



Shell Oil Products US

RECEIVED

9:02 am, Mar 01, 2010

Alameda County
Environmental Health

February 26, 2010

Re: Work Plan to Verify Extent of Impacted Soil
Former Shell-Branded Service Station
15275 Washington Avenue
San Leandro, California

Dear Mr. Jerry Wickham:

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.

Sincerely,
Shell Oil Products US

A handwritten signature in black ink, appearing to read "Denis L. Brown".

Denis L. Brown
Project Manager

February 26, 2010
Delta Project SCA152751D
SAP 129460

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: Work Plan to Verify Extent of Impacted Soil
Former Shell-Branded Service Station
15275 Washington Avenue
San Leandro, California



Dear Mr. Wickham:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Delta Consultants (Delta) has prepared this *Work Plan to Verify the Extent of Impacted Soil* for the site referenced above in order to confirm the extent of remaining impacted soil at the former Shell service station site. The purpose of this work is to evaluate the volume and location of remaining impacted soils at the site in order to complete data gaps, update the Site Conceptual Model, and evaluate remediation alternatives for the site.

SITE DESCRIPTION AND BACKGROUND

The subject site is located in the northwest corner of the intersection of Washington Avenue and Lewelling Boulevard in San Leandro, California. (Figure 1). The site is designated by Alameda County Environmental Health Services (ACEHS) as Fuel Leak Case No. RO0000372; the Geotracker Global identification number is T0600101226.

The subject site is a former Shell-branded service station; current businesses are Speed Smog Check, an automotive emissions testing facility, and a Big O Tire Store at the northern end of the site. The surrounding area is a mix of commercial and residential properties, primarily multi-family units. The site is bounded on the west by a mobile home park, on the south by Lewelling Boulevard, on the east by Washington Avenue, and on the north by commercial buildings. An ARCO service station is located on the southwest corner of the intersection and is an open leaking underground fuel tank (LUFT) case; joint groundwater monitoring with that site was initiated in the third quarter of 2010.

The depth to groundwater beneath the site is approximately 6 feet below ground surface (bgs). Petroleum hydrocarbons are thought to be primarily concentrated in the dissolved phase, although the saturated clay soils beneath the former underground storage tanks (USTs) likely still contain a small mass of petroleum hydrocarbons.

In the Site Conceptual Model prepared in September 2008, the calculated flow rate for total petroleum hydrocarbons as gasoline (TPH-g) was 4 feet per year, based on historic groundwater monitoring data. TPH-g appears to have migrated approximately 100 feet since before 1985 when the first groundwater monitoring wells were installed (approximately 25 years), which would be typical for a sandy silt than a clay.

A waste oil tank at the site was removed in June 1987; soils were excavated to a depth of approximately 13 feet bgs. Soil samples collected from beneath the waste oil tank contained 280 milligrams per kilogram (mg/kg) TPH-g and 14 mg/kg benzene; no TPH as diesel (TPH-d) or volatile organic compounds (VOCs) were reported. In addition, four fuel USTs were removed in June 1987, including two 5,000-gallon USTs, a 7,500-gallon UST and an 8,000-gallon UST. A total of four soil samples were collected from the tank pit walls (Samples A-D). Soil sample D reported 910 mg/kg TPH-g; all other soil samples reported less than 100 mg/kg TPH-g. In 1987, three trenches were excavated away from the former tank pit area to a depth of approximately 8.5 feet bgs. TPH-g was detected in soil samples taken from the trenches in concentrations ranging from 100 mg/kg to 730 mg/kg. A total of 500 cubic yards (cy) of soil were removed from the tank pit area, and an additional 200 cy of soil were excavated from trenches in the dispenser areas.

A soil vapor extraction (SVE) system was installed at the site and began operation in May 1998. Approximately 1,410 pounds of vapor phase hydrocarbons were removed by the SVE system during operation between 1998 and 1999. The SVE system shut down on October 9, 1999 and removed from the site in 2002.

WORK PLAN

This work plan is intended to fill data gaps and verify the vertical and lateral extent of remaining soil contamination in the vicinity of the former UST tank pit. Following completion of the confirmation borings, Delta will prepare an evaluation of remediation alternatives for the site. This scope of work proposes advancing up to fourteen (14) soil borings, two to depths of 40 to 50 feet bgs, and the rest to approximately 10 feet bgs.

Prefield

Delta will obtain all required drilling permits prior to commencement of any fieldwork. The proposed boring locations will be marked and Underground Service Alert (USA) will be contacted for location of underground utilities. A private utility locating firm will also be used to locate underground utilities in the area of each boring. All required notifications will be made prior to mobilizing to the field.

Soil Sampling

Proposed boring locations are based on historical soil data, and have been selected to verify current impacts to soil and define the lateral extent of remaining soil impacts beneath the former shallow excavation in the vicinity of the former UST complex and dispenser islands (Figure 2). Historic soil data and maps have been included as Attachment A. Historic groundwater monitoring data show stable groundwater elevations since 1988 between approximately 6 and 8 feet bgs, indicating that the smear zone is several feet thick at most. Soil samples below 10 feet bgs generally reflect groundwater conditions.

Fourteen (14) confirmation soil borings are proposed (SB-1 through SB-14), eleven onsite (SB-1 through SB-11) and three offsite (SB-12 through SB-14). With the exception of two borings in the vicinity of the former UST complex (SB-2 and SB-3), each boring is proposed to be advanced to a total depth of 10 feet bgs. The two deeper borings are proposed to extend to between 40 and 50 feet bgs, in order to verify the vertical extent of impacts. The final depth of each boring will be based on field observations and historical knowledge; if needed, the total depth of the borings may be extended in order to achieve vertical delineation. A map showing the location of the proposed confirmation borings is included on Figure 3.

Borings will be air-knifed to a depth of approximately 5 feet bgs prior to drilling in order to minimize subsurface damage to underground utilities. Air-knife and drilling operations will be performed by a drilling company with a C-57 license.

Excavated soil will be stored in labeled 55-gallon steel drums on site. A photo ionization detector (PID) will be used to screen hydrocarbon concentrations of soil samples collected from each boring; borings will be continuously cored, beginning at approximately 5 feet bgs. The PID soil samples will be placed in a sealed plastic bag; after approximately 5-minutes, the PID probe will be inserted into the plastic bag and soil gas allowed to pass through the PID until readings stabilize. The resulting concentration readings will be recorded on the geologist's field boring log. Soils will be classified based on the Unified Soil Classification System (USCS) using the American Society for Testing and Materials (ASTM) Method D-2487 published in May 2000. In addition to classifying the soils, the geologist will examine the samples for such features as root-holes, fractures, mineralization, and thin micro-bedding.

Soil samples from the most impacted zone and the bottom of the boring will be retained with chain-of-custody documentation for laboratory analysis. After the collection of soil samples, each boring will be filled to the surface with a Portland cement slurry mixture. The slurry will be placed into the borehole using a 0.5-inch diameter PVC pipe.

All down-hole drilling and sampling equipment will be cleaned prior to use and between boring locations. All soils, water and debris generated during the well installation activities will be stored onsite in Department of Transportation rated, 55-gallon drums pending characterization and appropriate disposal.

Chemical Analysis

Chemical analysis will be performed on selected soil samples from each borehole. Soil samples will be analyzed for historic compounds of concern at the site, including total petroleum hydrocarbons as gasoline (TPH-g) and the gasoline constituents benzene, toluene, ethylbenzene and total xylenes (BTEX compounds) by Environmental Protection Agency (EPA) Method 8260B. If required for additional waste characterization, soil samples from the most impacted areas will also be analyzed for California Title-22 metals (CAM-17).

Postfield

Following completion of field activities and receipt of all analytical data, Delta will submit a report detailing field events, findings, conclusions and recommendations for further action.

REMARKS

The recommendations contained in this document represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This document is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this document will be performed. This document is intended only for the use of Delta's Client and anyone else specifically listed on this document. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this document.

If you have any questions regarding this workplan, please contact Suzanne McClurkin-Nelson (Delta Project Manager) at 408.826.1875 or Denis Brown (Shell Project Manager) at 707.864.0251.

Sincerely,
DELTA Consultants



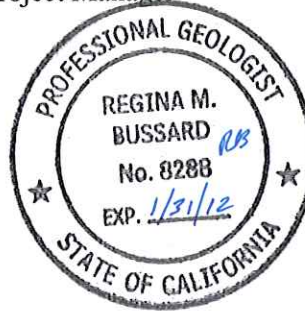
Abhik Dutta
Project Geologist



Suzanne McClurkin-Nelson
Senior Project Manager



Regina Bussard, PG
Senior Geologist



Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Proposed Soil Boring Location Map
Attachment A – Historic Soil Data and Maps

cc: Denis Brown, Shell Oil Products US, Carson
Mike Bakaldin, San Leandro Fire Department, San Leandro
Johnny Vierra, Big O Tire, San Leandro
Salel Enterprises c/o Foothill Hardware, Oakland

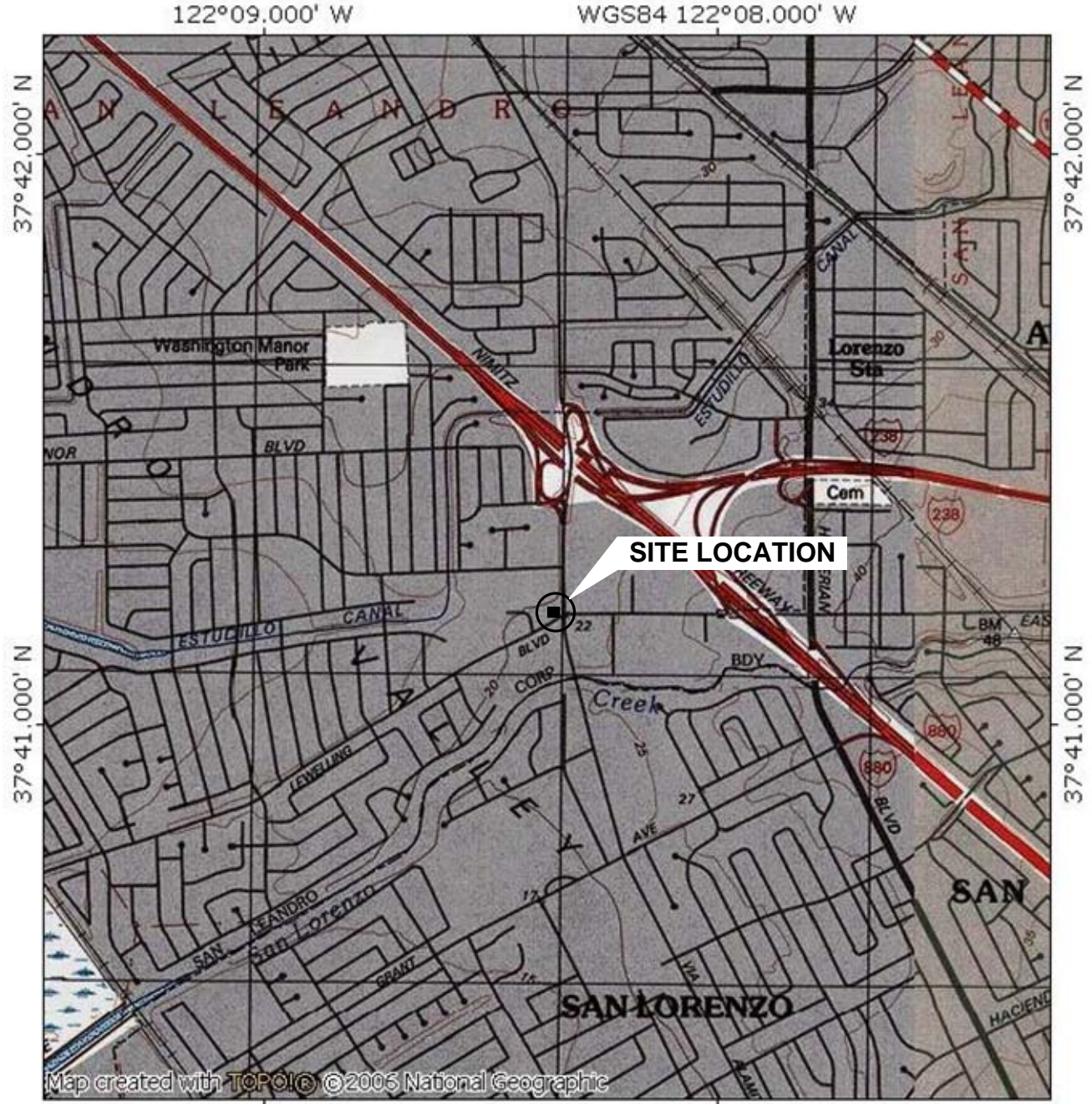
FIGURES

SCA152751D
DRAWING NUMBER

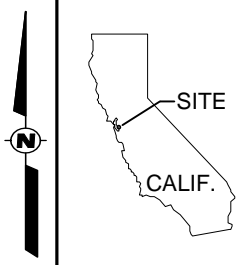
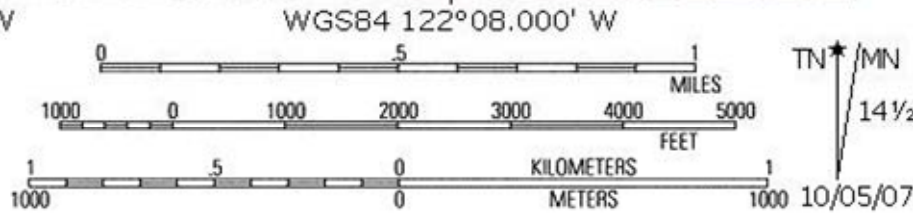
APPROVED BY

CHECKED BY

DRAWN BY
J.F.F.



Map created with TOPO! © 2006 National Geographic



SHELL OIL PRODUCTS US
FORMER SHELL SERVICE STATION
SAN LEANDRO, CALIFORNIA

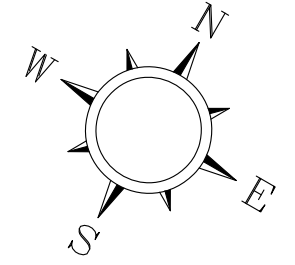
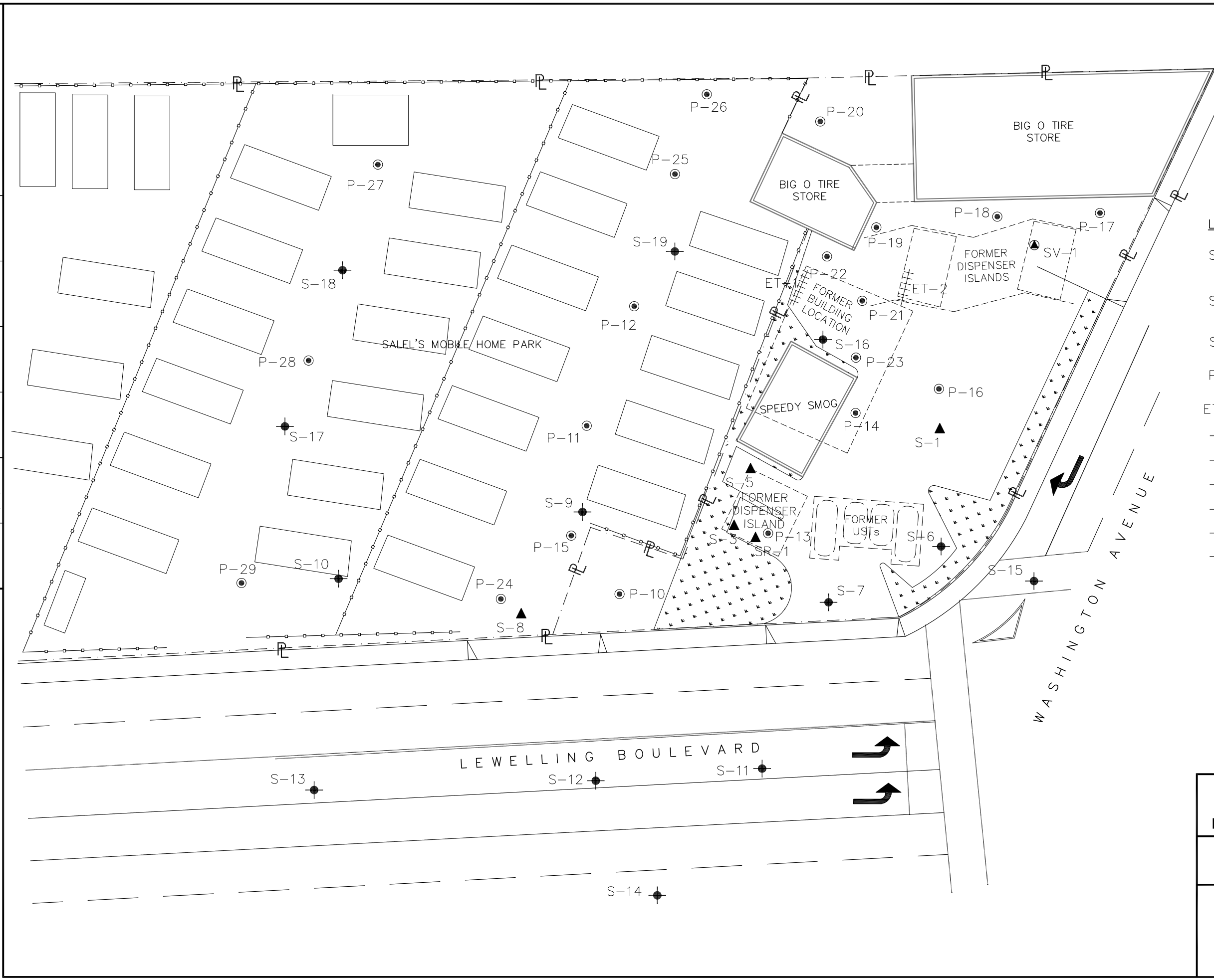
FIGURE 1
SITE LOCATION MAP
15275 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA

PROJECT NUMBER SCA15275-1

APPROVED BY

CHECKED BY

DRAWN BY AD 2/16/2010



- LEGEND**
- S-15 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - S-1 GROUNDWATER MONITORING WELL MODIFIED FOR SOIL VAPOR EXTRACTION
 - SV-1 SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
 - P-18 SOIL VAPOR PROBE LOCATION AND DESIGNATION
 - ET-1+ CURRENT BUILDING LOCATION LOCATION AND DESIGNATION
 - EXTENDED TEST WELL
 - TRAILER PARK STRUCTURE
 - FORMER BUILDING
 - FORMER UST LOCATION
 - PROPERTY LINE
 - FENCING



DELTA CONSULTANTS

SHELL OIL PRODUCTS U.S.
FORMER SHELL-BRANDED SERVICE STATION
SAN LEANDRO, CALIFORNIA

FIGURE 2

SITE MAP

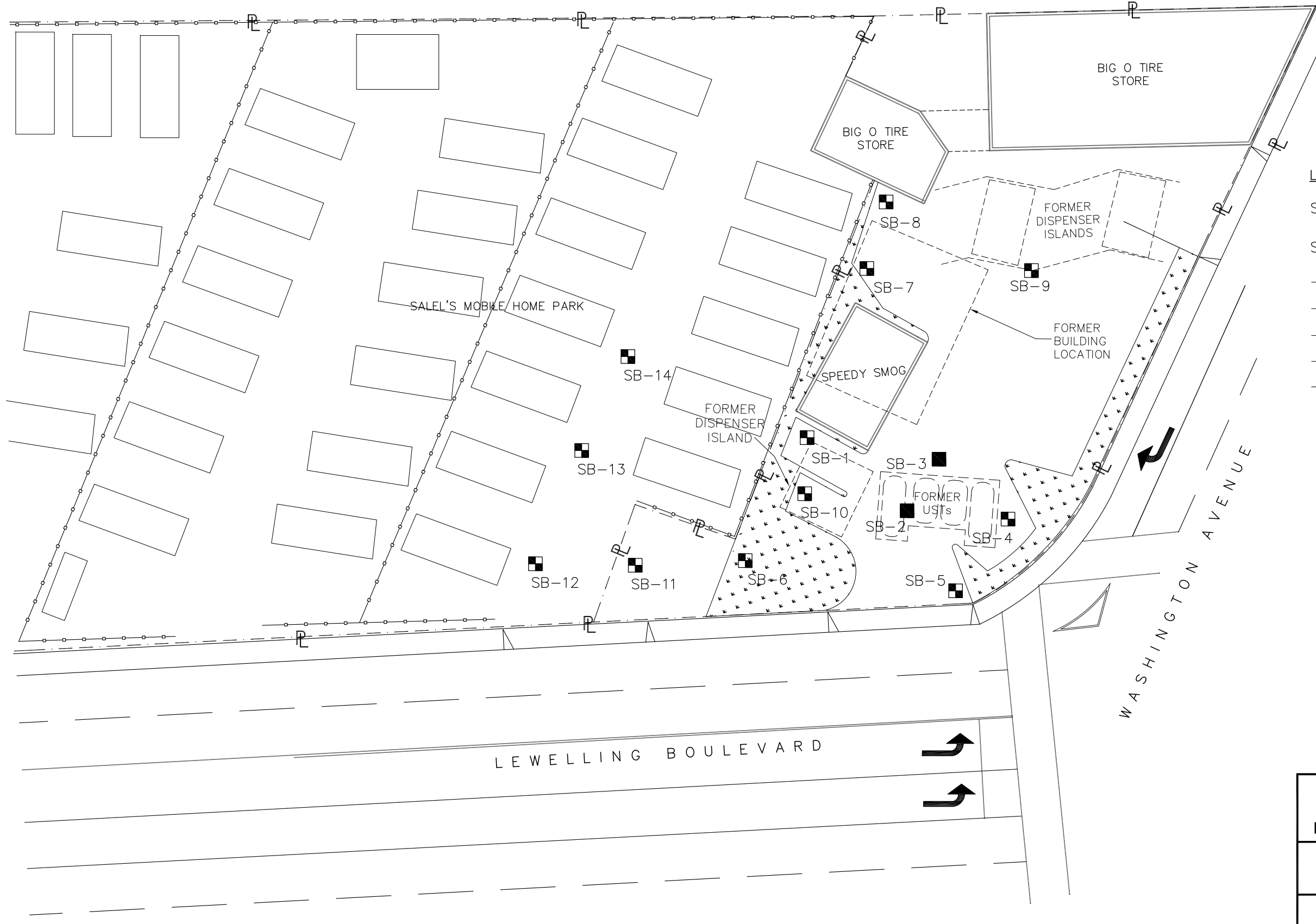
15275 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA

PROJECT NUMBER SCA15275-1

APPROVED BY

CHECKED BY

DRAWN BY AD 2/23/2010



- LEGEND**
- SB-1 [Symbol] PROPOSED SHALLOW SOIL BORING LOCATION AND DESIGNATION
 - SB-2 [Symbol] PROPOSED DEEP SOIL BORING LOCATION AND DESIGNATION
 - TRAILER PARK STRUCTUR
 - - - - FORMER BUILDING
 - - - - FORMER UST LOCATION
 - PL — PROPERTY LINE
 - o — o — FENCING

DELTA CONSULTANTS

SHELL OIL PRODUCTS U.S.
FORMER SHELL-BRANDED SERVICE STATION
SAN LEANDRO, CALIFORNIA

FIGURE 3

PROPOSED CONFIRMATION SOIL BORINGS

15275 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA

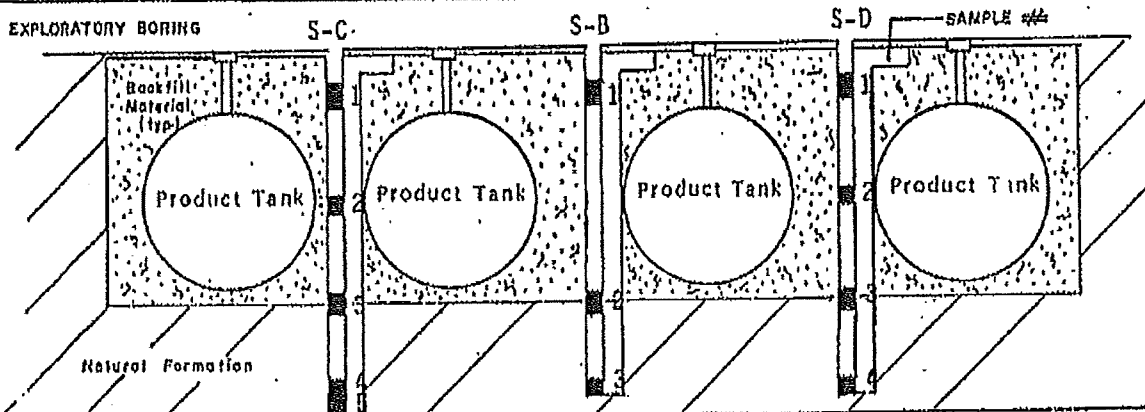
ATTACHMENT A
HISTORIC SOIL DATA AND MAPS



GETTLER-RYAN, INC.

GENERALIZED PROFILE OF SUBSURFACE TANK COMPLEX
AND GASOLINE CONCENTRATIONS WITHIN BACKFILL MATERIAL

PROJECT NUMBER 738-08.02 MAPVIEW DIMENSIONS 27' x 42'
PROJECT NAME G-R Shell, San Leandro APPROXIMATE DEPTH 12 feet
NUMBER OF TANKS IN COMPLEX 4



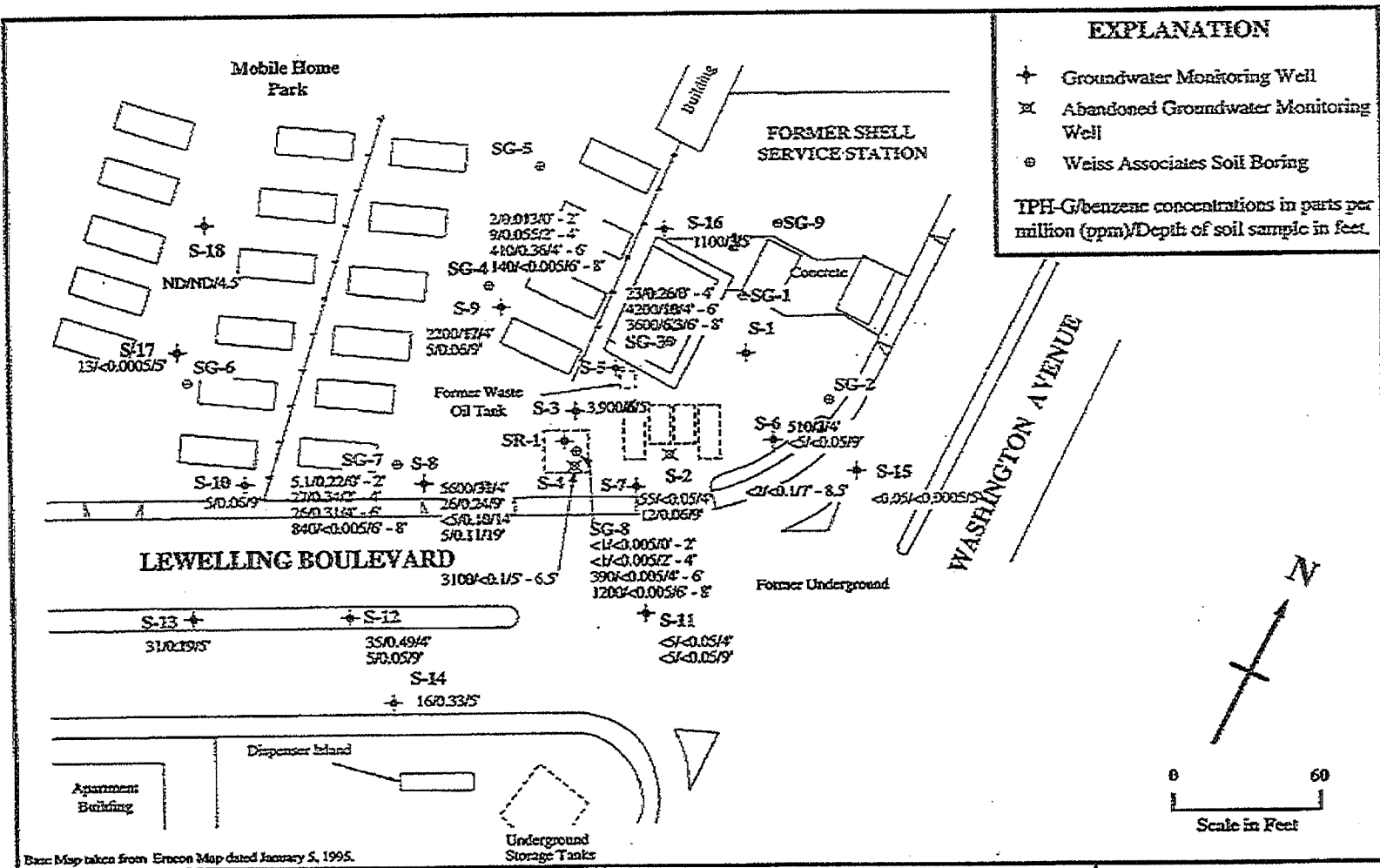
SAMPLE #	BORING	DEPTH INTERVAL	GASOLINE CONCENTRATION (parts per million)
<u>1</u>	<u>S-B</u>	<u>3-1/2 to 5</u>	<u>1,700</u>
<u>2</u>	<u>S-B</u>	<u>11 to 12-1/2</u>	<u>1,500</u>
<u>3</u>	<u>S-B</u>	<u>14 to 15-1/2</u>	<u>nd*</u>
<u>1</u>	<u>S-C</u>	<u>3-1/2 to 5</u>	<u>310</u>
<u>2</u>	<u>S-C</u>	<u>7-1/2 to 9</u>	<u>nd¹</u>
<u>3</u>	<u>S-C</u>	<u>11-1/2 to 13</u>	<u>nd*</u>
<u>4</u>	<u>S-C</u>	<u>14 to 15-1/2</u>	<u>300</u>
<u>5</u>	<u>S-C</u>	<u>15-1/2 to 17</u>	<u>nd*</u>
<u>1</u>	<u>S-D</u>	<u>3-1/2 to 5</u>	<u>nd²</u>
<u>2</u>	<u>S-D</u>	<u>7 to 8-1/2</u>	<u>nd*</u>
<u>3</u>	<u>S-D</u>	<u>11 to 12-1/2</u>	<u>nd*</u>
<u>4</u>	<u>S-D</u>	<u>14 to 15-1/2</u>	<u>nd*</u>

nd = no detection.

* Detection limit = 5 parts per million.

1 Detection limit = 200 ppm due to matrix interferences.

2 Detection limit = 100 ppm due to matrix interferences.

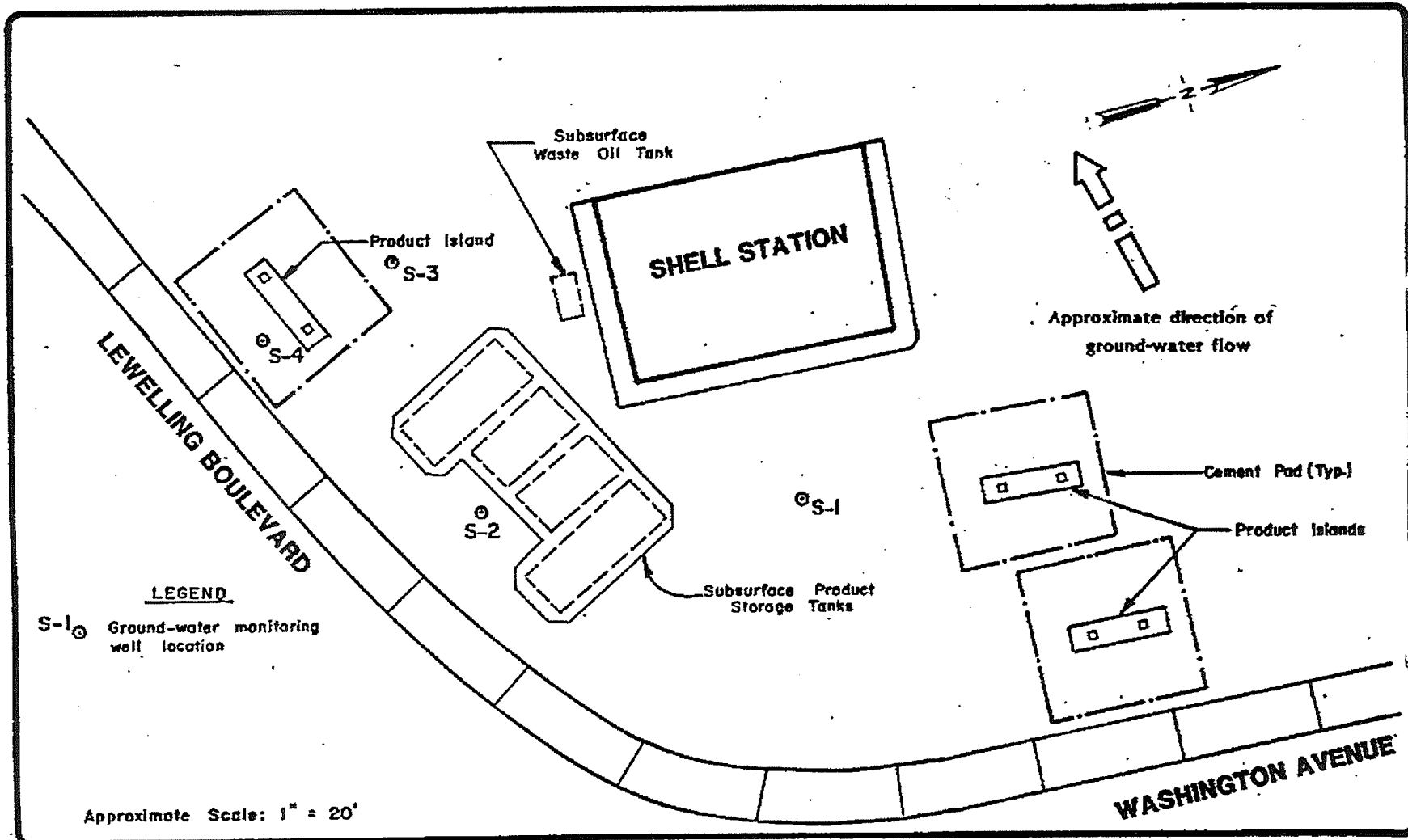


Base Map taken from Ercon Map dated January 5, 1995.

PLATE **3** SOIL QUALITY MAP
 Shell Oil Company
 15275 Washington Avenue
 San Leandro, California

enviros
 95276.01

Drawn By: DML Date: 6-19-97 Approved By: HL Date: 6-26-97



EMCON
Associates

San Jose, California

GETTLER-RYAN, INC.
SUBSURFACE HYDROGEOLOGIC INVESTIGATION
SHELL STATION, LEWELLING BLVD & WASHINGTON AVE.
SAN LEANDRO, CALIFORNIA

MONITORING WELL LOCATION MAP

FIGURE

1

PROJECT NO.
738-08.01



July 23, 1985

Emcon Associates
90 Archer Street
San Jose, CA 95112

Reference: Shell Purchase Order MOH050908

ATTN: Erin Garner

Following are the results of our analyses for the presence of volatile hydrocarbons due to gasoline in three samples of soil received on June 27, 1985.

The samples were examined using the purge and trap technique. Final detection was by gas chromatography using a flame ionization detector as well as a photoionization detector and a Carbopack B/3% SP-1500 column.

nd = none detected

Results

Lab. #	Sample Identification	Parts per Million (dry soil basis)			
		Volatile Hydrocarbons Due to Gasoline (includes benzene, toluene and xylenes)	Benzene	Toluene	Xylene isomers and ethyl benzene
29747	S-2 @ 7 - 8.5'	nd	nd	nd	nd
29748	S-3 @ 5 - 6.5' Job 738-8.1 15275 Washington San Leandro, 6/18/85	900.	6.	170.	840.
29749	S-4 @ 5 - 6.5'	100.	nd*	18.	530.
Detection Limits		2.	0.1 10.*	0.1	0.4

Patricia L. Murphy
Patricia L. Murphy

PLM/jd

cc: Stan Roller
Shell Oil Company



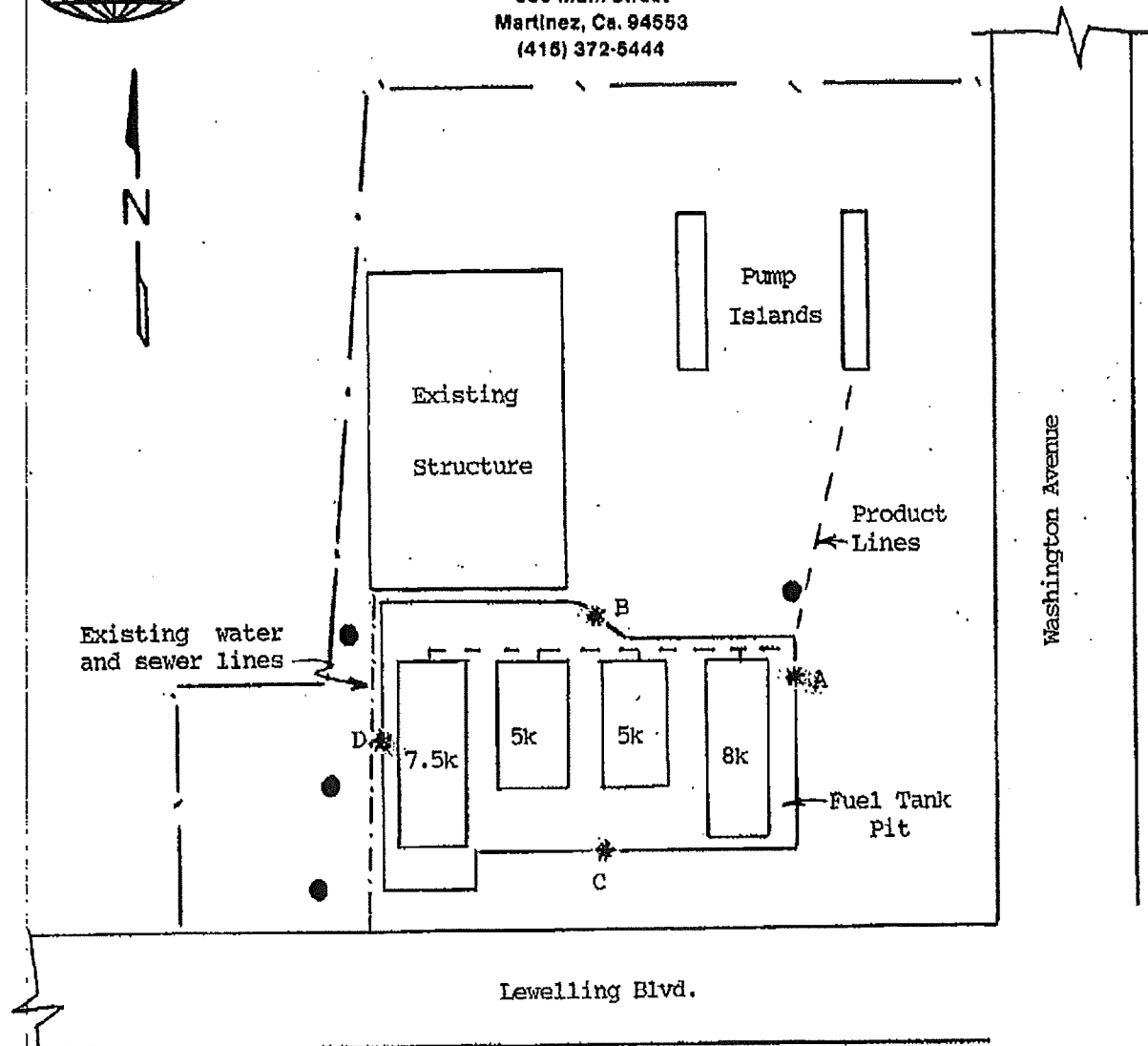
KAPREALIAN ENGINEERING, INC.

Consulting Engineers

535 Main Street

Martinez, Ca. 94553

(415) 372-5444



LOCATION PLAN

(not to scale)

- Existing monitoring well
- * soil sample location

SHELL SERVICE STATION
13275 Washington Avenue
San Leandro, CA



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
535 Main Street, Suite 309
Martinez, CA 94553
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06-11-87
Date Received: 06-11-87
Date Reported: 06-22-87

Sample Number

7060803

Sample Description

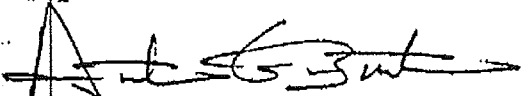
Soil A
Shell at Washington Avenue
in San Leandro, CA

ANALYSIS

	<u>Detection Limit</u> ppm	<u>Sample Results</u> ppm
Total Hydrocarbons as Gasoline	1	1.0
Benzene	0.1	< 0.1
Toluene	0.1	< 0.1
Xylenes	0.1	< 0.1

NOTE: Analysis was performed using EPA methods 5020 and 8015 with method 8020 used for BTX distinction.

SEQUOIA ANALYTICAL LABORATORY


Arthur G. Burton
Laboratory Director

jao



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
535 Main Street, Suite 309
Martinez, CA 94553
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06-11-87
Date Received: 06-11-87
Date Reported: 06-22-87

Sample Number

7060804

Sample Description

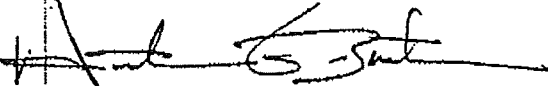
Well B
Shell at Washington Avenue
in San Leandro, CA

ANALYSIS

	<u>Detection Limit</u> ppm	<u>Sample Results</u> ppm
Total Hydrocarbons as Gasoline	1	74
Benzene	0.1	2.5
Toluene	0.1	1.1
Xylenes	0.1	3.7

NOTE: Analysis was performed using EPA methods 5020 and 8015 with method 8020 used for BTX distinction.

SEQUOIA ANALYTICAL LABORATORY


Arthur G. Burton
Laboratory Director

jao



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
535 Main Street, Suite 309
Martinez, CA 94553
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06-11-87
Date Received: 06-11-87
Date Reported: 06-22-87

Sample Number

7060805

Sample Description


Soil C
Shell at Washington Avenue
in San Leandro, CA

ANALYSIS

	<u>Detection Limit</u> ppm	<u>Sample Results</u> ppm
Total Hydrocarbons as Gasoline	1	31
Benzene	0.1	< 0.1
Toluene	0.1	0.69
Xylenes	0.1	1.2

NOTE: Analysis was performed using EPA methods 5020 and 8015 with method 8020 used for BTX distinction.

SEQUOIA ANALYTICAL LABORATORY


Arthur G. Burton
Laboratory Director

jap



SEQUOIA Analytical Laboratory

2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Kaprealian Engineering, Inc.
535 Main Street, Suite 309
Martinez, CA 94553
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06-11-87
Date Received: 06-11-87
Date Reported: 06-22-87

Sample Number

7060806

Sample Description

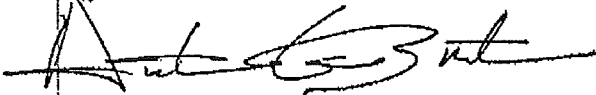
Soil D
Shell at Washington Avenue
in San Leandro, CA

ANALYSIS

	<u>Detection Limit</u> ppm	<u>Sample Results</u> ppm
Total Hydrocarbons as Gasoline	1	910
Benzene	0.1	7.4
Toluene	0.1	43
Xylenes	0.1	43

NOTE: Analysis was performed using EPA methods 5020 and 8015 with method 8020 used for BTX distinction.

SEQUOIA ANALYTICAL LABORATORY


Arthur G. Burton
Laboratory Director

jao



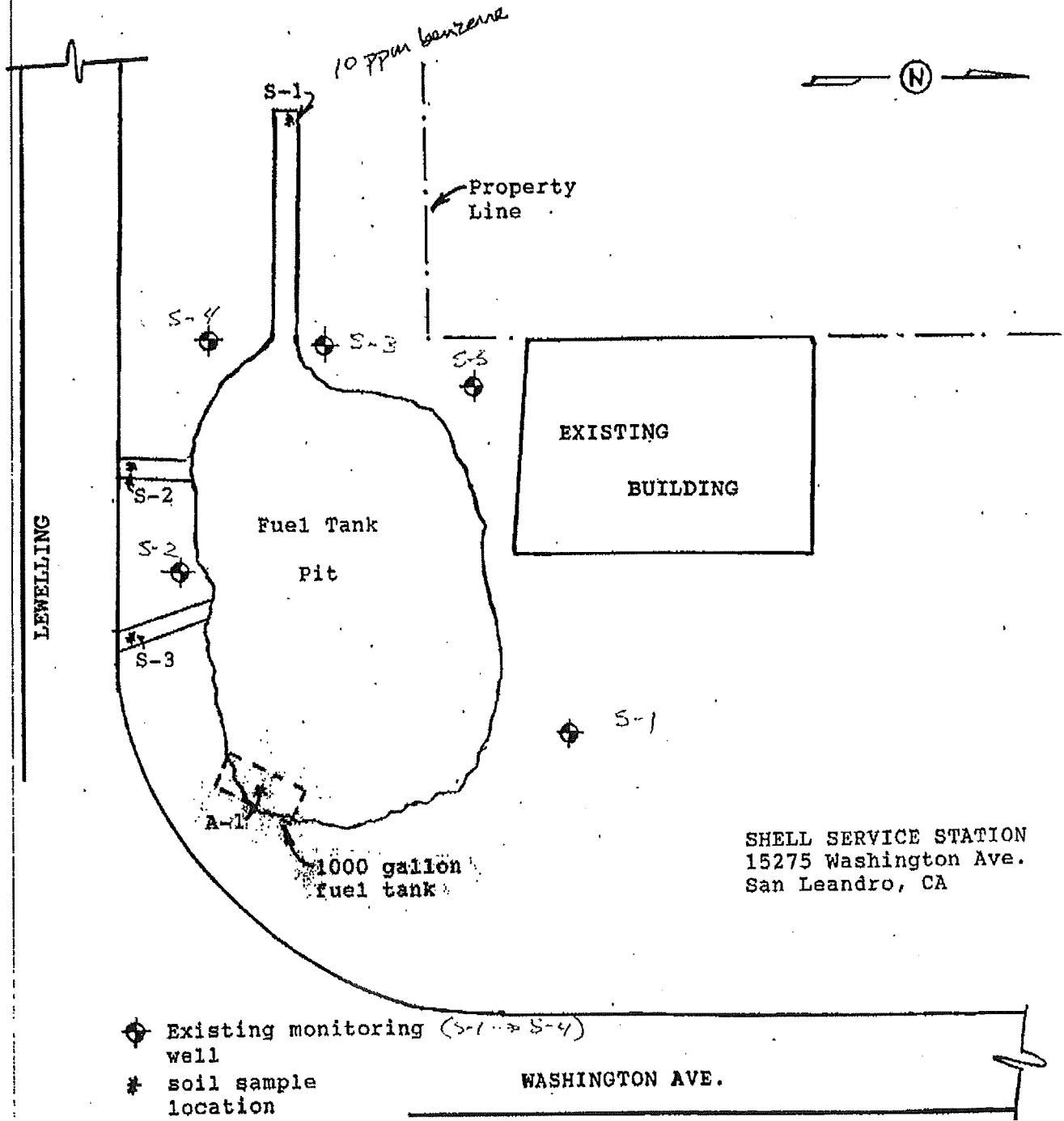
KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(415) 676-9100 (707) 746-6915



- ◆ Existing monitoring (S-1 to S-4) well
- * soil sample location

WASHINGTON AVE.

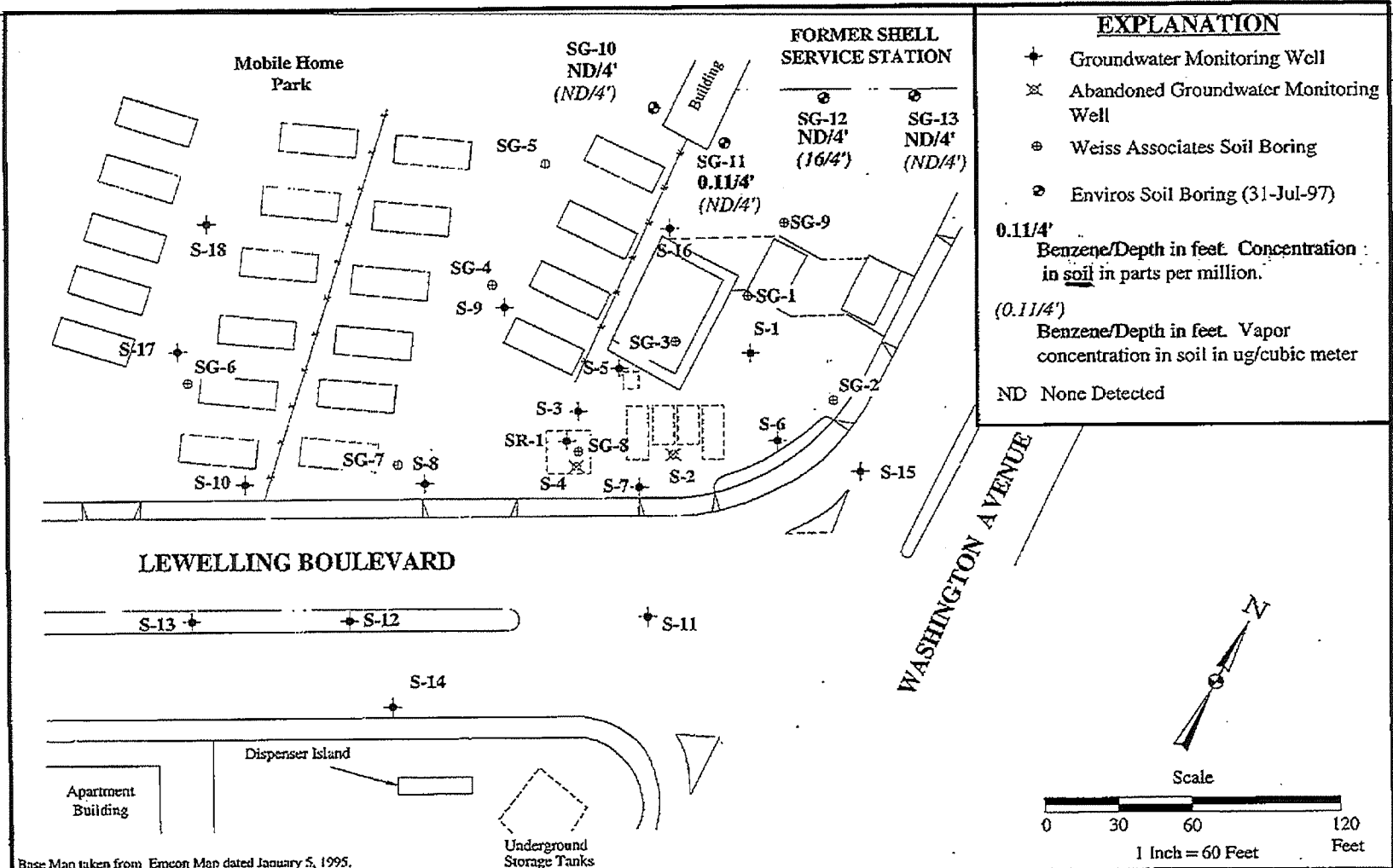
SITE PLAN

1" = 20 ft.

TABLE -1
SUMMARY OF LABORATORY ANALYSES
(all results in parts per million)

<u>Sample Number</u>	<u>Date Sampled</u>	<u>Total Petroleum Hydrocarbons</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylene</u>
S-1	10-13-87	260	10	0.2	3.0
S-2		100	5.7	2.9	52
S-3		730	3.9	1.0	79
A-1*	11-16-87	950	21	1.4	17
Comp Q	9-03-87	850	5.1	14	33
Comp A*	11-25-87	1.3	<0.1	<0.1	0.2
Comp B*		1.5	<0.1	<0.1	0.4

* A-1 Ethylbenzene = 35 ppm
Comp A Ethylbenzene <0.1 ppm
Comp B Ethylbenzene <0.1 ppm



EXPLANATION

- ✦ Groundwater Monitoring Well
- ✕ Abandoned Groundwater Monitoring Well
- ⊙ Weiss Associates Soil Boring
- ⊙ Enviros Soil Boring (31-Jul-97)

0.11/4'
Benzene/Depth in feet. Concentration :
in soil in parts per million.

(0.11/4')
Benzene/Depth in feet. Vapor
concentration in soil in ug/cubic meter

ND None Detected

Base Map taken from Emcon Map dated January 5, 1995.

PLATE **2** SITE MAP / BENZENE CONCENTRATION MAP
 Shell Oil Products Company
 15275 Washington Avenue
 San Leandro, California



Drawn By: DML Date: 7-22-97

Approved By: *[Signature]* Date: 8-13-97

Table 4. Sequoia Analytical Soil Data
Former Shell Service Station, WIC #204-6852-1008, 15275 Washington Avenue, San Leandro, California

WA Sample ID	Depth below ground surface	Date sampled	Date Analyzed	TPH (C ₁ +C ₆)(ug)	Benzene	Toluene	Ethylbenzene	Total-Xylene	Chromatogram pattern
Soil Data									
TPPH w/ BTEX (8015 Mod/8020, ug/kg)									
SG-03-0-4 ft	0-4 ft	5/5/97	5/14/97	23,000	6250	110	210	410	Gas/UH
SG-03-4-8 ft	4-8 ft	5/5/97	5/14/97	4,200,000	10,000	3,700	52,000	220,000	Gas
SG-03-8-8 ft	6-8 ft	5/5/97	5/14/97	3,600,000	6,300	5,900	47,000	190,000	Gas
SG-04-0-2 ft	0-2 ft	5/5/97	5/14/97	2,000	13	< 5	21	67	Gas
SG-04-2-4 ft	2-4 ft	5/5/97	5/14/97	9,000	55	23	150	470	Gas
SG-04-4-8 ft	4-8 ft	5/5/97	5/14/97	410,000	340	750	720	1,200	Gas/UH
SG-04-6-8 ft	6-8 ft	5/5/97	5/14/97	140,000	< 5	270	810	1,400	Gas
SG-07-0-2 ft	0-2 ft	5/6/97	5/15/97	5,100	220	7.7	670	170	Gas
SG-07-2-4 ft	2-4 ft	5/6/97	5/14/97	27,000	340	87	1,100	180	Gas
SG-07-4-8 ft	4-6 ft	5/6/97	5/15/97	26,000	310	< 5	660	120	Gas
SG-07-6-8 ft	6-8 ft	5/6/97	5/14/97	840,000	< 5	3,000	12,000	< 5	Gas
SG-08-0-2 ft	0-2 ft	5/6/97	5/14/97	< 1,000	< 5	< 5	< 5	< 5	NA
SG-08-2-4 ft	2-4 ft	5/6/97	5/14/97	< 1,000	< 5	< 5	< 5	6.6	Gas
SG-08-4-8 ft	4-8 ft	5/6/97	5/15/97	390,000	< 5	< 5	< 5	3,100	Gas/UH
SG-08-6-8 ft	6-8 ft	5/6/97	5/14/97	1,200,000	< 5	< 5	8,500	14,000	Gas

Fraction Organic Carbon (%)	Moisture (%)	Dry Bulk Density (g/cc)	Wet Bulk Density (g/cc)	Calculated From Dry Bulk Density	Grain Density - assumed
1.3%	7%	1.8	1.9	2.65	
0.37%	15%	2.0	2.3	2.65	
0.30%	17%	2.1	2.5	2.65	
3.4%	1%	1.9	1.9	2.65	
1.2%	20%	2.0	2.4	2.65	
0.35%	19%	2.1	2.5	2.65	
2.8%	21%	2.1	2.5	2.65	
0.65%	3%	2.1	2.2	2.65	
0.68%	21%	1.8	2.2	2.65	
0.33%	25%	2.0	2.5	2.65	
0.28%	20%	2.2	2.6	2.65	
0.88%	15%	2.1	2.4	2.65	
0.82%	16%	1.7	2.0	2.65	
0.52%	25%	1.9	2.4	2.65	
0.26%	19%	2.1	2.5	2.65	

Other laboratory Analyses

Total Porosity	Water filled Porosity	Air filled Porosity
0.32	0.05	0.27
0.25	0.04	0.21
0.21	0.03	0.17
0.28	0.05	0.24
0.25	0.04	0.21
0.21	0.03	0.17
0.21	0.03	0.17
0.21	0.03	0.17
0.32	0.05	0.27
0.25	0.04	0.21
0.17	0.03	0.14
0.21	0.03	0.17
0.36	0.05	0.30
0.28	0.05	0.24
0.21	0.03	0.17

Calculated values

Comments

0-4" Gravel (GP), 4"-4" Sand & Gravel (SW) fill, slight odor
4'-6" Moist Clayey Silt w/ Gravel, slight odor
6'-8" Silty Sand, less moist, slight odor
0-6" Gravel, Asphalt, 6"-2" Clayey Sand, no odor
2'-4" Clayey Silt, no odor
4'-6" Clayey Silt, slight odor
6'-7" Clayey Sand, moist, slight odor, 7'-8" Clayey Silt, no odor
0-2" Asphalt, 4"-2" Clayey Silt, slight odor
2'-4" Clayey Silt, slight odor
4'-6" Clayey Silt, strong odor
6'-8" Clayey Sand, strong odor
0-2" Asphalt, 4"-2" Mortared Clayey Sand & Gravel, Wood frag. at 2', no odor
2'-4" Clayey Sand, no odor
4'-6" Silty Sand, strong odor
6'-8" Silty Sand, strong odor

Averages 724,940 1,193 925 8,257 28,742 0.94% 16% 2.0 2.3 2.65 0.25 0.04 0.21
 Notes: < - Below the method detection limit.
 Chromatogram Pattern: Gas = Gasoline
 Gas/UH = Gasoline & Unidentified Hydrocarbons > C8

TABLE 4
SOIL ANALYTICAL DATA
 Shell Oil Products Company
 15275 Washington Avenue
 San Leandro, CA
 WIC# 204-6852-1008

Sample Depth (ft)	Date Sampled	TPPH (mg/Kg)	B (mg/Kg)	T (mg/kg)	E (mg/Kg)	X (mg/Kg)	MTBE (mg/Kg)	Primary Soil Type (Unified Soil Class)	Comments
SG-10-4									
4	31-Jul-97	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	SM	
SG-11-4									
4	31-Jul-97	30	0.11	0.15	0.76	0.27	0.67	CL	
SG-12-4									
4	31-Jul-97	6.8	<0.0050	0.018	0.014	0.065	<0.025	CL	
SG-13-4									
4	31-Jul-97	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	CL	

Abbreviations:

<x> Not detected at detection limit of x