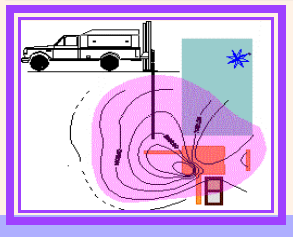
Franklin J. Goldman, CHG.
Environmental and Hydrogeological Consulting
PO BOX 59, Sonoma, CA 95476
Phone: (707) 235-9979
fjgoldmanchg@yahoo.com



June 27, 2006

Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-9335

Telephone: (510) 567-6791
FAX: (510) 337-9335

SUBJECT: WORKPLAN FOR AN OFFSITE SUBSURFACE HYDROGEOLOGIC INVESTIGATION OF HYDROCARBONS AT THE Former UST Site - Case RO2905
@ 1001 77th Avenue, Oakland, CA 94621

Dear Mr. Wickham:

Enclosed are the details of a proposed subsurface hydrogeologic investigation for locations, identified through past subsurface soil investigations, considered to be down gradient of the former auto service station property owned by Acts Community Development.

This "phased approach" will entail installation of three (3) groundwater monitoring wells at the intersection of Spencer Street and 77th Avenue in Oakland. The purpose of this investigation will be to determine the extent of migration of dissolved contaminants such as benzene and other gasoline related chemicals which are known to be carcinogens. Dissolved gasoline, diesel, and motor oil ranged organics will be evaluated to identify any potential point sources of contamination not yet recognized and to guide the search for dissolved contaminants that are considered to be carcinogenic and/or toxic as well as a threat to the designated beneficial uses of groundwater in the immediate vicinity.

Three (3), 15 foot deep, groundwater monitoring wells will be constructed with a hollow stem auger drill rig. The ten (10) foot long screened interval will be based upon the presence of permeable soil horizons encountered in past soil borings between five (5) and fifteen (15) feet bgs.

Sincerely,

Franklin J. Goldman

REGISTERED GEOLOGIST
FRANKLIN J. GOLDMAN
CERTIFIED HYDROGEOLOGIST
NO. 466
STATE OF CALIFORNIA

Franklin J. Goldman
Certified Hydrogeologist No. 466

PROPOSED SUBSURFACE INVESTIGATION

SITE LOCATION AND DESCRIPTION

The offsite investigation area is located, on a City of Oakland public street, in a mixed commercial and residential zone. The UST source was located in front of a one story building located on the northeast corner of Spencer Street and 77th Avenue in Oakland. The one story building covers most of the property and appears to have been abandoned for many years. The area around the former UST excavation and the associated soil boring locations is covered by asphalt and appears to have a relatively flat grade and drainage patterns are not readily apparent upon visual inspection. Only a certified land survey can resolve the relative surface area elevations in the current subsurface investigation.

RATIONALE FOR PROPOSED GROUNDWATER MONITORING WELL LOCATIONS

The down gradient groundwater flow direction has been assumed to be to the west (Subsurface Investigation by Stellar 2005, page 5) based upon the assumption that the groundwater beneath the site is likely to flow toward the San Francisco Bay.

Although this is a reasonable rationale, especially considering that the shape of the dissolved plume of gasoline ranged organics (GROs) implies a groundwater flow to the west, depth to "equilibrated" groundwater levels as encountered in soil borings BH-3, BH-4, BH-5, BH-6, and BH-7, record shallower depths to groundwater to the west, implying flow to the east (See Figure 1 for Relative Depths to Groundwater encountered in soil borings).

Possible reasons for this perceived discrepancy between the assumed gradient flow direction and the shallow water levels encountered in soil borings at the west side of the site could be that the water levels encountered on the west side of the site are indicative of differing hydrogeological conditions. For instance, a confined hydrogeologic condition may exist to the west and an unconfined condition is exhibited to the east. Another scenario could be that the surface elevation of the two soil borings at the west end of the recent investigation area are actually much lower than to the east, implying a relative depth to groundwater that is actually much shallower than in reality.

Regardless, only installations of properly constructed wells with a certified land survey of their top-of-casing elevations can, with certainty, establish the actual groundwater gradient flow direction.

PROPOSED WELL LOCATIONS

The three (3) groundwater wells will be placed in the assumed down gradient groundwater flow direction of the existing dissolved plume of gasoline ranged organics (See Figure 2 for Proposed Well Locations) in order to best identify the potential existence of BTEX or oxygenates offsite and hopefully down gradient of the former point source(s) of contamination.

WORK ACTIVITIES TO BE COMPLETED

Initially, a well construction permit will be obtained by the Alameda County Public Works Agency and an excavation permit with be obtained from the City of Oakland Community and Economic Development Agency. In addition, a traffic control plan will be submitted to the City of Oakland for approval.

The three (3) groundwater monitoring well locations will be marked at the site in white paint prior to the commencement of drilling excavation activities for Underground Service Alert. Each soil boring location will be hand augered to a depth of at least five (5) feet bgs prior to excavation to avoid causing damage to underground piping and utility lines. The soil borings will be excavated to a depth of twenty feet bgs with a hollow stem auger drill rig.

All soil borings and associated well constructions will be constructed with a hollow-stem auger drilling rig that can serve as a conductor casing to prevent short circuiting (i.e. cross contamination between to separate aquifers). The Merritt sand, a well known and laterally extensive, shallow, and confined aquifer may be located within the proposed investigation area.

SOIL SAMPLING PROCEDURES FOR GROUNDWATER MONITORING WELL EXCAVATIONS

Three (3) wells will be excavated by a C-57 drilling licensed drilling contractor. All borehole logging will be performed by a qualified field geologist who will keep a detailed hydrostratigraphic log of each borehole, noting lithologic changes, hydrogeological characteristics, sample locations, and well construction. Soil sampling will be performed, where appropriate, in order of identify significant changes in soil hydrostratigraphy and to provide a sufficient representation of the distribution of contaminants in the subsurface. Soil samples will be collected from a general minimum average distribution of (5) foot vertical intervals as well as from other depths as determined according to the feedback provided by the soil stratigraphy and hydrogeologic characteristics encountered.

The soil samples will be collected with a two (2) inch inner diameter, three (3) foot long, split spoon sampler fitted with 6 inch long, 2 inch diameter, brass sleeve insertions, focusing on depth locations where hydrocarbon contaminants are suspected. The soil samples will be obtained by the compressive force of a 140 lb hammer dropped from a height of 18 inches. The soil samples will be extruded into six (6)-inch long steel sample liners. Soil samples will be chosen for lab analyses based upon obvious olfactory and visual evidence of contamination, by photoionization detector (PID) screening, and/or at significant changes in hydrostratigraphic horizons.

Each soil sample will be collected and covered at each end of the metal cylinder with aluminum foil or teflon sheets, and sealed with plastic end caps and adhered to the outside of the sample tube with duct tape (note: every reasonable attempt will be made to acquire non-toluene laced tape), at each end, to hermetically seal the samples. The soil samples will be labeled with a non-toxic ink field marker as to the depth and location the sample was collected, the sample number, and the project name and inserted into a plastic Zip-Lock bag and then placed into an ice chest for transport back to the laboratory. The chain-of-custody will be similarly designated and included with the date and time the sample was collected as well as the depth interval. Soil samples will be analyzed for Gasoline Ranged Organics (GRO) and BTEX.

The sampler will be decontaminated before and after each use by rinsing with an Alconox solution wash and fresh tap water rinse. All rinseate water, purge water, and soil waste will be stored in 55 gallon DOT approved drums. The drums will be stored onsite until authorization for transport to legal point of disposal is made.

WELL CONSTRUCTION

The three (3) groundwater wells will be constructed with a 0.02 inch PVC schedule 40 slotted casing and schedule 40, 2 inch diameter PVC blank casing. No. 212 silica sand pack will be placed in the annular space between the screened casing and the open borehole to one foot above the top of the screen.

A one foot thick bentonite seal will be placed on top of the sand pack in the annular space. A Type II cement bentonite grout will then be tremmied from the bottom up to within approximately one foot from the top of the surface cover. A continuous concrete pour will be placed on top of the grout to the surface where it will be finished with a 3 inch high concrete apron or flush concrete finish around a well box and locking well cap (See Figure 3 for Well Construction Details).

WATER DEPTH MEASUREMENT RELATIVE TO A CERTIFIED LAND SURVEY

A water level meter will be used to measure the depth to groundwater in the groundwater monitoring wells and open soil borings. The measurements will be read to the nearest 100th of an inch from the top of casing.

A state certified land survey will be conducted of the top-of-casing elevation and location of the three wells. Depth to groundwater will be measured after stabilization of water levels. Top-of casing elevations relative to the depth to groundwater will aid in determination of the groundwater gradient flow direction.

WELL DEVELOPMENT AND PURGING PROCEDURES

The three (3) new wells will be developed a minimum of 48 hours after installation to remove fine grained soil residue and well construction materials from the well casing and screen. Well development will be performed with the use of a surge block and a steel check valve bailor. Wells will be purged and sampled after development is complete and water levels have stabilized.

Prior to purging, depth to groundwater will be measured to use as a reference elevation. Purging of the wells will be performed by the use of dedicated 1½ inch diameter plastic disposable check valve bailors for each separate well. Each well will be sampled after well purging which entailed the removal of more than three (3) well volumes of groundwater from each well, allowing the water level to recover to at least 80% of the original, static water level. Temperature, electrical conductivity, pH and turbidity will be monitored during the bailing process with a Horiba U10, so that the parameters demonstrated an error difference of within 10% from one another, over at least three consecutive readings for each well is accomplished. The recorded data will be used to verify that a sufficient volume of groundwater had been removed from each well casing so that anomalies caused by remnant well casing storage would not preclude us from obtaining a groundwater sample which would be more representative of the aquifer contaminant distribution as a whole. Well purge water will be placed in properly labeled 55 gallon drums which will be left on-site to be transported to a legal point of disposal.

GROUNDWATER SAMPLING FROM WELLS

Water samples will be collected by lowering dedicated plastic disposable check valve bailors down the center of each well casing. Water samples will be contained in 40-milliliter VOA vials for TPH-g, BTEX, oxygenates, and lead scavenger analyses by draining the bailer from the bottom with a specially fitted drain tube to minimize volatilization. The VOAs will be carefully checked for air bubbles prior to acceptance and labeling on the chain-of-custody. EPA Method 8260b for 5 oxygenates and two lead scavengers will be used to confirm the presence of MTBE and other gasoline related constituents. Water samples to be analyzed for gasoline, diesel, and motor oil ranged organics will be contained in one liter amber bottles.

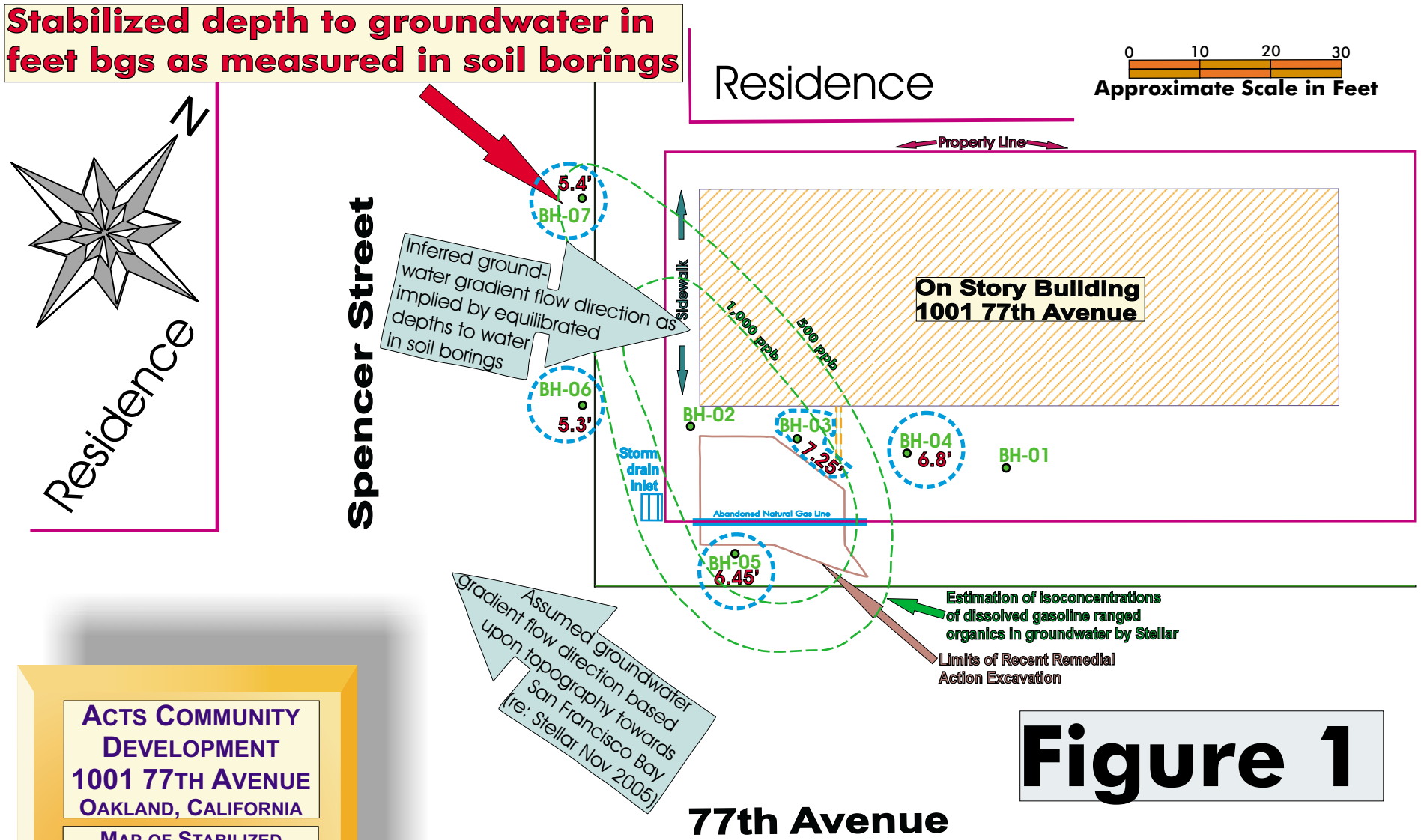
The samples will be labeled and stored on ice until delivered, under chain-of-custody procedures, to a State-certified analytical laboratory.

TECHNICAL REPORTING

All soil and groundwater data will be presented in a technical report including but not limited to tables, maps, and figures to be submitted to Alameda County Environmental Health and the State Geotracker Data Base.

LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change. The conclusions presented in this report are professional opinions based solely upon visual observations made within individual soil excavations and of the site and vicinity as well as on interpretations of available information as designated in this report. Franklin J. Goldman, maintains that the limited scope of services performed in the execution of this investigation may not be sufficient to satisfy the needs, and/or requirements of all regulatory agencies or other users. Any use or reuse of this document, its findings, its conclusions and/or recommendations presented herein, is done so at the sole risk of the said user.


Stabilized depth to groundwater in feet bgs as measured in soil borings
Residence
0 10 20 30
Approximate Scale in Feet
N
Residence
Spencer Street
Property Line
5.4'
BH-07
Inferred ground-water gradient flow direction as implied by equilibrated depths to water in soil borings
Sidewalk
1,000 Ppb
500 Ppb
On Story Building
1001 77th Avenue
BH-06
5.3'
BH-02
BH-03
7.25'
BH-04
6.8'
BH-01
Storm drain inlet
Abandoned Natural Gas Line
BH-05
6.45'
Assumed groundwater gradient flow direction based upon topography towards San Francisco Bay (re: Stellar Nov 2005)
Estimation of isoconcentrations of dissolved gasoline ranged organics in groundwater by Stellar
Limits of Recent Remedial Action Excavation
77th Avenue
ACTS COMMUNITY DEVELOPMENT
1001 77TH AVENUE
OAKLAND, CALIFORNIA
MAP OF STABILIZED DEPTHS TO GROUNDWATER ENCOUNTERED IN SOIL BORINGS
Figure 1
Map compiled from Stellar Environmental Solutions, Inc. August 2005 - Figure 2, November 2005 - Figure 3, January 2006 - Figure 3, & Alameda County Assessor's Map 41
General Location of Motor Manufacturing Facility

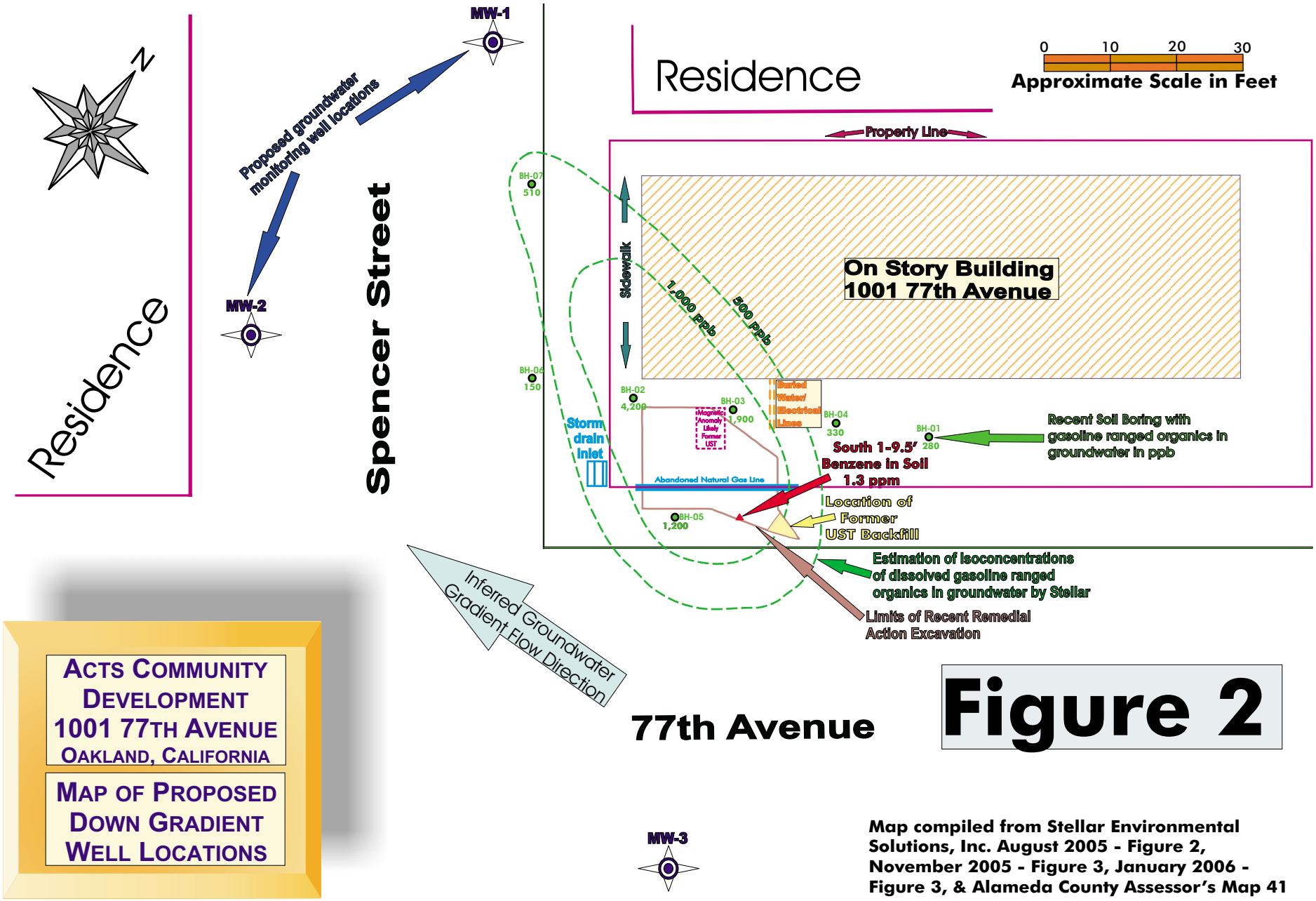


Figure 2

ACTS COMMUNITY DEVELOPMENT
1001 77TH AVENUE
OAKLAND, CALIFORNIA

MAP OF PROPOSED DOWN GRADIENT WELL LOCATIONS

Map compiled from Stellar Environmental Solutions, Inc. August 2005 - Figure 2, November 2005 - Figure 3, January 2006 - Figure 3, & Alameda County Assessor's Map 41

General Location of Motor Manufacturing Facility

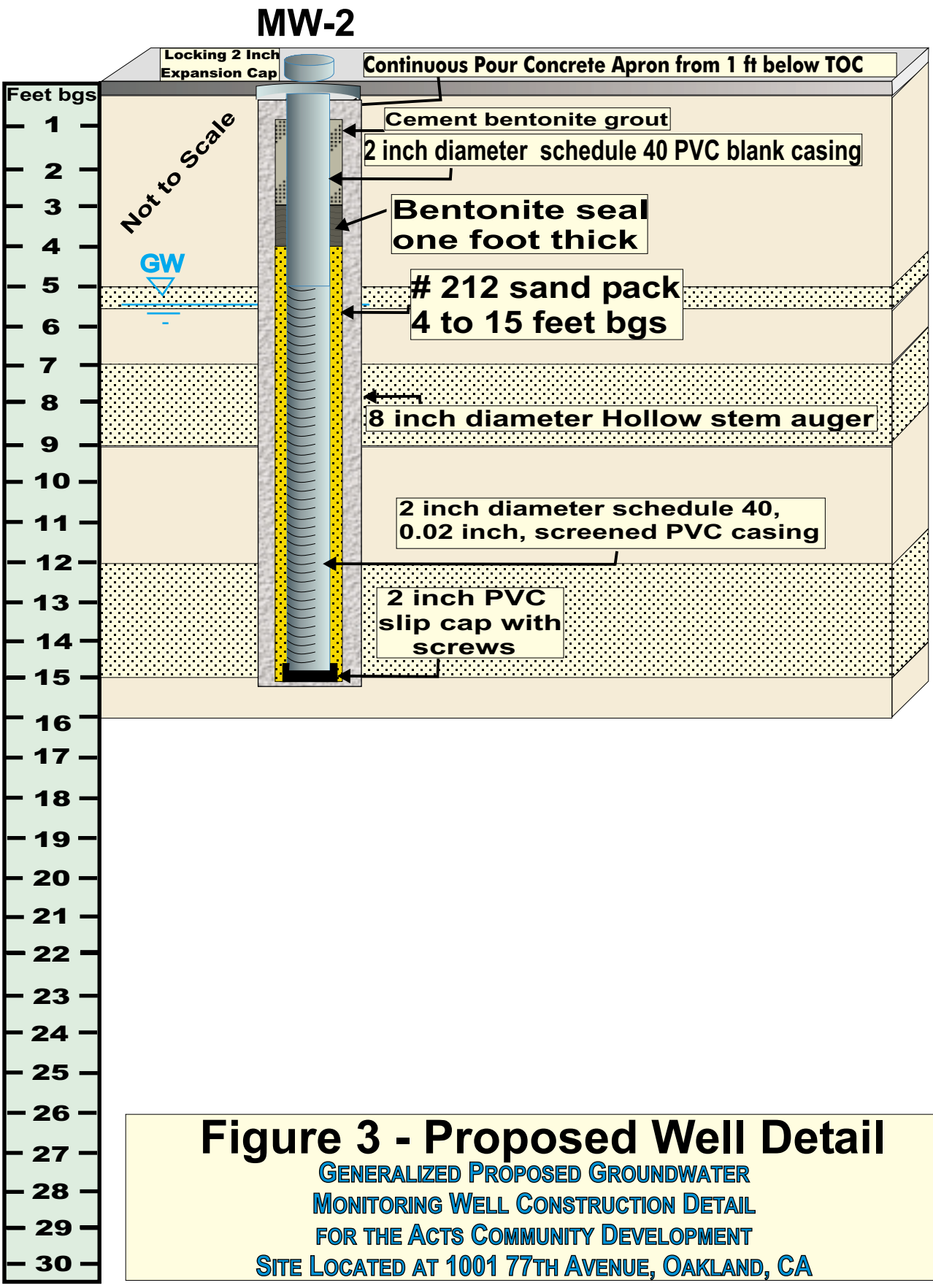


Figure 3 - Proposed Well Detail

GENERALIZED PROPOSED GROUNDWATER MONITORING WELL CONSTRUCTION DETAIL FOR THE ACTS COMMUNITY DEVELOPMENT SITE LOCATED AT 1001 77TH AVENUE, OAKLAND, CA