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

Encinal 14th Street, LLC,
a California limited liability company

By: Encinal, Inc., a California corporation
Its Manager

By: _____
Mark D. Hall, President

March 28, 2008

SITE CHARATERIZATION REPORT
FORMER CARNATION FACILITY

807 75th Avenue
Oakland, California

AEI Project No. 277205
ACEH Case No. RO00018

Prepared For

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1.0 INTRODUCTION

AEI Consultants (AEI) has been retained by Encinal 14th Street, LLC represented by Mark Hall, Hall Equities Walnut Creek, California to provide environmental engineering and consulting services related to ongoing environmental concerns at the former Carnation Dairy Facility located at 1310 14th Street, Oakland, California (Figure 1). The ongoing investigation and mitigation of the release is being performed under the direction of the Alameda County Environmental Health Department (ACEH) Local Oversight Program (LOP).

AEI has prepared this Site Characterization Report at the request of the ACEH to support the request by Encinal 14th Street, LLC, Alameda County, California (Figure 1) for no further action related to the site outside of the Nestle deed restricted northwest quadrant of the site.

2.0 SITE DESCRIPTION & HISTORY

The approximately 6-acre site is located at 1310 Fourteenth Street in a mixed commercial and residential area. It is bounded to the north by Sixteenth Street and commercial properties, to the east by Poplar Street and commercial properties, to the west by Mandela Parkway and residences, and to the south Fourteenth Street and commercial properties. The site is currently owned by Encinal 14th Street, LLC. The dairy facility was originally owned by American Creamery and was constructed in 1915. Carnation purchased the facility in 1929. Several additions and improvements to the buildings were made between 1946 and 1973 to meet operation requirements. The Nestlé USA, Inc most recently owned the site after its acquisition of Carnation.

The subject site covers and area of four (4) city blocks and is divided into three subpart parts, for the purposes of this report, as shown on Figure 2 and described below:

- The east half which is located between vacated Kirkham Street and Poplar Street.
- The northwest quadrant, which located west of vacated Kirkham Street and north of vacated 15th Street. This is the deed restricted are of the site where Nestlé is responsible for remediation.
- Southwest quadrant, west of former Kirkham Street and south of former 15th Street

The following description of the site is based on section *2.3 Site Visit* of the draft Phase *I Environmental Site Assessment and Soil and groundwater Soil, Soil vapor, and Groundwater Quality Evaluation* performed by Lowney Associates (Lowney) in 2004 (Lowney, 2004). The full document is available on the ACEH online database as file PHASE1_R_2004-03-17

At the time of the Lowney site visit in 2004; the subject property was developed with commercial structures formerly utilized by Carnation Dairy for the storage and processing of milk and ice cream. The site was vacant at the time of our site visit. Exterior areas of the site were primarily paved with concrete or asphalt.

A large L-shaped building was present on the on the northwest quadrant of the property which appeared to have been formerly used mainly as a warehouse and truck/auto repair. Fluorescent light fixtures were observed in this building. A former paint booth, former office spaces, and a former vehicle wash rack were located in this building (Figure 2). A hydraulic lift and Fleet-brand wash system were visible in the eastern portions of the building. Also, signs for lube oil and motor oil storage were painted on a wall at the eastern rooms. Former monitoring wells or borings (visibly capped) and sumps were located at several locations throughout the building. A former refrigeration unit, additional former wells or boring locations were visible to the south of the building. Lowney also described several tanks and numerous drums that have since been removed and disposed. This northwest quadrant of the site makes up the deed-restricted portion of the site and remediation of this quadrant is the responsibility of Nestlé (Figure 2).

The building on the northeast portion of the site appeared to have formerly been in use as a cold storage area. Loading docks and four hydraulic lifts were located adjacent to the northern, western, and southern sides of the building (exterior). An above ground hydraulic oil tank for a lift was located on the exterior, south side of the building on the end of a loading dock. Also, two small excavations and two small stockpiles of soil (likely from the excavations), were located on the north side of the building.

The building located just south of the cold storage building contained a former maintenance shop, former boiler room, and former compressor rooms. At the western compressor room, signs on a wall reported the former storage of hazardous materials, including vistac oil, turbine oil, cylinder oil, and multi-machine oil. An electrical control panel, labeled as formerly used for pumps, fans, compressors, and agitators, was located in a small room between the compressor rooms. In the eastern compressor room, an above ground storage tank (AST) marked ammonia was observed. In addition, a larger electrical control panel and a fume hood were located at the former maintenance shop within the building. Control panels observed at the maintenance shop were mainly labeled as slab heating, condensers, pumps, sump pumps, truck levels, conveyor belts, and hydraulic lifts. A second floor landing above the maintenance shop appeared to have formerly been used as offices and a storage area for various parts such as pipes and pipe fittings. In addition, several ASTs were observed on the roof of the building. Pipes leading to the ASTs were marked as chocolate, sugar, etc. In addition, a fenced area with a concrete pad that appeared to be a former transformer substation was located adjacent to the building's northeast comer. An additional AST was located adjacent to the northwest corner of the compressor rooms.

Two USTs that had been previously abandoned in place were located in front of the Boiler building. The older of the tanks was an 11,304-gallon capacity tank completely encased in concrete, the newer tank is a 12,000-gallon capacity, double tar coated tank. (AGE 1989). These USTs are reported to have been abandoned in 1989.

The building located on the southeast corner of the site was primarily comprised of cold storage rooms at the ground level with office spaces on upper floors. A conveyor belt system, electrical

control panels, and fluorescent light fixtures were observed in the interior areas of the building. Second and third floors of the building were primarily office and storage spaces. Signs on a small, metal storage shed located to the west of the building reported the former storage of acid, soap, and chlorine.

The Lowney report describes a former milk unloading station located east of the cold storage and office building the former milk unloading station and one former AST was located on the southeast end of the milk unloading station. The former content of the AST was unknown but was assumed to be milk. Lowney's site map (Attached as Figure 2) shows the milk transfer station is west of the buildings. The milk unloading station is shown north of a gate to 14th Street, which is shown on, and aerial photograph included as Appendix E.

The Lowney site visit summary does not reference the southwest quadrant of the site; however their summary of historical photographs included below, indicates that all historical buildings had been removed. The aerial photo referenced above shows the southwest quadrant of the site to be paved and vacant.

Site History

As part of the Lowney 2004 Phase I, historical aerial photographs from 1930 through 2002 were examined as well as Historic Sanborn fire Insurance maps dated from 1902, through 1970 were examined. The results of this examination were reported as follows:

Subject Site

1902: On the 1902 Sanborn Map, Fifteenth Street was visible on the western portion of the site, aligned east to west. In addition, Kirkham Street aligned north to south, was visible along the center of the site. Approximately fifty-five residences and approximately eight associated garages reportedly occupied the site and storage sheds.

1912 and 1930: On the 1912 Sanborn Map, a retail store was reported on the northwest portion of the site (the area bounded by Sixteenth Street to the north, Fifteenth Street to the South, Kirkham Street to the east, and Center Street to the west). Also, an additional residential building was visible on the southwest portion of the site (the area bounded by Fifteenth Street to the north, Fourteenth Street to the south, Kirkham Street to the east, and Center Street to the west). A retail store, office building, and pharmacy were reported on the eastern half of the site (the area bounded by Sixteenth Street to the north, Fourteenth Street to the south, Poplar Street to the east, and Kirkham Street to the west). A 100-gallon gasoline UST was reportedly located on the eastern portion of the site. The approximate location of the former UST is shown on Figure 2. A copy of the Sanborn map is attached as Appendix A. The site on the 1930 aerial photographs appeared similar to the site on the 1912 Sanborn Map.

1949, 1951, 1952, and 1953: By the 1949 aerial photographs, the site had been redeveloped and primarily in use for commercial purposes. Four apparent commercial structures were visible on' the northwest portion of the site; three residences visible on the 1930 aerial photographs remained. The site's southwestern corner appeared to have been redeveloped with five commercial buildings; seven residences remained from the 1930 aerial photographs. The northeast portion of the site was in use as a parking area. The parking area appeared unpaved. On the southeast portion of the site, one large commercial structure with a truck dock, three ASTs, and an apparent fuel pump were Visible. The approximate location of the fuel pump is shown on Figure 2. Large trucks and vehicles were visible on several areas of the site. The site on the 1951 Sanborn Map appeared similar to the site on the 1949 aerial photographs. The 1951 Sanborn Map reported the commercial properties on the northwest portion of the site as a gas and oil station, truck repair shop, retail stores, and a bocce ball alley. A retail store and an oil and gas station were located on the southwest corner of the block; the gas and oil station appeared to have been off-site in the area that was later developed for Interstate 880 (Cypress Freeway), currently Mandela Parkway. Additional commercial buildings on the southwest portion of the site were reportedly owned by the Carnation Company and in use for storage, painting, and auto repair. The eastern portion of the site was also reported as owned by the Carnation Creamery Company. Two large commercial buildings near the site's southeast corner were primarily in use for offices, loading and unloading areas, and storage spaces. A boiler room and engine room were shown at the most northeastern building. The fuel pump observed on the 1949 aerial photographs was reported as a gas and oil pump and was shown to the north of the building. The northeast portion of the site was reported as an auto parking area. A steel incinerator was also reported in this area. The site on the 1952 Sanborn map and 1953 aerial photographs appeared similar to the site on the 1951 Sanborn map.

1957 and 1958: By the 1957 Sanborn Map, the previous commercial structures and all but one residence had been demolished on the northwest portion of the site. A large L-shaped commercial building reportedly in use as a warehouse, auto repair, sign painting booth, grease area, body shop, tire shop, and wash rack was visible in this area. On the southwest portion of the site, two residences, the oil and gas station (off-site), and the Carnation creamery buildings were no longer visible. The incinerator was no longer visible on the eastern portion of the site. The site on the 1958 Sanborn Map appeared similar to the site on the 1957 Sanborn Map.

1993, 1998, and 2002: By the 1993 aerial photographs, the site appeared vacant. Vehicles and trucks were not visible on-site. The site on the 1998 and 2002 aerial photographs appeared similar to the site on the 1993 aerial photographs.

Site Vicinity

1902: Based on the 1902 Sanborn Map, the site vicinity appeared developed with primarily residential structures except for a large laundry facility located to the south/southwest of the site.

1912: On the 1912 Sanborn Map, DeFremery Park was visible to the northeast of the site. Areas to the south of the site were not visible on the 1912 Sanborn Map. Also, a railroad right-of-way was visible along Poplar Street by 1912.

1930 and 1949: Some commercial development, primarily warehouses, was visible in the site vicinity by the 1930 and 1949 aerial photographs.

1951 through 2002: By the 1951 Sanborn Map, the vicinity appeared as mixed residential and commercial. Also, the Eastshore Freeway was visible to the west of the site by the 1957 Sanborn Map. The Eastshore Freeway was no longer visible by the 1993 aerial photographs. The vicinity on the 1998 and 2002 aerial photographs appeared similar to the vicinity on the 1993 aerial photographs.

Current Site Conditions

The northwest quadrant of the site remains essentially the same as described above. The tanks and drums that Lowney described have since been removed and disposed.

The southwest quadrant of the site is currently being used to store a portion of the crushed concrete from the demolition of buildings on the east half of the site pending removal by the demolition contractor.

The brick cold storage builds remains on the north east corner of the site. The covered loading dock south of the building has been removed and the enclosed refrigerated loading dock on the west side of the building has had the roof and walls removed, leaving an open loading dock attached to the building. The hydraulic lifts/ramps have been removed and disposed of by the demolition contractor when the buildings to the south were demolished.

All the buildings on the east half of the site were demolished in late 2007 under permit from the City of Oakland. Demolition included removal of all slabs, sub slabs, insulation material between the surface slab and sub slabs, sub slab vaults/basements and footings. All equipment and materials inside or attached to the buildings was removed and disposed by the demolition contractor. During demolition of the building, two USTs and a 10" water production well were discovered beneath the building on the southeast quadrant of the site. The removal and disposal of these tanks is discussed below.

3.0 GEOLOGY AND HYDROGEOLOGY

Based on U.S. Geological Survey (USGS) topographic maps, the site's elevation is approximately 10 feet above mean sea level. Topography in the area of the site slopes gently to the northwest toward the San Francisco Bay. At present surface drainage in the eastern half and southwest quadrant of the site is toward the center of the site. Based on historic subsurface investigation conducted on the this portion and the northwest quadrant of the site, the top of the shallow water-bearing zone is has been present at depths ranging from 5 to 12 feet bgs. Ground water beneath the site has generally been reported as flowing to the northwest. However, variations from this general trend have been reported in 16th street and the northern edge of the northwest quadrant of the site.

The surface lithology at the subject site is mapped as Merritt Sand (R.W Graymer 2000). The sediments encountered by this and previous investigations silty sand and sandy silt to a depth of at least 47' bgs (total depth of well MW-1). The total thickness of this sand beneath the facility is not known. AEI's investigations indicate that the Merritt Sand underlying the site contains significant amounts diagenetic clay between the sand grains. The presence of the clay results in low transmissivity sand. The sand is moderately soft and compacts easily under surface loading.

4.0 PREVIOUS INVESTIGATIONS

4.1 Boiler Fuel Tank Characterization (East Half)

ACEH records contain the *Site Characterization Work Plan of the Boiler Fuel Tanks at the Carnation Dairy Facility*, dated March 27, 1989 by Anania Geological Engineering (AGE) summarizes a scope of work to determine if releases from the two underground storage tanks which had been used to store #5 low sulfur fuel oil had impacted the soil and groundwater. The two USTs were located adjacent to the boiler room. One tank was reported to have been placed in service in 1946 and the other was placed in service in 1977. The older tank, which had a capacity of 11,406 gallons, was encased in concrete. The newer tank, which had a 12,000-gallon capacity, was a double tar coated tank.

The scope of work included installation and sampling of four groundwater monitoring wells, MW-17, through MW-20. No report of the well installation is found in the ACEH database; however the *Request for Abandonment Permit for Two Boiler Fuel Tanks Carnation Dairy Facility*, dated September 14, 1989 (File WP_R_1989-09-14) has soil analytical reports and a groundwater analysis report (MW-18) attached. The request indicates that approval for abandonment in place had been received from Oakland Fire Department (Jerry Buford) and four monitoring wells had been installed adjacent to the USTs. The results of analysis for TPH-g, TPH-d and TOG are reported at below detection limits for both soil and groundwater. Analysis for VOCs reported acetone in one soil sample at a concentration of 240 µg/kg which Lowney labeled as a suspected lab contaminant. Total lead was reported at a concentration of 670 mg/kg

at depth of 10 feet bgs in one boring. The request indicated that this was likely due to boring being open for several days while a stuck auger was recovered.

The results of soil and groundwater analyses on samples from wells MW-17 through MW-20 are included in online database files ANALYT_R_1989-05-15, ANALYT_R_1989-05-23, and ANALYT_R_1989-06-0, and ANALYT_R_1989-06-09.

File ANALYT_R_1989-06-09 includes *Unauthorized Release Report for PCB Contamination at the Carnation Dairy Facility*; dated September 12, 1989, contains a two-page unauthorized release report for PCBs reported in groundwater analyses from well PR-12. Well PR-12 was located in the northwest quadrant of the site, part of the Nestlé deed restriction area, out side of the are covered by this report, however attached to the two page report are 25 pages of figures, soil borings and analytical reports referencing wells MW-17 through MW-20. The figure showing the well locations is dated July 11, 1989 and the boring logs indicating the wells were drilled and installed between May 11, 1989 and May 18, 1989 (Appendix B). These pages appear to be part of a report summarizing the well installation, however a copy of the report from which this data came from has not been found.

The analytical report documents the analysis groundwater samples collected on September 6, 1998. TPH-g, TPH-d and TPH-mo were reported as non-detectable in all four wells at reporting limits of 0.5 µg/L, 0.5 µg/L, and 50 µg/L, respectively. BTEX was reported as non-detectable in all wells at a reporting limit of 0.3 µg/L. PCB was reported as non-detectable in all wells at a reporting limit of 0.5 µg/L.

These reports and boring logs indicate that sour milk odor was observed in the boring for well MW-19 at depths between 4 to 8 feet bgs, but no significant concentrations gasoline, diesel, oil or grease (Method 503D) were present in the soil. Low concentrations of total hydrocarbons (Method 503E) are reported that indicate the presence of non petroleum hydrocarbons, probably dairy fat. Analysis for PCBs reported no detectable concentrations of PCBs in the soil or groundwater.

A letter dated May 10, 1990 from AGE references the destruction of wells MW-17, through MW-21 and PR-1 through PR-1, PR-8, PR-82 through PR-84, and ten additional PR wells located in the deed restricted NW quadrant of the site

4.2 AGE Preliminary Site Assessment (Includes SW Quadrant)

The report, Preliminary Site Characterization for Carnation Dairy Facility, (PSA) dated April 3, 1989 (ACEH online database file PSA_R_1989-04-03) summarizes an investigation, which consisted of the installation of 16 wells in on the western half of the subject site. Three of these wells, MW-1, MW- and MW-10 were installed in the southwest quadrant of the site, and two wells; MW-4 and MW-11 were located in the vacated 15th Street. Wells MW-1, MW-4, MW-9, MW-10, and MW-11 were 4-inch diameter wells installed to depths of 47 feet, 44 feet, 25 feet, 25 feet, and 25 feet, respectively. The report indicates that in addition to the 16 monitoring wells

installed as part of the PSA, two recovery wells (RW) and forty "recovery probes" (PR) were installed. Five of these probes, PR-1 through PR-5 are shown as located in the southwest quadrant of the site. The locations of these wells are shown on Figure 3. No other information regarding the PR wells except their location is shown on the included survey plat.

No TPH-d or BTEX was reported in analyses of soil sample from Wells MW-1, MW-9 and MW-10. No analyses for TPH-g were done as part of the initial sampling. Analysis of groundwater samples from the three wells reported no TPH-g, TPH-d, oil and grease, or BTEX in any of the samples.

4.3 AGE Summary Report April through July 1989

The report, Summary Report for the Period of April through July 1989 Carnation Dairy Facility, dated October 9, 1989 summarizes activities at the site between April and July 1989. In addition to summarizing activities ongoing in the northwest quadrant of the site, the report included a site plan (Figure 4) that shows the locations of wells in the southwest quadrant of the site, boring logs for product recover probes PR-1 through PR-81 and "revised boring logs for wells MW-1 through MW-16. The report also indicates that boring logs for well MW-17 through MW-20 will be included in the closure plan for the two on site boiler fuel tanks. This report does not appear to be available but the logs and associated analytical data are found attached to an unauthorized release report as indicated in Section 4.1 above. The report also indicates that the logs for well MW-21 and PR-82 through 84, which are located in the southwest quadrant of the site, will be presented in the Aquifer Test Report which does not appear to be in the online data base.

The results of groundwater analyses from April 27, 2989 report no detectable concentrations of hydrocarbons or BTEX in wells MW-1, MW-4, MW-9, MW-10, or MW-11 that were located in the southwest quadrant of the site. Groundwater gradient was reported as toward the north-northwest.

4.4 AGE Groundwater Monitoring

The report, Second Quarterly Monitoring Report, Carnation Oakland Dairies, (File GWM_R_1989-11-02) dated November 2, 1989 summarizes the August 29, 1989 groundwater monitoring event. The report includes depth to water in wells MW-1 through MW-20 however no analyses for wells MW-17 through MW-20 were reported. Figure 1 attached to the report shows well MW-21 located near MW-1, as well as recovery points PR-82 and PR-84 in the southwest quadrant of the site. No detectable concentrations of hydrocarbons were reported in wells MW-1, MW-4, MW-9, MW-10, MW-11 or MW-21 that are located in the southwest quadrant of the site. Groundwater gradient was reported as toward the north-northwest.

4.5 Southwest Quadrant Well Destruction

A letter dated march 1990 from AGE to the ACEH requested permission to abandon wells PR-1 through PR-6, PR-82 through PR-84 and monitoring well MW-21. No report was found in the ACEH online database that summarizes the abandonment of these wells, although subsequent reports indicate they have been abandoned.

4.6 HLA Monitoring Reports

The report, Quarterly Monitoring Report June through August 1991, Carnation Facility, (File GWM_R_1991-09-18) dated September 18, 1991 by Harding Lawson Associates (HLA) summarizes onsite activities between June and August 1991. The monitoring event included sampling wells MW-1, MW-MW-4, MW-9, MW-10, and MW-11. Figure 1 attached to the report shows well MW-21 located near MW-1, as having been abandoned. No detectable concentrations of hydrocarbons or BTEX were reported in wells MW-1, MW-MW-4, MW-9, MW-10, or MW-11. Groundwater gradients in the southwest quadrant were reported toward the northwest.

4.7 Lowney Investigation

In 2004 Lowney and Associates (Lowney) performed a *Phase I Environmental Site Assessment and Soil, Soil, Vapor, and Groundwater Quality Evaluation* for DeNova Homes. The results of the subsurface investigation are summarized below.

Soil Borings

In February 2004 Lowney and Associates performed a subsurface exploration program and logged twenty-seven borings (EB-l through EB-27) to approximate depths of 4 to 17 feet (Figure 2). No appendices containing boring logs or analytical reports are included with the draft Lowney report contained in the ACEH online database.

The text of the Lowney Report indicates that soil samples were collected from the borings at 5-foot depth intervals, significant changes in lithology, or other significant field observations. The soil samples were monitored for volatile hydrocarbons using an organic vapor meter (OVM). The OVM generally detected organic vapors consistent with ambient background concentrations, with the exception of EB-1 where concentrations of up to 494 ppm were detected at an approximate depth of 1.5 bgs. No boring logs were attached to the draft report.

Five borings were drilled to an approximate depth of 5 feet for collection of soil vapor samples (EB-l, EB-3, EB-6, EB-7, and EB-8) at selected locations near the documented former fuel release on the northwestern portion of the site. All but one of these samples (EB-1) was located within the Nestlé deed restricted area of the site, which is not included in the scope of this report. Soil vapor boring EB-1 was located in the western portion of the northern quadrant of the site (Figure 2) near the east boundary of the deed-restricted area.

Eleven borings were drilled to depths of approximately 15 feet to 17 feet for collection of soil and ground water samples. One boring was located in the area of an auto repair facility formerly at the southwestern portion of the property (EB-5), one boring was located at the approximate area of a former gasoline service station at the southwest corner of the site (EB-9), one boring was located in the approximate area of a former UST (Sanborn 1912) near central portions of the site (EB-11), four borings were located in areas near the c1osed-in-place fuel oil tanks (EB-14, EB-24, EB-26, and EB-27), two borings were located in the area of the former gasoline pump (EB-15 and EB-25), one boring was located in the boiler room (EB-21), and one boring was located in the maintenance shop at the eastern portion of the property (EB-22).

Two borings were drilled to an approximate depth of 15 feet for the collection of ground water samples only. One of borings was located on the northeastern portion of the site (EB-2) and the other between the sumps in the building at the northwestern portion of the site (EB-4).

Nine borings were drilled to a depth of approximately 4 feet for collection of shallow soil samples. Two borings were located in the central portions of the site (EB-l0 and EB-13), one boring was located near the chemical storage shed at the southern portion of the site (EB-12), and one boring was located in the approximate location of the former incinerator at the site (EB-16). In addition, five borings were located in the fill below selected building floors (EB-17 through EB-20 and EB-23).

Subsurface Materials

Soils encountered during the Lowney investigation are described as primarily silty and clayey sands, with the exception of poorly-graded sands encountered at boring locations EB-2 and EB-11, at approximate depths of 11 to 12 feet bgs. Fill, primarily dark brown silty sand, was encountered from beneath the paved surfaces (asphalt, and/or concrete and underlying base rock) to approximate depths of 4 feet bgs, except in EB-14 which encountered burnt trace wood debris to a depth of up to 15 feet bgs. Boring EB-14 appears to have been located in the backfilled excavation. Trace brick and/or burnt wood debris were encountered within the fill at boring locations EB-s, EB-12, EB-14, EB-18, EB-21, EB-25, and EB-26. Additionally, a 6-inch thick layer of black, insulating material was encountered between concrete layers at boring location EB-20. A sample of this material was collected and analyzed (EB-20, Sub slab; see below).

Analytical Results

TPH-g and BTEX were reported in vapor sample EB-1 at concentrations of 530 µg/m^3, 2.8 µg/m^3, 4.6 µg/m^3, 4.2 µg/m^3, and 4.2 µg/m^3, respectively. VOCs 1,2,3-trimethylbenzene, ethanol, 1,3-butadiene, and acetone were reported at concentrations of 5.1 µg/m^3, 11 µg/m^3, 3.2 µg/m^3, and 66 µg/m^3, respectively. The results of vapor analyses for the other vapor samples can be found in Table 1.

Laboratory analyses of soil samples collected from EB-5, EB-9, EB-11, EB-14, EB-15, and EB-24 through EB-27 (drilled at the approximate areas of the former auto shop, gasoline service station, former USTs, and former fuel pump locations) did not detect BTEX or MTBE above laboratory reporting limits except for ethylbenzene reported at a concentration of 0.56 mg/kg in SB-15. TPH-g, TPH-d and TPH-mo were detected at EB-14 and EB-15 (near the abandoned-in-place USTs near the boiler room) at concentrations of up to 610 mg/kg of TPH-g (EB-15), 3,700 mg/kg of TPH-d (EB-14), and 21,000 mg/kg of TPH-mo (EB-14). The results of soil analyses for TPH and BTEX can be found in Table 2.

Soil samples collected from EB-10, EB-13, and EB-16 were analyzed for organochlorine pesticides and lead. Organochlorine pesticides were not reported above laboratory detection limits. Lead concentrations detected ranged from 1.7 mg/kg to 9.4 mg/kg. One soil sample collected from the former incinerator area (EB 16) was also analyzed for PNAs; which were not reported at or above laboratory detection limits.

Seven soil samples collected beneath the concrete slabs at the interiors of buildings on the east half of the site (borings EB-17 through EB-23) and analyzed for CAM 17 metals and asbestos. Asbestos was not detected above laboratory reporting limits. Metal concentrations detected in the samples were either below laboratory reporting limits or were within the range of naturally occurring background concentrations, with the exception of lead. Lead was detected at 110 mg/kg in a sample from EB-17 and 130 mg/kg in a sample from EB-21.

A sample of foam insulation material was collected between layers of concrete from boring location EB-20 at the southeastern cold storage room. Laboratory analyses for total recoverable petroleum hydrocarbons detected 1,000 mg/kg TPH-d and 11,000 mg/kg TPH-mo. The sample was also analyzed for PNAs, which were not reported above laboratory detection limits.

One soil sample collected from the chemical storage shed (boring location EB-12) was analyzed for CAM 17 metals and acidity. Metal concentrations detected in the samples were either below laboratory reporting limits or were within the range of naturally occurring background concentrations. pH was reported at 8.1 within the normal range for soil.

Ground Water Sample Collection and Analyses

To evaluate ground water quality at the site, ground water grab samples were collected from borings EB-2, EB-4, EB-5, EB-9, EB-11, EB-14, EB-15, EB-21, EB-22, and EB-24 through EB-27. Ground water was encountered at approximate depths of 5 to 8 ½ feet bgs.

Ground water samples were analyzed for TPH-g, TPH-d, TPH-mo, BTEX and MTBE. Also, nine ground water samples (EB-2, EB-4, EB-5, EB-9, EB-11, EB-14, EB-15, EB-21, EB-22) were additionally analyzed for halogenated VOCS (EPA Test Method 8260). Groundwater analytical results for hydrocarbons and VOCs are presented in Table 3.

Analysis of ground water samples from near the abandoned-in-place USTs (EB-14 and EB-15) reported TPH-g at concentrations of 670 µg/L and 85,000 µg/L. TPH-d was reported at concentrations of 120,000 µg/L and 1,600 µg/L, respectively, and TPH-mo was reported at concentrations of 650,000 µg/L and 770 µg/L, respectively. Chlorinated VOC vinyl chloride was reported in EB-14 at a concentration of 12 µg/L. Vinyl chloride, and 1,2-dlchlorobenzene were reported in EB15 at concentrations of 120 µg/L and 27 µg/L, respectively.

TPH-g and benzene were reported in groundwater from EB-24 (west of abandoned-in-place USTs) at concentrations of 51 µg/L and 0.70 µg/L, respectively. No other hydrocarbon or VOC analytes were reported.

Analysis of ground water samples from EB-2 (northeast corner of the site), EB-5 (near former maintenance building), EB-9 (near former service station adjacent to southwest corner of site), EB-11 (near former gasoline UST shown on 1912 Sanborn map), EB-21 (former boiler room), EB-22 (former maintenance shop), and borings EB-25, EB-26, and EB27 (near the abandoned-in-place USTs) did not report TPH-g, TPH-mo, toluene, ethylbenzene, MTBE, or other VOCs at or above laboratory reporting limits. Low concentrations of TPH-d (77 µg/L or less) were detected in samples EB-2, EB-4, EB-9, EB-11, EB-25, and EB-26. Benzene was reported in boring EB-25 at a concentration of 0.70µg/L and xylenes were reported in EB-22 at a concentration of 1.0 µg/L.

Hydraulic Fluid Tank Sample Collection and Analyses

To evaluate for the presence of PCBs in the hydraulic fluid formerly used for hydraulic lifts at the eastern portion of the property, a sample of the hydraulic fluid was collected from the hydraulic fluid tank. Analysis of the hydraulic fluid reported PCBs as non-detectable at a reporting limit of 50 mg/l.

4.8 AEI Investigations

2005 Investigation

On September 12, 29, and November 18, 2005 14 soil borings were advanced on the site (SB-1 through SB-10 and SB13 through 16). Eight (8) soil borings (SB-2, SB-3, SB-5, and SB-6 through SB-10) were advanced to depths ranging from 15 to 19 feet below ground surface (bgs). The locations of the soil borings are shown on Figures 5 through 7. Soil borings SB-1 and SB-4 encountered refusal on concrete at a depth of 3 feet bgs. Borings SB-11 and 12 were not drilled. No samples were collected from soil boring SB-16 that was drilled through unstable coarse fill under the loading dock.

Soil samples were collected for analysis at a depth of 10 feet bgs, in the top of the transition zone. TPH-g was reported above a reporting limit of 1.0 mg/kg in soil from only two borings (SB-9 and SB-9) at concentrations of 21 mg/kg and 34 mg/kg, respectively. No MTBE or BTEX were reported in any soil samples except SB-10 where ethylbenzene and xylenes were reported at 0.018 mg/kg and 0.11 mg/kg, respectively.

TPH-d and TPH-mo were reported above reporting limits of 1.0 mg/kg and 5.0 mg/kg, respectively, in soil from only two borings. In SB-6, TPH-d and TPH-mo were reported at concentrations of 21 mg/kg and 130 mg/kg, respectively and in SB-9, at concentrations of 34 mg/kg and 40 mg/kg, respectively.

No soil samples were analyzed from boring SB-14 as the boring was a twin to Lowney Boring EB-15, field screening concentrations of up to 375 ppmv were recorded in the reduced greenish gray sand that was encountered at a depth of 1-foot bgs.

These readings are consistent with the reported presence of TPH-g, TPH-d and TPH-mo reported at the same depth in co-located soil boring EB-15. This suggests a local surface release near the location is the source of the high concentrations of hydrocarbons reported in the soil and groundwater from borings SB-14 and EB-15.

Free product was reported in groundwater samples from borings SB-7 and SB-9. Elevated concentrations of TPH-d and TPH-mo were reported in groundwater from borings SB-2 (1,400 µg/L and 500 µg/L, respectively), SB-8 (640 µg/L and 350 µg/L, respectively) and SB-14 (650 µg/L and 440 µg/L, respectively). The distribution of TPH-d and TPH-mo follows two linear trends (Figures 6 and 7), one to the southwest from SB-7 through SB-9 toward SB-14 and a second trend extending from SB-7 to the west along the south edge of the former loading dock toward boring SB-8.

Elevated TPH-g was reported along the same southwest trend (Figure 5) extending from Lowney boring EB-14, located southwest of SB-7 to SB-14 which coincides with the TPH-d and TPH-mo trends.

At first glance the trend that is apparent in hydrocarbon concentrations along the south edge of the loading dock is not consistent with groundwater flow to the northwest. AEI believes that the down gradient migration of middle to heavy range hydrocarbons has been prevented by minor compaction in the sand due to loading by the concrete and crushed rock within the elevated loading dock. This compaction barrier results in the east to west trend of hydrocarbons along the south edge of the loading dock as groundwater moves across the local gradient to pass the permeability barrier. Similar compaction along the north wall of the building on the northwest quadrant of the site may be the reason the free product in the deed restricted portion of the site appears to have stopped short of the property boundary.

Observations during the 2007 removal of the boiler fuel USTs and associated contaminated soil suggest that the southwest trend of hydrocarbons between SB-7 and SB-14 is due to what appeared to be a series of backfilled excavations (Figure 10 – Cross section A-A') which contained poorly compacted soil and rubble. This allowed the oil range hydrocarbons to migrate to the southwest from their source at the loading dock hydraulic lifts and for gasoline range hydrocarbons to follow the reverse pathway.

The presence of high concentrations of diesel and oil range hydrocarbons at the north end of the boiler fuel USTs was initially assumed to be the result of a release from the two previously abandoned USTs. However review of groundwater sampling from monitoring wells MW-17 through MW-20 indicates that no hydrocarbons were present at the time the UST were abandoned in place in 1989. A release of hydraulic oil from the hoists on the south edge of the loading dock at a later date is the logical source for the free product (diesel/oil range) reported in this area. The results of the groundwater analyses are summarized in Table 5: Groundwater Sample Analytical Data and shown on Figures 5, 6 and 7. Complete copies of these reports are available as files PSA_R_2005-01-07 and SWI_R_2006-01-06 on the ACEH online database.

Water entry into the soil borings was generally slow due to the presence of interstitial clay in the sand. Up to 30 to 60 minutes was required to collect a full liter bottle of groundwater analysis.

5.0 CURRENT ACTIVITIES

5.1 Activities Related to USTs Uncovered During Building Demolition

All of the buildings on the east half of the site except the brick former cold storage building in the northeast quadrant of the site have been demolished. During demolition, three previously unidentified USTs were uncovered. Two of the tanks, Tank 1 (T-1) and Tank 2 (T-2) and a water well were uncovered beneath the building in the southeast quadrant of the site (Figure 5). The third tank, Tank 3 (T-3) was uncovered west of the boiler fuel USTs (T-4 and T-5) that had been abandoned in place in 1989.

Tank 1 – 1,500 Gallon Bunker Oil

Tank 1 (T-1) was an approximately 1,300 gallon vertical axis UST that was discovered beneath the building. The top of the tank was under an underground vault and the tank was in large part below the current groundwater level of approximately 12 feet bgs. The top of T-1 contained a heavy black residual fuel or bunker fuel. During demolition of the building T-1 was breached during removal of the overlying slab and an estimated 50 gallons of fuel was released. AEI immediately responded to the site, emptied the tank and removed as much of the released material as was practical prior to the removal of the UST when building demolition had been completed.

T-1 was removed under the supervision of the Oakland Fire department. The side wall samples collected during the removal of T-1 reported normal background levels of metals and no other analytes except for 2.1 mg/kg xylenes in one sample demonstrating that the soil impacted by the release when the T-1 was discovered had been removed to below the most restrictive ESLs. The tank was examined at the time of removal and was determined to be intact with no evidence of leaks except for the damage in the top of the tank, which was incurred at the time the tank was uncovered.

During removal of T-1 a small quantity of hydrocarbons (bunker oil) was observed on the surface of the water in the excavation. The excavation was dewatered until the groundwater appeared clean. Analysis of a groundwater sample collected on November 13, 2007 following the removal of T-1 reported TPH-g, TPH-bo, TPH-d, and POG at concentrations of 130 µg/L, 2,100 µg/L, 1,700 µg/L, and 7,900 µg/L, respectively indicating some bunker fuel was still present on the surface of the water in the excavation. The excavation was de-watered several times then a second groundwater sample was collected on December 12, 2007. The analysis of this sample reported TPH-g, TPH-bo, and TPH-d at concentrations of ND<50 µg/L, ND<50 µg/L, and ND<250 µg/L, respectively. This water sample indicates that the bunker fuel released on to the groundwater when the tank was initially encountered has been removed to non-detectable levels and that the no impacted soil or groundwater remains at the T-1 location. No further action is recommended with regard to this previously unidentified tank.

Unidentified Water Well

The water well was found in the underground vault adjacent to the bunker oil tank T-1. The well consisted of a 10-inch diameter casing, approximately 150 feet of 4-inch production casing and pump. The T-1 excavation will be dewatered and the well sampled during the first week in April 2008. The results of analysis for hydrocarbons and VOCs will be reported to the ACEH when received

Tank 2 – 750 Gallon

Tank 2 (T-2) was a 750-gallon, horizontal axis UST located immediately north of tank T-1. The top of the tank was buried at approximately 2 feet bgs. The tank was dry and no record is

available of what was stored in it. One soil sample was collected from a depth of approximately 7 beet bgs below T-2. No hydrocarbons or VOCs were reported at or above reporting limits. Analysis for metals reported no metals above normal back ground levels. On this basis, it appears that no releases have occurred from T-2. No further action is recommended with regard to this previously unidentified tank.

Tank 3 – 750-Gallon Gasoline UST

Tank 3 (T-3) was an approximately 750-gallon horizontal axis tank located in the center of the site. No previous records of the UST or its contents have been located to date.

Analysis of the soil sample was collected immediately below T-3 reported TPH-g and TPH-d at concentrations of 5,400 mg/kg and 1,400 mg/kg, respectively. The area was over excavated to remove all obviously stained soil to below the groundwater (12' bgs) and the excavation dewatered several times. Analysis of soil samples from the excavations 4 sidewalls reported no detectable concentrations of TPH-g, TPH-d, TPH-bo, or MBTEX. Analysis of the groundwater sample collected from the excavation following over excavation and de-watering reported TPH-g and TPG-d at concentrations of 85 µg/L and 92 µg/L, respectively. No MTBE or BTEX were reported. The concentrations are below the RWQCB Drinking water ESL of 100 µg/L (Table F-1a – Interim Final – Nov. 2007). No further action is with regard to this previously unidentified tank.

5.2 Well Survey

In 2000 ETIC performed a Neighborhood Well Survey for Nestlé USA, Inc Site at 1310 14th Street, Oakland, CA (File COND_WELL_R_2000-03-14) and a Follow-up Neighborhood Well Survey for Nestlé USA, Inc Site at 1310 14th Street, Oakland, CA (File COND_WELL_2000-03-27). No wells were located.

AEI has researched State of California Department of Water Resources (DWR) well records in an effort locate any wells located within a ½ mile radius of the subject site. Nearly 200 monitoring and extraction wells are located on the site, the majority of which have been destroyed. Currently 11 monitoring wells and one large diameter extraction well (RW-1) are present on the site and in 16th Street. DWR records contained logs and other information on 10 monitoring wells at four different sites and one water production well at De Fremery Park that are at or within a ½ mile radius of the site. The list of wells and a map showing their locations are attached in Appendix C

A map showing the approximate locations of these lines is included as Figure 12 – Utilities – horizontal Conduits. The major trenches for sanitary sewer, and storm drains have trenched approximately seven feet bgs, at the intersection of 14th Street and Poplar Street. The base of the storm drain in the intersection of 16th and Kirkham is approximately 9 feet bgs suggestion that the bottom of the bottom trenches in 16th street may intersect the groundwater during the wet portion of the year. No deep utility trenches are located on site in the southwest quadrant of

eastern half of the site. The shallow feeder lines for all utilities which were shallower than the groundwater to the demolished buildings have been removed. The only remaining utility line identified on the site is the abandoned 18" gas line that runs north/south along the vacated Kirkham Street.

6.0 SITE CONCEPTUAL MODEL

Cross sections A-A' (Figure 10) and B-B illustrate the probable source and migration pathways of the diesel/motor oil range hydrocarbons identified between the former loading dock south the remaining brick cold storage building and the northern end of the boiler fuel USTs abandoned in 1989. The source of the gasoline contamination which appears to be the former dispenser located near boring EB-15 and SB-14. The UST supplying the former dispenser appear to have been tank T-3, located near the intersection of vacated 15th and Kirkham Streets.

7.0 ACEH DIRECTIVE – SEPTEMBER 28, 2007

In a directive letter dated September 28, 2007 addressed to Mr. Michael Desso, Nestlé USA, Inc (Nestlé) and Mr. Mark Hall, Encinal 14th Street, LLC (Encinal), the ACEH summarized its review of the fuel leak file for the above referenced site. The letter included fourteen (14) Technical Comments. Technical comments 1 through 10 were directed at the northwestern portion of the site being remediated by Nestlé. Nestlé's consultant, Environmental Cost Management, Inc. (ECM) is responding to these ten technical comments. The response to Technical Comments 11 through 14 which concern the eastern half of the site which are Encinal's responsibility are discussed below.

7.2 Technical Comment 11 - Abandoned in Place USTs

The ACEH requested plans for investigation or removal of the fuel hydrocarbons in the area of the closed in place USTs and former dispenser area near AEI soil boring SB-14. AEI notified the ACEH that AEI was preparing to remove the abandoned USTs (Tank 4 and Tank 5 – Figure 8) under City of Oakland Fire Department permits and supervision and that following the removal of the USTs the excavation would be enlarged to remove soil in the area where impacted groundwater had been previously identified and any additional obviously impacted soil encountered.

Following removal in late 2007 of the two the two USTs abandoned in place in 1989, AEI excavated impacted soil (source area) to below the groundwater level and dewatered the excavation several times. The area excavated was expanded to include the area previously identified as impacted by free product as well as additional gasoline impacted soil encountered as shown on Figure 8. Maximum hydrocarbon concentration reported in sidewall samples from the tank removal and associated excavations for THP-g, Total petroleum Hydrocarbons as bunker oil (TPH-bo, C10+) TPH-d (C10-23) and Total Petroleum Oil and Grease (POG), were <50 mg/kg, <50 mg/kg, 11 mg/kg, <50 mg/kg, respectively. This is below the San Francisco

Bay Regional Water Quality Control Board (RWQCB) strictest cleanup standard for soil greater than 3 meters bgs (Table C-1 – Interim Final – Nov. 2007).

Analysis of the groundwater sample collected from the excavation reported THP-g, TPH-bo, TPH-d, and POG at concentrations of <50 µg/L, 210 µg/L, 120 µg/L, and <5.0 mg/L, respectively. The difference between the TPH-bo and TPH-d results indicates residual fuel or motor oil range (C-23+) hydrocarbons can be considered to be present at a concentration of 90 µg/L. Analysis of the water sample for Volatile Organic Compounds (VOCs) by method SW 8260B reported all analytes as non-detectable. All analytes except diesel are below the RWQCB Drinking water ESL of 100 µg/L (Table F-1a – Interim Final – Nov. 2007). The reported diesel concentration is far below the non drinking water ESL of 2,500 µg/L (Table F-1b – Interim Final – Nov. 2007) and is almost half the risk-based goal for drinking water of 210 µg/L (Table F-3 – Interim Final – Nov. 2007).

In a meeting on February 2, 2008, Jerry Wickham, ACEH, questioned the validity of VOC samples collected in an open excavation and requested confirmatory groundwater sampling adjacent to the excavation. On January 14, 2008, AEI submitted a workplan summarizing the scope of work for collection of two groundwater samples adjacent to the former boiler fuel USTs (T-4 and T-5) excavation and collecting groundwater samples from sampling of the water production well prior to destruction of the well.

On February 22, 2008, two soil borings were drilled a Geoprobe 5410 drilling rig under Alameda county Department of Public Works drilling permit W2008-0057. The borings were advanced by drilling nominal two-inch diameter rods with a blank disposable shoe to a depth of approximately 20 feet bgs. Boring SW-1 was located near the north edge of the excavation, down gradient of former boring EB-14 and SW-2 was located near the southern edge of the excavation near former boring EB-15. Upon reaching total depth ¾-inch diameter PVC casing with 10 feet of 0.010-inch slots was placed inside the drilling rods, then the rods were removed from the boring.

Each boring was purged using a peristaltic pump until the discharge water was clear. Boring SW-1 was capable of delivering water at the rate of ¼ liter of water per minutes. Four 40-milliliter (ml) volatile organic analysis vials (VOA) and two 1-liter amber bottles were collected and analyzed for TPH and VOCs. Boring SW-2 pumped dry and yielded water at a rate of less than 1/2 of a gallon per hour, while boring SW-1 yielded groundwater at a rate of one 4 liters per hour. Three VOAs were collected from SW-1 and analyzed for VOCs.

The analysis of the water sample from SW-2 reported no hydrocarbons at or above reporting limits. No vinyl chloride or 1,2-dichlorobenzene was reported at or above detection limits in either boring. The only VOC reported in the groundwater from either sample was acetone, which was reported at a concentration of 22 µg/L in SW-2. The locations of borings SW-1 and SW-2 are shown on Figure 8. A copy of the analytical report is attached in Appendix D.

The results of the soil sampling of the excavation walls and the bottom of the excavations where above groundwater indicate that all significantly impacted soil has been removed. The results of pit water samples and confirmatory groundwater samples from SW-1 and SW-2 indicate that the removal of the two USTs, over excavation, and the dewatering of the excavation have reduced the hydrocarbons in groundwater in this area to non-detectable concentrations. AEI believes no further action in regard to these two USTs is warranted in this portion of the site.

7.3 Technical Comment 12 - Former Gasoline UST near EB-11

The ACEH requested further information regarding the notation on the 1912 Sanborn map regarding a gasoline UST. A data review has found a notation on a 1911-1912 Sanborn Map that has a circular symbol labeled "110 GAL." GASOLINE? "DRUM IN GROUND". The location of the "drum" on the 1912 Sanborn Map is shown behind (east) of a building labeled "AUTO", not at the west edge of the recently removed building as shown on Lowney figure 2. This places boring EB-11 to the northwest of the "drum" location, directly down the gradient of the "drum".

Clearly the purpose of Lowney boring EB-11 was to evaluate potential impact from possible releases from storage of gasoline at that location in the early 1900s. Analysis of soil and groundwater samples from boring EB-11 reported no gasoline or BTEX present in either the soil or groundwater. Diesel was reported in the groundwater at a concentration of 74 µg/L, which is below the drinking water ESL (Table F-1a – Interim Final – Nov. 2007). Copies of the Sanborn Map and Lowney Figure 2 are attached in Appendix B.

Based on this information, AEI believes no further action is required to evaluate possible historic hydrocarbon releases from this fuel storage prior to the construction and operation of the site as a dairy processing facility.

7.4 Technical Comment 13 - Vinyl Chloride in Groundwater

The ACEH requested further investigation to identify the source and extent of the vinyl chloride reported by the Lowney investigation in 2004 in groundwater samples from borings EB-14 and EB-15 which were located adjacent to the two USTs abandoned in place. Review of the available data of the site failed to identify a possible source for the vinyl chloride. Following removal of the two USTs and subsequent excavation that resulted in the removal of both soil borings (see Figure 2), analysis of a water sample from the excavation reported no dichlorobenzene or vinyl chloride at a detection limit of 0.5 µg/L. Analysis of groundwater samples from soil borings SW-1 and SW-2 reported no vinyl chloride or other VOCs present at or above reporting limits. AEI believes no further action is warranted with regard to the historic detection of VOCs at this location of the site.

7.5 Technical Comment 14 - Petroleum Hydrocarbons Reported in Boring EB-20

The ACEH requested further investigation to identify nature and source of the motor oil range hydrocarbons identified in boring EB-20. The ACEH letter refers to detection of TPH as motor oil reported in a "soil sample" reported in the 2004 Lowney Associates Report. Review of the Lowney report finds that report refers to the sample in question as "suspected insulating material" between layers of concrete at the location of boring EB-20 in a room identified as a "former cold storage room". This is consistent with the blocks of a rigid, shiny, black, foam material observed below the floor slab and above the lower foundation slab at that location observed during a walk through of the site by and AEI California Professional Geologist during the initial phase of building demolition. This material and the underlying slab(s) were removed and disposed by the demolition contractor. As the material sampled has been removed and disposed, no further action is needed.

8.0 CONCLUSIONS & RECOMMENDATION

Based on data from the deed-restricted portion (northwest quadrant) of the site, groundwater appears to be significantly impacted by hydrocarbons. Remediation of this portion of the site is the responsibility of Nestlé which has additional investigations scheduled.

No evidence of impact to the soil and groundwater has been identified in the southwest quadrant of the site by installation and sampling of monitoring wells by AGE and HLA. AEI believes that no further investigations or other actions are warranted in this portion of the site.

Based on the data presented all hydrocarbons and VOCs identified in soil under the eastern half of the site have been excavated to significantly below regional Water Quality Control Board (RWQCB) ESLs for residential, commercial or industrial sites.

Hydrocarbon concentrations reported in water samples from the excavations are significantly below RWQCB non-drinking water ESLs (Table F-1b – November 2007) and below the risk based screening level for groundwater (Table F-3 – Interim Final – Nov. 2007). The confirmatory groundwater samples collected from boring SW-1 found no detectable concentrations of TPH, vinyl chloride, or other VOCs. The groundwater sample from boring SW-2 contained no detectable concentrations of vinyl chloride, or other VOCs.

AEI believes no further action is necessary in regard to items 11 through 14 of the September 28, 2007 directive letter as all contaminants referenced in the directive letter have been either totally removed from the site or reduced to below the applicable RWQCB ESLs.

AEI also believes that no further action is needed in regard to the three USTs (T-1, T-2, and T-3) uncovered during the recent building demolition as contaminants identified during their removal have been either totally removed from the site or reduced to below the applicable RWQCB ESLs.

AEI finds no evidence of the presence in the eastern half and southwestern quadrant of the subject site of contaminants above the applicable RWQCB ESLs. AEI believes that no further action is warranted with respect to the entire property outside of deed restricted northwestern portion of the site where Nestlé and their consultant ECM are currently active.

AEI requests written confirmation on behalf of Encinal that no further action is required on any portion of the property other than the deed restricted northwest portion, and that the pending case affects only the deed restricted northwest portion of the site.

9.0 REFERENCES

1. Lowney Associates, March 17, 2004. Phase I Environmental Site Assessment and Soil and groundwater Soil, Soil vapor, and Groundwater Quality Evaluation, 1310 Fourteenth Street, Oakland, California.

2. Anania Geologic Engineering, March 27, 1989. Site Characterization Work Plan of the Boiler Fuel Tanks at the Carnation Dairy Facility.

3. Anania Geologic Engineering, September 14, 1989. Request for Abandonment Permit for Two Boiler Fuel Tanks Carnation Dairy Facility

4. Anania Geologic Engineering, April 3, 1989, Preliminary Site Characterization for Carnation Dairy Facility

5. Anania Geologic Engineering, October 9, 1989, Summary Report for the Period of April through July 1989 Carnation Dairy Facility

6. Anania Geologic Engineering, November 2, 1989, Second Quarterly Monitoring Report, Carnation Oakland Dairies

7. Harding Lawson Associates Quarterly Monitoring Report June through August 1991, Carnation Facility, (File GWM_R_1991-09-18) dated September 18, 1991

8. USGS, R.W. Graymer, 2000, Miscellaneous Field Studies MW-2342, Geologic Map and data base of Oakland, Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.

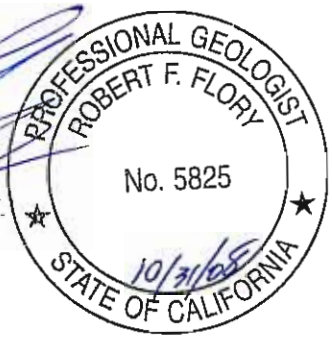
10.0 CLOSING STATEMENT AND SIGNATURES

The recommendations and conclusions rendered in this report were based on previous field investigations and laboratory testing of soil and groundwater samples. All specified work was performed in accordance with generally accepted practices in environmental engineering, engineering geology, and hydrogeology fields under the direction of appropriate registered professional(s).

We look forward to hearing your comments regarding this report. Should you have any questions or need any additional information, please contact me at (925) 944-2899.

Sincerely,
AEI Consultants

Robert F. Flory, P.G.
Senior Project Geologist



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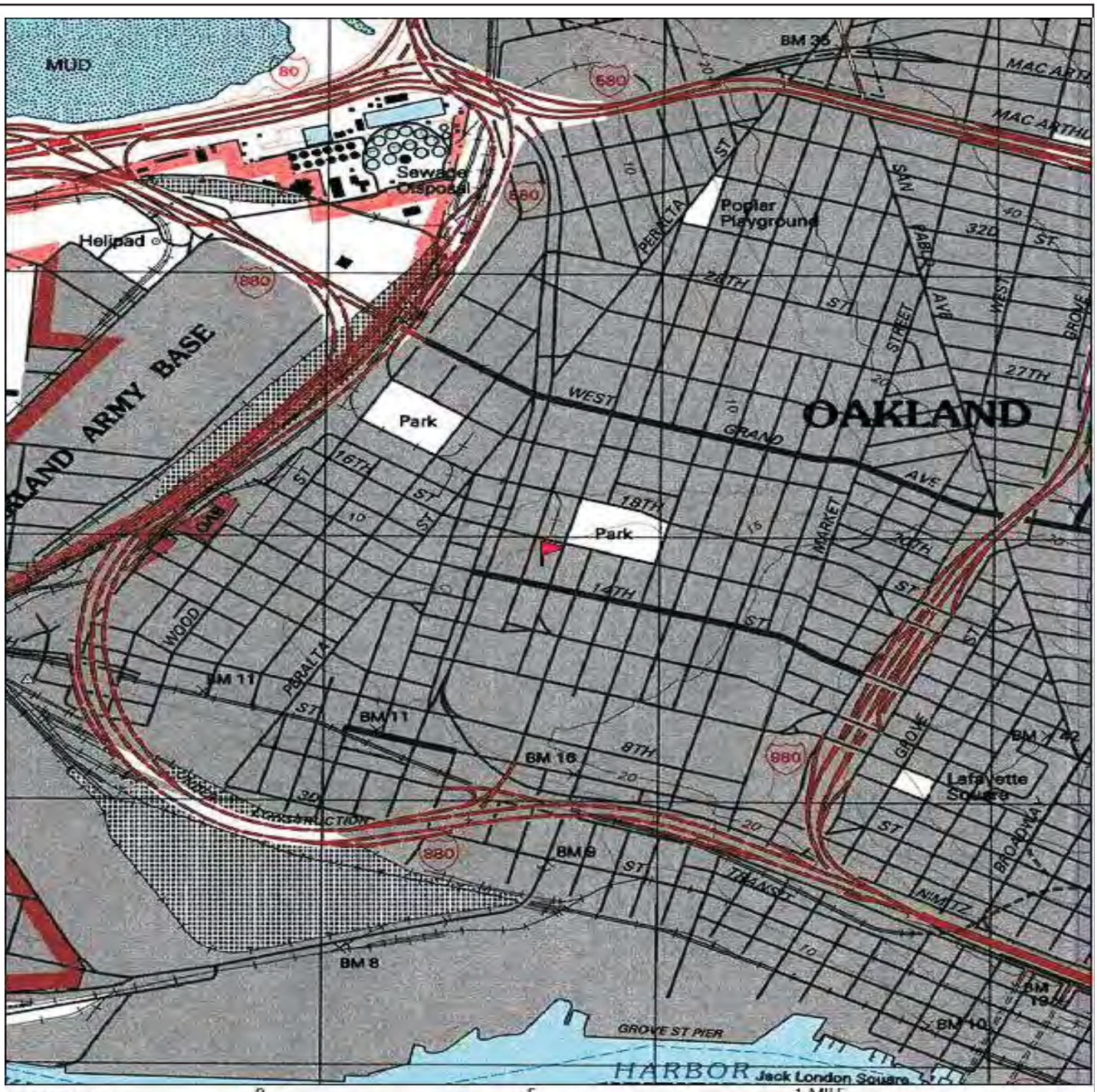
1855 Olympic Boulevard, # 250Walnut creek, CA 94596

Jerry Wickham (electronic)
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250Alameda, CA 94502

FIGURES



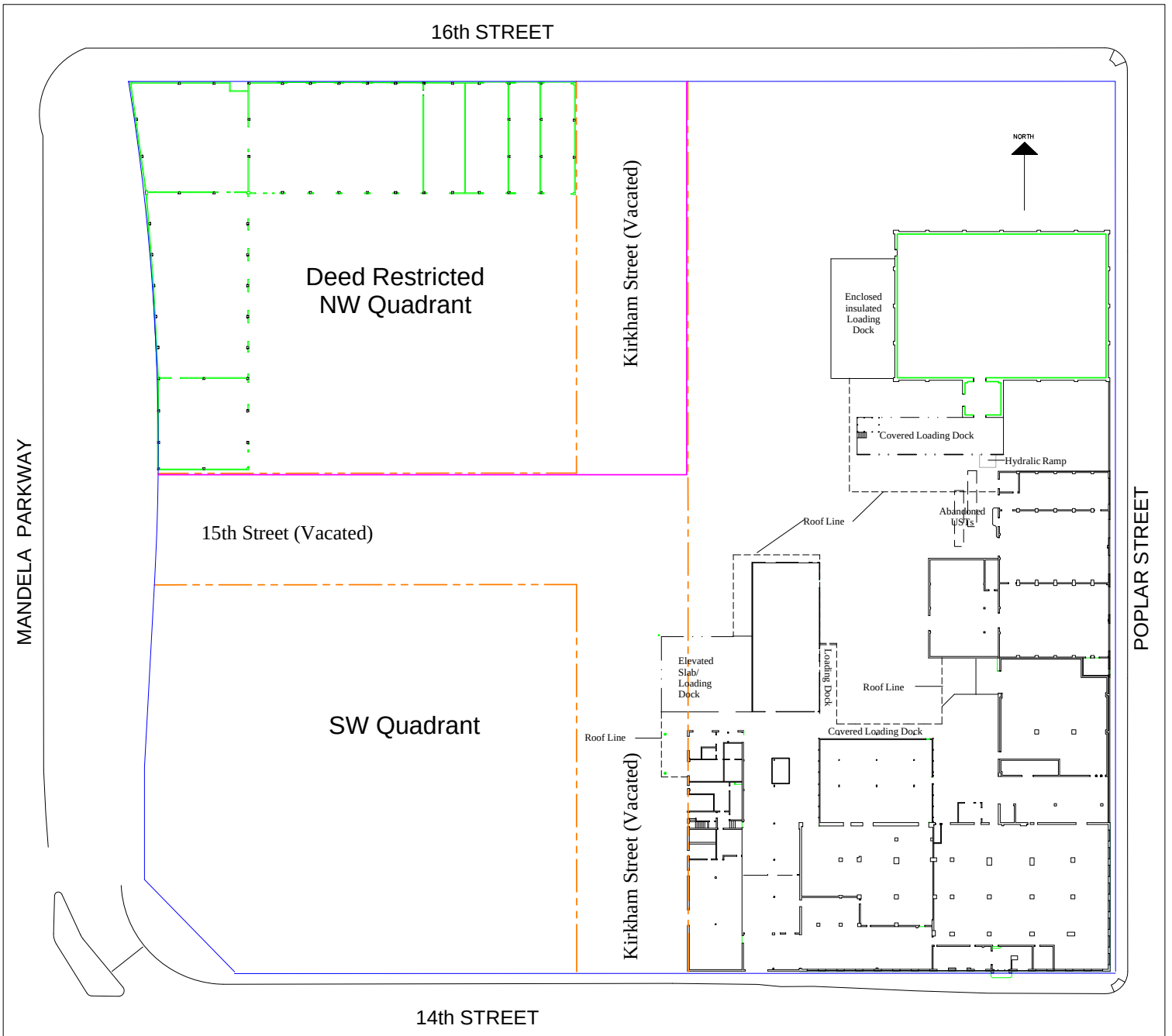
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, CA 94597

SITE LOCATION PLAN

1310 14th Street
Oakland, California

FIGURE 1
Job No: 277205



Site Boundary

Deed Restricted Area

Vacated Streets

Loading Docks

Roof Line Over Loading Docks and Covered Areas

Existing Buildings

0 25 50 75 100 150 200

AEI CONSULTANTS

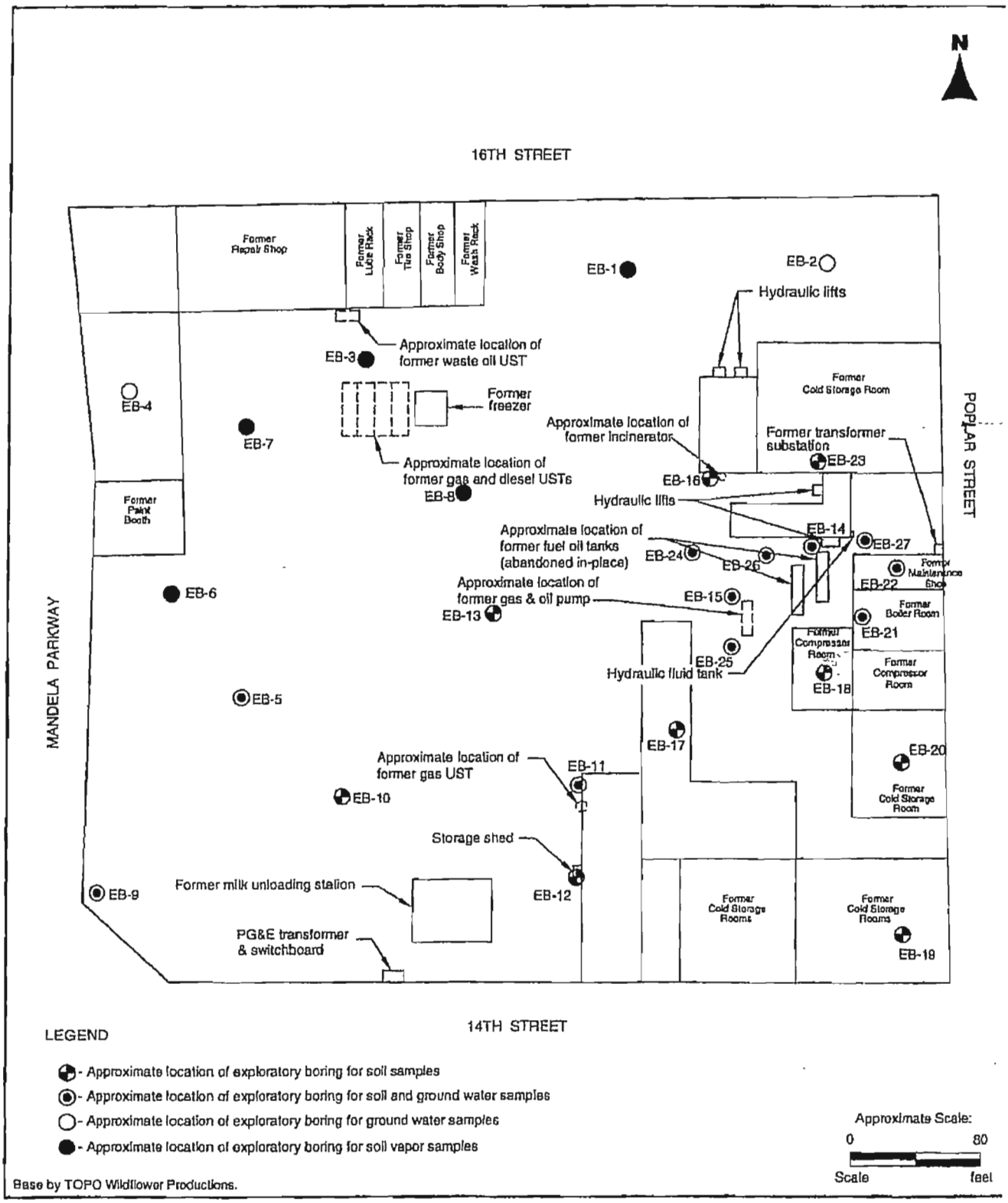
2500 CAMINO DIABLO, WALNUT CREEK, CA

SITE PLAN

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 2

Project No. 273474

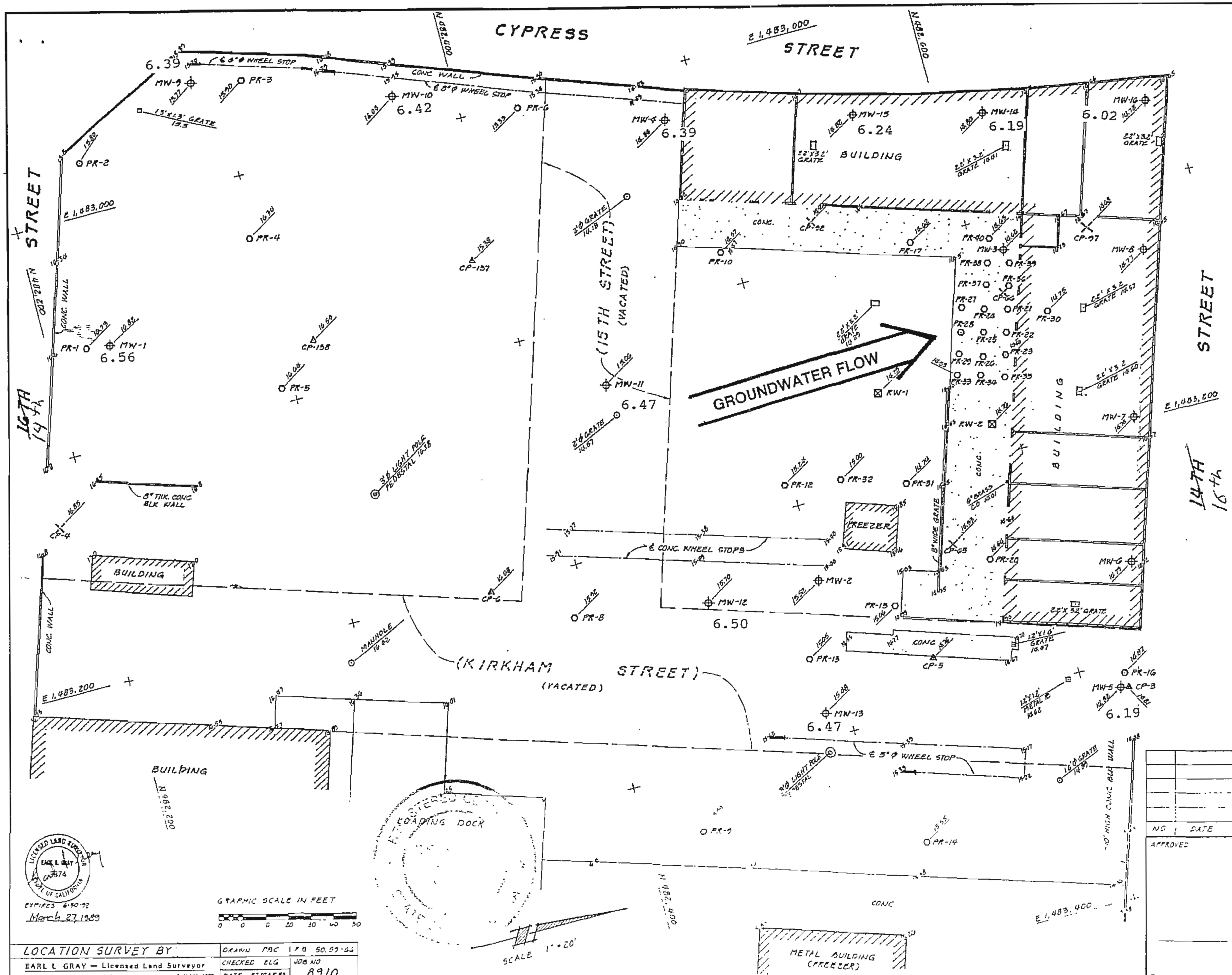


SITE PLAN

1310 FOURTEENTH STREET
Oakland, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
1950-3E



LEGEND:

- ⊕ MW-1 MONITORING WELL
- O PR-6 PRODUCT RECOVERY POINT
- ⊠ RW-2 RECOVERY WELL
- △ CP-3 CONTROL POINT, SET NAIL & SHINER
- X CP-97 CONTROL POINT, SET CROSS "+" CUT IN CONCRETE
- 16.46 SPOT/RIM ELEVATIONS
- 6.82 GROUNDWATER ELEVATION

BENCHMARK (BASED ON NGVD 1929)

CITY OF OAKLAND BM NO. 3806 EL 13.76 CITY DATUM + 3.00' = 16.76 NGVD 1929, CONC. CURB WEST SIDE KIRKHAM ST 15 FT. SOUTHERLY OF SOUTHERLY PROP. LINE, 14TH ST.

BASIS OF BEARINGS (CITY OF OAKLAND DATA)

MONUMENT LINE ON POPLAR ST. BETWEEN MONUMENTS 8SW50 (@ 16TH ST.) & 8SW16-R (@ 14TH ST.) TAKEN AS N 17°06'38" E, 560.06' AND BASED ON THE CALIFORNIA COORDINATE SYSTEM ZONE III, 1927 N A D

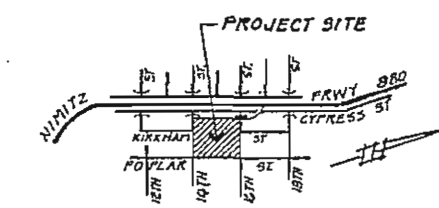
BASIS OF COORDINATES (CITY OF OAKLAND DATA)

CITY MONUMENT ON POPLAR ST. @ 16TH ST. (8SW-50) N 482,590.10 & E 1,483,597.39 AND BASED ON CALIFORNIA COORDINATE SYSTEM. ZONE III, 1927 N.A.D. GROUND TO GRID FACTOR = 0.9999296.

SCHEDULE OF CONTROL POINTS

NO.	COORDINATES *		ELEV.
	NORTH	EAST	
CP-3	2,619.52	3,311.56	14.81
CP-4	2,186.39	3,128.32	16.85
CP-5	2,540.38	3,278.08	14.76
CP-6	2,361.26	3,202.30	16.08
CP-65	2,560.45	3,233.18	14.53
CP-66	2,608.78	3,132.52	14.55
CP-92	2,536.07	3,082.32	14.56
CP-97	2,650.52	3,114.22	14.68
CP-137	2,388.89	3,060.93	15.38
CP-138	2,313.60	3,076.68	16.54

* TO GET GRID COORDINATES, ADD 480,000 TO NORTH COORDINATES AND ADD 1,480,000 TO EAST COORDINATES



VICINITY MAP
N.T.S.

NO	DATE	REVISION	BY	APP'D

APPROVED

CARNATION DAIRIES
1310 14TH ST @ POPLAR ST OAKLAND, CALIFORNIA

SCALE 1" = 20'
DRAWN
CHECKED
Figure 3
DATE
PROJECT NO 004-88-059

AGE ANANIA GEOLOGIC ENGINEERING
11330 SUNRISE PARK DR., SUITE C, RANCHO CORDOVA, CA 95742

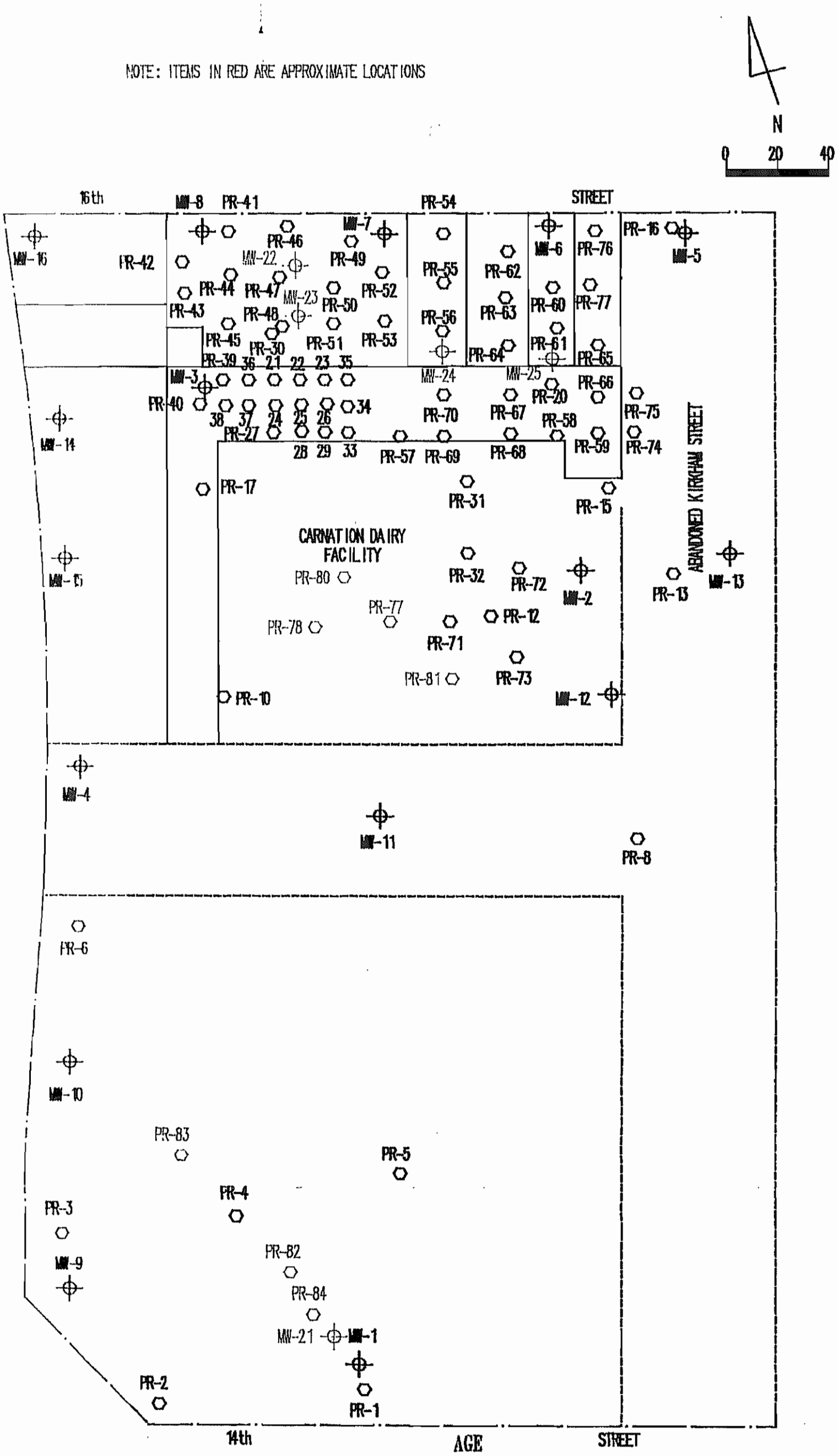
GROUNDWATER ELEVATION/ DIRECTION MAP
DRAWING NO

LICENSED LAND SURVEYOR EARL L. GRAY 3874 STATE OF CALIFORNIA
EXPIRES 6-30-92
March 27 1989

LOCATION SURVEY BY	DRAWN PBC	F.B. 50.59-66
EARL L. GRAY — Licensed Land Surveyor	CHECKED ELG	JOB NO 8910
1941 OAK PARK BLVD SUITE 40 PLEASANT HILL CA 94523	DATE 27 MAR 89	

PLATE 1

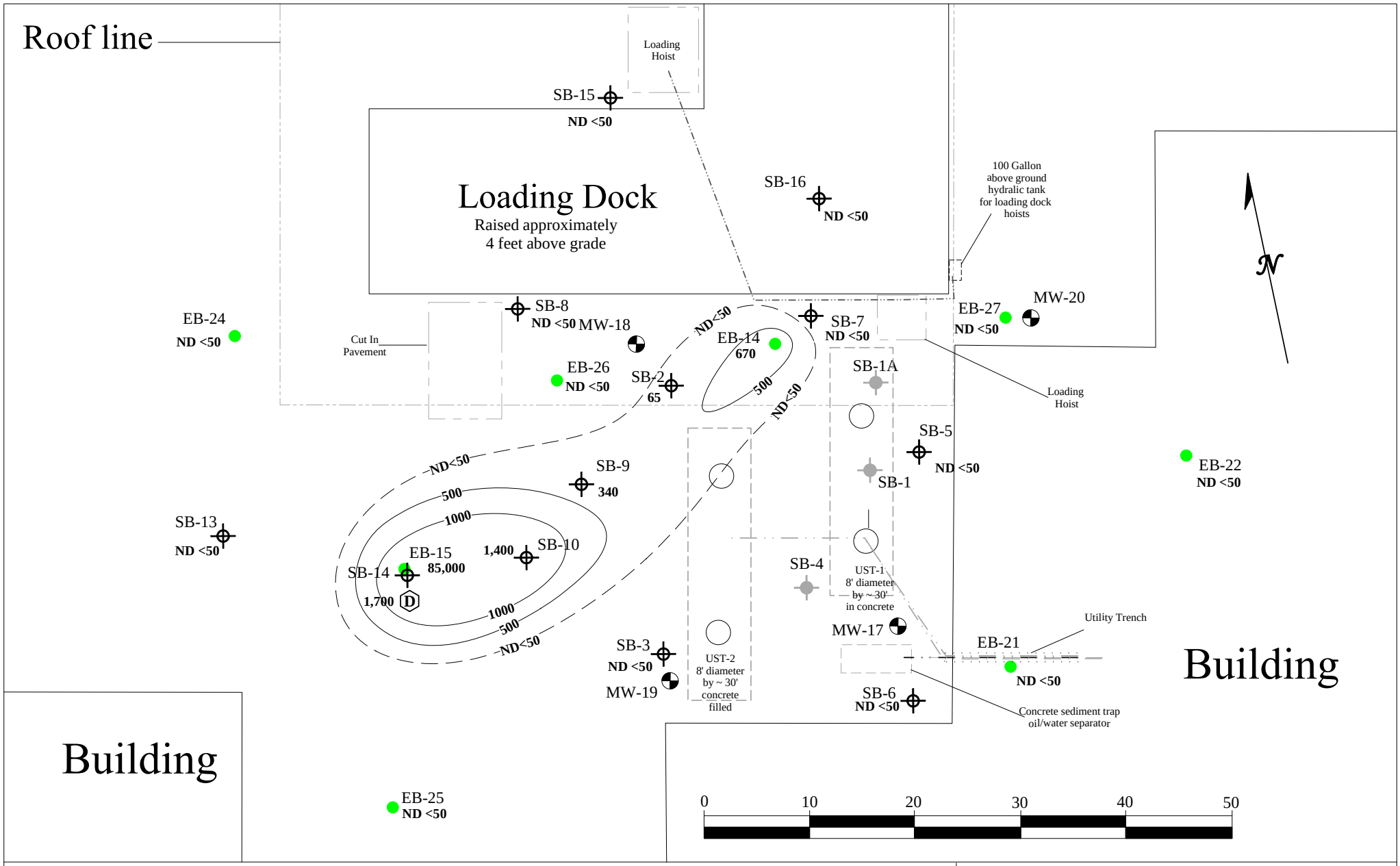
NOTE: ITEMS IN RED ARE APPROXIMATE LOCATIONS



ANANIA GEOLOGIC ENGINEERING

TITLE: MONITORING WELL AND PRODUCT RECOVERY WELL LOCATIONS		
PROJECT NAME: CARNATION/OAKLAND		PROJECT NO: 004-88-059
SITE LOCATION: 1310 14th ST. AT POPLAR OAKLAND, CA.		
DATE: 10-9-89	DRAWING NO.: 059-030	SCALE: 1" = 40'

Figure 4



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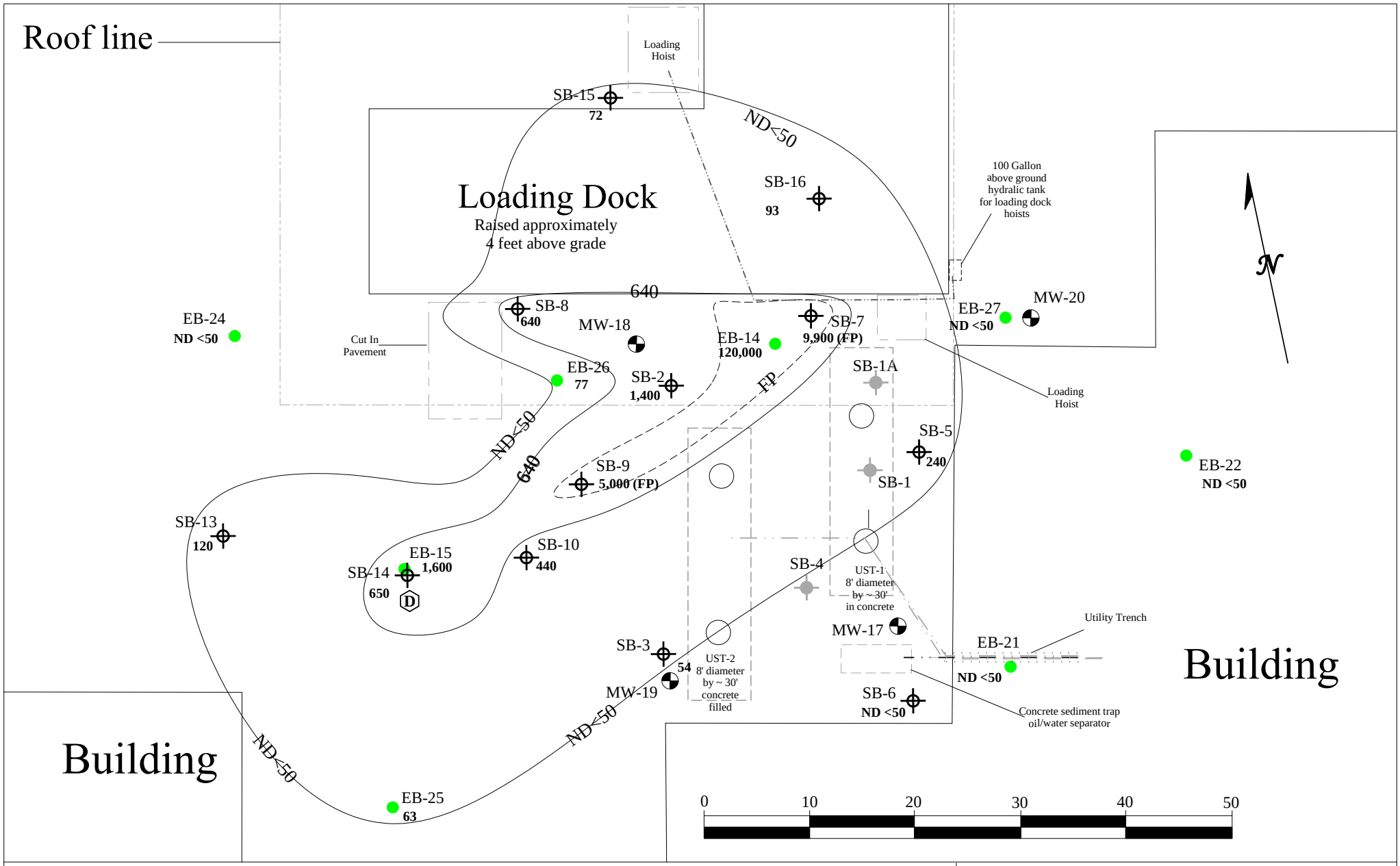
2500 CAMINO DIABLO, WALNUT CREEK, CA

TPH-g Concentrations in Groundwater

1310 14th STREET
OAKLAND, CALIFORNIA

FIGURE 5

Project No. 115184



Soil boring - AEI 2005

Soil boring - shallow refusal - AEI

Soil boring - Lowney 2004

ND <50 Not detected at indicated laboratory detection limit in micrograms per liter

Former Well - AGE 1989

UST abandoned in place 1989

(D) Reported Dispenser Location

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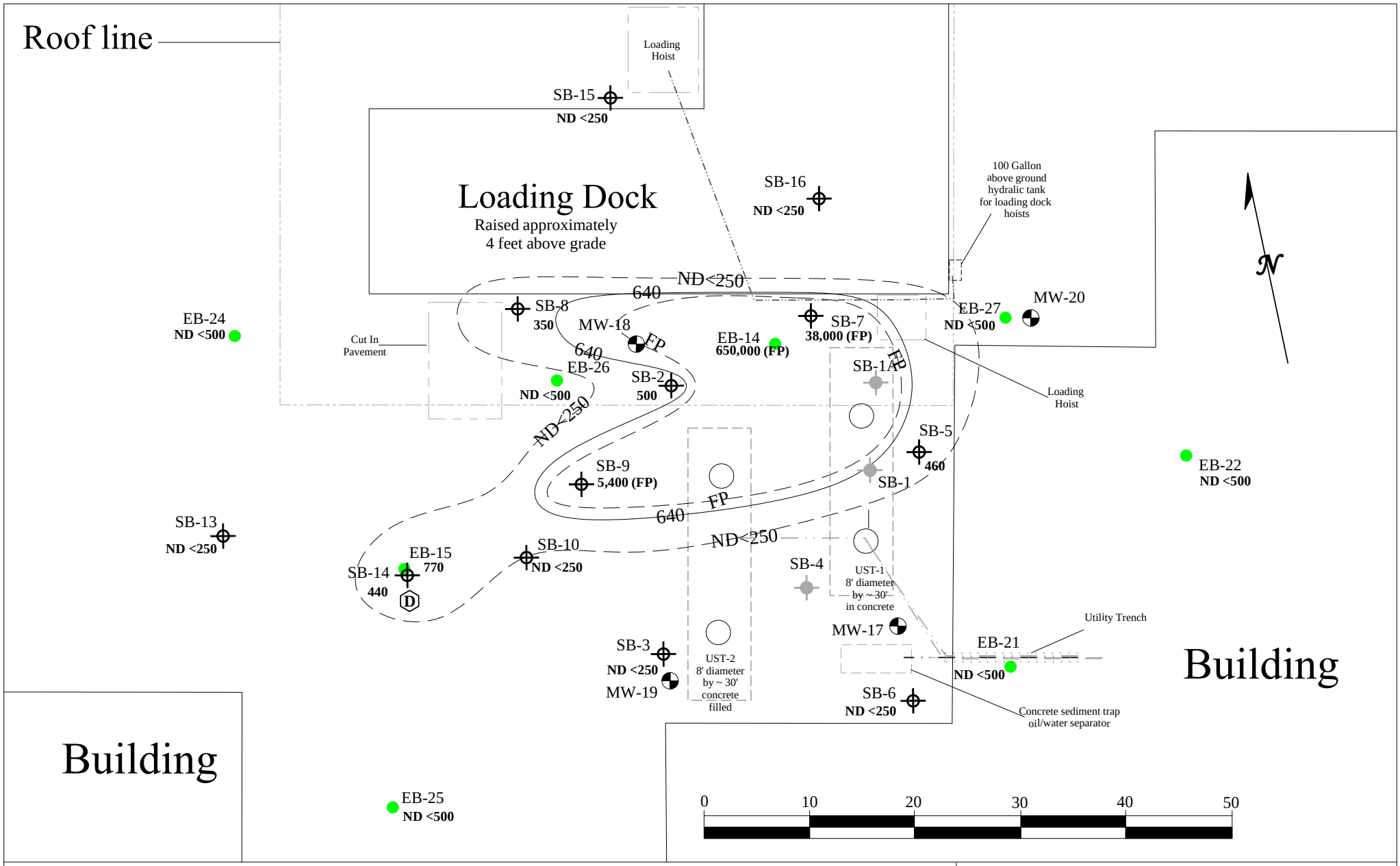
TPH-d Concentrations in Groundwater

1310 14th STREET
OAKLAND, CALIFORNIA

FIGURE 6
Project No. 115184



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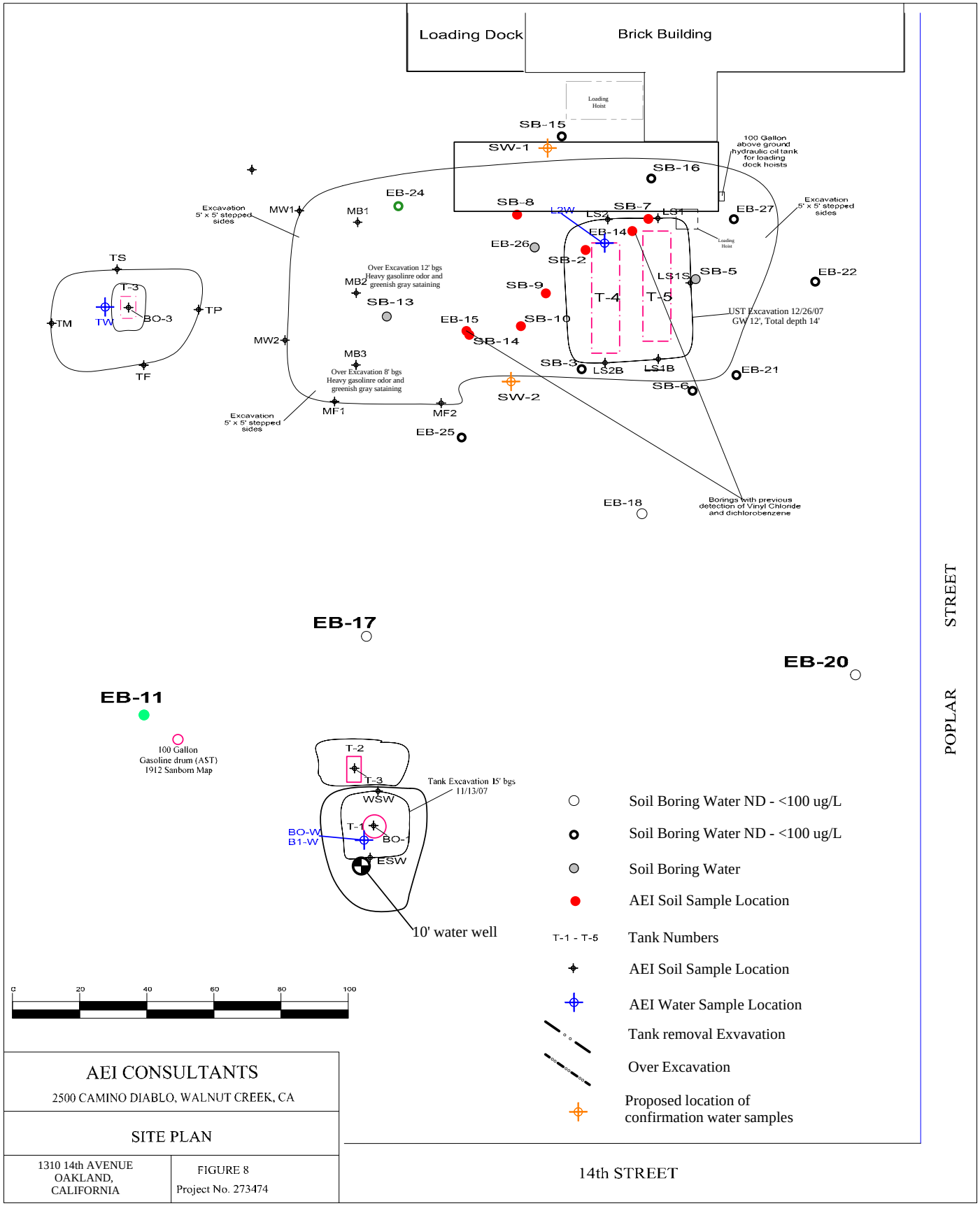
2500 CAMINO DIABLO, WALNUT CREEK, CA

TPH-mo Concentrations in Groundwater

1310 14th STREET
OAKLAND, CALIFORNIA

FIGURE 7

Project No. 115184



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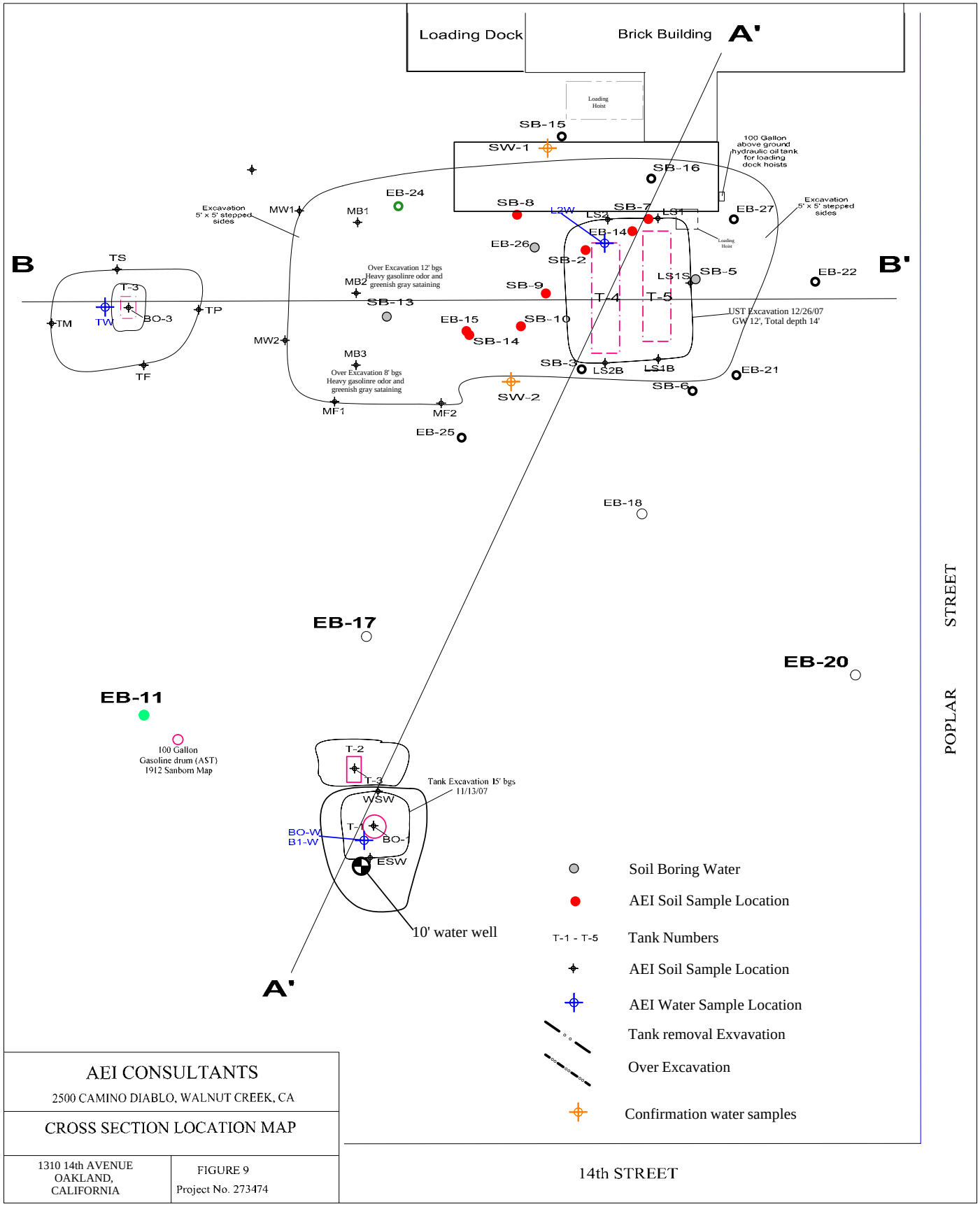
2500 CAMINO DIABLO, WALNUT CREEK, CA

SITE PLAN

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 8

Project No. 273474



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2500 CAMINO DIABLO, WALNUT CREEK, CA

CROSS SECTION LOCATION MAP

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 9

Project No. 273474

A

A'

Brick entry

Brick Building

SB-16

Loading Dock

Crushed rock fill

EB15
SB14

Northwest of line of section

SB-3

Intesection
B-B'

EB-14 SB-7

GROUND LEVEL

GROUND LEVEL

Hoist Ram

0

2

4

6

8

10

12

14

16

Vault

Production well - 10" casing with 4" production casing @ 150' deep
No log

T-2
unknown fuel?

BO-2
TPH-g <1.0
TPH-d <1.0
TPH-mo <50

Merritt Sand 0-24+ feet, fine grained, well sorted, sand - silty sand, clayfilled (interstitial diagenetic clay), with poor transmissivity

Gasoline odor, dark greenish gray

Approximate limit gasoline impacted soil northwest of line of section

Approximate limit gasoline impacted soil northwest of line of section

T-4 T-5

#5 low sulfur fuel oil

Gasoline odor, dark greenish gray

T-1
"bunker oil"
heavy fuel oil

ESW
TPH-g <1.0
TPH-d <1.0
TPH-mo <50

WSW
TPH-g <1.0
TPH-d <1.0
TPH-mo <50

GROUNDWATER

GROUNDWATER

LS2B
TPH-g <1.0
TPH-d <1.0
TPH-mo <50

Approximate limit hydraulic fluid impact

LS1
TPH-g <1.0
TPH-d <1.0
TPH-mo <50

BO-W 1st sple
TPH-g 130
TPH-bo 2,100
TPH-d 1,700
POG 7,900,000

B1-W 2nd sple
TPH-g <50
TPH-bo <250
TPH-d <50

SB-3
TPH-g <50
TPH-d 54
TPH-mo <250

MW-19 (1989)
TPH-g <50
TPH-d <50
TPH-mo <250

EB-14
TPH-g 670
TPH-d 120,000
TPH-mo 650,000
LNAPL

SB-7
TPH-g <50
TPH-d 9,900
TPH-mo 38,000
LNAPL

SB-16
TPH-g <50
TPH-d <92
TPH-mo <250

L2W
TPH-g <50
TPH-bo 210
TPH-d 120
POG <5.0

Merritt Sand 0-24+ feet, fine grained, well sorted, sand - silty sand, clayfilled (interstitial diagenetic clay), with very low transmissivity due to loading.

Merritt Sand 0-24+ feet, fine grained, well sorted, sand - silty sand, clayfilled (interstitial diagenetic clay), with very low transmissivity due to loading, LNAPL migrating across gradient along loading dock.

Bunker oil released when demo contractor damaged UST when it was discovered. UST does not appear to have leaked.

TD-?

TD-150"

TD-20'

TD-17.5'

TD-24'

TW
TPH-g 85
TPH-d 93
TPH-mo NA

Pit Water Sample
ug/L

EB-22
TPH-g <50
TPH-d <50
TPH-mo <500

Pre-excavation Water Sample
ug/L

EB-22
TPH-g <1.0
TPH-d <1.0
TPH-mo <5.0

Bottom/Sidewall Sample
mg/kg

Limit Over Excavation

Probable Historic Excavation

0 20 40 60 80 100

11"x17" Scale 1-inch = 30 feet

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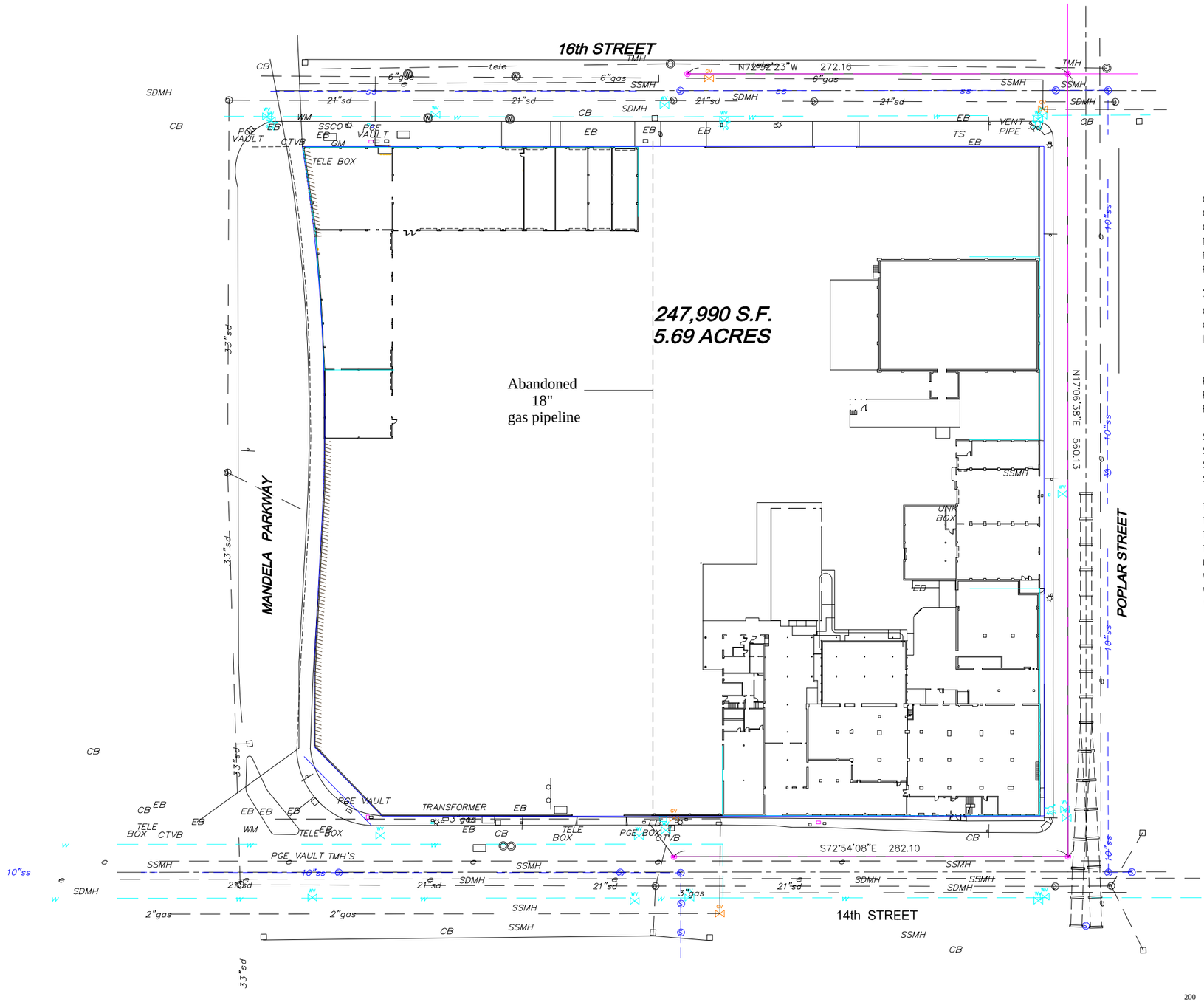
2500 CAMINO DIABLO, WALNUT CREEK, CA

Conceptual Model - Section A-A'

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 10

Project No. 273474



LEGEND

CB	CATCH BASIN
CONC	CONCRETE
CTVB	CABLE TV BOX
DW	DRIVEWAY
E	ELECTRICAL
EB	ELECTRICAL BOX
☼	ELECTROLIER
	FIRE HYDRANT
G	GAS
GM	GAS METER
	GAS VALVE
Ⓜ	MONITORING WELL
PGE	PACIFIC GAS AND ELECTRIC
PTR	PRELIMINARY TITLE REPORT
ROW	RIGHT OF WAY
	SIGN
SD	STORM DRAIN
SS	SANITARY SEWER
SDMH Ⓓ	STORM DRAIN MANHOLE
SSMH Ⓢ	SANITARY SEWER MANHOLE
◉	CITY OF OAKLAND STREET MONUMENT
T	TELEPHONE
TB	TELEPHONE BOX
TMH ◎	TELEPHONE MANHOLE
TS	TRAFFIC SIGNAL
UNK	UNKNOWN
W	WATER
WM	WATER METER
	WATER VALVE

PLAN NORTH

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Utilities - Horizontal Conduits

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 12

Project No. 273474

B

B'

Intesection
A-A'

A A'

SB-13 SB-14 EB-15 SB-10 SB-5 EB-22

0 2 4 6 8 10 12 14 16

GROUNDWATER

Merritt Sand 0-24+ feet, fine grained, well sorted, sand - silty sand, clayfilled (interstitial diagenetic clay), with poor transmissivity

Abandoned 18" gas line

Excavation 5' x 5' stepped sides

MW1

T-3

TM
TM
TPH-g <1.0
TPH-d <1.0
TPH-bo <5.0

BC-3
MB-2
TPH-g 5,400
TPH-d 1,400
TPH-mo <50

TP
TP
TPH-g <1.0
TPH-d <1.0
TPH-bo <5.0

TW
TPH-g 85
TPH-d 93
POG <50

Approximate limit gasoline range hydrocarbons

Backfill with rubble concrete Asphalt pipe wood

Gasoline odor dark greenish gray staining

Gasoline odor, dark greenish gray

Backfill ? soft loose - friable sand

Gasoline odor dark greenish gray

Approximate limit gasoline range hydrocarbons

T-4

T-5

Approximate limit hydraulic fluid impact

MW2
MW2
TPH-g <1.0
TPH-d <1.0
TPH-bo <5.0

MB2
MW2
TPH-g <1.0
TPH-d <1.0
TPH-bo <5.0

SB-13
TPH-g <50
TPH-d 120
TPH-mo <250

EB-15
TPH-g 85,000
TPH-d 1,600
TPH-mo 770

SB-14
TPH-g 1,700
TPH-d 650
TPH-mo 440

SB-10
TPH-g 1,400
TPH-d 440
TPH-mo <250

L2W
TPH-g <50
TPH-d 240
TPH-mo 460

Olive - dark greenish gray

LS1S
LS1S
TPH-g <1.0
TPH-d <1.0
TPH-bo <5.0

SB-5
TPH-g <50
TPH-d 240
TPH-mo 460

EB-22
TPH-g <50
TPH-d <50
TPH-mo <500

TD-20' TD-? TD-20' TD-20'

Initial Tank Removal Exvavation

Limit Over Excavation

Probable Historic Excavation

TW
TPH-g 85
TPH-d 93
TPH-mo NA
Pit Water Sample
ug/L

EB-22
TPH-g <50
TPH-d <50
TPH-mo <500
Pre-excavation Water Sample
ug/L

MB-2
TPH-g <1.0
TPH-d <1.0
TPH-mo <5.0
Bottom/Sidewall Sample
mg/kg

0 20 40 60 80 100

11"x17" Scale 1-inch = 30 feet

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2500 CAMINO DIABLO, WALNUT CREEK, CA

Conceptual Model - Section B-B'

1310 14th AVENUE
OAKLAND,
CALIFORNIA

FIGURE 11

Project No. 273474

TABLES

Table 1: **Lowney Soil VaporAnalytical Data (2004)**
1310 14th Street Oakland, CA

Sample ID	Depth	Sampling Date	TPH-g	Benzene	Toluene	Ethyl-benzene	Xylenes	Propane	123-TMB	Ethanol
			µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
			(EPA Method TO-15)							
EB-1	5	2004	530	2.8	4.6	4.2	6.8	ND<147	5.1	11
EB-3	5	2004	230,000	200	ND<64	ND<74	ND<74	2,199	ND<84	ND<130
EB-6	5	2004	140	ND<2.6	3.7	ND<3.6	ND<3.6	ND<147	ND<4.0	8.1
EB-7	5	2004	1,800	28	38	11	43	161	8.2	11
EB-8	5	2004	860	8.8	9.0	ND<3.6	6.1	<147	4.6	9.9

Sample ID	Depth	Freon 12	Freon 11	1,3-Butadiene	Hexane	Cyclo-Hexane	Heptane	Acetone	2 Propanol	2 Butanone
	feet	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
		(EPA Method TO-15)								
EB-1	5	ND<4.0	ND<4.6	3.2	ND<2.9	ND	ND<3.4	66	ND<8.0	ND<9.6
EB-3	5	ND<84	96	ND<38	1,100	320	ND<70	ND<160	ND<170	ND<200
EB-6	5	ND<4.0	ND<4.6	ND<1.8	ND<2.9	ND	3.4	8.7	ND<9.0	ND<9.6
EB-7	5	14	ND<4.8	14	12	4.9	7.6	79	ND<8.4	24
EB-8	5	330	8.2	8.6	5	ND	ND<3.4	56	9.1	13

Table 2: **Lowney Soil Analytical Data (2004)**

1310 14th Street, Oakland, CA

Sample ID		Sampling Date	TPH-g	TPH-d	TPH-mo	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			(EPA method 8015C)			*(EPA method 8021B)*				
EB-5	4.5-5	2004	ND<1.0	ND<1.0	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-9	4.5-5	2004	ND<1.0	1.9	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-11	8.5-9	2004	ND<1.0	1.5	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-14	10-10.5	2004	2	3,700	21,000	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-15	1.5-2	2004	610	230	300	ND<0.005	ND<0.005	ND<0.005	0.56	ND<0.005
EB-20	subslab	2004	NA	1,000	11,000	NA	NA	NA	NA	NA
EB-24	5-5.5	2004	ND<1.0	ND<1.0	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-25	6.5-7	2004	ND<1.0	ND<1.0	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-26	5.5-6	2004	ND<1.0	ND<1.0	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
EB-27	4.5-5	2004	ND<1.0	ND<1.0	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005

TPH-g = Total petroleum hydrocarbons as gasoline
TPH-d = Total petroleum hydrocarbons as diesel
TPH-mo = Total petroleum hydrocarbons as motor oil
MTBE = methyl tertiary butyl ether
mg/kg = milligrams per kilogram
RBSL - Risk based screening level

Table 3: Lowney Groundwater Analytical Data (2004)

1310 14th Street, Oakland, CA

Sample ID	Sampling Date	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Xylenes µg/L	Vinyl chloride µg/L	1,2-Dichloro-benzene µg/L
		(EPA method 8015C)			*(EPA method 8021B)*					(EPA method 8260)	
EB-2	2004	ND<50	54	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-4	2004	ND<50	53	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-5	2004	ND<50	ND<50	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-9	2004	ND<50	58	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-11	2004	ND<50	74	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-14	2004	670	120,000	650,000	ND<0.5	0.74	3.7	1.6	5.8	12	ND<2
EB-15	2004	85,000	1,600	770	ND<0.5	350	ND <100	450	ND <200	120	27
EB-21	2004	ND<50	ND<50	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5
EB-22	2004	ND<50	ND<50	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EB-24	2004	51	ND<50	ND<500	ND<5.0	0.70	ND<0.5	ND<0.5	ND<0.5	NA	NA
EB-25	2004	ND<50	63	ND<500	ND<5.0	0.70	ND<0.5	ND<0.5	ND<0.5	NA	NA
EB-26	2004	ND<50	77	ND<500	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA
EB-27	2004	ND<50	ND<50	ND<500	ND<0.5	ND<0.5	ND<0.5	0.54	ND<0.5	NA	NA

TPH-g = Total petroleum hydrocarbons as gasoline
TPH-d = Total petroleum hydrocarbons as diesel
TPH-mo = Total petroleum hydrocarbons as motor oil
MTBE = methyl tertiary butyl ether
µg/L = micrograms per liter (ppb)

Table 4: Soil Analytical Data

Encinal, 1310 14th Street (1310 16th Street) Oakland, CA

Sample ID	Sampling Date	TPH-g mg/kg	TPH-d mg/kg	TPH-mo mg/kg	MTBE mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl-benzene mg/kg	Xylenes µg/kg
		(EPA method 8015C)			*(EPA method 8021B)*				
SB-1 & SB-1a	09/12/05	Shallow refusal, no soil samples			----	----	----	----	----
SB2-10	09/12/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB3-10	09/12/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-4 & SB-4a	09/12/05	Shallow refusal, no soil samples			----	----	----	----	----
SB5-10	09/12/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB6-10	09/12/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 7-10	09/29/05	ND<1.0	21	130	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 8-10	09/29/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 9-10	09/29/05	7.3	34	40	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 10-10	09/29/05	1.5	ND<1.0	ND<5.0	ND<0.05	0.018	ND<0.005	0.11	0.016
SB-11 - SB-12	Not drilled								
SB13-10	11/18/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 14	No samples held for analysis								
SB15-10	11/18/05	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB 16	Unstable gravel at surface - no soil samples								
RWQCB RBSL		400	500	1000	5.6	0.38	9.3	1.3	1.5

for commecial/industrial sites, soil less than or equal to 3 meters, groundwater not a potential drinking water source.

values in bold exceed soil \RBSL
TPH-g = Total petroleum hydrocarbons as gasoline
TPH-d = Total petroleum hydrocarbons as diesel
TPH-mo = Total petroleum hydrocarbons as motor oil
MTBE = methyl tertiary butyl ether
mg/kg = milligrams per kilogram
RBSL - Risk based screening level

Table 5: Groundwater Analytical Data

Encinal, 1310 14th Street (1310 16th Street) Oakland, CA

Sample ID	Sampling Date	TPH-g	TPH-d	TPH-mo	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		(EPA method 8015C)			*(EPA method 8021B)*				
SB-1 & SB-1a	09/12/05	Shallow refusal, no water samples			----	----	----	----	----
SB-2-W19	09/12/05	65	1,400	500	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB-3-W19	09/12/05	ND<50	54	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB-4 & SB-4a	09/12/05	Shallow refusal, no water samples			----	----	----	----	----
SB-5-W19	09/12/05	ND<50	240	460	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB-6-W19	09/12/05	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB 7- W	09/29/05	ND<50	9,900 [1]	38,000	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB-8 W	09/29/05	ND<50	640	350	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB-9 W	09/29/05	340	5,000 [1]	5,400	ND<5.0	1.0	ND<0.5	ND<0.5	ND<0.5
SB-10 W	09/29/05	1400	440	ND<250	ND<5.0	23	0.87	130	18
SB-11 - SB-12	Not drilled								
SB13-W-20	11/18/05	ND<50	120	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB14-W-20	11/18/05	1,700	650	440	ND<5.0	37	1.8	67	7.8
SB15-W-20	11/18/05	ND<50	72	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB16-W-20	11/18/05	ND<50	92	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
RWQCB RBSL		500	640	640	1800	46	130	290	13

for commecial/industrial sites, groundwater not a potential drinking water source.

values in bold exceed soil \RBSL

1 = lighter than water immiscible sheen/product is present
TPH-g = Total petroleum hydrocarbons as gasoline
TPH-d = Total petroleum hydrocarbons as diesel
TPH-mo = Total petroleum hydrocarbons as motor oil
MTBE = methyl tertiary butyl ether
µg/L = micrograms per liter (ppb)

Table 6: Soil Analytical Data
Former Carnation Site, 1310 14th Street Oakland, CA

Sample ID	Date	TPH-g	TPH-bo	TPH-d	POG	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	Comments
		Method 8015				Method 8021B/8260					
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
ESW	11/13/07	<1.0	----	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-1 S sidewall sample per OFD
WSW	11/13/07	<1.0	----	<1.0	<50	<0.05	<0.005	<0.005	<0.005	2.1	T-1 N sidewall sample per OFD
BO-2	11/13/07	<1.0	----	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-2 Bottom sample per OFD
TW	12/10/07	5,400	----	1,400	<50	<10	<1.0	<1.0	<1.0	<1.0	T-3 bottom sample per OFD pre-excavation
TF	12/10/07	<1.0	----	<1.0	----	<0.05	<0.005	<0.005	<0.005	<0.005	T-3 S wall sample following excavation per OFD
TP	12/10/07	<1.0	----	<1.0	----	<0.05	<0.005	<0.005	<0.005	<0.005	T-3 E sidewall sample following excavation per OFD
TS	12/10/07	<1.0	----	<1.0	----	<0.05	<0.005	<0.005	<0.005	<0.005	T-3 N sidewall sample following excavation per OFD
TM	12/10/07	<1.0	----	<1.0	----	<0.05	<0.005	<0.005	<0.005	<0.005	T-3 W sidewall sample following excavation per OFD
LS1	11/26/07	<50	<50	11	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-4 N sidewall samples tank excavation per OFD
LS1S	11/26/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-4 E sidewall samples tank excavation per OFD
LS1B	11/26/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-4 S sidewall samples tank excavation per OFD
LS2	11/26/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-5 sidewall samples at ends of excavation per OFD
LS2B	11/26/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	T-5 sidewall samples at ends of excavation per OFD
MW1	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	West wall, North sample EB-15 excavation per OFD
MW2	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	West wall, South sample EB-15 excavation per OFD
MF1	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	South wall, West sample EB-15 excavation per OFD
MF2	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	South wall, East sample EB-15 excavation per OFD
MB1	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	North bottom sample EB-15 excavation per OFD
MB2	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	Center bottom sample EB-15 excavation per OFD
MB3	11/29/07	<50	<50	<1.0	<50	<0.05	<0.005	<0.005	<0.005	<0.005	South bottom sample EB-15 excavation per OFD

Table 6: Soil Analytical Data
Former Carnation Site, 1310 14th Street Oakland, CA

Sample ID	Date	TPH-g	TPH-bo	TPH-d	POG	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	Comments
		Method 8015				Method 8021B/8260					
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Stock Pile Samples											
STK 1234	11/13/07	<1.0	----	19	<50	<0.05	<0.005	<0.005	<0.005	<0.005	Stockpile
STK 5678	11/13/07	610	----	8,700	14,000	<0.05	<0.005	0.83	1.0	5.1	Stockpile
STK 5678a	11/13/07	730	----	370	<50	<0.05	<0.005	<0.005	1.0	2.8	Stockpile
LST1234	11/26/07	ND	<50	22	540	<0.05	<0.005	<0.005	<0.005	<0.005	Stockpile
LSTB1234	11/26/07	ND	<50	6.6	220	<0.05	<0.005	<0.005	<0.005	<0.005	Stockpile
LST5678	11/26/07	1,200	<50	1,200	2,700	<5.0	<0.50	<0.50	3.2	2.4	Stockpile
LSTB5678	11/26/07	380	<50	240	700	<2.5	<0.25	<0.25	1.6	1.1	Stockpile
Soil > 3 meters (9.86 ft) Comm/Ind ESL Drinking water		83	5,000	83	5,000	0.023	0.044	29	3.3	2.3	

Notes:
* - Analysis by Method 8260
mg/kg = milligrams per kilogram

Table 7: Soil Analytical Data - Method 8260

Former Carnation Site, 1310 14th Street Oakland, CA

Well Number	Date	n-butyl benzene mg/kg	sec-butyl benzene mg/kg	Ethyl benzene mg/kg	isopropyl benzene mg/kg	isopropyl toluene mg/kg	Napthalene mg/kg	n-propyl benzene mg/kg	Toluene mg/kg	1,2,4-TMB mg/kg	1,3,5-TMB mg/kg	Xylenes mg/kg	Other Analytes
ESW	11/13/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
WSW	11/13/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
BO-2	11/13/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
BO-3	11/13/07	4.7	3.4	1.1	5.7	<33	8.0	7.1	ND	7.0	ND	ND	All ND
LS1	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LS1S	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LS1B	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LS2	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LS2B	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
MW1	11/29/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
MW2	11/29/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
MF1	11/29/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
MF2	11/29/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
STK 1234	11/13/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
STK 5678	11/13/07	1.0	0.87	ND	1.5	0.34	3.0	1.6	<0..005	<0..005	<0..005	<0..005	All ND
STK 5678a	11/13/07	<0..005	<0..005	<0..005	<0..005	<0..005	10	<0..005	<0..005	2.5	0.60	1.7	All ND
LST1234	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LSTB1234	11/26/07	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	<0..005	All ND
LST5678	11/26/07	2.4	0.73	2.2	1.9	<0.10	4.00	2.4	<0.10	<0.10	0.60	0.53	All ND
LSTB5678	11/26/07	0.92	0.4	0.91	0.87	<0.10	2.6	1.2	<0.10	<0.10	0.44	0.27	All ND

Notes:

µg/L = micrograms per liter (parts per billion)

----- = not sampled or not analyzed

ND = not detected

1,2,4-TMB = 1,2,4-trimethylbenzene

1,3,5-TMB = 1,3,5-trimethylbenzene

Table 8 **Soil Analytical Data - Metals**

Former Carnation Site, 1310 14th Street Oakland, CA

Analyte	Sample ID									
	ESW	WSW	BO-2	BO-3	LS1	LS1S	LS1B	LS2	LS2B	MW1
	11/13/07	11/13/07	11/13/07	11/13/07	11/26/07	11/26/07	11/26/07	11/26/07	11/26/07	11/29/07
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Arsenic	2.9	2.8	3.8	2.8	2.2	2.9	5.4	1.3	3.1	3.3
Barium	62	72	81	75	79	92	140	86	62	83
Beryllium	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	ND	ND	ND
Cadmium	<0.25	<0.25	<0.25	<0.25	ND	ND	ND	ND	ND	ND
Chromium	47	51	43	42	47	55	61	120	48	45
Cobalt	5.2	6.2	6.4	6.2	7.0	9.8	7.4	4.5	7	6.4
Copper	10	8.6	11	9.2	9.9	12	11	7.9	9.5	7.7
Lead	3.5	3.2	3.6	3.3	3.5	4.6	3.7	4.7	3.4	3.6
Mercury	<0.05	0.052	<0.05	<0.05	<0.05	<0.05	<0.05	0.055	<0.05	<0.05
Molybdenum	<0.5	<0.5	<0.5	<0.5	ND	0.54	ND	ND	ND	ND
Nickel	37	43	46	40	40	41	45	34	41	46
Selenium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	35	36	38	33	35	39	42	26	36	38
Zinc	32	29	29	28	33	37	37	29	30	31

Table 8 **Soil Analytical Data - Metals**

Former Carnation Site, 1310 14th Street Oakland, CA

Analyte	Sample ID									
	MW2	MF1	MF2	LST1234	LSTB1234	LST5678	LSTB5678	STK 1234	STK 5678	STK 5678a
	11/29/07	11/29/07	11/29/07	11/26/07	11/26/07	11/26/07	11/26/07	11/13/07	11/13/07	11/13/07
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Arsenic	2.6	3.1	3.3	4.6	3.6	2.8	2.5	1.8	2.5	2.5
Barium	62	72	76	94	74	86	64	48	68	62
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.25	<0.25	<0.25	0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Chromium	43	44	51	42	59	49	44	32	43	46
Cobalt	5.7	6.5	7.3	7.7	5.5	6.6	5.6	3.8	5.3	6.6
Copper	5.4	6.8	7.9	14	12	10	8.4	7.1	9.6	8.1
Lead	2.7	3.2	3.5	95	41	23	6.8	10	34	3.3
Mercury	<0.05	<0.05	<0.05	0.064	0.067	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	<0.5	<0.5	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	36	41	48	30	36	36	38	25	34	36
Selenium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	30	34	37	43	37	36	30	21	30	31
Zinc	24	28	31	80	53	45	28	27	57	55

Table 9 Groundwater Analytical Data

Former Carnation Site, 1310 14th Street Oakland, CA

Sample ID	Sample Date	TPH-g	TPH-bo	TPH-d	POG	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes	Tank Excavation
		EPA Method 8015				*EPA Method 8021B*					
		(µg/L)		(µg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
BO-W	11/13/07	130	2,100	1,700	7.9	<5.0	<0.5	<0.5	<0.5	<0.5	T-1
B1-W	12/12/07	<50	<250	<50	----	----	----	----	----	----	T-1
TW		85	----	92	----	<5.0	<0.5	<0.5	<0.5	<0.5	T-3
L2W	11/27/07	<50	210 (90)	120	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	T-4/T-5

Notes

* = by Method 8260B 8260B

TPH-g = total petroleum hydrocarbons as gasoline - C6-C12

TPH-bo = total petroleum hydrocarbons as bunker oil - C10+

TPH-d = total petroleum hydrocarbons as diesel C10-C23

ND = not detected

MTBE = Methyl tertiary butyl Ether

µg/L = micrograms per liter (parts per billion)

----- = not sampled or not analyzed

Table 10 Groundwater Analytical Data - Method 8260

Former Carnation Site, 1310 14th Street Oakland, CA

	Date	n-butyl benzene	sec-butyl benzene	Ethyl benzene	isopropyl benzene	isopropyl toluene	Napthalene	n-propyl benzene	Toluene	1,2,4-TMB	1,3,5-TMB	Xylenes	All Other Analytes
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
BO-W	11/13/07	<0.5	<0.5	<0.5	<0.5	<0.5	13	<0.5	0.58	3.0	0.82	1.1	All ND
L2W	11/27/07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	

Notes:

µg/L = micrograms per liter (parts per billion)

----- = not sampled or not analyzed

ND = not detected

1,2,4-TMB = 1,2,4-trimethylbenzene

1,3,5-TMB = 1,3,5-trimethylbenzene

Table 11 **Water Analytical Data - Metals**

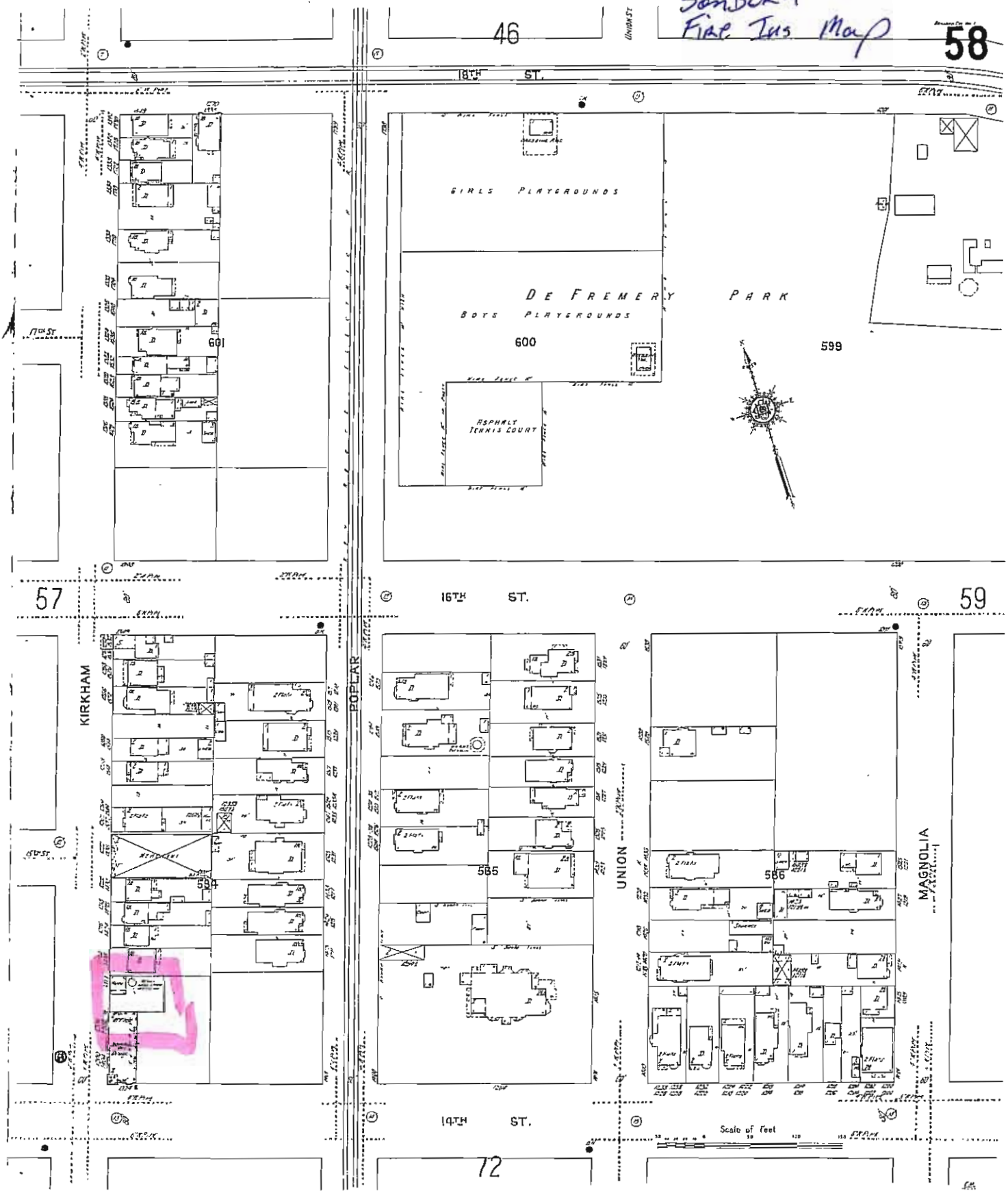
Former Carnation Site, 1310 14th Street Oakland, CA

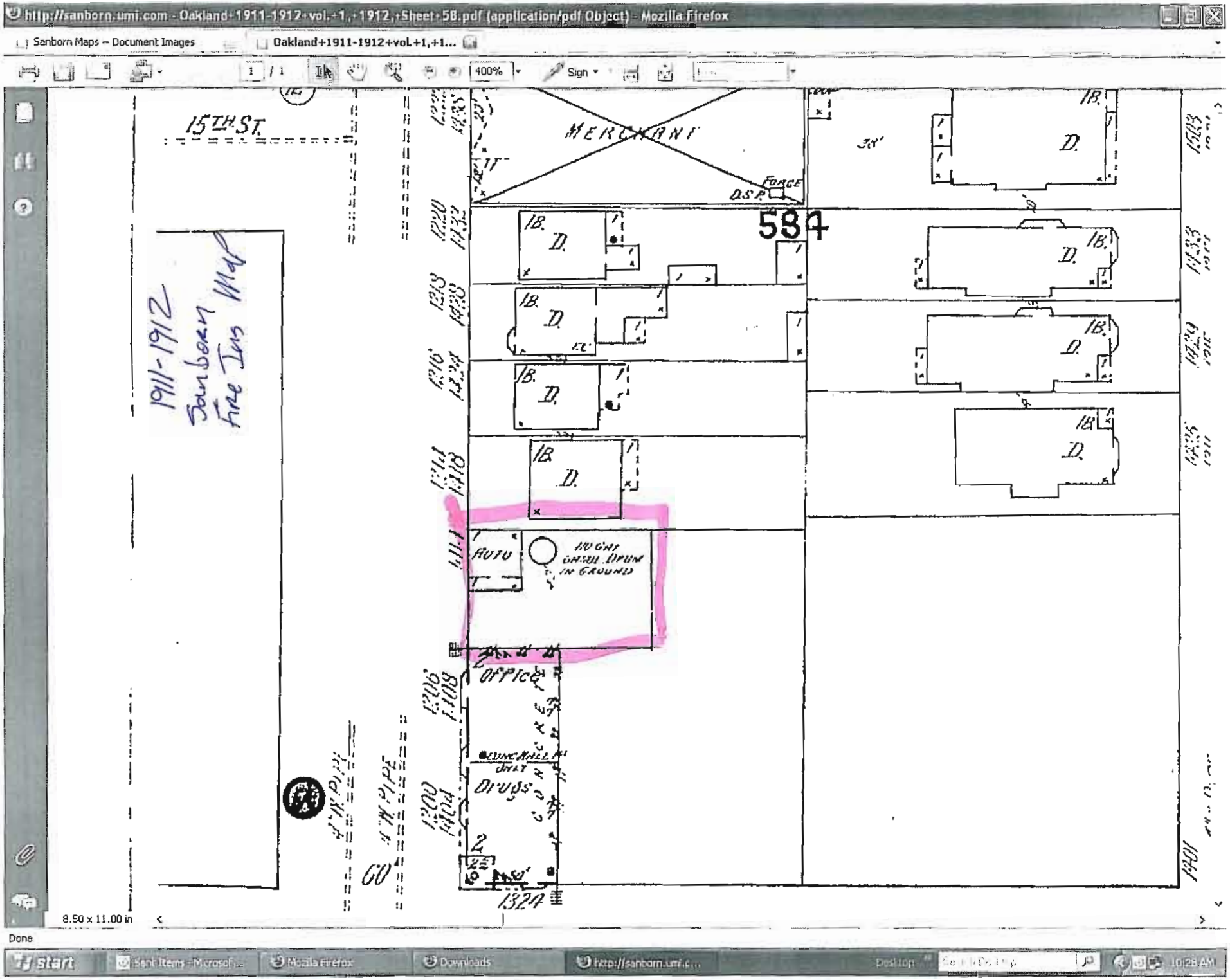
Analyte	Sample ID	
	BO-W	L2W
	11/13/07	11/27/07
	µg/L	
Antimony	<0.5	ND
Arsenic	<0.5	4.1
Barium	130	340
Beryllium	<0.5	ND
Cadmium	<0.25	ND
Chromium (Total)	<0.5	47
Cobalt	4.2	11
Copper	0.78	17
Lead	<0.5	27
Mercury	<0.012	0.47
Molybdenum	<0.5	0.95
Nickel	22.0	55
Selenium	<0.5	0.61
Silver	<0.19	ND
Thallium	<0.5	ND
Vanadium	<0.5	37
Zinc	<5.0	54

APPENDIX A

Sanborn Map
1912

1911 - 1912
Sanborn
Fire Ins. Map

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Fire Ins Map
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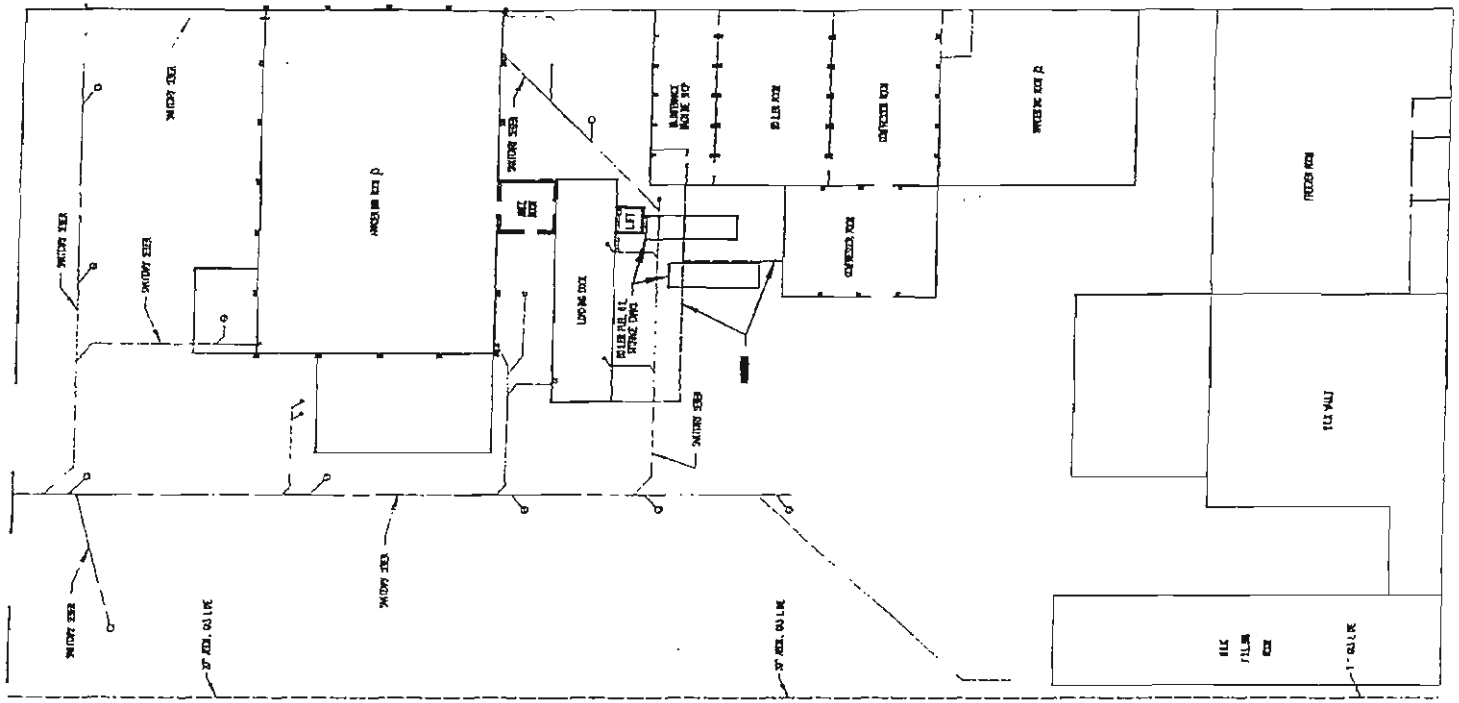
APPENDIX B

Monitoring Well
MW-17 through MW-20



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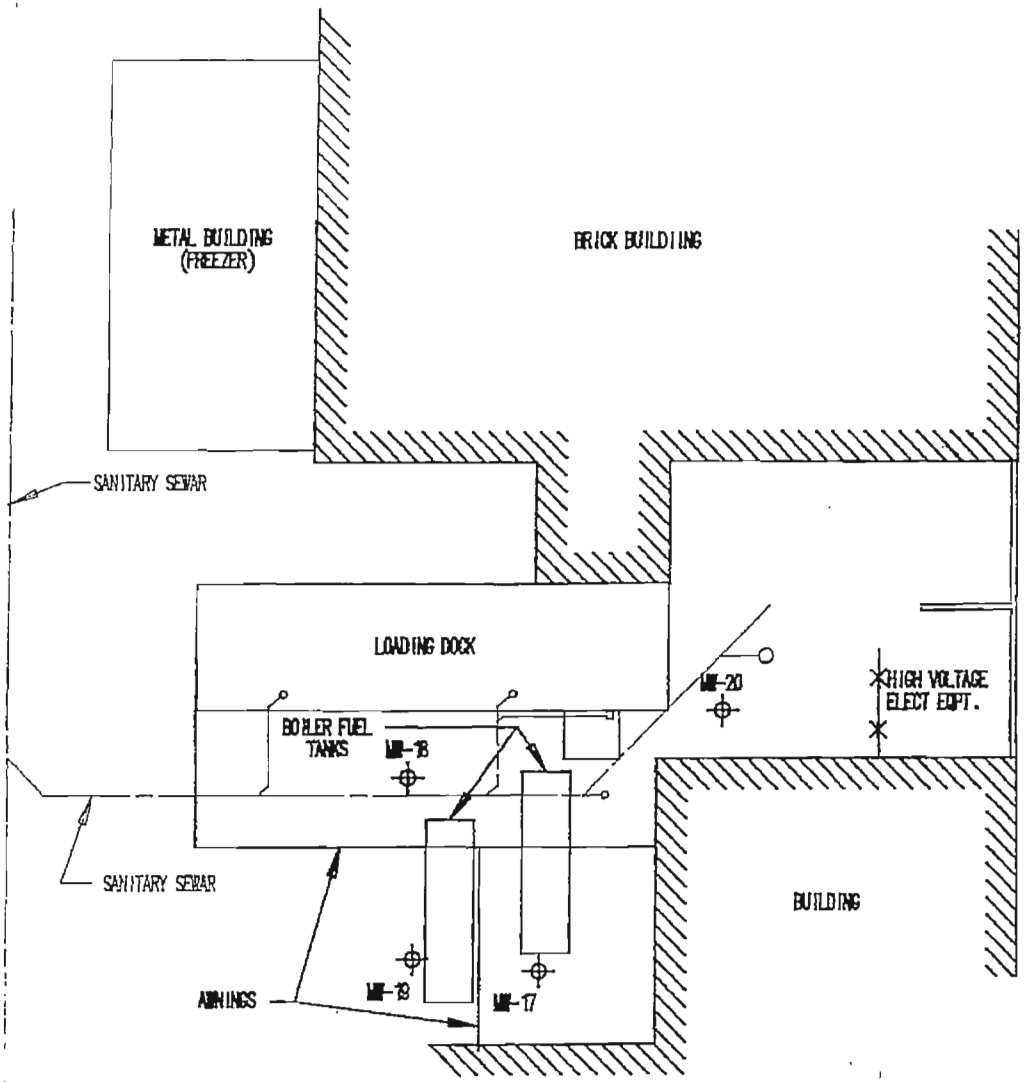
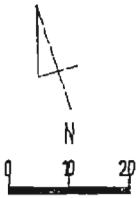
ANANIA GEOLOGIC ENGINEERING

TITLE: CARNATION DAIRY FACILITY - EASTERN PORTION			
PROJECT NAME: CARNATION/OAKLAND		PROJECT NO:	004-88-059
SITE LOCATION: 1310 14TH ST. AT POPLAR OAKLAND, CA.			
DATE: 3-24-89	DRAWING NO: 059-022	SCALE	1" = 40'





AGE
ANANIA GEOLOGIC ENGINEERING

TITLE: MONITORING WELLS MW-17 THROUGH MW-20			
PROJECT NAME: CARNATION/OAKLAND			
SITE LOCATION: 1310 14th ST. OAKLAND, CA.			
DATE: 7-11-89	DRAWING NO.: 059-02B	SCALE: 1"=20'	PROJ. NO. 004-88-059

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

RECEIVED JUL 0 5 1989

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 06/09/89
Reported: 06/29/89
Job No. #: 70879

Kark
Mary

Attn: Mary Scruggs
Anania Geological Engineering
11330 Sunrise Park Drive, Suite C
Rancho Cordova, CA. 95742

Project: #004-88-059

Polychlorinated Biphenyls
EPA Method 8080
mg/kg

Lab ID	Client ID	Results	MDL
70879-1	3279 MW-17	ND<0.5	0.5
70879-2	3269 MW-18	ND<0.5	0.5
70879-3	3273 MW-19	ND<0.5	0.5
70879-4	4187 MW-20	ND<0.5	0.5
70879-5	3253 MW-23	ND<0.5	0.5

QA/QC: Spike Recovery: 85%

MDL: Method detection limit: Compound below this level would not be detected.

Jaime Chow
Laboratory Director

RECEIVED JUL 0 5 1989

Precision Analytical Laboratory, Inc.

41361 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

State License No. 211

Received: 06/09/89
Reported: 06/29/89
Job No #: 70879

Attn: Mary Scruggs
Anania Geological Engineering
11330 Sunrise Park Drive, Suite C
Rancho Cordova, CA. 95742

Project: #004-88-059

Total Petroleum Hydrocarbon Analysis;
By EPA Method 5030 and DHS Extraction Method
Oil & Grease Analysis: By Standard Method 503D
Hydrocarbons Analysis; By Std Method 503E
mg/kg

Lab ID	Client ID	Gasoline	Diesel	Oil & Grease	Hydrocarbons
70879-1	3279 MW-17	ND<0.5	ND<0.5	ND<50	0.7
70879-2	3269 MW-18	ND<0.5	ND<0.5	ND<50	1.8
70879-3	3273 MW-19	ND<0.5	ND<0.5	ND<50	0.7
70879-4	4187 MW-20	ND<0.5	ND<0.5	ND<50	1.6
70879-5	3253 MW-23	ND<0.5	ND<0.5	ND<50	1.1

QA/QC: Spike Recovery for Gasoline: 100%
Spike Recovery for Diesel: 95%
Spike Recovery for Oil & Grease: 98%

MDL: Method detection limit; Compound below this level would not be detected.

Detection Limit for Gasoline: 0.5
Detection Limit for Diesel: 0.5
Detection Limit for Oil & Grease: 50

Jaime Chow
Laboratory Director

RECEIVED JUL 0 5 1989

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

State License No. 211

Received: 06/09/89
Reported: 06/29/89
Job No #: 70879

Attn: Mary Scruggs
Anania Geological Engineering
11330 Sunrise Park Drive, Suite C
Rancho Cordova, CA. 95742

Project: #004-88-059

Aromatic Volatile Hydrocarbon Analysis:
EPA Method 8020
ug/l

Lab ID	Client ID	Benzene	Ethylbenzene	Toluene	Xylene	MDL
70879-1	3279 MW-17	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3
70879-2	3269 MW-18	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3
70879-3	3273 MW-19	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3
70879-4	4187 MW-20	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3
70879-5	3253 MW-23	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3

QA/QC: Spike Recovery Average: 80%

MDL: Method detection limit; Compound below this level would not be detected.

Jaime Chow
Laboratory Director

Precision Analytical Laboratory, Inc.

41361 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 06/09/89
Reported: 06/29/89
Job #: 70879

Attn: Mary Scruggs
Anania Geological Engineering
11330 Sunrise Park Drive, Suite C
Rancho Cordova, CA. 95742

Project: #004-88-059

Analysis Method EPA 6010
Prep Method EPA 3010
mg/l

Lab ID	Client ID	Total Lead	MDL	% SPIKE RECOVERY
70879-1	3279 MW-17	ND<0.044	0.044	96.5
70879-2	3269 MW-18	ND<0.044	0.044	96.5
70879-3	3273 MW-19	ND<0.044	0.044	96.5
70879-4	4187 MW-20	ND<0.044	0.044	96.5
70879-5	3253 MW-23	ND<0.044	0.044	96.5

MDL: Method detection limit; Compound below this level would not be detected.

Jaime Chow
Laboratory Director

RECEIVED JUL 0 5 1989

Precision Analytical Laboratory, Inc.

41361 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 06/09/89
Reported: 06/29/89
Job #: 70879

Attn: Mary Scruggs
Anania Geological Engineering
11330 Sunrise Park Drive, Suite C
Rancho Cordova, CA. 95742

Project: #004-88-059

Analysis Method EPA 6010
STLC
mg/l

Lab ID	Client ID	STLC Lead	MDL	% SPIKE RECOVERY
70879-1	3279 MW-17	<0.044	0.044	88
70879-2	3269 MW-18	<0.044	0.044	88
70879-3	3273 MW-19	<0.044	0.044	88
70879-4	4187 MW-20	<0.044	0.044	88
70879-5	3253 MW-23	<0.044	0.044	88

MDL: Method detection limit; Compound below this level would not be detected.

Jaime Chow
Laboratory Director

70879

RECEIVED JUL 05 1989

AGE

ANANIA GEOLOGIC ENGINEERING

PROJECT NO.	LAB REPORT NO.
004-88-059	
P.O. NO.	SAMPLERS: (signature) John Russell

LAB LOG NO.	DATE	TIME	SAMPLE I.D.	NO. OF CONTAINERS	SAMPLE TYPE: SOIL COMP	SOIL GRAB	WATER	Oil and Grease 503A and 503E	BTEX 8020	TPH Gas and Diesel/M8015	TTLC Lead	STLC Lead	8080 PCB			REMARKS
	6/8/89		3279 MW-17	6			X	X	X	X	X	X	X			
	6/8/89		3269 MW-18	6			X	X	X	X	X	X	X			
	6/8/89		3273 MW-19	6			X	X	X	X	X	X	X			
	6/8/89		4187 MW-20	6			X	X	X	X	X	X	X			
	6/8/89		3253 MW 23	6			X	X	X	X	X	X	X			

RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)
John Russell	6/9/89/17:30pm	Ray Pandher
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)

REMARKS: Regular TAT

SEND RESULTS TO: AGE

ATTN: Mary [illegible]

11330 Sunrise Gold Cir. Suite K

Rancho Cordova CA 95742

PHONE NO. (916) 451-0821

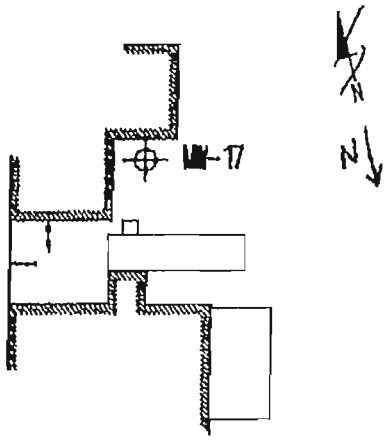
CHAIN OF CUSTODY

White- AGE Yellow- LAB Copy Pink- File

ANANIA GEOLOGIC ENGINEERING

BORING LOG

LOCATION OF BORING



SITE/LOCATION	CARNATION/OAKLAND				BORING NO. MW-17
PROJECT NO.	004-68-039				SHEET 1 OF 1
WATER LEVEL	13.0				DRILLER
TIME					START TIME 15:30 / FINISH TIME 17:00
DATE					DATE 5-11-89 / DATE 5-11-89
CASING DEPTH	20'				

DRILLING CONTRACTOR

DRILLER MIKE MOORE

DRILLING METHOD HOLLOW STEM AUGER

SAMPLING METHOD MPS

LOGGER JOHN RUSSELL

H/S 2336.6 E/W 3415.8 ELEV. 16.48

BORING DIAMETER: 6 INCHES WELL CASING DIAMETER: 2 INCHES

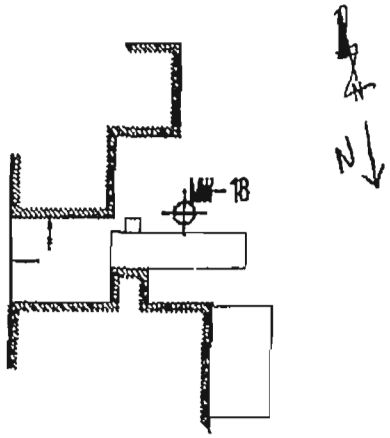
REVIEWED BY: M.A.M. DATE: 10-10-89

DIST. FROM SURF.	WELL CONST. CASING	WELL CONST. ANNULUS	LEGEND	TLV READING	SAMPLE NO.	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL
									PORTLAND CEMENT CONCRETE
1		4# BENTONITE CEMENT SLURRY							
2									
3									
4	BLANK	3/8" BENT. PELLET				X	17		SILTY SAND- BROWN, MOIST, MEDIUM DENSE, FINE-GRAINED WITH QUARTZ,
5						X	8		MAFICS, NO HYDROCARBON ODOR.
6				90	4106	X	8		
7								SM	
8									
9						X	9		
10						X	11		
11				80	4107	X	24		
12	0.030 INCH SLOT	#3 SAND							
13								H2O	
14						X	4		CLAYEY SAND- BROWN, WET, MEDIUM DENSE, FINE-GRAINED WITH QUARTZ,
15						X	6		MAFICS, NO HYDROCARBON ODOR.
16				106	4109	X	7	SC	
17									
18									
19									SAND- BROWN, WET, VERY DENSE WITH QUARTZ, MAFICS, NO HYDROCARBON ODOR.
20						X	5	SP	VERY DENSE.
						X	24		TEST BORING TERMINATED @ 20' ON 5-11-89
				42	4111	X	50		MATERIALS: 2 1/4 BAGS OF SAND 2/3 5 GALLON BUCKET OF BENTONITE

ANANIA GEOLOGIC ENGINEERING

BORING LOG

LOCATION OF BORING



SITE/LOCATION	CARNATION/OAKLAND				BORING NO. MW-18
PROJECT NO.	004-68-059				SHEET 1 OF 1
WATER LEVEL					DRILLER
TIME					START TIME 17:20 / FINISH TIME 18:30
DATE					DATE 5-11-89 / DATE 5-11-89
CASING DEPTH	20'				

DRILLING CONTRACTOR

DRILLER MIKE MOORE

DRILLING METHOD HOLLOW STEM AUGER

SAMPLING METHOD MPS

LOGGER JOHN RUSSELL

N/S 2372.8 E/W 3404.1 ELEV. 18.11

BORING DIAMETER: 8 INCHES WELL CASING DIAMETER: 2 INCHES

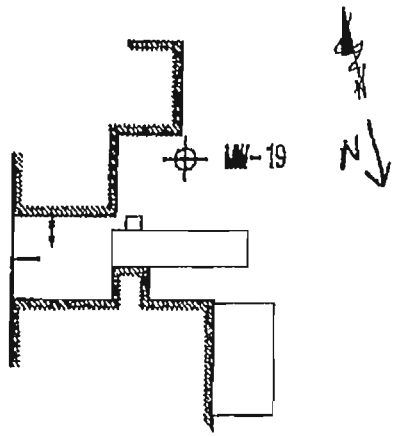
REVIEWED BY: DATE

DIST. FROM SURF.	WELL CONST. CASING	WELL CONST. ANNULUS	LEGEND	TLV READING	SAMPLE NO.	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL
									PORTLAND CEMENT CONCRETE
1									SILTY SAND- DARK BROWN, MOIST, MEDIUM DENSE, FINE-GRAINED WITH QUARTZ,
2		4¼ BENTONITE CEMENT SLURRY							MAFICS, SUBROUNDED, NO HYDROCARBON ODOR.
3									
4	BLANK	3/8" BENT. PELLET				X	24		
						X	12		
5				100	4113	X	6		
6									
7								SM	
8									
9						X	16		GRADES VERY MOIST, VERY DENSE, NO HYDROCARBON ODOR.
						X	24		
10				38	4115	X	38		
11	0.020 INCH SLOT	3# SAND							
12									
13									
14						X	24		SANDY SILT- BROWN, VERY MOIST, SEMI-PLASTIC, SOME CLAY, QUARTZ,
						X	32		MAFICS, NO HYDROCARBON ODOR, HARD.
15				48	4117	X	19	ML	
16									
17									
18									
19						X	11	SM	SILTY SAND- BROWN, VERY MOIST, DENSE, FINE GRAINED,
						X	19		QUARTZ, MAFICS, FELDSPARS, NO HYDROCARBON ODOR.
20				66	4119	X	34		TEST BORING TERMINATED @ 20' ON 5-11-89
									MATERIALS: 2 1/4 BAGS OF SAND 2/3 5 GALLON BUCKET OF BENTONITE

ANARIA GEOLOGIC ENGINEERING

BORING LOG

LOCATION OF BORING



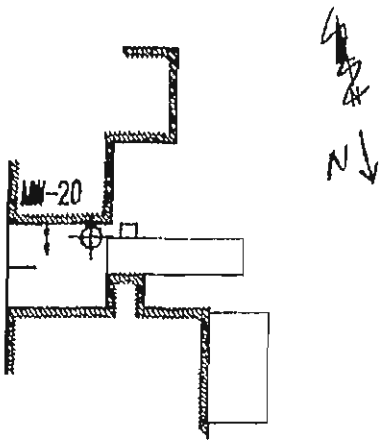
SITE/LOCATION	CARNATION/OAKLAND				BORING NO. MW-19
PROJECT NO.	004-68-059				SHEET 1 OF 1
WATER LEVEL					DRILLER
TIME					START TIME 10:10
DATE					FINISH TIME 11:20
CASING DEPTH	20'				DATE 5-11-89
DRILLING CONTRACTOR					DATE 5-16-89
DRILLER	MIKE MOORE				
DRILLING METHOD	HOLLOW STEM AUGER				
SAMPLING METHOD	MPS				
LOGGER	JOHN RUSSELL				
N/S	2349.2	E/W	3395.9	ELEV.	16.29
BORING DIAMETER:	6 INCHES	WELL CASING DIAMETER:	2 INCHES		
REVIEWED BY:		DATE			

DIST. FROM SURF.	WELL CONST. CASING	WELL CONST. ANNULUS	LEGEND	TLV READING	SAMPLE NO.	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL
									PORTLAND CEMENT CONCRETE
1		4" BENTONITE CEMENT SLURRY							
2									
3	BLANK								SILTY SAND- MOTTLED GRAY AND BROWN, MOIST, MEDIUM DENSE, FINE-
4						X	32		GRAINED, SUBANGULAR - SUBROUNDED GRAINS, QUARTZ, MAFICS.
		3/8" BENT. PELLET				X	9		NO HYDROCARBON ODOR, SOUR MILK ODOR.
5				110	4121	X	10		
6									
7									
8									
9									GRADES VERY DENSE, NO HYDROCARBON ODOR, SOUR MILK ODOR, CLASTS OF
						X	30		METAMORPHIC ROCK FRAGMENTS TO 10".
10				64	4123	X	34	SM	
11									
12	0.020 INCH SLOT	#3 SAND							
13									
14						X	4		GRADES, NO HYDROCARBON ODOR.
						X	6		
15				18	4125	X	8		
16									
17								H20 ▽	
18									
19						X	6		GRADES VERY DENSE, NO HYDROCARBON ODOR.
						X	24		TEST BORING TERMINATED @ 20' ON 5-16-89
20				30	4127	X	36		MATERIALS: 2 1/4 BAGS OF SAND 2/3 5 GALLON BUCKET OF BENTONITE

ANANIA GEOLOGIC ENGINEERING

BORING LOG

LOCATION OF BORING



SITE/LOCATION	CARNATION/OAKLAND				BORING NO. MW-20
PROJECT NO.	004-88-059				SHEET 1 OF 1
WATER LEVEL					DRILLER
TIME					START / FINISH
DATE					TIME 12:30 / 13:30
CASING DEPTH	20'				DATE 5-16-89 / 5-16-89

DRILLING CONTRACTOR

DRILLER MIKE MOORE

DRILLING METHOD HOLLOW STEM AUGER

SAMPLING METHOD MPS

LOGGER JOHN RUSSELL

N/S 2367.9 E/W 3458.1 ELEV. 16.39

BORING DIAMETER: 6 INCHES WELL CASING DIAMETER: 2 INCHES

REVIEWED BY: DATE

DIST. FROM SURF.	WELL CONST. CASING	WELL CONST. ANNULUS	LEGEND	TLV READING	SAMPLE NO.	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL
									PORTLAND CEMENT CONCRETE
1									
									SAND- TAN, MOIST, MEDIUM DENSE WITH QUARTZ, FINE GRAINED, MAFICS,
2		4# BENTONITE CEMENT SLURRY							NO HYDROCARBON ODOR.
3								SP	
4	BLANK	3/8" BENT. PELLET				X	25		
						X	15		
5				32	4129	X	16		
6									
7									
8									
9						X	8		SILTY SAND- LIGHT BROWN, MOIST, FINE-GRAINED WITH SOME CLAY, QUARTZ,
						X	8		MAFICS, NO HYDROCARBON ODOR.
10				28	4131	X	17		
11	0.020 INCH SLOT	4# SAND							
12								SM	
13									
14						X	14		COLOR CHANGE TO MOTTLED GREY AND TAN, NO HYDROCARBON ODOR.
						X	6		
15				28	4133	X	6		
16									
17								H2O ▽	
18									SAND- MOTTLED GREY AND TAN, WET, DENSE, FINE GRAINED, NO
									HYDROCARBON ODOR.
19								SP	
							30		TEST BORING TERMINATED @20' ON 5-16-89
20				28	4135		6		MATERIALS: 2 1/4 BAGS OF SAND 2/3 5 GALLON BUCKET OF BENTONITE

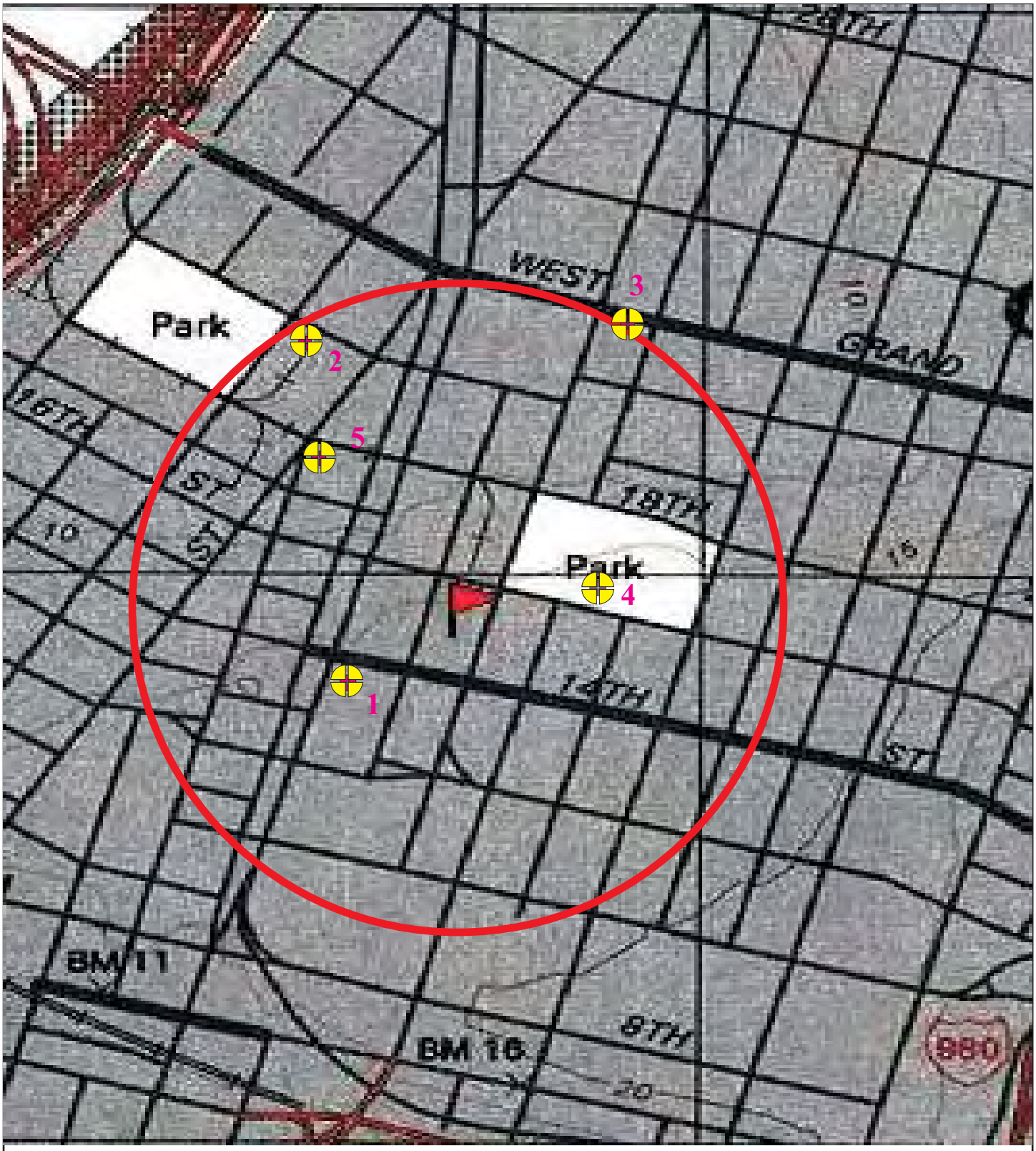
APPENDIX C

Well Survey

WELLS LOCATED WITHIN 1/2 MILE OF SUBJECT SITE
Carnation Property, 1310 14th Street, Oakland, CA

Site Number	Location	Site Name	Address	Well Number	Date Installed	Boring Depth (feet)	Well Depth (feet)	Casing Diameter (inches)	DTW (feet)
1	1S/4W-27B4	Coca Cola	1340 Cypress St.	MWB-1	03/22/91	27	27	NA	14
	1S/4W-27B5			MWB-4	03/22/91	27	27	NA	14
	1S/4W-27B6			MWB-9	03/23/91	27	27	NA	14
	1S/4W-27B7			MWB-12	03/25/91	27	27	NA	14
	1S/4W-27B8			MWB-13	03/25/91	27	27	NA	14
	1S/4W-27B9			MWB-14	03/25/91	27	27	NA	14
2	1S/4W-27F1	PG&E	20th & Campbell Streets	NA	07/31/74	10	10	NA	NA
3	1S/4W-27G1	Guidott	2210 Union St.	MW-1	09/27/90	19.5	19.5	NA	6.5
4	1S/4W-27K	DeFremery park		NA	09/06/27	137	120	2	NA
5	1S/4W-27L2-3	Cutis & Sons	1800 Peralta St.	MW-1	06/22/88	18	18	2	4.0
	1S/4W27L2-3	Cutis & Sons		MW-2	06/22/88	10.5	10.5	2	5.5

DTW = Depth To Water



LEGEND

MONITORING WELL

N

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, CA 94597

SITE LOCATION PLAN

1310 14th Street
Oakland, California

FIGURE 1
Job No: 277205

APPENDIX D

Groundwater Laboratory Analyses
With
Chain of Custody Documentation

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 02/08/2008 By jamesy

Permit Numbers: W2008-0057
Permits Valid from 02/22/2008 to 02/22/2008

Application Id:	1202424576175	**City of Project Site:**	Oakland
Site Location:	1310 14th Street (access on 16th)		
Project Start Date:	02/22/2008	**Completion Date:**	02/22/2008
Applicant:	AEI Consultants - Robert Flory 2500 Cami9no Diablo, Walnut Creek, CA 94597	**Phone:**	925-944-2899
Property Owner:	Tom Hall Equities Group 1855 Olympic Blvd, Ste 250, Walnut creek, CA 94596	**Phone:**	925-472-5284
Client:	** same as Property Owner **		
Contact:	Robert Flory	**Phone:** **Cell:**	925-944-2899 925-457-7517

	Total Due:	$200.00
Receipt Number: WR2008-0043	**Total Amount Paid:**	$200.00
Payer Name : Robert F. Flory	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 4 Boreholes
Driller: Vironex - Lic #: 705927 - Method: DP **Work Total: $200.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0057	02/08/2008	05/22/2008	4	3.00 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #277205; Encinal 14th Street	Date Sampled: 02/22/08
		Date Received: 02/22/08
	Client Contact: Robert Flory	Date Reported: 02/28/08
	Client P.O.:	Date Completed: 02/28/08

WorkOrder: 0802550

February 28, 2008

Dear Robert:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#277205; Encinal 14th Street,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0802550

McCampbell Analytical, Inc.
1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

Report To: Robert Flory	Bill To: Same
Company: AEI Consultants	
2500 Camino Diablo	
Walnut Creek, CA 94597	E-Mail: rflory@aeiconsultants.com
Tel: (925) 944-2899, extension 122	Fax: (925) 944-2895
Project #: 277205	Project Name: Encinal 14th Street
Project Location: 1310 14th Street, Oakland, CA	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	Analysis Request: BTEX & TPH as gas (602/8020 + 8015) MTBE	TPH Multirange (8015) –g, –d, –bo, –mo	Total Petroleum Oil & Grease (5520 E&F B&F)	Total Petroleum Hydrocarbons (418.1)	VOCs EPA 8260 Basic list	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 8080	EPA 624 / 8260 (8) Oxygenates & scavengers	EPA 625 / 8270	PAH's, PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	Other	Comments
+ SVE-1		9/22/06	9:45	4	Amber Jar	X					X	X				X			X											
+ SVE-2			11:10	3	VOA	X					X	X							X											

Relinquished By:	Date:	Time:	Received By:
	9/22/06	5:45	
Relinquished By:	Date:	Time:	Received By:
	9/22	3:15	
Relinquished By:	Date:	Time:	Received By:

ICE/T° 9.2°C ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB N/A

PRESERVATION APPROPRIATE ✓ CONTAINERS ✓	VOAS	O&G	METALS	OTHER
PRESERVED IN LAB HCl	HCl	—	—	—

Comments: Filter Samples for Metals Analysis: Yes / No

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0802550 **ClientCode: AEL**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: rflory@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 283-6121
PO:
ProjectNo: #277205; Encinal 14th Street

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **02/22/2008**
Date Printed: **02/22/2008**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0802550-001	SW-1	Water	2/22/2008 9:45	☐	B	A										
0802550-002	SW-2	Water	2/22/2008 11:10	☐	A											

Test Legend:

1	8260B_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Samantha Arbuckle

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **2/22/2008 3:46:15 PM**

Project Name: **#277205; Encinal 14th Street**

Checklist completed and reviewed by: Samantha Arbuckle

WorkOrder N°: **0802550** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	NA ☐
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 9.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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AEI Consultants	Client Project ID: #277205; Encinal 14th Street	Date Sampled: 02/22/08
		Date Received: 02/22/08
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 02/26/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 02/26/08

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0802550

Lab ID	0802550-001B
Client ID	SW-1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
Chloroform	ND	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.2
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Freon 113	ND	1.0	10	Hexachlorobutadiene	ND	1.0	0.5
Hexachloroethane	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Isopropylbenzene	ND	1.0	0.5	4-Isopropyl toluene	ND	1.0	0.5
Methyl-t-butyl ether (MTBE)	ND	1.0	0.5	Methylene chloride	ND	1.0	0.5
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	106	%SS2:	102
%SS3:	99		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; J) analyte detected below quantitation limits; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative; q) reported in ppm.

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AEI Consultants	Client Project ID: #277205; Encinal 14th Street	Date Sampled: 02/22/08
		Date Received: 02/22/08
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 02/26/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 02/26/08

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0802550

Lab ID	0802550-002A
Client ID	SW-2
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	22	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
Chloroform	ND	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.2
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Freon 113	ND	1.0	10	Hexachlorobutadiene	ND	1.0	0.5
Hexachloroethane	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Isopropylbenzene	ND	1.0	0.5	4-Isopropyl toluene	ND	1.0	0.5
Methyl-t-butyl ether (MTBE)	ND	1.0	0.5	Methylene chloride	ND	1.0	0.5
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	106	%SS2:	102
%SS3:	100		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; J) analyte detected below quantitation limits; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative; q) reported in ppm.

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AEI Consultants	Client Project ID: #277205; Encinal 14th Street	Date Sampled: 02/22/08
2500 Camino Diablo, Ste. #200		Date Received: 02/22/08
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 02/22/08
	Client P.O.:	Date Analyzed 02/22/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method: SW5030B Analytical methods: SW8015Cm Work Order: 0802550

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	SW-1	W	ND	1	104

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #277205; Encinal 14th Street	Date Sampled: 02/22/08
		Date Received: 02/22/08
	Client Contact: Robert Flory	Date Extracted: 02/22/08
	Client P.O.:	Date Analyzed 02/25/08

Bunker Oil (C10+), Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Bunker/Motor Oil*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0802550

Lab ID	Client ID	Matrix	TPH(bo)	TPH(d)	TPH(mo)	DF	% SS
001A	SW-1	W	ND	ND	ND	1	101

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	100	50	250	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant (cooking oil?); h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) kerosene/kerosene range; l) bunker oil range (?); no recognizable pattern; m) fuel oil; n) stoddard solvent/mineral spirits; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0802550

EPA Method SW8015C **Extraction SW3510C** **BatchID: 33886** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	112	112	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	100	101	0.992	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 33886 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0802550-001A	02/22/08 9:45 AM	02/22/08	02/25/08 10:50 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0802550

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 33920	Spiked Sample ID: 0802496-003A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	90.1	94	4.17	98.3	95.1	3.32	70 - 130	30	70 - 130	30
MTBE	ND	10	93.4	96.6	3.34	104	100	4.04	70 - 130	30	70 - 130	30
Benzene	ND	10	92.6	97.4	5.00	102	101	1.69	70 - 130	30	70 - 130	30
Toluene	ND	10	88.6	94.1	5.99	91.6	91.5	0.0677	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	89.8	94.9	5.54	101	99.6	1.11	70 - 130	30	70 - 130	30
Xylenes	ND	30	84.4	87.1	3.15	97.4	95.5	1.92	70 - 130	30	70 - 130	30
%SS:	103	10	105	110	4.33	102	100	2.21	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 33920 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0802550-001A	02/22/08 9:45 AM	02/22/08	02/22/08 9:37 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0802550

EPA Method SW8260B	Extraction SW5030B	BatchID: 33942	Spiked Sample ID: 0802522-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	118	115	3.03	116	115	0.938	70 - 130	30	70 - 130	30
Benzene	ND	10	106	98.8	6.62	104	102	2.23	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	108	110	2.34	105	106	1.13	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	112	107	4.60	105	103	1.99	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	116	113	2.81	106	104	1.72	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	112	109	3.25	109	107	1.93	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	117	92.9	23.0	114	111	3.23	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	104	101	2.53	104	104	0	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	111	108	2.62	111	110	1.04	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	108	105	2.77	109	107	1.59	70 - 130	30	70 - 130	30
Toluene	ND	10	109	102	6.86	101	98.7	2.17	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	106	98	7.56	101	98.1	2.69	70 - 130	30	70 - 130	30
%SS1:	97	10	99	98	0.251	98	97	1.51	70 - 130	30	70 - 130	30
%SS2:	96	10	99	99	0	100	99	1.11	70 - 130	30	70 - 130	30
%SS3:	89	10	97	96	1.35	94	94	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 33942 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0802550-001B	02/22/08 9:45 AM	02/26/08	02/26/08 10:09 AM	0802550-002A	02/22/08 11:10 AM	02/26/08	02/26/08 10:55 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

APPENDIX E

Aerial Photos

Live Search Maps

1310 14th St, Oakland, CA 94607-2209

Bird's eye view printing is unavailable.