and within the building footprint (boring SB-34 and monitoring wells TR-4 through TR-6; Figure 2). LNAPL was sampled and analyzed for characterization and analytical results indicated the LNAPL was attributable to a leaded gasoline source. The 1999 investigation led to a LNAPL removal pilot-test to determine the potential for removal by bailing and/or passive skimming of wells TR-4 through TR-6. Between June and October 1999, a total of 98.1 gallons of LNAPL was removed from the wells and disposed offsite to a recycling facility via hazardous waste manifest protocols. Treadwell and Rollo's evaluation of results from the 1999 investigations included the following conclusions:

- The lateral extent of the plume was defined based on direct observation of LNAPL in 1998 and 1999 and where benzene concentrations in groundwater were greater than 1,800 micrograms per liter (µg/L) - an area of approximately 15,000 square feet (Figure 2).
- LNAPL was comprised of leaded gasoline without MTBE.
- LNAPL is located in a variable mud matrix but its distribution is affected by numerous thin zones of sandy and peaty soil.
- The closed in place UST across Willow Street does not appear to be the source because the only conclusively identified source is associated with the 350-gallon UST removal in 1991.

2.3.5 2000 INDOOR AIR INVESTIGATION

An indoor air investigation was conducted by SOMA Corporation (SOMA) in 2000, and consisted of collecting ambient air samples in 6-liter lab certified summa canisters from three locations inside the building and two locations outside of the building. Detectable concentrations of BTEX were measured both in indoor and outdoor samples. The BTEX numbers were compared to the Occupational Safety and Health Administration's (OSHA's) Permissible Exposure Limits (PELs) and were found to be 4 to 6 orders-of-magnitude below the PELs. Based on investigation results, it was concluded that gasoline vapors, and specifically BTEX, were not migrating in significant concentrations into the building from subsurface soil (Treadwell and Rollo 2001a).

2.3.6 2001 SUBSURFACE INVESTIGATION

A 2001 investigation, conducted by T&R, included installation of 10 permanent soil vapor probes (A through J) inside the building, and installing monitoring wells TR-7 through TR-9 (Figure 2; Treadwell and Rollo 2001b). Ten permanent soil vapor sampling wells were installed by advancing soil vapor probes (A through J) through the building floor slab to depths of approximately 2-3 feet below the bottom of the slab. Samples were collected in Summa canisters and results were reported in micrograms per meter cubed ($\mu g/m^3$) resolving issues that ACEH had brought up in response to the 1998 Ceres investigation sampling method of using Tedlar® bags instead of Summa canisters and using µg/L instead of $\mu g/m^3$ to report data. Samples collected from the vapor wells did not contain concentrations of BTEX above laboratory reporting limits.

Three monitoring wells (TR-7 through TR-9) were installed to further evaluate the lateral extent of LNAPL in the subsurface. No LNAPL or hydrocarbon sheen was observed in wells TR-7 through TR-9 and it was concluded by Treadwell and Rollo that the plume had been defined. In December 2001, ACEH issued a notice of responsibility

bringing the Site under the jurisdiction of the LOP as Fuel Leak Case Number RO0000378 (ACEH 2001) and requested a Corrective Action Plan (CAP) be developed for the Site.

2.3.7 2003 LNAPL RECOVERY PILOT STUDY

In 2003, a pilot test was performed to determine the efficacy of utilizing a free product recovery system. The pilot test included using skimmer pumps placed inside monitoring well TR-4, and later TR-6), inside the building to remove LNAPL. Twenty-two gallons of LNAPL were recovered during the six day duration of the pilot test. It was determined that a full-scale system was feasible and that a permanent system would be proposed to ACEH (Treadwell and Rollo 2004b).

2.3.8 2004 TO 2006 DRAFT INTERIM CORRECTIVE ACTION PLAN AND PERMANENT SYSTEM INSTALLATION

In January 2004, a Draft Interim Corrective Action Plan (ICAP) was submitted to ACEH outlining historical onsite investigations, the results of the 2003 pilot test, and proposal of a permanent system in recovering additional LNAPL (Treadwell and Rollo, 2004a). In February 2004, ACEH provided a written response to the ICAP, approving the proposed system installation while requesting additional monitoring wells (TR-10 and TR-11) and future verification sampling of soil and groundwater, post interim remediation.

Between 2004 and 2006, an active pneumatic LNAPL skimming system was installed at the Site. A shallow trench for appurtenant piping (6-inches deep) was installed inside the building and two deeper recovery trenches (10 foot deep by 30 foot long) were installed near the former UST area (Figure 2) for LNAPL accumulation. PVC piping in the shallow interior trench was connected to monitoring wells TR-4 and TR-6. LNAPL was actively pumped from each well, into an above ground storage tank (AST) pending offsite disposal. No trenching was installed to connect monitoring well TR-5; to the LNAPL recovery system, however, TR-5 contained a dedicated passive skimmer for active LNAPL removal. The deeper exterior trenches were backfilled, from 5 to 10 ft bgs, with coarse drain rock in an effort to facilitate LNAPL accumulation. PVC piping was laid in the base of each trench and connected with two slotted vertical PVC risers, serving as recovery wells for the removal of the accumulated LNAPL (RW-1 and RW-2, Figure 2).

During trench installation in late 2005/early 2006 the Site received heavy rainfall. The rainfall recharged a shallow perched groundwater unit that kept the water level in the trenches higher than the LNAPL in the ground. This resulted in a hydrostatic pressure that was great enough to prevent the LNAPL from flowing into the trench. In March 2006, approximately 3,600-gallons of water were pumped from the trenches to promote a drop in the water zone and to allow

the migration of LNAPL into the trenches. The attempt was unsuccessful and the trenches re-filled with water from the perched-zone almost immediately.

Seventeen gallons of LNAPL were removed from TR-4 through TR-6 between June and July 2006. By the end of July 2006 the system was temporarily shut down due to slow LNAPL recharge rates in monitoring wells TR-4 through TR-6 and corresponding inability of the pumps to recover additional LNAPL (the pumps were left in the monitoring wells pending a potential system restart). It was concluded that LNAPL may eventually continue to be removed from TR-4 through TR-6 after LNAPL levels rebounded.

Per ACEH's request, two additional offsite monitoring wells (TR-10 and TR-11) were installed to evaluate potential presence of LNAPL along Willow Street. LNAPL was observed in well TR-10, but not in well TR-11. Removal of LNAPL from TR-10, located on the eastern edge of the LNAPL plume on Willow Street was implemented using a portable pump. Approximately 4 gallons of LNAPL were removed from TR-10 during August 2006. Manual removal of LNAPL (discussed below) was performed at the site from October 2007 through June 2008. In July 2008, skimmer pumps were removed from monitoring wells TR-4 through TR-6 (Treadwell and Rollo 2008b).

2.3.9 2007 THROUGH 2008 GROUNDWATER MONITORING AND LNAPL REMOVAL

Balco resumed site-wide fluid level measurements and initiated manual removal of LNAPL (via bailing techniques) in all Site monitoring and recovery wells in 2007, shortly after the property transaction. A total of ten events were performed, and 11.68 gallons of LNAPL were removed, between October 2007 and June 2008 (Treadwell and Rollo, 2008b).

During the ten events, between October 2007 and June 2008, LNAPL was observed in monitoring wells TR-4 through TR-6, and TR-10 while LNAPL was not observed in recovery wells RW-1 and RW-2 or monitoring well TR-11. During the October 2007 event, LNAPL thicknesses ranged from 0.01 feet in TR-5 to 7.45 feet in TR-10. Recharge rates were observed to be generally slow after LNAPL removal. In June 2008 LNAPL thickness ranged from 0.01 feet in TR-4 to 0.45 feet in TR-10. Historically, LNAPL thickness has been greatest in TR-6, northwest of the former UST.

Two groundwater sampling events were conducted at the Site in October 2007 and September 2008. Groundwater samples were collected from recovery wells RW-1 and RW-2, TR-4 through TR-6 and TR-10 and TR-11, after removing LNAPL by bailing, and submitted for analyses of volatile organic compounds (VOCs) and TPHg. Hydrocarbon concentrations were typically highest in samples collected in wells in the vicinity of the former UST area

(wells TR-4 and TR-6, and well TR-10, on Willow Street). The October 2007 and September 2008 monitoring results were consistent with historical results and data (Treadwell and Rollo 2009a).

2.3.10 2008 SOIL VAPOR SURVEY

ACEH submitted a memorandum (dated June 6, 2008) that included a request for an additional soil gas survey. Soil vapor sampling activities were conducted on October 12 and 15, 2008. Samples were collected in 1-liter summa canisters resolving issues that ACEH had brought up in response to the 1998 Ceres investigation regarding the use of Summa canisters and not Tedlar® bags (as Ceres had used) to assess potential human health risk to occupants of the Site. Samples were submitted for analysis of VOCs by EPA method TO-15. Results of soil vapor sampling showed the presence of toluene, xylenes, and 15 additional VOC compounds. However, VOCs were reported below California Regional Water Quality Control Board (RWQCB) Commercial and Residential Environmental Screening Levels (ESLs). Additionally; benzene, ethyl-benzene, and MTBE were not detected above laboratory reporting limits in samples. Treadwell and Rollo concluded that the extent of LNAPL and dissolved hydrocarbons in groundwater is limited to within the property boundary and did not pose a significant risk for a human health pathway (Treadwell and Rollo 2009b).

2.3.11 2010 AND 2011 FEASIBILITY STUDY/CORRECTIVE ACTION PLAN REPORTING ACTIVITIES

ACEH responded with a letter on May 27, 2010, generally concurring with conclusions from the 2008 soil gas vapor survey, and requested Balco prepare an FS/CAP (ACEH 2010). Between 2010 and 2011, several iterations of a FS/CAP were submitted to ACEH, with the most recent revision submitted on August 23, 2011 (Treadwell and Rollo 2011). The ACEH has not approved the previously proposed FS/CAP.

2.4 NATURE AND EXTENT OF CURRENT SUBSURFACE CONDITIONS

The nature, degree, and extent of hydrocarbons at the Site are generally well defined. Soil impacts are likely limited to the former UST footprint and/or defined by the extent of the LNAPL plume. Evaluation of 2008 soil gas distribution indicated subsurface vapor concentrations did not represent a pathway of concern. LNAPL mobility is likely influenced (limited) by the presence of the fine grained Bay Mud material and the documented presence of peat. The estimated LNAPL plume was based on visual observation of free-phase product during soil investigations and monitoring well measurements, and benzene concentrations greater than 1,800 µg /L in groundwater samples collected during previous investigations. More recent groundwater monitoring and sampling conducted has confirmed the continued presence of free-phase product in monitoring wells TR-4, TR-5, TR-6, and TR-10 at various thicknesses (LNAPL has been reported up to 7.5 feet and 10.6 feet thick in wells TR-5 and TR-6, respectively).

Confirming the current degree and extent of the LNAPL plume and associated dissolved groundwater plume would help to refine the site conceptual model and assist in evaluation of possible remedial option(s). Trihydro proposes field activities, as described in the following section of this Work Plan. To provide an approach to address remaining data gaps at the Site and supplement the Feasibility Study Corrective Action Plan (FS/CAP) dated August 23, 2011 (Treadwell and Rollo 2011).

3.0 FIELD ACTIVITY PROCEDURES

The purpose of proposed field activities is to evaluate the current degree and extent of LNAPL and associated dissolved hydrocarbons in groundwater to supplement previous conclusions for evaluation or confirmation of remedial options as discussed in the August 23, 2011, FS/CAP. Procedures for an Ultraviolet Optical Screening Tool (UVOST) survey and groundwater sampling are discussed below.

3.1 UVOST SURVEY PROCEDURES

Fourteen proposed locations for the UVOST investigation are shown on Figure 3. Proposed locations were selected based on evaluation of historical soil and groundwater analytical data, and include both the perimeter of the Site (Figure 3), and the previously estimated extent of the LNAPL plume.

UVOST survey technology works by utilizing a direct-push drill rig to obtain data regarding the presence/absence of non-aqueous phase hydrocarbons. As the probe is advanced through the subsurface, ultraviolet light (UV) is emitted through a sapphire window mounted in the side of the probe. LNAPL in soil exposed to the UV light will produce a response (fluorescence) when irradiated by UV light. Fiber optic cables in the probe transmit response data for every two inches the probe is advanced. The response intensity and the specific wavelength is then compared to a calibrated standard. This results in the identification of the type and vertical location of the LNAPL, which is recorded as a real-time image on a computer in the drill rig and can be produced as a hard copy color-coded log (Dakota Technologies 2012).

Each location will be marked for underground utility clearance by the public underground service alert (UISA) and by a private utility locator retained by Trihydro prior to the survey. At each location, the first five feet of subsurface material will be cleared using a hand auger, if necessary concrete will be saw-cut in a one-foot square to allow for subsurface access. After completion of hand auguring the UVOST probe will be advanced through the subsurface until an approximate depth of 15 feet below ground surface (ft bgs) is reached; the thickness of LNAPL has been defined; or until the drill rig encounters refusal. The depth selected has been determined based on the historical shallow depths at which groundwater and free-phase product have been encountered during previous site investigations. At each location, after an adequate ultraviolet informational log has been obtained from each boring, the drill rods will be retrieved from the subsurface and decontaminated. If LNAPL is not present in a respective boring, a temporary ¾ to 1-inch PVC casing will be used to facilitate grab groundwater sampling (see Section 3.2.1).

3.2 GROUNDWATER INVESTIGATION PROCEDURES

Trihydro proposes collecting groundwater samples from borings and existing monitoring wells where LNAPL is not detected in the soil. Groundwater sampling procedures are discussed below.

3.2.1 GRAB GROUNDWATER SAMPLING PROCEDURES

In borings without detected LNAPL, a five-foot section of decontaminated ¾-inch diameter factory slotted PVC pipe will be placed inside the CPT/UVOST rods and attached to a steel point. The rods will be re-lowered to approximately 5 feet below the water table where force will be exerted on the pointed PVC end with the rods slightly retracted to expose the slotted PVC screen to groundwater that will infiltrate hydrostatically from the formation into the PVC. A clean disposable bailer will be lowered inside the PVC screen to collect groundwater. In the event groundwater does not immediately infiltrate the PVC, the CPT/UVOST rods may be removed and temporary PVC casing and screen placed down-hole to allow groundwater time to exit the formation before collection with a clean disposable bailer and/or peristaltic pump. Upon completion of the UVOST survey and/or grab groundwater sample collection, borings will be backfilled with neat cement grout to ground surface.

3.2.2 LOW FLOW GROUNDWATER SAMPLING PROCEDURES

Groundwater samples from existing monitoring wells will be collected via low flow sampling procedures (assuming no LNAPL is present) using a peristaltic pump (or equivalent) at pumping rates ranging from 0.1 to 0.5 liters per minute (L/m). Dedicated pump discharge tubing will be connected to a flow-through cell and equipped with a meter to measure field parameters during well preparation activities. The sample tube for each well will be lowered to approximately two-feet below the water table. The pump will be turned on, and operated at a low flow rate. After approximately one liter is purged from the well, parameters consisting of pH, specific conductance, temperature, dissolved oxygen (DO), turbidity, and oxidation/reduction potential (ORP) will be measured with a field meter once every three to five minutes.

Measurements will be recorded to document stabilization of field parameters; pumping rates will also be recorded on a routine basis to maintain the water level above the pump intake. A sample will be collected after the field parameters stabilize (pH ± 0.1 pH unit, specific conductance ± 3%, ± millivolts for ORP, ± 10% for DO, and ± 10% for turbidity or maintained below 10 NTUs). The discharge tubing will then be disconnected from the flow-through cell and appropriate sample containers will be filled directly from the discharge tubing without disrupting the pump rate. Sample vials will be filled such that sample agitation is minimized. Care will be taken to prevent overfilling sample containers and to provide for proper preservation of the samples. Groundwater samples will only be collected from

monitoring wells which do not contain free-phase product to determine the concentrations of VOCs, TPHg, TPHd, and TPHmo, if present.

3.3 SAMPLE SHIPMENT AND HANDLING

Samples will be packed in a chilled container and submitted to a state-certified laboratory under chain-of-custody protocol. Each groundwater sample will be analyzed for volatile organic compounds (VOCs) by U.S.EPA Method 8260B and total petroleum hydrocarbons (TPH) quantified as gasoline (TPHg) diesel (TPHd) and motor oil (TPHmo) by EPA Method 8015B. One blind duplicate will be submitted for every ten samples collected and analyzed for the same analytical suite. One trip blank will be submitted for analyses of VOCs.

3.4 INVESTIGATION DERIVED WASTE

Soil produced during hand auguring activities will be drummed and labeled pending characterization and offsite disposal. During the advancement of the UVOST probe, soil is displaced laterally, so no soil is brought to the surface. Subsequently, no soil cuttings are produced as a result of the UVOST survey. All groundwater collected during the supplemental groundwater investigation and groundwater produced during decontamination of equipment will be placed in a 55-gallon drum and labeled, pending off-site disposal. Disposable items (latex gloves, paper towels, etc.) will be containerized in plastic garbage bags and disposed.

3.5 SURVEY ACTIVITIES

Upon completion of the UVOST Survey, Trihydro will map the boring locations for future reference using conventional measuring methods or retain an independent licensed surveyor to map locations using global positioning satellite technology (GPS).

4.0 FUTURE ACTIVITIES AND SCHEDULING

Trihydro intends to submit a brief letter-style report summarizing activities and results to ACDEH within 60 days following receipt of complete and accurate laboratory data. Groundwater results and the results of the UVOST survey will be used to confirm the estimated LNAPL distribution. Additionally, the data will be evaluated to supplement the Feasibility Study Corrective Action Plan (FS/CAP) dated August 23, 2011. Trihydro and Balco propose to discuss results of activities proposed in the Work Plan with ACEH to develop potential future remediation activities.

5.0 REFERENCES

Alameda County Health Care Services. 2001. Personal Communication. December 7, 2001.

Alameda County Health Care Services. 2004. Personal Communication. February 10, 2004.

Alameda County Health Care Services. 2008a. Personal Communication. June 6, 2008.

Alameda County Health Care Services. 2008b. Personal Communication. October 24, 2008.

Alameda County Health Care Services. 2008c. Personal Communication. November 14, 2008.

Alameda County Health Care Services. 2010a. Personal Communication. May 27, 2010.

Alameda County Health Care Services. 2010b. Personal Communication. June 17, 2011.

ATEC Environmental Consultants. 1992. Subsurface Soil Investigation.

Ceres Associates. 1998. Phase II Subsurface Investigation Report.

Curtis and Tompkins Laboratory. 2007. Laboratory Analytical Report.

Dakota Technologies. 2012. UVOST Ultra-Violet Optical Screening Tool.
Available from: Dakota Technologies via the internet: (http://www.dakotatechnologies.com/media/UVOST-Brochure-Eng.pdf).

Regional Water Quality Control Board. 2007. Environmental Screening Levels.

Treadwell and Rollo Inc. 2000. 1999 Site Investigation and Remediation Activities, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2001a. Ambient Air Sampling Results, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2001b. Additional Remedial Investigation, 2855 Mandela Parkway, Oakland, California.

Treadwell and Rollo Inc. 2002. Addendum to the 1999 Remedial Investigation Report, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2004a. Draft Interim Corrective Action Plan, 2855 Mandela Parkway, Oakland, California.

Treadwell and Rollo Inc. 2004b. Free Product Recovery Pilot Test.

Treadwell and Rollo Inc. 2006. Personal Communication. 2006.

Treadwell and Rollo Inc. 2008a. Interim Corrective Action Plan Implementation Project Status Report. 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2008b. Environmental Activities, First and Second Quarters 2008, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2008c. Soil Vapor Sampling Work Plan, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2008d. Additional Purge Volume Calculations, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2009a. Groundwater Monitoring Report Third Quarter 2008, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo Inc. 2009b. Soil Vapor Sampling Report, 2855 Mandela Parkway Property, Oakland, California.

Treadwell and Rollo, a Langan Company. 2011. Feasibility Study and Corrective Action Plan, 2855 Mandela Parkway, Oakland, California.

Trihydro Corporation. 2012. Evaluation of Current Conditions Summary and Recommendations for Possible Future Remedial Activities, 2855 Mandela Parkway, Oakland, California.

FIGURES

Basemap: U.S. Geological Survey 7.5 Minute Quadrangle, Oakland West, California 1993

N

0 2,000'

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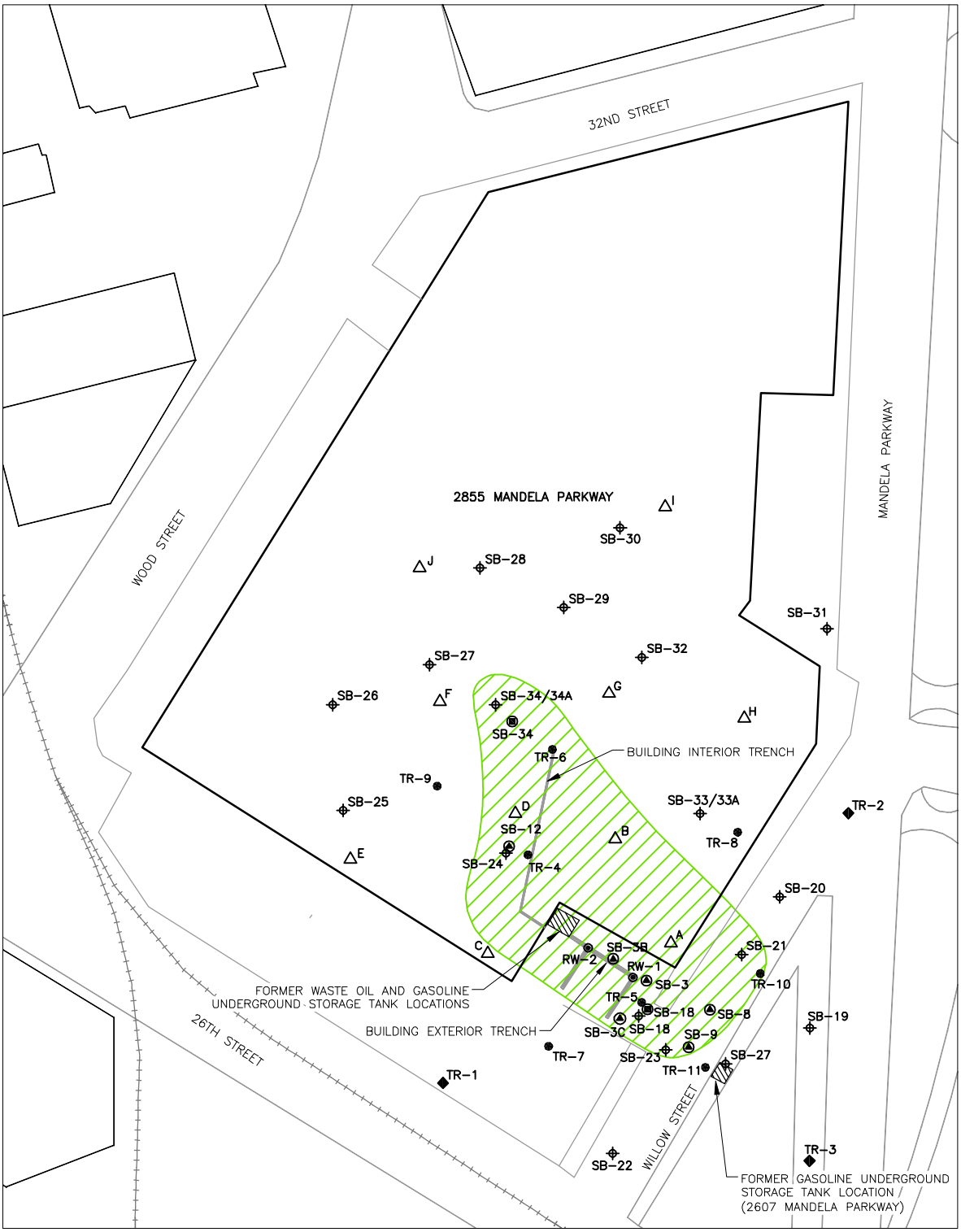
FIGURE 1

SITE LOCATION MAP

2855 MANDELA PARKWAY
OAKLAND, CALIFORNIA

Drawn By: JLP	Checked By: GJ	Scale: 1" = 2,000'	Date: 7/23/2012	File: 21B_USGSSITELOC201207



EXPLANATION

- TR-7 ● SOIL BORING LOCATION CERES (1998)
- RW-1 ◎ TRENCH RECOVERY WELL LOCATION AND DESIGNATION
- C △ SOIL VAPOR SAMPLING POINT LOCATION AND DESIGNATION
- SB-22 ⌖ SOIL BORING LOCATION AND DESIGNATION (1999)
- TR-1 ◆ TEMPORARY PIEZOMETER LOCATION AND DESIGNATION (1999)
- SB-18 ◙ BORING LOCATION TREADWELL AND ROLLO (1999)
- SB-9 ◬ BORING LOCATION TREADWELL AND ROLLO (1998)
- BUILDINGS
- ROADS AND SIDEWALKS
- RAILROAD TRACKS (PRIVATE SPUR LINE)
- APPROXIMATE EXTENT OF CONTAMINATION BASED ON:
  1. PRESENCE OF FREE PRODUCT
  2. BENZENE > 1,800 MICROGRAMS PER LITER (ug/L)

N

0 60'

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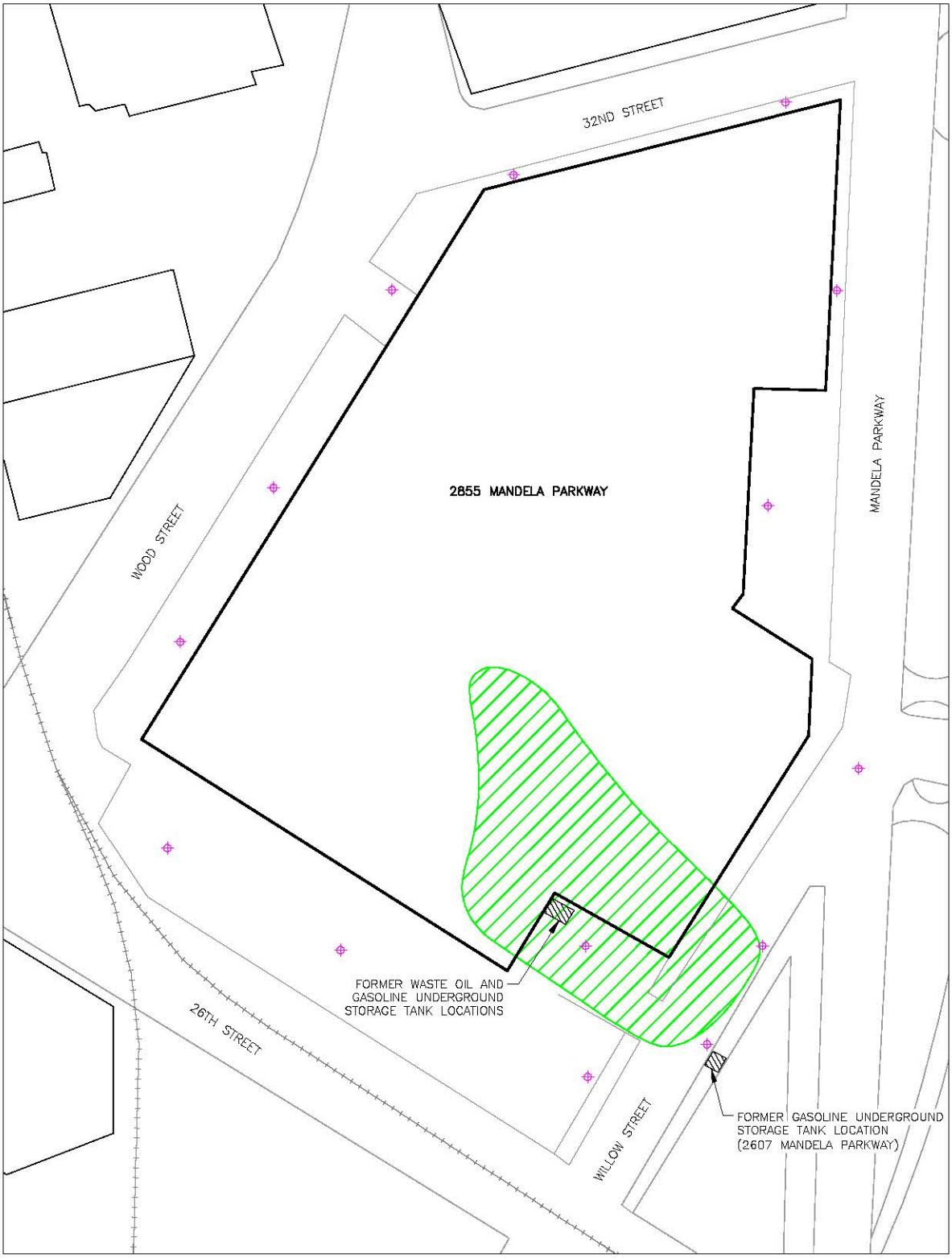
FIGURE 2
SITE MAP
HISTORICAL SAMPLE LOCATIONS AND MONITORING WELL NETWORK
2855 MANDELA PARKWAY
OAKLAND, CALIFORNIA

Drawn By: JLP	Checked By: GJ	Scale: 1" = 60'	Date: 8/1/2012	File: 21B_WELLLOC_201208



EXPLANATION

- PROPOSED UVOST DATA COLLECTION POINT
- BUILDINGS
- ROADS AND SIDEWALKS
- RAILROAD TRACKS (PRIVATE SPUR LINE)
- APPROXIMATE EXTENT OF CONTAMINATION BASED ON:
  1. PRESENCE OF FREE PRODUCT
  2. BENZENE > 1,800 MICROGRAMS PER LITER (ug/L)

0 60' N

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FIGURE 3

PROPOSED UVOST LOCATIONS

2855 MANDELA PARKWAY
OAKLAND, CALIFORNIA

Drawn By: JLP	Checked By: GJ	Scale: 1" = 60'	Date: 8/13/2012	File: 21B_PROPUVOST_201207