June 8, 2009

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Subject: **Workplan for Site Investigation**
Test Only Smog Station (Former Autopro)
5200 Telegraph Avenue, Oakland, California
Fuel Leak Case No. RO0000323, GeoTracker Global ID T0600100131
PSI Project No. 575-8G012

Mr. Khatri:

Professional Service Industries, Inc. (PSI) has prepared this Workplan for the former underground storage tank (UST) site at the former Autopro auto repair facility, located at 5200 Telegraph Avenue in Oakland, California (see Figure 1). This workplan has been prepared in response to your referenced letter (ACEH, 2008) which requested the following seven technical issues be addressed;

1. Monitoring Wells and Hydrologic Setting
2. Preferential Pathway Study
3. Groundwater Contaminant Plume Definition
4. Contaminant Source Area Characterization
5. Groundwater Contaminant Plume Monitoring
6. Site Conceptual Model
7. GeoTracker Compliance

This workplan proposes a scope of work to be performed to address each of the 7 issues raised in your letter.

Issue 1 — Monitoring Wells and Hydrogeologic Setting

Incorrectly Constructed Wells - The referenced ACEH letter expresses concern that the wells were constructed incorrectly, such that groundwater levels are above the slotted (screened) casing interval of the wells. The ACEH is concerned that this condition may be affecting detected contaminant concentrations in the wells. The last three quarters of groundwater monitoring indicate that the groundwater level was at between approximately 7 and

12 feet below ground surface (bgs). The well installation report (ESE, 1994) shows that the wells are screened from 15-25 feet bgs (MW-2, MW-3 and MW-4) and from 15-30 feet bgs (MW-1). Based on this data, the top of the screens are below the groundwater level.

As the ACEH letter mentions, petroleum hydrocarbons float on water. We are in agreement that the top of screens being below the groundwater level would affect the ability to detect product (i.e. fuel or oil) floating on top of the groundwater table. In the absence of floating product, this type of design flaw in monitoring wells is not expected to significantly affect the monitoring of dissolved hydrocarbon contaminants in groundwater beneath the site either from a qualitative (ability to detect) or quantitative (detected concentrations) standpoint. We have seen no mention in the references reviewed and no indication from historical analytical data that there is, or has been, free floating product on groundwater at the site. As such, it is our opinion that the ability to accurately detect contaminant concentrations in the on-site wells is not a concern, despite their incorrect installation. In responding to this same issue raised earlier by the ACEH, another consultant (Mactec, 2004) has generally indicated the same conclusion, stating that "*The one significant effect that the inappropriate screen levels may have for the site is the determination of the presence of free floating petroleum product.*"

Monitoring Well Condition – Recently sounded depths of wells MW-1, MW-3, and MW-4 (26.07, 14.54, and 15.69 feet, respectively) do not agree with the construction data for the wells; the sounded depths measure about 5 to 10 feet less than their installation depth (Mactec, 2004; PSI, 2009). In fact, the sounded depths of MW-3 and MW-4 are about at the top of where the screened interval begins. Sometime between the 1996 ESE report and the 2004 Mactec report, these wells have seemingly "lost" 5 to 10 feet of length. Since the sounded depths of MW-3 and MW-4 are at or above the installed slotted casing, and since both of these wells have no problems producing groundwater, the most likely causes of the discrepancy are either a blockage (i.e. a stuck bailer) or an irregularity (i.e. bend, kink or offset break) in the well casings.

There is documentation that the well casing of MW-3 or MW-4 (or both) were damaged and subsequently repaired in 1998, possibly having to do with the process of removing Oxygen Releasing Compounds from these wells (QST, 1999). No further detail was provided in the report to describe the damage or repair, however a new relative elevation survey performed for the Third Quarter 1998 suggests that about 1.6 inches were cut off of the top of the MW-3 well casing.

Proposed Work - PSI proposes to attempt to use field methods to evaluate the condition of the monitoring wells in an attempt to determine the reason for the discrepancy between the installation depths and sounded depths of the wells. Use of a smaller diameter sounding device and "fishing" to remove obstructions will be attempted. The well condition evaluation will be included in the Site Conceptual Model (see Issue 6). A survey of the top of casings of the wells, in accordance with SWRCB requirements, is planned as part of the work to address Issue 3.

Issue 2 — Preferential Pathway Study

Review of Utility Backfill Sampling - The ACEH letter states that the preferential pathway study performed for the site (Mactec, 2004) indicates migration of contamination along utility corridors. This "preferential pathway" study consisted of only two borings (B-1 and B-2), both located directly downgradient of the site and upgradient of the utility trenches. Beyond their observation of manhole covers and storm drain inlets in the street, it is not stated in their report what source was used to locate the utility trenches on their figure or to what depth(s) the trenches extend. One boring was advanced adjacent to the manhole cover for each of the storm drain and sanitary sewer within the intersection of Telegraph Avenue and 52nd Street. Their report states that "*…it does not appear that trench backfill was encountered in either boring.*" Groundwater was only encountered in *one* of their borings (B-2 - not "SB-1" noted in their table) located about 80 feet downgradient of the former gasoline UST. Analysis of the sample indicated that TPH-g, TPH-d and BTEX constituents were detected at concentrations significantly (up to 1 factor of magnitude) greater than in the on site monitoring wells. Based on analysis of only one groundwater sample, collected from a boring downgradient of the site and upgradient of the utility trench, the report concluded that; "*This information suggests that the release from the Site has migrated to the utility trenches, which are acting as a preferential pathway for the release.*"

The sample was collected in an area upgradient of the storm drain trench where the groundwater contaminant plume would be expected to be. As such, while the presence of groundwater contamination in this location does suggest that the contaminant plume has likely *reached* the storm drain trench, it is our opinion that this does not speak directly to the possibility that the trench is acting as a preferential pathway. Since no water was encountered near the other utility (sanitary sewer) trench, we are also *not* in agreement that the data suggests that the sewer trench is acting as a preferential pathway. The Utility Backfill Sampling performed by Mactec falls short of a preferential pathway study. We are in agreement with the ACEH that the extent of contamination along utility corridors is unknown and with their recommendations for further evaluation of preferential pathways.

Proposed Work - PSI proposes to perform a preferential pathway study. Our proposed scope of work is as follows;

1. Review of available plans from the City of Oakland Public Works department regarding locations, depths, construction and flow direction of underground utilities (storm water and sanitary sewer) in the site area.

2. PSI will mark the areas to the south, east and west of the subject site (in conjunction with the markings required to address Issues 3 and 4) and call Underground Service Alert (USA) to facilitate the location of commercial and public utilities that may be in the general site area. While these utilities are *expected* to be about 5 to 6 feet below grade

and not deep enough to provide a migration path for contaminated groundwater, the information will be collected in order to be complete. Any utility lines with an alignment that might provide a potential pathway will be followed up with a call to the appropriate utility company to evaluate the installed depth of their line.

3. The information obtained from the plans, USA street markings and utility inquiries will be plotted on a site vicinity map. The mapped utility locations and depths, along with depth to groundwater data, groundwater flow direction, utility flow direction and analytical data from source areas and downgradient sampling points will be reviewed to evaluate the potential preferential pathways to contamination from the subject site. This information will be included in the Site Conceptual Model (see Issue 6).

4. Review of geologic information from available maps and logs of borings performed for this and nearby sites to prepare geologic cross sections in alignments both along hydraulic gradient and cross gradient.

At the completion of this work, PSI will provide a report which will present the data generated and an evaluation of preferential pathways, with identification of soil layers or conduits that may act as pathways (or barriers) to contaminant transport. If it is determined that there is a potential preferential pathway that has not been adequately assessed with the data generated to date, the report may make recommendations for additional investigation.

Issue 3 – Groundwater Contaminant Plume Definition

The ACEH letter states that, based on contaminant concentrations in the downgradient monitoring wells, the extent of the groundwater contaminant plume is undefined. In 1996, seven (7) borings (AP-1 through AP-7) were drilled downgradient from the site to help define the extent of the plume (ESE, 1996). Also, there is an active LUST site (former Chevron gas station) located directly downgradient (southwest) of the subject site. The information generated from the ESE and Chevron investigations was used to generate maps of the estimated extent of contaminants (TPH-G, TPH-D, benzene and MTBE) in groundwater. These maps appear to adequately define the limit of the contaminant plume to the north, south and east, but fail to define the plume to the west and southwest.

Based on these maps and on contamination detected on the upgradient (northeast) corner of the former Chevron site, it appears as if the plume enters onto the Chevron site and may co-mingle with the residual contamination at that site. Based on an investigation performed at a property west of the subject site, there is also concern that the plume has traveled west across Telegraph Avenue. As such, we are in general agreement that the downgradient extent of the groundwater contaminant plume is undefined.

Proposed Work - PSI proposes to install two (2) additional groundwater monitoring wells for the subject fuel leak case. The new wells (MW-6 and MW-7) are to be installed in the public right-of-ways (sidewalk west of and parking space southwest of the subject site, respectively - see Figure 2). The purpose of the work is to help define the extent of the groundwater contaminant plume in the west and southwest directions. The locations of the new wells are proposed in parking lanes, sidewalks or private property, and may be revised based on the results of the preferential pathway study (Issue 2) and feasibility of obtaining permission for drilling. Our proposed scope of work is as follows;

1. A minimum of two working days prior to performing the field drilling services, PSI will locate the proposed borings in the field with white paint. A representative of PSI will then call USA to notify utilities and public service agencies of the proposed drilling. Drilling, encroachment and lane closure permits and property entry permissions will be obtained and traffic control and health and safety plans will be filed as required for the proposed drilling.

2. PSI will supervise the drilling of two (2), eight-inch diameter soil borings at the approximate locations presented in Figure 2. A State of California licensed driller will provide the drilling services using a truck-mounted, hollow-stem auger drill rig. The proposed locations were chosen based upon investigations performed by others (ESE, 1996; SCHUTZE, 2007) in order to provide monitoring locations toward the limits of the contaminant plume in the west and southwest (downgradient) directions.

3. Soil samples will be collected during drilling at 5 foot intervals for lithologic-logging purposes. Each sample will be screened for Volatile Organic Compounds (VOCs) with a photoionization detector (PID) during sample collection. The soil sample from each boring above first encountered groundwater (expected from 10 or 15 feet below grade) will be labeled with the boring designation, date and time of collection, logged on a chain-of-custody record and stored in a chilled ice chest pending delivery to the analytical lab. Fieldwork for drilling and soil sampling activities will be conducted in accordance with the field procedures described in Appendix A.

4. Soil will be described by PSI field personnel and recorded on a field-boring log. The data recorded on the logs will be based on examination of soil samples retrieved and drilling conditions observed in the field. Boring logs will include information regarding the location of the boring, type of sampler used, and geologic descriptions of materials encountered. Soils will be classified in general accordance with the Unified Soil Classification System. Other information to be recorded on the logs will include indications of contamination and the occurrence of groundwater.

5. Decontamination procedures will be implemented to prevent cross-contamination between boring locations. All drilling equipment will be cleaned with a pressure washer prior to use and at each new boring location.

6. A monitoring well will be installed in each of the two (2) borings by the State of California licensed driller. The well casings will consist of 2-inch inside diameter Schedule 40 PVC casing with 0.020-inch machine-slotted screen and a threaded end cap at the bottom. Based on groundwater levels in the area of between 7 and 15 feet, the completed wells are expected to be 20 feet deep with a screened interval of 5 to 20 feet. The sand pack (Monterey-type number 3 sand) will extend approximately 1 foot above the screen interval and will be surged and bailed as part of development prior to installation of the bentonite transition seal. Approximately 1 foot of hydrated bentonite chips will be placed as a sanitary seal above the sand pack, and neat cement mixed at a ratio of 5 gallons of water per 94-pound sack of cement will provide the surface seal from the top of the bentonite to grade. The wells will be completed with a water-tight locking cap and a flush-mounted, traffic-rated well cover. A proposed well construction detail is included as an attachment to this workplan.

7. The soil samples collected during this well installation will be submitted to a State of California Department of Health Services certified analytical laboratory. The samples will be analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G) and Total Petroleum Hydrocarbons as Diesel (TPH-D) using EPA Method 8015M, and for VOCs using EPA Method 8260B.

8. The new wells will be developed using the mechanical surging method to repair any damage to the formation caused by drilling activities and to increase the hydraulic conductivity between the well screen and the surrounding formation. Well development will be performed no sooner than 48 hours following well construction to allow the well seal enough time to set. Prior to development, the depth to water and total depth of the well shall be measured and compared with well installation data, with any discrepancies noted. A surge block will then be placed inside the well casing and raised and lowered like a piston, forcing water to flow into and out of the well screen and through the filter pack. Turbid water will be bailed from the well periodically to remove fine sediment from suspension so that they are not forced back into the formation. During bailing of groundwater, field parameters (pH, conductivity and temperature) will be measured. Development will continue until; observed turbidity/cloudiness of the water decreases and stabilizes, the readings for field parameters have stabilized for three successive readings, and a minimum of 3 casing volumes has been removed.

9. Soil from drilling and water from decontamination and development activities will be stored in individually labeled 55-gallon drums at the subject site. PSI will arrange for the

management and appropriate disposal of soil and water generated during the field activities.

10. PSI will have the site, including the existing structures and top of casings for the 2 new and 4 existing on-site monitoring wells, surveyed for both location and elevation in accordance with the State Water Resources Control Board's (SWRCB) GeoTracker requirements. The information from the survey will be used to generate a more accurate site plan and to calculate the groundwater gradient and flow direction, all of which will be incorporated into the quarterly groundwater monitoring reports (see Issue 5).

11. The two new groundwater monitoring wells (MW-6 and MW-7) will be added to the quarterly groundwater monitoring program for the site and sampled for chemical analysis (TPH-G, TPH-D and VOCs) at the next quarterly monitoring event. Groundwater elevation measurement, sample collection and analysis will be performed in accordance with the monitoring program already in progress for the site (see Issue 5).

At the completion of this work, PSI will provide monitoring well installation data, including a description of the field activities, the boring logs, well installation diagrams and soil analytical results as part of the next scheduled quarterly groundwater monitoring report.

Issue 4 – Contaminant Source Area Characterization

The ACEH letter states that up to four different source areas exist at the subject site; the 3 UST excavations and the dispenser island. It should be noted that there were 2 dispenser islands at the site; one each on the west and southeast sides of the site. The 5 potential source areas are shown on Figure 2. The ACEH letter recommends that adequate evaluation of the contaminant source areas be conducted and suggests that the result of the evaluation should be used to select an appropriate corrective action for the site.

UST Area Evaluation – Five USTs were removed from three excavations at the site in December 1990. Upon their removal, a soil sample was collected from beneath each end of all five USTs (10 samples total) to characterize the contamination in these source areas. In 1991, overexcavation of contaminated soil from the two fuel UST pits was performed, with 6 perimeter soil samples collected from each pit (12 samples total) to characterize residual contamination in these source areas (PE, 1991). In 1993, one boring was drilled in each of the two fuel UST pits, with a native soil sample and groundwater sample collected from each (ESE, 1993). Based on correspondence obtained from the ACEH files (WCE, 1993) ACEH personnel were present during the removal of the USTs, the overexcavation of contaminated soil and the sampling of soil. All analytical results were provided to the ACEH for review and ACEH approval was received prior to backfilling and repaving over the pits. It is our opinion that sufficient characterization has been performed in the 3 former UST areas.

Dispenser Area Evaluation – Two dispenser islands and associated product piping were removed from the site along with the USTs. In April 1994, a boring was drilled in the area of the dispenser island on the southeast side of the site, with 2 soil samples (from 10 and 15 feet below grade) collected and analyzed from this potential source area. Monitoring well MW-4 was installed in this boring, with periodic groundwater samples collected and analyzed. It is our opinion that sufficient characterization has been performed in this potential source area. No soil or groundwater samples have been collected from the area of the dispenser island on the west side of the site. As such, we are in agreement with the ACEH that an evaluation of this potential contaminant source should be conducted.

Proposed Work - PSI proposes to perform a limited source area investigation to include one boring drilled in the area of the dispenser island on the west side of the site in order to characterize this potential source area. This boring is intended to be drilled in concert with the well installation proposed in Issue 3. Our proposed scope of work is as follows;

1. A minimum of two working days prior to performing the field drilling services, PSI will locate the proposed boring in the field with white paint. A representative of PSI will then call USA to notify utilities and public service agencies of the proposed drilling. A drilling permit will be obtained and a health and safety plan will be filed as required for the proposed drilling.

2. One boring will be drilled in the area of the west dispenser island to obtain soil and groundwater samples for analysis. The boring location will be drilled in the approximate location presented in Figure 2. The boring will be drilled only to the depth required to collect a groundwater sample (expected maximum of 15 feet). A State of California licensed driller will provide the drilling services using a truck-mounted, hollow-stem auger drill rig. Soil samples will be collected at 5-foot intervals for environmental analysis until groundwater is reached. Each sample will be screened for VOCs with a PID during sample collection. Fieldwork for drilling and soil sampling activities will be conducted in accordance with the field procedures described in Appendix A. Following drilling and sample collection, the boring will be grouted with neat cement according to permit requirements.

3. Soil will be described by PSI field personnel and recorded on a field-boring log. The data recorded on the log will be based on examination of soil samples retrieved and drilling conditions observed in the field. The boring log will include information regarding the location of the boring, type of sampler used, and geologic descriptions of materials encountered. Soils will be classified in general accordance with the Unified Soil Classification System. Other information to be recorded on the logs will include indications of contamination and the occurrence of groundwater.

4. A groundwater sample will be collected from the boring using a single-use polyethylene bailer. The groundwater sample will be decanted into laboratory-supplied containers and labeled with the boring designation, date and time of collection. Sample preservatives will be utilized as instructed by the analytical laboratory.

5. Following soil and groundwater sample collection, the samples will be logged on a chain-of-custody record and stored in a chilled ice chest pending delivery to the analytical lab. All transportation and handling of the samples will follow chain-of-custody protocol.

6. Decontamination procedures will be implemented to maintain sample integrity and to prevent cross-contamination between sampling locations. All drilling equipment will be cleaned with a pressure washer prior to use and at each new boring location.

7. Soil from drilling and water from equipment cleaning activities will be stored in a labeled 55-gallon drum at the subject site. PSI will arrange for the management and appropriate disposal of soil and water generated during the field activities.

8. The soil and groundwater samples collected during this investigation will be submitted to a State of California Department of Health Services certified analytical laboratory. The samples will be analyzed for TPH-G and TPH-D using EPA Method 8015M, and for VOCs using EPA Method 8260B.

At the completion of this work, PSI will provide a report which will present the new data generated for the west dispenser island along with historic data generated for the other potential contaminant sources as well as our evaluation of all 5 potential contaminant source areas.

Corrective Action – The evaluation of the potential Contaminant Source Areas will be incorporated into the Site Conceptual Model (SCM; see Issue 6). The SCM will include an evaluation of potential corrective actions and whether alternate groundwater remediation measures may be necessary to achieve water quality objectives.

Issue 5 – Groundwater Contaminant Plume Monitoring

At the writing of the ACEH letter, the most recent groundwater monitoring event for the site was performed in December, 2004. The ACEH letter states that, in order to evaluate the stability of the groundwater contaminant plume, the groundwater monitoring program must be re-initiated. The ACEH recommended redevelopment of the wells prior to sampling. PSI agrees with the recommendations of the ACEH, and as of December 2008, has redeveloped the four on-site monitoring wells and resumed quarterly groundwater monitoring at the site.

Monitoring Well Redevelopment - On December 16, 2008, all four on-site monitoring wells (MW-1 through MW-4) were redeveloped using the mechanical surging (surge block) method to remove silt or clay from the surrounding formation that were caught in the filter pack, and to improve groundwater flow into the monitoring well (PSI, 2009). After the surge, the wells were purged to remove suspended sediment from the well and to encourage new water to flow into the well from the surrounding soil formation. This series of procedures was repeated three times to each of the monitoring wells.

In monitoring wells MW-1, MW-3 and MW-4, the surge block was only able to be lowered to between 14 and 16 feet before it became lodged, which is about the level of the top of screened casing in these wells. Several attempts were made to get past the blockage with no success. The wells recharged easily during purging however, suggesting that their filter pack and screen are in good working order.

Groundwater Monitoring Program - In December 2008, after completion of the redevelopment of the monitoring wells, quarterly sampling of the wells (MW-1 through MW-4) for chemical analysis (TPH-G, TPH-D and VOCs) resumed and is currently ongoing. Details regarding the groundwater monitoring program can be found in our quarterly monitoring reports.

Issue 6 – Site Conceptual Model

Once the above scope of work (Issues 1 through 5) has been completed, the data generated will be used, in concert with the referenced documents and groundwater monitoring data, to produce a Site Conceptual Model (SCM) which is to include;

- Geologic cross sections to show subsurface features;
- Plots of chemical concentrations vs. time and vs. distance from contaminant source;
- Summary tables of chemical concentrations in soil and groundwater;
- Maps which illustrate sources and extent of contamination, preferential pathways and potential receptors;
- Compilation of boring logs, well construction diagrams and well survey maps;
- Discussion of groundwater beneficial use;
- Proposal of water quality objectives; and
- Discussion of whether alternate groundwater remediation measures may be necessary to achieve water quality objectives.

The goal of the SCM will be to identify any data gaps or other informational issues regarding risk from the contaminant plume to human health and groundwater resources. Any gaps or additional issues identified may need to be addressed with additional site investigation.

Issue 7 – GeoTracker Compliance

The ACEH letter notes that the site is currently out of compliance with respect to the California State requirement to survey all permanent monitoring points and submit survey and analytical reports to the SWRCB GeoTracker website. In order to bring the site back toward compliance, the survey performed for Issue 3 will be used to prepare and upload new figures and survey data to the State GeoTracker system. Additionally, PSI will make requests of the labs used previously for analysis of site samples to provide the Electronic Data Files (EDF) for upload to the GeoTracker system. Historic reports and EDF made available to us will be uploaded to on behalf of the property owners as they become available.

Limitations

The professional services to be provided are to be performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any or all sources or locations of contamination.

PSI reserves the right to deviate from the proposed scope of services outlined in this Workplan as needed to obtain the required information. If such deviation is necessary, PSI will seek prior approval from the client and the ACEH.

Please respond with your comments or concurrence with our plan for additional work - your input and technical comments are welcome. Once you have responded, PSI can provide a time schedule for the work scope either agreed upon or as otherwise modified or recommended by the ACEH.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

REGISTERED GEOLOGIST
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Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan and Proposed Boring Location Map
Appendix A: Standard Field Procedures
Proposed Well Construction Detail

References

1. Pacific Excavators (PE), January 10, 1991, "Soils Reports for Autopro, 5200 Telegraph Ave., Oakland, CA," 7 pg fax transmittal to ACEH.

2. Pacific Excavators (PE), August 16, 1991, Soil Analytical Report for Autopro, 5200 Telegraph Ave., Oakland, CA, 16 pg fax transmittal to ACEH.

3. Pacific Excavators (PE), October 10, 1991, "Autopro, 5200 Telegraph Ave., Oakland, CA," 6 pg fax transmittal to ACEH.

4. Environmental Science & Engineering, Inc., (ESE), April 19, 1993, "Auto Pro, 5200 Telegraph Avenue, Oakland, California," Project No. 6-93-5063.

5. Environmental Science & Engineering, Inc., (ESE), May 24, 1994, "Report of Findings: Preliminary Site Assessment, Autopro, 5200 Telegraph Avenue, Oakland, California," Project No. 6-94-5219.

6. William C. Ellis (WCE), May 25, 1993, "Soil and Groundwater Investigation/Remediation – Auto Pro property, 5200 Telegraph Avenue, Oakland, CA."

7. Environmental Science & Engineering, Inc., (ESE), September 5, 1996, "Additional Soil and Groundwater Investigation and Second Quarter 1996 Groundwater Monitoring Report, 5200 Telegraph Avenue, Oakland, California," Project No. 65-95-219.

8. US Geological Survey (USGS), 1997 Oakland West Quadrangle, California, 7.5 Minute Series (topographic), United States Department of the Interior, Scale: 1:24,000.

9. QST Environmental, July 1999, "Site Closure Report, Auto Pro, 5200 Telegraph Avenue, Oakland, California," Project No. 6595219.

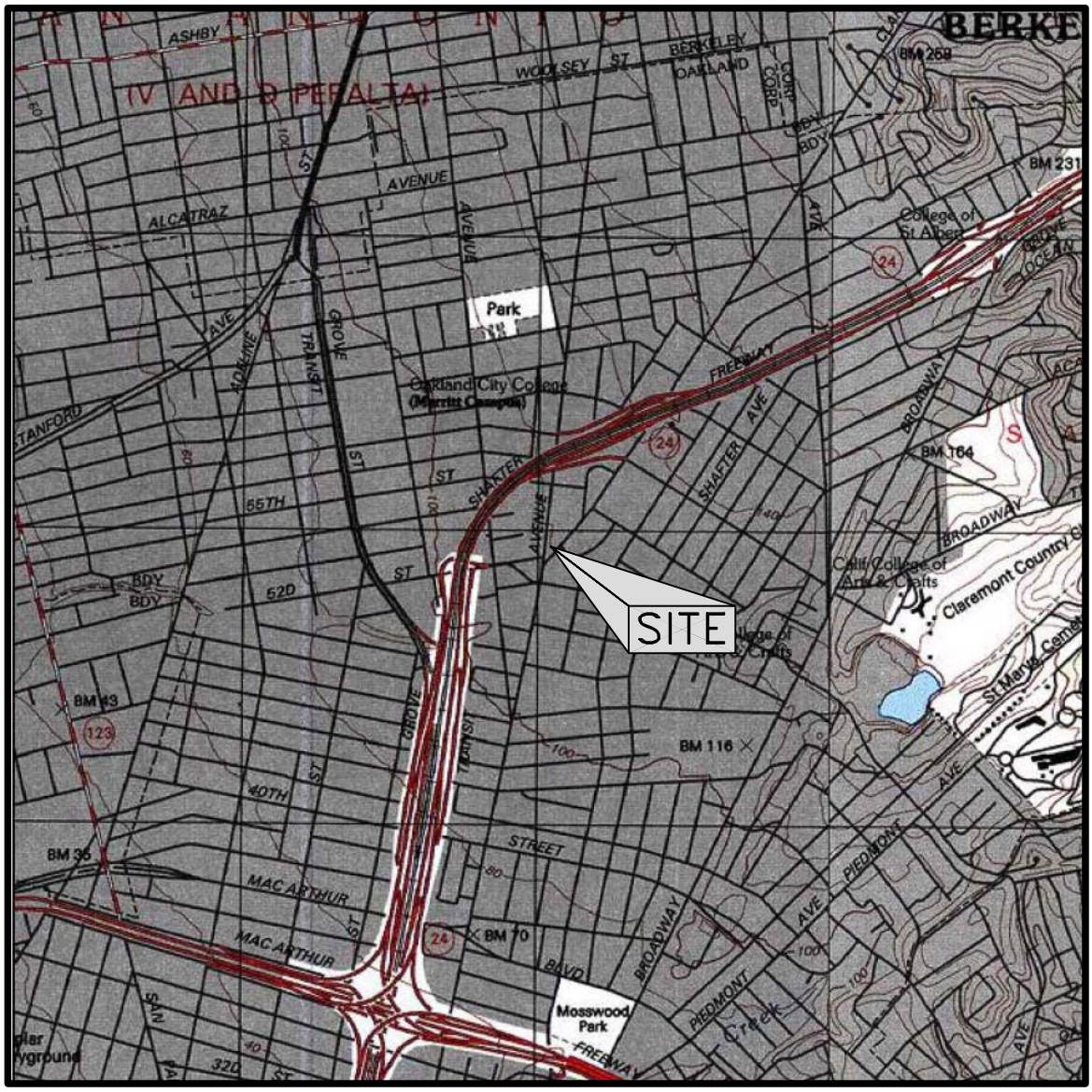
10. MACTEC, November 30, 2004, "Quarterly Monitoring Second and Third Quarters and Backfill Sampling Summary, Auto Pro Site 5200 Telegraph Avenue, Oakland, California," Project No. 4095041620 01.

11. SCHUTZE & Associates, May 11, 2007, "Vacant Restaurant Building, 5239 Telegraph Avenue, Oakland, California, Report for Government Search List, Soil and Groundwater Investigation, Soil Vapor Survey, Indoor Air Survey," Project No. SCS225.

12. SCHUTZE & Associates, July 25, 2007, "Vacant Restaurant Building, 5239 Telegraph Avenue, Oakland, California, Addendum to Phase II Report, dated May 11, 2007," Project No. SCS225.

13. Alameda County Health Care Services Agency, Environmental Health Services Department (ACEH), March 28, 2008, "Fuel Leak Case No. RO0000323 and GeoTracker ID T0600100131, Auto Pro, 5200 Telegraph Avenue, Oakland, CA 94609."

14. Professional Service Industries, Inc. (PSI), February 27, 2009, "Fourth Quarter 2008 Groundwater Monitoring Report, Test Only Smog Station (Former Autopro), 5200 Telegraph Avenue, Oakland, California," Project No. 575-8G012.



NORTH

0 1/2 1 MILE

SCALE

REFERENCE:
U.S.G.S. OAKLAND WEST, CALIFORNIA, 7.5 MINUTE SERIES TOPOGRAPHIC MAP, DATED 1997.

psi Information To Build On
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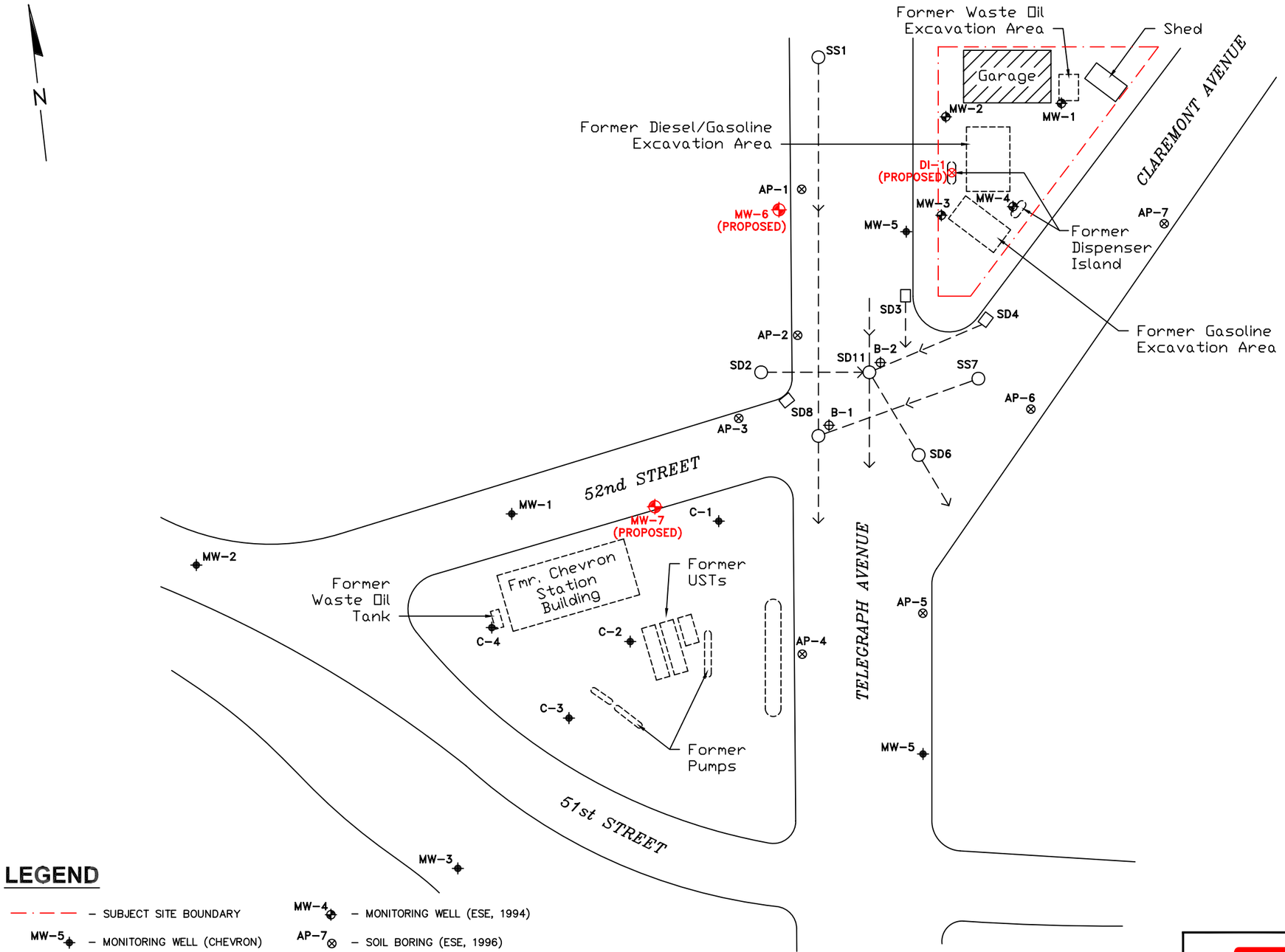
Project Name: SMOG ONLY TEST STATION (FORMERLY AUTOPRO) 5200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA	Drawn By: E.R.	Date: 01/09	File No.: 9G012-01	Figure No.: 1
Title: SITE LOCATION MAP	Approved By: F.P.	Project No.: 575-8G012		



LEGEND

- SUBJECT SITE BOUNDARY
- MW-5 – MONITORING WELL (CHEVRON)
- UTILITY TRENCH LOCATION
- MW-7 – PROPOSED MONITORING WELL
- MW-4 – MONITORING WELL (ESE, 1994)
- AP-7 – SOIL BORING (ESE, 1996)
- B-2 – SOIL BORING (MACTEC, 2004)
- AP-7 – PROPOSED SOIL BORING

NOTE

BASE MAP TAKEN FROM MACTEC, "FIGURE 2 – SITE PLAN AND UTILITY TRENCH BACKFILL BORING LOCATIONS," DATED NOVEMBER 30, 2004.

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Project Name:	Drawn By:	Date:	File No.:	Figure No.:
FORMER AUTOPRO 5200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA	M.C.	5/09	8G012-02	2
Title: SITE PLAN AND PROPOSED BORING LOCATION MAP	**Approved By:** B.B.	**Project No.:** 575-8G012		

APPENDIX A – STANDARD FIELD PROCEDURES

Drilling Of Soil Borings and Collection of Soil Samples

1. Drilling will be conducted by a licensed State of California driller under the supervision of PSI. Drilling equipment will be pressure washed at the beginning of the day and between soil borings.

2. Prior to the commencement of drilling activities at the site, Underground Service Alert (USA) will be contacted to identify underground utilities in the areas that the borings will be located.

3. Boring logs for the soil borings drilled at the site will be prepared under the supervision of a State of California Registered Geologist. The soil cuttings observed during drilling will be described in accordance with the Unified Soil Classification System.

4. Soil samples will be collected using a 2.5-inch diameter stainless steel sampler. When the boring has been advanced to the appropriate sampling depth, a 2.5-inch diameter sampler lined with 2.0-inch diameter tubes, will be placed in the open boring. When the auger is advanced to the appropriate depth, the tip will be retracted and an undisturbed soil sample will be collected by driving the sampler into the subsurface using a percussion hammer.

5. Once the sampler has been retrieved the ends of the sample tube will be covered with Teflon sheets and capped with polyethylene end caps. The sample will be labeled and placed in a chilled cooler pending delivery to the laboratory for analysis.

6. Soil samplers will be washed between sampling intervals with Alconox soap followed by two deionized-water rinses.

7. Chain-of-custody procedures using chain-of-custody forms will be used to document sample handling and transportation.

8. Soil cuttings and wash water generated during drilling activities at the site will be contained in Department of Transportation (DOT) approved 55-gallon drums. The drums will be labeled with the contents, date, well or boring number, client name, contact information, and project number.

Collection of Groundwater Samples

The following procedures will be implemented while performing well monitoring, well purging, and water sampling:

1. All non-dedicated equipment will be washed prior to entering the well with an Alconox solution, followed by a deionized water rinse.

2. Prior to purging the wells, depth-to-water will be measured using a Solinst groundwater interface probe to an accuracy of approximately 0.01 foot. The measurements will be made to the top of the well casing on the north side.

3. Monitoring wells at the site will be prepared for sampling by purging the well of approximately 3 well volumes of water using a polyethylene bailer or electric pump.

4. During groundwater sampling the following measurements will be collected:

    - pH
    - Conductivity
    - Temperature

5. Water samples will be collected with a single-use polyethylene bailer or polyethylene tubing with check valve after the well has been purged of 3 volumes and field parameters have stabilized. If purged to dryness, a sample will be collected after water in the well has equilibrated to approximately 80 percent of the static water level or 2 hours after well purging, whichever occurs first. The water collected will be immediately decanted into laboratory-supplied vials and bottles. The containers will be overfilled, capped, labeled, and placed in a chilled cooler prior to delivery to the laboratory for analysis.

6. Chain-of-custody procedures, including chain-of-custody forms, will be used to document water sample handling and transport from collection to delivery to the laboratory for analyses.

7. Purged water will be contained in a DOT approved 55-gallon drum. The drum will be labeled with the contents, date, well number, client name, and project number.

PROPOSED WELL CONSTRUCTION DETAIL

WELL/BORING NO: **(PROPOSED)**

PERMIT NO: **(PERMIT NO)**

DATE: **(DATE)** | PROJECT NAME: **FORMER AUTOPRO** | PROJECT NO: **575-8G012**

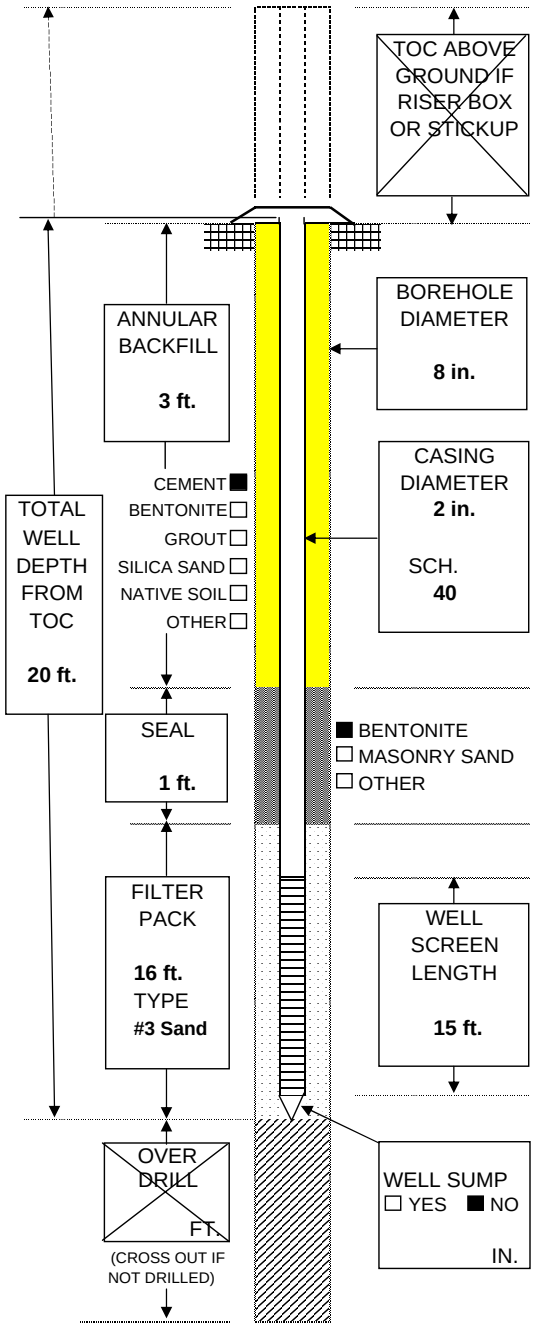
WELL SITE LOCATION: **5200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA**

DRILLING CO: **(Drilling Company)**

DRILL CREW: **(DRILLER) (HELPER)**

WELL TYPE: ☐ SHALLOW ☐ SINGLE CASED ■ MONITORING
■ PERMANENT ☐ INTERMEDIATE ☐ DOUBLE CASED ☐ RECOVERY
☐ TEMPORARY ☐ DEEP ☐ OTHER ☐ OTHER

WELL SCHEMATIC



INSTALLATION DATA

DECON. ☐ STEAM CLEAN ■ HIGH PRESSURE WASH ☐ SOAP WASH ☐ OTHER

CASING TYPE: ■ PVC ☐ STAINLESS ☐ TEFLON ☐ OTHER
JOINTS: ☐ THREADED ☐ WELDED ☐ COUPLED ☐ SCREWED ☐ OTHER
PIT CASING: ☐ YES ☐ NO ☐ DESCRIBE

WELL SCREEN: ■ PVC ☐ STAINLESS ☐ TEFLON ☐ OTHER
DIAMETER: ■ 2" ☐ 4" ☐ 6" ☐ OTHER IN
SLOT: ☐ 0.010 ■ 0.020 ☐ OTHER IN

DRILLING METHOD: ☐ SOLID STEM ■ HOLLOW STEM ☐ MUD ROTARY ☐ AIR ROTARY ☐ DIRECT PUSH ☐ HAND AUGER ☐ OTHER
BIT SIZE: ☐ 2" ☐ 4" ☐ 6" ■ 8" ☐ 12" ☐ OTHER IN
DRILLING MUD: ■ NONE ☐ WATER ☐ BENTONITE ☐ OTHER
CENTRALIZER: ☐ YES ■ NO

COMPLETION: ■ FLUSH MOUNT ☐ STICKUP ☐ RISER BOX
LOCK TYPE: ☐ DOLPHIN ■ MASTER KEY NO. ☐ OTHER
PAD: ☐ 2'X2' ☐ 4'X4' ☐ OTHER ■ NONE

CUTTINGS: ■ DRUMMED NUMBER OF DRUMS ☐ SPREAD ☐ OTHER

DEVELOPMENT METHOD: ☐ NONE ☐ BAILING ☐ PUMPING ☐ AIR LIFT ■ SURGE & BAIL ☐ OTHER
TIME: ☐ 10 MIN ☐ 20 MIN ☐ OTHER MIN
AMOUNT: ☐ 5 GAL ☐ 10 GAL ☐ OTHER GAL
WATER BEFORE: ☐ SILTY ☐ TURBID ☐ OPAQUE ☐ CLEAR
WATER AFTER: ☐ SILTY ☐ TURBID ☐ OPAQUE ☐ CLEAR
EVIDENT ODOR: ☐ YES ☐ NO TYPE

DEVELOPMENT WATER: ■ DRUMMED NUMBER OF DRUMS ☐ SPREAD ☐ TREATED ☐ POTW ☐ OTHER

WATER LEVEL: INITIAL FT ☐ BTOC ☐ BGS

DATE: FT BELOW TOC

DATE: FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)

PREPARED BY:

PSI
Rev. 12/95