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10:50 am, Jul 30, 2012

July 25, 2012

Alameda County Environmental Health

Ms. Karel Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Subject:

Perjury Statement and Report Transmittal

1600 – 1630 Park Street Alameda, California 94501 AEI Project No. 298931 ACEH RO#0000008

Dear Ms. Detterman:

I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to call me or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerelya

John Buestad President

JB/pm

Attachment: AEI Consultants, Well Abandonment and Replacement Workplan (July 25, 2012)

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597



Environmental & Engineering Services

Tel: 925.746.6000 Fax: 925.746.6099

July 25, 2012

Alameda County Environmental Health Department Attn: Ms. Karel Detterman 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject: Well Abandonment and Replacement Workplan

1630 Park Street Alameda, California AEI Project No. 298931

ACEHD Fuel Leak Case No. RO0000008

Dear Ms. Detterman:

AEI has prepared this Well Abandonment and Replacement Workplan as part of the on-going remediation at 1630 Park Street in Alameda, California (ACEHD Fuel Leak Case # RO 0000008) [Figure 1]. As discussed during the teleconference on July 6, 2012, Foley Street Investors (FSI) is moving forward with site re-development which will require some of the wells at the site to be abandoned. Nine wells will be destroyed including three groundwater monitoring wells (MW-1, MW-2 and MW-3), one air sparge test well (AS-1), two dual-phase extraction (DPE) wells (DPE-3 and DPE-9) and three vapor monitoring points (VP-1, VP-2 and VP-3). The well locations are shown in Figure 2 along with other site features including the outline of the proposed building. All of the wells to be destroyed lie within the footprint of, or are immediately adjacent to, the new building planned for the site (including two wells that lie within the proposed UST hold excavation). The wells will no longer be accessible once ground preparations for construction begin and therefore should be removed prior to the start of construction.

Pre-Field Activities

Prior to the start of field work for each task, Well Destruction/Well Construction Permit applications will be submitted to the Alameda County Public Works Agency. Field work will be scheduled after permits are obtained.

The site Health and Safety Plan will be reviewed to ensure that the planned activities are included, and updated as needed. Underground Service Alert of Northern California (USAN) will be contacted prior to the start of work.

Well Destruction Activities

A list of the wells to be destroyed, including well construction details and the rationale for their abandonment, are included in Table 1.

An AEI geologist will oversee a California-licensed well driller to destroy the wells. The monitoring wells and DPE wells will be abandoned by pressure grouting, and the vapor monitoring points will be abandoned by over-drilling followed by backfilling the boreholes with neat cement (as per ACPW regulations). The upper approximately 3 feet of the wells will be removed during site development and backfilled with engineered fill.

Well Replacement Activities

Replacement of groundwater monitoring wells and soil vapor monitoring points will occur after the site grading (for wells beneath the structure) or after construction has been substantially completed (for wells outside the structure. The replacement groundwater monitoring wells will be used to collect groundwater elevation data and groundwater samples to provide lateral definition of the dissolved hydrocarbon plume and will include at least one well to monitor groundwater conditions in the plume core. Replacement vapor monitoring points will be located to provide soil vapor data in the plume core and adjacent to the proposed building overlying the former UST-hold. It is anticipated that up to four (4) groundwater monitoring wells and up to up to four (4) soil vapor monitoring points will be installed.

As discussed in the meeting between ACEH, AEI and the site owners today, the locations of the new wells will be provided in an addendum to this Work Plan after the completion of the focused excavation of the former UST-hold is complete.

In addition to notifying USAN, a private utility locating service will be retained to clear the planned drilling locations.

Groundwater Monitoring Well Drilling and Well Construction: The drilling and well installation will be performed with a hollow stem auger or combination direct push / hollow stem auger drilling rig. Borings will be cored to log soil conditions and collect soil samples for possible laboratory analysis. Soil encountered in the borings will be logged by an AEI geologist in general accordance with ASTM D 2488 (Visual-Manual Procedure). Soil samples will be collected at intervals that display indications of impact and at changes in soil type. A PID will be used to screen soil samples in the field, and PID readings for each sample will be included on boring logs. Selected samples will be sealed with Teflon tape and plastic end caps, and labeled immediately upon collection. Samples will then be logged onto the Chain of Custody and placed in a cooler with water ice. All samples will be delivered to a state certified laboratory under Chain of Custody documentation.

The 2" diameter wells will be installed within borings drilled with 8½ inch diameter hollow stem augers. The boreholes will be advanced to approximately 20 feet bgs, however the exact depth will be determined based on field observations. The wells will be constructed with 2 inch

diameter well casing, with approximately 10 feet of factory slotted 0.010-inch well screen. Depths and well screen lengths may be adjusted based on field conditions but screen intervals are planned to be above anticipated high water level.

The well casings will be installed through the augers. The casing will be composed of flush threaded PVC fitted with a threaded bottom cap. An annular sand pack (consisting of clean #2/12 Monterey Sand) will be installed through the augers to approximately 1.0 feet above the screened interval. During placement of the sand pack, the augers will be lifted from the borehole in 1-foot lifts. A minimum bentonite seal of 2 feet will be placed above the sand and hydrated. The remainder of the well will be sealed with cement grout annular seal. Each will be equipped with a locking, expandable inner cap and finished with a flush mount traffic rated well box. The wells will be developed no sooner than 3 days after setting the well seals by surging, bailing, and purging to stabilize the formation and remove accumulated fines from the casing and sand pack.

Each newly installed well will be surveyed relative to each other, the existing wells, and site features, and to mean sea level by a California licensed land surveyor, and the data will be uploaded to the state GeoTracker database as required. DWR well registration forms (DWR Form 188) will be completed for each of the wells upon installation.

<u>Soil Sample Analyses:</u> Select soil samples will be analyzed for total petroleum hydrocarbons as motor oil (TPHmo) and TPH as diesel (TPHd) by EPA method 8015 Modified with silica gel cleanup, TPH as gasoline (TPHg) by EPA method 8015 Modified, and BTEX/MTBE by EPA method 8021B. It is anticipated that a minimum of one soil sample will be analyzed from each boring.

Soil Vapor Monitoring Point Installations: Soil borings for soil vapor monitoring points will be advanced with an electric rotary hammer drill equipped with 1.25-inch steel probe rods and constructed using the open-borehole method. To begin, a 4-inch diameter hole will be cored through the asphalt or concrete surface. Next, steel probe rods with a sacrificial solid drive point will be driven to a depth of approximately 6 feet bgs. Upon reaching the target depth, the probe rods will be removed and the open borehole checked for collapse. The soil vapor probes will be constructed inside the open borehole and using a 6-inch long stainless steel screen implant with 0.0057-inch pore diameter, threaded onto an expendable 1.5-inch anchor point, a precut section of 0.25-inch outside diameter kynar tubing, and a 0.25-inch Swagelok® plug valve. A layer of clean #30 mesh Monterey sand will be poured into the bottom of the boring to a depth of 5.6 feet bgs and the pre-assembled soil gas probe lowered into the borehole to the top of the sand layer. A sand pack, consisting of #30 mesh Monterey sand, will be placed around the soil gas probe to approximately 4 to 6-inches above the top of the screen (approximately 5.1 feet bgs). Hydrated granular bentonite will be placed and hydrated in 0.5 foot lifts to approximately 2 feet above the sand filter pack (approximately 2.7-feet bgs). The remainder of the borehole will be filled with neat cement grout. A 0.25-inch Swagelok® plug valve will be installed on the top of each soil gas probe to prevent the infiltration of water and/or ambient air, diffusion and advection of hydrocarbon vapor from the vadose zone, and to facilitate vacuum measurements and/or soil gas sampling. The wellheads will be completed flush to grade with 4-inch diameter nylon traffic-rated well boxes.

Equipment Decontamination and Waste Handling: Sampling equipment, including sampling barrels, augers, and other direct-contact equipment used to sample, will be decontaminated between samples using a triple rinse system containing Alconox™ or similar detergent. Drill cuttings, rinse water, and other investigation-derived waste (IDW) will be stored onsite in sealed 55-gallon drums, pending the results of sample analyses and proper disposal. Purge water, rinseate, and soil cuttings will be profiled for disposal at a licensed facility and transported under appropriate documentation.

Protection of Remaining Wells

Seven DPE wells (DPE-1, DPE-2, DPE-4, DPE-5, DPE-8, DPE-10 and DPE-11) will remain in-place beneath the proposed building. These wells will eventually be plumbed to a common manifold located adjacent of the building so that future remediation can be performed, if needed. One additional DPE well (DPE-6) will remain outside of the proposed building and will be used as a groundwater monitoring well and for remediation, if needed.

During construction, all of the wells will be protected to minimize the possibility of being damaged during site grading and construction. Since the building plan requires that the upper 2-feet of soil at the site be graded and re-compacted for the new structures, the wells casings will be cut down to approximately 3-feet below grade, capped and buried in pea-gravel.

Upon completion of site grading and compaction, survey data will be used to locate the wells and the well-heads will be reconstructed. The DPE wells beneath the building will be plumbed to a common manifold located adjacent of the building as discussed above. Well DPE-6 will be reconstructed within a traffic-rated street box.

Report Limitations

This report has been prepared by AEI Consultants relating to the property located at 1630 Park Street, in the City of Alameda, Alameda County, California. This report includes a summary of site conditions and relies heavily on information obtained from public records and other resources; AEI makes no warrantee that the information summarized in this report includes consideration of all possible resources or information available for the site, whether referenced on not. Material samples have been collected and analyzed, and where appropriate conclusions drawn and recommendations made based on these analyses and other observations. This report may not reflect subsurface variations that may exist between sampling points. These variations cannot be fully anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. This document contains estimates of costs for various activities that could be implemented at the site. These estimates are based on reasonably expected costs for

AEI Project No. 298931 July 25, 2012 Page 5 of 5

similar activities; however, AEI provides no guarantee implicit or explicit that costs will not be significantly higher or lower than those estimated. All specified work has been performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology and performed under the direction of appropriate California registered professionals.

AEI and FSI appreciate your assistance with this project. If you have any questions or if you would like additional information regarding the upcoming tasks, please contact us (925) 746-6000.

Sincerely,

AEI Consultants

Robert Robitaille Sr. Project Manager Peter J. McIntyre, PG, REA

Sr. Vice President, Geologist

Attachments:

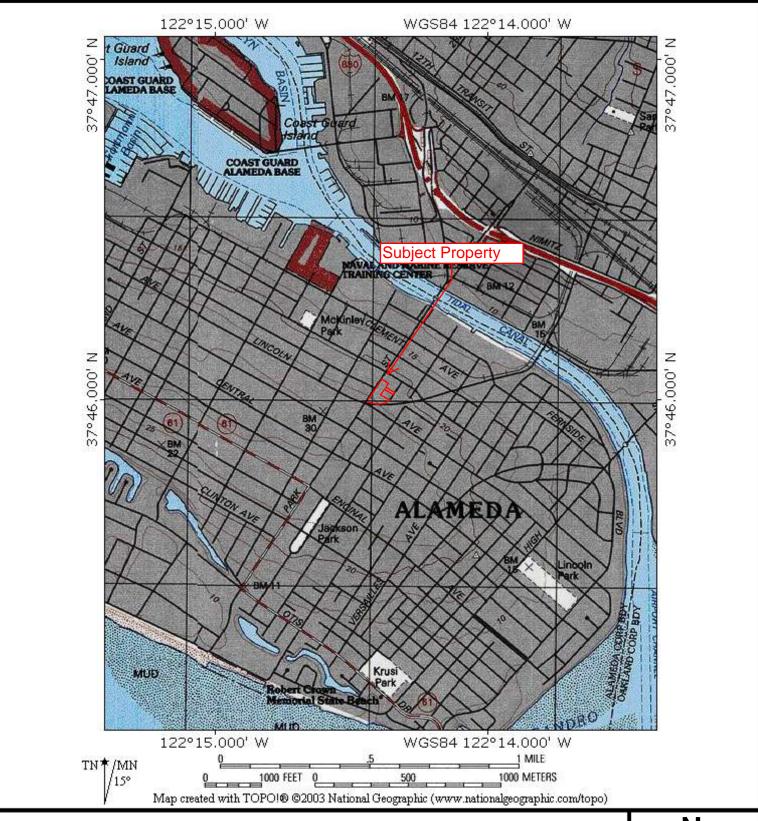
Figure 1 – Site Location map

Figure 2 - Site Plan

Table 1 – Well Construction Details and Rationale for Abandonment

Distribution:

John Buestad, Foley Street Investments Karel Detterman, Alameda County Environmental Health Department (FTP Upload) GeoTracker (Upload)



SITE LOCATION MAP

1600-1650 Park Street Alameda, California 94501



FIGURE 1

Project Number: 298931



Source: USGS

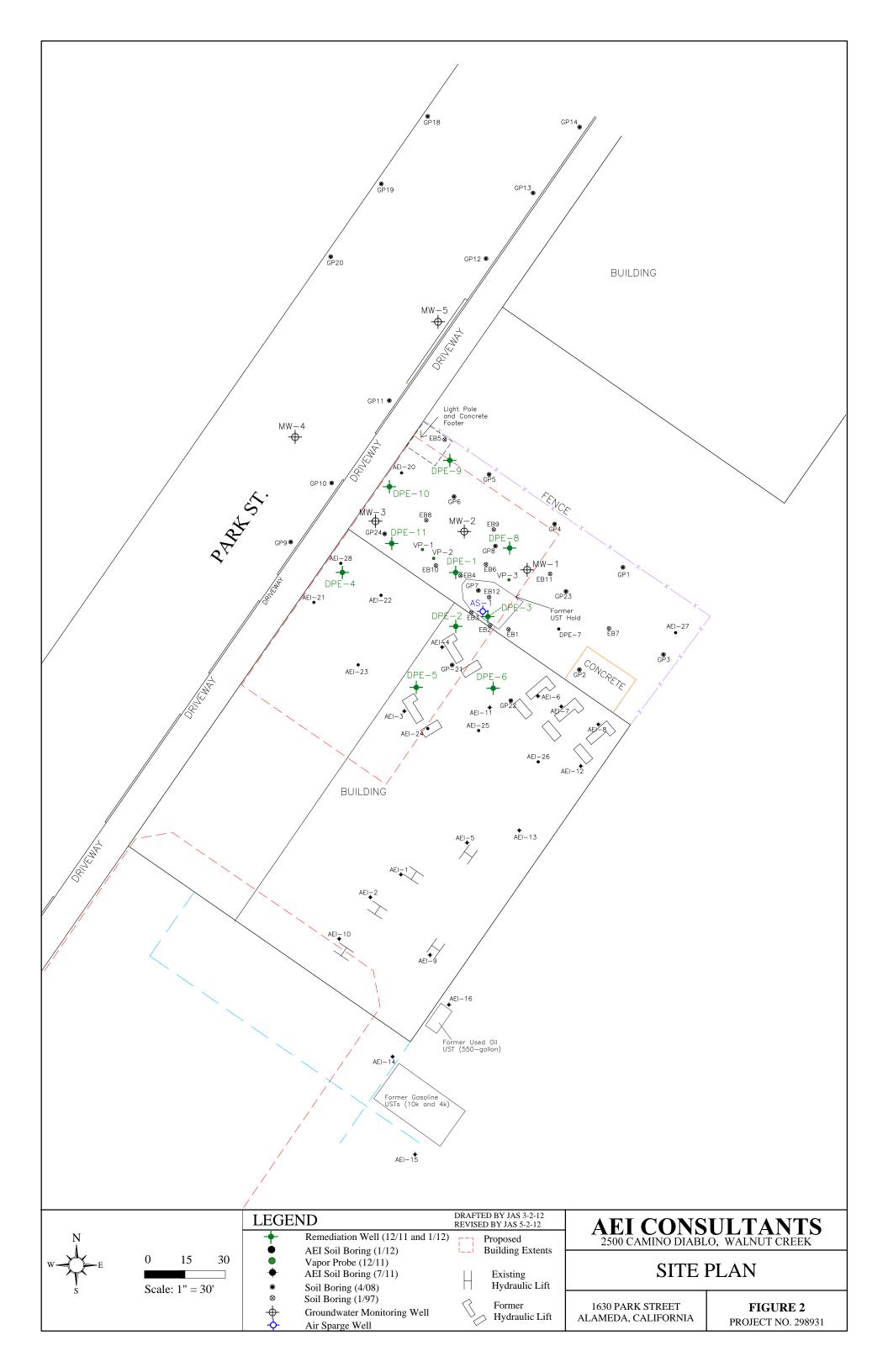


TABLE 1
WELL CONSTRUCTION DETAILS AND RATIONALE FOR ABANDONMENT

Former Good Chevrolet 1630 Park Street, Alameda, California

Well ID	Installation Date	Elevation TOC (feet)	Casing Material	Boring Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material	Rationale
MW-1	1/15/1987	25.37	PVC	-	20	8	2	5 - 20	-	-	-	Beneath proposed structure.
MW-2	1/15/1987	25.48	PVC	-	20	8	2	5 - 20	-	-	-	Beneath proposed structure.
MW-3	1/15/1987	25.13	PVC	-	20	8	2	5 - 20	-	-	-	Beneath proposed structure.
AS-1	11/14/2011	-	PVC	25	25	8	2	20 - 25	0.02	20 - 25	#3 Sand	To be excavated with former UST spoils.
DPE-3	11/14/2011	25.27	PVC	16	14	10	4	7 - 14	0.01	6.5 - 16	#2/12 Sand	To be excavated with former UST spoils.
DPE-9	1/20/2012	25.09	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand	Immediately adjacent (<2-ft) to proposed structure.
VP-1	12/6/2011	-	SS	6	6	1.25	1/4	5.1 - 5.6	Mesh	4.7 - 6	#30 Sand	Beneath proposed structure.
VP-2	12/6/2011	-	SS	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#30 Sand	Beneath proposed structure.
VP-3	12/6/2011	-	SS	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#30 Sand	Beneath proposed structure.

Notes:

 ${\sf PVC} = {\sf Polyvinylchloride}$

SS = Stainless steel

- = Information not available