Stantec Consulting Corporation
3017 Kilgore Road Suite 100
Rancho Cordova CA 95670
Tel: (916) 861-0400
Fax: (916) 861-0430

September 29, 2010

Mr. Jerry Wickham
Alameda County Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: **Enclosed Work Plan for Additional Site Assessment and Results of Detailed Well Survey**
7-Eleven Store #32266
1339 North Vasco Road
Livermore, CA 94551

Dear Mr. Wickham:

Stantec Consulting Corporation has been designated as Limited Agent of 7-Eleven, Inc. (7-Eleven) for the purposes of executing and delivering instruments and documents on behalf of 7-Eleven (see attached Limited Authorization form).

We declare, under penalty of perjury, that the information and/or recommendations contained in the enclosed work plan and detailed well survey are true and correct to best of our knowledge.

Should you have any questions regarding this site, please contact the undersigned at (916) 861-0400.

Sincerely,
Stantec Consulting Corporation

Damon Brown
Geologic Associate
Project Manager

Ed Simonis, PG
Senior Geologist

PROFESSIONAL GEOLOGIST
EDWARD K. SIMONIS
No. 4426
STATE OF CALIFORNIA
OK/ 2-29-12

LIMITED AUTHORIZATION

KNOW ALL MEN BY THESE PRESENTS:

That 7-ELEVEN, INC. ("7-Eleven"), a Texas corporation, acting by and through Gary C. Lockhart, Vice President, does hereby nominate, constitute and appoint STANTEC CONSULTING CORPORATION, a Delaware corporation formerly known as SECOR International Incorporated, as Limited Agent ("Agent") of 7-Eleven, for purposes of executing and delivering instruments and documents as more particularly described below, and does hereby grant, delegate and invest said Agent with power and authority to execute and deliver for, in the name of, and on behalf of 7-Eleven, and in connection with that certain Agreement by and between 7-Eleven and Agent, dated as of February 1, 2003 (as amended, the "Agreement"), the instruments and documents listed in Attachment I hereto.

Agent may exercise the power and authority herein granted, delegated and invested, in any particular and appropriate transaction or matter, as an agent of 7-Eleven. Any instruments and documents executed and delivered by Agent under this Limited Authorization shall be acts of 7-Eleven and may be relied upon by third parties dealing with 7-Eleven, such acts being hereby ratified and confirmed by virtue hereof. Agent shall deliver all instruments and documents executed and delivered by Agent under this Limited Authorization to 7-Eleven promptly following such execution and delivery.

Any and all acts of Agent hereunder shall comply with all applicable federal, state and local laws, regulations, rules and ordinances and with all applicable orders of any courts of competent jurisdiction.

This Limited Authorization shall expire upon the expiration or earlier termination of the Agreement or may be terminated at any time for any reason by 7-Eleven.

APPROVED AND EXECUTED this 22nd day of May, 2008, to be effective as of June 1, 2008.

7-ELEVEN, INC.

ATTEST:

Assistant Secretary

By:

Title: Vice President

ATTACHMENT I

Such permits, reports, applications and other documentation issued by any federal, state or local governmental authority and such other standard form documentation provided by 7-Eleven or third parties to be completed in connection with Agent's performance of environmental consulting services pursuant to the Agreement, including, without limitation, the following:

a. Waste Manifests;

b. Waste Characterization Forms;

c. Bills of Lading;

d. Waste Disposal Agreements;

e. Registration and Notification Forms for underground storage tanks;

f. Incident Reports;

g. Discharge Notification Forms;

h. Tank Closure Reports;

i. Permit Applications, Notices and other documents relating to the investigation, monitoring or remediation work performed under the Agreement;

j. Reports to state environmental agencies regarding investigation, monitoring or remediation work performed under the Agreement; and

k. Applications to any state underground storage tank insurance or reimbursement fund;

Provided, however, that in each case, the foregoing authorization shall not extend to any permits, reports, applications or other documentation that contain: (i) any language, the effect of which is to require 7-Eleven to indemnify, defend, and/or hold harmless any third party for any act or omission of any kind; or (ii) any statement of any kind, including, without limitation, any representation or warranty, which Agent does not personally know to be true and correct, including, without limitation, any representation concerning the legal existence or financial condition of 7-Eleven.

Stantec Consulting Corporation
3017 Kilgore Road Suite 100
Rancho Cordova CA 95670
Tel: (916) 861-0400
Fax: (916) 861-0430

September 29, 2010

Mr. Jerry Wickham
Alameda County
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: **Work Plan for Additional Site Assessment and Results of Detailed Well Survey**
7-Eleven Store #32266
1339 North Vasco Road
Livermore, CA 94551
Stantec Project #: 211502037.210.0104

Dear Mr. Wickham:

This work plan was prepared by Stantec Consulting Corporation (Stantec) on behalf of 7-Eleven Inc. (7-Eleven) for the installation of three groundwater monitoring wells at 7-Eleven store #32266, located at 1339 Vasco Road in Livermore, California (Figures 1 and 2). This work plan was prepared in response to the Alameda County Environmental Health Services (ACEHS) letter dated July 19, 2009 (Attachment A).

SITE BACKGROUND

In January 2005, two single-walled steel, fiberglass-jacketed underground storage tanks (USTs) (one 10,000-gallon and one 15,000-gallon) were replaced with new double-walled fiberglass USTs. A total of 26 soil samples were collected during the UST replacement activities as follows:

- Five soil samples from the UST excavation,
- Six soil samples from the beneath the product dispensers,
- Five soil samples from the product line trenches,
- Eleven samples (44 samples combined at laboratory for eleven 4-part composite samples) from the stockpiled UST backfill material.

Total petroleum hydrocarbons as gasoline (TPHg) were not detected above laboratory reporting limits in any of the soil samples collected during the UST replacement activities (Table 1). The maximum concentrations of tertiary butyl alcohol (TBA) and methyl tertiary butyl ether (MtBE) detected were 2.4 milligrams per kilogram (mg/kg) and 2.6 mg/kg, respectively, in UST

excavation sample T1-2-12. Total lead was detected in each of the samples at concentrations ranging from 4.98 mg/kg to 28.4 mg/kg.

In addition, a total of three water samples were collected during the 2005 UST replacement activities as follows:

- One grab sample (W1) from water collected/pooled within the excavated UST basin,
- Two samples (BT-1 & BT-2) collected from 20,000-gallon Baker Tanks storing pumped UST excavation water.

MtBE was detected at 180 micrograms per liter (ug/L) and benzene was reported at 25 ug/L in UST excavation water sample W1 (Table 2). TPHg was detected at 3,400 ug/L. No TPHg was detected in either Baker Tank sample (BT-1 or BT-2). Total xylenes were reported in sample BT-1 at 0.70 ug/L. MtBE was detected in both samples at concentrations of 340 ug/L (BT-1) to 400 ug/L (BT-2). Based on the results of the water samples collected, an UST Unauthorized Release report was completed and submitted to the Livermore-Pleasanton Fire Department (LPFD) and the California Regional Water Quality Control Board (CRWQCB).

On December 4, 2008, Stantec's field scientist collected one soil sample in native soil from beneath four of the six dispensers (D1-5.0, D2-5.0, D3-5.0 and D4-5.0) during fuel system upgrade activities at the site. In addition, Stantec collected four soil samples from stockpiled excavated backfill material. The four stockpile samples were combined at the laboratory for one four-part composite sample SP1(ABCD). TPHg, benzene, toluene, ethyl-benzene and total xylenes (BTEX) were not detected above laboratory reporting limits in the dispenser soil samples collected, with the exception of dispenser sample D2-5. Soil sample D2-5 contained 0.21 mg/kg benzene, 0.59 mg/kg toluene, 0.26 mg/kg ethyl-benzene, 1.4 mg/kg xylenes, and 12 mg/kg TPHg. MtBE and TBA were detected exclusively in soil sample D1-5.5, at concentrations of 0.024 mg/kg and 0.0076 mg/kg, respectively. Di-isopropyl ether (DIPE), ethyl tertiary butyl ether (EtBE), and tertiary amyl methyl ether (TAME) were not detected above laboratory reporting limits in any dispenser soil samples collected. BTEX, TPHg, MtBE, TBA, DIPE, ETBE, and TAME were not detected at concentrations above laboratory reporting limits in the stockpiled soil sample collected during this investigation. Total lead was detected at concentration of 4.4 mg/kg.

In a letter dated November 20, 2009, the ACEHS requested the submittal of a work plan to investigate potential soil and groundwater contamination at the site based on ACEHS review of the historical site data. Stantec submitted a *Work Plan for Additional Soil and Groundwater Assessment* to the ACEHS on February 1, 2010. The work plan was subsequently approved by the ACEHS in a letter dated March 22, 2010.

On April 20, 2010, Stantec supervised WDC Exploration and Wells (WDC) of Richmond, California, during the advancement of three direct-push soil borings (GP-1 through GP-3) at the site. Eight soil samples were collected from soil borings GP-1 through GP-3 for laboratory analysis. MtBE was reported in soil boring GP-3 at 10 and 15 feet bgs at concentrations of 0.023 mg/kg and 1.1 mg/kg, respectively. TBA was exclusively detected in soil boring GP-3 at 15 feet bgs at a concentration of 0.0076 mg/kg. TPHg, BTEX, DIPE, EtBE, and TAME were not detected at concentrations above the laboratory reporting limits in soil samples collected from soil borings GP-1 through GP-3. In addition, grab-groundwater samples were collected from

each boring. Grab-groundwater samples GP-2W and GP-3W reported MtBE concentrations of 2.9 µg/L and 380 µg/L, respectively. TAME was exclusively detected in grab-groundwater sample GP-3W at a concentration of 0.71 µg/L. TPHg, BTEX, DIPE, EtBE and TBA were not detected at concentrations above the laboratory reporting limits in grab-groundwater samples GP-1 through GP-3.

On May 17, 2010, Stantec submitted the results of the assessment activities in a report titled *Additional Soil and Groundwater Assessment* to the ACEHS.

WELL INSTALLATION

Stantec proposes the installation of 3 groundwater monitoring wells to further define the limits of MtBE impacts in soil and groundwater at the site and to determine the site-specific hydraulic gradient.

Health and Safety

Stantec will generate a site-specific *Health and Safety Plan* (HASP) for the proposed scope of work as required by the Occupational Health and Safety Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The document will be reviewed and signed by all Stantec personnel and subcontractors prior to performing work at the site.

Permitting and Utility Clearance

Stantec will obtain appropriate monitoring well installation permits from Zone 7 Water Agency prior to conducting subsurface work at the site. Underground Service Alert (USA) will be contacted to delineate subsurface piping and/or utilities at the site with surface markings. In addition, a private utility locator service will be contracted to clear the area surrounding the proposed monitoring well locations.

Soil Boring, Soil Sampling and Analysis

Monitoring wells MW-1, MW-2 and MW-3 will be installed at the locations depicted on Figure 2 using a truck-mounted drilling rig equipped with 8-inch-diameter hollow-stem augers. Each well will be drilled to a depth of approximately 25 feet below ground surface (bgs) (Table 3). Soil samples will be collected from each boring as outlined in Table 4 using a split-spoon sampler lined with 2-inch diameter by 6-inch long brass sample tubes. Downhole drilling equipment will be properly cleaned before drilling each borehole, and sampling equipment will be cleaned between each sampling interval. Each soil sample will be screened for hydrocarbon vapors using a portable photoionization detector (PID). Soils encountered during drilling will be logged using the Unified Soil Classification System by a Stantec field geologist, working under the supervision of a California professional geologist.

Soil samples collected for analysis will be sealed with Teflon® sheets and plastic caps, labeled, and placed on ice in an insulated container for delivery to Kiff Analytical (KIff) located in Davis, California. Soil samples will be analyzed for TPHg, BTEX, MtBE, DIPE, EtBE, TAME and EDB by Environmental Protection Agency (EPA) Method 8260B.

Well Installation and Well Development
Each groundwater monitoring well will be constructed using 2-inch diameter polyvinyl chloride (PVC) blank casing and 0.020-inch-slot well screen. The wells will be installed to approximately 25 feet bgs and will be screened from 10 to 25 feet bgs (Table 3). The specific screen interval may be adjusted in the field to ensure ten feet of well screen is set into groundwater. A sand filter pack will be placed within the annulus of the well from the bottom of the boring to approximately one foot above the top of the well screen. The annulus of the well will then be sealed with two feet of bentonite on top of the sand, and a portland cement/bentonite slurry to the surface. An 8-inch-diameter, traffic-rated, watertight street box will be installed to protect the well from surface traffic.

Following installation, the wells will be developed by surging and bailing using a surge block and bailer to remove fine-grained sediments from the well and sand pack. Periodic measurements of pH, conductivity, and temperature will be made during development to establish baseline values for groundwater. Approximately 10 well casing volumes will be removed from each well during development.

Following installation, the new wells will be professionally surveyed to establish horizontal position in relation to pertinent site features and elevation with respect to mean sea level.

GROUNDWATER MONITORING AND SAMPLING

Upon completion of installation, the new wells will be monitored and sampled quarterly. Groundwater monitoring and sampling will be conducted to evaluate the groundwater quality by collecting representative samples. Prior to sampling, depth to water in each groundwater monitor well will be measured. Approximately three well volumes of water will be purged. Groundwater samples will then be collected by lowering a clean disposable bailer into the well and collecting a representative sample of the formation water. If the well is slow to recover, the sample will not be collected until the water level has approached 80 percent of its initial level. The groundwater sample will be slowly transferred to laboratory-cleaned sample containers, sealed with Teflon®-lined caps, and transferred to cooled storage.

Groundwater samples will be submitted to Kiff for analysis of TPHg, BTEX, MtBE, DIPE, EtBE, TAME and EDB by EPA Method 8260B.

WASTE HANDLING AND STORAGE

All rinsate water and soil cuttings generated during the installation of the new wells will be stored in 55-gallon drums at the site pending laboratory analysis for proper disposal.

REPORTING

Stantec will prepare an assessment report summarizing the installation of the new wells and data collected as follows:

- Details of field procedures and operations
- Boring logs
- Tabulated results of the soil sample analyses
- Updated map showing the location of the new wells

The results of the assessment work will be uploaded to the ACEHS FTP site. In addition, the report will be uploaded to the State of California GeoTracker database in EDF format, per California code AB2886.

WELL SURVEY

Per the request of the ACEHS, Stantec conducted a detailed well survey in order to identify potential receptors for the MtBE concentrations detected at the site.

On September 8, 2010, Stantec contacted the Department of Water Resources (DWR) Central District office in West Sacramento, California requesting copies of the Water Well Driller's Reports to identify water supply wells and groundwater monitoring wells within a 2,000 foot radius of the site. A review of the DWR well logs indentified 12 wells identified to exist within a 2,000 foot radius of the site. Applicable Water Well Driller's Reports are included in Attachment B.

Stantec also contacted the Zone 7 Water Agency (Z7WA) in Livermore, CA to identify the location of any municipal water supply wells located within ½-mile of the site. According to the Z7WA email correspondence dated September 13, 2010 (Attachment B), the following three water supply wells were identified within 2,000 feet of the site:

- Well 2S/2E-35G1 located at 1289 Vasco Road
  - This well is listed as being "Abandoned or Unlocatable"
- Well 2S/2E-35G2 located at 1443 Vasco Road
  - Depth is 88 feet
- Well 2S/2E-35L2 located at 1151 Central Avenue
  - Depth is 86 feet

Table 5 provides the tabulated results of the well survey and includes the data collected from both the DWR and the Z7WA. The locations of the identified wells (existing) are provided on Figure 3.

Should you have any questions regarding this site, please contact the undersigned at (916) 861-0400.

Sincerely,
Stantec Consulting Corporation

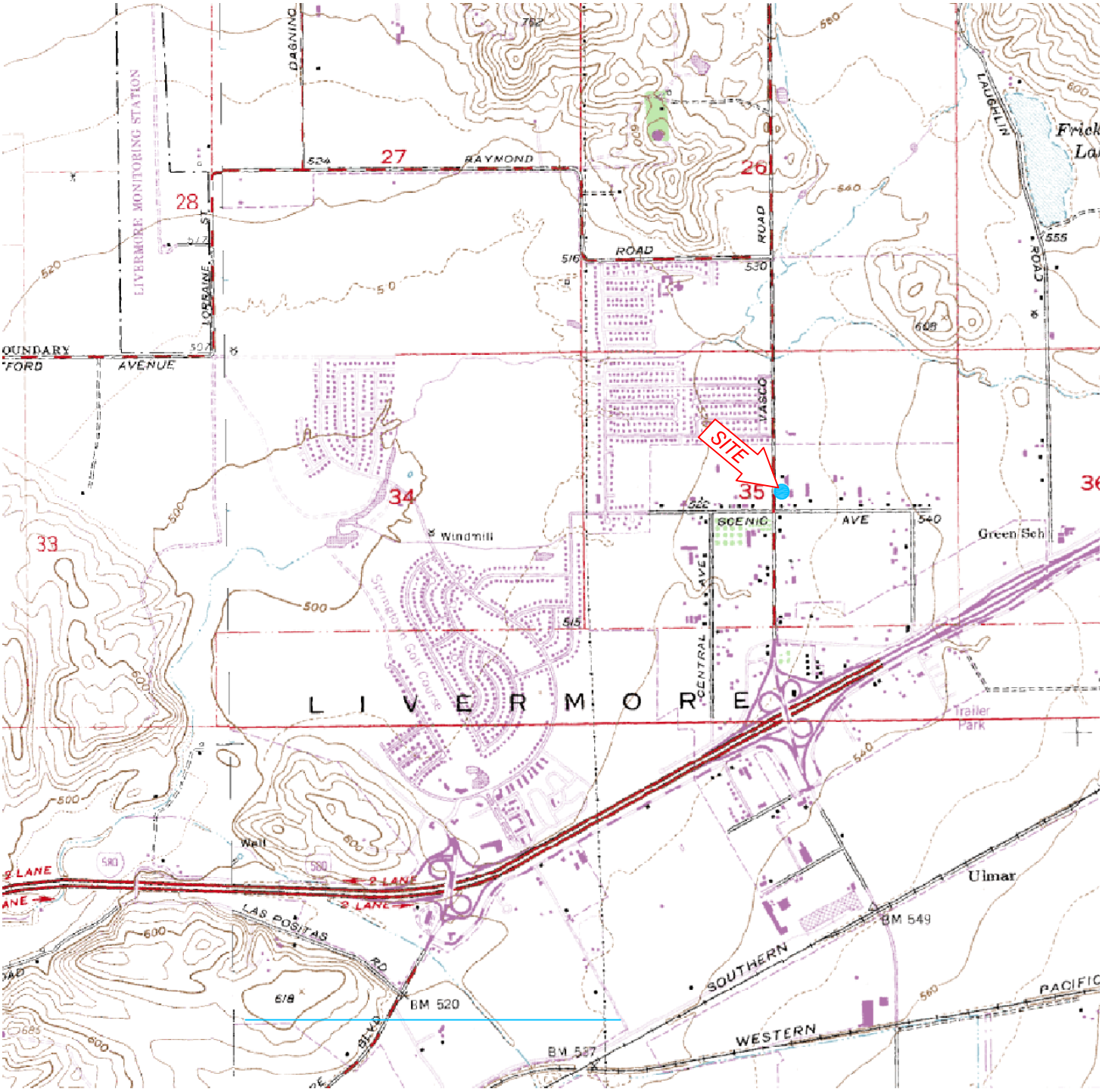
Damon Brown
Geologic Associate
Project Manager

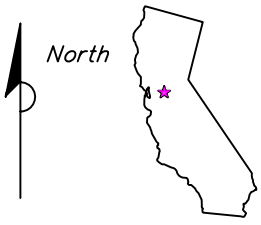
Ed Simonis, PG
Senior Geologist

Attachments:
Figures
Tables
Attachment A – Regulatory Correspondence
Attachment B – DWR Reports and Zone 7 Water Agency Results

cc: Mr. John Wainwright, Stantec, 308 East 4500 South, Suite 100, Murray, Utah 84101

Figures





1 1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

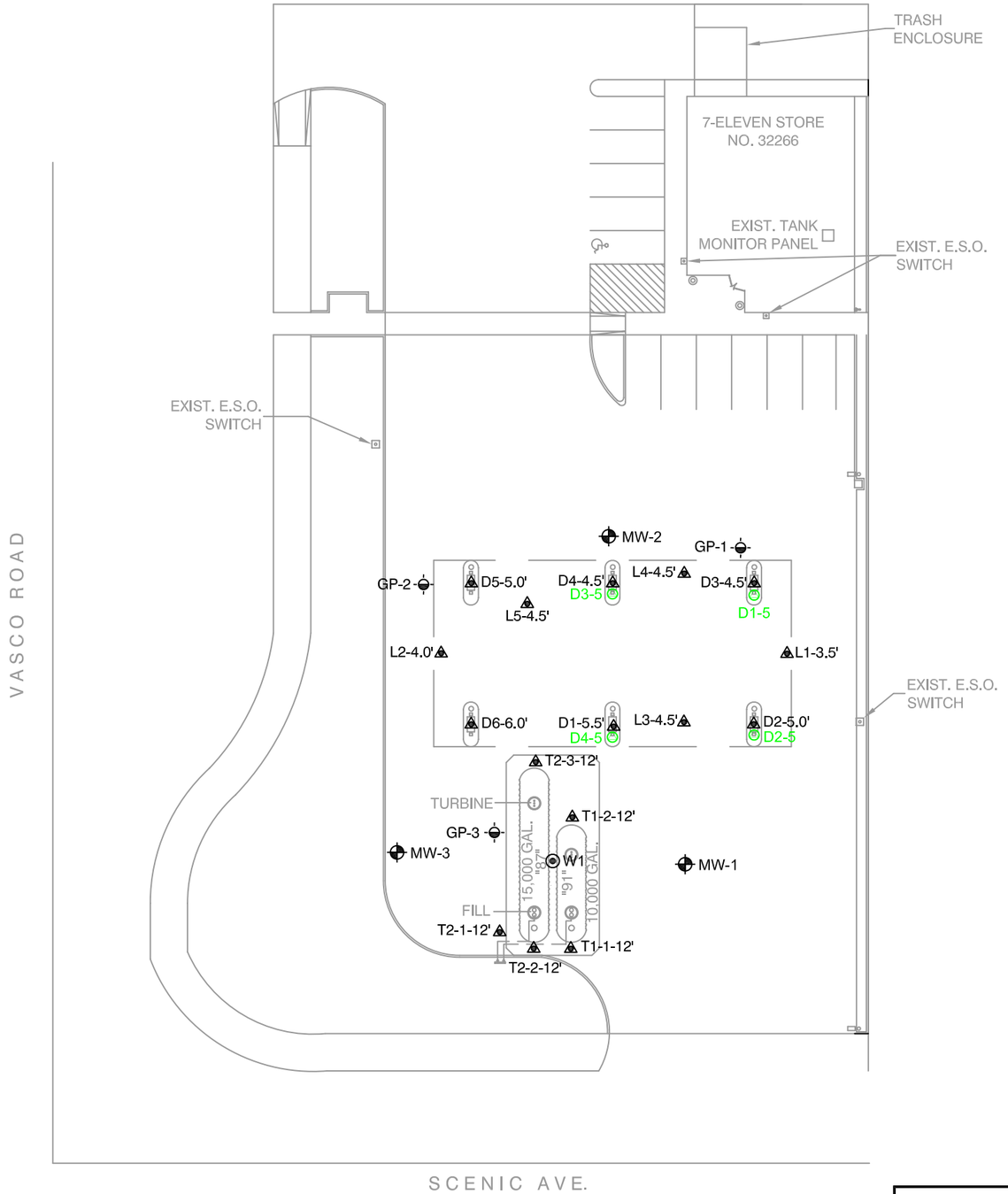
SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, LIVERMORE, CALIFORNIA

Stantec

FOR:		SITE LOCATION MAP	FIGURE:
7-ELEVEN, INC. FACILITY NO. 32266 1339 VASCO ROAD LIVERMORE, CALIFORNIA			1
JOB NUMBER: 211502037	DRAWN BY: STA	CHECKED BY: PH	APPROVED BY: DB	DATE: 05/06/10

FILEPATH:M:\7-Eleven\32266\FIG 1-SITE LOCATION MAP.dwg | Layout Tab: Layout1 | Drafter: saguinaldo | May 06, 2010 at 16:03



LEGEND:

W1	UST EXCAVATION WATER SAMPLE LOCATION
GP-1	GEOPROBE SAMPLE LOCATION
L5-4.5'	2008 SOIL SAMPLE LOCATION
D1-5	2005 SOIL SAMPLE LOCATION
MW-1	PROPOSED GROUNDWATER MONITORING WELL

N

0 30 60

APPROXIMATE SCALE IN FEET

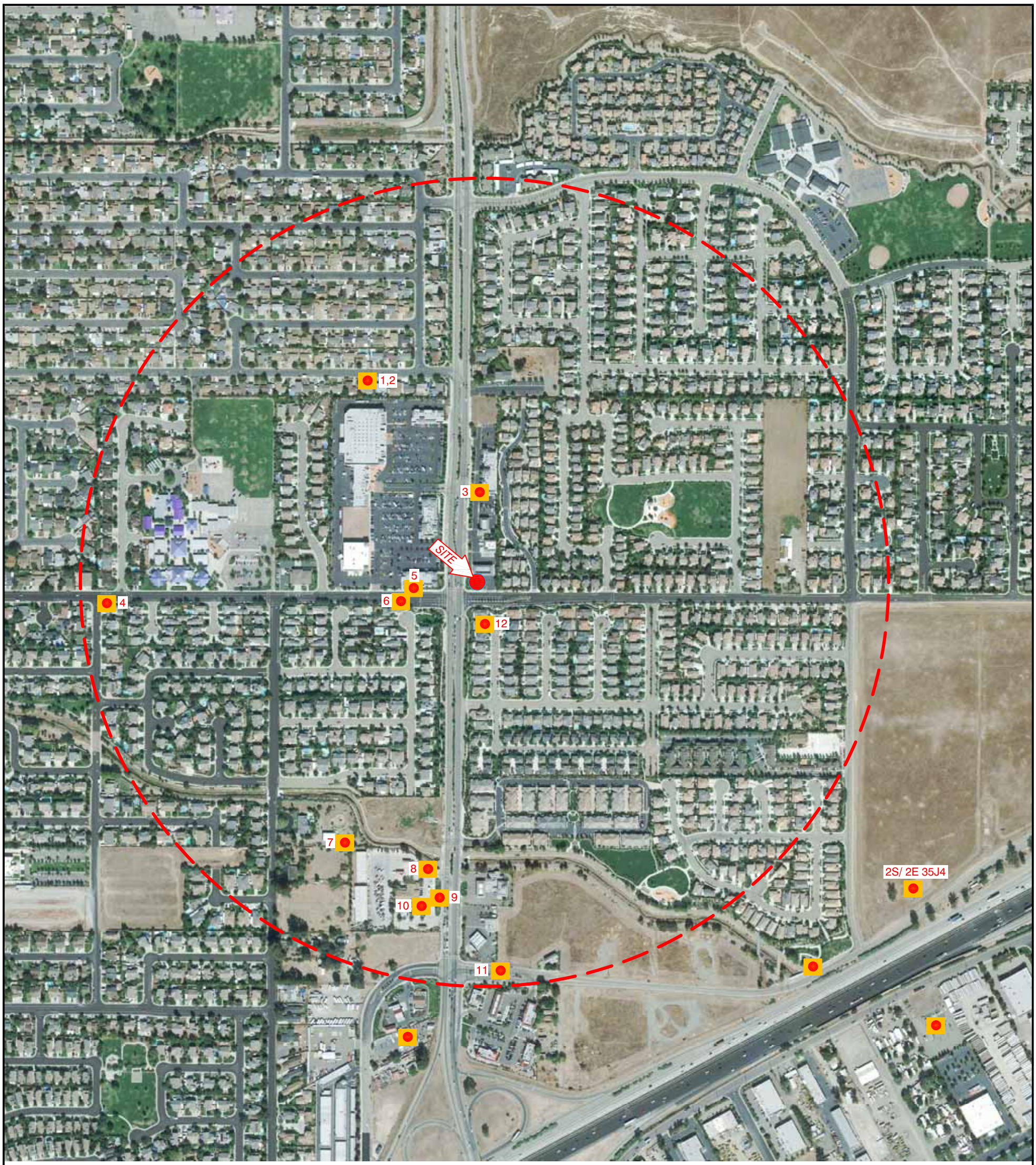
Stantec

FOR: 7-ELEVEN
STORE NO. 32266
1339 NORTH VASCO ROAD
LIVERMORE, CALIFORNIA

SITE PLAN

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211502037	STA	PH	DB	09/16/10



LEGEND:

= 2,000-FOOT RADIUS

= IDENTIFIED WELLS

N

0 500 1,000

APPROXIMATE SCALE IN FEET

REFERENCE: THIS FIGURE IS BASED ON GOOGLE AERIAL IMAGE.

Stantec

FOR:
7-ELEVEN
STORE NO. 32266
1339 NORTH VASCO ROAD
LIVERMORE, CALIFORNIA

2,000-FOOT RADIUS WELL SURVEY MAP

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211502037	STA	PH	DB	09/29/10

FILEPATH:M:\7-Eleven\32266\FIG 3_7-11_32266_2000 FOOT RADIUS WELL SURVEY_09-29-2010.dwg | Layout Tab: Layout1 | Drafter: saguinaldo | Sep 29, 2010 at 14:41

Tables

TABLE 1
Historical Soil Sample Analytical Results

7-Eleven Store #32266
1339 Vasco Road
Livermore, California

Sample I.D.	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	TPHg (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	EDB (mg/kg)	EDC (mg/kg)	EtOH (mg/kg)	Total Lead (mg/kg)	Notes
Dispenser Samples																	
D1-5.5	01/28/05	5.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**6.71**	
D2-5.0	01/28/05	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.039**	<0.0050	<0.0050	<0.0050	**0.016**	<0.0050	<0.0050	**0.010**	**6.57**	
D3-4.5	01/28/05	4.5	**0.026**	**0.086**	**0.010**	**0.055**	<1.0	**0.14**	<0.0050	<0.0050	<0.0050	**0.0064**	<0.0050	<0.0050	**0.27**	**28.4**	**J**
D4-4.5	01/28/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.012**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**6.01**	
D5-5.0	01/28/05	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**5.53**	
D6-6.0	01/28/05	6.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.018**	<0.0050	<0.0050	<0.0050	**0.049**	<0.0050	<0.0050	<0.010	**4.98**	
D1-5.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.024**	<0.0050	<0.0050	<0.0050	**0.0076**	--	--	--	**--**	a, c
D2-5.0	12/04/08	5.0	**0.21**	**0.59**	**0.26**	**1.4**	**12**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	**--**	**--**	b, c
D3-4.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	**--**	**--**	a, c
D4-4.5	12/04/08	5.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	b, c
Line Samples																	
L1-3.5	01/28/05	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**5.51**	
L2-4.0	01/28/05	4.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**11.2**	
L3-4.5	01/28/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**7.14**	
L4-4.5	02/09/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**6.61**	
L5-4.5	02/09/05	4.5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**6.49**	
UST Excavation Samples																	
T1-1-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.034**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**5.82**	
T1-2-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**2.4**	<0.0050	<0.0050	**0.0068**	**2.6**	<0.0050	<0.0050	<0.025	**6.49**	
T2-1-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.016**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**6.65**	
T2-2-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.010**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**7.50**	
T2-3-12	01/28/05	12	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.18**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**5.66**	
Soil Boring Soil Samples																	
GP-1-5	04/20/10	5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-1-10	04/20/10	10	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-1-15	04/20/10	15	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-2-10	04/20/10	10	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-2-15	04/20/10	15	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-3-5	04/20/10	5	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-3-10	04/20/10	10	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.023**	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**--**	
GP-3-15	04/20/10	15	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**1.1**	<0.0050	<0.0050	<0.0050	**0.0076**	--	--	--	**--**	**J**

TABLE 1
Historical Soil Sample Analytical Results

7-Eleven Store #32266
1339 Vasco Road
Livermore, California

Sample I.D.	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	TPHg (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	EDB (mg/kg)	EDC (mg/kg)	EtOH (mg/kg)	Total Lead (mg/kg)	Notes
Stockpile Soil Samples																	
SP1 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.75**	
SP1 (EFGH)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**2.66**	
SP1 (IJKL)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.30**	
SP1 (MNOP)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**4.40**	
SP2 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.80**	
SP2 (EFGH)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.01**	
SP2 (IJKL)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.24**	
SP2 (MNOP)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**5.15**	
SP2 (QRST)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**2.75**	
SP2 (UVWX)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.17**	
SP3 (ABCD)	01/28/05	--	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**3.14**	
SP1(ABCD)	12/04/08	---	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	**4.4**	b,c
SP1(ABCD)	04/20/10	---	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	--	--	--	--	--	--	--	**6.8**	e

Explanation:
TPHg, BTEX, MtBE, DIPE, ETBE, TAME, TBA, EDB, EDC, EtOH by 8260
ft bgs = Feet Below Ground Surface
mg/kg = milligrams per kilogram or parts-per-million
< = Not detected above laboratory reporting limit
UST = Underground Storage Tank
TPHg = Total petroleum hydrocarbons-as-gasoline
MtBE = Methyl-tert-butyl ether
DIPE = Diisopropyl ether
EtBE = Ethyl-tert-butyl ether
TAME = Tert-amyl-methyl ether
-- = not analyzed
TBA = Tert-butyl alcohol
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane
EtOH = Ethanol
Total Lead analysis by 6010B

Notes:
a = Matrix Spike/Matrix Spike Duplicate results for the analytes tert-butanol and toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
b = Matrix Spike/Matrix Spike Duplicate results for the analyte methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.
c = composite soil profile samples
d = Note that dispenser sample names/designations differ in location from dispenser samples collected in 2005.
J = TBA results may be biased slightly high and is flagged with a 'J'. A fraction of MtBE (up to 5%) converts to TBA during the analysis of soil samples. This conversion effect is considered to be mathematically significant in samples that contain MtBE/TBA in ratios of over 3:1.
e = Matrix Spike/Matrix Spike Duplicate results for the analytes Ethylbenzene, P + M Xylene, O-Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

TABLE 2
Historical Water and/or Groundwater Sample Analytical Results

7-Eleven Store #32266
1339 Vasco Road
Livermore, California

Sample I.D.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	TPHg (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	EtOH (µg/L)	Notes
UST Excavation Groundwater Sample															
W1	01/28/05	**25**	**290**	**62**	**520**	**3,400**	**180**	<1.5	<1.5	<1.5	**15**	<1.5	<1.5	**2,600**	
Baker Tank Samples															
BT-1	02/04/05	<0.50	<0.50	<0.50	**0.70**	<50	**340**	--	--	--	--	--	--	--	
BT-2	02/04/05	<0.90	<0.90	<0.90	<0.90	<90	**400**	--	--	--	--	--	--	--	
Grab Groundwater Samples															
GP-1W	04/20/10	<0.50	<0.50	<0.50	<0.50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	
GP-2W	04/20/10	<0.50	<0.50	<0.50	<0.50	<50	**2.9**	<0.50	<0.50	<0.50	<5.0	--	--	--	
GP-3W	04/20/10	<0.50	<0.50	<0.50	<0.50	<50	**380**	<0.50	<0.50	**0.71**	<5.0	--	--	--	

Explanation:

BTEX, TPHg, MtBE, DIPE, ETBE, TAME, and TBA by 8260B
ft bgs = Feet Below Ground Surface
ug/L = micrograms per Liter or parts-per-million
< = Not detected above laboratory reporting limit
UST = Underground Storage Tank

TPHg = Total petroleum hydrocarbons-as-gasoline
MtBE = Methyl-tert-butyl ether
DIPE = Diisopropyl ether
EtBE = Ethyl-tert-butyl ether
TAME = Tert-amyl-methyl ether

TBA = Tert-butyl alcohol
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane
EtOH = Ethanol
-- = not analyzed

Table 3
Soil Boring Details

7-Eleven Store #32266
1339 North Vasco Road
Livermore, CA

Well I.D.	Drill Date	Boring Depth (feet bgs)	Well Diameter (inches)	Screen Top (feet bgs)	Screen Bottom (feet bgs)	Screen Length (feet)	Comments
Soil Borings							
GP-1	04/20/10	20	--	--	--	--	
GP-2	04/20/10	25	--	--	--	--	
GP-3	04/20/10	30	--	--	--	--	
Monitoring Wells							
MW-1		25	2	10	25	15	***Proposed Monitoring Well***
MW-2		25	2	10	25	15	***Proposed Monitoring Well***
MW-3		25	2	10	25	15	***Proposed Monitoring Well***

Explanation
bgs = Below ground surface
-- = Data Not Available/Not Applicable

Table 4
Proposed Soil Sample Plan

7-Eleven Store #32266
1339 North Vasco Road
Livermore, CA

Soil Sample Depth (feet bgs)			Soil Sample Interval		
			MW-1	MW-2	MW-3
5			x	x	x
10			1	1	1
15			x	x	x
20			1	1	1
25*			1	1	1
(Soil Samples)	Method				
TPHg, MtBE and BTEX	EPA 8260	9	3	3	3

Explanation

bgs= Depth in feet Below Surface Grade

MW-1 = Proposed Monitoring Well

1 = soil sample location proposed for analyses

x = soil sample collection point, with no analyses proposed

TPHg = Total Petroleum Hydrocarbons as Gasoline

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

MtBE = methyl tertiary butyl ether

* Proposed soil samples at 25 feet bgs will only be analyzed if elevated PID values are observed in the field.

Table 5
Wells Within 2,000 Feet of Site

7-Eleven Store #32266
1339 Vasco Rd
Livermore, California

Well Label	Distance to Well(s) (feet)	Direction to Well(s)	Well(s) Use	Location of Well(s)	Install Date	Total Depth (feet bgs)	Well Diameter (inches)	Screen		Screen Length (feet)	Owner of Well	Notes	DWR Log # and/or Zone 7 Designation
								Top (feet bgs)	Bottom (feet bgs)				
1	1,100	Northwest	--	--	06/17/50	68	8	61	68	7	Henry Gaventi		DWR Log# 01-1272
2	1,100	Northwest	--	--	06/17/50	68	8	61	68	7	Henry Garaventa		DWR Log# 01-1273
3	450	North	--	1443 Vasco Rd	1951	88	8	76	88	12	Judi Meis		DWR Log# 261450R - Zone 7 Well 2S/2E-35G
4	1,800	West-Southwest	Domestic	5488 Scenic Ave	08/10/60	100	8	--	--	--	H. Hale		DWR Log# 50756
5	300	West	--	5874 Scenic Ave	04/17/62	108	--	--	--	--	Charles Ellington		DWR Log# 01-1274
6	300	West	--	Vasco Rd & Scenic	02/28/75	120	--	95	120	25	Pacific Gas & Elect. Co.		DWR Log# 115712
7	1,400	South-Southwest	Irrigation	1151 Central Ave	06/05/89	106	6.63	35	43	8	David Hughes		DWR Log# 299180 - Zone 7 Well 2S/2E-35L2
								61	81	20			
8	1,350	South	Monitoring	1000 North Vasco Rd	07/17/95	15.8	2	5	15.68	10.68	Geno Macedo		DWR Log#193173
9	1,450	South	Monitoring	1000 North Vasco Rd	07/17/95	15.1	2	5	15.26	10.26	Geno Macedo		DWR Log#193174
10	1,550	South	Monitoring	1000 North Vasco Rd	07/18/95	15.5	2	5	15.05	10.05	Geno Macedo		DWR Log#193175
11	1,850	South	Monitoring	Northfront Rd (near Pleasant Ave.)	08/17/05	31.5	2	20.5	30.5	10	Zone 7 Water District		DWR Log# E073679
12	150	South	--	1289 Vasco Rd	--	--	--	--	--	--	--	A	No DWR Log - Zone 7 Well 2S/2E-35G1

Notes:
bgs = below ground surface
'-- = Unknown

A= Zone 7 Water Agency reports this well as "Abandoned or Unlocatable"

Attachment A
Regulatory Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 14, 2010

Mr. Ken Hilliard
7-Eleven, Inc.
One Arts Plaza
1722 Routh Street, Suite 1000
Dallas, TX 75201

Mr. Michael Blau
Michael H. Blau Trust
PO Box 2768
Danville, CA 94526

Subject: Fuel Leak Case No. RO0002999 and Geotracker Global ID T10000001067, 7 Eleven #32266, 1339 Vasco Road, Livermore, CA 94551

Dear Mr. Hilliard and Mr. Blau:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above referenced site including the most recent report entitled, "*Additional Soil and Groundwater Assessment,*" dated May 17, 2010 (Report). The Report, which was prepared by Stantec Consulting Corporation on behalf of 7-Eleven, Inc., presents soil and groundwater sampling results from three direct push soil borings. MTBE was detected in soil at concentrations up to 1.1 milligrams per kilogram and 360 micrograms per liter, respectively. BTEX, TPHg, DIPE, EtBE, and TBA were not detected in groundwater at concentrations above the reporting limits. The highest concentrations of MTBE were detected in soil and groundwater from GP-3, which is located west of the USTs. The Report did not include recommendations for future actions.

Based on the results presented in the May 17, 2010 Report, further work is required to assess the extent of contamination and to assess whether the contamination potentially may affect receptors in the area of the site. In addition, the hydraulic gradient in the area of the site has not been defined. We request that you address the following technical comments, perform the requested work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Definition of Lateral and Vertical Extent of Contamination and Hydraulic Gradient.** The lateral and vertical extent of contamination and the hydraulic gradient have not been defined for the site. We request that you submit a Work Plan to complete delineation of the extent of contamination. The Work Plan should monitoring wells to define the hydraulic gradient. Please submit the Work Plan no later than September 28, 2010.

2. **Detailed Well Survey.** In order to identify potential receptors for the MTBE release from your site, we request that you locate all water supply wells within a radius of 2,000 feet of the subject site. We recommend that you obtain well information from both the Zone 7 Water Agency and the State of California Department of Water Resources. Submittal of maps showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Please provide a table that includes the well designation, location, total depth, diameter, screen interval, date of well installation, current status, historic use, and owner of the wells. In addition, please provide well logs and completion records for wells downgradient from the site that

are potential receptors. Results of the detailed well survey are to be included in the Work Plan requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **September 28, 2010** – Work Plan

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o, ou, email=jerry.wickham@acgov.org, c=US
Date: 2010.07.14 16:07:28 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, CA 94551

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street Pleasanton, CA 94566

Damon Brown, Stantec Consulting Corporation, 3017 Kilgore Road, Suite 100, Rancho Cordova, CA 95670

Donna Drogos, ACEH
Jerry Wickham, ACEH
Geotracker, File

Attachment 1
Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Attachment B
DWR Reports and
Zone 7 Water Agency Results

01-1272

3521

REGION 2

COUNTY Alameda

NEAR Livermore

DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

DWR No. 2S/2E-26G1 B & M

OTHER Nos.

WELL LOG

Well No. 15

LOCATION

OWNER Henry Gaventi ADDRESS Rt. 1, Box 316, Greenville, Calif. (Livermore)

DRILLED BY Earl Ramey ADDRESS Antioch, Calif.

DRILLING METHOD GRAVEL PACKED DATE COMPLETED 6/17/50

SIZE OF CASING DEPTH 68' 8" casing STRUCK WATER AT

PERFORATIONS 61-68 feet SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %	
0-3		Top soil 5			
3-26		Blue sandy clay 5			
26-36		Water sand sulfur gas 20			
36-54		Black clay, sulfur 3			
54-57		Water in black muck 3			
57-61		Hard blue clay 3			
61-68 (7)		Water in gravel and sand (perforated this strata)			20
		StAnding level 28' below ground			

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY DATE SHEET 1 OF

FORM 263. 47885 7-51 5M ② SPO

REGION 2

COUNTY Alameda

NEAR Livermore

DIVISION OF WATER RESOU 01-1273

DEPARTMENT OF PUBLIC WORK

STATE OF CALIFORNIA

OTHER Nos. 2S/2E-26G1 35C1 M D M

NEW NO. 2S/2E-35C1

WELL LOG

Well No. 15

LOCATION

OWNER Henry Gaventi (Garaventa) ADDRESS Rt. 1, Box 316, Greenville, Calif. (Livermore)

DRILLED BY Earl Ramey ADDRESS Antioch, Calif.

DRILLING METHOD GRAVEL PACKED DATE COMPLETED 6/17/50

SIZE OF CASING DEPTH 68' 8" casing STRUCK WATER AT

PERFORATIONS 61-68 feet SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %	
0-3		Top soil	3		
3-26		Blue sandy clay	23		
26-36		Water sand sulfur gas	10		
36-54		Black clay, sulfur	18		
54-57		Water in black muck	3		
57-61		Hard blue clay	4		
61-68		Water in gravel and sand (perforated this strata)	7		
		Standing level 28' below ground			

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY DATE SHEET 1 OF

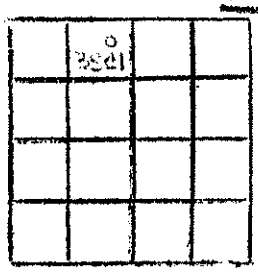
FORM 263, 47885 7-51 5M ⓐ SPO

FC 2S/2E-35C1

35C1

01-1273

Report No. 15 2F ~~2691~~



Owner HENRY GARAVENTA

Pump No. BDM

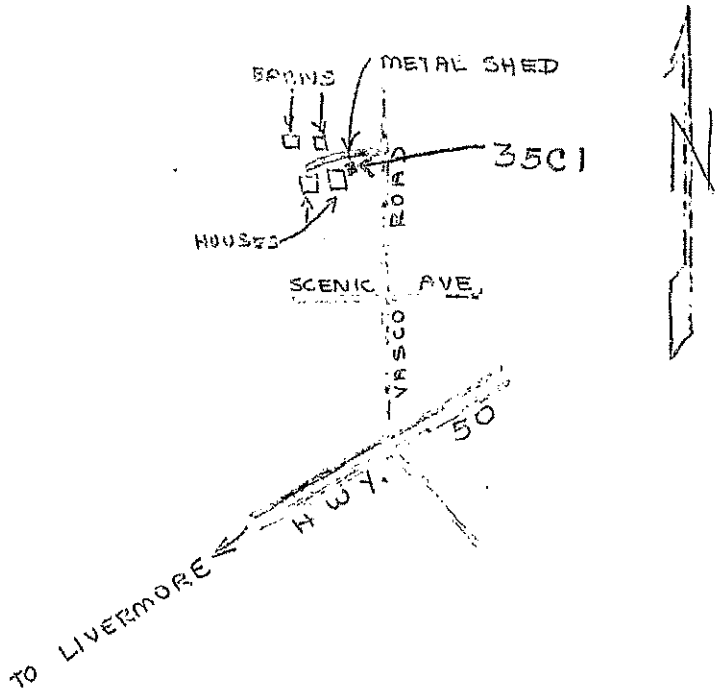
Meter No. 220338

Region 2 ; County ALAMEDA

Township 2S , Range 2E , Section 35C1 , MD B&M.

4900 ft. north, 2900 ft. west from southeast corner of Section.

SKETCH



DESCRIPTION OR REMARKS

0.8 mi. N/o intersection of Hwy. 50 & Vasco Rd.; 0.1 mi. W/o Vasco Rd. on driveway; in metal shed on south side of driveway leading off Vasco Rd.;

Checked by R.F. ZIPF Date AUG. 1, 1951

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2S/2E 35L6

H2OGEOL

A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-1 Sheet 1 of 1

Project No.: Date: 07/17-18/95
Client: Geno's Country Store
Location: 1000 North Vasco Road
Livermore, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25-in
Ground Surface Elevation 526.3 Datum: ground surface
Borehole MW-1 was completed as a monitoring well MW-1

Water Level	8.68			
Time	8:45			
Date	7/24/95			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1				CL	Landscape fill. dark brown 7.5YR 3/4 very sandy silty clay.
		2				CL/CH	Olive 5Y 4/3 gravelly sandy silty clay, pebbles to 2 cm
		3					Neat Cement Grout
		4				CH	Dark yellowish brown 10YR 3/4 silty stiff clay. Faint diesel odor.
		5					Bentonite Seal
		6					Trace gravels
		7	■	7-7.5 Ft.			
		8				SC	Greenish gray 5G 5/1 mottled yellowish brown 10YR 5/6 gravelly very clayey very fine to medium sand. Faint diesel odor.
		9					First Encountered Water at 8.8 Feet. ▽
		10					Decreasing clay with depth
		11					No odor from 10 foot to total depth.
		12					LONESTAR No. 3 Sand
		13				SW	Yellowish brown 10YR 5/6 very fine to medium sand.
		14				CH	Yellowish brown 10YR 5/6 stiff clay.
		15				SC	Yellowish brown 10YR 5/6 very clayey very fine to medium sand.
		16					Total Well Depth = 15.68 Feet (below reference mark)
		17					Total Depth 15.9 (below grade)
		18					Well completed with 6-inch stove pipe type cover.
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen, screen openings = 0.020 inch

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2S/2E 35L7

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-2 Sheet 1 of 1

Project No.: Date: 07/17-18/95
Client: Geno's Country Store
Location: 1000 North Vasco Road
Livermore, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 8.25-in
Ground Surface Elevation 526.6 Datum: ground surface
Borehole MW-2 was completed as a monitoring well MW-2

Water Level	8.17			
Time	8:43			
Date	7/24/95			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
						CL	Landscape fill, dark brown 7.5YR 3/4 very sandy silty clay.
		1					Dark yellowish brown 10YR 3/4 silty stiff clay.
		2					
		3					Neat Cement Grout
		4				CH	
		5					Trace gravels
		6					Bentonite Seal
		7	■	7-7.5 Ft.			Dark yellowish brown 10YR 3/4, gravelly very clayey very
		8					fine to medium sand.
		9					First Encountered Water at 8.38 Feet. ▽
		10				SC	
		11					LONESTAR No. 3 Sand
		12					
		13					Dark yellowish brown 10YR 4/4 sandy clay.
		14				CL	
		15					Total Depth 15.1 (below grade)
		16					Total Well Depth = 15.28 Feet (below reference mark)
		17					Well completed with 6-inch stove pipe type cover.
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen, screen openings = 0.020 inch

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2S/2E 35L8

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-3 Sheet 1 of 1

Project No.: Date: 07/18-19/95
Client: Geno's Country Store
Location: 1000 North Vasco Road
Livermore, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 8.25-in
Ground Surface Elevation 526.3 Datum: ground surface
Borehole MW-3 was completed as a monitoring well MW-3

Water Level	7.60			
Time	8:40			
Date	7/24/95			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
							Concrete 0.5 feet, hasrock 0.3 feet
		1					Dark yellowish brown 10YR 3/4 stiff clay.
		2				CH	
		3				CH	Yellowish brown 10YR 5/6 sandy stiff clay. Neat Cement Grout
		4					Increasing sand content with depth.
		5				SC	Yellowish brown 10YR 5/6 clayey sand. Bentonite Seal
		6					Yellowish brown 10YR 5/4 clayey sand.
		7		7-7.5 Ft.			Decreasing clay with depth.
		8				SC/SW	First Encountered Water at 7.95 Feet. ▽
		9					Yellowish brown 10YR 5/4 very clayey pebbly fine to coarse sand. Pebbles to 1 cm.
		10				SW	Yellowish brown 10YR 5/4 pebbly fine to coarse sand. Pebbles to 2X7 cm.
		11					LONESTAR No. 3 Sand
		12					Yellowish brown 10YR 5/4 stiff sandy clay.
		13				CH	
		14					
		15					
		16					Total Well Depth = 15.05 Feet (below reference mark)
		17					Well completed with 8-inch flush box.
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

Total Depth 15.5 (below grade)

2-inch PVC casing and screen, screen openings = 0.020 inch

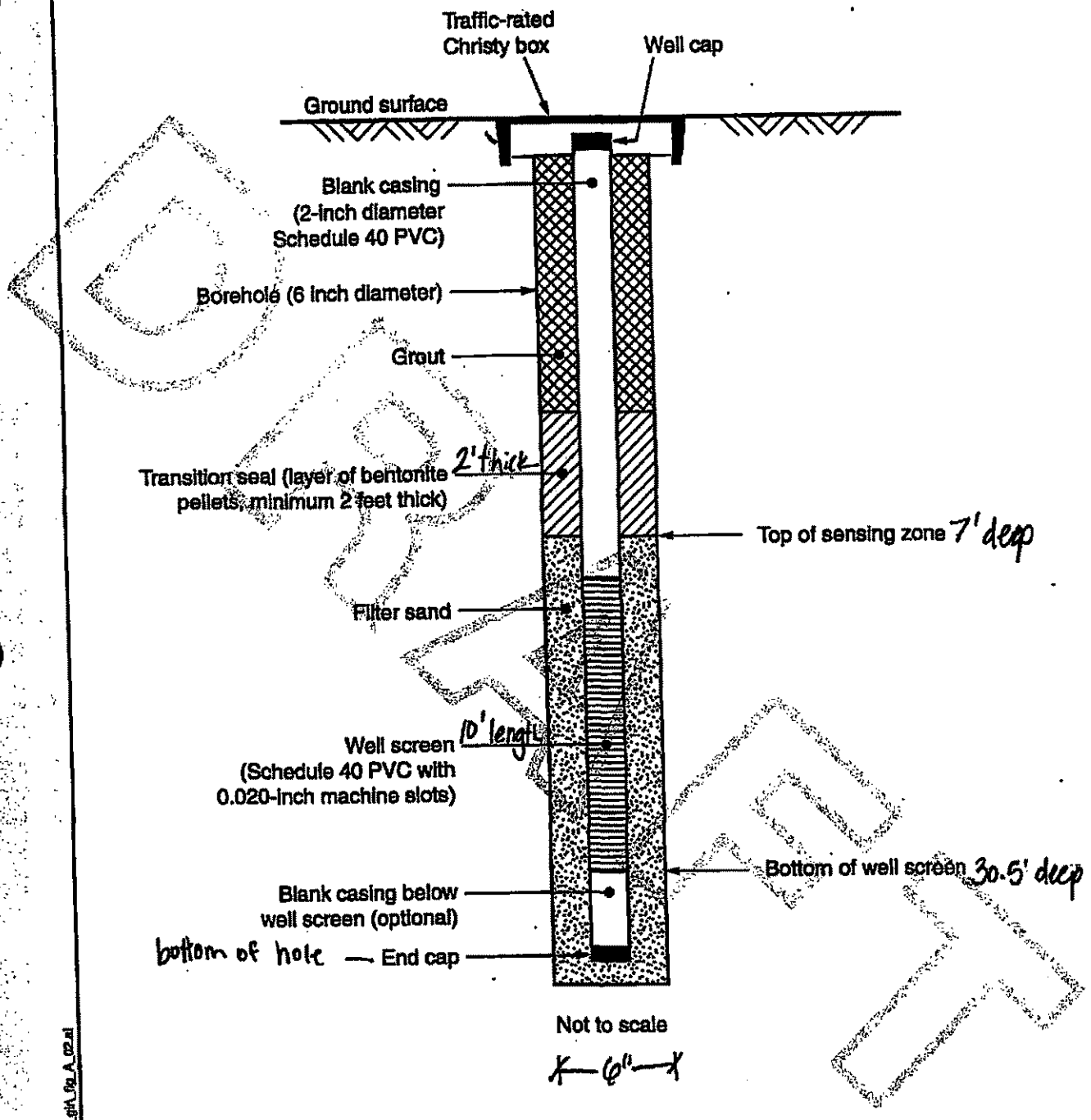
LONESTAR No. 3 Sand

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

AB-9(P)
E073079



TYPICAL MONITORING WELL CONSTRUCTION DIAGRAM
Altamont Pipeline Project
Alameda County, California

By:	Date:	Project No. 10156.000
Geomatrix		Figure A-2

S:\10100\10156\10156.000\task_e06_0307_gIA_fig_A_02.ai

E0073679

PROJECT: Altamont Water Treatment Plant & Pipeline
Livermore, California
Alameda County

Log of Boring No. AB-9(P)

BORING LOCATION: See Plate 1		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Gregg Drilling & Testing, Inc.		DATE STARTED: 8/17/2005	DATE FINISHED: 8/17/2005
DRILLING EQUIPMENT: Mobile B80		TOTAL DEPTH (feet): 31.5	MEASURING POINT: Ground Surface
DRILLING METHOD: 6-inch diameter hollow-stem auger		DEPTH TO FREE WATER FIRST ENCOUNTERED: 8 feet	
SAMPLING METHOD: See Figure A-1, Boring Log Explanation		DEPTH TO FREE WATER AT COMPLETION: 8	
HAMMER WEIGHT: 140 lbs	HAMMER DROP: 30 inches	LOGGED BY: H. Abramson	

DEPTH (feet)	SAMPLES Sample No.	SAMPLES Sample	SAMPLES Blows/foot	MATERIAL DESCRIPTION	LABORATORY TESTS Moisture Content (%)	LABORATORY TESTS Dry Density (pcf)	LABORATORY TESTS Other
0				ASPHALT (8 inches)			
1				GRAVEL with SAND (GP) Medium dense, brown (10YR 4/3), dry, ranges up to 1/2-inch; [AGGREGATE BASE]			Bulk (0.7-20 ft): Sieve Compaction
2				SANDY CLAY (CL) Medium stiff, brown (10YR 4/3), moist, low plasticity, fine sand, minor fine angular gravel, grades less gravelly with depth; [ALLUVIUM]			
3							
4							
5				CLAYEY SAND (SC) Loose to medium dense, yellowish brown (10YR 5/6), moist, fine grained; [ALLUVIUM]			
6	1		15				
7				SAND with SILT and GRAVEL (SP-SM) Loose to medium dense, yellowish brown (10YR 5/6), moist, fine to medium grained; [ALLUVIUM]			
8				ATD grades wet, fine to coarse grained			
9							
10							Sieve
11	2		31				
12							
13							
14				includes beds of gravelly sand and beds of clayey, very fine sand			
15							1.5 feet recovery
16	3		9	CLAYEY SAND with GRAVEL (SC), very fine, with MnO_2	15.0		<200=29.7%
17				SAND with CLAY (SP-SC): Description on next page			

GT-1 (12/03)

GEBS-SOIL 12/03 A1-SOIL LOGS.GPJ GEBS2003-7.GDT 8/7/06

Project No. 10156.000	Geomatrix Consultants	Figure A1-13

PROJECT: Altamont Water Treatment Plant & Pipeline
Livermore, California
Alameda County

E0736?9

Log of Boring No. AB-9(P) cont.

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/foot	MATERIAL DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	LABORATORY TESTS: Dry Density (pcf)	LABORATORY TESTS: Other
18				SAND with CLAY (SP-SC) Medium dense, brown (10YR 5/3), wet, fine to coarse, minor fine gravel			
19				SAND (SP), interbedded with SAND with GRAVEL (SP) and CLAYEY SAND (SC)			
20					14.5		2.0 feet recovery <200=38.1%
21	4		17	SANDY CLAY (CL), stiff, brownish yellow (10YR 6/6), moist, very fine sand, low plasticity, flecks of MnO_2, scattered fine gravel			
22							
23							
24							
25					16.7		0.6 feet recovery Sieve
26	5		13	SAND/SILTY SAND (SW-SM), medium dense, brown (10YR 5/3), moist to wet			
27							
28							
29							
30							
31	6		21	SANDY CLAY (CL), very stiff, strong brown (7.5YR 5/6), moist, dendritic MnO_2 growth, carbonate seams, sand is very fine, clay is low plasticity			
				Boring terminated at 31.5 feet. Piezometer constructed in boring.			

GT-2 (8/01)

Project No. 10156.000	Geomatrix Consultants	Figure A1-13 Cont.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

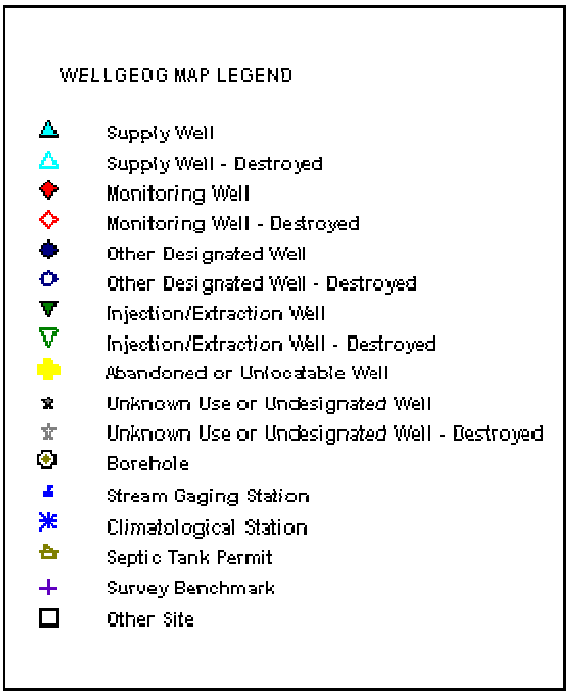
Lichtenberger, Deborah

From: Hong, Wyman [mailto:WHong@zone7water.com]
Sent: Monday, September 13, 2010 3:44 PM
To: Herrmann, Patrick
Subject: Well Search

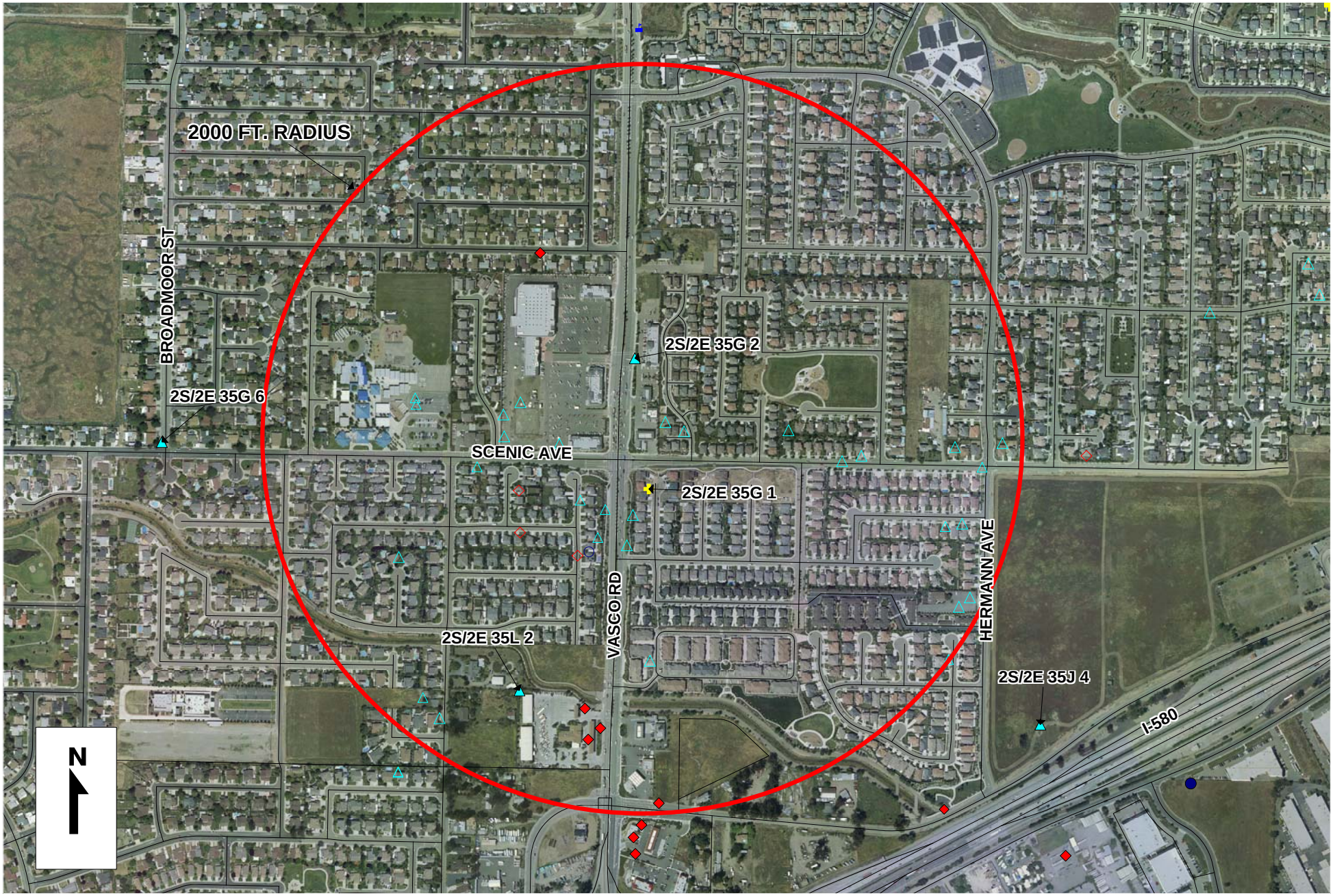
Patrick,

Attached is a well location map for the area (2000 ft. radius) near 1339 Vasco Road in Livermore. Our records show three water supply wells within the 2000 feet radius.

1. Well 2S/2E-35G1 – 1289 Vasco Rd, not in use.
2. Well 2S/2E-35G2 – 1443 Vasco Rd, depth – 88 ft.
3. Well 2S/2E-35L2 – 1151 Central Ave, depth – 86 ft.



Wyman Hong
Water Resources Specialist
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551
Phone: (925) 454-5056
Mobile: (925) 998-2350



	ZONE 7 WATER AGENCY **100 NORTH CANYONS PARKWAY** **LIVERMORE, CA 94551**	**WELL LOCATION MAP**	**SCALE: 1"= 700 ft** **DATE: 9/13/10** **1339 Vasco Road**