HISTORICAL ENVIRONMENTAL DOCUMENTATION

FOR
TWO SITES LOCATED AT THE
NORTHEAST CORNER OF W. WINTON & HESPERIAN BLVD.

Four Buildings known as Airport Plaza
23956 HESPERIAN BLVD.
&
Former Texaco Service Station
23990 HESPERIAN BLVD.

HAYWARD, CA

Compiled and Submitted to
Alameda County Environmental Health Department
by:

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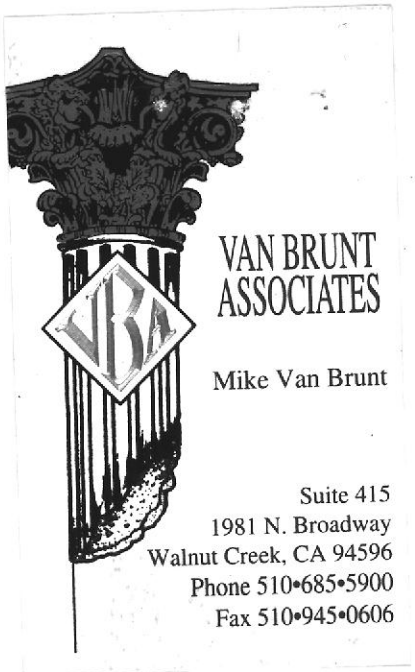



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RESISTANCE VALUE TEST
(ASTM Specification D2844-75)

Soil Description: Dark brown silty clay

Sample No.: R2

Depth: 12-24 inches

Specimen No.	Dry Unit Weight (pcf)	Compaction Moisture (%)	Exudation Pressure (psi)	Expansion Pressure (dial reading)	Expansion Pressure (psf)	Resistance ("R") Value
1	103	20.0	488	38	165	20
2	97	23.2	184	7	30	5
3	101	21.6	280	17	74	12

"R" Value at 300 psi exudation pressure = 13

Design "T.I."	Least Equilibrium "R" Value
4.5+	5

TACO BELL - HAYWARD HESPERIAN BOULEVARD AND W. WINTON AVENUE HAYWARD, CALIFORNIA	Scale:	Date: 08/94	Krazan Serving the Western United States
	Drawn by:	Approved by: D.J.M.	
	Project No.: 32-94-230	Figure No.: A5	

PROPOSED TACO BELL RESTAURANT - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward, California
Project No. 32-94-230

APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including but not limited to the furnishing of all labor, tools, and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans, and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Inc., hereinafter known as the Soils Engineer and/or Testing Agency. Attainment of design grades when achieved shall be certified to by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary readjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least two (2) working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume soil and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the soil negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to a density of 87 to 92 percent relative compaction for expansive soils and 90 percent relative compaction for nonexpansive soils based on ASTM Test Method D1557-78, UBC or CAL-216, as specified in

the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be as determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the soil report.

The Contractor shall make his own interpretation of the data contained in said report, and the Contractor shall not be relieved of liability under the contractor for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or windblown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing and the preparations of foundation materials for receiving fill.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork, all structures, both surface and subsurface, trees, brush, roots, debris, organic matter, and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of three (3.0) feet and to such as a real extent which would permit removal of all roots larger than one (1) inch. Tree root removed in parking areas may be limited to the upper one and one-half (1-1/2) feet of the ground surface. Backfill or tree root excavation should not be permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction.

Burning in areas which are to receive fill materials shall not be permitted.

SUBGRADE PREPARATION: Surfaces to receive engineered fill, building or slab loads shall be prepared as outlined above, scarified to a minimum depth of twelve (6) inches, moisture-

conditioned as necessary, and compacted to 87 to 92 percent relative compaction for expansive soils and 90 percent relative compaction for non-expansive soils. Within building and trash enclosure areas, and five feet beyond, existing fill observed to depths of 4 to 5 feet should be removed and recompacted. At least 18-inches of newly constructed fill should underly all footings. In addition, buildings and exterior flatwork, and five feet beyond, should be constructed such that the upper 18 inches composed of nonexpansive fill.

Loose and/or areas of disturbed soils shall be moisture conditioned and compacted to 87 to 92 percent relative compaction for expansive soils and 90 percent relative compaction for non-expansive soils. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill material. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any of the fill material.

EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All overexcavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetable or other deleterious matter as determined by the Soils Engineer.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. However, compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as, the Soils Engineer.

Both cut and fill shall be surface compacted to the satisfaction of the Soils Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill are as specified.

* * * *

TACO BELL RESTAURANT - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward, California
Project No. 32-94-230

APPENDIX C

PAVEMENT SPECIFICATIONS

1. DEFINITIONS - The term "pavement" shall include asphalt concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications: hereinafter referred to is the January 1982 Standard Specifications of the State of California, Department of Transportation, and the "Materials Manual" is the Materials Manual of Testing and Control Procedures, State of California, Department of Public Works, Division of Highways. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as defined in the applicable tests outlined in the Materials Manual.

2. SCOPE OF WORK - This portion of the work shall include all labor, materials, tools and equipment necessary for and reasonable incidental to the completion of the pavement shown on the plans and as herein specified, except work specifically notes as "Work Not Included."

3. PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper six inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 90 percent for expansive subgrades, and 95 percent for nonexpansive subgrades. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

4. UNTREATED AGGREGATE BASE - The aggregate base course shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, 1-1/2 inches maximum size. The base course material shall be compacted to a minimum relative compaction of 95 percent. The base material shall be spread and compacted in accordance with Section 26 of the Standard Specifications. The material shall be spread in layers not exceeding six inches and each layer of base course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

5. AGGREGATE BASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard

Specifications. Each layer of subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

6. ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be AR-4000. The mineral aggregate shall be Type B, 1/2 inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39.

The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in Section 39-6. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

7. FOG SEAL COAT - The fog seal (mixing type asphaltic emulsion) shall conform to and be applied in accordance with the requirements of Section 37.

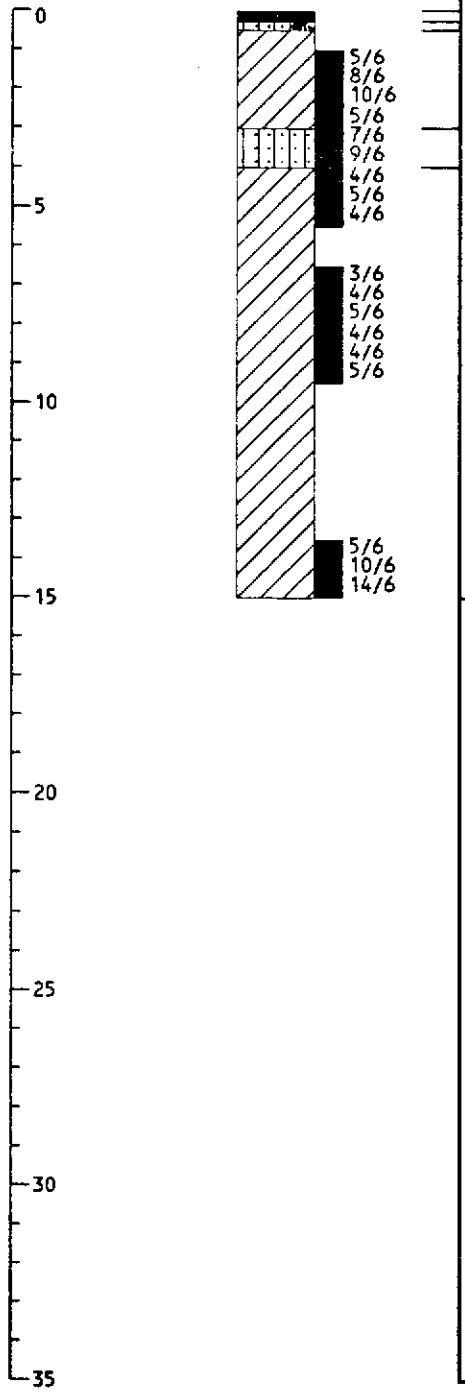
* * * *

DRILL HOLE LOG

BORING NO.: T2

PROJECT: TACO BELL - HAYWARD
CLIENT: TACO BELL CORPORATION
LOCATION: NORTHEAST CORNER PROPOSED BUILDING
DRILLER: BOB FREDRICKS
DRILL RIG: CME-55
DEPTH TO WATER> INITIAL: NONE AT COMPLETION: NONE

PROJECT NO.: 32-94-230
DATE: 08/11/94
ELEVATION: NONE
LOGGED BY: DAVID MORRELL



ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	Description	Water Content %	Dry Density pcf	PENETRATION TEST DEPTH	PENETRATION TEST N	PENETRATION TEST CURVE (10 30 50)
			3-1/2" Asphalt concrete					
			FILL: 4-1/2" Silty fine coarse sand; grey	22.7	89	1-2.5	18	
			FILL: Silty clay(CL); stiff, black, moist			2.5-4	16	
			FILL: Silty fine sand (SM); medium dense, brown, moist	23.1	112	4-5.5	9	
			Silty clay (CL); firm, dark brown, moist			6.5-8	9	
				21.0	103	8-9.5	9	
						13.5-15	24	
			Bottom of Boring					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

DRILL HOLE LOG

BORING NO.: R1

PROJECT: TACO BELL - HAYWARD
CLIENT: TACO BELL CORPORATION
LOCATION: EXISTING PARKING LOT
DRILLER: BOB FREDRICKS
DRILL RIG: CME-55
DEPTH TO WATER> INITIAL: NONE AT COMPLETION: NONE

PROJECT NO.: 32-94-230
DATE: 08/11/94
ELEVATION: NONE
LOGGED BY: DAVID MORRELL

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	Description	Water Content %	Dry Density pcf	PENETRATION TEST DEPTH	PENETRATION TEST N	PENETRATION TEST CURVE
0		5/6 9/6 11/6	4" Asphalt concrete 2" Silty fine to medium sand; grey	22.8	90	1-2.5	20	10 30 50
5		5/6 7/6 7/6 8/6 8/6 11/6	FILL: Silty clay (CL); stiff, dark brown, moist FILL: Silty fine to medium sand(SM); dense, brown, moist	16.6	111	3.5-5 5-6.5	14 19	
10			Silty clay with fine sand (CL); stiff, brown, moist Bottom of Boring					
15								
20								
25								
30								
35								

This information pertains only to this boring and should not be interpreted as being indicative of the site.

DRILL HOLE LOG

BORING NO.: R2

PROJECT: TACO BELL - HAYWARD
CLIENT: TACO BELL CORPORATION
LOCATION: EXISTING PARKING LOT
DRILLER: BOB FREDRICKS
DRILL RIG: CME-55
DEPTH TO WATER> INITIAL: NONE AT COMPLETION: NONE

PROJECT NO.: 32-94-230
DATE: 08/11/94
ELEVATION: NONE
LOGGED BY: DAVID MORRELL

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	Description	Water Content %	Dry Density pcf	PENETRATION TEST DEPTH	PENETRATION TEST N	PENETRATION TEST CURVE
0		5/6 9/6 10/6	3" Asphalt concrete	24.0	96			
			FILL: 4" Silty fine to coarse sand with gravel			1-2.5	19	
			FILL: Silty clay (CL); stiff, dark brown, moist					
5		6/6 6/6 6/6	FILL: Silty fine sand (SM); loose, brown, moist			3.5-5	12	
			Silty clay (CL); stiff, dark brown, moist					
			Bottom of Boring					
10								
15								
20								
25								
30								
35								

10 30 50

This information pertains only to this boring and should not be interpreted as being indicative of the site.

UNIFIED SOIL CLASSIFICATION SYSTEM

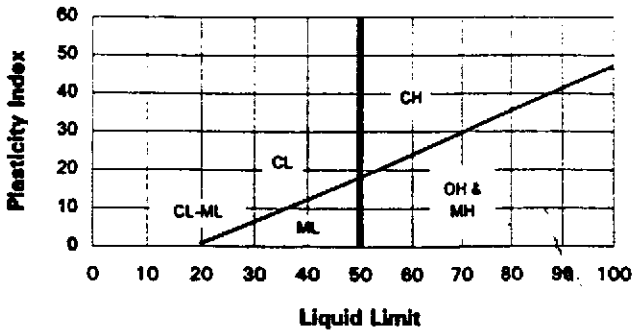
MAJOR DIVISIONS		SYMBOLS	SOIL CODE	TYPICAL NAMES
COARSE GRAINED SOILS (More than ½ of soil > No. 200 sieve size)	GRAVELS (More than ½ of coarse fraction > No. 4 sieve size)	GW		Well graded gravels or gravel-sand mixtures, little or no fines
		GP		Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM		Silty gravels, gravel-sand-silt mixtures
		GC		Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than ½ of coarse fraction < No. 4 sieve size)	SW		Well graded sands or gravelly sands, little or no fines
		SP		Poorly graded sands or gravelly sands, little or no fines
		SM		Silty sands, sand-silt mixtures
		SC		Clayey sands, sand-clay mixtures
FINE GRAINED SOILS (More than ½ of soil < No. 200 sieve size)	SILTS & CLAYS LL < 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with light plasticity
		CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL		Organic silts and organic clays of low plasticity
	SILTS & CLAYS LL > 50	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH		Inorganic clays of high plasticity, fat clays
		OH		Organic clays of medium to high plsticity, organic silty clays, organic
HIGHLY ORGANIC SOILS		Pt		Peat and other highly organic soils

CONSISTENCY CLASSIFICATION

COHESIVE SOILS		GRANULAR SOILS	
Description	Blows/Ft.	Description	Blows/Ft.
Very Soft	< 3	Very Loose	< 5
Soft	3 - 5	Loose	5 - 15
Medium (firm)	6 - 10	Medium Dense	16 -- 40
Stiff	11 - 20	Dense	41 - 65
Very Stiff	21 - 40	Very Dense	> 65
Hard	> 40		

GRAIN SIZE CLASSIFICATION

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
Coarse (c)	3" to ¾"	76.2 to 19.1
Fine (f)	¾" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.074
Coarse (c)	No. 4 to No. 10	4.76 to 2.00
Medium (m)	No. 10 to No. 40	2.00 to 0.420
Fine (f)	No. 40 to No. 200	0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074



Krazan

ENGINEERS, GEOLOGISTS, AND ENVIRONMENTAL SPECIALISTS

Serving the Western United States

DATE: 08/94 PROJECT NO.: 32-94-230

PLATE NO.: 6

TACO BELL RESTAURANT - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward, California
Project No. 32-94-230

APPENDIX A

GENERAL INFORMATION

A Geotechnical Engineering Investigation was authorized by Anthony Miller of Taco Bell Corporation.

The locations of our test borings are referenced to a document entitled "Site Study" (scale 1"=40', dated July 22, 1994) of the site provided by Taco Bell Corporation.

Test boring locations shown on the Test Boring Location Plan are approximate only.

Site conditions and features mentioned in the text are those existing at the time of our field investigation on May 2, 1994, and may not necessarily be representative of such conditions or features at other locations and times.

FIELD EXPLORATION

Field exploration included the drilling of four test borings at the locations shown on the Boring Location Plan, Figure No. 1. Test borings were advanced with 4½-inch O.D. continuous flight helical augers powered by a CME-55 truck-mounted drill rig. At various intervals, relatively undisturbed soil samples were recovered from the boring by means of a 2½-inch O.D. by 2-inch I.D. California-type sampler which was driven with a 140-pound hammer freely falling 30 inches. The number of blows of the hammer required to drive the 24-inch long sampler each 6-inch interval was recorded. The sum of blows required to drive the sampler the middle foot (6-inch to 18-inch interval) of each drive is the penetration resistance or "blow count" for that particular drive.

The soil samples were retained in 2-inch diameter by 6-inch long, thin-walled brass tubes contained within the sampler. Immediately after recovery, the samples were visually classified and the ends of the brass tubes were sealed to preserve the natural soil moisture content. Selected samples of the surface soils were obtained in a disturbed condition. All soil samples were taken to the laboratory for classification, with selected samples designated for testing.

The Boring Logs, Figures No. 2 through 5, contain descriptions of the soils encountered in each test boring. The soils were classified in accordance with the Unified Soil Classification System. An explanation of that system and other symbols used on the logs appears on Figure No. 6. In

addition, the test boring logs show a graphical representation of the previously-defined penetration resistance or "blow count" obtained during sampling.

LABORATORY TESTING

Selected, undisturbed samples of the soils were tested to determine dry unit weight, natural moisture content, as determined by ASTM Specification D2216-80; and unconfined compressive strength, as determined by ASTM Specification D2166-79. The results of these tests are included on the boring logs at the depth from which each sample was obtained and are summarized on Figures No. A1.

Samples of the surface and near-surface soils were subjected to Atterberg limits tests, as determined by ASTM Specification D4318-84, to determine the plasticity characteristics of the materials. The results of these tests are displayed on Figure No. A2.

An expansion index test, as determined by UBC Specification 29-2, was performed on a remolded sample of the surface soils to provide an indication of soil swelling characteristics. These test results appear on Figure No. A3.

Resistance ("R") value tests, as determined by ASTM Specification D2844-75, were conducted on selected samples of the anticipated pavement subgrade soils. These test results, which were used in our pavement section analyses, are presented on Figures No. A4 and A5.

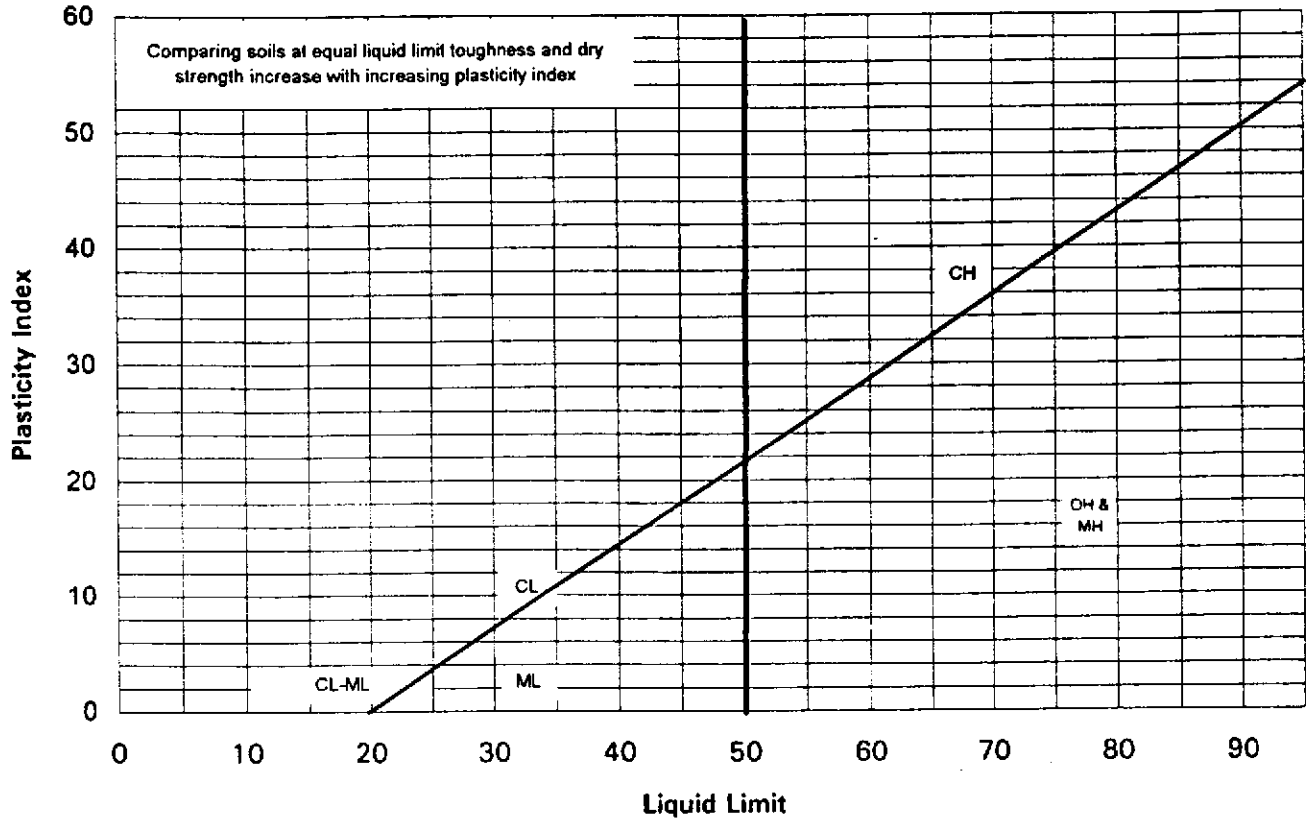
* * * *

SUMMARY OF LABORATORY DRY UNIT WEIGHT, MOISTURE CONTENT AND UNCONFINED COMPRESSIVE STRENGTH DATA

(ASTM Specification D2216-80 & D2166-79)

Boring No.	Sample Depth (feet)	Dry Unit Weight (lb/ft^3)	Moisture Content (%)	Unconfined Compressive Strength ($Tons/ft^2$)
T1	2.0'	106	19.9	2.3
T1	5.0'	91	23.1	2.0
T1	8.0'	102	21.0	--
T2	2.0'	89	22.7	2.1
T2	4.0'	112	23.1	--
T2	8.0'	103	21.0	--
R1	2.0'	90	22.8	3.3
R1	4.0'	111	16.6	--
R2	3.0'	96	24.0	--

TACO BELL - HAYWARD HESPERIAN BOULEVARD AND W. WINTON AVENUE HAYWARD, CALIFORNIA	Scale:	Date: 08/94	Krazan Serving the Western United States
	Drawn by:	Approved by: D.J.M.	
	Project No.: 32-94-230	Figure No.: A1	



SAMPLE NO.	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
R2 0-24"	Dark brown silty clay	34	18	16

PLASTICITY INDEX
(ASTM D4318)

TACO BELL - HAYWARD HESPERIAN BOULEVARD AND W. WINTON AVENUE HAYWARD, CALIFORNIA	Scale:	Date: 08/94	Krazan Serving the Western United States
	Drawn by:	Approved by: D.J.M.	
	Project No.: 32-94-230	Figure No.: A2	

Surcharge: 144 psf

Sample Submergence: 24 hrs

Sample Diameter: 4.01 in.

Sample Height: 1.00 in.

SAMPLE	MATERIAL DESCRIPTION	DRY UNIT WEIGHT (pcf)	MOISTURE CONTENT (%) Initial	Final	EXPANSION INDEX
R2 0-24"	Dark brown silty clay	102.8	90	19.6	43

Classification of Expansive Soils

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
130	Very High

EXPANSION INDEX TEST
(UBC 29-2)

TACO BELL - HAYWARD HESPERIAN BOULEVARD AND W. WINTON AVENUE HAYWARD, CALIFORNIA	Scale:	Date: 08/94	Krazan Serving the Western United States
	Drawn by:	Approved by: D.J.M.	
	Project No.: 32-94-230	Figure No.: A3	

RESISTANCE VALUE TEST
(ASTM Specification D2844-75)

Soil Description: Dark brown silty clay with sand

Sample No.: R1

Depth: 0-24 inches

Specimen No.	Dry Unit Weight (pcf)	Compaction Moisture (%)	Exudation Pressure (psi)	Expansion Pressure (dial reading)	Expansion Pressure (psf)	Resistance ("R") Value
1	105	21.3	360	38	165	18
2	102	23.4	256	31	134	11
3	96	27.1	112	21	91	5

"R" Value at 300 psi exudation pressure = 13

Design "T.I."	Least Equilibrium "R" Value
4.5+	5

TACO BELL - HAYWARD HESPERIAN BOULEVARD AND W. WINTON AVENUE HAYWARD, CALIFORNIA	Scale:	Date: 08/94	Krazan Serving the Western United States
	Drawn by:	Approved by: D.J.M.	
	Project No.: 32-94-230	Figure No.: A4	

5.3 Concrete Slab-on-Grade

The following recommendations are provided for concrete slab-on-grade floors and exterior flatwork constructed upon at least 18-inches of expansive engineered fill, prepared in accordance with the site preparation and engineered fill section.

Concrete slab-on-grade floors should be underlain by a capillary moisture barrier consisting of a 4-inch thick blanket of free draining granular material. Gradation of this material should conform to the following, as determined by ASTM Specification D422:

Sieve Size	Percent Passing
1-inch	100
No. 4	0

In addition, a moisture vapor barrier consisting of minimum 10 mil polyethylene sheeting should be placed above each granular blanket. A two-inch thick layer of damp clean sand should be placed above each membrane to promote uniform curing of slab concrete and as membrane puncture protection during the construction process. The floor slab should be reinforced with a minimum of 6"x6"/W1.4xW1.4 (6"x6"/10x10) welded wire mesh or No. 3 steel reinforcing bars on 18-inch centers, each way. All reinforcement should be placed at slab mid-depth.

Exterior concrete flatwork should be constructed on at least 18-inches of nonexpansive engineered fill.

5.4 Expansive Soils

The on-site clays are low to moderately plastic and potentially expansive with variation in moisture content.

The upper 18-inches of building pad and exterior flatwork areas should consist of nonexpansive material. An imported source of nonexpansive fill will likely be required for the site.

5.5 Lateral Earth Pressures

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.30 acting between footing bottoms and supporting subgrades. Lateral resistance for footings can alternatively be developed using an allowable passive earth pressure of 300 pounds per square foot, per foot of depth acting against appropriate vertical footing faces. These two modes of resistance can be combined by reducing the frictional resistance by 50 percent, as mobilization of passive earth pressure requires horizontal movement which produces a sliding frictional resistance less than the at-rest frictional resistance.

5.6 Slopes

The site is relatively flat. Fill and cut slopes should be constructed to not exceed two horizontal to one vertical. We recommend that all permanent cut and fill slopes be seeded with vegetation that requires minimal irrigation.

5.7 Excavation De-Watering

No shallow groundwater was encountered in any of the borings. Therefore, excavations should not extend into the water table.

However, a sand layer was encountered 3 to 3½ feet below existing site grade. A perched water condition may develop within this layer during the winter months and may hamper excavation.

5.8 Pavement Design

Alternative pavement sections have been computed utilizing the results of Resistance (R) Value tests conducted upon selected samples of the anticipated subgrade materials. The Resistance Value test is a measure of pavement subgrade quality and R-values typically range from five for poor quality materials to greater than 80 for superior quality materials. A design R-value of 5 has been selected for the expansive pavement subgrades.

Results of these tests have been used along with the Caltrans "Design Method for Flexible Pavements" (4th Edition, August 1988), "Design Method for Rigid Pavements" (3rd Edition, December

1981), and assumed traffic indices. The traffic index (TI) is a measure of wheel load frequency and intensity. It has been our experience that a TI equal 4.5 is suitable for automobile parking areas, and a TI equal 5.5 is suitable for fire truck access lanes and areas subjected to channelized flow and light delivery trucks. It has been our experience that rigid portland cement concrete pavements are better able to resist the loads and turning motions of garbage and fire trucks and should be used in areas exposed to this type of traffic.

The following pavement section recommendations are made using a combination of asphalt concrete, portland cement concrete and aggregate base:

RECOMMENDED PAVEMENT SECTIONS - INCHES
(Expansive Subgrades; R-Value = 5)

TI	ASPHALT CONCRETE (Type B)	PORTLAND CEMENT CONCRETE (M.R. = 550 psi)	AGGREGATE BASE (Class 2)
4.5	2.5	---	9.0
	3.0	---	8.0
5.0	2.5	---	10.0
	3.0	---	9.0
5.5	3.0	---	11.0
	3.5	---	10.0
	---	7.0	6.0

Material quality and construction within the structural sections should conform to the applicable provisions of the Caltrans "Standard Specifications" (January 1988).

Cutoff walls should be installed in all asphalt concrete pavement areas adjacent to landscape planters; they should extend at least 6-inches below the pavement subgrade to limit water from infiltrating the pavements. As an alternative, subgrade drains may be installed in planter areas to remove excess water away from pavement areas.

The foregoing pavement section recommendations are presented with the understanding that subgrade preparation and engineered fill construction will be accomplished in accordance with recommendations of this study, and that the pavements themselves will be adequately drained.

5.9 Site Grading and Preparation

General site clearing should include removal of vegetation; existing utilities; structures including foundations, basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish and any loose and/or saturated materials. Site stripping should extend to a minimum depth of two to four inches. Excavations or depressions extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with engineered fill, placed and compacted in accordance with recommendations in the Engineered Fill section.

Existing fill was observed to depths of 4 to 5 feet in the borings at this site. To provide uniform support for foundations building pad and trash enclosure areas this material should be overexcavated and recompacted. A minimum of 18 inches of engineered fill should constructed beneath all footings for the building and trash enclosure. Overexcavation should extend a minimum of five feet beyond foundation lines.

To help mitigate expansive soil problems, the upper 18 inches of building pad and exterior flatwork subgrades should be overexcavated and replaced with nonexpansive engineered fill, placed and compacted in accordance with the Engineered Fill Section. Imported fill will likely be required for this purpose.

Any buried structures encountered during construction should be properly removed and backfilled. Septic tanks, leachfields or wells on the site should be removed in accordance with County Health Department regulations. Resulting excavations should be backfilled with engineered fill as recommended below.

Building pad, exterior flatwork and pavement subgrades should be scarified to a depth of at least six inches and worked until uniform and free from large clods. Expansive subgrades should be brought to at least three percentage points above the optimum moisture content and compacted to between 87 and 92 percent of the maximum laboratory dry density, per ASTM Specification D1557 (ASTM D1557). Nonexpansive subgrades should be brought to or slightly above the optimum moisture content and compacted to 90 percent of the maximum laboratory dry density (ASTM D1557). Compaction of the upper six inches of pavement subgrades should be increased to between 90 and 95 percent of the maximum laboratory dry density (ASTM D1557) for the expansive soil subgrades.

5.10 Engineered Fill

On site soils observed in the borings are considered acceptable for use in engineered fill construction provided they are processed to remove rubble, rubbish and other deleterious materials. Additionally, expansive soils should not be allowed within the upper 18 inches of building pad and exterior concrete flatwork areas. Imported materials should have a plasticity index not less than five nor greater than 15, as determined by ASTM Specification D4318; an expansion index not exceeding 20, as determined by UBC Specification 29-2; at least 20 percent passing the No. 200 sieve; and a particle size not exceeding three inches as determined by ASTM Specification D422. Proposed borrow sources should be tested and approved by this firm at least two days prior to importation of borrow materials to the site.

Engineered fill within building pad, pavement and exterior flatwork areas should be placed in six to eight inch loose lifts and uniformly mixed during the spreading operation. Expansive fill materials should be brought to at least three percentage points above the optimum moisture content and compacted to between 87 and 92 percent of the maximum laboratory dry density, per ASTM Specification D1557 (ASTM D1557). Nonexpansive fill materials should be brought to or slightly above the optimum moisture content and compacted to 90 percent of the maximum laboratory dry density (ASTM D1557). Compaction of the upper six inches of engineered fill within pavement areas should be increased to between 90 and 95 percent for the expansive pavement subgrades.

Temporary and permanent construction slopes should not exceed an inclination of two horizontal to one vertical (2:1).

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The soil's engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the site preparation section.

5.11 Utility Trench Backfill

Utility trenches should be excavated according to accepted engineering practice following OSHA (Occupational Safety and Health Administration) standards by a contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the contractor. Traffic and vibration

adjacent to trench walls should be minimized and cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced, especially during or shortly following periods of precipitation.

Utility trench backfill placed in or adjacent to buildings and exterior slabs should be compacted to at least 90 percent of the maximum dry density (ASTM D1557). The upper two feet of the utility trench backfill placed in or adjacent to buildings and exterior slabs and in pavement areas should be compacted to at least 95 percent of the maximum dry density (ASTM D1557). Pipe bedding should be in accordance with pipe manufacturer's recommendations.

The contractor is responsible for removing all water sensitive settlement from the trench regardless of the backfill location and compaction requirements. The contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

5.12 Soil Cement Reactivity

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete (or stucco) and the soil. HUD/FHA and UBC have developed criteria for evaluation of sulfate levels and how they relate to cement reactivity with soil and/or water.

Sequoia Analytical Laboratory detected sulfate concentrations less than 0.02 per cent, for samples of the near surface soils which are below the maximum allowable values established by HUD/FHA and UBC. Therefore, no special design requirements are necessary to compensate for sulfate reactivity with the cement.

5.13 Post-Investigation Services

A representative of Lowry/Krazan should be present at the site during the earthwork activities to confirm that actual subsurface conditions are consistent with the exploratory field work. This activity is an integral part of our services as acceptance of earthwork construction is dependent upon compaction testing and stability of the material. This representative can also verify that the intent of these recommendations is incorporated into the project design and construction. Lowry/Krazan will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

6.0 LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences improve. Although your site was analyzed using the most appropriate current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to improvements in the field of Soils Engineering, physical changes in the site either due to excavation or fill placement, new agency regulations or possible changes in the proposed structure after the time of completion of the soils report may require the soils report to be professionally reviewed. In light of this, the owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that two years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations can be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations can be reviewed and reevaluated.

This report is a geotechnical engineering investigation with the purpose of evaluating the soil conditions in terms of foundation design. This investigation should not be construed as an environmental study. No chemical testing for toxic analysis has been made or implied.

The geotechnical data presented herewith is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such data and interpretation cannot be superseded by future geotechnical developments. We emphasize that this report is valid for this project as outlined above, and should not be used for any other site.

If there are any questions or if we can be of further assistance to you, please do not hesitate to contact our office at (916) 564-2200 or (800) 266-1379. Thank you for this opportunity to be of continuing service.

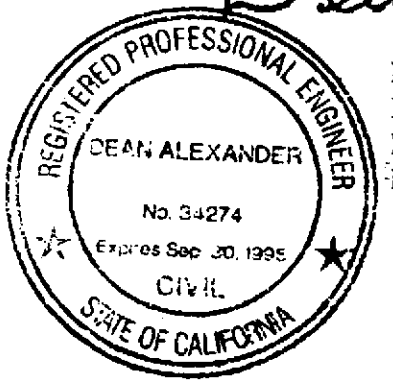
KRAZAN & ASSOCIATES, INC.

David J. Morrell

DAVID J. MORRELL
Geotechnical Department
Project Manager

DJM/DA/kdp

Dean Alexander



DEAN ALEXANDER
Registered Geotechnical Engineer
Registered Civil Engineer
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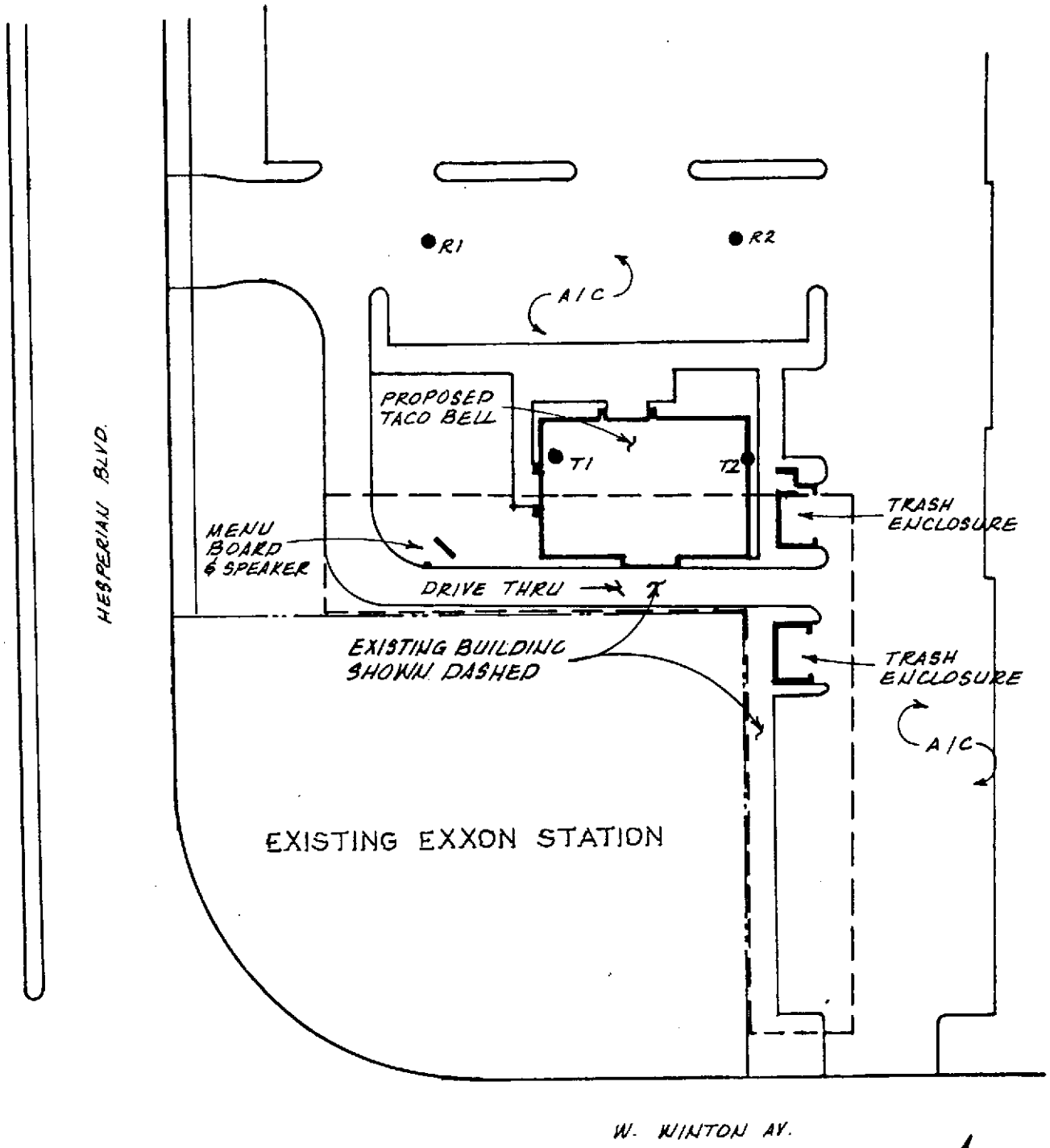


BORING LOCATION MAP

0 20 40 80

SCALE: FEET (±)

PROPOSED TACO BELL

HESPERIAN BLVD. & WEST WINTON AV.
HAYWARD, CA.

Scale: AS SHOWN	Date: 8-24
Drawn by: D.M.N.	Approved by:
Project No. 32-94-230	Figure No.

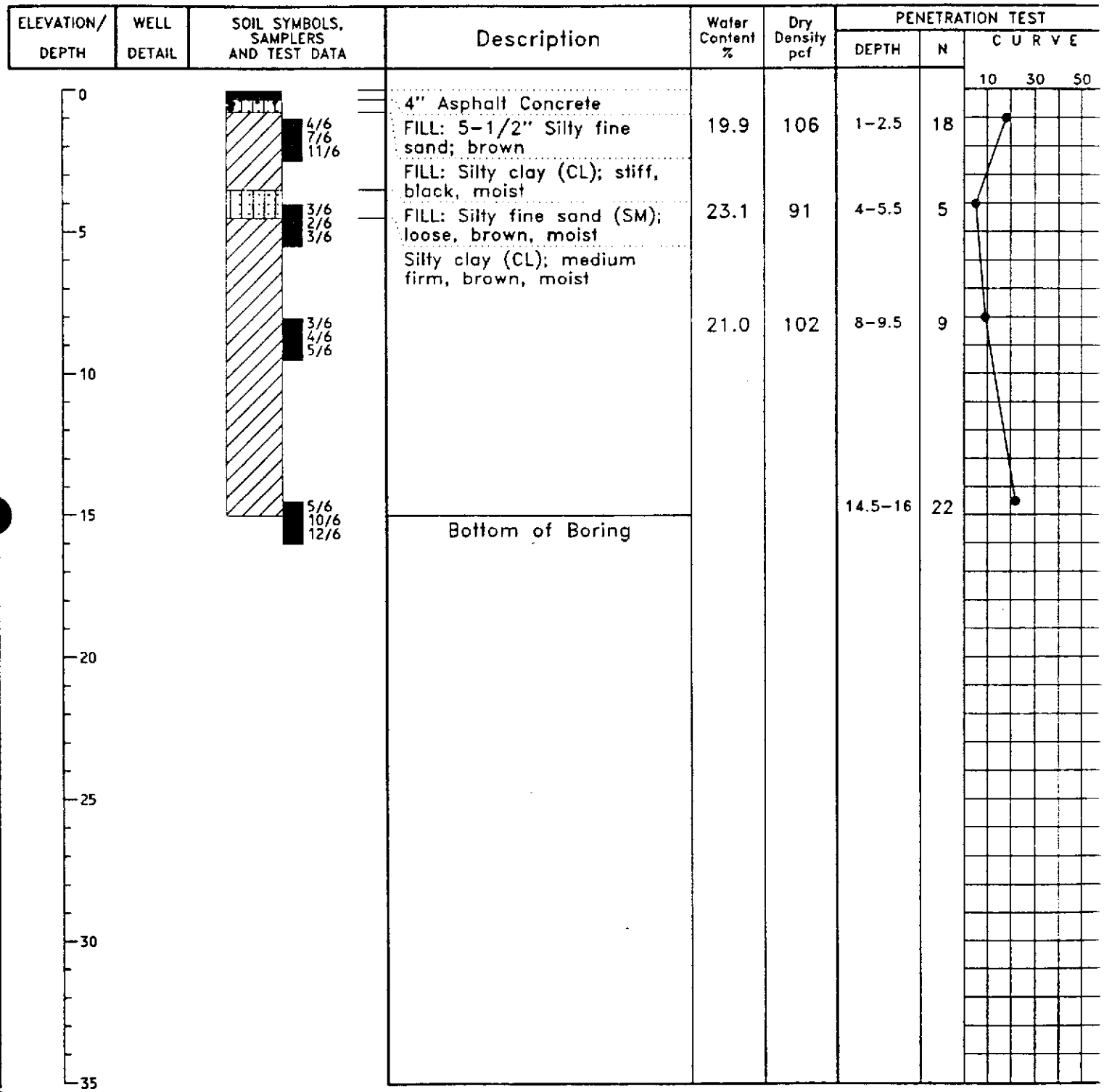
Krazan
ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS
SACRAMENTO • STOCKTON • FRESNO • BAKERSFIELD

DRILL HOLE LOG

BORING NO.: T1

PROJECT: TACO BELL - HAYWARD
CLIENT: TACO BELL CORPORATION
LOCATION: NORTHWEST CORNER PROPOSED BUILDING
DRILLER: BOB FREDRICKS
DRILL RIG: CME-55
DEPTH TO WATER> INITIAL: NONE AT COMPLETION: NONE

PROJECT NO.: 32-94-230
DATE: 08/11/94
ELEVATION: NONE
LOGGED BY: DAVID MORRELL



This information pertains only to this boring and should not be interpreted as being indicative of the site.

GEOTECHNICAL ENGINEERING INVESTIGATION

TACO BELL RESTAURANT - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward , California

Project No. 32-94-230
October 10, 1994

Prepared for:
Taco Bell Corporation
Attn: Mr. Anthony Miller
4460 Black Avenue, Suite K
Pleasanton, CA 94566
(510) 462-6580

Prepared by:
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123 Commerce Circle
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Krazan & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING AND INSPECTION

Krazan & ASSOCIATES, INC.
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123 COMMERCE CIRCLE · SACRAMENTO, CALIFORNIA 95815 · (916) 929-9012 · FAX (916) 929-9708

October 6, 1994

Project No. 32-94-239

Mr. Anthony Miller
Taco Bell Corporation
4460 Black Avenue, Suite K
Plesanton, CA 94566

RE: GEOTECHNICAL ENGINEERING INVESTIGATION
TACO BELL - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward, California

Dear Mr. Miller:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above referenced site. An executive summary of our report is provided below.

The site is currently occupied by an existing building and associated pavements. Prior to site grading, the existing structure, foundations, and associated utilities should be removed.

The upper 4 to 5 feet of soil beneath the site consist of fill. This fill material does not have adequate strength characteristics to uniformly support the proposed structure. Accordingly, it is recommended that fill within the proposed building and trash enclosure area, and five feet beyond, be removed and/or recompacted. At least 18-inches of properly compacted engineered fill should be provided beneath footings for these strectures. Expansive fill material should be moisture conditianed and compacted to between 87 and 92 percent of maximum density based on ASTM Test Method D1557. Nonexpansive fill should be compacted to a minimum of 90 percent (ASTM D1557).

Due to the expansive nature of on-site soils, building pad and exterior flatwork subgrades should be constructed such that the upper 18 inches is composed of imported nonexpansive fill.

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TABLE
SUMMARY OF RECOMMENDATIONS

DESIGN ITEM	RECOMMENDED PARAMETER EXISTING SITE CONDITION	REFERENCE REPORT PAGE NO.
Foundations:		
Footing Bearing Pressure	2250	7
Passive Lateral Resistance (EFP)	300 pcf	9
Coefficient of Friction	0.30	9
Soil Expansion Potential	low	---
Pavements and Slabs:		
Asphalt Concrete Pavement Structural Sections:		
Light Traffic/Parking Stalls	2.5" AC / 9.0" AB	9
Heavy Traffic/Roadways	3.0" AC / 11.0" AB	9
Concrete Slabs - Building Floors	Bearing on nonexpansive structural fill with 4" capillary break with impervious layer between	7
Project Site Conditions:		
Existing Fill	Yes - 1-5'	4
Groundwater Depth	>15'	6
Existing Underground Structures	No	2
Existing Above Ground Structures	No	2
Deep Excavations (back-slope)	N/A	

SPECIAL NOTES:

Contingent to building pad overexcavation and recompaction.

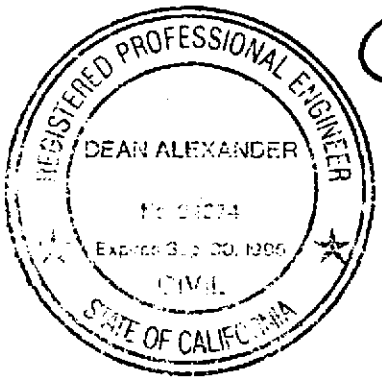
Existing fill with varying strength characteristics was observed to depths of 1 to 5 feet in pavement areas. This material should be removed and/or recompacted within pavement areas at least 5 feet beyond. As an alternative, the existing fill in pavement areas may be left in place if the risk of potential premature deterioration of pavements is accepted. The upper six inches of pavement subgrades should be compacted to a minimum of 90 to 95 percent of the maximum laboratory dry density (ASTM Specification D1557) for expansive materials, and to at least 95 percent of the maximum laboratory dry density (ASTM Specification D1557) for nonexpansive materials.

If there are any questions or if we can be of further assistance to you, please do not hesitate to contact our office at (916) 564-2200 or (800) 266-1379. Thank you for this opportunity to be of continuing service.

KRAZAN & ASSOCIATES

David J. Morrell

DAVID J. MORRELL
Geotechnical Department
Project Manager



Dean Alexander

DEAN ALEXANDER
Registered Geotechnical Engineer
Registered Civil Engineer
RGE No. 2051/RCE No. 34274

DJM/DA/kdp

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Suggested Earthwork Specifications ..... B
Suggested Guide Pavement Specifications C

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123 COMMERCE CIRCLE · SACRAMENTO, CALIFORNIA 95815 · (916) 929-9012 · FAX (916) 929-9708

October 6, 1994

Project No. 32-94-230

GEOTECHNICAL ENGINEERING INVESTIGATION
TACO BELL RESTAURANT - HAYWARD
Hesperian Boulevard and W. Winton Avenue
Hayward, California

1.0 INTRODUCTION

1.1 Authorization

This report presents the results of our Geotechnical Engineering Investigation for the proposed Taco Bell Restaurant located on Hesperian Boulevard North of West Winton Avenue in Hayward, California. Taco Bell Corporation gave written authorization to Krazan & Associates to proceed with the Geotechnical Engineering Investigation and Field Investigation.

1.2 Purpose and Scope of Work

This investigation was conducted to evaluate site, soil and groundwater conditions, to make geotechnical recommendations for use in design of specific construction elements and to provide criteria for site preparation and engineered fill construction.

A site reconnaissance by a member of our engineering staff was included in this study along with the drilling of four test borings to a maximum depth of 15 feet below existing site grade, the sampling of pavement subgrade soils at two additional locations, laboratory testing of selected soil samples recovered from these locations, an engineering analysis and preparation of this report.

Approximate test boring locations are shown on Figure No. 1. Test boring logs, including results of laboratory tests, are shown on Figures No. 2 through 5. An explanation of the soil symbols and classification system used on the logs appears on Figure No. 6. Figures No. 1 through 6 are attached.

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Appendix A contains general project information, descriptions of the field exploration and laboratory testing phases of this study, and additional laboratory test results. Appendix B contains suggested earthwork specifications and Appendix C contains suggested guide pavement specifications.

1.3 Site Location

The site is located in an existing shopping center on the northeast corner of Hesperian Boulevard and W. Winton Avenue in Hayward, California.

According to the U.S. Geological Survey 7.5 minute Hayward, California topographic quadrangle map, photorevised 1980, the property is located at 120° 06′ 34″ North Longitude, 37° 39′ 14″ West Latitude. Please see the Vicinity Map following Page 2.

1.4 Site Description and Conditions

The subject site is currently occupied by an existing Exxon Service Station and asphalt concrete pavement areas. The existing restaurant/dry cleaning building generally covers the south half of proposed new restaurant pad area. An existing shopping center building and associated driveway are located to the east of the site. A service station is located south of the site.

2.0 PROJECT DESIGN DATA

2.1 Development Plans

It is understood that development will consist of one building with a total surface area of approximately 2,000 square feet. On-site parking, drive-thru, trash enclosure, and a sign are associated with the development. The existing structure will have to be demolished to accommodate the new building.

2.2 Structure Types

The building structures are single-story wood frame or masonry with truss roof systems supported on the exterior foundation only. The trash enclosure is an uncovered structure which is eight feet in height. The trash enclosure walls consist of reinforced concrete masonry.

2.3 Foundation Loads

The Taco Bell building will have maximum structural loads for exterior walls on the order of 1,300 pounds per linear foot. Maximum column loads are approximately 20 kips.

2.4 Grading and Slopes

The project site is relatively level. No major grading or slopes are anticipated.

2.5 Pavement

The parking lot is divided into two areas for the purpose of the soil report: driving lanes and parking stalls. The driving lanes will be subject to a minimum daily traffic of 1,000 cars and five 18,000-pound single axle load from heavy trucks. The parking stalls will experience 100 cars per day.

3.0 SUBSURFACE INVESTIGATION

3.1 Soil Borings

Subsurface soil conditions were explored by drilling four test borings to a maximum depth of 15 feet below existing site grade. Asphalt concrete thicknesses ranged from 3 to 4 inches over a base consisting of 2 to 5-1/2 inches of silty fine to coarse sand (Unified Soil Classification: SM) with gravel. Beneath the pavement, existing fill was observed to depths of 4 to 5 feet. This material consisted of stiff silty clay (CL) to depths of 3 to 3-1/2 feet followed by a 1 to 1-1/2 foot layer of loose to medium dense

silty fine sand (SM). These soils are characterized by low to moderate bearing properties with variable density.

These soils were underlain to the 15-foot depth of exploration by soft to stiff silty clay (CL). These materials are indicated to have low to moderate bearing properties based upon penetration resistance and laboratory test results.

The sandy fill encountered at depth on the site is indicated to be generally nonexpansive in nature. The clay material is considered to have moderate expansive properties and may shrink or swell with variation in moisture content. For additional information regarding soils encountered at this site, please refer to the attached boring logs.

3.2 Field Testing

Modified standard penetration tests were performed at selected depths. This test presents the resistance to drilling a 2½ inch diameter core barrel. The driving energy was provided by a hammer weighing 140 pounds following 30 inches. Penetration resistance within the fill ranged from 12 to 20 blows per foot. Penetration resistance within the soils beneath the fill range from 5 to 24 blows per foot.

3.3 Laboratory Testing

The laboratory investigation was a program to determine the physical and mechanical properties of the foundation soils underlying the site. The test results were used as a criteria for determining engineering suitability of the surface and subsurface materials encountered.

In-situ moisture content, dry density, and unconfined compression tests were performed on undisturbed samples representative of the subsurface material. The fill material is characterized by dry unit weights of 89 to 111 pounds per cubic foot with moisture contents varying from 20 to 24 percent. Unconfined Compression tests conducted upon samples of the clayey fill material yielded compressive strengths of 4200 to 4600 pounds per square feet. A sample of the clayey fill had a plasticity index at 16 and expansion index of 42.

The native soils are characterized by dry unit weights of 91 pounds per cubic foot with moisture contents varying from 23 percent. Unconfined compressive strengths of these materials varied from 4000 to 6600 pounds per square foot.

4.0 FINDINGS AND INTERPRETATION

4.1 Regional and Local Geology

The subject site is located in the San Francisco Bay Region of the Coast Range Geologic Province. The Coast Range Geologic Province borders the coast of California and generally consists of northwesterly/southeasterly trending ridges of granitic, metavolcanic and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges.

San Francisco Bay is a broad shallow depression within the Coast Ranges that has been subsequently filled with sedimentary deposits. In the vicinity of the subject site, these deposits consist of unconsolidated sediments comprised of gravel, sand, silt, clay and peat that underlie broad valleys and flatlands. They vary in thickness from a few feet to about 600 feet east and west of San Francisco Bay. Three major faults are located near the site--the Hayward Fault Zone, the San Andreas Fault Zone, and the Calaveras Fault Zone. The San Andreas Fault is located approximately 16 miles west of the site and was the source of the 1906 San Francisco Earthquake. The Calaveras Fault Zone is located approximately 11 miles east of the site and is also considered capable of producing large earthquakes. The Hayward Fault Zone passes approximately four miles east of the site. The Hayward Fault Zone is considered capable of producing an upper bound earthquake event of Richter magnitude 7.5. The last recorded movement of the Hayward fault was in 1868. These faults have the potential to affect the site should an earthquake occur on them. According to the State of California Maps, the site is not within an Alquist-Priolo Special Study Zone and thus would not require a fault investigation by an engineering geologist. The site is located within Seismic Zone 4 of the Uniform Building Code.

Secondary hazards from earthquakes include rupture, seiches, landslides, and liquefaction. Since there are no known faults within the immediate area, ground rupture from surface faulting should not be a potential problem. Seiches and landslides are not a hazard in the area either.

4.2 Groundwater Conditions

Test boring locations were checked for the presence of groundwater during drilling operations. Free groundwater was not observed in the test borings. It is not anticipated that the permanent groundwater level will affect the finished building or pavements.

Precipitation can saturate soils on the site during construction. Precipitation and/or irrigation water can pond upon and saturate the clays. A saturated soil condition can disrupt grading and construction. Depending upon weather conditions, this condition can occur for an extended period of time. To improve this condition, saturated soils can be disced and aerated during dry weather; mixed with dry materials; removed and replaced with an approved fill material; or mixed with an approved lime or cement product.

5.0 ENGINEERING RECOMMENDATIONS

5.1 Special Conditions and Mitigating Measures

The site is currently occupied by an existing building and associated pavements. Prior to site grading, the existing structure, foundations, and associated utilities should be removed.

The upper 4 to 5 feet of soil beneath the site consist of fill. This fill material does not have adequate strength characteristics to uniformly support the proposed structure. Accordingly, it is recommended that fill within the proposed building and trash enclosure area, and five feet beyond, be removed and/or recompacted. At least 18-inches of properly compacted engineered fill should be provided beneath footings for these structures. Expansive fill material should be moisture conditioned and compacted to between 87 and 92 percent of maximum density based on ASTM Test Method D1557. Nonexpansive fill should be compacted to a minimum of 90 percent (ASTM D1557).

Due to the expansive nature of on-site soils, building pad and exterior flatwork subgrades should be constructed such that the upper 18 inches is composed of imported nonexpansive fill.

5.2 Foundation Design

The upper 4 to 5 feet of soils beneath the site consists of existing fill which should be removed and recompacted. The proposed building, and trash enclosure may be supported on a shallow foundation system bearing on at least 18-inches of engineered fill. Spread and continuous footings can be designed for the following maximum allowable soils bearing pressures:

LOAD	ALLOWABLE LOADING
Dead Load	1500 psf
Dead + Live Loads	2250 psf
Total Load, including wind or seismic loads	3000 psf

The sign and other ancillary structures may be supported on continuous or isolated spread footings based in existing fill using maximum allowable soil bearing pressures of:

LOAD	ALLOWABLE LOADING
Dead Load	1200 psf
Dead + Live Loads	1800 psf
Total Load, including wind or seismic loads	2400 psf

The weight of footing concrete extending below grade may be disregarded in sizing computations. The structural engineer should evaluate footing configurations and reinforcements for structural loads, and shrinkage and temperature stresses. However, footings should be reinforced with a minimum of two No. 4 reinforcing steel bars - one each, top and bottom.

The footings should have a minimum depth of 18 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load.

If foundations for the proposed structure are constructed in accordance with the recommendations of this report, estimated total and differential foundation movements are not expected to exceed 1 inch. Most of the movement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

Krazan & ASSOCIATES, INC.
ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS
123 Commerce Circle • Sacramento, California 95815 • (916) 929-9012 • FAX (916) 929-9708

November 8, 1994

Project No. 34-94-319

Post-it™ Fax Note 7671	Date 11/8/94	# of pages ▶ 15
To Hugh Murphy	From Dane Mathis	
Co./Dept. Hayward FD	Co. Krazan	
Phone #	Phone # 916-564-2200	
Fax # 510-293-5017	Fax # 916-564-2222	

Mr. Anthony Miller
Taco Bell Corporation
4460 Black Avenue, Suite K
Pleasanton, CA 94566

RE: **Limited Level II Environmental Site Assessment**
Taco Bell #06-1052
Hesperian Boulevard & West Winton Avenue
Hayward, California

Dear Mr. Miller:

This letter presents a summary of our findings of a Limited Level II Environmental Site Assessment completed on October 28, 1994 for the above referenced site. Three soil borings were advanced to a depth of approximately 25 feet. Soil samples from each of the borings were collected at five foot intervals to a depth of 20 feet. Groundwater was encountered at approximately 21 to 22 feet in each of the three soil borings. A temporary groundwater monitoring well was installed in each of the borings and a groundwater grab sample was collected from each of the wells. In addition, one hand auger boring was advanced in the southeast portion of the site to a depth of approximately ten feet. Soil samples were collected at five and ten feet below grade from this boring. Please see the attached Boring Location Map for the locations of the three soil borings and the hand auger boring. Selected soil and water samples were submitted to an analytical laboratory for the analysis of TPH-G, BTEX, TPH-D, and Halogenated Volatile Organics. The attached tables presents a summary of the analytical results. Attached you will find the laboratory analytical results and chain-of-custody documentation.

If you have any questions, please do not hesitate to contact our office at (916) 564-2200 or (800) 266-1379.

Respectfully submitted,
Krazan & Associates, Inc.

Dane Mathis

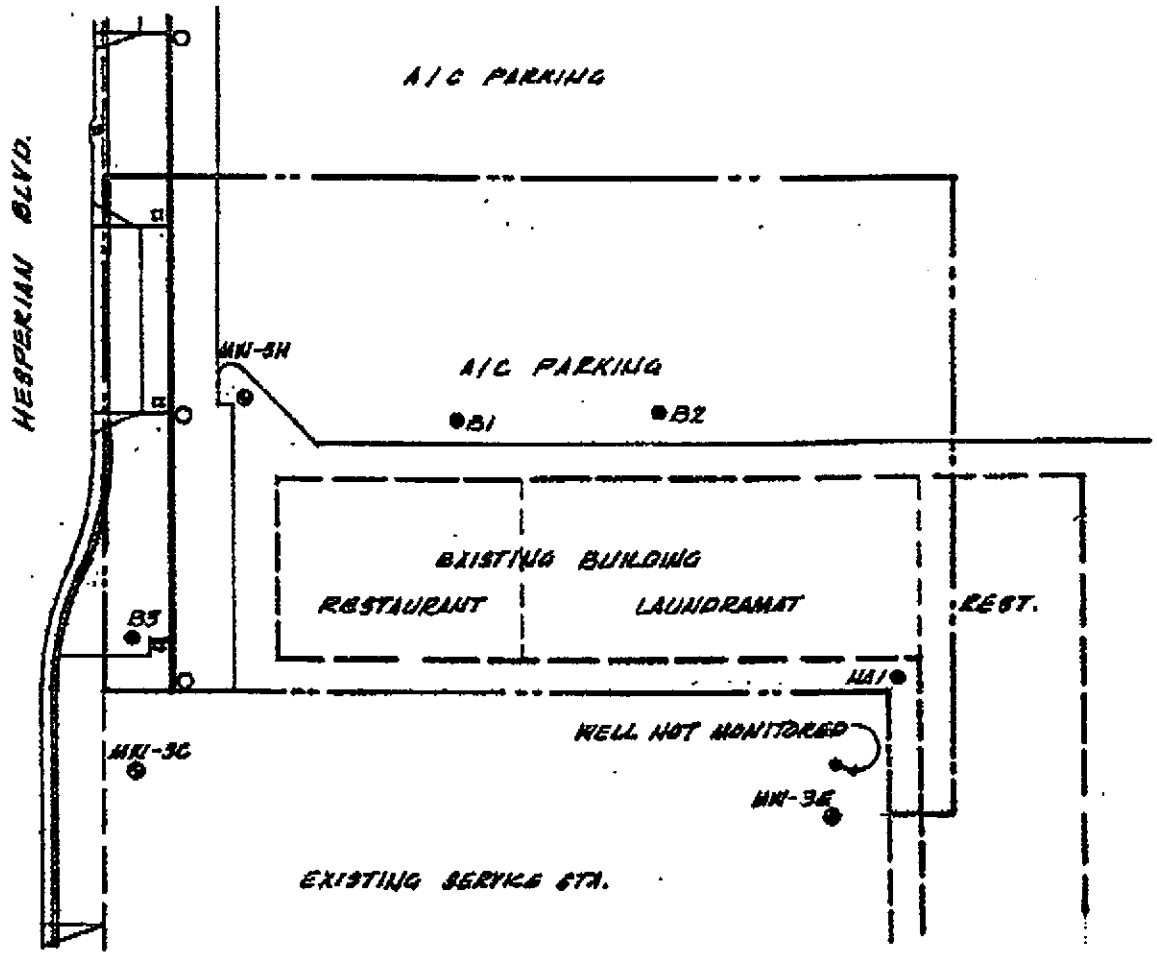
Dane Mathis
Project Geologist

DM/aa

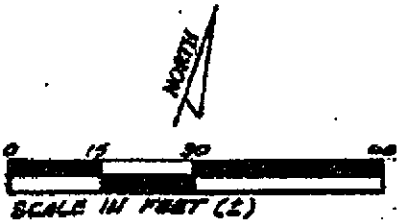
cc: Mr. Hugh Murphy
City of Hayward Fire Department
25151 Calwiter Road
Hayward, CA 94545-2731
(510) 293-8690
FAX 293-5017

Attachment

Printed on Recycled Paper



BORING LOCATION MAP



PROPOSED TACO BELL #06 1052 HESPERIAN BLVD & WEST WINTON AV. HAYWARD, CA.	Scale: AS NOTED	Date: 10-94	Krazan ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS SACRAMENTO • TURLOCK • FRESNO • BAKERSFIELD
	Drawn by: D.M.W.	Approved by: D.M.	
	Project No. 34.94.297	Figure No.	

11-08-1994 07:25PM FROM LOURY/KRAZAN TO 15102935017 P.03

Table I
Concentrations of Petroleum Constituents in Soil and Groundwater
Proposed Taco Bell #06-1052
Hesperian Boulevard & West Winton Avenue
Hayward, California
Krazan & Associates, Inc.
October 28, 1994

Sample ID No.	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-G	TPH-D
Matrix: Soil, Concentrations expressed in milligrams per kilogram (mg/kg)						
B1-20	ND	ND	ND	ND	ND	ND
B2-20	ND	ND	ND	ND	ND	ND
B3-20	ND	ND	ND	ND	ND	ND
HA1-5	ND	ND	ND	ND	ND	1.9
DL	0.0050	0.0050	0.0050	0.010	1.0	1.0

Sample ID No.	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-G	TPH-D
Matrix: Water, Concentrations expressed in micrograms per liter (ug/L).						
B1-W	ND	ND	ND	ND	ND	85*
B2-W	ND	ND	ND	ND	67**	78*
B3-W	380	ND	1,400	860	28,000	83,000*
DL	0.50	0.50	0.50	1.0	50	50

TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel
DL = Detection Limit
ND = None detected at the detection limit noted
* = Non-diesel pattern
** = Extraneous peaks

Krazan

ENVIRONMENTAL LABORATORY

Krazan & Associates, Inc.
215 W. Dakota Avenue
Clovis, CA 93612
(209) 348-2200

Krazan & Associates, Inc.
123 Commerce Circle
Sacramento, CA 95815
Attn: Dane Mathis

Client Project ID: 34-94319
Reference Number: 379
Sample Description: Water
Sample Prep/Analysis Method: LUFT
Lab Numbers: 379-5W, 6W, 7W

Sampled: 10-28-94
Received: 10-29-94
Extracted: 10-31-94
Analyzed: 11-2-94
Reported: 11-4-94

TOTAL PETROLEUM HYDROCARBONS -DIESEL RANGE

ANALYTE	REPORTING LIMIT (ug/L)	SAMPLE ID B1-W (ug/L)	SAMPLE ID B2-W (ug/L)	SAMPLE ID B3-W (ug/L)
DIESEL RANGE HYDROCARBONS	50	85*	78*	83000*
Report Limit Multiplication Factor:		1	1	50

*Note: non-diesel pattern

Instrument ID: HP-GC1

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
Analytes reported as ND were not detected or below the Practical Quantitation Limit

ANALYST: Kelly A. Crawford
Kelly A. Crawford

APPROVED BY:
James C. Phillips
Environmental Lab Director

Krazan

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Krazan & Associates, Inc.
123 Commerce Circle
Sacramento, CA 95815
Attn: Dane Mathis

Client Project ID: 34-94319
Sample Description: Water
Sample Prep/Analysis Method: EPA 5030/8015M, 8020
Lab Numbers: 379-5W, 6W, 7W

Sampled: 10-28-94
Received: 10-29-94
Extracted: 11-2-94
Analyzed: 11-2-94
Reported: 11-4-94

TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (ug/L)	SAMPLE ID B1-W (ug/L)	SAMPLE ID B2-W (ug/L)	SAMPLE ID B3-W (ug/L)
BENZENE	0.50	ND	ND	380
TOLUENE	0.50	ND	ND	ND
ETHYL BENZENE	0.50	ND	ND	1400
TOTAL XYLENES	1.0	ND	ND	860
GASOLINE RANGE HYDROCARBONS	50	ND	67*	28000
Report Limit Multiplication Factor:		1	1	100

* Extraneous peaks

Surrogate % Recovery:		PID-99.7%, PID-99.6%	PID-99.9%, PID-98.9%	NA
Instrument ID:		VAR-GC1	VAR-GC1	VAR-GC1

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
Analytes reported as ND were not detected or below the Practical Quantitation Limit

ANALYST: Linda Phillips
Linda Phillips

APPROVED BY:
James C. Phillips
Environmental Lab Director

Krazan

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Sacramento, CA 95815
Attn: Dane Mathis

Client Project ID:34-94319
Reference Number: 379
Sample Description: Soil
Sample Prep/Analysis Method: LUFT
Lab Numbers: 379-1S, 2S, 3S, 4S

Sampled: 10-28-94
Received: 10-29-94
Extracted: 10-31-94
Analyzed: 11-2-94
Reported: 11-4-94

TOTAL PETROLEUM HYDROCARBONS -DIESEL RANGE

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID B1-20 (mg/kg)	SAMPLE ID B2-20 (mg/kg)	SAMPLE ID B3-20 (mg/kg)	SAMPLE ID HA1-5 (mg/kg)
DIESEL RANGE HYDROCARBONS	1.0	ND	ND	ND	1.9
Report Limit Multiplication Factor:		1	1	1	1
Instrument ID:		HP-GC1	HP-GC1	HP-GC1	HP-GC1

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
Analytes reported as ND were not detected or below the Practical Quantitation Limit

ANALYST: Kelly A. Crawford
Kelly A. Crawford

APPROVED BY:
James C. Phillips
Environmental Lab Director

Krazan

ENVIRONMENTAL

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Clovis, CA 93612
Attn: Dane Mathis

Client Project ID: 34-94319
Reference Number: 379
Sample Description: Soil
Sample Prep/Analysis Method: EPA 5030/8015M, 8020
Lab Numbers: 379-1S, 2S, 3S, 4S

Sampled: 10-28-94
Received: 10-29-94
Extracted: 11-2-94
Analyzed: 11-2-94
Reported: 11-4-94

TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID B1-20 (mg/kg)	SAMPLE ID B2-20 (mg/kg)	SAMPLE ID B3-20 (mg/kg)	SAMPLE ID HA1-6 (mg/kg)
BENZENE	0.0050	ND	ND	ND	ND
TOLUENE	0.0050	ND	ND	ND	ND
ETHYL BENZENE	0.0050	ND	ND	ND	ND
TOTAL XYLENES	0.010	ND	ND	ND	ND
GASOLINE RANGE HYDROCARBONS	1.0	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	1

Surrogate % Recovery:	PID-151%, PID-151%	PID-138%, PID-139%	PID-142%, PID-133%	PID-134%, PID-135%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
Analytes reported as ND were not detected or below the Practical Quantitation Limit

ANALYST: Linda Phillips
Linda Phillips

APPROVED BY:
James C. Phillips
Environmental Lab Director

Pan-Ag Environmental Labs, Inc., Madera, California.

Volatiles Analysis Data

Client Sample ID. : B1-20, (1.0gm) Date Analyzed : 6-Nov-94 Matrix : Soil

Pan-Ag Sample I.D. : 219-6411-484 Analyst : SDW Method No. : 8010A

Compound	ug/Kg	QL	Compound	ug/Kg	QL
Dichlorodifluoromethane	ND	5	Dibromomethane	ND	5
Chloromethane	ND	5	2-Chloroethyl vinyl ether	ND	5
Vinyl chloride	ND	5	cis-1,3-Dichloropropene	ND	5
Bromomethane	ND	5	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	5	1,1,2-Trichloroethane	ND	5
Trichlorofluoromethane	ND	5	Tetrachloroethene	ND	5
1,1-Dichloroethene	ND	5	Dibromochloromethane	ND	5
Methylene chloride	ND	5	Chlorobenzene	ND	5
trans-1,2-Dichloroethene	ND	5	1,1,1,2-Tetrachloroethane	ND	5
1,1-Dichloroethane	ND	5	Bromoform	ND	5
Chloroform	ND	5	1,1,2,2-Tetrachloroethane	ND	5
1,1,1-Trichloroethane	ND	5	1,2,3-Trichloropropane	ND	5
Carbon tetrachloride	ND	5	Bromobenzene	ND	5
1,2-Dichloroethane	ND	5	1,3-Dichlorobenzene	ND	5
Trichloroethene	ND	5	1,4-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5	Benzyl chloride	ND	5
Bromodichloromethane	ND	5	1,2-Dichlorobenzene	ND	5

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	97.5	104.1
1-Chloro-2,4-difluorobenzene	103.5	97.3

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers : (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.

Results based on a total solid of 100%.

Approved by : _____

Pan-Ag Environmental Labs, Inc., Madera, California.

Volatiles Analysis Data

Client Sample ID. :	B2-20, (1.0gm)	Date Analyzed :	8-Nov-94	Matrix :	Soil
Pan-Ag Sample I.D. :	219-9411-486	Analyst :	SDW	Method No. :	8010A

Compound	ug/Kg	QL	Compound	ug/Kg	QL
Dichlorodifluoromethane	ND	5	Dibromomethane	ND	5
Chloromethane	ND	5	2-Chloroethyl vinyl ether	ND	5
Vinyl chloride	ND	5	cis-1,3-Dichloropropene	ND	5
Bromomethane	ND	5	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	5	1,1,2-Trichloroethane	ND	5
Trichlorofluoromethane	ND	5	Tetrachloroethene	ND	5
1,1-Dichloroethene	ND	5	Dibromochloromethane	ND	5
Methylene chloride	ND	5	Chlorobenzene	ND	5
trans-1,2-Dichloroethene	ND	5	1,1,1,2-Tetrachloroethane	ND	5
1,1-Dichloroethane	ND	5	Bromoform	ND	5
Chloroform	ND	5	1,1,2,2-Tetrachloroethane	ND	5
1,1,1-Trichloroethane	ND	5	1,2,3-Trichloropropane	ND	5
Carbon tetrachloride	ND	5	Bromobenzene	ND	5
1,2-Dichloroethane	ND	5	1,3-Dichlorobenzene	ND	5
Trichloroethene	ND	5	1,4-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5	Benzyl chloride	ND	5
Bromodichloromethane	ND	5	1,2-Dichlorobenzene	ND	5

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	97.8	105.4
1-Chloro-2,4-difluorobenzene	102.2	98.5

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers : (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.

Results based on a total solid of 100%.

Approved by :

Pan-Ag Environmental Labs, Inc., Madera, California.

Volatiles Analysis Data

Client Sample I.D.: B3-20, (1.0gm) Date Analyzed: 8-Nov-94 Matrix: Soil

Pan-Ag Sample I.D.: 219-9411-466 Analyst: SDW Method No.: 8010A

Compound	ug/Kg	QL	Compound	ug/Kg	QL
Dichlorodifluoromethane	ND	5	Dibromomethane	ND	5
Chloromethane	ND	5	2-Chloroethyl vinyl ether	ND	5
Vinyl chloride	ND	5	cis-1,3-Dichloropropene	ND	5
Bromomethane	ND	5	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	5	1,1,2-Trichloroethane	ND	5
Trichlorofluoromethane	ND	5	Tetrachloroethene	ND	5
1,1-Dichloroethene	ND	5	Dibromochloromethane	ND	5
Methylene chloride	ND	5	Chlorobenzene	ND	5
trans-1,2-Dichloroethene	ND	5	1,1,1,2-Tetrachloroethane	ND	5
1,1-Dichloroethane	ND	5	Bromoform	ND	5
Chloroform	ND	5	1,1,2,2-Tetrachloroethene	ND	5
1,1,1-Trichloroethane	ND	5	1,2,3-Trichloropropane	ND	5
Carbon tetrachloride	ND	5	Bromobenzene	ND	5
1,2-Dichloroethane	ND	5	1,3-Dichlorobenzene	ND	5
Trichloroethene	ND	5	1,4-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5	Benzyl chloride	ND	5
Bromodichloromethane	ND	5	1,2-Dichlorobenzene	ND	5

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	98.6	102.5
1-Chloro-2,4-difluorobenzene	102.0	100.3

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers: (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.

Results based on a total solid of 100%.

Approved by:

Pan-Ag Environmental Labs, Inc., Madera, California.

Volatiles Analysis Data

Client Sample I.D.: 83-W | Date Analyzed: 5-Nov-94 | Matrix: Aqueous

Pan-Ag Sample I.D.: 219-9411-470 | Analyst: SDW | Method No.: 8010A

Compound	ug/L	QL	Compound	ug/L	QL
Dichlorodifluoromethane	ND	1	Dibromomethane	ND	1
Chloromethane	ND	1	2-Chloroethyl vinyl ether	ND	1
Vinyl chloride	15	1	cis-1,3-Dichloropropene	ND	1
Bromomethane	ND	1	trans-1,3-Dichloropropene	ND	1
Chloroethane	ND	1	1,1,2-Trichloroethane	ND	1
Trichlorofluoromethane	ND	1	Tetrachloroethene	ND	1
1,1-Dichloroethene	ND	1	Dibromochloromethane	ND	1
Methylene chloride	ND	1	Chlorobenzene	ND	1
trans-1,2-Dichloroethene	ND	1	1,1,1,2-Tetrachloroethane	ND	1
1,1-Dichloroethane	ND	1	Bromoform	ND	1
Chloroform	ND	1	1,1,2,2-Tetrachloroethane	ND	1
1,1,1-Trichloroethane	ND	1	1,2,3-Trichloropropane	ND	1
Carbon tetrachloride	ND	1	Bromobenzene	ND	1
1,2-Dichloroethane	10	1	1,3-Dichlorobenzene	ND	1
Trichloroethene	ND	1	1,4-Dichlorobenzene	ND	1
1,2-Dichloropropane	ND	1	Benzyl chloride	ND	1
Bromodichloromethane	ND	1	1,2-Dichlorobenzene	ND	1

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	72.9	139.0
1-Chloro-2,4-difluorobenzene	58.2	118.5

Internal Standard failed QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers: (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.
(DL) Indicates compound concentration reported from dilution run.

Results based on a total solid of 100%.

Approved by: _____

Pan-Ag Environmental Labs, Inc., Modesto, California.

Volatiles Analysis Data

Client Sample ID. :	HA1-5, (1.0gm)	Date Analyzed :	6-Nov-94	Matrix :	Soil
Pan-Ag Sample I.D. :	219-9411-467	Analyst :	SDW	Method No. :	8010A

Compound	ug/Kg	QL	Compound	ug/Kg	QL
Dichlorodifluoromethane	ND	5	Dibromomethane	ND	5
Chloromethane	ND	5	2-Chloroethyl vinyl ether	ND	5
Vinyl chloride	ND	5	cis-1,3-Dichloropropene	ND	5
Bromomethane	ND	5	trans-1,3-Dichloropropene	ND	5
Chloroethane	ND	5	1,1,2-Trichloroethane	ND	5
Trichlorofluoromethane	ND	5	Tetrachloroethene	ND	5
1,1-Dichloroethene	ND	5	Dibromochloromethane	ND	5
Methylene chloride	ND	5	Chlorobenzene	ND	5
trans-1,2-Dichloroethene	ND	5	1,1,1,2-Tetrachloroethane	ND	5
1,1-Dichloroethane	ND	5	Bromoform	ND	5
Chloroform	ND	5	1,1,2,2-Tetrachloroethane	ND	5
1,1,1-Trichloroethane	ND	5	1,2,3-Trichloropropane	ND	5
Carbon tetrachloride	ND	5	Bromobenzene	ND	5
1,2-Dichloroethane	ND	5	1,3-Dichlorobenzene	ND	5
Trichloroethene	ND	5	1,4-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5	Benzyl chloride	ND	5
Bromodichloromethane	ND	5	1,2-Dichlorobenzene	ND	5

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	98.7	109.1
1-Chloro-2,4-difluorobenzene	102.1	96.8

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers : (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.

Results based on a total solid of 100%.

Approved by : _____

Pan-Ag Environmental Labs. Inc., Madera, California.

Volatiles Analysis Data

Client Sample I.D. : B1-W | Date Analyzed : 7-Nov-94 | Matrix : Aqueous

Pan-Ag Sample I.D. : 219-9411-468 | Analyst : SDW | Method No. : 8010A

Compound	ug/L	QL	Compound	ug/L	QL	
Dichlorodifluoromethane	ND	1	Dibromomethane	ND	1	
Chloromethane	ND	1	2-Chloroethyl vinyl ether	ND	1	
Vinyl chloride	ND	1	cis-1,3-Dichloropropene	ND	1	
Bromomethane	ND	1	trans-1,3-Dichloropropene	ND	1	
Chloroethane	ND	1	1,1,2-Trichloroethane	ND	1	
Trichlorofluoromethane	ND	1	Tetrachloroethene	56	5	DL
1,1-Dichloroethene	ND	1	Dibromochloromethane	ND	1	
Methylene chloride	ND	1	Chlorobenzene	ND	1	
trans-1,2-Dichloroethene	ND	1	1,1,1,2-Tetrachloroethane	ND	1	
1,1-Dichloroethane	ND	1	Bromoform	ND	1	
Chloroform	ND	1	1,1,2,2-Tetrachloroethane	ND	1	
1,1,1-Trichloroethane	ND	1	1,2,3-Trichloropropane	ND	1	
Carbon tetrachloride	ND	1	Bromobenzene	ND	1	
1,2-Dichloroethane	ND	1	1,3-Dichlorobenzene	ND	1	
Trichloroethene	ND	1	1,4-Dichlorobenzene	ND	1	
1,2-Dichloropropane	ND	1	Benzyl chloride	ND	1	
Bromodichloromethane	ND	1	1,2-Dichlorobenzene	ND	1	

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	99.3	113.3
1-Chloro-2,4-difluorobenzene	101.9	101.8

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers : (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.
(DL) Indicates compound concentration reported from dilution run.

Approved by :

Pan-Ag Environmental Labs. Inc., Madera, California.

Volatiles Analysis Data

Client Sample I.D.: B2-W | Date Analyzed: 5-Nov-94 | Matrix: Aqueous

Pan-Ag Sample I.D.: 219-9411-469 | Analyst: SDW | Method No.: 8010A

Compound	ug/L	QL	Compound	ug/L	QL
Dichlorodifluoromethane	ND	1	Dibromomethane	ND	1
Chloromethane	ND	1	2-Chloroethyl vinyl ether	ND	1
Vinyl chloride	ND	1	cis-1,3-Dichloropropene	ND	1
Bromomethane	ND	1	trans-1,3-Dichloropropene	ND	1
Chloroethane	ND	1	1,1,2-Trichloroethane	ND	1
Trichlorofluoromethane	ND	1	Tetrachloroethene	140	10 DL
1,1-Dichloroethene	ND	1	Dibromochloromethane	ND	1
Methylene chloride	ND	1	Chlorobenzene	ND	1
trans-1,2-Dichloroethene	ND	1	1,1,1,2-Tetrachloroethane	ND	1
1,1-Dichloroethane	ND	1	Bromoform	ND	1
Chloroform	ND	1	1,1,2,2-Tetrachloroethane	ND	1
1,1,1-Trichloroethane	ND	1	1,2,3-Trichloropropane	ND	1
Carbon tetrachloride	ND	1	Bromobenzene	ND	1
1,2-Dichloroethane	ND	1	1,3-Dichlorobenzene	ND	1
Trichloroethene	ND	1	1,4-Dichlorobenzene	ND	1
1,2-Dichloropropane	ND	1	Benzyl chloride	ND	1
Bromodichloromethane	ND	1	1,2-Dichlorobenzene	ND	1

Surrogates	Percent Recovery	
	Detector A	Detector B
4-Bromofluorobenzene	100.1	109.9
1-Chloro-2,4-difluorobenzene	102.2	106.2

Internal Standard was within QC limits on detector B (ELCD).

QL = Sample specific quantitation limit.

Qualifiers: (J) Indicates an estimated value. (D) Indicates surrogates have been diluted out of detection range.
(B) Indicates compound found in blank. (ND) Indicates compound not detected.
(DL) Indicates compound concentration reported from dilution run.

Results based on a total solid of 100%.

Approved by: _____

NOV 1 7 1994



PHASE I ENVIRONMENTAL SITE ASSESSMENT PROPOSED TACO BELL NO. 06-1052 HESPERIAN BOULEVARD AND WEST WINTON AVENUE HAYWARD, CALIFORNIA

Project No. 034-94297
November 11, 1994

Prepared for:
Mr. Tony Miller
Taco Bell Corporation
4460 Black Avenue, Suite K
Pleasanton, California 94566
(510) 462-6580

Prepared by:
Krazan & Associates, Inc.
215 West Dakota Avenue
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Krazan & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING AND INSPECTION

Krazan & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING AND INSPECTION

November 11, 1994

Project No. 34-94-297

Mr. Anthony Miller
Taco Bell Corporation
4460 Black Avenue, Suite K
Pleasanton, CA 94566
(510) 462-6580

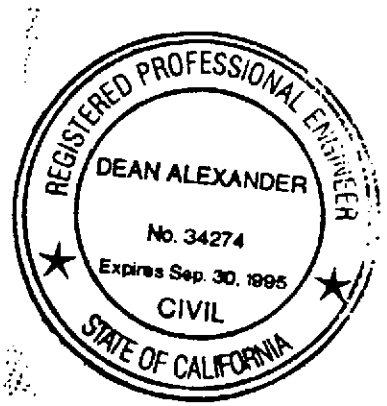
Dear Mr. Miller:

Enclosed are two (2) copies of the Final Phase I Environmental Site Assessment completed for Proposed Taco Bell #06-1052 at Hesperian Boulevard and West Winton Avenue, Hayward, California, dated November 11, 1994. The Phase I Environmental Site Assessment included a visual observation of the subject site, review of published data, and discussions with regulatory and advisory agencies.

Based upon the results of our Phase I Environmental Site Assessment, and due to the presence of gasoline and volatile organic compounds within groundwater beneath the subject site, a Limited Level II Environmental Site Assessment was conducted at the subject site. The results of the Limited Level II Environmental Site Assessment have been issued as a separate report.

Sincerely,
Krazan & Associates, Inc.

Dane Mathis
Project Geologist



Dean Alexander
Registered Engineer
RGE #002051/RCE #34274

DM/DA/aa

Enclosure

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Krazan & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING AND INSPECTION

November 11, 1994

Project No. 034-94297

PHASE I ENVIRONMENTAL SITE ASSESSMENT
PROPOSED TACO BELL NO. 06-1052
HESPERIAN BOULEVARD AND WEST WINTON AVENUE
HAYWARD, CALIFORNIA

EXECUTIVE SUMMARY

At the time of our site reconnaissance, the subject site was occupied by a commercial building, an associated asphaltic concrete parking lot, and a narrow landscaped area. The commercial building was occupied by Canton House Chinese Restaurant (991 West Winton Avenue), Jack's Norge Cleaners (23958 Hesperian Boulevard), and Howard's Drive-In restaurant (23956 Hesperian Boulevard).

Canton House Chinese Restaurant consisted of a customer dining area, food storage area, restroom, and a kitchen area. No grease traps were noted within the kitchen area.

Jack's Norge Cleaners consisted of a front customer lobby and clothes check-in counter, a dry cleaning machinery area, touch-up counter, former boiler/utility area, clothes racks, pressing area, two restrooms, and a boiler room closet. The dry cleaning machines were clustered in the eastern portion of Jack's Norge Cleaners shop and included a dry cleaning machine, two dryer machines, one sniffer machine, a filter rack, one still cooker, and a filter drying machine. According to Mr. Jack Hom, the owner of Jack's Norge Cleaners, perchloroethylene (also known as "perc" or PCE) is utilized within the dry cleaning machine to launder clothes. The PCE solution is contained within a steel reservoir built into the base of the dry cleaning unit. The sides of the dry cleaning machine as well as the adjacent concrete floor were stained by what appeared to be leakage from the dry cleaning machine. Spent PCE solution recovered by the still cooker is collected within an open metal pan at the base of the still cooker. The sniffer is utilized to filter exhaust from the dry cleaning process to reduce PCE containing emissions. The sniffer included ductwork which extended out of the roof of the dry cleaning shop. Mr. Hom indicated that the sniffer has passed emissions testing conducted by the Bay Area Air Quality Management District (AQMD).

A total of five 55-gallon drums were noted in the area of the dry cleaning machines. The exteriors of one of the spent PCE-containing drums as well as the empty drum were stained, apparently as a result of

spillage. However, the underlying concrete floor was only partially stained by what appeared to be liquids drippage.

An open floor drain was noted on the concrete floor near the dry cleaning machinery. Four hoses were noted to drain into the floor drain. These hoses originated from the sniffer machines, a nearby air compressor, a nearby conventional washing machine, and an inactive boiler. According to Mr. Hom, the floor drain is connected to and drains into the municipal sewer system.

Howards' Drive-In Restaurant consisted of a small customer dining area, two restrooms, personal and food storage areas, a food cooking/preparation area (kitchen), and a cleaning area. An in-line grease trap mounted above the floor was noted underneath a clean-up sink. Mr. Howard Chu, operator/owner of Howards' Drive-In, indicated that the waste grease is accumulated, solidified, and removed from the subject property for recycling/disposal by a grease handling firm.

The southern edge of the subject property is occupied by a narrow length of dirt, located between the commercial building and a three foot tall chain link fence (southern property boundary). The remainder of the subject site was occupied by a concrete sidewalk, a small landscaped area, and asphaltic concrete parking areas.

Monitoring well MW-3H is located in the southwest portion of the subject site. Depth to groundwater within MW-3H is reported to have ranged from 18.77 feet to 22.62 feet below surface grade during sounding events conducted between November 1990 and June 1994. The lateral component of groundwater flow is reported to be toward the west.

During the physical inspection of the site, exposed surface soils appeared clean and did not exhibit obvious signs of contamination. No obvious evidence (vent pipes, fill pipes, dispensers, etc.) of underground fuel storage tanks was noted within the area observed. No pad-mounted or pole-mounted transformers were observed on the subject site.

Review of the historic Polk, Haines, and Telephone directories indicates that the 991 West Winton Avenue address was occupied by Payless Cleaners, a dry cleaning shop, from 1961 until 1980, was vacant from 1981 until 1983, and was occupied by Canton House Restaurant from 1983 until the present. The 23958 Hesperian Avenue (currently Jack's Norge Cleaners) address was reported to have been occupied by a self-service laundry from 1961 until 1994. In addition, dry cleaning activities were reported to have been conducted at the 23958 Hesperian Avenue site since at least 1972. Although Polk Directories indicate that a residence was located at 23956 Hesperian Boulevard from at least 1953 until 1958, no obvious visual evidence or records of this residence were noted on a 1958 historical aerial photograph or within City of Hayward Building Department records. It is anticipated that this listing represents a residence located off of the subject property.

Review of City of Hayward Building Department (CHBD) records indicate that the existing commercial building at the subject site was constructed in 1960 - 1961, and intended for occupancy by a restaurant, laundromat, and/or dry cleaners. No obvious references to underground storage tanks were noted on the site plans to have been associated with the laundromat or the dry cleaning store. A former dry cleaning store at 991 West Winton Avenue was reported to have been remodeled and converted into a Chinese food restaurant in 1982. CHBD records indicate that the 23958 Hesperian Boulevard address has been occupied by a laundromat/cleaning village shop since 1961.

According to current occupants of the subject site, no underground storage tanks have been located at the subject site. In addition, no hazardous materials spills or releases were reported to have occurred at the subject property.

Review of records at the City of Hayward Fire Department (CHFD) reveals that there are no underground storage tank records or records of any incidents involving hazardous materials spills or leaks on file for the subject site. A Hazardous Materials Management Plan (HMMP) for Jack's Norge Cleaners at 23958 Hesperian Boulevard, dated July 20, 1994, is on file with the CHFD. According to the HMMP, this site possesses approximately 100 gallons of PCE stored within an above-ground drum as well as within the dry cleaning machine. In addition, this site possesses reportable quantities of dry cleaning spot chemicals. These materials are reported to be stored either inside the machinery or within safety cans. According to the HMMP, approximately 24 waste filters containing PCE are generated at this site on an annual basis. These waste filters are reported to be removed from the subject site by Safety-Kleen. An air discharge permit is one file with the Bay Area Air Quality Management District (AQMD) for Jack's Norge Cleaners located at the subject site. No records of any hazardous materials handling, storage, or incidents were on file with the California Environmental Protection Agency (Cal-EPA) - Department of Toxic Substance Control (DTSC) for the subject site.

A windshield survey of the adjacent properties and businesses located within a quarter mile radius of the subject site revealed the area to be occupied predominately by residential areas and commercial properties. Four businesses or sites located within a quarter mile radius of the subject site were noted to possibly handle, store, or generate hazardous materials, or had records on file with the City of Hayward Fire Department. Two of these businesses or sites are not anticipated to pose an adverse impact to the subject site.

The remaining businesses include Exxon Station #7-0218 and Express Lube, located adjacent south and 200 feet south of the subject site, respectively. Both sites are listed on the Regional Water Quality Control Board (RWQCB) Leaking Underground Storage Tank (LUST) Listing and the Cal-EPA Hazardous Waste and Substances Site (HWSS) List. Groundwater underlying the subject site has been impacted by gasoline constituents originating from the Exxon Station #7-0218. However, a soil and groundwater treatment system

is in operation at this site. In addition, several volatile organic compounds, including tetrachloroethylene, trans-dichloroethylene, trichloroethylene, vinyl chloride, and cis-1,2 dichloroethylene, have been detected within groundwater monitoring wells associated with the adjacent Exxon station. The concentrations noted exceed EPA Maximum Contaminant Levels for tetrachloroethylene, trans-dichloroethylene, trichloroethylene, vinyl chloride, and cis-1,2 dichloroethylene. The highest concentrations of these compounds were detected within MW-3H, located adjacent to the Exxon Station, in the southwest portion of the subject site. According to Mr. Hugh Murphy of the CHFD, the source of these volatile organics has not been confirmed. Texaco and Exxon are currently negotiating financial responsibility for continued investigation and remediation of gasoline impacted soils and groundwater at this site. However, neither party has been assigned responsibility for the volatile organic compounds noted within groundwater samples. The origin of volatile organic compounds noted within groundwater underlying the subject site is not known. However, based upon the historic use of volatile organic compounds (such as PCE) by dry cleaning firms located at the subject site, it is possible that the dry cleaning activities conducted at the subject site have impacted the underlying groundwater.

Due to its close proximity, Express Lube also has a potential to impact the subject site if a hazardous materials release occurs. In the event of a release, if contamination attributable to this site does migrate beneath the subject site, the expense and/or liability associated with the investigation and remediation would typically fall upon the responsible party (i.e., Express Lube).

Based upon the results of our Phase I Environmental Site Assessment, and due to the presence of gasoline and volatile organic compounds within groundwater beneath the subject site, a Limited Level II Environmental Site Assessment was conducted at the subject site. The results of the Limited Level II Environmental Site Assessment have been issued as a separate report.

1.0 INTRODUCTION

This report presents the results of our Phase I Environmental Site Assessment for the property identified as the Proposed Taco Bell No. 06-1052 located in Hayward, California.

1.1 Authorization

Mr. Tony Miller of Taco Bell Corporation gave written authorization for Krazan & Associates, Inc., to proceed with the literature survey and field investigation.

1.2 Purpose and Scope of Work

The purpose of the site assessment was to evaluate, from visual observations and a literature and information survey, the potential for contamination of soil or groundwater at or near the project site. The literature and information survey was conducted in accordance with Taco Bell Guidelines.

As part of the general site reconnaissance, observations were made regarding the presence of any hazardous substances or materials on the site and to evaluate whether any of these substances had produced site contamination. Based upon these observations and findings, recommendations would be made for additional investigation, if conditions so warranted.

The site assessment included visual observations of existing surface conditions, visual observation of adjacent property and the immediate vicinity within a quarter mile radius of the subject site, and a literature and information survey.

The literature and information survey included data available from the following agencies and organizations:

- **City of Hayward**
  Building Department
  Engineering Department
  Fire Department
  Planning Department
  Public Library
  Public Works

- **County of Alameda**
  Assessor's Office
  Environmental Health Department (EHD)
  Public Works Agency

- **State of California**
  Cal-EPA Department of Toxic Substances Control (DTSC)
  California State University Hayward Library
  Department of Conservation, Division of Oil and Gas (DOG)
  Department of Water Resources (DWR)
  Integrated Waste Management Board
  Regional Water Quality Control Board (RWQCB)

- **United States Government**
  Environmental Protection Agency (EPA)
  Geological Survey (USGS)

- **Other**
  Bay Area Air Quality Management District (AQMD)
  Munger Map Book, California - Alaska Oil and Gas Fields
  Pacific Gas & Electric (PG&E) Company

1.3 Site Description

The site is "L" shaped and encompasses 12,643 square feet. It is located approximately 110 feet north of the northeast corner of Hesperian Boulevard and West Winton Avenue in Hayward, California. The site is identified by Alameda County Assessor Parcel Number (APN) 432-60-107-3.

According to a projection of survey lines on the U.S. Geological Survey 7.5 minute Hayward, California topographic quadrangle map, photorevised 1980, the property occupies a portion of the northern half of Section 20, Township 3 South, Range 2 West, Mount Diablo Baseline and Meridian. Please see the Vicinity Map following Page 3.

1.4 Background

The subject site is currently occupied by a commercial structure and an asphaltic concrete parking lot. Two restaurants and a dry cleaning shop are located at the subject property. One of the restaurant suites was formerly operated as a dry cleaning shop. It is not known if dry cleaning activities, including the use of perchloroethylene (PCE) have impacted the subject site.

1.5 Site History

A review of City of Hayward Building Department records, Haines Criss-Cross and Polk Guide Directories, City of Hayward and East Bay Telephone Directories, and interviews with current occupants of the subject site were used to help construct a history of the subject site.

1.5.1 City of Hayward Building Department Records

A review of records on file for the subject site was conducted at the City of Hayward Building Department (CHBD) on September 20, 1994. Following is a summary of CHBD records on file for the subject property.

Address	Date	Item	Occupant/Owner
991 West Winton Avenue	11-15-60	Building Permit-Construct commercial building for dry cleaning shop	Johnnie White Co.
	11-18-60	Inspection card-construction of commercial building for dry cleaning shop	Johnnie White Co.
	11-28-60	Connect lateral line serving dry cleaning plant to existing sewer line in easement	Johnnie White Co.
	11-18-61	Site plans and elevations - Dry cleaning agency	Johnnie White Co.
	02-22-82	Site plans - restaurant	
	03-16-82	Mechanical Permit - Remodel for restaurant	Canton House Restaurant
	03-31-82	Inspection card-remodel for restaurant	Sai Cheung Leung
	04-05-82	Plumbing Permit - remodel	Canton Chinese Restaurant
	08-19-93	Application for demolition permit	Canton Chinese Restaurant James F. Crafts

Address	Date	Item	Occupant/Owner
23956 Hesperian Boulevard	01-04-60	Site Plan - Restaurant and Laundrama	
	10-25-60	Site Plan - Commercial building with restaurant and cleaners	
	12-21-60	Building Permit - Construct restaurant and Laundromat building	Johnnie White Co.
	01-04-61	Inspection card-construction of restaurant and laundromat building	Johnnie White Co.
	01-30-61	Connect two stores to existing main sewer	Johnnie White Co.
	03-17-61	Roof sign permit	Howard's Restaurant
	06-21-66	Range Hood installation	Howard's Drive In
	01-02-72	Roof sign	Howard Chu
	11-08-72	Sign permit	Howard's Burgers
	01-17-74	Fire Extinguisher System	Howard's Drive Thru
	08-19-93	Application for demolition permit	James F. Crafts
23958 Hesperian Boulevard	01-04-60	Site Plan - Restaurant and Laundrama	
	10-25-60	Site Plan - Commercial Building with restaurant and cleaners	
	12-21-60	Building permit - construct restaurant and laundromat building	Johnnie White Co.
	01-04-61	Inspection card-construction of restaurant and laundromat building	Johnnie White Co.
	01-30-61	Connect two stores to existing sewer main	Johnnie White Co.
	02-14-61	Roof sign	Washing Well
	02-13-64	Building Permit-alter and remodel existing cleaning village shop	Norge Sales Corp.
	05-27-71	Roof sign	Washing Well
	08-26-71	Sign - on pole	Norge Village Laundromat
	08-19-93	Application for demolition permit	James F. Crafts

Review of CHBD records indicate that the existing commercial building at the subject site was constructed in 1960 - 1961, and intended for occupancy by a restaurant, laundromat, and/or dry cleaners. No obvious references to underground storage tanks were noted on the site plans to have been associated with the laundromat or the dry cleaning store. The site plans did not indicate the locations of floor drains and other plumbing features. The subject site is reported to have been connected to the municipal sewer system since at least 1960. No references to septic tanks, dry wells, or leach fields were noted within CHBD records. The dry cleaning store at 991 West Winton Avenue was reported to have been remodeled and converted into a Chinese food restaurant in 1982.

CHBD records indicate that the 23956 Hesperian Boulevard address was occupied by Howard's Drive-In Restaurant since 1961. No obvious references to grease traps were noted within CHBD records for this address.

CHBD records indicate that the 23958 Hesperian Boulevard address has been occupied by a laundromat/cleaning village shop since 1961. However, the CHBD records do not specify how long dry cleaning activities have been conducted at this address.

Copies of CHBD records have been included within Appendix A.

1.5.2 Haines Criss-Cross, Polk, and Telephone Directories

A review of Haines East Bay Area Criss-Cross Directories dated 1980 to 1994, City of Hayward Polk Directories dated 1931 to 1976, and Southern Alameda County Telephone Directories dated 1959 to 1978 was conducted at the City of Hayward Public Library on September 20, 1994. No Polk, Haines, or telephone directories dated 1979 were available for review. Following is a summary of listings associated with the subject site within the Haines, Polk, and Telephone directories.

Address	Occupant	Date
991 West Winton Avenue	Not listed	1931 - 1960
	Payless Cleaners	1961 - 1980
	vacant	1981 - 1982
	Canton Chinese Restaurant	1983 - 1994
23956 Hesperian Boulevard	Not listed	1931 - 1952
	Residence	1953 - 1958
	Not listed	1959 - 1960
	Howard's Drive-In Restaurant	1961 - 1994
23958 Hesperian Boulevard	Not listed	1931 - 1960
	Washing Well (Self-Service laundry)	1961 - 1971
	Gene's Norge Cleaners (Self-Service laundry, dry cleaners)	1972 - 1988
	Jack's Norge Cleaners	1989 - 1994

Review of the historic Polk, Haines, and Telephone directories indicates that the 991 West Winton Avenue address was occupied by Payless Cleaners from 1961 until 1980, was vacant from 1981 until 1983, and was occupied by Canton House Restaurant from 1983 until the present. It is anticipated that Payless Cleaners corresponds to the dry cleaning agency noted with CHBD records. The 23958 Hesperian Avenue address was reported to have been occupied by a self-service laundry from 1961 until 1994. In addition, dry cleaning activities were reported to have been conducted at this site since at least 1972. Although Polk Directories indicate that a residence was located at 23956 Hesperian Boulevard from at least 1953 until 1958, no obvious visual evidence or records of this residence were noted on a 1958 historical aerial photograph or within City of Hayward Building Department records. It is anticipated that this listing represents a residence located off of the subject property.

1.5.3 Owner Occupant Questionnaires

Taco Bell Owner/Occupant Environmental Questionnaires were completed based upon personal interviews conducted with Mr. Jack Hom, owner of Jack's Norge Cleaners at 23958 Hesperian Boulevard, and Mr. Howard Chu, owner of Howards Drive In Restaurant at 23956 Hesperian Boulevard.

Mr. Hom indicated that he has owned Jack's Norge Cleaners since 1989. However, this address had been operated as a dry cleaning shop for many years prior to 1989. Mr. Hom indicated that perchloroethylene

(PCE or perc), as well as several spot removal solutions are handled at the site. The PCE is stored within a steel reservoir tank at the base of the dry cleaning machine and within a 55-gallon drum. No secondary containment is provided. Fresh PCE solution is supplied by Safety Kleen by means of a supply truck, which utilizes a flexible hose to pump PCE into the dry cleaning machine reservoir tank.

Jack's Norge Cleaners generates spent PCE solution and filters, which are removed from the site for disposal/recycling by Safety Kleen. No underground storage tanks were reported to be associated with this facility. Mr. Hom reported that no previous environmental investigations have been performed for the subject property. However, a groundwater monitoring well, associated with investigations conducted at the adjacent Exxon Service Station, is located in the southwest portion of the subject site.

Mr. Chu indicated that he has operated Howard's Drive In Restaurant at this site since approximately 1961. No hazardous materials handling, use, releases, or hazardous waste generation is reported to have been associated with Howard's Drive-In Restaurant. No underground storage tanks or hazardous materials were reported by Mr. Chu to have been associated with the subject property.

Copies of the Owner/Occupant Environmental Questionnaires have been included within Appendix B.

1.6 Previous Environmental Investigations

As of the date of this report, Krazan and Associates, Inc. is not aware of any previous environmental investigations having been conducted for the subject site.

1.7 Local Physiographic and Hydrogeologic Conditions

1.7.1 Geologic Setting

The subject site is located in the San Francisco Bay Region of the Coast Range Geologic Province. The Coast Range Geologic Province borders the coast of California and generally consists of northwesterly/southeasterly trending ridges if granitic, metavolcanic and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges.

San Francisco Bay is a broad shallow depression within the Coast Ranges that has been subsequently filled with sedimentary deposits. In the vicinity of the subject site, these deposits consist of unconsolidated sediments comprised of gravel, sand, silt, clay and peat that underlie broad valleys and flatlands. They vary in thickness from a few feet to about 600 feet east and west of San Francisco Bay. Three major faults are located near the site--the Hayward Fault Zone, the San Andreas Fault Zone, and the Calaveras Fault Zone. The San Andreas Fault is located approximately 16 miles west of the site and was the source of the 1906 San Francisco Earthquake. The Calaveras Fault is located approximately 11 miles east of the site and is also

considered capable of producing large earthquakes. The Hayward Fault Zone is located approximately 4 miles east of the site. The last recorded movement of the Hayward fault was in 1868.

1.7.2 Groundwater Conditions

A review of site characterization and quarterly groundwater monitoring reports for nearby sites, including reports for an adjacent Exxon Station, was conducted in order to determine groundwater conditions in the area of the subject property. One of the monitoring wells (MW-3H) associated with investigations of the adjacent Exxon Station is located in the southwest portion of the subject site. Groundwater in the immediate vicinity of the subject property is reported to occur at depths of approximately 18 to 30 feet below surface grade. Depth to groundwater within MW-3H is reported to have ranged from 18.77 feet to 22.62 feet below surface grade during sounding events conducted between November 1990 and June 1994. The lateral component of groundwater flow is reported to be toward the west at the adjacent Exxon Station, with a gradient of 0.003 feet per feet.

According to Mr. Andreas Godfrey of the County of Alameda Public Works Agency, the regional direction of groundwater flow in the Hayward area is toward the west, toward San Francisco Bay.

1.7.3 Groundwater Wells

On September 26, 1994, Mr. Andreas Godfrey of the County of Alameda Public Works Agency (CAPWA) was contacted. The CAPWA is the local agency responsible for the collection of well drilling form submittals. According to Mr. Godfrey, a water well drillers report has been submitted for a monitoring well identified as "MW-3H" located in the southwest portion of the subject site. The well was reported to have been drilled for Texaco Refining and Marketing, Inc. in July 1990, and was associated with subsurface investigations conducted at the Exxon Station/former Texaco Station located adjacent south of the subject site. A discussion of subsurface investigations conducted for the adjacent Exxon Station/former Texaco Station is included in Section 3.1.5 of this report. A copy of the well drillers report for MW-3H is included within Appendix C.

1.7.4 Groundwater Quality

The Well Investigation Program, Volatile Organic Chemicals in Public Water Supply Wells List, is published by the California State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Board (RWQCB). This list, last published in August of 1991, was reviewed to determine if water wells containing elevated concentrations of organic chemical constituents are located on or within a half mile radius of the subject site.

Review of the above contaminated well list reveals that there are no "listed" polluted wells located on or within a half mile radius of the subject site. Mr. Joe Lucia of the City of Hayward Public Works Department was contacted on September 28, 1994. According to Mr. Lucia, drinking water is supplied to the

City of Hayward by the Hetch Hetchy Reservoir. Although the City of Hayward does possess groundwater supply wells, Mr. Lucia indicated that these wells are for emergency supply only, and have not been utilized for drinking water supply for at least eight to ten years.

Mr. Lucia indicated that, to the best of his knowledge, no groundwater impairments or regional groundwater contamination plumes are present in the area of the subject property.

2.0 SITE OBSERVATION

A site reconnaissance, which included a visual inspection of the subject site, was conducted on October 19, 1994. As part of the site reconnaissance, observations were made regarding the presence of any hazardous items or materials which may require special handling or disposal and to evaluate whether such items or materials had produced site contamination.

2.1 Site Inspection

At the time of our site reconnaissance, on October 19, 1994, the subject site was occupied by a single story wood framed commercial building, an associated asphaltic concrete parking lot, and a narrow landscaped area. The commercial building was occupied by Canton House Chinese Restaurant (991 West Winton Avenue), Jack's Norge Cleaners (23958 Hesperian Boulevard), and Howard's Drive-In restaurant (23956 Hesperian Boulevard).

Canton House Chinese Restaurant consisted of a customer dining area, food storage area, restroom, and a kitchen area. Interior construction consisted of a sheet rock ceiling, sheet rock and wood panelled walls, and a tile floor. Several small quantity containers of cleaning solution were noted underneath a sink and a food preparation table within the kitchen. No obvious evidence of spills or leaks were noted on these containers or on the underlying floor. No grease traps were noted within the kitchen area. An interview with the cook/manager present during our site reconnaissance was not conducted due to language difficulties.

Jack's Norge Cleaners consisted of a front customer lobby and clothes check-in counter, a dry cleaning machinery area, touch-up counter, former boiler/utility area, clothes racks, pressing area, two restrooms, and a boiler room closet. Interior construction consisted of a wood ceiling, wood and sheet rock interior walls, and a concrete floor, with wall to wall carpeting in the customer lobby. The dry cleaning machines were clustered in the eastern portion of Jack's Norge Cleaners shop and included a dry cleaning machine, two dryer machines, one sniffer machine, a filter rack, one still cooker, and a filter drying machine. According to Mr. Jack Hom, the owner of Jack's Norge Cleaners, perchloroethylene (also known as "perc" or PCE) is utilized

within the dry cleaning machine to launder clothes. The PCE solution is contained within a steel reservoir built into the base of the dry cleaning unit. Mr. Hom indicated that PCE solution is replenished into the dry cleaning machine by a mobile truck which pumps the PCE solution through a flexible hose into the PCE reservoir. The sides of the dry cleaning machine as well as the adjacent concrete floor were stained by what appeared to be leakage from the dry cleaning machine. A flexible vent hose attached to the top of the dry cleaning machine was connected to a sheet metal exhaust duct. The still cooker is utilized to recover PCE solution for reuse. Spent PCE solution recovered by the still cooker is collected within an open metal pan at the base of the still cooker. According to Mr. Hom, this material is drummed and removed on a periodic basis by the chemical supplier, Safety-Kleen. The filter rack contained three separate filter canisters, which filtrate the PCE solution to remove particulates. The filter dryer is utilized to dry spent filters. Spent filters are also removed on a periodic basis by Safety-Kleen. The sniffer is utilized to filter exhaust from the dry cleaning process to reduce PCE containing emissions. The sniffer included ductwork which extended out of the roof of the dry cleaning shop. Mr. Hom indicated that the sniffer has passed emissions testing conducted by the Bay Area Air Quality Management District (AQMD). The area of the dry cleaning machinery appeared to be cluttered with miscellaneous items such as clothing bins, plastic wrappers, and personal items. The concrete floor in the area of the dry cleaning machine appeared to be well worn, although no obvious cracks were noted. The surface of the concrete floor was stained by numerous small areas of what appeared to be liquids drippage.

A total of five 55-gallon drums were noted in the area of the dry cleaning machines. These drums were reported to contain spent PCE solution (2 drums), waste filters (1 drum), staticol cleaner (1 drum), and one empty drum. The empty drum possessed labels indicating that it had previously contained dry cleaning perc solution. The exteriors of one of the spent PCE-containing drums as well as the empty drum were stained, apparently as a result of spillage. However, the underlying concrete floor was only partially stained by what appeared to be liquids drippage.

An open floor drain was noted on the concrete floor near the dry cleaning machinery. Four hoses were noted to drain into the floor drain. These hoses originated from the sniffer machines, a nearby air compressor, a nearby conventional washing machine, and an inactive boiler. According to Mr. Hom, the floor drain is connected to and drains into the municipal sewer system.

An area occupied by a conventional clothes washer and drying machine, a hot water heater, an inactive hot water heater, a furnace, and an idle machine which appeared to be a compressor was located along the south wall of the dry cleaning shop. However, access into this area was inhibited due to the close confines of the machinery and personal stored items.

Two restrooms and a boiler room/closet were located in the southwest corner of the dry cleaning shop. The boiler room/closet contained a boiler unit (in close confines), which is utilized to produce steam for clothes ironing and pressing activities. Clothes ironing and steaming activities are conducted in a dedicated area located in the northwest corner of the dry cleaning shop. The balance of the dry cleaning shop was occupied by racks of laundered clothing.

Howards' Drive-In Restaurant consisted of a small customer dining area, two restrooms, personal and food storage areas, a food cooking/preparation area (kitchen), and a cleaning area. Interior construction consisted of a wood panelled ceiling, textured sheet rock and painted plywood walls, and a concrete floor. The dining area possessed 9-inch square floor tiles.

An in-line grease trap mounted above the floor was noted underneath a clean-up sink. Mr. Howard Chu, operator/owner of Howards' Drive-In, indicated that the waste grease is accumulated, solidified, and removed from the subject property for recycling/disposal by a grease handling firm. Floor drains were noted within the kitchen area. According to Mr. Chu, the floor drains are connected to and drain into the municipal sewer system.

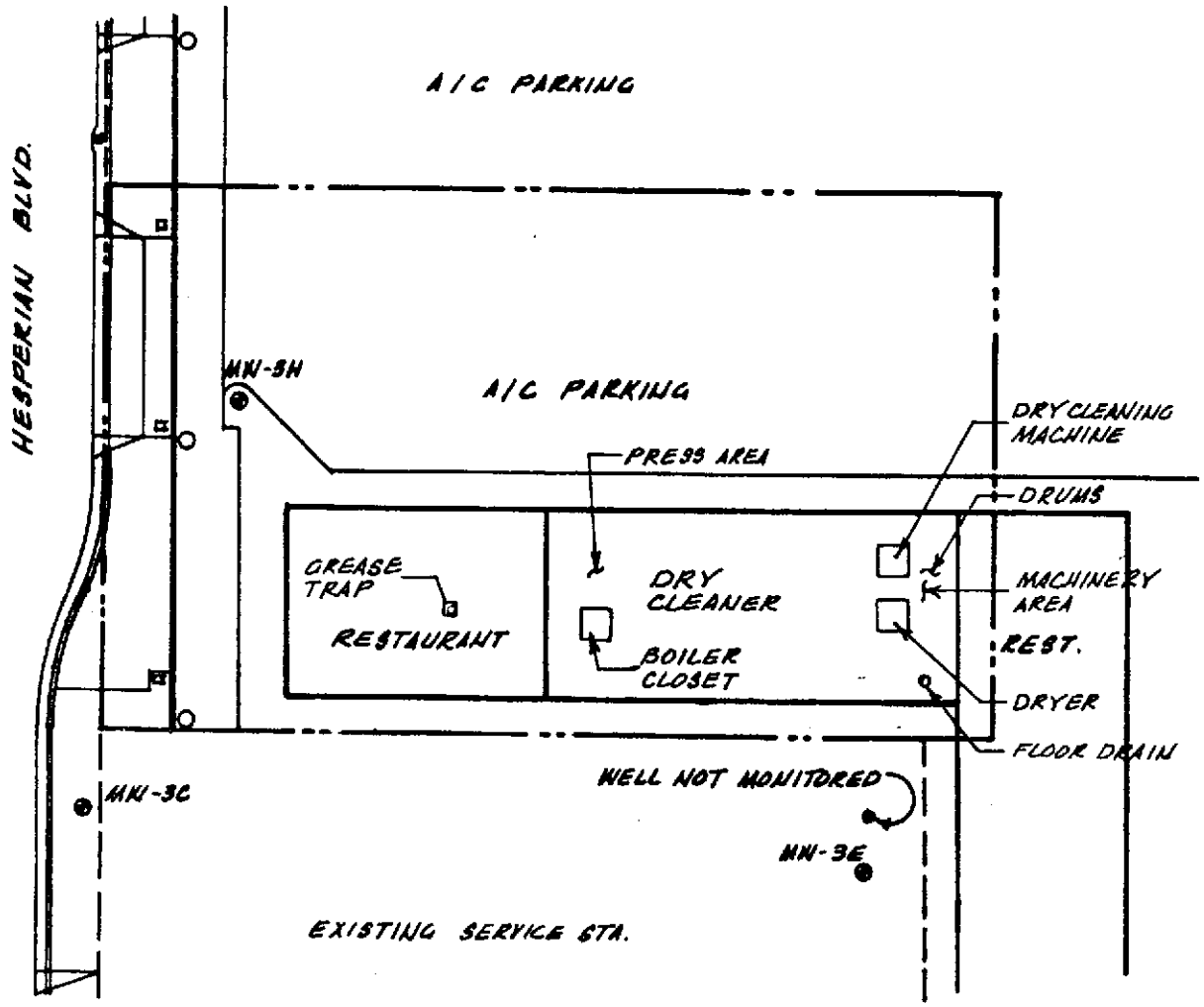
The southern edge of the subject property is occupied by a narrow length of dirt, located between the commercial building and a three foot tall chain link fence (southern property boundary). This area was mostly overgrown with ivy. Utility connections and meters, such as sewer, electrical, and telephone, were noted in this area. In addition, ventilation fans were present on the exterior wall of the dry cleaning shop.

The remainder of the subject site was occupied by a concrete sidewalk, a small landscaped area, and asphaltic concrete parking areas.

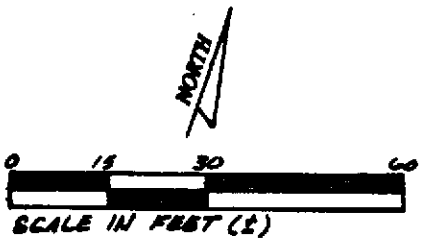
During the physical inspection of the site, exposed surface soils appeared clean and did not exhibit obvious signs of contamination. No obvious evidence (vent pipes, fill pipes, dispensers, etc.) of underground fuel storage tanks was noted within the area observed. No standing water or major depressions were observed on the subject property. No pad-mounted or pole-mounted transformers were observed on the subject site. No high power tower-mounted electrical transmission lines were located on or around the boundaries of the subject site. Please refer to the Site Map for the locations of the items discussed in this section of the report. Color copies of site photographs have been included within Appendix D.

2.2 Aerial Photographic Inspection

Historical aerial photographs dated 1950, 1958, 1963, 1976, 1985, and 1991 were reviewed to help establish site history. These photographs were obtained from the City of Hayward Engineering Department, the U.S. Department of Agriculture Soil Conservation Service, and the Alameda County Public Works Department. Copies of these photographs are included in Appendix E.



SITE MAP



PROPOSED TACO BELL
06-1052
HESPERIAN BLVD & WEST WINTON WAY
HAYWARD, CA.

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W.	Approved by: D.M.
Project No. 34-94-297	Figure No.

Krazan
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SACRAMENTO • TURLOCK • FRESNO • BAKERSFIELD

1950
1" = 1,750'

In the 1950 aerial photograph, the subject site occupies a portion of an orchard which extends to the north, south, and east of the subject site. No structures are noted on the subject property. Surrounding properties to the north, east, and south are primarily agricultural in nature and are occupied by what appear to be orchards, pasture land, vacant land, and rural residences. Vacant land and runways associated with the Hayward Air Terminal are located to the west of the subject site, beyond Hesperian Boulevard. The nearest structure at the Hayward Air Terminal is located at least 2,000 feet northwest of the subject site.

1958
1" = 660'

The 1958 aerial photograph shows the subject site to be occupied by what appears to be vacant land. A structure which appears to be a service station is located south of the subject site. A structure which appears to be commercial in nature is located approximately 250 feet north of the subject site. Surrounding properties to the east and further north of the subject site are occupied by residential areas. Structures associated with the Hayward Air Terminal are located at least 1,500 feet northwest of the subject site.

1963
1" = 100'

The 1963 aerial photograph shows a majority of the southern portion of the subject site to be occupied by a commercial building. The commercial building is "L" shaped, and extends off of the subject property to the southeast. This structure appears to correspond to the commercial structure noted on and adjacent to the subject site during our site reconnaissance. The northern portion of the subject site is occupied by a parking lot and sidewalk area. A service station with two separate fueling islands is located immediately south of the subject property. Additional commercial structures are located approximately 80 feet northeast and 120 feet northwest of the subject site. Vacant land and runway extensions associated with the Hayward Air Terminal are located at least 100 feet west of the subject property. However, structures associated with the Hayward Air Terminal are located at least 1,500 feet east or northeast of the subject site. The remaining properties within the immediate vicinity of the subject site are either residential or commercial in nature.

1976
1" = 100'

The 1976 aerial photograph shows conditions on the subject site as well as a majority of the surrounding properties to have remained relatively similar to those noted within the 1963 aerial photograph.

1985
1" = 100'

The 1985 aerial photograph shows conditions on the subject site as well as a majority of the surrounding properties to have remained relatively similar to those noted within the 1976 aerial photograph. A feature which appears to be an excavation is located in the southwest corner of the adjacent south gasoline station. It is anticipated that this excavation represents either the installation or removal of underground storage tanks associated with the service station.

1991
1" = 100'

The 1991 aerial photograph shows conditions on the subject site as well as a majority of the surrounding properties to have remained relatively similar to those noted within the 1985 aerial photograph. An additional commercial structure has been constructed approximately 250 feet south of the subject property. Conditions on the subject site and surrounding properties appear to be relatively similar those noted during our site reconnaissance and immediate vicinity survey.

2.2.1 Agricultural Chemicals

Review of historical aerial photographs reveals that the subject site has not been used for agricultural purposes since at least 1939. Based upon the length of time since the subject site has been used for agricultural purposes it is not anticipated that elevated levels of environmentally persistent pesticides would be found in the near surface soils of the subject site. Krazan & Associates, Inc. sampling and analysis of surface soils from properties with similar non-agricultural histories has yielded non-detectable results for analysis of environmentally persistent pesticides.

2.3 Surrounding Facilities

A windshield survey of the adjacent properties and businesses located within a quarter mile radius of the subject site was conducted on September 20, 1994 to evaluate whether any of these businesses or properties showed obvious evidence of hazardous materials handling or storage. Local regulatory agencies were then consulted for information regarding the immediate vicinity sites.

The immediate vicinity survey revealed the area to be occupied predominately by residential areas and commercial properties. The subject site is bound to the north by a parking lot associated with the subject site as well as a restaurant and other commercial stores located to the north and northeast of the subject site. The subject site is bound to the east by a parking lot, beyond which are vacant retail buildings. The subject site is bound to the south by an Exxon Service Station at 23990 Hesperian Boulevard and the remainder of a commercial building. The commercial building is occupied by vacant suites and a bar. The subject site is bound to the west by Hesperian Boulevard, beyond which is vacant land and a runway extension associated within the Hayward Air Terminal.

3.0 REVIEW OF RECORDS

A review of local regulatory agency records was conducted to help determine if hazardous materials have been handled, stored, or generated on the subject site.

3.1 Environmental Database Search

Several agencies have published documents that list businesses or properties which have handled hazardous materials or waste or may have experienced site contamination. The search for a majority of the lists was completed by Vista Environmental Information, Inc. (Vista) of San Diego, California. The remaining lists, researched by Krazan & Associates, Inc., have been designated as such. The lists consulted in the course

of our investigation are presented below. Please refer to Appendix F for a copy of the Vista Site Assessment Report.

3.1.1 United States Environmental Protection Agency (U.S. EPA), Comprehensive Environmental Response, Compensation, and Liability Information System List-8 (CERCLIS), including the National Priority List (NPL): The CERCLIS List notes sites that are subject to investigation for discharging hazardous materials into the environment. The CERCLIS List, dated January 1994, was reviewed by Vista to determine if listed facilities are located on or within a half mile radius of the subject site. The subject site, adjacent sites, or sites within a half mile radius do not appear on the above list.

The NPL, dated January, 1994, was reviewed by Vista to determine if listed facilities are located on or within a mile radius of the subject site. The subject site, adjacent sites, or sites within a mile radius do not appear on the NPL.

3.1.2 U.S. EPA, California Liens List: This is a list of properties for which liens have been filed pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The California Liens List dated July 7, 1992 was reviewed by Krazan & Associates, Inc. to determine if listed sites with a lien are located on or within a mile radius of the subject site. The subject site, adjacent sites, or sites within a mile radius do not appear on the above list.

3.1.3 California Environmental Protection Agency (Cal-EPA), Expenditure Plan for Hazardous Substance Cleanup Bond Act of 1984, January 1989 Revision, January 10, 1990, and May 23, 1991 Update and the Annual Workplan (AWP) List dated November, 1993: This list locates and describes contaminated sites within California which are targeted for expenditure of state funds, either for total cleanup costs or for state oversight. The Bond and AWP were reviewed by Vista to determine if listed contaminated sites are located on or within a mile radius of the subject site. The subject site, adjacent sites, or sites within a mile radius do not appear on the above list.

3.1.4 Cal-EPA, Recorded Deed Restriction List (RDR): Environmental Science and Support Unit of the Department of Toxic Substances Control, Cal-EPA has compiled a list of properties for which land use restrictions have been recorded. The RDR List, dated April 1, 1994, was reviewed by Krazan & Associates, Inc. to determine if listed sites with a deed restriction are located on or within a mile radius of the subject site. The subject site, adjacent sites, or sites within a mile radius do not appear on the above list.

3.1.5 The Regional Water Quality Control Board (RWQCB), Leaking Underground Storage Tank (LUST) Listing: The LUST Listing is published quarterly and identifies leaking underground storage tank sites in the RWQCB's jurisdictional area. The LUST listing, dated December, 1993, was reviewed by Vista to determine if listed leaking underground storage tank sites are located on or within a half mile radius of the subject site. The subject site does not appear on the above list. Six sites located within a

half mile radius of the subject site appear on the LUST Listing. Following is a discussion of these sites, along with their addresses and distances from the subject site.

former Texaco (Exxon Station #7-0218) adjacent south
23990 Hesperian Boulevard

CHFD records indicate that this site possesses one 8,000-gallon, one 10,000-gallon, and one 12,000-gallon underground gasoline storage tanks, one 10,000-gallon underground diesel storage tank, and one 550-gallon underground waste oil storage tank. These underground storage tanks are reported to be double-walled and equipped with tank and pipeline leak detections systems. The leak detection systems associated with the underground storage tanks at this site passed systems testing conducted in March 1992 and December 1993.

According to CHFD records, soils impacted by gasoline constituents were discovered during the 1985 removal of one 2,000-gallon, one 6,000-gallon, and two 4,000-gallon underground gasoline storage tanks. Gasoline constituents have impacted underlying groundwater, and have migrated at least 120 feet west-northwest of this site. A total of three observations wells and eight groundwater monitoring wells have been installed at this site and on adjacent properties, including one monitoring well located in the southwest portion of the subject site. A soil and groundwater treatment system, three soil vapor extraction wells, a vapor/liquid separator, and a thermal vapor treatment unit were installed at this site in January 1994. The treatment components of this system are located in the northeast corner of the Exxon site, adjacent to the southeast corner of the subject site.

Analysis of quarterly groundwater samples obtained from monitoring well MW-3H, located in the southwest portion of the subject site, revealed concentrations of Total Petroleum Hydrocarbons (TPH) as Gasoline ranging from 500 parts per billion (ppb) to 110 ppm during the period from May 1992 until March 1994. However, no detectable concentrations of TPH-gasoline, benzene, toluene, ethylbenzene, and xylenes (BTEX) were noted within groundwater samples obtained from MW-3H during the most recent quarterly groundwater sampling episode, conducted in June 1994.

According to the December 1993 Quarterly Groundwater Monitoring Report on file with the CHFD, concentrations of volatile organics have also been detected within groundwater samples obtained from September 1992 until June 1993 within three of the six monitoring wells associated with the Exxon site. The volatile organic compounds detected include tetrachloroethylene (non-detected (ND) to 560 ppb), trans-dichloroethylene (ND to 29 ppb), trichloroethylene (ND to 120 ppb), vinyl chloride (ND to 230 ppb) and cis-1,2 dichloroethylene (ND to 140 ppb). The concentrations noted exceed EPA Maximum Contaminant Levels (MCL) for tetrachloroethylene (5 ppb), trans-dichloroethylene (10 ppb), trichloroethylene (5 ppb) vinyl chloride (2 ppb), and cis-1,2 dichloroethylene (70 ppb). The highest concentrations of these compounds were detected within MW-3H, located adjacent to the Exxon Station, in the southwest portion of the subject site. According to Mr. Hugh Murphy of the CHFD, the source of these volatile organics has not been confirmed. Subsequent quarterly groundwater monitoring events have not analyzed groundwater samples for the above-mentioned volatile organic compounds.

CHFD records also indicate that a service bay drain at the Exxon site was abandoned in February 1991. The drain was reported to have been concrete lined, and did not possess any effluent piping. Analysis of soil samples obtained from underneath the bay drain revealed only minor concentrations of metals, TPH as Diesel, acetone, dichloromethane, and no detectable concentrations of TPH as Gasoline. The CHFD subsequently determined that no further investigation or remediation was necessary at the area of the service bay drain.

Groundwater underlying the subject site has been impacted by gasoline constituents originating from the Exxon Station #7-0218. However, a soil and groundwater treatment system is in operation at this site. On January 27, 1993, Texaco notified Exxon that the service station was being effected by groundwater contamination of an off-site source. Texaco indicated that Exxon had a responsibility to assist in its investigation to confirm that the source is indeed from off-site, and that the responsibility for its cleanup was neither Texaco's or Exxon's. On January 13, 1994, Texaco notified the City of Hayward Fire Department that a remediation plan for the removal of gasoline constituents would soon be under construction and relayed the importance of Exxon resolving the tetrachloroethane (PCE), trichloroethane (TCE), cis, 1, 2, - dichloroethene, and vinyl chloride in groundwater issue. Texaco and Exxon are currently negotiating financial responsibility for continued investigation and remediation of gasoline impacted soils and groundwater at this site. However, neither party has been assigned responsibility for the volatile organic compounds noted within groundwater samples. Based upon the results of groundwater samples obtained from the monitoring well on the subject site, it appears that groundwater below the subject site has been impacted as a result of the Exxon Station.

Farrer Property/Express Lube — 200 feet south
(former Beacon Station)
944 West Winton Avenue

According to CHFD records, this site currently possesses one 6,000-gallon underground storage tank which is divided into three separate compartments with respective capacities of 3,000-gallons, 2,000-gallons, and 1,000-gallons. The 2,000-gallon and 3,000-gallon compartments are reported to be empty and not in use. The 1,000-gallon compartment is reported to contain waste oil. This underground storage tank is reported to be double-walled and equipped with a leak detection system. The leak detection system associated with the underground storage tank is reported to have passed system testing conducted in October 1991 and October 1993.

CHFD records indicate that one 250-gallon underground waste oil storage tank and three 10,000-gallon underground gasoline storage tanks were removed from this site in May 1987. These underground storage tanks were associated with a Beacon gasoline station which had formerly occupied this site. Analysis of soil samples obtained from underneath the former underground storage tank locations revealed no detectable concentrations of Total Recoverable Petroleum Hydrocarbons in the area of the waste oil tank and only minor concentrations of Total Petroleum Hydrocarbons (TPH) as Gasoline in the area of the fuel tanks. Analysis of soil samples obtained during excavation and foundation construction at this site in 1989 revealed no detectable concentrations of TPH as gasoline or BTEX.

Analysis of a groundwater sample obtained from a monitoring well at this site in June 1987 revealed non-detectable to only trace concentrations of TPH as gasoline or BTEX. CHFD correspondence indicates that no further investigation was required as of June 1988. However, the CHFD has requested that this monitoring well be maintained for possible future reference. Due to its close proximity, Express Lube has a potential to impact the subject site if a hazardous materials release occurs. In the event of a release, if contamination attributable to this site does migrate beneath the subject site, the expense and/or liability associated with the investigation and remediation would typically fall upon the responsible party (i.e., Express Lube).

Southland Chevron #9-5416 1,200 feet south
24350 Hesperian Boulevard

According to CHFD records, this site possesses three 15,000-gallon underground gasoline storage tanks which were installed in March 1994. The underground gasoline storage tanks are reported to be double-walled and equipped with tank and pipeline leak detection systems.

CHFD records indicate that soils impacted by gasoline and waste oil constituents were discovered at this site during the December 1992 removal of one 5,000-gallon, one 6,000-gallon, and one 10,000-gallon underground gasoline storage tanks, and one 500-gallon underground waste oil storage tank. Excavation of gasoline and waste oil impacted soils was conducted in December 1992. Analysis of confirmation samples obtained from the sidewalls and bottom of the excavations at this site revealed significant concentrations of gasoline and waste oil constituents remaining in underlying soils. Subsurface investigations at this site, consisting of the advancement of nine soil borings and eight groundwater monitoring wells, reveals that gasoline impacted groundwater has migrated off-site to the west and southwest of this site. The extent of gasoline impacted groundwater has not been defined to the southwest of this site, side to down-gradient of the subject site. Current activity at this site includes a request by the CHFD for additional investigation to determine the full extent of groundwater contamination and quarterly groundwater monitoring. This site is not anticipated to pose an adverse impact to the subject site due to its distance from the subject site and its location hydraulically side-gradient of the subject site.

Equity Property and Development Company 1,700 feet south
24688 Hesperian Boulevard

According to City of Hayward Fire Department (CHFD) records, one 5,000-gallon and one 7,500-gallon underground gasoline storage tanks, as well as one 280-gallon underground waste oil underground storage (UGST) were removed from this former service station site in 1978, prior to the implementation of underground storage tank regulations. No soil samples were reported to have been obtained at the time of the underground storage tank removals. Subsurface investigations conducted in December 1988 and April 1989 discovered the presence of gasoline impacted soils. The gasoline impacted soils were subsequently excavated and removed from this site for disposal in 1990. Confirmation soil samples obtained from the sides and bottom of the excavation revealed trace to no detectable concentrations of gasoline constituents. Quarterly groundwater monitoring at this site between October 1990 and July 1991 revealed no detectable concentrations of gasoline constituents. However, trace concentrations of dichloroethylene, trichloroethane, and dichloroflouromethane were detected within the up-gradient monitoring well at this site. The source of these contaminants is not known.

The CHFD has issued a letter dated December 4, 1992, allowing the development of this site for a restaurant, providing that a health and safety plan be developed. This site is not anticipated to pose an adverse impact to the subject site due to its distance from the subject site and its location hydraulically side-gradient of the subject site.

City of Hayward Fire Station #6 1,900 feet west
1401 Winton Avenue

According to CHFD records, a 1,000-gallon underground diesel storage tank at this site failed a precision test event in February 1989. According to CHFD notes, the diesel UGST, as well as the associated piping were to be exposed, repaired if necessary, and retested. However, the CHFD file did not contain any additional information regarding the

repair or retesting of this underground diesel storage tank. According to Mr. Hugh Murphy of the CHFD, a small quantity of diesel impacted soil was removed from the underground diesel storage tank overspill box, and the overspill box was replaced. However, Mr. Murphy did not know of any subsequent investigations or soil sampling events to confirm the adequacy of the soil removal. This site is not anticipated to pose an adverse impact to the subject site due to its distance from the subject site and its location hydraulically side-gradient of the subject site.

Citgo/Sears — 2,000 feet east
660 West Winton Avenue

CHFD records indicate that soils and groundwater impacted by gasoline and oil constituents were discovered at this site in 1985 during the installation of two groundwater monitoring wells. The monitoring wells were installed in order to comply with leak detection requirements. Five 5,000-gallon and one 2,000-gallon underground motor oil storage tanks, one 1,000-gallon waste oil storage tank, and three 10,000-gallon underground gasoline storage tanks were removed from this site between March 1985 and March 1992. Subsequent subsurface investigations conducted between 1986 and 1994 included the installation of twelve groundwater monitoring wells. Analysis of groundwater samples obtained from these monitoring wells revealed that gasoline and oil impacted groundwater extended approximately 100 feet west-southwest of this site. According to CHFD files, Sears is in the process of developing soil and groundwater remediation plans. This site is not anticipated to pose an adverse impact to the subject site due to its distance from the subject site.

3.1.6 Cal-EPA, Hazardous Waste and Substances Site (HWSS) List: This list identifies various hazardous waste and substance properties within the State of California. This list, dated July 1992, was reviewed by Krazan & Associates, Inc. to determine if listed sites are located on or within a half mile radius of the subject site. The subject site does not appear on the above list. Six sites located within a half mile radius of the subject site appear on the HWSS List. Following is a listing of these six HWSS sites.

former Texaco (Exxon Station) — adjacent south
23990 Hesperian Boulevard

This site has been previously discussed in Section 3.1.5 of this report.

Farrer Property — 200 feet south
944 West Winton

This site has been previously discussed in Section 3.1.5 of this report.

Southland Chevron #9-5416 — 1,200 feet south
24350 Hesperian Boulevard

This site has been previously discussed in Section 3.1.5 of this report.

Equity Property and Development Company — 1,700 feet south
24688 Hesperian Boulevard

This site has been previously discussed in Section 3.1.5 of this report.

City of Hayward Fire Station #6 — 1,900 feet west
1401 West Winton Avenue
This site has been previously discussed in Section 3.1.5 of this report.

Citgo/Sears — 2,000 feet east
660 West Winton Avenue
This site has been previously discussed in Section 3.1.5 of this report.

3.1.7 The Munger Map Book, 1992, California - Alaska Oil and Gas Fields: The Munger Map Book shows the location of producing oil and gas wells as well as the location of plugged and abandoned dry holes. Review of the Munger Map W-21 by Krazan & Associates, Inc. indicates that there are no producing oil and gas wells or plugged and abandoned dry holes located on or within a half mile radius of the subject site.

3.1.8 State Water Resources Control Board (SWRCB), Solid Waste Assessment Test (SWAT) Program, 1987 through 1991, and California Integrated Waste Management Board, Solid Waste Information System (SWIS) Active Landfills, Inactive Landfills, Transfer Stations, and Proposed Facilities, March 1, 1993: The above lists concerning active and inactive landfills were reviewed by Vista to determine if any listed landfills are located on or within a half mile radius of the subject site. Review of the above lists reveal that there are no "listed" landfills located on or within a half mile radius of the subject site.

3.1.9 Cal-EPA, CalSites List (formerly Abandoned Sites Program Information System, ASPIS): This list identifies facilities that have been researched by the Toxic Substances Control Program of the Cal-EPA. The CalSites list, dated June 7, 1994, was reviewed by Vista to determine if listed CalSites are located on or within a one mile radius of the subject site.

3.1.10 U.S. EPA, Resource Conservation and Recovery Information System Source (RCRIS) List: This database dated March 11, 1994 contains selective information on facilities that have notified EPA as hazardous waste generators, transporters, or treatment, storage or disposal (TSD) facilities regulated under Resource Conservation and Recovery Act (RCRA). The RCRIS List was reviewed by Vista to determine if listed TSD facilities are located on or within a mile radius of the subject site. Neither the subject site or adjacent sites appear on the RCRIS TSD List. The only site located within a mile radius of the subject site appearing on the RCRIS TSD List is Anchor Glass Container Corporation, located approximately 5,100 feet north of the subject site at 22302 Hathaway Avenue. This site is not anticipated to pose an adverse impact to the subject site due to its distance from the subject site.

The RCRIS List was reviewed by Vista to determine if listed RCRIS generators or transporters are located on or adjacent to the subject site. The subject site, listed as Gene's Norge Cleaners at 23958 Hesperian Boulevard, appears on the RCRIS Generators/Transporters List. Hazardous Waste Generator records for this

site have been previously discussed in Section 7.3.1 of this report. None of the adjacent properties appear on this list as hazardous waste generators.

3.1.11 State Water Resources Control Board (SWRCB) List of Underground Storage Tanks (UST): The database lists all registered underground storage tank sites reported to the State Wide Environmental Evaluation and Planning System (SWEEPS) data management system. The UST site address list dated January 1994, was reviewed to determine if listed UST sites are located on or adjacent to the subject site. The subject site does not appear on the UST List. Exxon Station #7-0218, located adjacent south of the subject site, appears on the UST List. This site has been previously discussed in Section 7.4.1 of this report.

3.1.12 U.S. EPA, Emergency Response Notification System (ERNS) List: This database identifies sites that have experienced a hazardous materials spill or incident as reported to the US EPA Region 9. The ERNS List dated January 1, 1989 through February 17, 1994, was reviewed by Vista to determine if listed ERNS sites/incidents are located on or adjacent to the subject site. The subject site and adjacent sites do not appear on the ERNS List.

3.2 Regulatory Agency Record Review - Subject Property

A review of local regulatory agency records was conducted to help determine if hazardous materials have been handled, stored, or generated on the subject site.

3.2.1 City of Hayward Fire Department

On September 20, 1994, Ms. Laura Travis and Mr. Hugh Murphy of the City of Hayward Fire Department (CHFD) was contacted. According to Ms. Travis and Mr. Murphy, the City of Hayward Fire Department is the lead local agency for the implementation of hazardous materials and underground storage tank regulations and compliance within the City of Hayward. In addition, the CHFD is a local lead agency for the investigation of contaminated sites involving leakage from underground fuel and waste oil storage tanks.

According to a CHFD Hazardous Materials Inspection Report, dated June 29, 1994, Jack's Norge Cleaners at 23958 Hesperian Boulevard possessed one dry cleaning, one drying machine, a carbon absorption unit, one 55-gallon drum of perchloroethylene (PCE), and one 55-gallon drum of "staticol". According to CHFD notes, the dry cleaning machine possessed a capacity of 120 gallons of PCE. No hazardous materials were associated with the drying machine. In addition, the site possesses reportable quantities of spotting chemicals as well as waste filters from the dry cleaning machine. The spotting chemicals were reported to be stored within small quantity containers. The Hazardous Materials Inspection Report stated that the gravity dispensing of PCE into the dry cleaning machine should be ceased, and secondary containment should be provided for the existing 55-gallon drums at this site. A Hazardous Materials Storage Permit was submitted for this site on July 20, 1994 and expires June 30, 1995.

A Hazardous Materials Management Plan (HMMP) for Norge Cleaners at 23958 Hesperian Boulevard, dated July 20, 1994, is also on file with the CHFD. According to the HMMP, this site possesses approximately 100 gallons of PCE stored within an above-ground drum as well as within the dry cleaning machine. In addition, this site possesses reportable quantities of dry cleaning spot chemicals such as staticol (35 gallons), streetan (1 gallon), silk pre-spotter (2 gallons), jinx ink (isopropyl esther, 1 pint), devour (1 quart), picrin (chlorinated hydrocarbon, 5 gallons), and erusticator (hydrochloric acid, ammonium fluorides, ethanol, 1 quart). These materials are reported to be stored either inside the machinery or within safety cans. Monitoring and inspections of these containers is reported to be conducted on a daily basis. According to the HMMP, approximately 24 waste filters containing PCE are generated at this site on an annual basis. These waste filters are reported to be removed from the subject site by Safety-Kleen.

According to Ms. Travis, the CHFD did not have any records concerning additional hazardous materials storage, underground storage tanks, or hazardous materials releases on file for the subject property. Copies of CHFD records have been included within Appendix G of this report.

3.2.2 City of Hayward Building Department

A review of records on file for the subject property with the City of Hayward Building Department (CHBD) was conducted on September 20, 1994. These records have been previously discussed within Section 1.5.1 of this report.

3.2.3 Bay Area Air Quality Management District (AQMD)

On September 26, 1994, Mr. Milton Feldstein of the Bay Area Air Quality Management District (AQMD) was contacted. According to Mr. Feldstein, an air discharge permit is on file with the AQMD for the subject site for Gene's Norge Cleaners at 23958 Hesperian Boulevard. No additional air discharge permits or records are reported to be on file for the subject site. However, AQMD records for the subject property could not be released by the AQMD without the permission of the property owner.

3.2.4 California Environmental Protection Agency - Department of Toxic Substance Control

On September 22, 1994, Ms. Chris Nepomuceno of the California Environmental Protection Agency (Cal-EPA) - Department of Toxic Substance Control (DTSC) was contacted, regarding hazardous material handling, storage, or incidents for the subject site. No records of any hazardous materials handling, storage, or incidents were on file with Cal-EPA for the subject site.

3.2.5 City of Hayward Water Pollution Source Control Office

On November 2, 1994, Ms. Debby Kunisawa of the City of Hayward Water Pollution Source Control Office (WPSCO) was conducted. According to Ms. Kunisawa, no wastewater discharge permits or violations

are on file with the WPSCO for the subject site. In addition, the WPSCO has not conducted any sampling or analysis of wastewater effluent generated by the businesses at the subject site.

3.3 Regulatory Agency Record Review - Immediate Vicinity

A windshield survey of the adjacent properties and businesses located within a quarter mile radius of the subject site was conducted on October 19, 1994 to evaluate whether any of these businesses or properties showed obvious evidence of hazardous materials handling or storage. Local regulatory agencies were then consulted for information regarding the immediate vicinity sites.

3.3.1 City of Hayward Fire Department

On September 20, 1994, Ms. Laura Travis of the City of Hayward Fire Department (CHFD) was contacted regarding any available. Records of hazardous/flammable permits, hazardous materials handling, or hazardous/flammable incidents on file for the properties within a quarter mile radius of the subject site.

Following is a discussion of CHFD records concerning hazardous materials handling, storage, releases and underground storage on file for the properties located within a quarter mile radius of the subject site.

Exxon Station #7-0218 (former Texaco Station) — adjacent south
23990 Hesperian Boulevard

This site has been previously discussed in Section 3.1.5 of this report.

Hayward Air Terminal — 100 ft-1.5 mi northwest

Vacant land and runway extensions associated with the Hayward Air Terminal were noted to be located 100 feet west of the subject site. However, no structures associated with the Hayward Air Terminal were located within a 2,000 foot radius of the subject site. According to Ms. Laura Travis of the CHFD, hazardous materials handling (such as fuels, oils, and solvents related to aircraft maintenance) at the Hayward Air Terminal occurs at areas in the north, northwest, and southwest portions of the subject site, at least one half mile from the subject site. Mrs. Travis indicated that there are no records concerning hazardous materials handling, storage, releases, or underground storage tanks on file with the CHFD for the areas of the Hayward Air Terminal located within a 2,000 foot radius of the subject site. The Hayward Air Terminal is not anticipated to present an adverse impact to the subject site due to the lack of any known hazardous materials handling, releases, or underground storage tanks at areas of the Hayward Air Terminal located within a 2,000 foot radius of the subject site.

Express Lube (former Beacon Station) — 200 feet south
944 West Winton Avenue

This site has been previously discussed in Section 3.1.5 of this report.

Southland Chevron #9-5416 — 1,200 feet south
24350 Hesperian Boulevard

This site has been previously discussed in Section 3.1.5 of this report.

4.0 INTERVIEWS

Personal interviews were conducted with persons knowledgeable of the subject site.

4.1 Personal Interviews

Personal interviews were conducted with Mr. Howard Chu, owner/manager of Howards Drive-In, and Mr. Jack Hom, owner/manager of Jack's Norge Cleaners, during our site reconnaissance. Language barriers prevented the interview with the cook/manager of Canton House Chinese Restaurant.

Mr. Chu indicated that he has operated Howards Drive-In, at 23956 Hesperian Boulevard, since 1961, Mr. Chu indicated that hazardous materials handled at Howards Drive-In have been limited to small quantities of cleansers and sanitizers. No underground storage tanks, hazardous materials releases or spills, or items of environmental concern, were reported by Mr. Chu to have been associated with Howards Drive-In. Mr. Chu indicated that waste grease collected with a below-sink grease trap is removed from the site on a periodic basis by a local grease recycling firm. However, Mr. Chu did not recall the name of this firm.

Mr. Chu indicated that a dry cleaning shop has operated in the middle suite of the subject site building since 1961. This dry cleaning shop was reported to have been operated by several differing parties. In addition, the suite currently occupied by Canton House Chinese Restaurant was previously vacant, and prior to that was occupied by a dry cleaning shop. Mr. Chu was not aware of any hazardous materials spills or releases on or at the subject property.

Mr. Hom indicated that he has operated Jack's Norge Cleaners since 1989. Activities conducted at this shop include dry cleaning of laundry and draperies, minor garment repairs, spot cleaning, and clothes pressing. Materials handled at Jacks' Norge Cleaners were reported by Mr. Hom to include perchloroethylene (Perc, PCE) dry cleaning solution, and small quantities of various spot removal solutions. According to Mr. Hom, Perc solution is provided by Safety-Kleen, which pumps fresh Perc solution from a truck directly into the dry cleaning machine via a flexible hose. Spent Perc solution and filters are collected in 55-gallon drums and are reported to be removed by Safety-Kleen on a periodic basis. Mr. Hom indicated that no hazardous materials spills or releases have occurred at Jack's Norge Cleaners.

5.0 SUMMARY

At the time of our site reconnaissance, the subject site was occupied by a commercial building, an associated asphaltic concrete parking lot, and a narrow landscaped area. The commercial building was

occupied by Canton House Chinese Restaurant (991 West Winton Avenue), Jack's Norge Cleaners (23958 Hesperian Boulevard), and Howard's Drive-In restaurant (23956 Hesperian Boulevard).

Canton House Chinese Restaurant consisted of a customer dining area, food storage area, restroom, and a kitchen area. No grease traps were noted within the kitchen area. An interview with the cook/manager present during our site reconnaissance was not conducted due to language difficulties.

Jack's Norge Cleaners consisted of a front customer lobby and clothes check-in counter, a dry cleaning machinery area, touch-up counter, former boiler/utility area, clothes racks, pressing area, two restrooms, and a boiler room closet. The dry cleaning machines were clustered in the eastern portion of Jack's Norge Cleaners shop and included a dry cleaning machine, two dryer machines, one sniffer machine, a filter rack, one still cooker, and a filter drying machine. According to Mr. Jack Hom, the owner of Jack's Norge Cleaners, perchloroethylene (also known as "perc" or PCE) is utilized within the dry cleaning machine to launder clothes. The PCE solution is contained within a steel reservoir built into the base of the dry cleaning unit. The sides of the dry cleaning machine as well as the adjacent concrete floor were stained by what appeared to be leakage from the dry cleaning machine. Spent PCE solution recovered by the still cooker is collected within an open metal pan at the base of the still cooker. The sniffer is utilized to filter exhaust from the dry cleaning process to reduce PCE containing emissions. The sniffer included ductwork which extended out of the roof of the dry cleaning shop. Mr. Hom indicated that the sniffer has passed emissions testing conducted by the Bay Area Air Quality Management District (AQMD).

A total of five 55-gallon drums were noted in the area of the dry cleaning machines. The exteriors of one of the spent PCE-containing drums as well as the empty drum were stained, apparently as a result of spillage. However, the underlying concrete floor was only partially stained by what appeared to be liquids drippage.

An open floor drain was noted on the concrete floor near the dry cleaning machinery. Four hoses were noted to drain into the floor drain. These hoses originated from the sniffer machines, a nearby air compressor, a nearby conventional washing machine, and an inactive boiler. According to Mr. Hom, the floor drain is connected to and drains into the municipal sewer system.

Howards' Drive-In Restaurant consisted of a small customer dining area, two restrooms, personal and food storage areas, a food cooking/preparation area (kitchen), and a cleaning area. An in-line grease trap mounted above the floor was noted underneath a clean-up sink. Mr. Howard Chu, operator/owner of Howards' Drive-In, indicated that the waste grease is accumulated, solidified, and removed from the subject property for recycling/disposal by a grease handling firm.

The southern edge of the subject property is occupied by a narrow length of dirt, located between the commercial building and a three foot tall chain link fence (southern property boundary). The remainder of

the subject site was occupied by a concrete sidewalk, a small landscaped area, and asphaltic concrete parking areas.

Monitoring well MW-3H is located in the southwest portion of the subject site. Depth to groundwater within MW-3H is reported to have ranged from 18.77 feet to 22.62 feet below surface grade during sounding events conducted between November 1990 and June 1994. The lateral component of groundwater flow is reported to be toward the west.

During the physical inspection of the site, exposed surface soils appeared clean and did not exhibit obvious signs of contamination. No obvious evidence (vent pipes, fill pipes, dispensers, etc.) of underground fuel storage tanks was noted within the area observed. No pad-mounted or pole-mounted transformers were observed on the subject site.

Review of the historic Polk, Haines, and Telephone directories indicates that the 991 West Winton Avenue address was occupied by Payless Cleaners, a dry cleaning shop, from 1961 until 1980, was vacant from 1981 until 1983, and was occupied by Canton House Restaurant from 1983 until the present. The 23958 Hesperian Avenue (currently Jack's Norge Cleaners) address was reported to have been occupied by a self-service laundry from 1961 until 1994. In addition, dry cleaning activities were reported to have been conducted at the 23958 Hesperian Avenue site since at least 1972. Although Polk Directories indicate that a residence was located at 23956 Hesperian Boulevard from at least 1953 until 1958, no obvious visual evidence or records of this residence were noted on a 1958 historical aerial photograph or within City of Hayward Building Department records. It is anticipated that this listing represents a residence located off of the subject property.

Review of City of Hayward Building Department (CHBD) records indicate that the existing commercial building at the subject site was constructed in 1960 - 1961, and intended for occupancy by a restaurant, laundromat, and/or dry cleaners. No obvious references to underground storage tanks were noted on the site plans to have been associated with the laundromat or the dry cleaning store. A former dry cleaning store at 991 West Winton Avenue was reported to have been remodeled and converted into a Chinese food restaurant in 1982. CHBD records indicate that the 23958 Hesperian Boulevard address has been occupied by a laundromat/cleaning village shop since 1961.

According to current occupants of the subject site, no underground storage tanks have been located at the subject site. In addition, no hazardous materials spills or releases were reported to have occurred at the subject property.

Review of records at the City of Hayward Fire Department (CHFD) reveals that there are no underground storage tank records or records of any incidents involving hazardous materials spills or leaks on file for the subject site. A Hazardous Materials Management Plan (HMMP) for Jack's Norge Cleaners at

23958 Hesperian Boulevard, dated July 20, 1994, is on file with the CHFD. According to the HMMP, this site possesses approximately 100 gallons of PCE stored within an above-ground drum as well as within the dry cleaning machine. In addition, this site possesses reportable quantities of dry cleaning spot chemicals. These materials are reported to be stored either inside the machinery or within safety cans. According to the HMMP, approximately 24 waste filters containing PCE are generated at this site on an annual basis. These waste filters are reported to be removed from the subject site by Safety-Kleen. An air discharge permit is one file with the Bay Area Air Quality Management District (AQMD) for Jack's Norge Cleaners located at the subject site. No records of any hazardous materials handling, storage, or incidents were on file with the California Environmental Protection Agency (Cal-EPA) - Department of Toxic Substance Control (DTSC) for the subject site.

A windshield survey of the adjacent properties and businesses located within a quarter mile radius of the subject site revealed the area to be occupied predominately by residential areas and commercial properties. Four businesses or sites located within a quarter mile radius of the subject site were noted to possibly handle, store, or generate hazardous materials, or had records on file with the City of Hayward Fire Department. Two of these businesses or sites are not anticipated to pose an adverse impact to the subject site.

The remaining businesses include Exxon Station #7-0218 and Express Lube, located adjacent south and 200 feet south of the subject site, respectively. Both sites are listed on the Regional Water Quality Control Board (RWQCB) Leaking Underground Storage Tank (LUST) Listing and the Cal-EPA Hazardous Waste and Substances Site (HWSS) List. Groundwater underlying the subject site has been impacted by gasoline constituents originating from the Exxon Station #7-0218. However, a soil and groundwater treatment system is in operation at this site. In addition, several volatile organic compounds; including tetrachloroethylene, trans-dichloroethylene, trichloroethylene, vinyl chloride, and cis-1,2 dichloroethylene, have been detected within groundwater monitoring wells associated with the adjacent Exxon station. The concentrations noted exceed EPA Maximum Contaminant Levels for tetrachloroethylene, trans-dichloroethylene, trichloroethylene, vinyl chloride, and cis-1,2 dichloroethylene. The highest concentrations of these compounds were detected within MW-3H, located adjacent to the Exxon Station, in the southwest portion of the subject site. According to Mr. Hugh Murphy of the CHFD, the source of these volatile organics has not been confirmed. Texaco and Exxon are currently negotiating financial responsibility for continued investigation and remediation of gasoline impacted soils and groundwater at this site. However, neither party has been assigned responsibility for the volatile organic compounds noted within groundwater samples. The origin of volatile organic compounds noted within groundwater underlying the subject site is not known. However, based upon the historic use of volatile organic compounds (such as PCE) by dry cleaning firms located at the subject site, it is possible that if the dry cleaning activities conducted at the subject site have impacted the underlying groundwater.

Due to its close proximity, Express Lube also has a potential to impact the subject site if a hazardous materials release occurs. In the event of a release, if contamination attributable to this site does migrate beneath the subject site, the expense and/or liability associated with the investigation and remediation would typically fall upon the responsible party (i.e., Express Lube).

Based upon the results of our Phase I Environmental Site Assessment, and due to the presence of gasoline and volatile organic compounds within groundwater beneath the subject site, a Limited Level II Environmental Site Assessment was conducted at the subject site. The results of the Limited Level II Environmental Site Assessment have been issued as a separate report.

6.0 LIMITATIONS

This reconnaissance and review of the subject property has been limited in scope. This type of investigation is undertaken with the calculated risk that the presence, full nature, and extent of contamination would not be revealed by visual observation alone. Although a thorough site reconnaissance was conducted, no warranty is given, either expressed or implied, that hazardous material contamination or buried structures do not exist. This report does not provide a guarantee or certification that the property is free of hazardous material contamination.

The findings presented in this report were based upon field observations during a single site visit, review of available data, and discussions with local regulatory and advisory agencies. Observations describe only the conditions present at the time of this investigation. The data reviewed and observations made are limited to accessible areas and currently available records searched. Krazan & Associates, Inc. can not guarantee the completeness or accuracy of the regulatory agency records reviewed. Additionally, in evaluating the property, Krazan & Associates, Inc. has relied in good faith upon representations and information provided by individuals noted in the report with respect to present operations and existing property conditions, and the historic uses of the property. It must also be understood that changing circumstances in the property usage, proposed property usage, subject property zoning, and changes in the environmental status of the other nearby properties can alter the validity of conclusions and information contained in this report. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

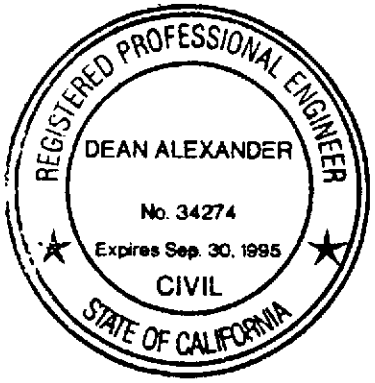
Conclusions and recommendations contained in this report are based on the evaluation of technical information made available during the course of this assessment. It is not warranted that such data cannot be superseded by future environmental, legal, geotechnical or technical developments.

If there are any questions or if we can be of further assistance, please do not hesitate to contact our office at (209) 348-2200 or (800) 800-0711.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Done Mathis for

Lorin Sutton
Project Geologist



Dean Alexander

Dean Alexander
Registered Engineer
RGE #002051/RCE #34274

LS/DA/tg

2c: Mr. Anthony Miller
Taco Bell Corporation
4460 Black Avenue, Suite K
Pleasanton, CA 94566

1c: Ms. Julie Reese
Taco Bell Corporation
17901 Von Karman Avenue
MD 708
Irvine, CA 92714-6212

1c: Mr. Hugh Murphy
Fredric C. Divine Associates
1930 4th Street
San Rafael, CA 94901

1c: Mr. Roy Wunderlich
Alconco Corporation
11844 Dublin Boulevard, Suite A
Dublin, CA 94568

Application Rec'd Nov. 15, 1960

No. _____

Building Permit No. 20872

rd

For Dept. Use Only

BUILDING PERMIT
No. 20872
Date 11-18-60
Fee $ 20.00
Plans Filed
Checked by 20
11-18-60, 19

OTHER PERMITS REQUIRED
Electrical ☒
Plumbing ☒
Sewer ☒

Types of Construction
Type 1 - Fire Resistive
Type 2 - Heavy Timber
Type 3 - Ordinary Masonry
Type 4 - Metal Frame
Type 5 - Wood Frame

Nature of Work
Erection, Construction, Enlargement, Alteration, Repair, Moving, Conversion, Demolition

APPLICATION FOR BUILDING PERMIT

CITY OF HAYWARD
BUILDING DEPARTMENT

20 [illegible]
10 [illegible]
130

LOCATION: 941 W. Winton Ave.

USE OR OCCUPANCY: GROUP F DIVISION 2 USE ZONE No. CN

EXISTING — No. ROOMS — No. FAMILIES —

PROPOSED Commercial Bldg. No. ROOMS — No. FAMILIES —

LOT SIZE: WIDTH See Survey FT. BY LENGTH _____ FT. AREA _____ SQ. FT.

CONSTRUCTION: TYPE E N FIRE ZONE No. 2 VALUATION $ 6,000

NATURE OF WORK Construct commercial building for dry cleaning shop.

CONTRACTOR Owner

ARCHITECT OR ENGINEER Arthur A. Sanger - Sacramento PHONE No. _____

MATERIAL: EXTERIOR WALLS Stucco ROOF Tar & Gravel

HEIGHT TO HIGHEST POINT 12'-0" FT.; No. STORIES One

SIZE: WIDTH 30 FT. BY LENGTH 30 FT.; AREA OF 1st FLOOR 900 SQ. FT.

~~SEPTIC TANK~~ Sewer APPROVAL _____

CERTIFICATE OF OCCUPANCY IS HEREBY REQUESTED _____

NOTE. The granting of a Building Permit does not grant any right or privilege to: (1), Erect any building and/or structure or any portion thereof, upon any street, alley, or other public place or portion thereof; or (2), Use any building and/or structure or any portion thereof, for any purpose that is, or may be prohibited by ordinances of the City of Hayward.

The granting of a Building Permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such Permit.

I hereby certify and agree, if a permit is issued, that all the provisions of the BUILDING LAW, THE BUILDING ZONE ORDINANCES, SET-BACK LINE REQUIREMENTS AND THE FIRE ORDINANCES OF THE CITY OF HAYWARD and the STATE HOUSING ACT OF CALIFORNIA will be complied with whether herein specified or not; and I hereby agree to save, indemnify and keep harmless the City of Hayward against all liabilities, judgments, costs and expenses which may in any wise accrue against said city in consequence of the granting of this permit, or from the use or occupancy of any sidewalk, street or sub-sidewalk placed by virtue thereof, and will in all things strictly comply with the conditions of this permit.

I have read the above application and know the contents thereof; the same is true and correct. I further state that I am familiar with the laws governing building within the City of Hayward, and State of California and amendments thereto, and that the above building and/or structure will be built in conformity therewith.

PHONE No. [illegible] 8-1600 OWNER Johnson Auto Co.

OWNER'S ADDRESS 941 W. Winton

PHONE No. _____ CONTRACTOR Owner

[illegible]
Signature of Applicant

CHECK WHICH

Street Excavation ☐
Sidewalk ☐
Curb and Gutter ☐
Driveway ☐
Utilities ☐
Tree Work ☐
Parade ☐
Use Permit ☐
Variance ☐
Zone Change ☐
Sewer ☐
Encroach ☐
☐

CITY OF HAYWARD
APPLICATION AND PERMIT

PROPER APPROVAL HEREON CONSTITUTES PERMIT ▶

Applicant's Name: Johnnie White Co. Date: 11/28/60
Address: 975 W. Winton Phone:
Location of Proposed Work, etc.: 931 W. Winton Ave.
Owner-Address: Applicant
Contractor-Address: Factory Mfg.
Per (Ord) (Res.) No.:

Application No. 9...
Taken By:
Permit No. 8968
Issued By:
Date Issued:
Other Permits:
No.
No.
No.
No.
No.

THE APPLICANT HEREBY APPLIES FOR PERMISSION TO: (Describe Fully)

Connect 4" lateral serving dry cleaning plant to existing 6" line in easement.

Referred To:
1. Public Works
2.
3.

Approved By:
1.
2.
3.

Date:
11-28-60
2.
3.

THIS SPACE FOR APPROVING DEPARTMENT

Approval of this Permit is subject to all General Provisions as shown on the reverse side and such Special Provisions as are checked below:

1. 7.
2. 8.
3. ✓ 9. Installation to ... of Ord. 445 N.S. as amended
4. 10.
5. 11.
6. 12.

Sewer connection fee
Inspection of connection.

DEPOSIT OR FEE
865.00
5.00
$70.00

In consideration of the granting of this permit and other good and valuable consideration therefor, the undersigned intending to be legally bound, does hereby for the undersigned and the heirs, executors, administrators and assigns of the undersigned agree to indemnify and hold harmless the City of Hayward, the members of the City Council and their agents, servants and employees and each of them, from and against liability for injury to or death of persons, and/or liability for damages to property arising from any and all acts performed or incidental thereto or which may arise from failure of permittee to perform the obligations of permittee under this permit, with respect to same.

Signature of Applicant

NUMBER 20872 STREET 991 W. Winton OWNER Johnnie White Co.

OCCUPANCY CERTIFICATE NO. 878
DATE 11/18/60

BUILDING

Constr. commercial bldg. for dry cleaning shop

OCCUPANCY F TYPE VALUE 6000.

CONTRACTOR Owner

FOUNDATION EXTERIOR LATHING 1-3-61

FRAME AND CHIMNEY 12-22-60 FINISH 2-15-61

PLUMBING

PERMIT NO. 10327 DATE 11-21-60

CONTRACTOR Mercury Plg.

NO. FIXTURES 11-21-60 30

ROUGH FINISH

REMARKS

OCCUPANCY PERMIT DATE

P. G. & E. DATE 2-15-61

ELECTRICAL

PERMIT NO. 12189 DATE 3-6-61

CONTRACTOR Builders

ROUGH 12-27-60 WF FINISH

GAS

PERMIT NO. 10633 DATE 2-17-61

CONTRACTOR San Leandro Heating

PRESSURE TEST 2-15-61

SEWER

PERMIT NO. 6625 DATE 11-28-60

CONTRACTOR Mercury Plg.

STREET CUT not [illegible]

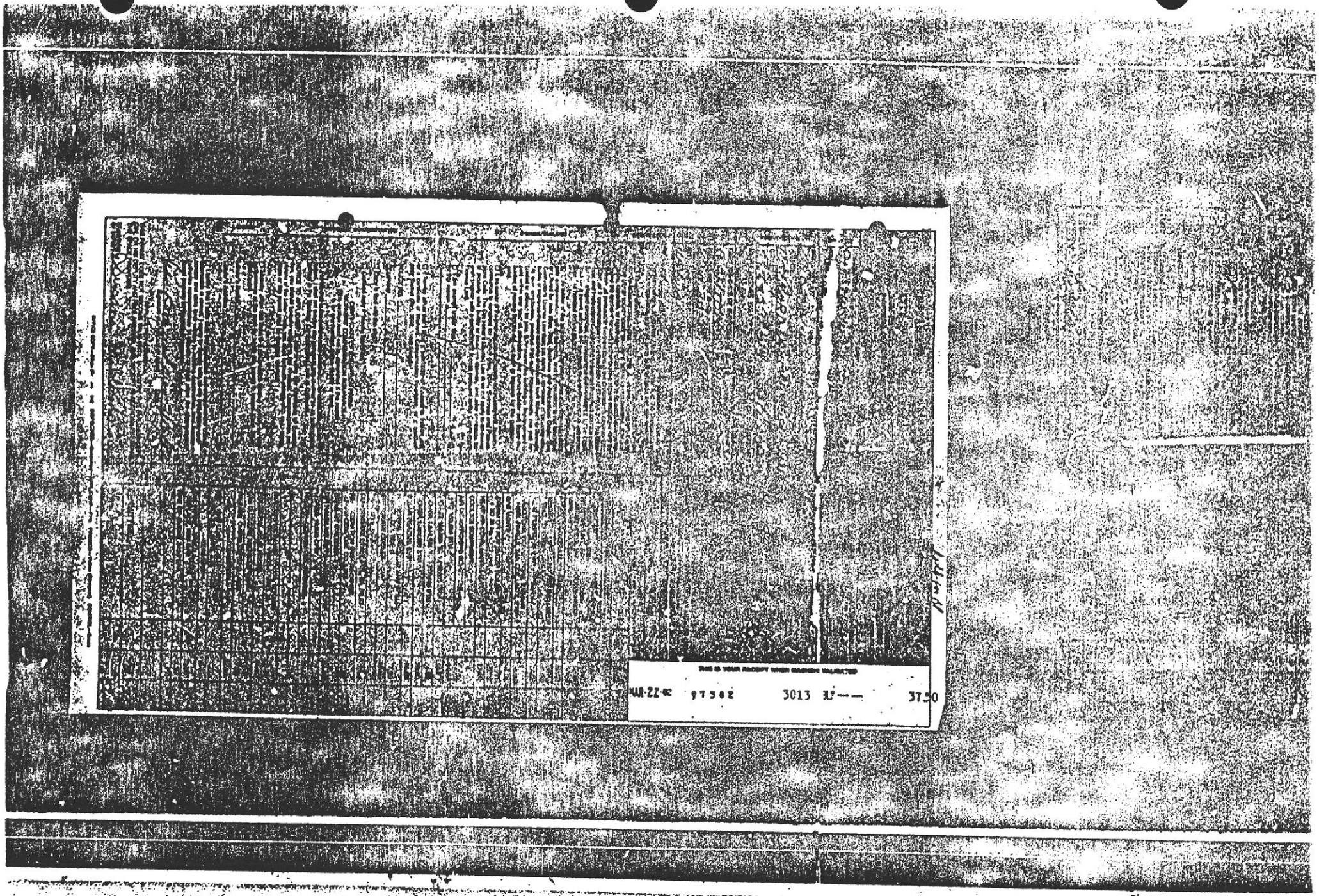
CENTRAL PERMIT NO. 9385

A. TYPE A.

B. B.

C. C.

NUMBER 20872 STREET 991 W. Winton OWNER Johnnie White Co.


THIS IS YOUR RECEIPT WHEN MACHINE VALIDATED
MAR-22-90 97502 3013 37.50

APPLICATION FOR BUILDING PERMIT

CITY OF HAYWARD BUILDING INSPECTION DIVISION · 8TH FLOOR

22300 FOOTHILL BOULEVARD
HAYWARD, CALIFORNIA 94541

AREA CODE 415
PHONE 581-2345
EXT. 251 or 252

PERMIT NUMBER
B 62952
APPLICATION RECEIVED
DATE 5/24/82
BY

CONTRACTOR

X I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

☐ I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 commencing with Section 7000 of Division 3 of the Business and Professions Code) or that is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by an applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).

OWNER/BUILDER

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) license pursuant to the Contractor's License Law).

☐ I am exempt under Sec. _____, B.&P.C. for this reason _____

WORKERS' COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

POLICY NO. NO PAYROLL
COMPANY SELF EMPLOYED

☐ Copy is filed with the city.

☐ Certified copy is hereby furnished.

CERTIFICATE OF EXEMPTION FROM
WORKERS' COMPENSATION INSURANCE
(This section need not be completed if the permit is for one hundred dollars ($100) or less).

X I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

LENDER

☐ I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civil Code).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

Signature of Applicant or Agent _____ Date 5/24/82

JOB LOCATION

JOB ADDRESS 991 W. WINTON AVE
LOT TRACT ASSESSOR'S NO.

CONDITION OF SOIL AT JOB SITE
☐ ORIGINAL ☐ COMPACTED FULL ☐ LOOSE FILL

NO. OF EXISTING BUILDINGS ON LOT AND USE

CONTRACTOR

NAME E. L. CONST. CO.
ADDRESS 775-40TH AVE.
CITY ZIP TELEPHONE
SAN LEANDRO CA. 94621 352-0359
STATE LICENSE CLASS NO. CITY LICENSE NO.
339131 B-1 26491

OWNER

NAME (OR NAME OF BUSINESS) SAI CHEUNG LEUNG
MAILING ADDRESS
1750 VIA SANTA SAN LORENZO 94580 276-729
CITY ZIP TELEPHONE

OCCUPANCY - AREA

OCCUPANCY A (B) E H I M R Div. 2
TYPE OF CONSTRUCTION I II III N., 1-Hr., H.T. IV N., 1-Hr. (V)
FIRE ZONE 1 2 (3) USE ZONE _____
NO. OF STORIES _____ TOTAL HEIGHT _____ AREA OF LOT _____
FLOOR AREA
MAIN BLDG. (1ST FLOOR) _____ (2ND FLOOR) _____
CONDITIONS OF APPROVAL _____

_____ APP. _____ _____ APP. _____
_____ APP. _____ _____ APP. _____

PROPOSED WORK

WORK TO BE DONE ☐ NEW X ALTER ☐ MOVE ☐ ADD ☐ REPAIR ☐ DEMOLISH
DESCRIBE
REMODEL FOR RESTAURANT

VALUATION —	15,000.00
BUILDING PERMIT FEE	110.50
PLAN CHECKING FEE	71.80
MICROFILM #77210	1.00
PENALTY FEE	110.50
TOTAL FEE ▶	$ 293.80

THIS IS YOUR RECEIPT WHEN MACHINE VALIDATED

APPLICATION FOR PLUMBING PERMIT

CITY OF HAYWARD BUILDING INSPECTION DIVISION—8TH FLOOR

22300 FOOTHILL BOULEVARD
HAYWARD, CALIFORNIA 94541

AREA CODE 415
PHONE 881-2346
EXT. 391 or 392

PERMIT NUMBER P-42731

APPLICATION REC'D
DATE 4-5-82
BY L.P.
BLDG. PER. 42782

JOB ADDRESS 921 W. Winton Ave
LOT TRACT ASSESSOR'S NO.

NAME E.W. Lock
ADDRESS 775-40th Avenue
CITY San Francisco TELEPHONE 752-0357
STATE LICENSE NO. 339737 CLASS NO. CITY LICENSE NO. 26491

NAME (OR NAME OF BUSINESS) San Chemay Laundry
MAILING ADDRESS Same
CITY ZIP TELEPHONE

SPECIAL CONDITIONS

INSTALLATION OR ALTERATION OF GAS PIPING INCLUDING AN GAS PIPELINE WITH NOT MORE THAN FIVE OUTLETS FOR APPLIANCES.

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

I hereby affirm that I am exempt from the Contractor's License Law for the following reason: (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).

I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

I, as owner of the property, am exempt from contracting with licensed contractors for construction of the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. An owner-builder is exempt if he has not built more than four single-family residences within a one-year period.)

I am exempt under Sec. _____ B.&P.C. for this reason: _____

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Labor Code).

POLICY NO. _____

COMPANY _____

Copy is filed with the city.

Certified copy is hereby furnished.

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE
(This section need not be completed if the permit is for one hundred dollars ($100) or less)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation laws of California.

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be revoked.

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. Code).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city ordinances and state laws relating to building construction, and hereby authorize representatives of the city to enter upon the above-mentioned property for inspection purposes.

Date 4/5/82

APPLICATION APPROVED
THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE BUILDING OFFICIAL OR HIS DEPUTY AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN THE SPACE PROVIDED.

SIGNATURE OF BUILDING OFFICIAL

	NO.	EACH	FEES
ONE BATHROOM		70.00	
TWO BATHROOMS		85.00	
MORE THAN TWO, EACH ADD'L		20.00	
WATER CLOSET		8.00	
LAVATORY (BASIN)		8.00	
BATHTUB		8.00	
SHOWER		8.00	
SINK: KITCHEN, BAR, SERVICE	1	8.00	9.00
WASHING MACHINE	1	8.00	9.00
LAUNDRY TRAY		8.00	
DISHWASHER (RESIDENTIAL)		7.00	
FOOD WASTE DISPOSAL (RESIDENTIAL)		7.00	
FLOOR DRAIN	1	8.00	7.00
FLOOR SINK	1	8.00	4.00
URINAL		8.00	
DRINKING FOUNTAIN		8.00	
WATER PIPING-INSTALL, ALTER, REPLACE		10.00	
DRAIN, WASTE, VENT PIPING ALTER, REPLACE	1	12.00	12.00
GAS PIPING-INSTALL, ALTER, REPLACE, AND GAS TEST	1	10.00	10.00
WATER HEATER (GAS-FIRED) AND/OR VENT		8.00	
GAS RANGE - RESIDENTIAL COMMERCIAL	1	7.00 10.00	10.00
GAS DRYER—RESIDENTIAL COMMERCIAL		8.00 10.00	
DISHWASHER (COMMERCIAL)		10.00	
GREASE INTERCEPTOR	1	8.00	6.00
FOOD WASTE DISPOSAL (COMMERCIAL)		11.00	
INDUSTRIAL WASTE TREATMENT SAND OR GREASE INTERCEPTOR, NEUTRALIZER OR CLARIFIER		17.00 25.00	
EVAPORATIVE COOLER		22.00	
IRRIGATION SPRINKLER SYSTEM WITHOUT BACK FLOW PROTECTION DEVICES		7.00	
—BACK FLOW PROTECTION DEVICES 1 TO 4		1.75	
—ADDITIONAL OVER 4, EACH		1.75	
SEWAGE EJECTOR SYSTEM—PUMP, TANK, ETC.		11.00 17.00	
SWIMMING POOL WATER PIPING—PRIVATE —COMMERCIAL		20.00 30.00	
SWIMMING POOL WATER HEATER—INSTALL, REPLACE		15.00	
SOLAR HEATING SYSTEM FOR DOMESTIC WATER		15.00	
SUB TOTAL			44.00
PERMIT FEE		7.00	4.50
TOTAL FEE			48.50

NUMBER 62952	STREET 991 W. Winton Avenue	LOT	OWNER Sai Cheung Leung

CITY OF HAYWARD

OCCUPANCY CERTIFICATE

NO. # DATE

P G & E DATE TEMPORARY PERMANENT

ELECTRIC 5/2/82 JGS

GAS 5/2/82 JGS

TRACT PLAN

DATE 3-31--82 BUILDING

remodel for restaurant

OCCUPANCY B-2 TYPE V VALUE 15,000

CONTRACTOR E.L. Construction Co.

FOUNDATION

FRAME AND ~~CHAMBER~~ 4-26-82 SJ EXTERIOR LATHING 4-27-82 Shutrock SJ

FINAL INSPECTION 5/6/82 SJ

PLUMBING

PERMIT NO. 42931 DATE 4-5-82

CONTRACTOR E.W. Roch

UNDER FLOOR 4/16/82 BP PRESSURE TEST 4-25-82 HRC

ROUGH 4-25-82 HRC FINAL INSP. 5-6-82 MJ

*45314 ELECTRICAL 5-6-82

PERMIT NO 45133 DATE 4-5-82

CONTRACTOR E.W. Roch / *Darrell Taylor

UNDER SLAB

ROUGH 4-23-82 JGS FINAL INSP. 5-6-82 JGS

MECHANICAL

PERMIT NO 17775 DATE 3-22-82

CONTRACTOR Modern Metals

ROUGH 5-6-82 MJ FINAL INSP 5-6-82 MJ

SEWER

PERMIT NO DATE

CONTRACTOR

REMARKS

NUMBER 62952	STREET 991 W. Winton Avenue	OWNER Sai Cheung Leung	SL

Application Rec'd Dec 21, 1960

Building Permit No. 7683

No. _____

APPLICATION FOR BUILDING PERMIT Red.

CITY OF HAYWARD
BUILDING DEPARTMENT

48
24
72 sq

For Dept. Use Only

BUILDING PERMIT
No. _____
Date 1-4- 19 61
Fee $ 48.35
Plans Filed Yes
Checked by G.P.
_____ 19____

OTHER PERMITS REQUIRED
Electrical ☑
Plumbing ☑
Sewer ☑

LOCATION: 23956-58 Hesperian Blvd

USE OR OCCUPANCY: GROUP F DIVISION 2 USE ZONE No. _____

EXISTING _____ No. ROOMS _____ No. FAMILIES _____

PROPOSED _____ No. ROOMS _____ No. FAMILIES _____

LOT SIZE: WIDTH _____ FT. BY LENGTH _____ FT. AREA _____ SQ. FT.

CONSTRUCTION: TYPE 5 FIRE ZONE No. 2 VALUATION $ 25,000

NATURE OF WORK Construct Restaurant and Laundromat Building

CONTRACTOR Johnnie White Co. - 975 West Winton Ave. Hay.

ARCHITECT OR ENGINEER _____ PHONE No. _____

MATERIAL: EXTERIOR WALLS Stucco + Wood Siding ROOF Tar + Gravel

HEIGHT TO HIGHEST POINT 14' ± FT., No. STORIES 1

SIZE: WIDTH 30 FT. BY LENGTH 110-6" FT., AREA OF 1st FLOOR 3315 SQ. FT.

SEPTIC TANK Sewer APPROVAL _____

CERTIFICATE OF OCCUPANCY IS HEREBY REQUESTED _____

Types of Construction
Type 1 - Fire Resistive
Type 2 - Heavy Timber
Type 3 - Ordinary Masonry
Type 4 - Metal Frame
Type 5 - Wood Frame

Nature of Work
Erection, Construction, Enlargement, Alteration, Repair, Moving, Conversion, Demolition

NOTE: The granting of a Building Permit does not grant any right or privilege to: (1), Erect any building and/or structure or any portion thereof, upon any street, alley, or other public place or portion thereof; or (2), Use any building and/or structure or any portion thereof, for any purpose that is, or may be prohibited by ordinances of the City of Hayward.

The granting of a Building Permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such Permit.

I hereby certify and agree, if a permit is issued, that all the provisions of the BUILDING LAW, THE BUILDING ZONE ORDINANCES, SET-BACK LINE REQUIREMENTS AND THE FIRE ORDINANCES OF THE CITY OF HAYWARD and the STATE HOUSING ACT OF CALIFORNIA will be complied with whether herein specified or not; and I hereby agree to save, indemnify and keep harmless the City of Hayward against all liabilities, judgements, costs and expenses which may in any wise accrue against said city in consequence of the granting of this permit, or from the use or occupancy of any sidewalk, street or sub-sidewalk placed by virtue thereof, and will in all things strictly comply with the conditions of this permit.

I have read the above application and know the contents thereof; the same is true and correct. I further state that I am familiar with the laws governing building within the City of Hayward, and State of California and amendments thereto, and that the above building and/or structure will be built in conformity therewith.

PHONE No. _____ OWNER Johnnie White Co.

OWNER'S ADDRESS 975 W. Winton. Ave.

PHONE No. _____ CONTRACTOR OWNER

Edmund Rapp
Signature of Applicant

NUMBER 20983 STREET 23956-58 Hesperian Blvd.

OCCUPANCY CERTIFICATE NO. 903

DATE 1/4/61

BUILDING

Constr. restaurant and laundormat bldg.

OCCUPANCY TYPE VALUE 25,000.

CONTRACTOR Owner

FOUNDATION 12-21-61 EXTERIOR LATHING

Partial 2-17-61

FRAME AND CHIMNEY FINISH 5-17-61

10803 PLUMBING 4-13-61

PERMIT NO. 10499 DATE 1-4-6.

CONTRACTOR Mercury Plg.

NO. FIXTURES

ROUGH 1-6-61 FINISH

REMARKS

BLOCK OWNER Johnnie White Co.

OCCUPANCY PERMIT DATE 6-6-61

P. G. & E. DATE 5-17-61

ELECTRICAL

PERMIT NO 12419 DATE 5-3-61

CONTRACTOR Builders

ROUGH 2-20-61 W.F. FINISH 4-4-61

GAS

PERMIT NO DATE

CONTRACTOR

Laundromat 3-14-61

PRESSURE TEST Restaurant 4-19-61

SEWER

PERMIT NO 6696 DATE

CONTRACTOR Mercury Plg.

STREET CUT

CENTRAL PERMIT NO. 9650

TYPE

A. A.

B. B.

C. C.

NUMBER 20983 STREET 23956-58 Hesperian Blvd. OWNER JOHNNIE WHITE CO. 1 2 1/4/61

NUMBER 21069 | STREET 23958 Hesperian Blvd. | BLOCK | OWNER Washing Well

OCCUPANCY CERTIFICATE NO. 2/14/61 | BUILDING | OCCUPANCY PERMIT DATE | P. G. & E. DATE

Erect sign on roof of building | TYPE | VALUE 800 | PERMIT NO. 12072 | DATE 2-14-61

OCCUPANCY | CONTRACTOR American Neon | ELECTRICAL

CONTRACTOR | EXTERIOR LATHING | ROUGH | FINISH

FOUNDATION | FINISH 2-17-61 W.F. | GAS

FRAME AND CHIMNEY | PLUMBING | PERMIT NO. | DATE

PERMIT NO. | DATE | CONTRACTOR

CONTRACTOR | PRESSURE TEST | SEWER

NO. FIXTURES | FINISH | PERMIT NO. | DATE

ROUGH | CONTRACTOR

STREET CUT

CENTRAL PERMIT NO.

A.

B.

C.

REMARKS

NUMBER 21069 | STREET 23958 Hesperian Blvd. | OWNER Washing Well

Application Rec'd 2-13-1964 Building Permit No. 24440

No. ---

APPLICATION FOR BUILDING PERMIT

CITY OF HAYWARD

BUILDING DEPARTMENT

Ave.

For Dept. Use Only

BUILDING PERMIT
No. 2-17-64
Date 2-17-64 19
Fee $ 9.00
Plans Filed Yes
Checked by
19

OTHER PERMITS REQUIRED
Electrical ☒
Plumbing ☒
Sewer ☐

Voc. Par. App. ADMINISTRATIVE
Voc. Par.
Use Par. App.
Use Par. M-L-C-P
Lot Split App. 2-14-64
Lot Split Par.

LOCATION: 23958 Hesperian Blvd
USE OR OCCUPANCY, GROUP F DIVISION 2 USE ZONE No. CN
EXISTING Laundry & Cleaners No. ROOMS — No. FAMILIES —
PROPOSED Alterations No. ROOMS — No. FAMILIES —
LOT SIZE: WIDTH — FT. BY LENGTH — FT. AREA — SQ. FT.
CONSTRUCTION: TYPE V-N 1 hr EXT. walls FIRE ZONE No. 2 VALUATION $ 1200.00
NATURE OF WORK Alterations & remodeling for existing Cleaning Village & Corp
CONTRACTOR OWNER
ARCHITECT OR ENGINEER PHONE No.
MATERIAL: EXTERIOR WALLS STUCCO ROOF BUILT-UP
HEIGHT TO HIGHEST POINT 15 17 FT., No. STORIES ONE
SIZE: WIDTH FT. BY LENGTH FT., AREA OF 1st FLOOR SQ. FT.
SEPTIC TANK SEWER APPROVAL
CERTIFICATE OF OCCUPANCY IS HEREBY REQUESTED

Types of Construction
Type 1 - Fire Resistive
Type 2 - Heavy Timber
Type 3 - Ordinary Masonry
Type 4 - Metal Frame
Type 5 - Wood Frame

Nature of Work
Erection, Construction, Enlargement, Alteration, Repair Moving, Conversion, Demolition

NOTE: The granting of a Building Permit does not grant any right or privilege to: (1). Erect any building and/or structure or any portion thereof, upon any street, alley, or other public place or portion thereof; or (2). Use any building and/or structure or any portion thereof, for any purpose that is, or may be prohibited by ordinances of the City of Hayward.

The granting of a Building Permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such Permit.

I hereby certify and agree, if a permit is issued, that all the provisions of the BUILDING LAW, THE BUILDING ZONE ORDINANCES, SET-BACK LINE REQUIREMENTS AND THE FIRE ORDINANCES OF THE CITY OF HAYWARD and the STATE HOUSING ACT OF CALIFORNIA will be complied with whether herein specified or not; and I hereby agree to save, indemnify and keep harmless the City of Hayward against all liabilities, judgments, costs and expenses which may in any wise accrue against said city in consequence of the granting of this permit, or from the use or occupancy of any sidewalk, street or sub-sidewalk placed by virtue thereof, and will in all things strictly comply with the conditions of this permit.

I have read the above application and know the contents thereof; the same is true and correct. I further state that I am familiar with the laws governing building within the City of Hayward, and State of California and amendments thereto, and that the above building and or structure will be built in conformity therewith.

PHONE No.
OWNER Joseph Sala Corp. Johnson Construction Co
OWNER'S ADDRESS 246 El Camino Real Belmont

PHONE No.
CONTRACTOR Owner

X Joseph Sala Corp by [illegible]
Signature of Applicant

Bldg. Inspection

DISPOSITION OF PERMIT

APPLICATION NO. UP/SPR/VA 91-5

Date of Application 8/19/93

CITY OF HAYWARD
Planning Department
25151 Clawiter Road, Hayward, CA 94545
(510) 293-5275 & 293-5276

APPLICANT JAMES P. CRAFTS/THE SCHUMAN MARITAL TRUST

ADDRESS 400 SANSOME STREET, SAN FRANCISCO CA 94111 Tel. (415) 773-5762

OWNER SAME

ADDRESS _____ Tel. _____

LOCATION OF PROPERTY 23700 through 23958 Hesperian Blvd and 971 through 991 West Winton Avenue.

APN _____

Description of Approved Project:

EXTEND APPROVAL ACTION FROM OCTOBER 1, 1993 TO OCTOBER 1, 1994, IN ORDER TO OBTAIN A DEMOLITION PERMIT FOR THE EXISTING HORNS OF THE HUNTER SHOPPING CENTER BUILDINGS AND A BUILDING PERMIT TO CONSTRUCT A NEW SHOPPING CENTER CONTAINING A 34,700 SQUARE FOOT RETAIL BUILDING AND A 3,488 SQUARE FOOT FAST FOOD RESTAURANT WITH A MAXIMUM OF 75 SEATS.

PLANNING DIRECTOR APPROVED INITIAL Dyane Date 10-27-93 CITY OF HAYWARD

Action Taken	By	Date
APPROVED	PLANNING DIRECTOR	10/27/93

Date of Permit Distribution: _____

Comments:

OWNER/OCCUPANT ENVIRONMENTAL QUESTIONNAIRE

Address of property: 23958 Hesperian Boulevard
Hayward, California

This questionnaire was answered:

Date: 10/19/94

Via: X In person

_____ Telephone conversation

_____ Sent by mail

This questionnaire was answered by:

Name: Mr. Jack Hom

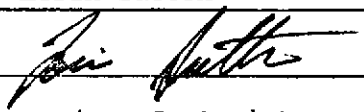
Signature: _____

Title: Owner

Firm: Jack's Norge Cleaners

This questionnaire was completed by:

Name: Lorin Sutton

Signature: 

Title: Project Geologist

Firm: Krazan & Associates

Date: 10/19/94

Note: This Owner/Occupant Questionnaire is based in the ASTM Transaction Screen E.50.02.1. The owner/occupant represents that to the best of his knowledge that the following statements and facts are true and correct, and that to the best of his knowledge no material facts have been suppressed.

General Information

1. When was the site acquired and for what purpose is the property currently used?
   Business purchased in 1989 - Dry Cleaning Shop

2. Have there been previous owners/operators engaged in different uses of the site? Please explain.
   No - Previous owners operated a dry cleaning shop.

3. What else is known about previous usage of the site or any portions of the site?
   Unknown

4. Describe the products or services produced on this site. Include a general description of the manufacturing processes and the dates those processes were active.
   Dry cleaning services (pre 1986 until present)
   - one dry cleaning machine with associated clothes dryer, sniffer, still cooker, filter rack, filter dryer

	Yes	No	Unknown
5. Has a previous environmental assessment been conducted?		X	
Have borings been advanced?	X		
Have soils ever been tested for chemical contamination as a result of a leak, spill, or other incident?			X
6. Have any state or federal environmental agencies required or participated in any testing of soils and/or groundwater?		X	

7. What raw materials were used at the site?

Perchloroethylene (PCE, perc)
Small quantities of spot removal solutions

8. How were these materials received (truck, rail, etc.), and how are they stored (drum, tanks. etc.) at the site?

Truck - Stored within drums and within reservoir at the base of dry cleaning machine

9. Have any of the following materials been used at this site, or are they being used at the site?

	Yes	No	Unknown
Arsenic		X	
Asbestos			X
Cyanide		X	
Heavy metals (cadmium, chromium, lead, mercury, nickel, zinc)		X	
PCB containing transformers/capacitors		X	
PCB containing oil or fluids		X	
Cutting oils		X	
Hydraulics oils		X	
Acids		X	
Caustics		X	
Pesticides		X	
Reactive materials		X	
Fluoride		X	
Radium		X	
Industrial solvents	X		
Petroleum products (gasoline, diesel, kerosene, oils, or lubricants)		X	

10. List environmental regulatory agencies with whom operators of this site have had mandated contact.

Name of agency	Contact Person	Address	Telephone Number
Bay Area Air Quality Management District	unknown	939 Ellis Street San Francisco, CA 94109	(415) 771-6000
Hayward Fire Dept.	Hugh Murphy	25151 Clawiter Road Hayward, CA 94545-2731	(510) 293-8695

11. Please provide the names, addresses, and telephone numbers of private individuals who may have knowledge regarding these questions or other information concerning environmental condition of the property.

Name	Address	Telephone Number
Unknown		

Underground Tanks

12. Are any materials stored in underground tanks? If yes, please discuss material stored, tank design and capacity, tank age, permit numbers, and leak detection systems or groundwater monitoring employed.

No

How are materials transported to and from the tank?

13. Are any materials stored in above-ground tanks? If yes, please discuss materials stored, tank design and capacity, tank age, types of secondary containment structures employed (dikes, berms) and drainage.

100-gallon capacity steel reservior at base of dry cleaning machine.
No secondary containment.

How are the materials transported to and from the tanks?

Tanker truck utilizing flexible hose.

14. Have water discharges at this site been subject to:

	Yes	No	Unknown
Effluent guidelines		X	
Pre-treatment requirements		X	
State or local agency discharge limits		X	
County or local discharge ordinances		X	
NPDES permits		X	

15. List all water discharge Notices of Violation warnings (verbal or written), citings, fines, informal meetings, and/or enforcement action proceedings, taken against this facility in the last 2 years. List the reason(s) for each and their current status.

None known

16. Attach copies of all water permits specifically applicable to this facility.

Hazardous Materials, Hazardous Waste

	Yes	No	Unknown
17. Is the facility classified as any of the following:			
Hazardous waste transporter		X	
Hazardous waste generator	X		
Hazardous waste storage facility		X	
Hazardous waste treatment or disposal facility		X	

If yes, list EPA generator number and describe treatment/disposal method.

CAD981580087
Waste PCE solution and filters removed from site by Safety Kleen for recycling/disposal.

18. List all materials used, generated, or stored at this facility that are designated as "hazardous" or "suspected to be hazardous".

PCE, staticol, streetan, picrin, erusticator, devour, jinx ink, silk pre-spotter

19. Discuss any spills, leaks, or other incidents that have occurred. Were they reported? What actions were taken? Were any fines or penalties imposed?

Minor drippage of PCE, spotting solutions.
Not reported

20. Please provide any additional relevant information known about the site.

Floor drains connected to municipal sewer system.

OWNER/OCCUPANT ENVIRONMENTAL QUESTIONNAIRE

Address of property: 23956 Hesperian Boulevard
Hayward, California

This questionnaire was answered:

Date: 10/19/94

Via: X In person

_____ Telephone conversation

_____ Sent by mail

This questionnaire was answered by:

Name: Mr. Howard Chu

Signature: _____

Title: Owner

Firm: Howard's Drive-In

This questionnaire was completed by:

Name: Lorin Sutton

Signature: Lorin Sutton

Title: Project Geologist

Firm: Krazan & Associates

Date: 10/19/94

Note: This Owner/Occupant Questionnaire is based in the ASTM Transaction Screen E.50.02.1. The owner/occupant represents that to the best of his knowledge that the following statements and facts are true and correct, and that to the best of his knowledge no material facts have been suppressed.

General Information

1. When was the site acquired and for what purpose is the property currently used?
   Restaurant since 1961

2. Have there been previous owners/operators engaged in different uses of the site? Please explain.
   None at this address. Other on-site addresses occupied by dry cleaners, restaurant.

3. What else is known about previous usage of the site or any portions of the site?
   Previous dry cleaners at 991 Winton (currently Chinese Food Restaurant)

4. Describe the products or services produced on this site. Include a general description of the manufacturing processes and the dates those processes were active.
   Food products, kitchen activities, since 1961

	Yes	No	Unknown
5. Has a previous environmental assessment been conducted?		X	
Have borings been advanced?	X		
Have soils ever been tested for chemical contamination as a result of a leak, spill, or other incident?			X
6. Have any state or federal environmental agencies required or participated in any testing of soils and/or groundwater?			X

7. What raw materials were used at the site?

Food stuffs, grease

8. How were these materials received (truck, rail, etc.), and how are they stored (drum, tanks. etc.) at the site?

Truck - in storage room

9. Have any of the following materials been used at this site, or are they being used at the site?

	Yes	No	Unknown
Arsenic		X	
Asbestos			X
Cyanide		X	
Heavy metals (cadmium, chromium, lead, mercury, nickel, zinc)		X	
PCB containing transformers/capacitors		X	
PCB containing oil or fluids		X	
Cutting oils		X	
Hydraulics oils		X	
Acids		X	
Caustics		X	
Pesticides		X	
Reactive materials		X	
Fluoride		X	
Radium		X	
Industrial solvents		X	
Petroleum products (gasoline, diesel, kerosene, oils, or lubricants)		X	

10. List environmental regulatory agencies with whom operators of this site have had mandated contact.

Name of agency	Contact Person	Address	Telephone Number
None			

11. Please provide the names, addresses, and telephone numbers of private individuals who may have knowledge regarding these questions or other information concerning environmental condition of the property.

Name	Address	Telephone Number
None known		

Underground Tanks

12. Are any materials stored in underground tanks? If yes, please discuss material stored, tank design and capacity, tank age, permit numbers, and leak detection systems or groundwater monitoring employed.

No

How are materials transported to and from the tank?

N/A

13. Are any materials stored in above-ground tanks? If yes, please discuss materials stored, tank design and capacity, tank age, types of secondary containment structures employed (dikes, berms) and drainage.

No

How are the materials transported to and from the tanks? N/A

14. Have water discharges at this site been subject to:

	Yes	No	Unknown
Effluent guidelines		X	
Pre-treatment requirements		X	
State or local agency discharge limits		X	
County or local discharge ordinances		X	
NPDES permits		X	

15. List all water discharge Notices of Violation warnings (verbal or written), citings, fines, informal meetings, and/or enforcement action proceedings, taken against this facility in the last 2 years. List the reason(s) for each and their current status.

None

16. Attach copies of all water permits specifically applicable to this facility.

None

Hazardous Materials, Hazardous Waste

	Yes	No	Unknown
17. Is the facility classified as any of the following:			
Hazardous waste transporter		X	
Hazardous waste generator		X	
Hazardous waste storage facility		X	
Hazardous waste treatment or disposal facility		X	

If yes, list EPA generator number and describe treatment/disposal method.

N/A

18. List all materials used, generated, or stored at this facility that are designated as "hazardous" or "suspected to be hazardous".

None

19. Discuss any spills, leaks, or other incidents that have occurred. Were they reported? What actions were taken? Were any fines or penalties imposed?

None

20. Please provide any additional relevant information known about the site.

None

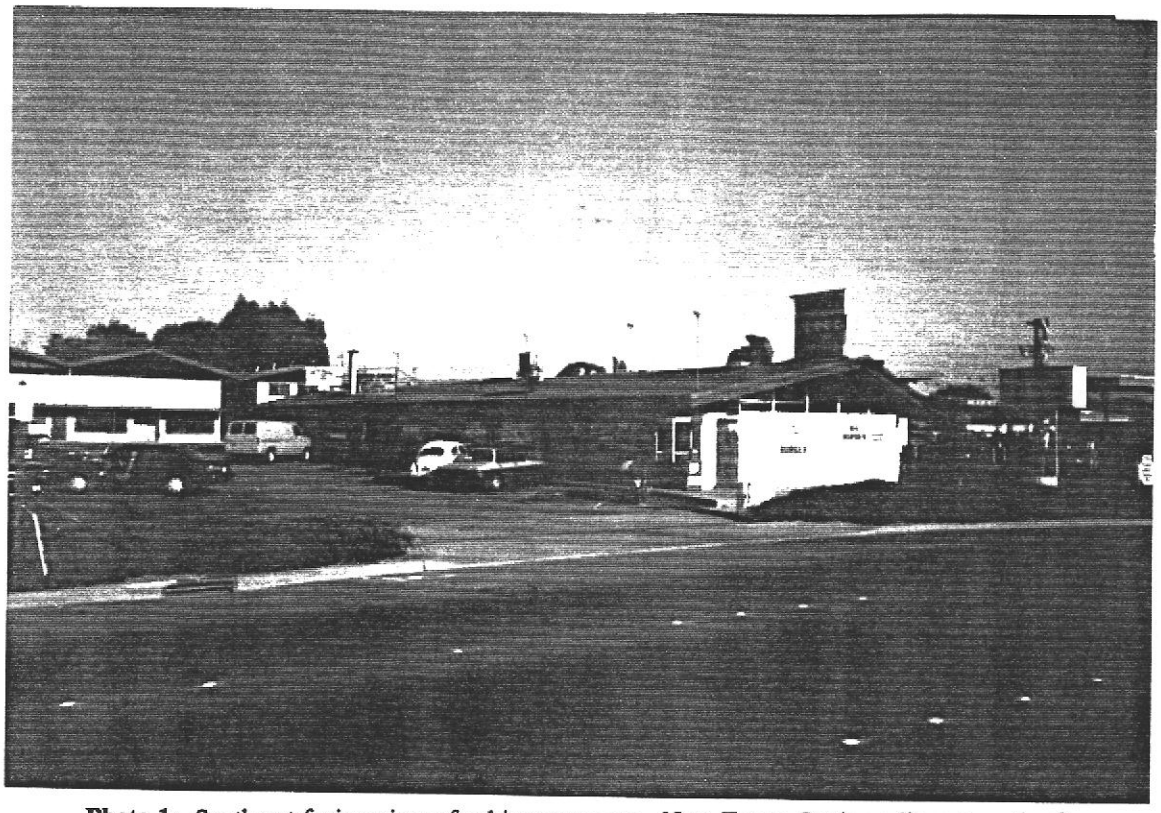


Photo 1: Southeast facing view of subject property. Note Exxon Station adjacent south of the subject property.

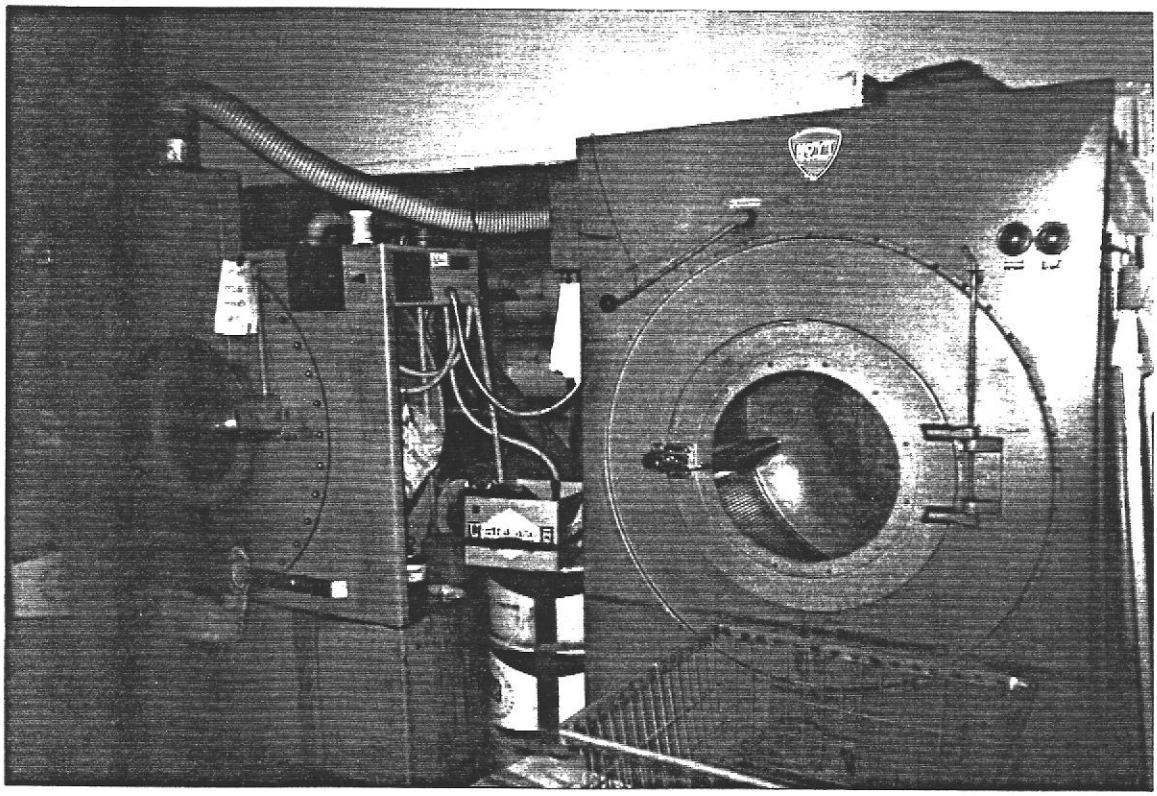


Photo 2: Dry cleaning machine (left) and drying machine (right) within Jack's Norge Cleaners.

PROPOSED TACO BELL NO. 06-1052 HESPERIAN BOULEVARD AND WEST WINTON AVENUE HAYWARD, CALIFORNIA	Project No. 034-94297	Date: 11/02/94	Krazan
	Approved by: LS		

15. List all water discharge Notices of Violation warnings (verbal or written), citings, fines, informal meetings, and/or enforcement action proceedings, taken against this facility in the last 2 years. List the reason(s) for each and their current status.

None

16. Attach copies of all water permits specifically applicable to this facility.

None

Hazardous Materials, Hazardous Waste

	Yes	No	Unknown
17. Is the facility classified as any of the following:			
Hazardous waste transporter		X	
Hazardous waste generator		X	
Hazardous waste storage facility		X	
Hazardous waste treatment or disposal facility		X	

If yes, list EPA generator number and describe treatment/disposal method.

N/A

18. List all materials used, generated, or stored at this facility that are designated as "hazardous" or "suspected to be hazardous".

None

19. Discuss any spills, leaks, or other incidents that have occurred. Were they reported? What actions were taken? Were any fines or penalties imposed?

None

20. Please provide any additional relevant information known about the site.

None

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

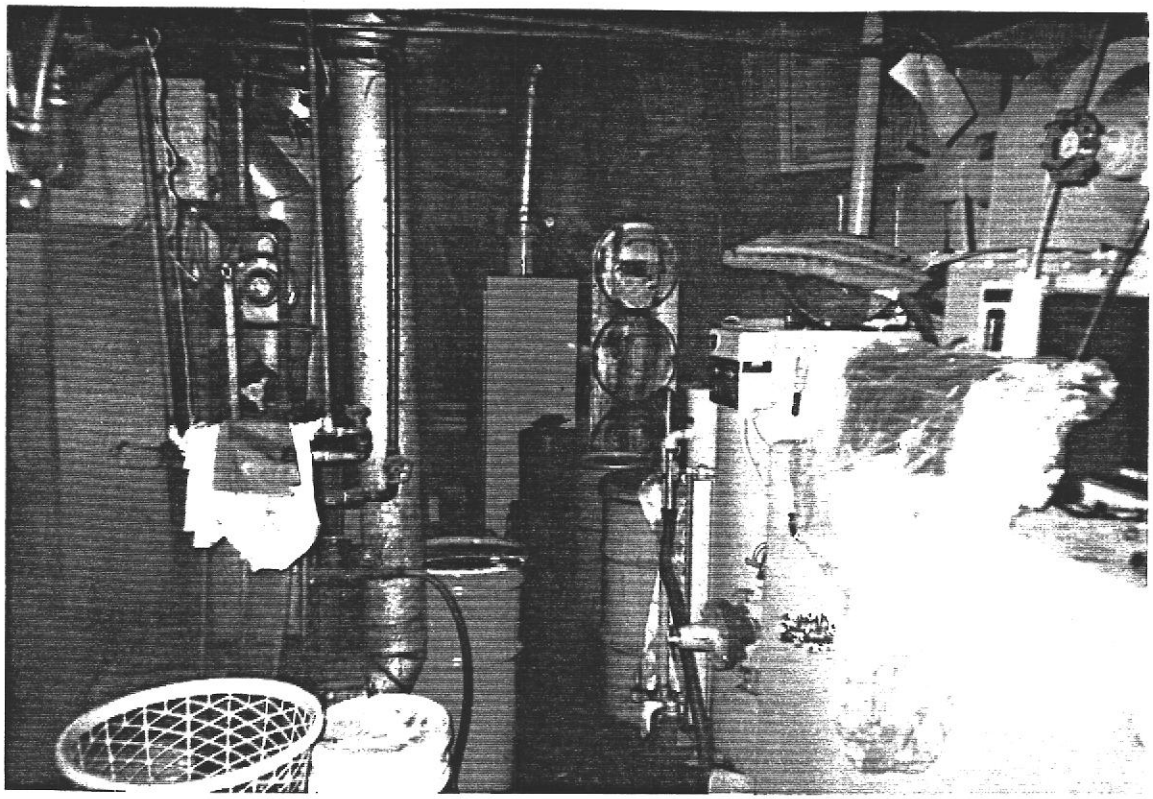


Photo 3: North facing view of machinery associated with dry cleaning operations at Jack's Norge Cleaners. "Sniffer" unit is in right foreground.

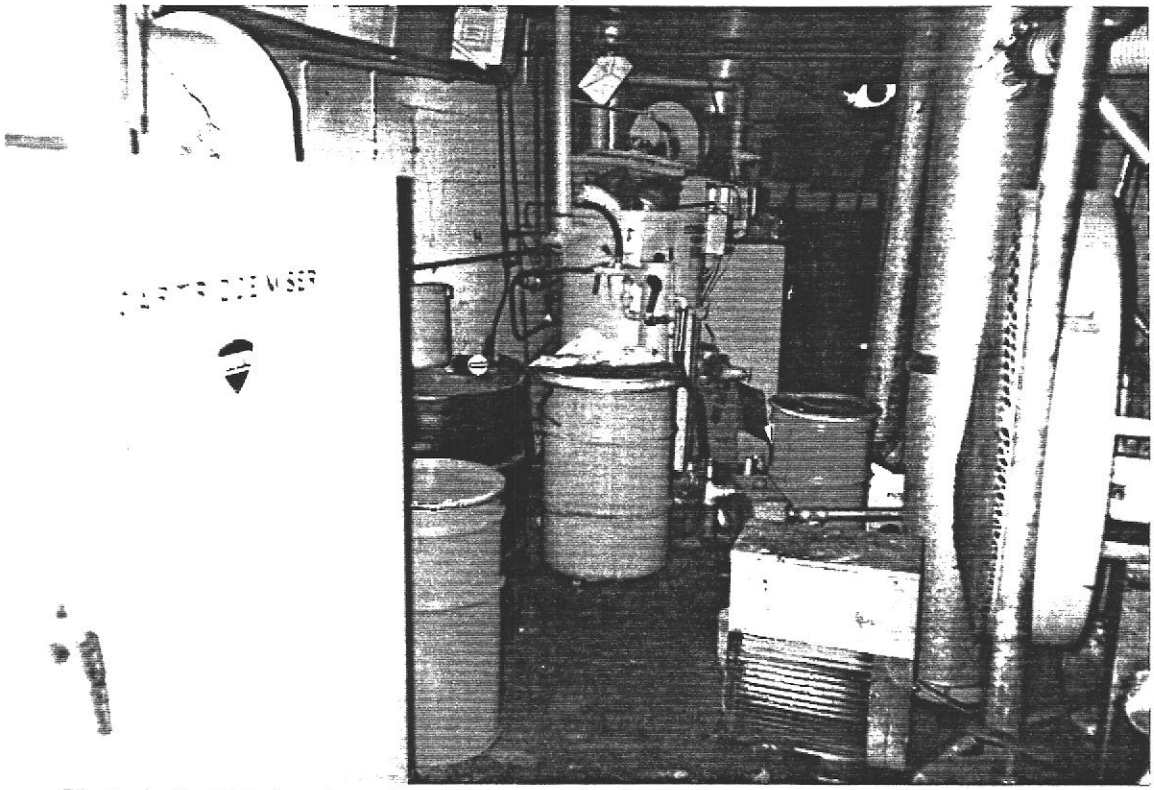


Photo 4: South facing view of machinery associated with dry cleaning operations. Filter drying unit is in left foreground.

PROPOSED TACO BELL NO. 06-1052 HESPERIAN BOULEVARD AND WEST WINTON AVENUE HAYWARD, CALIFORNIA	Project No. 034-94297	Date: 11/02/94	Krazan
	Approved by: LS		



Photo 5: East facing view of kitchen area at Howard's Drive-In. Note grease trap located under the cleaning sink.

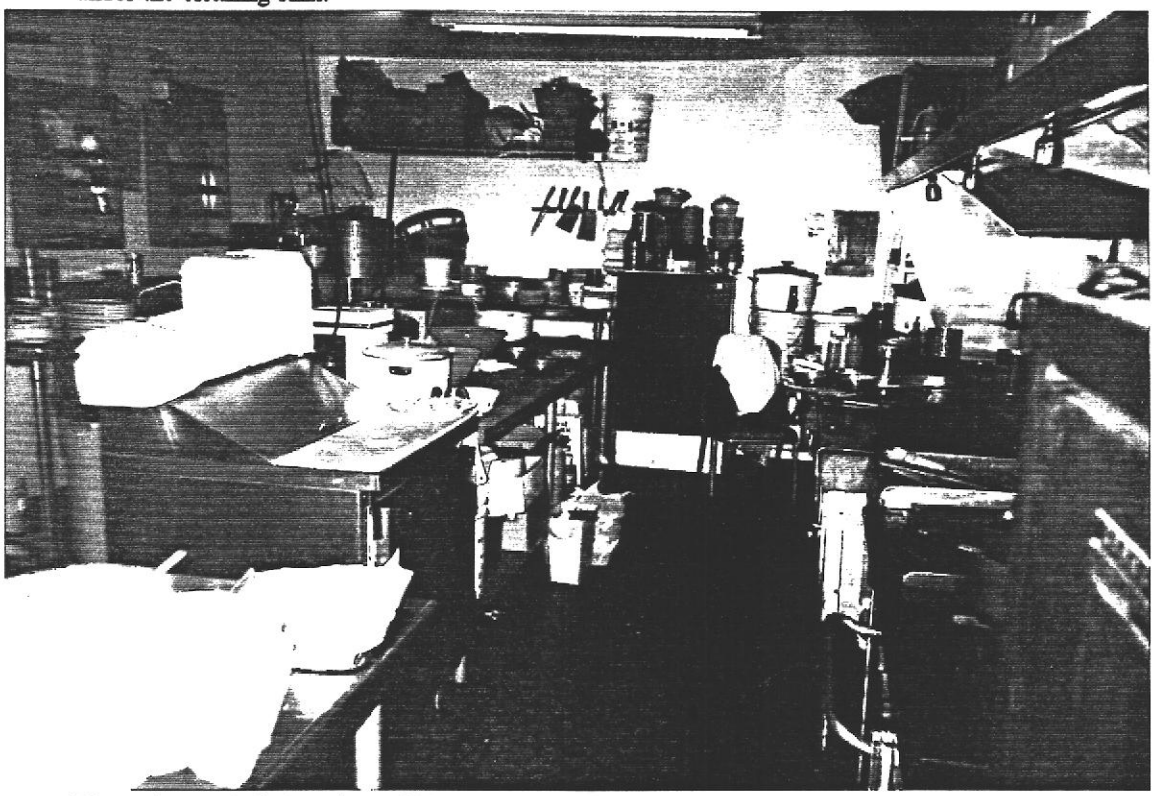
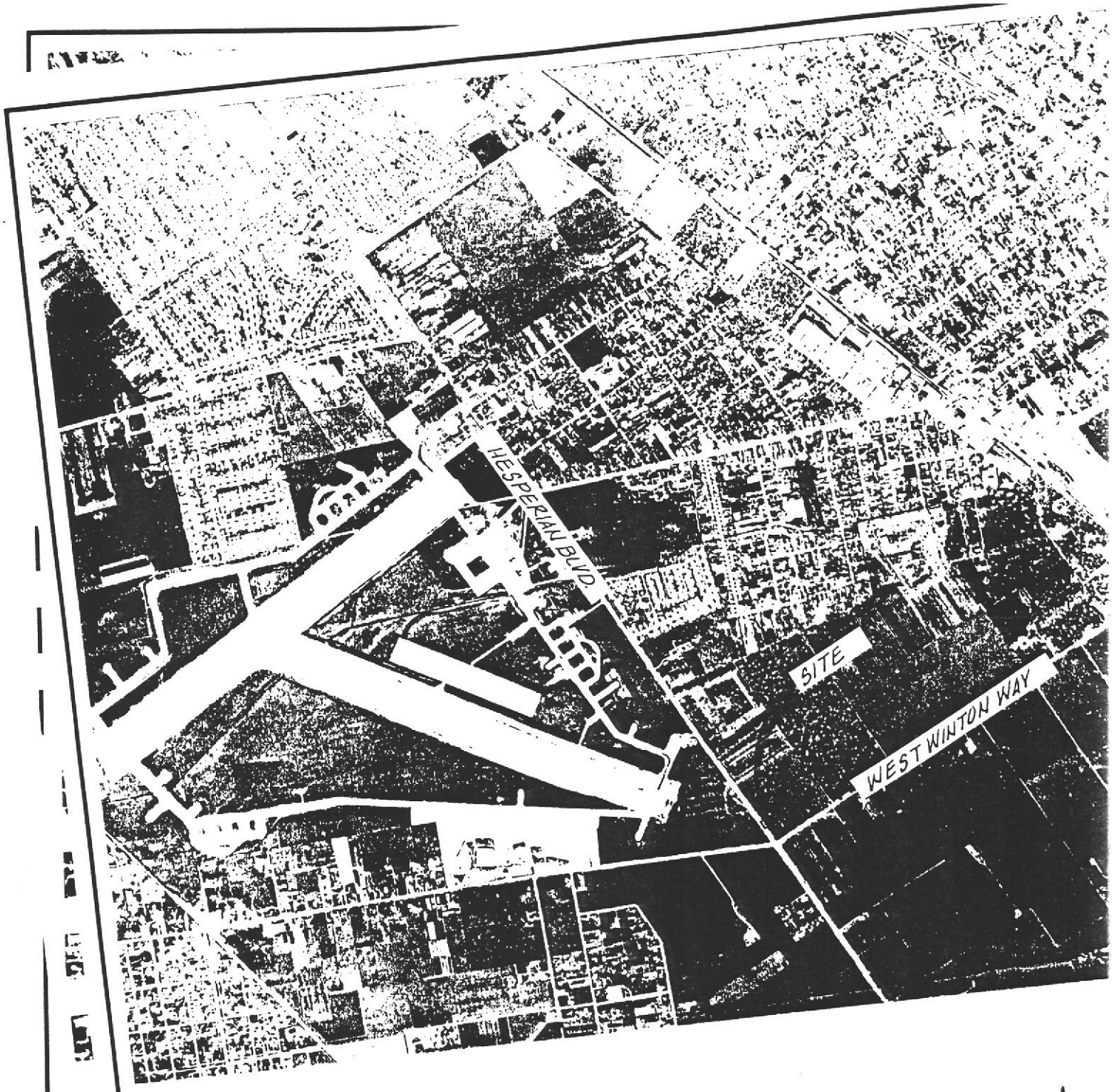


Photo 6: South facing view of kitchen area at Canton House Restaurant.

PROPOSED TACO BELL NO. 06-1052 HESPERIAN BOULEVARD AND WEST WINTON AVENUE HAYWARD, CALIFORNIA	Project No. 034-94297	Date: 11/02/94	Krazan
	Approved by: LS		



AERIAL PHOTO 1950

NORTH

0 880 1760

SCALE IN FEET (:

PROPOSED TACO BELL
06-1052
HESPERIAN BLVD. &
WEST WINTON WAY

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W	Approved by: D.M.
Project No. 94-94-297	Figure No.

Kra

ENGINEERS, GEOLOGISTS AND ENVIRO

SACRAMENTO • TURLOCK • FRE



AERIAL PHOTO 1963

NORTH

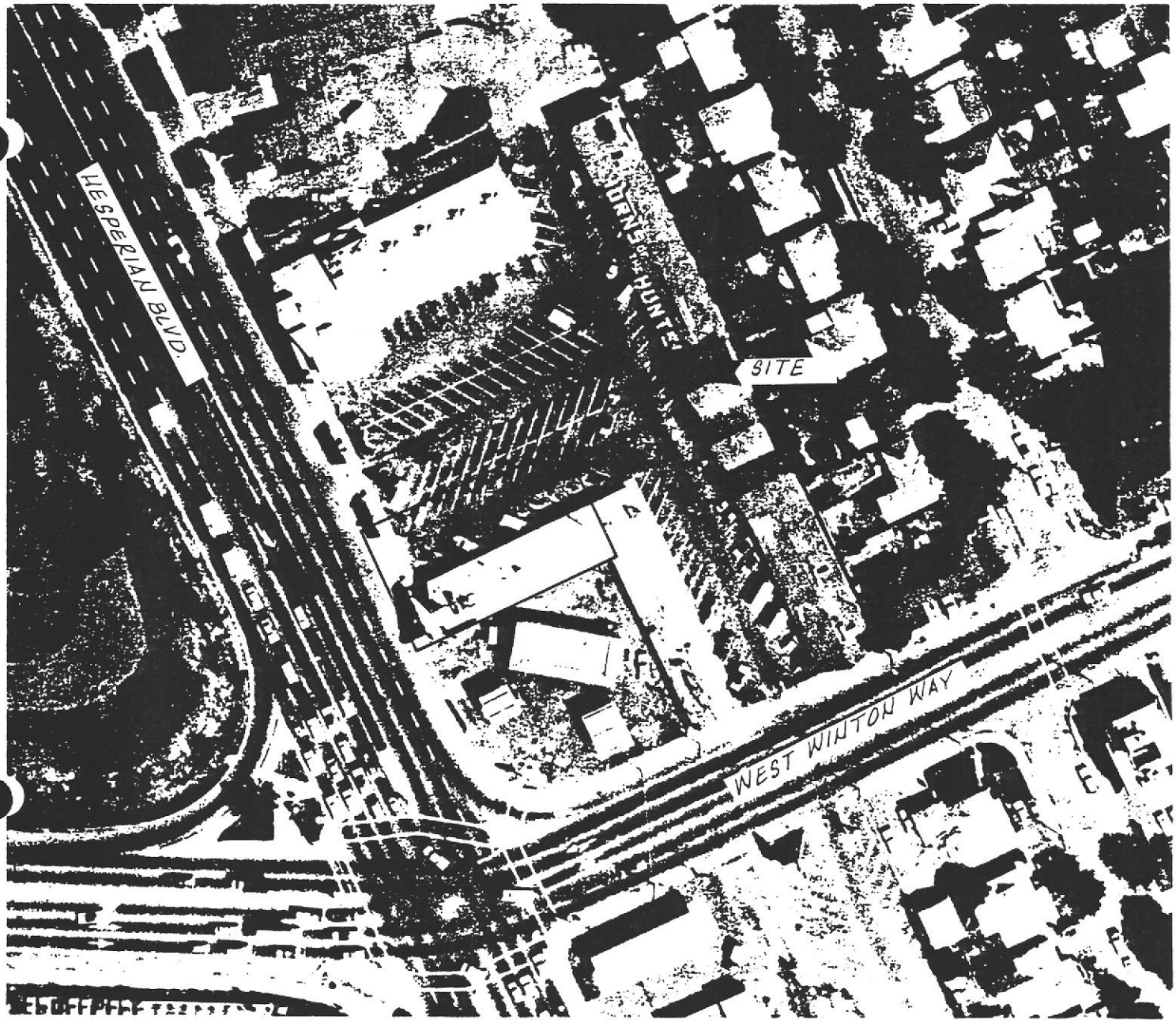
0 275 550 1100

SCALE IN FEET (±)

PROPOSED TACO BELL
06-1052
HESPERIAN BLVD. &
WEST WINTON WAY
HAYWARD, CA.

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W	Approved by: D.M.
Project No. 34-94-297	Figure No.

Krazan
ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS
SACRAMENTO • TURLOCK • FRESNO • BAKERSFIELD



AERIAL PHOTO 1976

NORTH

0 50 100 100

SCALE IN FEET (±)

PROPOSED TACO BELL
06-1052
HESPERIAN BLVD. &
WEST WINTON WAY
HAYWARD, CA.

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W	Approved by: D.M.
Project No. 34-94-297	Figure No.

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ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS
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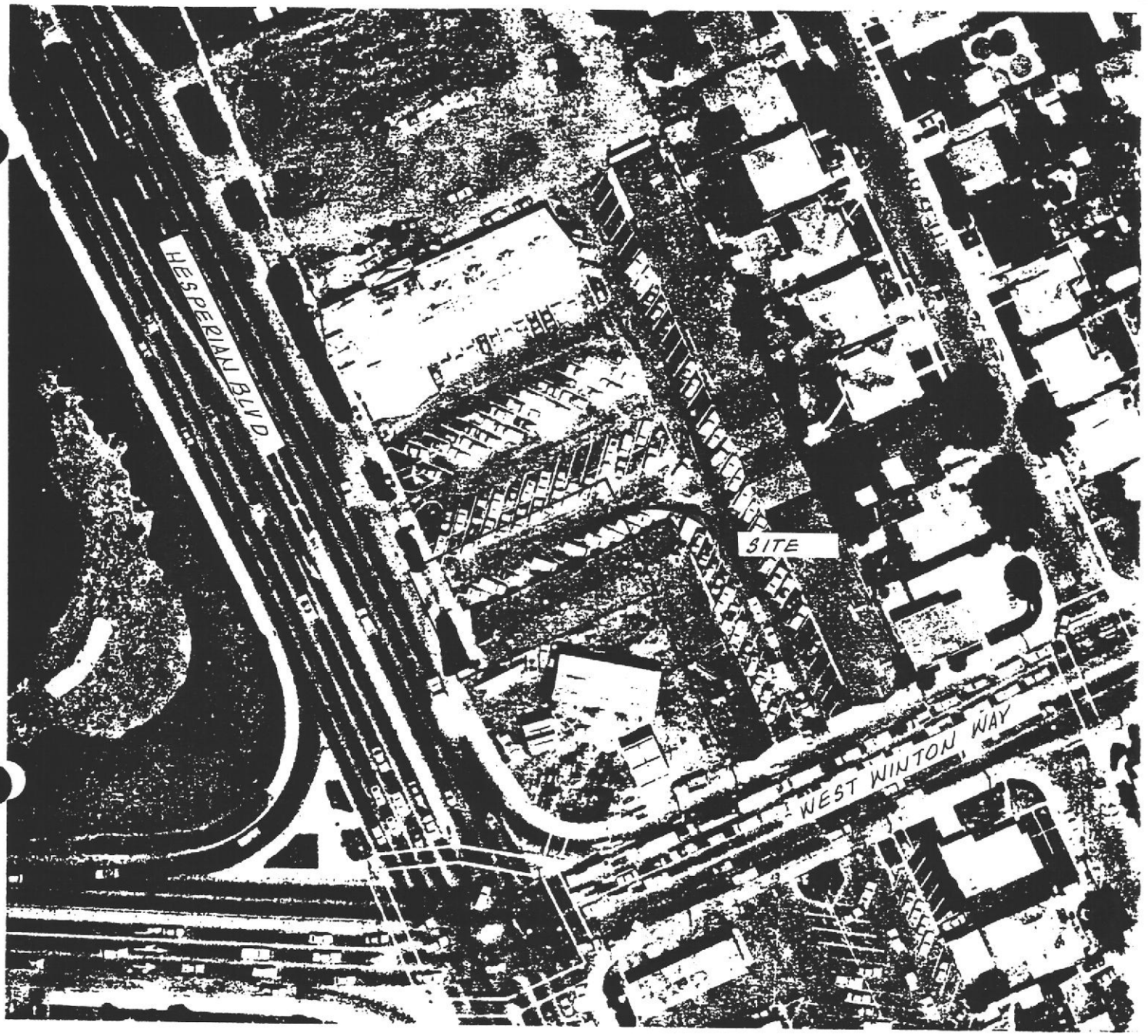


AERIAL PHOTO 1985

NORTH

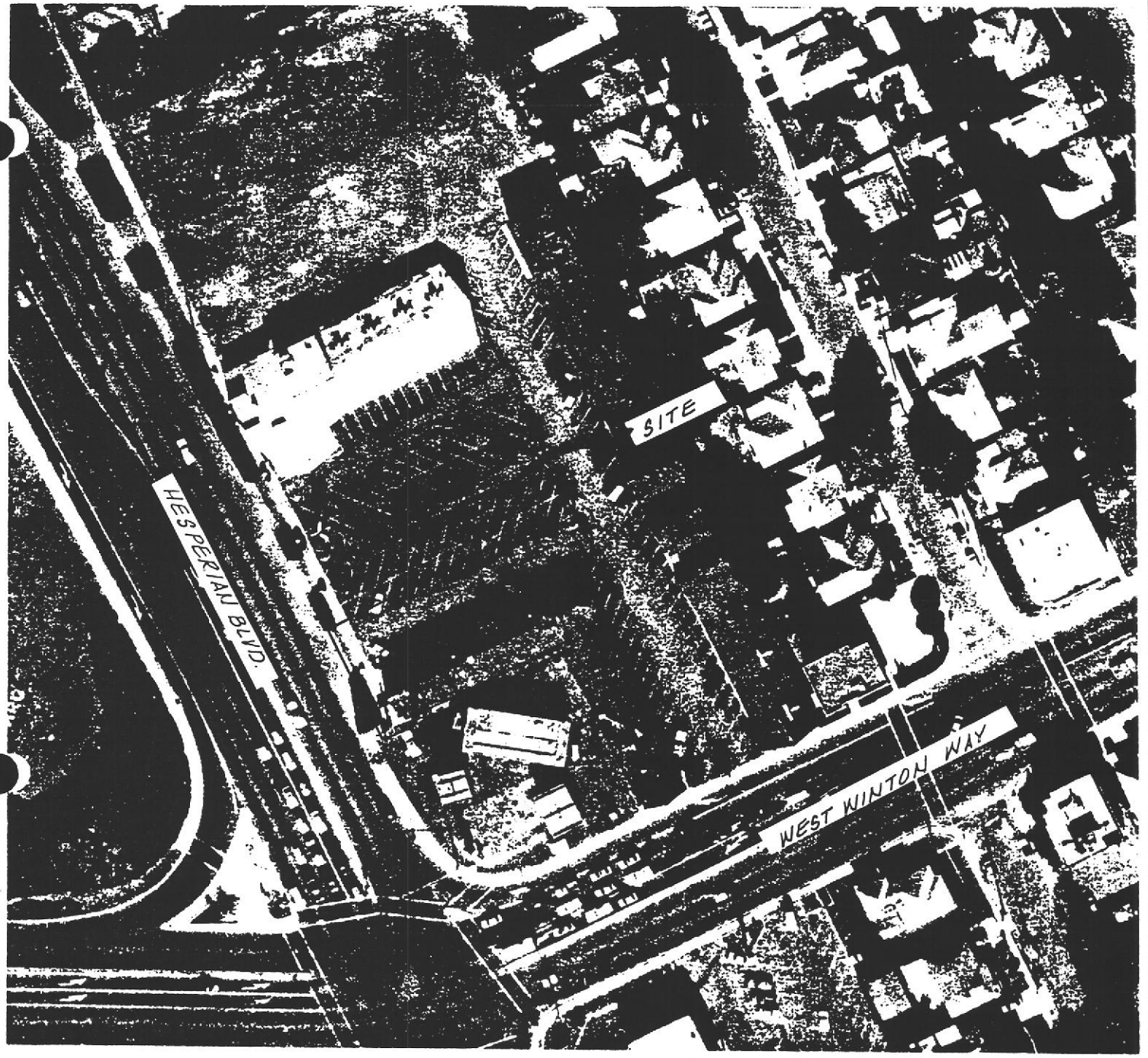
0 50 100 200

SCALE IN FEET (±)

PROPOSED TACO BELL
06-1052
HESPERIAN BLVD. & WEST WINTON WAY
HAYWARD, CA.

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W	Approved by: D.M.
Project No. 34-94-297	Figure No.

Krazan
ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS
SACRAMENTO • TURLOCK • FRESNO • BAKERSFIELD



AERIAL PHOTO 1991

NORTH

0 50 100 200

SCALE IN FEET (±)

PROPOSED TACO BELL
06-1052
HESPERIAN BLVD. & WEST WINTON WAY
HAYWARD, CA.

Scale: AS NOTED	Date: 11-94
Drawn by: D.M.W	Approved by: D.M.
Project No. 34-94-297	Figure No.

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SITE ASSESSMENT REPORT

PROPERTY INFORMATION	CLIENT INFORMATION
Project Name/Ref #: TB SITE 06-1052 AIRPORT PLAZA NEC HESPERIAN W WINTON HAYWARD, CA 94545 Latitude/Longitude: (37.653825, 122.108987)	TONY MILLER TACO BELL-LIVERMORE 2115 LAS POSITAS CT STE T LIVERMORE, CA 92056

Environmental Risk Distribution Summary Agency / Database - Type of Records			*within 1/8 mile*	*1/8 to 1/4 mile*	*1/4 to 1/2 mile*	*1/2 to 1 mile*
A) RISK SITES searched to 1 mile:						
US EPA	NPL	Sites designated for Superfund Cleanup by the US EPA	0	0	0	0
STATE	SPL	Sites Prioritized by State for Cleanup	0	0	0	0
STATE	SCL	Sites Under Review by State	1	2	2	40
US EPA	RCRIS	Facilities That Treat, Store and/or Dispose of Haz Waste	0	0	0	1
B) RISK SITES searched to 1/2 mile:						
US EPA	CERCLIS	Sites under Review by US EPA	0	0	0	-
STATE	LUST	Sites with Leaking UnderGround Storage Tanks	2	1	3	-
STATE	SWLF	Sites permitted as Solid Waste Landfills, Incinerators, or Transfer stations	0	0	0	-
C) RISK SITES searched to 1/4 mile:						
STATE	UST	Sites with Registered Underground Storage Tanks	3	1	-	-
D) RISK SITES searched to 1/8 mile:						
US EPA	ERNS	Sites With Previous Hazardous Materials Spills	0	-	-	-
US EPA	RCRIS	Sites that Generate Large Quantities of Haz Waste	0	-	-	-
US EPA	RCRIS	Sites that Generate Small Quantities of Haz Waste	1	-	-	-

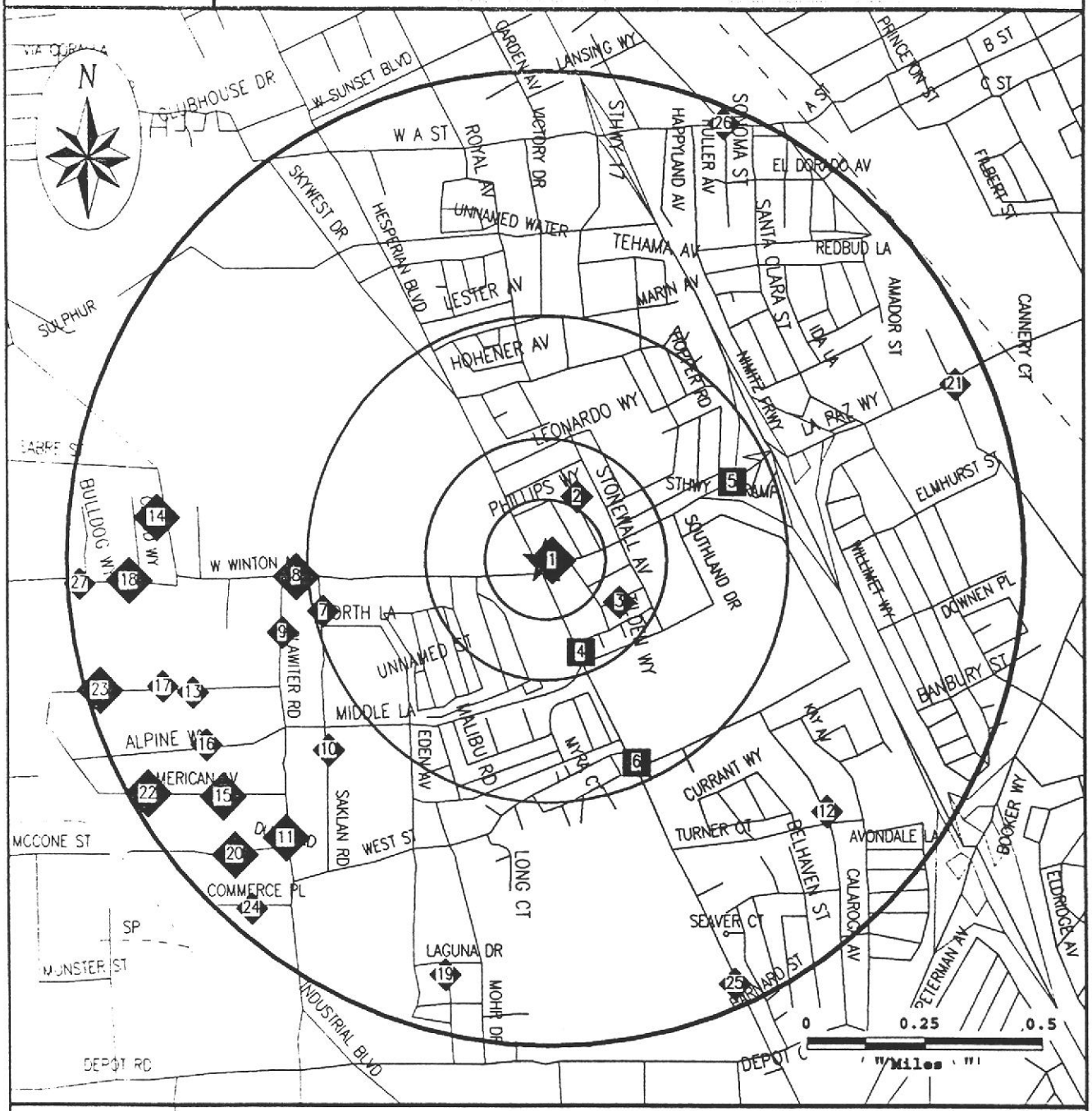
This geographic database search meets the American Society for Testing Materials (ASTM) standards for a government records review. A (-) indicates the search distance exceeds ASTM search parameters.

LIMITATION OF LIABILITY
Customer proceeds at its own risk in choosing to rely on VISTA services, in whole or in part, prior to proceeding with any transaction. VISTA cannot be an insurer of the accuracy of the information, errors occurring in conversion of data, or for customer's use of data. VISTA and its affiliated companies, officers, agents, employees and independent contractors cannot be held liable for accuracy, storage, delivery, loss or expense suffered by customer resulting directly or indirectly from any information provided by VISTA.

VISTA

SITE ASSESSMENT REPORT

Map of Risks Within One Mile



Category:	A	B	C	D
Databases Searched to:	1 mi.	1/2 mi.	1/4 mi.	1/8 mi.
Subject Site	★			
Single Sites	◆	■	△	○
Multiple Sites	◆	■	△	○
	NPL, SPL, SCL, TSD	CERCLIS, LUST, SWLF	UST	ERNS, GENERATORS

Roads
Highways
Railroads
Rivers or Water Bodies
Utilities

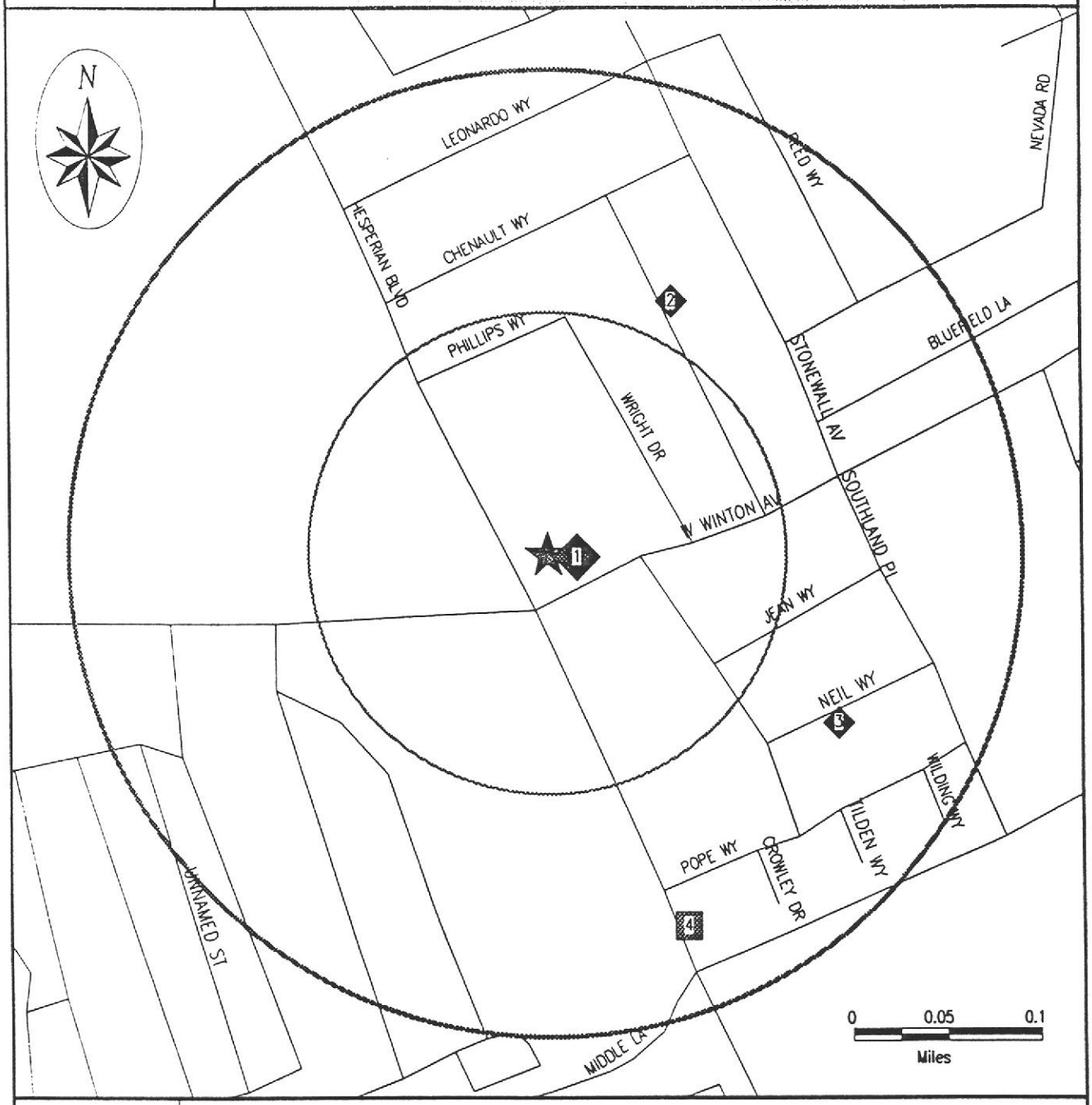
For More Information Call VISTA Environmental Information at **1 - 800 - 767 - 0403**

Report ID: **049725-001**

Date of Report: **July 21, 1994**

SITE ASSESSMENT REPORT

Map of Risks Within Quarter Mile



Subject Site	Category:	A	B	C	D
★	Databases Searched to:	1 mi.	1/2 mi.	1/4 mi.	1/8 mi.
	Single Sites	◆	■	▲	○
	Multiple Sites	◆	■	▲	○
		NPL, SPL, SCL, TSD	CERCLIS, LUST, SWLF	UST	ERNS, GENERATORS

Roads
Highways
Railroads
Rivers or Water Bodies
Utilities

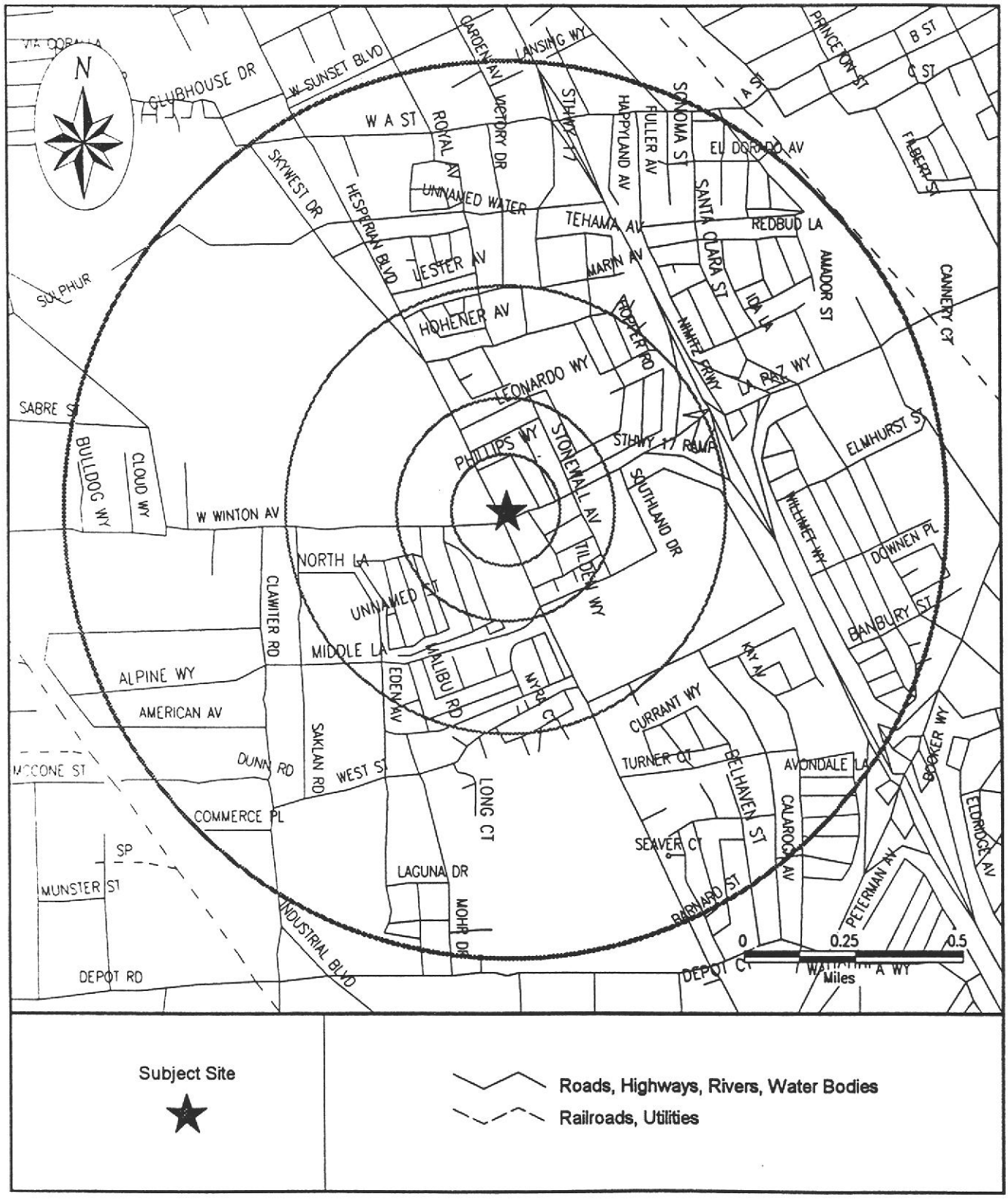
For More Information Call VISTA Environmental Information at **1 - 800 - 767 - 0403**

Report ID: **049725-001**

Date of Report: **July 21, 1994**

SITE ASSESSMENT REPORT

Street Map



SITE ASSESSMENT REPORT

DESCRIPTION OF DATABASES SEARCHED

A) DATABASES SEARCHED TO 1 MILE

NPL
SRC#: 1622

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for NPL was January, 1994.

The National Priorities List (NPL) is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the US Dept of Health and Human Services and the US EPA in order to become an NPL site.

RCRA-TSD
SRC#: 1372

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for RCRIS was July, 1993.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDs are facilities which treat, store and/or dispose of hazardous waste.

SPL
SRC#: 1583

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Calsites Database: AWP and High Priority PEAR Sites was November, 1993.

The California Environmental Protection Agency, Dept. of Toxic Substances Control maintains an inventory of facilities subject to investigations concerning likely or threatened releases of hazardous substances from those facilities. Annual Work Plan (AWP) sites and sites where Preliminary Environmental Assessments ar a high priority are included.

SCL
SRC#: 1542

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Calsites Database: Medium/Low Priority and No Further Action Sites (incl. ASPIS) was November, 1993.

The California Department of Toxic Substances Control maintains an inventory of facilities subject to investigations concerning likely or threatened releases of hazardous substances from those facilities. These are lower priority than the SPL sites.

B) DATABASES SEARCHED TO 1/2 MILE

CERCLIS
SRC#: 1623

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for CERCLIS was January, 1994.

The CERCLIS List is a compilation by the EPA of the sites which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund Act).

LUST
SRC#: 1640

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Lust Information System (LUSTIS) was December, 1993.

The California Environmental Protection Agency maintains an inventory of leaking underground storage tanks.

SWLF
SRC#: 1237

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Ca Solid Waste Information System (SWIS) was March, 1993.

The California Integrated Waste Management Board maintains an inventory of the solid waste facilities in the state.

C) DATABASES SEARCHED TO 1/4 MILE

AST's
SRC#: 1468

VISTA conducts a database search to identify all sites within 1/4 mile of your property.
The agency release date for Aboveground Storage Tank Database was September, 1993.

The California State Water Regional Control Board maintains an inventory of registered aboveground storage tanks.

UST's
SRC#: 1612

VISTA conducts a database search to identify all sites within 1/4 mile of your property.
The agency release date for Underground Storage Tank Registrations Database was January, 1994.

The California State Water Regional Control Board, Office of Underground Storage Tanks maintains an inventory of registered underground storage tanks.

D) DATABASES SEARCHED TO 1/8 MILE

ERNS
SRC#: 1428

VISTA conducts a database search to identify all sites within 1/8 mile of your property.
The agency release date for ERNS was September, 1993.

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the US Coast Guard, the National Response Center and the Department of transportation. A search of the database records for the period October 1986 through September 1993 revealed the following information regarding reported spills of oil or hazardous substances in the stated area.

RCRA-LgGen
SRC#: 1372

VISTA conducts a database search to identify all sites within 1/8 mile of your property.
The agency release date for RCRIS was July, 1993.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Large Generators are facilities which generate at least 1000 kg./month of non-acutely hazardous waste (or 1 kg./month of acutely hazardous waste).

RCRA-SmGen
SRC#: 1372

VISTA conducts a database search to identify all sites within 1/8 mile of your property.
The agency release date for RCRIS was July, 1993.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Small and Very Small generators are facilities which generate less than 1000 kg./month of non-acutely hazardous waste.

SITE ASSESSMENT REPORT

RISK INVENTORY

MAP ID	RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
1	EXXON R/S 7-0218 23990 HESPERIAN HAYWARD, CA 94541								X				3777044
1	GENES NORGE CLEANERS 23958 HESPERIAN BLVE HAYWARD, CA 94541											X	167879
1	TEXACO 23990 HESPERIAN HAYWARD, CA 94541						X						1176372
1	AUDIO-TECHNOLOGY 23800 HESPERIAN BOULEVARD HAYWARD, CA 94545			X									1155180
1	EXPRESS LUBE 994 W WINTON HAYWARD, CA 94545								X				4047201
1	WINTON BEACON 944 W WINTON HAYWARD, CA 94545								X				4047200
1	FARRER PROPERTY 944 W WINTON HAYWARD, CA 94545						X						930051

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
2	SWEANNGIN TRUCKING 23500 ODOM DRIVE HAYWARD, CA 94541			X									1154852
3	DIAMOND POWER SWEEP 962 NEIL WAY HAYWARD, CA 94545			X									1154898
4	SOUTHLAND CHEVRON 24350 HESPERIAN HAYWARD, CA 94545						X		X				1219061

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
5	CITGO 660 W WINTON AVE HAYWARD, CA 94545						X						930054

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
6	EQUITY PROP DEVELOPMENT COMP 24688 HESPERIAN HAYWARD, CA 94545						X						1176373
7	KRUGER SONS INC 22958 SAKLAN ROAD HAYWARD, CA 94545			X									1144142
8	FIRE STATION #6 1401 WINTON AVE N HAYWARD, CA 94545						X						1210345
8	BAMSCH TOOL DIE INC 1418 WEST WINTON AVENUE HAYWARD, CA 94545			X									1597469

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
8	CALIFORNIA AIR NATIONAL GUARD 1525 WEST WINTON AVENUE HAYWARD, CA 94544			X									190467
9	TOM KENNEDY COMPANY 22962 CLAWITER ROAD HAYWARD, CA 94545			X									1155147
10	TRIDENT TRUCK LINE 23724 SAKLAN ROAD HAYWARD, CA 94545			X									532053
11	CAL TOOL AND MANUFACTURING COMPANY 23850 CLAWITER ROAD HAYWARD, CA 94545			X									1148916
11	C G CONTRACTORS, INC 23878 CLAWITER ROAD HAYWARD, CA 94545			X									1583496
11	TORQUE LOCKS INC 23970 CLAWITER ROAD HAYWARD, CA 94545			X									1148778
11	ACME METAL SPINNING WORKS 2140 DUNN ROAD HAYWARD, CA 94545			X									1150141
12	ARMSTRONG MAAS PAINTING AND SANDBLA 24984 CALAROGA AVENUE HAYWARD, CA 94545			X									1592494
13	ACCURACY SCREW COMPANY 1802 NATIONAL AVENUE HAYWARD, CA 94545			X									1149996
14	MATHIEU ARMS DEVELOPMENT COMPANY 21004 CORSAIR BOULEVARD HAYWARD, CA 94545			X									1592700
14	D A CONCRETE ACCESSORIES 20942 CORSAIR BOULEVARD HAYWARD, CA 94545			X									1592699

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
14	HAY COR CORPORATION 20876 CORSAIR BOULEVARD HAYWARD, CA 94545			X									1151962
14	WESTERN DRUMS, INC. 21301 CLOUD WAY HAYWARD, CA 94545			X									4058957
15	OAK LAMINATES 2031 AMERICAN AVENUE HAYWARD, CA 94545			X									3890395
15	NATURAL PROTEIN PRODUCTS 2034 AMERICAN AVENUE HAYWARD, CA 94545			X									1143588
15	RODAR TOOL COMPANY INC 2070 AMERICAN AVENUE HAYWARD, CA 94545			X									1151898
15	Q A MANUFACTURING 2078 AMERICAN AVENUE HAYWARD, CA 94545			X									1151899
15	ARROW-FASTENERS 2112 AMERICAN AVENUE HAYWARD, CA 94545			X									1154948
16	SETCO INC - DISTRIBUTING 1963 ALPINE WAY HAYWARD, CA 94541			X									1154985
17	ORTHOPEDIC SYSTEMS INC 1857 NATIONAL AVENUE HAYWARD, CA 94545			X									1154174
18	ANTONE MANUFACTURING COMPANY 21671 CLOUD WAY HAYWARD, CA 94545			X									1148515
18	OAKLAND WIRE GRON WORKS 21602 CLOUD WAY HAYWARD, CA 94545			X									1149005
18	DEAN LEWIS ASSOCIATES 21650 CLOUD WAY HAYWARD, CA 94545			X									1154904
18	C B ASSOCIATES 21658 CLOUD WAY HAYWARD, CA 94545			X									1151762
18	ROBERT GROSS 1901 WEST WINTON HAYWARD, CA 94545			X									1597288
19	VAN DEN BROEK INC 24941 MONTE VISTA DRIVE HAYWARD, CA 94545			X									1594673
20	PERSONALIZED TRANSIT 2216 DUNN ROAD HAYWARD, CA 94545			X									1154872
20	CONTRACT MACHINE WORKS 2218 DUNN ROAD HAYWARD, CA 94545			X									1592878

MAP ID	RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	A				B			C	D			NOTES
		NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
21	DAILY REVIEW 116 WEST WINTON AVENUE HAYWARD, CA 94544			X									1145809
22	SHUBIN TOOL MANUFACTURING 2171 AMERICAN AVENUE HAYWARD, CA 94545			X									1150646
22	MANOR RESEARCH INC 2185 AMERICAN AVENUE HAYWARD, CA 94545			X									1155242
22	J J UPHOLSTERY 2214 AMERICAN AVENUE HAYWARD, CA 94545			X									1155203
22	TRI-METALMEC INC 2227 AMERICAN AVENUE HAYWARD, CA 94545			X									1148741
22	MARADEAN 2218 AMERICAN AVENUE HAYWARD, CA 94545			X									1150334
23	VARN PRODUCTS COMPANY INC 1942 NATIONAL AVENUE HAYWARD, CA 94545			X									3159383
23	REDCO, RUBBER ENGINEERING DEVELOP 1975 NATIONAL AVENUE HAYWARD, CA 94545			X									1595138
23	HAYWARD PLASTIC 1999 NATIONAL AVENUE HAYWARD, CA 94545			X									1146969
24	F S TRANSPORTATION 2208 COMMERCE PLACE HAYWARD, CA 94545			X									1154826
25	SO COUNTY COMMUNITY COLLEGE DISTRIC 25555 HESPERIAN BOULEVARD HAYWARD, CA 94545			X									1593959
26	ANCHOR GLASS CONTAINER CORP 22302 HATHAWAY AVE HAYWARD, CA 94541				X								21509
27	A M RESEARCH CORPORATION 1932 WEST WINTON AVENUE HAYWARD, CA 94545			X									1151463

UNMAPPED SITES	A				B			C	D			NOTES
	NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
READY HUNG DOOR ADDRESS UNKNOWN HAYWARD, CA 94544			X									1591831
OAKLAND SCAVENGER / WEST WINTON DUM WEST WINTON AVENUE (AT THE FOOT OF) HAYWARD, CA 94544			X									1154638

UNMAPPED SITES	A				B			C	D			NOTES
	NPL	SPL	SCL	TSD	CERCLIS	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	VISTA ID
HAYWARD AIR NATIONAL GUARD BASE HAYWARD AIR NATIONAL GUARD BASE HAYWARD, CA 94545					X							1593997
HAYWARD AIR NATIONAL GUARD 216/234 COMBAT SQDRN HAYWARD, CA						X						4558267
UNKNOWN WEST WINTON AVE HAYWARD, CA 94545									X			200019590
UNKNOWN SR 92 W/B AT HESPERIAN HAYWARD, CA 94541									X			200033443
UNK W WINTON AVE NR CABOT HAYWARD, CA 94544									X			200129750

SITE ASSESSMENT REPORT

RISKS DETAILS

RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile)			
Property Address with VISTA Verified\Enhanced City and Zip:	**EXXON R/S 7-0218** **23990 HESPERIAN** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **3777044** **N/A**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Underground Tanks:	5		
Aboveground Tanks:	NOT REPORTED		
Tanks Removed:	NOT REPORTED		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	1		
Tank Contents:	LEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	10000 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	MONITOR PRESENT		
Tank Piping:	FIBERGLASS		
Tank Material:	FIBERGLASS		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	2		
Tank Contents:	DIESEL		
Tank Age:	NOT REPORTED		
Tank Size (Units):	10000 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	MONITOR PRESENT		
Tank Piping:	FIBERGLASS		
Tank Material:	FIBERGLASS		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	3		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	8000 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	FIBERGLASS		
Tank Material:	FIBERGLASS		

RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**EXXON R/S 7-0218** **23990 HESPERIAN** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **3777044** **N/A**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	4		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	12000 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	FIBERGLASS		
Tank Material:	FIBERGLASS		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	5		
Tank Contents:	PETROLEUM		
Tank Age:	NOT REPORTED		
Tank Size (Units):	550 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	FIBERGLASS		
Tank Material:	FIBERGLASS		

Property Address with VISTA Verified\Enhanced City and Zip:	**GENES NORGE CLEANERS** **23958 HESPERIAN BLVE** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **167879** **N/A**
DETAILS REGARDING:	**RCRA-SmGen / SRC# 1372**	EPA ID	CAD981580087
Agency Address:	SAME AS ABOVE		
Generator Class:	GENERATORS WHO GENERATE 100 KG./MONTH BUT LESS THAN 1000 KG./MONTH OF NON-ACUTELY HAZARDOUS WASTE		
Generator Requirements Violation:	NO		
Violation of Corrective Action Scheduled:	NO		
Land Requirements Violation:	NO		

Property Address with VISTA Verified\Enhanced City and Zip:	**TEXACO** **23990 HESPERIAN** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **1176372** **N/A**
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank Status:	NOT REPORTED		
Discovery Date:	MARCH 07, 1989		
Media Affected:	GROUNDWATER		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	NO ACTION TAKEN		
Remedial Status 1:	REM INVEST/FEASABILITY STUDY		
Remedial Status 2:	NOT REPORTED		

RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**AUDIO-TECHNOLOGY** **23800 HESPERIAN BOULEVARD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **1155180** **N/A**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01760005
Agency Address:	AUDIO-TECHNOLOGY 23800 HESPERIAN BOULEVARD HAYWARD, CA 94541		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**EXPRESS LUBE** **994 W WINTON** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **4047201** **N/A**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Underground Tanks:	1		
Aboveground Tanks:	NOT REPORTED		
Tanks Removed:	NOT REPORTED		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	1		
Tank Contents:	OIL(NOT SPECIFIED)		
Tank Age:	NOT REPORTED		
Tank Size (Units):	6000 (GALLONS)		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	FIBERGLASS		
Tank Material:	BARE STEEL		

Property Address with VISTA Verified\Enhanced City and Zip:	**WINTON BEACON** **944 W WINTON** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **4047200** **N/A**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	WINTON BEACON 944 W WINTON HAYWARD, CA 94540		
Underground Tanks:	4		
Aboveground Tanks:	NOT REPORTED		
Tanks Removed:	NOT REPORTED		

RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**WINTON BEACON** **944 W WINTON** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	1 4047200 N/A
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	WINTON BEACON 944 W WINTON HAYWARD, CA 94540		
Tank ID:	1		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	10000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	UNKNOWN		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	WINTON BEACON 944 W WINTON HAYWARD, CA 94540		
Tank ID:	2		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	10000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	UNKNOWN		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	WINTON BEACON 944 W WINTON HAYWARD, CA 94540		
Tank ID:	3		
Tank Contents:	LEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	10000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	UNKNOWN		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	WINTON BEACON 944 W WINTON HAYWARD, CA 94540		
Tank ID:	4		
Tank Contents:	OIL(NOT SPECIFIED)		
Tank Age:	NOT REPORTED		
Tank Size (Units):	550 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	UNKNOWN		

RISK AT SITE AND THE ADJACENT AREA (within 1/8 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**FARRER PROPERTY** **944 W WINTON** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**1** **930051** **N/A**
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	FARRER PROPERTY 944 W WINTON HAYWARD, CA		
Tank Status:	NOT REPORTED		
Discovery Date:	OCTOBER 30, 1987		
Media Affected:	GROUNDWATER		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	NO ACTION TAKEN		
Remedial Status 1:	PRELIMINARY ASSESSMENT		
Remedial Status 2:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)			
Property Address with VISTA Verified\Enhanced City and Zip:	**SWEANNGIN TRUCKING** **23500 ODOM DRIVE** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**2** **1154852** **0.15MI / NE**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420059
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**DIAMOND POWER SWEEP** **962 NEIL WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**3** **1154898** **0.18MI / SE**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01490002
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**SOUTHLAND CHEVRON** **24350 HESPERIAN** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**4** **1219061** **0.20MI / SE**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Underground Tanks:	4		
Aboveground Tanks:	NOT REPORTED		
Tanks Removed:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**SOUTHLAND CHEVRON** **24350 HESPERIAN** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**4** **1219061** **0.20MI / SE**
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	1		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	9500 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	BARE STEEL		
Tank Material:	FIBERGLASS		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	2		
Tank Contents:	UNLEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	5000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	BARE STEEL		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	3		
Tank Contents:	LEADED GAS		
Tank Age:	NOT REPORTED		
Tank Size (Units):	6000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	UNKNOWN		
Tank Material:	BARE STEEL		
DETAILS REGARDING:	**UST / SRC# 1612**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank ID:	4		
Tank Contents:	OIL(NOT SPECIFIED)		
Tank Age:	NOT REPORTED		
Tank Size (Units):	1000 (GALLONS)		
Tank Status:	CLOSED REMOVED		
Leak Monitoring:	REPORTED AS "UNKNOWN" BY AGENCY		
Tank Piping:	BARE STEEL		
Tank Material:	BARE STEEL		

RISK AT SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**SOUTHLAND CHEVRON** **24350 HESPERIAN** **HAYWARD, CA 94545**	Map ID#: VISTA ID#: Distance/Direction:	4 1219061 0.20MI / SE
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	SOUTHLAND CHEVRON 24350 HESPERIAN BLVD. HAYWARD, CA 94545		
Tank Status:	NOT REPORTED		
Discovery Date:	AUGUST 14, 1989		
Media Affected:	GROUNDWATER		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	NO ACTION TAKEN		
Remedial Status 1:	REM INVEST/FEASABILITY STUDY		
Remedial Status 2:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)			
Property Address with VISTA Verified\Enhanced City and Zip:	**CITGO** **660 W WINTON AVE** **HAYWARD, CA 94545**	Map ID#: VISTA ID#: Distance/Direction:	5 930054 0.41MI / E
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	CITGO 660 W WINTON AVE HAYWARD, CA		
Tank Status:	NOT REPORTED		
Discovery Date:	MAY 31, 1985		
Media Affected:	GROUNDWATER		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	REMOVE FREE PRODUCT		
Remedial Status 1:	SITE INVESTIGATION (SI)		
Remedial Status 2:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**EQUITY PROP DEVELOPMENT COMP** **24688 HESPERIAN** **HAYWARD, CA 94545**	Map ID#: VISTA ID#: Distance/Direction:	6 1176373 0.46MI / SE
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank Status:	NOT REPORTED		
Discovery Date:	FEBRUARY 24, 1989		
Media Affected:	GROUNDWATER		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	EXCAVATE DISPOSE		
Remedial Status 1:	PRELIMINARY ASSESSMENT		
Remedial Status 2:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**KRUGER SONS INC** **22958 SAKLAN ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**7** **1144142** **0.48MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01200015
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**FIRE STATION #6** **1401 WINTON AVE N** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**8** **1210345** **0.49MI / W**
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	FIRE STATION #6 1401 WINTON AVE N HAYWARD, CA		
Tank Status:	NOT REPORTED		
Discovery Date:	MARCH 02, 1989		
Media Affected:	SOIL		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	NO ACTION TAKEN		
Remedial Status 1:	NO ACTION TAKEN-RP		
Remedial Status 2:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**BAMSCH TOOL DIE INC** **1418 WEST WINTON AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**8** **1597469** **0.50MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350084
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)			
Property Address with VISTA Verified\Enhanced City and Zip:	**CALIFORNIA AIR NATIONAL GUARD** **1525 WEST WINTON AVENUE** **HAYWARD, CA 94544**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**8** **190467** **0.58MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01970001
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**TOM KENNEDY COMPANY** **22962 CLAWITER ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**9** **1155147** **0.57MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01730068
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**TRIDENT TRUCK LINE** **23724 SAKLAN ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**10** **532053** **0.60MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01470002
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	COUNTY LEAD		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**CAL TOOL AND MANUFACTURING C** **23850 CLAWITER ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**11** **1148916** **0.76MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340030
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**C G CONTRACTORS, INC** **23878 CLAWITER ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**11** **1583496** **0.77MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01160006
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**TORQUE LOCKS INC** **23970 CLAWITER ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**11** **1148778** **0.80MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340023
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ACME METAL SPINNING WORKS** **2140 DUNN ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**11** **1150141** **0.83MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340098
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ARMSTRONG MAAS PAINTING AND S** **24984 CALAROGA AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**12** **1592494** **0.78MI / SE**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01170036
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ACCURACY SCREW COMPANY** **1802 NATIONAL AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**13** **1149996** **0.79MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340075
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**MATHIEU ARMS DEVELOPMENT CO** **21004 CORSAIR BOULEVARD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**14** **1592700** **0.79MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01370020
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**D A CONCRETE ACCESSORIES** **20942 CORSAIR BOULEVARD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**14** **1592699** **0.80MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01170020
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**HAY COR CORPORATION** **20876 CORSAIR BOULEVARD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**14** **1151962** **0.81MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350105
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**WESTERN DRUMS, INC.** **21301 CLOUD WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**14** **4058957** **0.86MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340114
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	PRELIMINARY ASSESSMENT REQ-MED		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**OAK LAMINATES** **2031 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**15** **3890395** **0.79MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01300033
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**NATURAL PROTEIN PRODUCTS** **2034 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**15** **1143588** **0.81MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01200006
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	PRELIMINARY ASSESSMENT REQ-MED		
Pollutant 1:	HYDROCARBON SOLVENTS		
Pollutant 2:	OXYGENATED SOLVENTS		

Property Address with VISTA Verified\Enhanced City and Zip:	**RODAR TOOL COMPANY INC** **2070 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**15** **1151898** **0.84MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350089
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**Q A MANUFACTURING** **2078 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**15** **1151899** **0.85MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350090
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**ARROW-FASTENERS** **2112 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**15** **1154948** **0.88MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01500051
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**SETCO INC - DISTRIBUTING** **1963 ALPINE WAY** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**16** **1154985** **0.81MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01500096
Agency Address:	SETCO INC - DISTRIBUTING 1963 ALPINE WAY HAYWARD, CA 94545		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ORTHOPEDIC SYSTEMS INC** **1857 NATIONAL AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**17** **1154174** **0.84MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01380021
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ANTONE MANUFACTURING COMPAN** **21671 CLOUD WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**18** **1148515** **0.84MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01330027
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutant 1:	CHROMIUM (VI)		
Pollutant 2:	CADMIUM		
Pollutant 3:	ARSENIC		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**OAKLAND WIRE GRON WORKS** **21602 CLOUD WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**18** **1149005** **0.85MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340033
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**DEAN LEWIS ASSOCIATES** **21650 CLOUD WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**18** **1154904** **0.85MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01500002
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**C B ASSOCIATES** **21658 CLOUD WAY** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**18** **1151762** **0.85MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350080
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ROBERT GROSS** **1901 WEST WINTON** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**18** **1597288** **0.94MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420040
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**VAN DEN BROEK INC** **24941 MONTE VISTA DRIVE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**19** **1594673** **0.88MI / S**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01170035
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**PERSONALIZED TRANSIT** **2216 DUNN ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**20** **1154872** **0.89MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420098
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**CONTRACT MACHINE WORKS** **2218 DUNN ROAD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**20** **1592878** **0.89MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01170018
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**DAILY REVIEW** **116 WEST WINTON AVENUE** **HAYWARD, CA 94544**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**21** **1145809** **0.93MI / E**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01270009
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**SHUBIN TOOL MANUFACTURING** **2171 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**22** **1150646** **0.93MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350022
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**MANOR RESEARCH INC** **2185 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**22** **1155242** **0.94MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01890003
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**J J UPHOLSTERY** **2214 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**22** **1155203** **0.98MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01760032
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**TRI-METALMEC INC** **2227 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**22** **1148741** **0.98MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01340021
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**MARADEAN** **2218 AMERICAN AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**22** **1150334** **0.98MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350005
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**VARN PRODUCTS COMPANY INC** **1942 NATIONAL AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**23** **3159383** **0.94MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01280055
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutant 1:	ADHESIVES		
Pollutant 2:	UNSPECIFIED SOLVENT MIXTURES		

Property Address with VISTA Verified\Enhanced City and Zip:	**REDCO, RUBBER ENGINEERING DEV** **1975 NATIONAL AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**23** **1595138** **0.97MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01170017
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**HAYWARD PLASTIC** **1999 NATIONAL AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**23** **1146969** **1.00MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01280043
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

RISK AT SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile) CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**F S TRANSPORTATION** **2208 COMMERCE PLACE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**24** **1154826** **0.95MI / SW**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420022
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**SO COUNTY COMMUNITY COLLEGE** **25555 HESPERIAN BOULEVARD** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**25** **1593959** **0.95MI / SE**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01820003
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**ANCHOR GLASS CONTAINER CORP** **22302 HATHAWAY AVE** **HAYWARD, CA 94541**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**26** **21509** **0.96MI / NE**
DETAILS REGARDING:	**RCRA-TSD / SRC# 1372**	EPA ID	CAD051903847
Agency Address:	SAME AS ABOVE		
Off-Site Waste Received:	NO		
Land Disposal:	NO		
Incinerator:	NO		
Storage/Treatment:	NO		
Ground Water Violation:	NO		
Closure Violation:	NO		
Financial Requirements Violation:	NO		
Corrective Action Violation:	NO		
Land Ban Violation:	NO		
Other Requirements Violation:	NO		

Property Address with VISTA Verified\Enhanced City and Zip:	**A M RESEARCH CORPORATION** **1932 WEST WINTON AVENUE** **HAYWARD, CA 94545**	**Map ID#:** **VISTA ID#:** **Distance/Direction:**	**27** **1151463** **0.97MI / W**
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01350058
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

UNMAPPED SITES			
Property Address with VISTA Verified\Enhanced City and Zip:	**READY HUNG DOOR** **ADDRESS UNKNOWN** **HAYWARD, CA 94544**	VISTA ID#:	1591831
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420021
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**OAKLAND SCAVENGER / WEST WINT** **WEST WINTON AVENUE (AT THE FOO** **HAYWARD, CA 94544**	VISTA ID#:	1154638
DETAILS REGARDING:	**SCL / SRC# 1542**	Agency ID	01420001
Agency Address:	SAME AS ABOVE		
Status:	NOT AN NPL SITE		
Facility Type:	NOT REPORTED		
Lead Agency:	NOT REPORTED		
State Status:	NO FURTHER ACTION		
Pollutants:	NOT REPORTED		

Property Address with VISTA Verified\Enhanced City and Zip:	**HAYWARD AIR NATIONAL GUARD BA** **HAYWARD AIR NATIONAL GUARD BA** **HAYWARD, CA 94545**	VISTA ID#:	1593997
DETAILS REGARDING:	**CERCLIS / SRC# 1623**	EPA ID	CA3572890140
Agency Address:	SAME AS ABOVE		
NPL Status:	NOT A PROPOSED, CURRENT, OR DELETED NPL SITE		
Site Ownership:	FEDERALLY OWNED		
Lead Agency:	NO DETERMINATION		
Site Description:	NOT REPORTED		
DETAILS REGARDING:	**CERCLIS / SRC# 1623**	EPA ID	CA3572890140
Agency Address:	SAME AS ABOVE		
EventType:	DISCOVERY		
Lead Agency:	NOT REPORTED		
Event Status:	NOT REPORTED		
Start Date:	NOT REPORTED		
Completion Date:	AUGUST 01, 1987		

UNMAPPED SITES CONT.			
Property Address with VISTA Verified\Enhanced City and Zip:	**HAYWARD AIR NATIONAL GUARD 216/234 COMBAT SQDRN HAYWARD, CA**	VISTA ID#:	4558267
DETAILS REGARDING:	**LUST / SRC# 1640**	EPA/Agency ID	N/A
Agency Address:	SAME AS ABOVE		
Tank Status:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Media Affected:	REPORTED AS "UNKNOWN" BY AGENCY		
Substance:	NOT REPORTED		
Quantity (Units):	NOT REPORTED		
Leak Cause:	REPORTED AS "UNAVAILABLE" BY AGENCY		
Leak Source:	NOT REPORTED		
Remedial Action:	NO ACTION TAKEN		
Remedial Status 1:	NO ACTION TAKEN-RP		
Remedial Status 2:	NOT REPORTED		

For members of the Emergency Response Team:

* Procedures for shutdown of operations	☑ Yes	☐ No
* Procedures for using, maintaining, and replacing facility's emergency and monitoring equipment	☑ Yes	☐ No
* All employees are trained in emergency response procedures within 6 months of hiring	☑ Yes	☐ No
* Refresher training is provided at least annually	☑ Yes	☐ No

2b. Training records

Training records should be maintained for all employees:

* Verification that training was completed by employee	☐ Yes	☑ No
* Description of type and amount of introductory and continuing training	☐ Yes	☑ No
* Training records of current and former employees, retained for at least three years.	☐ Yes	☑ No
* Documentation on facility emergency response drills conducted during the year	☐ Yes	☑ No
* All training documentation and records are maintained and are available for review	☐ Yes	☑ No

2c. Person responsible for training of employees on emergency response:

Name: JACK HOM JR. Title: MGR

Contact Telephone: (510) 783-8022

Section XIV - MAINTENANCE, REVISION, AND UPDATE OF HMMP

At least once a year, the entire Hazardous Materials Management Plan must be reviewed by a responsible company officer to determine if a revision is needed. He or she must then certify in writing to the administrating agency that a review was made and that any necessary changes were made to the HMMP. A copy of the revised plan and certification must be sent to the Hayward Fire Department, Hazardous Materials Office. If the review determines that no changes are necessary, a certification to that effect must be sent instead.

The HMMP must also be amended as a whole or in sections if any of the following occurs:

a) any change in the nature of chemicals or other hazardous materials stored at the facility;
b) substantial change in the quantities of chemicals or other hazardous materials stored at the facility;
c) change in ownership of business or facility;
d) change in business name and/or nature of operations conducted in the facility;
e) change in building occupancy classification;
f) change in structure and/or layout of facility and buildings; or
g) any other substantial change in any piece of information contained in the HMMP.

Section XII - EMERGENCY RESPONSE PLAN AND PROCEDURES

State regulations (Title 19, CCR, Chapter 2, Subchapter 3, Article 4, Section 2731) require that business plans include emergency response procedures for a release or threatened release of hazardous materials, "scaled appropriately for the size and nature of the business, the nature of damage potential of the hazardous materials handled, and the proximity of the business to residential areas and other populations."

For this section, check the box that indicates your answer to each of the following questions:

1. Does this facility have a written emergency response or contingency plan? ☐ Yes ☒ No

2. If you answered "yes" to (1) above, review the following list. For each item, check "Yes" if your written plan contains the element listed. Check "No" if it does not. (Consider amending the plan to include all elements in the list.)

   If you do not have a written plan, it would be advisable for you to prepare one that will contain at least all the elements listed below. A written plan is required if you generate hazardous waste (at least 55-gal per year) or if you handle acutely hazardous materials. This written plan should be made available to inspectors upon request. Presently, however, without a written plan, assess the knowledge of all of your employees who handle hazardous materials, regarding emergency response. Check "Yes" if your employees know the emergency response plan elements listed.

2a. Notification

* Call 911 - Hayward Fire Department	☑ Yes	☐ No
* Call 911 - Medical Emergency	☑ Yes	☐ No
* Notify on-site responders	☑ Yes	☐ No
* Call designated local emergency medical facility	☑ Yes	☐ No
* Notify State Office of Emergency Services (1-800-852-7550)	☐ Yes	☑ No

2b. Evacuation

* Activate local alarm system for evacuation	☑ Yes	☐ No
* Assembly areas designated	☑ Yes	☐ No
* Evacuation route maps posted	☑ Yes	☐ No
* Reentry procedures defined	☑ Yes	☐ No

2c. Equipment

* Location and description of on-site emergency response equipment	☑ Yes	☐ No
* Use and operation of on-site emergency response equipment	☑ Yes	☐ No
* Location and description of monitoring devices such as toxic gas detectors	☐ Yes	☑ No
* Use and operation of monitoring devices	☐ Yes	☑ No

2d. Emergency Response Procedures

* Procedures for the handling of a release or a threatened release of any hazardous material listed in the inventory	☑ Yes	☐ No

Section X - WASTE DISPOSAL

*List the types of wastes generated from this facility under each category. Enter 3-digit waste identification numbers from **Appendix C - List of Common Wastes Regulated in California**. Briefly describe the nature of the waste, and estimate quantity generated in one year.*

A. Waste discharged directly to the sanitary sewer without pretreatment:

California Waste ID No.	Description	Generated Per Year Quantity	Units

B. Waste discharged to the sanitary sewer after being processed through a facility treatment system:

California Waste ID No.	Description	Generated Per Year Quantity	Units

C. Waste hauled off-site with Uniform Hazardous Waste Manifest, for treatment and/or disposal:

California Waste ID No.	Description	Generated Per Year Quantity	Units

D. Waste recycled on-site or off-site:

California Waste ID No.	Description	Generated Per Year Quantity	Units
CAD981580087	WASTE PERC / Filters	24 Filters	

E. Other waste generated/disposal method:

California Waste ID No.	Description	Generated Per Year Quantity	Units

Disposal Method: (Describe)_____

F. No waste generated:

☐ This facility does not generate hazardous waste, or other regulated wastes other than domestic sanitary waste.

Section IX - SEPARATION, SECONDARY CONTAINMENT, AND MONITORING OF STORAGE AREAS

Part A - Aboveground Storage Areas

Make copies of this page and complete one for each storage area defined in the facility storage maps. Check all applicable information given in the boxes below:

Page _____ of _____

Storage area location code: _____
(as shown on facility map)

Storage area description or name: _____

1. Type of storage containers found in this area

- ☐ Original containers
- ☒ Inside machinery
- ☐ 55-gallon drums
- ☐ Pressurized vessels
- ☒ Safety cans
- ☐ Bulk tanks, storage
- ☐ Process tanks
- ☐ Other: _____

2. Describe storage area/location

- ☒ Inside building
- ☐ Outside building
- ☐ Other: _____
- ☐ Secured
- ☒ Not secured
- ☐ Storage shed
- ☐ Cabinets

3. Separation of incompatible materials

- ☐ 20-ft. separation
- ☐ Approved cabinets
- ☐ One-hour separation wall/partition
- ☐ All materials compatible
- ☐ Other: _____

4. Secondary containment

- ☒ None
- ☐ Approved cabinet
- ☐ Tray/trough
- ☐ Vaulted tank
- ☐ Secondary drums
- ☐ Bermed, coated floor
- ☐ Double-wall tank
- ☐ Other: _____

5. Monitoring

- ☐ None
- ☒ Visual
- ☐ Mechanical/electronic
- ☒ Periodic/regular
- ☐ Continuous monitoring device
- ☐ Other: _____

6. Monitoring frequency

- ☒ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Other: _____

III HAZARDOUS MATERIALS INVENTORY STATEMENT

PAGE ____ OF ____

acility Address: _____ Facility Name : _____

EM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
7	PICRIN	L	[illegible]						

☐ Pure ☒ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers	Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
	Chlorinated hydrocarbon 98		C-2A	5	5	5	5	gal	365	C
	1, 4 Diethylene dioxide 25		C-2A							

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?	If Waste: Waste No.	Quantity Generated Yearly	Units
C	1gal	ATM	ATM	NO	yes	product			

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
8	ERUSTICATOR	L	1790						

☐ Pure ☒ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers	Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
	Hydrofluoric ACID (10)	(7664-39-3)	C-2A	1QT	1QT	1QT	1QT	GT	365	C
	Ammonium Fluorides (25)	1341-49-7	" "							
	2-(2-Butoxyethoxy) Ethanol (1)	112-34-5	" "							

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?	If Waste: Waste No.	Quantity Generated Yearly	Units
C	1QT	ATM	ATM	NO	yes	product			

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S

☐ Pure ☐ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers	Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?	If Waste: Waste No.	Quantity Generated Yearly	Units

HAZARDOUS MATERIALS MANAGEMENT PLAN

Section II FACILITY IDENTIFICATION

1. *Enter the full name of the business, as registered.*	1. Name of Facility GENE'S NORGE CLEANERS
2. *Enter actual location of facility including suite number(s) and zip code. Do not give P.O. Box address.*	2. Facility Address 23958 HESPERIAN Blvd. 94541 HAYWARD, CA
3. *Complete only if different from "Facility Address."*	3. Mailing Address
4. *Enter telephone number for the facility, at the actual address given in #2 above.*	4. Facility Telephone Numbers (510) 783-8022
5. *Enter name of business owner, general manager, or chief executive officer, and his/her telephone numbers.*	5. Executive/Administrative Contact JACK HOM SR: Telephone No. (510) 783-8022 (During business hours) Telephone No. (510) 785-1612 (After business hours)

Section III BUSINESS INFORMATION

1. *Give a brief description of products, processes and other business/industrial activities done in this facility.*	1. Nature of Business Dry Cleanning

2. Operating Hours:

Circle the days and enter the hours the facility is open for business and the total number of employees in the facility during those hours.

	Day Shift	Swing Shift	Night Shift
Days Open	(M) (T) (W) (T) (F) (S) S	M T W T F S S	M T W T F S S
Shift Hours	7AM to 6PM	____ to ____	____ to ____
Number of Employees	2½		

II HAZARDOUS MATERIALS INVENTORY STATEMENT PAGE ___ OF __

ıcility Address: 23958 HESPERIAN Blvd. Facility Name : GENE'S NORGE CLEANERS

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	
1	PERK	L	1897	4A	R,A,C				

Pure / Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
☒ Pure ☐ Mixture	[redacted] perchloroethylene	
	(OR) TETRACHLOROETHYLENE	

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C-2-A	100GAL	100 GAL	100	100	GAL	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	200 GAL TANK	ATM	ATM	NO	NO	product

If Waste: Waste No.	Quantity Generated Yearly	Units

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
2	STATICOL	L							

Pure / Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
☒ Pure ☐ Mixture	STATICOL	

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C-2A	35gal	55gal	35	35	GAL	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	35 GAL	ATM	ATM	NO	yes	P

If Waste: Waste No.	Quantity Generated Yearly	Units

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
3	STREETAN	L							

Pure / Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
☐ Pure ☐ Mixture	TRADE SECRET	N/A

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C2A	4	4	4	4	gal	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	1 gal	ATM	ATM	NO	yes	product

If Waste: Waste No.	Quantity Generated Yearly	Units

2. *Check the appropriate box to answer the question. The materials referred to are listed in the attached **Appendix A - List of Extremely Hazardous Substances** and their threshold quantities as published and amended by the Federal EPA. This is the same list referred to as **"Acutely Hazardous Materials"** by the State of California in Section 25533, Chapter 6.95 of the Health and Safety Code.*	2. Do you handle or store Federally-listed Extremely Hazardous Substances or State-listed Acutely Hazardous Materials in quantities greater than the Threshold Planning Quantities (TPQ) given in Appendix A? ☐ Yes ☒ No
3. *Check the appropriate box to answer the question.*	3. Is there any school, hospital, or extended-care facility within 1,000 feet (straight line distance) of your facility? ☐ Yes ☒ No
4. *Check the appropriate box to answer the question. (Comparable installations refer to halon systems, foam systems, etc. Portable fire extinguishers are **NOT** considered comparable to sprinkler systems.)*	4. Is your building equipped with a sprinkler system, or other comparable fire protection installation? ☐ Yes ☒ No

Section V - PROPERTY AND LAND USE INFORMATION

1. *Enter property owner's name.*	1. Property Owner's Name FREMONT BANK
2. *Enter property owner's mailing address.*	2. Property Owner's Mailing Address 1801 HANOVER DR. Suite A DAVIS, CA 95616
3. *Enter property owner's telephone number*	3. Property Owner's Telephone Number (916) 753-5910

4. Adjacent Properties
Enter names of businesses, contacts, and telephone numbers on adjacent properties.

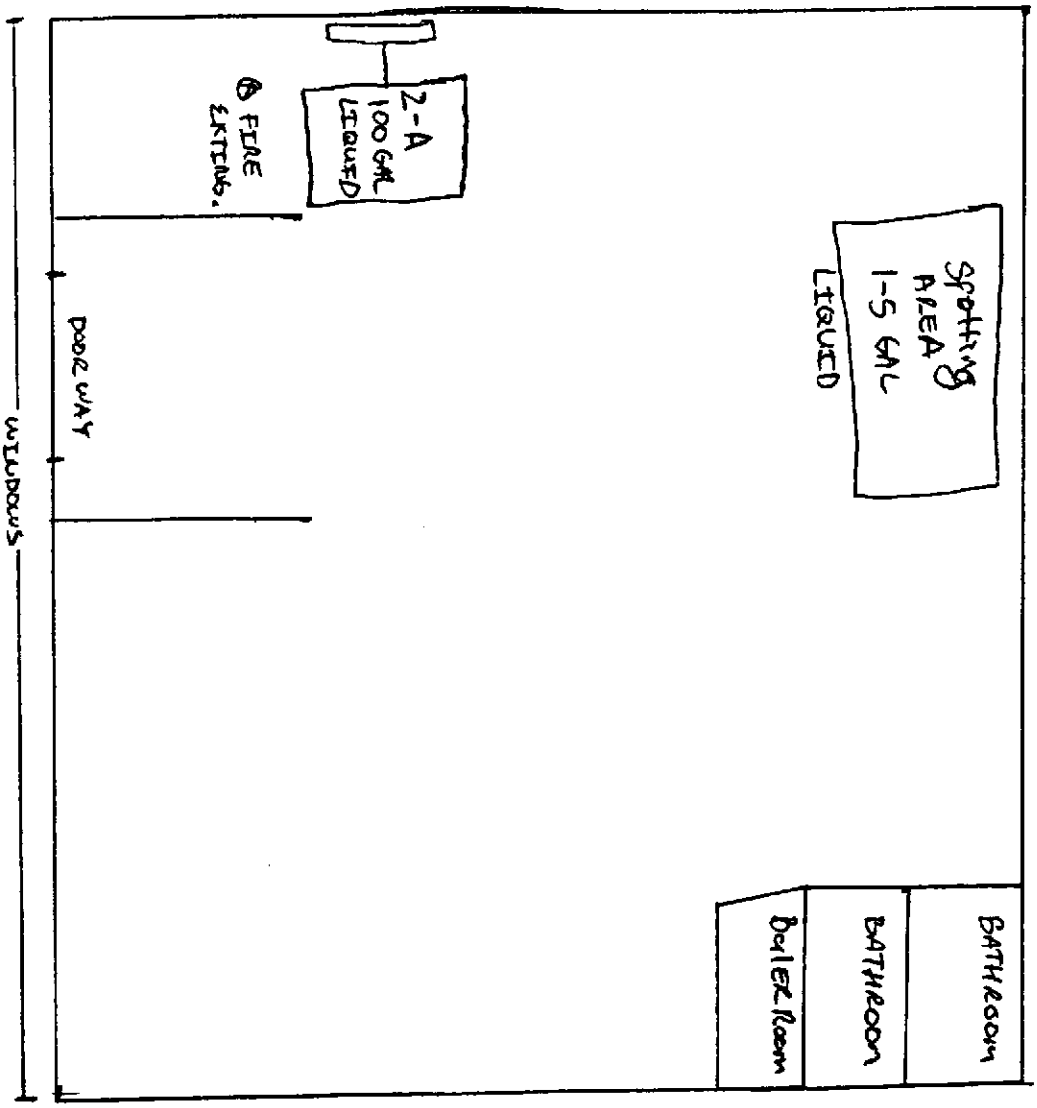
(a) **NORTH**
Business: N/A
Contact:
Phone:

(b) **EAST**
Business: CANTON HOUSE RESTAURANT
Contact: ANDY KWONG
Phone: (510) 782-2335

(c) **SOUTH**
Business: EXXON GAS STATION
Contact:
Phone: (510) 670-2818

(d) **WEST**
Business: HOWARDS DRIVE IN
Contact: Howard Chew
Phone: (510) 783-1934

Section VII - FACILITY STORAGE MAP

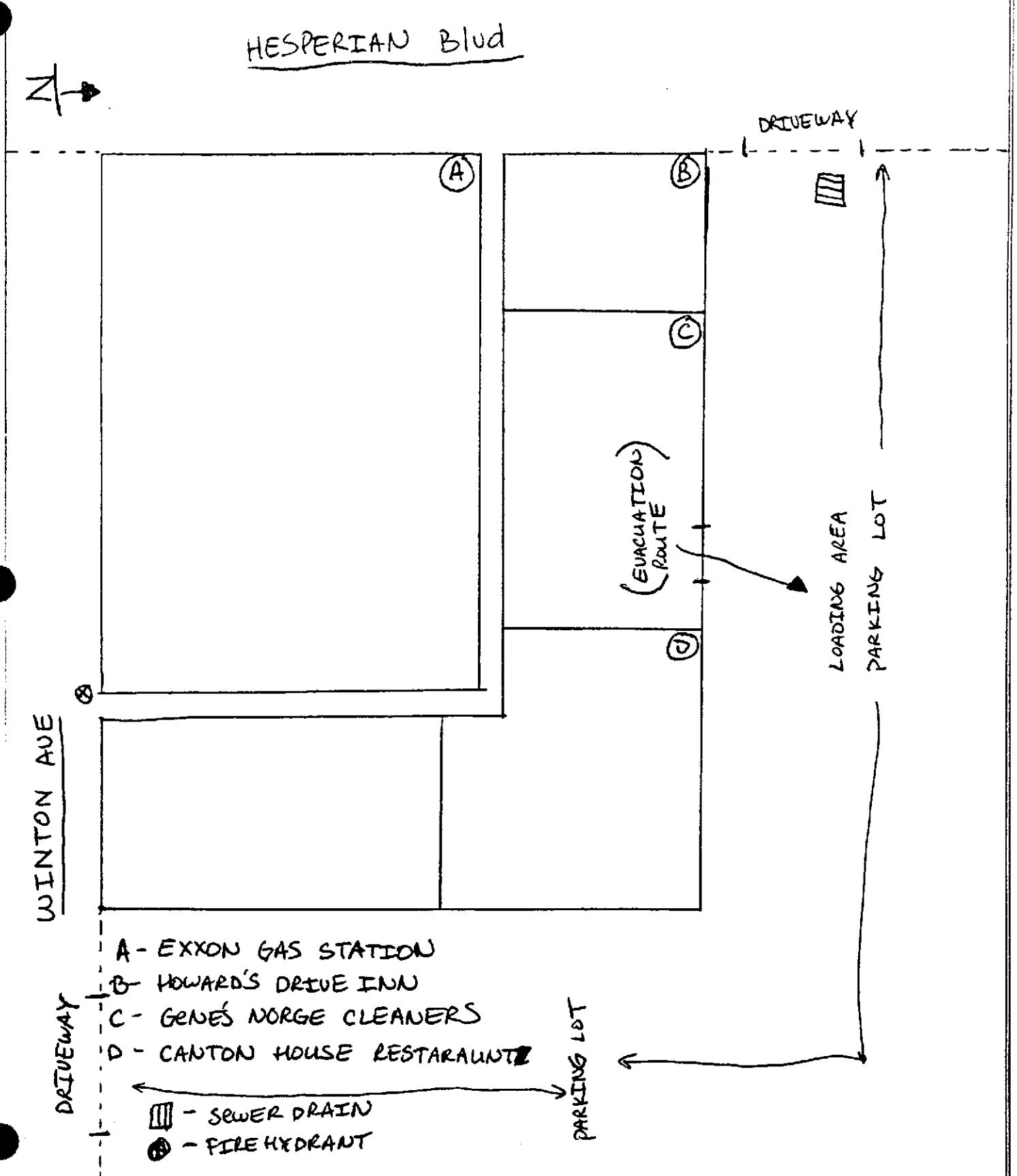


← N

Address: 23958 HESPERIAN Blvd. Date Prepared: 08/21/94

Facility Name: GENE'S NORGE CLEANERS

Section VI - GENERAL SITE PLAN



Address: 23958 HESPERIAN Blvd. Hay., CA Date Prepared: 08/20/94

Facility Name: GENE'S NORGE CLEANERS

3. *Enter Standard Industrial Classification (SIC) code number for the primary process/activity done in this facility - A copy of the 1987 SIC Manual is available in the Hayward Library.*	3. SIC Code N/A
4. *Enter the Dun and Bradstreet number for this business. If not known, call Dun and Bradstreet in Pennsylvania at (215) 391-1886*	4. Dun and Bradstreet Number N/A
5. *Enter Business License number issued by the City of Hayward to this business.*	5. Hayward Business License Number 57-2 034155
6. *List all other permits issued to this business facility by other regulatory agencies and the Hayward Fire Department. Examples of these agencies are: County Health Department; Water Pollution Control Facility; Environmental Protection Agency; Regional Water Quality Control Board; and Bay Area Air Quality Management District.*	6. Permits relating to generation, storage, handling, treatment, transport, and disposal of hazardous materials and/or hazardous wastes: Agency: SAFTEY-KLEEN — Permit No.: CAD981580087 Agency: BAY ~~AREA~~ AIR QUALITY — Permit No.: 4386
7. *If you have underground storage tanks, the Hazardous Materials Office has assigned you a Facility ID Number. Call (510) 293-8695 to confirm your Facility ID Number or obtain it from your underground storage tank registration forms.*	7. Facility I.D. Number N/A

Section IV - FACILITY CONTACTS AND PLANNING INFORMATION

1. Emergency Contacts:

List names, titles, and contact telephone numbers of at least two individuals to notify in case of an emergency involving hazardous materials on this facility. The Primary Contact will be contacted first; and if he or she can not be reached, the Secondary Contact will be contacted instead.

(a) Primary Contact

Name JACK HOM JR.

Title MGR

Telephone No. (510) 783-8022
(During business hours)

Telephone No. (510) 785-1612
(After business hours)

(b) Secondary Contact

Name JACK HOM SR.

Title OWNER

Telephone No. (415) 364-5575
(During business hours)

Telephone No. (510) 783-9481
(After business hours)

'III HAZARDOUS MATERIALS INVENTORY STATEMENT PAGE ___ OF _

'acility Address: _____ Facility Name : _____

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
4	SILK PRE-SPOTTER	L							

☐ Pure ☒ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
	SAME	N/A

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C-2A	2GAL	2GAL	2	2	GAL	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	1GAL	ATM	ATM	NO	YES	P

If Waste: Waste No.	Quantity Generated Yearly	Units

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
5	JINX INK	L							

☐ Pure ☒ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
	Isopropyl Ester	

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C2-A	1Pint	1pint	1pint	1pint	pint	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	16oz.	ATM	ATM	NO	yes	product

If Waste: Waste No.	Quantity Generated Yearly	Units

ITEM NO.	Common, Generic, or Trade Name	Physical State	DOT UN/NA Number	NFPA / UFC Hazard Class(es)	SARA Hazard Class	NFPA 704 Numbers H	F	R	S
6	DEVOUR	L							

☐ Pure ☒ Mixture	Chemical Name or Main Hazardous Components and % Concentrations	Chemical Abstract Service Numbers
	SAME	

Location Code	Average Quantity Stored	Average Quantity Used	Maximum Quantity Stored	Maximum Quantity Used	Units	# days on site	Cont. System
C2-A	1QT	1QT	1QT	1QT	QT	365	C

Container Type(s)	Capacity of Largest Container	Storage Pressure	Storage Temperature	Secondary Containment?	Proper Label?	Product or Waste?
C	1QT	ATM	ATM	NO	yes	product

If Waste: Waste No.	Quantity Generated Yearly	Units

S.PM3

H MI MI P

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
SEP 01 1994
HAYWARD FIRE DEPARTMENT

(HAZARDOUS MATERIALS MANAGEMENT PLAN)

Prepared and submitted to the Hayward Fire Department in fulfillment of the requirements contained in the following laws, codes, and ordinance:

(a) Federal Superfund Amendments and Reauthorization Act of 1986 (SARA Title III);

(b) Chapter 6.95 of the California Health and Safety Code;

(c) Title 19 of the California Code of Regulations;

(d) Chapter 3, Article 8 of the Hayward Municipal Code; and

(e) Article 80 of the Uniform Fire Code as adopted by the State of California and the City of Hayward.

REPORTING YEAR 1994
for

FACILITY ADDRESS: 23958 HESPERIAN Blvd.

Hayward, CA **ZIP:** 94541

FACILITY NAME: NORGE CLEANERS

Section I - CERTIFICATION

I hereby certify under penalty of perjury that the information contained in this Hazardous Materials Management Plan is, to the best of my knowledge, true, accurate, and correct. I understand that I may be required to show proof of compliance with all City, County, State, and federal laws and regulations during any facility inspection conducted by City, County, State, or Federal authorities.

I further certify that I am duly authorized to execute this certification on behalf of the business or facility named above.

Authorized Signature: Jack Hom Jr.

Printed Name and Title: JACK HOM JR. (MGR)

Date Signed: 07/20/94

HAYWARD FIRE DE ARTMENT
HAZARDOUS MATERIALS OFFICE
INSPECTION REPORT

<12:00 AM.

Rec. 1427

Page 1 of 1

Street Address: 23958 HESPERIAN BLVD
Name of Facility: JACK'S NORGE CLEANERS
Contact Person: JACK HOM Phone Number: 783-8022

1x Dry cleaning machine - marvel transfer unit ~120 gal max.
1x Dry-drying machine - no HM storage - pere removed after each cycle
drained into 5gal

1x55gal perchloroethylene
1x100# Cluster Care Finish
1x55gal Staticol

Carbon absorption unit all exhausts from equipment routed through it
1x waste filters
Spotting chems

GAS Fired H2O Heater installed 4-5 years ago
pressing room w/extension cords

(1) Complete an Application for Range 2A Hazardous materials storage permit on the forms provided (Submit the application and fees on or before July 29, 1994

(2) Complete a Hazardous materials management plan + submit it w/ your permit Application (July 29, 1994)

(3) Eliminate gravity dispensing of perchloroethylene and provide secondary containment for the existing 55gal MD.

FAILURE TO COMPLY WITH THE REQUIREMENTS ESTABLISHED IN THIS FIELD INSPECTION REPORT OR IN SUBSEQUENT CORRESPONDENCE MAY RESULT IN THE ISSUANCE OF A NOTICE OF NONCOMPLIANCE AS PROVIDED IN SECTION 3-8.55 OF THE HAYWARD MUNICIPAL CODE. NONCOMPLIANCE IS PUNISHABLE BY CRIMINAL AND/OR CIVIL PENALTIES UNDER SECTIONS 3-8.64 AND 3-8.65 OF THE HAYWARD MUNICIPAL CODE, OR OTHER APPLICABLE FEDERAL AND STATE LAWS AND REGULATIONS.

6/29/94	Jay Swardenski	Jack Hom Jr.
Date of Inspection	Hazardous Materials Investigator	Signature of Facility Representative

"THE SAFE USE AND STORAGE OF HAZARDOUS MATERIALS IS EVERYBODY'S BUSINESS"

Section IX - SEPARATION, SECONDARY CONTAINMENT, AND MONITORING OF STORAGE AREAS

Part B - Underground Storage Tanks

Make copies of this page and complete one for each underground storage tank area defined in the facility storage map. Supply all information required in the boxes below. If you do not have underground storage tanks, write "NONE" after "Underground tank area location code."

Page _____ of _____

Underground tank area location code: _____
(as shown on facility map)

Storage area description or name: _____

1. Main monitoring method for <u>tanks</u>

- ☐ Groundwater monitoring wells
- ☐ Backfill vapor wells
- ☐ Precision test (☐ Monthly; ☐ Annually)
- ☐ Annular space
- ☐ Manual/mechanical
- ☐ Electronic
- ☐ Inventory Reconciliation
- ☐ Secondary containment vault
- ☐ Continuous
- ☐ Daily
- ☐ Other: _____

2. Main monitoring methods for piping

- ☐ Suction type system
- ☐ In-line leak detector for piping
- ☐ Tightness test (☐ Monthly; ☐ Annually)
- ☐ Pressurized piping
- ☐ Double-wall piping
- ☐ Electronic leak-detection mode for complete tank and piping system.

3. Additional comments on the monitoring program, if necessary:

_____

_____

_____

_____

_____

_____

_____

_____

Fire Department

NOTICE OF NONCOMPLIANCE

ISSUED PURSUANT TO SECTION 3-8.55 OF THE HAYWARD MUNICIPAL CODE TO:

JACK'S NORGE CLEANERS
23958 HESPERIAN BLVD
HAYWARD, CA 94541

Range: 2A
Permit Fee: $270.00

On June 29, 1994, the Hazardous Materials Office notified you to obtain a Hazardous Materials Storage Permit for FY 1994-95 for the facility named above. To date, we have not received an application from you. The continued use and storage of hazardous materials at your facility without the required permit is a violation of Section 3-8.34 of the Hayward Municipal Code.

You are hereby required to obtain a Hazardous Materials Storage Permit or to file a statement with the Hazardous Materials Office that hazardous materials are no longer stored or used at your facility. The completed application, along with the appropriate fee, or the statement of non-use should be received at this office on or before September 2, 1994. Note that no penalties are being assessed at this time for delinquent applications.

Failure to comply with the provisions of Chapter 3, Article 8 of the Hayward Municipal Code, including the requirements contained in inspection reports and notices of noncompliance issued by the Hazardous Materials Office, may be subject to criminal and/or civil penalties. No other notices will be issued after this one. Your account, if left unpaid by the date specified above, shall be referred to the Revenue Department for collection.

NOTICE ISSUED BY:

JOHN BOYKIN, BATTALION CHIEF
HAZARDOUS MATERIALS COORDINATOR

NOTICE POSTED ON AUGUST 19, 1994 TO:

JACK HOM
23958 HESPERIAN BLVD
HAYWARD, CA 94541

Section XI - RECORD KEEPING

Check the applicable boxes to indicate record-keeping practices and records maintenance done in the monitoring of hazardous materials storage in this facility. These records should be made available to Hazardous Materials Investigators upon request.

- ☐ Inspection logs
- ☐ Recordable discharge logs
- ☐ Spill reports
- ☐ Cleanup reports
- ☐ Instrument printouts
- ☐ Test reports
- ☒ Hazardous waste manifests
- ☐ Waste shipping documents
- ☐ Wastewater discharge monitoring reports
- ☐ Inventory reconciliation
- ☐ Other: _____

_____

_____

_____

ADDITIONAL COMMENTS, IF ANY: _____

_____

_____

_____

_____

_____

Fire Department

May 10, 1994

Jack's Norge Cleaners
23958 Hesperian Blvd.
Hayward, CA 94541

Dear Jack's Norge Cleaners:

To protect health, life, resources, and property through prevention and control of unauthorized releases of hazardous materials, the Hayward Municipal Code provides that "any person, firm, or corporation which stores any hazardous material shall obtain and keep current a Hazardous Materials Storage Permit."

Attachment 1 defines "hazardous materials" under the Ordinance. Attachment 2 describes various classes of hazardous materials and gives examples of each. To help you determine if you have hazardous materials in your facility, refer also to Attachment 3.
To obtain a Hazardous Materials Storage Permit, complete the enclosed form and submit it to the Fire Department with the appropriate fee. Attachment 4 will help you determine the permit range you need and the fee required. A full-term Permit is valid for one year and is renewable on July 1, of each year.

If your facility does not require a Hazardous Materials Storage Permit, complete and submit Attachment 5 (Certification Statement). A Hazardous Materials Investigator will verify your declarations.

The continued operation of your business without a required permit is a violation of the Hayward Municipal Code and is subject to legal enforcement action. Civil and/or criminal penalties may be imposed for operating without a permit.

Thank you for your cooperation. If you have any questions, call the Hazardous Materials Office at 293-8695.

Sincerely,

JOHN BOYKIN
HAZARDOUS MATERIALS COORDINATOR

2e. Emergency Contact Persons

The persons listed in this Hazardous Materials Management Plan as "Emergency Contact Persons" possess the following:

* Technical knowledge concerning the facility and its operations	☑ Yes	☐ No
* Familiarity with the site	☑ Yes	☐ No
* Full access to the facility (locks, keys, codes, and security clearance)	☑ Yes	☐ No
* Authority to make decisions for the facility in case of an emergency	☑ Yes	☐ No

Section XIII - EMERGENCY RESPONSE TRAINING PLAN

State regulations also require that business plans include a training program which is reasonable and appropriate for the size of the business and the nature of the hazardous materials handled. The training program shall take into account the responsibility of the employees to be trained. It shall also include provisions for ensuring that all appropriate personnel receive initial and refresher training.

1. Does this facility have a written emergency response training plan? ☑ Yes ☐ No

2. If you answered "Yes" to (1) above, review the following list of training requirements and training records that need to be maintained. For each item, check "yes" if your written plan contains the element listed. Check "No" if it does not. (Consider amending the training program to include all elements in the list.)

   If you do not have a written training program, it would be advisable for you to prepare one that will contain, at least, all the elements listed below. Presently, however, without a written program, assess your current practices on the training of employees who handle hazardous materials. Check "Yes" if your employees have some degree of training in the elements listed.

2a. Training Requirements

For all employees:

* Procedures for internal alarms	☑ Yes	☐ No
* Procedures for notification of proper agencies	☑ Yes	☐ No
* Procedures for notification of on-site emergency responders	☑ Yes	☐ No
* Procedures for notification of external emergency responders	☑ Yes	☐ No
* Location and content of emergency response plan	☐ Yes	☑ No

For chemical handlers:

* Safe methods for handling and storage of hazardous materials	☑ Yes	☐ No
* Proper use of personal protective equipment	☑ Yes	☐ No
* Locations and proper use of fire and spill control equipment	☑ Yes	☐ No
* Specific hazards of each chemical to which employee may be exposed, including routes of exposure; i.e., skin absorption, inhalation, ingestion.	☑ Yes	☐ No

Fire Department

August 8, 1994

Jack Hom
Jack's Norge Cleaners
23958 Hesperian Blvd.
Hayward, CA 94541

Dear Mr. Hom:

On June 29, 1994, the hazardous materials office inspected your facility and determined that the following actions were necessary by the dates indicated:

1) Submit your application and fees for a 1993-94 hazardous materials storage permit, Range 2A; July 29, 1994;

2) Submit a completed hazardous materials management plan (HMMP); July 29, 1994;

3) Eliminate the gravity dispensing of perchloroethylene and provide secondary containment for the existing drums.

This letter is a reminder that these items are overdue and that failure to comply with either local or State hazardous materials regulations can result in the imposition of civil or administrative penalties.

Please submit the required documentation on or before August 25, 1994. A reinspection will be scheduled pending receipt of your HMMP and storage permit application.

I can be reached at 293-8695, should you wish to discuss these issues further.

Sincerely,

Jay Swardenski
Hazardous Materials Investigator

Section XV - ACKNOWLEDGEMENT

I have read Section XIV and hereby agree to keep this HMMP current and accurate by submitting to the Hayward Fire Department any amendment within 30 days of a change requiring such an amendment.

Signature: Jack Hom Jr.

Printed Name and Title: JACK HOM JR. (MGR)

Date Signed: 07/20/94

CITY (HAYWARD • FIRE DEPARTM IT

25151 Clawiter Road, Hayward, CA 94545-2731

TEL (510) 293-8695 • FAX (510) 293-5017 • TDD (510) 537-7593

POSTED

HAZARDOUS MATERIALS STORAGE PERMIT

(For Fiscal Year Ending June 30, 1995)

Facility Address: 23958 (Number) HESPERIAN Blvd. (Street) (Unit Number)

Hayward, CA 94541 (ZIP Code) (510) 783-6022 (Telephone Number)

Business Name: GENE'S NORGE CLEANERS

Mailing Address (*if different from above*):

Brief Description of Business at this Facility: Dry Cleanning

If you had a Hazardous Materials Storage Permit for the last fiscal year, and there have been no changes in the quantity of hazard materials stored at your facility, enter the same quantity range in the space below, as was indicated in your last permit. Otherwise this is the first time you are applying for a Hazardous Materials Storage Permit or if there have been substantial changes in quantities of hazardous materials stored at your facility, refer to the attached schedule to determine the Quantity Range and Per Fee and enter them below. Your declaration will be verified in a subsequent inspection.

Quantity Range Applied for: 2A Amount Enclosed: $ 270.00

Are there underground storage tanks at this facility? ☐ YES ☒ NO If "YES", how many?

CERTIFICATION

I certify that the above information is correct and hereby authorize representatives of the City to enter the facility for inspection purposes. I certify further that I have read and I hereby accept the terms and conditions printed on the other side of this Hazardous Materials Storage Permit. I agree to comply with all permit conditions and all City, State, and Federal ordinances, laws, statutes, codes, rules, and regulations relating to the storage and handling of hazardous materials.

Jack Hom Jr. (Signature of Applicant) JACK Hom JR (MOR) (Printed Name and Title) 07/20/94 (Date Signed)

FOR OFFICE USE ONLY

PERMIT NUMBER: 95/ 1427 EFFECTIVE DATE: July 1, 1994

QUANTITY RANGE: 2A EXPIRATION DATE: June 30, 1995

☐ Full Term Permit ☐ Temporary Permit ☒ Provisional Permit

1373/65 2Sep94 1/6 $270.00 Fire

APPROVED BY: Laura Davis

City of Hayward Fire Department

Date Paid 9/2/94

R.V. Number 1373

Record Number 1427

Account Number 100-1922-4440

Machine Validation/Official Rec

WHITE-FIRE DEPARTMENT YELLOW-CUSTOMER PINK-REVENUE

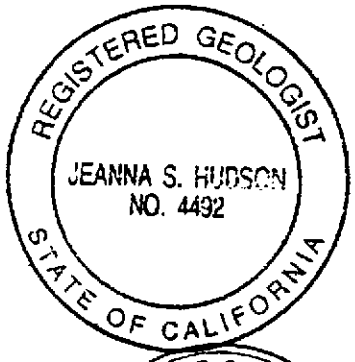
A Report Prepared for

Texaco Refining and Marketing Inc.
10 Universal City Plaza
Universal City, California 91608

QUARTERLY TECHNICAL REPORT
SECOND QUARTER OF 1990
FORMER TEXACO STATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

HLA Job No. 2251,078.03
August 30, 1990
1990 Report No. 2

by



Jeanna S. Hudson
Senior Geologist



Randolph Stone
Associate Hydrogeologist

Harding Lawson Associates
1355 Willow Way, Suite 109
Concord, California 94520
415/687-9660

INTRODUCTION

This Quarterly Technical Report (QTR) presents the results of a site investigation conducted by Harding Lawson Associates (HLA) at the site of a former Texaco Station, 23990 Hesperian Boulevard, Hayward, California (Plate 1). The following topics are summarized in this report:

- Site Description
- Hydrogeologic Setting
- Previous Work
- Work Performed During the Second Quarter 1990
- Planned Activities for the Third Quarter 1990

SITE DESCRIPTION

The former Texaco station is on the northeast corner of the intersection of Hesperian Boulevard and Winton Avenue (Plate 2). The location is relatively flat, with surface drainage directed to the southwest. The site elevation is approximately 50 feet above mean sea level (City of Hayward datum).

Structures at the service station include a building, three fuel pump islands, one 750-gallon underground waste oil tank, and four underground fuel tanks with a total capacity of 42,000 gallons. The station, currently operated by Exxon, provides leaded and unleaded gasoline, diesel fuel, and automotive repair services. Old tanks and product lines were removed and double-

walled tanks and double-contained product lines installed in November 1985.

HYDROGEOLOGIC SETTING

The site is approximately 4.5 miles east of San Francisco Bay in the East Bay Area of the Santa Clara Valley groundwater basin*. Subsurface materials, investigated to a depth of 50 feet, consist of medium stiff to stiff clay with varying amounts of silt and sand. Minor sand lenses are interbedded with the clay. Depth to groundwater is approximately 21 feet below grade and groundwater flow direction is west-northwest. The hydraulic gradient is 0.002 foot per foot, based on water-level measurements recorded in January 1990 from six monitoring wells. Water-level data are summarized in Table 1.

SUMMARY OF PREVIOUS WORK

In June 1988, HLA began a subsurface investigation to evaluate the hydrocarbon content of soil and groundwater at the site. The following tasks have been completed in that investigation:

- Drilled seven soil borings on site (Plate 2)
- Installed five monitoring wells on site (three 2-inch-diameter wells and two 4-inch-diameter wells)

---

* California Department of Water Resources, "Groundwater Basins in California", Bulletin 118-80, 1980.

- Installed two 4-inch-diameter monitoring wells downgradient and off site (MW-3F and -3G, Plate 2)
- Sampled soils from four monitoring wells and seven soil borings; obtained analyses for benzene, toluene, ethylbenzene, and xylenes (BTEX), total petroleum hydrocarbons (TPH) as gasoline, and TPH as diesel fuel
- Periodically sampled groundwater from all monitoring wells; obtained analyses for BTEX, TPH as gasoline, and TPH as diesel fuel.
- Issued the Environmental Assessment Report in October 1989
- Performed a single-well slug withdrawal test on MW-3C
- Issued the Groundwater Remediation Plan in May 1990

Soil boring and monitoring well locations are shown on Plate 2. Results of soil and water analyses are presented in Tables 2 and 3, respectively.

Petroleum hydrocarbons were detected in shallow vadose soils (less than 10 feet deep) at locations B-2, B-4, B-5, and B-6. Only toluene, in concentrations of less than 1.0 part per million (ppm), was detected in soils from B-4, B-5, and B-6. Soil samples from B-2 contained 110 ppm TPH as gasoline. Note that B-2, B-4, B-5 and B-6 are located near the eastern dispenser islands (Plate 2).

Deeper soils (15-22 feet below grade) contain hydrocarbons at four widely-spaced locations (B-1, B-2, B-3, and B-7, Plate 2). Fuel constituents may have been introduced into the deeper soil zone by contact with hydrocarbon-bearing groundwater during seasonal water-table fluctuations.

Results of analyses indicate that water from MW-3B and MW-3C contains concentrations of BTEX that exceed the Department of Health Services Drinking Water Action Levels (Table 3). Results of analyses on water from MW-3F suggest that product dissolved in groundwater may have migrated westward from the Texaco site (Plate 3). Water samples from MW-3G (approximately 100 feet north of MW-3F) contained no BTEX above analytical detection limits. Water samples from MW-3D and MW-3E, which are upgradient and crossgradient, respectively, of any possible hydrocarbon sources on the former Texaco site, had no detectable levels of BTEX.

During the first quarter of 1990, additional chemical analyses were obtained on water samples from MW-3C to evaluate potential effects of the waste oil tank on groundwater quality at the site. Tests were performed for volatile organic compounds (EPA Test Method 624), semi-volatile organic compounds (EPA Test Method 625), TPH as oil and grease (gravimetric method, EPA Test Method 503E), and priority pollutant metals (EPA Series 200). The laboratory reports from these analyses are presented in the Groundwater Remediation Plan, May 1990. Table 4 summarizes the analytical results.

A slug withdrawal test, performed in MW-3C in late 1989, indicates that hydraulic conductivity is approximately 1.5 feet/day. Plate 4, a contour map of the groundwater surface based on water levels measured in six wells during January 1990, confirms that groundwater flow is to the west-northwest. The

most recent water level in MW-3E was inconsistent with past measurements (Table 1) and probably represents erroneous data. The data point for that well was disregarded in construction of the map shown on Plate 4.

WORK PERFORMED DURING THE SECOND QUARTER 1990

The Groundwater Remediation Plan was submitted by HLA in May 1990, in lieu of the Quarterly Technical Report for the First Quarter of 1990.

HLA negotiated a license agreement between Texaco Refining and Marketing Inc. and Fremont Properties for installation of an off-site monitoring well. The well will be installed north of the subject location in the parking lot of the Horns of the Hunter Shopping Center. Utility surveys were performed and the well location was cleared for drilling.

ACTIVITIES PLANNED FOR THE THIRD QUARTER OF 1990

During the early part of the third quarter of 1990, HLA will drill and install monitoring well MW-3H at the off-site location. Soil samples will be collected and analyzed for BTEX, TPH as gasoline, and TPH as diesel fuel. Groundwater from all wells will be sampled and analyzed for BTEX, TPH as gasoline, and TPH as diesel fuel. Water levels will be measured in all on-site and off-site wells, and the groundwater gradient map will be updated accordingly. Implementation of the remediation plan awaits its

review and approval by the City of Hayward and issuance of the National Pollutant Discharge Elimination System discharge permit for treated groundwater by the Regional Water Quality Control Board.

LIST OF TABLES

Table	1	Groundwater Level Measurement and Survey Data
Table	2	Results of Soil Analyses
Table	3	Results of Groundwater Analyses
Table	4	Summary of Chemical Analyses on Groundwater Samples from MW-3C

LIST OF ILLUSTRATIONS

Plate	1	Regional Map
Plate	2	Site Plan
Plate	3	Distribution of Hydrocarbons in Groundwater
Plate	4	Groundwater Surface Map

Table 1. Groundwater Level Measurement and Survey Data

Well Number	Top-of-Casing Elevation* (feet)	Depth to Groundwater (feet)			Groundwater Surface Elevation+ (feet)		
		02/02/89	10/30/89	01/24/90	02/02/89	10/30/89	01/24/90
MW-3A	99.88	21.90	22.51	22.75	77.98	77.37	77.13
MW-3B	99.05	21.22	21.89	22.08	77.83	77.16	76.97
MW-3C	99.46	21.72	22.42	22.59	77.74	77.04	76.87
MW-3D	99.33	21.26	21.93	22.13	78.07	77.40	77.20
MW-3E	99.80	21.88	22.57	22.98	77.92	77.23	76.82
MW-3F	99.09	21.66	22.36	22.52	77.43	76.73	76.57
MW-3G	99.68	22.25	22.96	23.12	77.43	76.73	76.56

Notes:

* Elevation relative to HLA datum arbitrarily set at 100 feet.

\+ Groundwater surface elevation = top of casing elevation - depth to water.

Table 2. Results of Soil Analyses
(Concentrations are in milligrams per kilogram (mg/kg))

Boring Number	Sample (feet)	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH as Gasoline	TPH as Diesel Fuel
B-1	5.5	ND	ND	ND	ND	ND	ND
B-1	10.0	ND	ND	ND	ND	ND	ND
B-1	15.0	ND	ND	ND	0.3	34	ND
B-1	20.0	0.51	1.3	1.8	4.7	110	ND
B-2	5.0	ND	ND	ND	ND	110	ND
B-2	10.0	ND	ND	ND	ND	ND	ND
B-2	15.0	ND	ND	ND	ND	ND	ND
B-2	20.0	0.10	ND	ND	0.4	39	ND
B-3	5.0	ND	ND	ND	ND	ND	ND
B-3	10.0	ND	ND	ND	ND	ND	ND
B-3	15.0	0.06	ND	ND	0.3	140	ND
B-3	20.0	0.53	0.6	2.1	9.5	190	110
B-4A	5.0	ND	ND	ND	ND	ND	ND
B-4B	9.5	ND	0.1	ND	ND	ND	ND
B-5A	4.6	ND	0.2	ND	ND	ND	ND *
B-5B	9.2	ND	ND	ND	ND	ND	ND
B-6A	4.8	ND	0.2	ND	ND	ND	ND
B-6B	9.5	ND	ND	ND	ND	ND	ND
B-7	19.0	0.23	ND	0.89	0.90	100	NA
B-7	22.0	0.12	0.09	0.40	0.40	94	NA
MW-3D	15.5	ND	ND	ND	ND	ND	ND
MW-3D	20.5	ND	ND	ND	ND	ND	ND
MW-3E	15.5	ND	ND	ND	ND	ND	ND
MW-3E	20.5	ND	ND	ND	ND	ND	ND
MW-3E	25.5	ND	ND	ND	ND	ND	ND
MW-3F	16.0	ND	ND	ND	ND	ND	ND
MW-3G	16.0	ND	ND	ND	ND	ND	ND

ND Concentration is below reporting limit
NA Not analyzed
* An unknown hydrocarbon mixture near the range of diesel fuel was identified in this sample.

Table 3. Results of Groundwater Analyses
(Concentrations are in micrograms per liter (µg/l))

Well Number	Benzene	Toluene	Ethylbenzene	Xylenes	TPH(g)	TPH(d)
MW-3A						
10/19/88	ND	ND	ND	2		
02/02/89	8	ND	9	11		
10/30/89	9	*ND (0.5)	14	15	480	ND (100)
MW-3B						
10/19/88	11,000	3,500	3,000	5,600		
02/02/89	9,000	2,400	1,800	8,400		
10/30/89	8,100	1,800	2,700	19,000	140,000	ND (1,000)
MW-3C						
10/19/88	2,700	49	ND	2,200		
02/02/89	2,100	65	660	1,400		
10/30/89	2,800	59	1,100	2,300	46,000	ND (1,000)
MW-3D						
10/13/88	ND	ND	ND	ND		
02/02/89	ND	ND	ND	ND		
10/30/89	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)	ND (100)	ND (100)
MW-3E						
10/19/88	ND	ND	ND	ND		
02/02/89	ND	ND	ND	ND		
10/30/89	ND	ND (0.5)	ND (0.5)	ND (0.5)	ND (100)	ND (100)
MW-3F						
02/02/89	ND	4	3	3		
10/30/89	ND (25)	6.7	2.2	ND (0.5)	1,200*	ND (100)
MW-3G						
02/02/89	ND	ND	ND	ND		
10/30/89	ND	ND (0.5)	ND (0.5)	ND (0.5)	ND (100)	ND (100)
Reporting Limits	0.5	1	2	1		
DWAL	1.0	680	100	1,750		

ND = Concentration is below reporting limit
ND (0.5) = Concentration is below reporting limit indicated
(g) = gasoline
(d) = diesel
DWAL = Drinking Water Action Levels established by Department of Health Services
* = Sample heavily altered, possibly due to degradation.
Analytical results amended by laboratory on 12/13/89

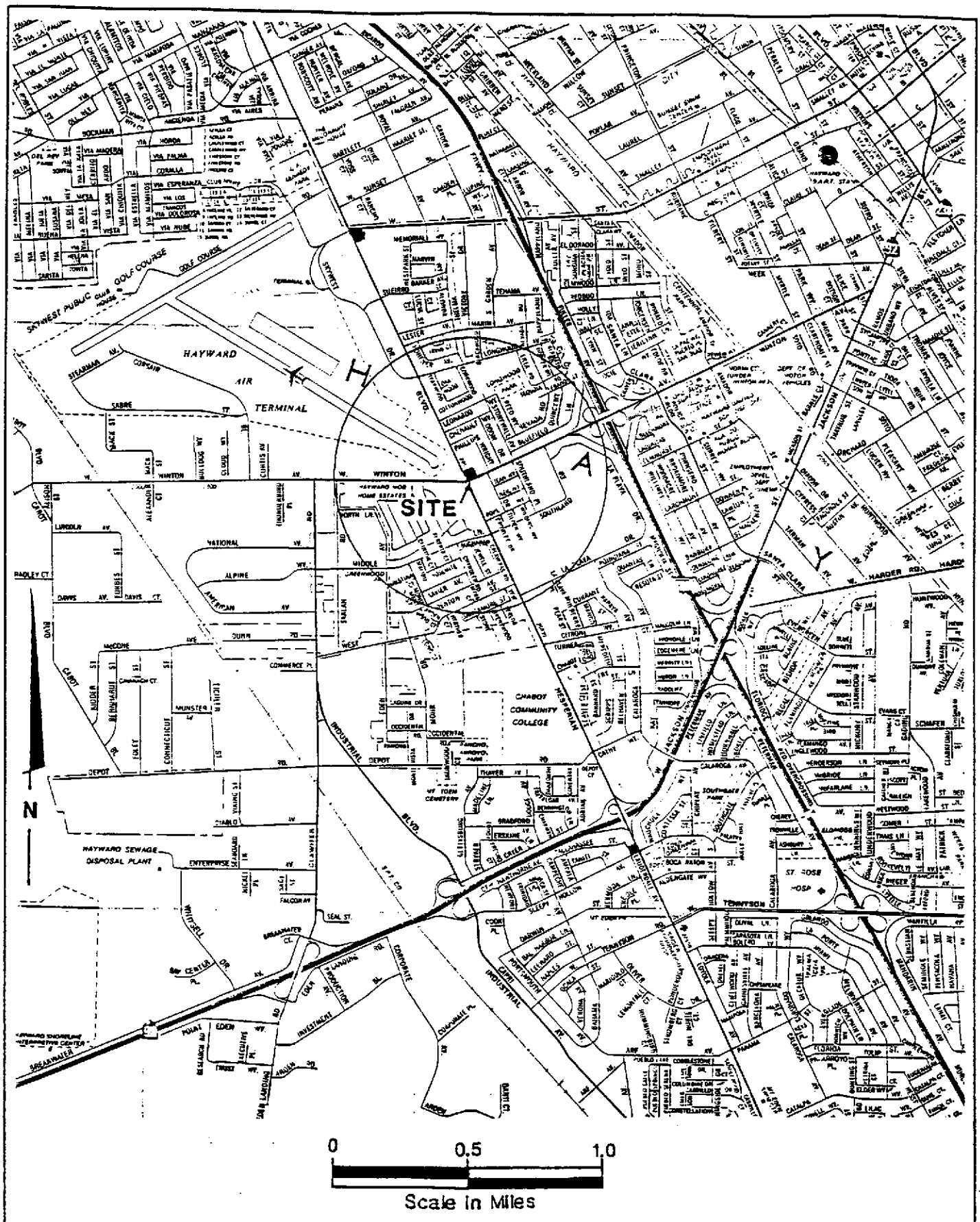
Table 4. Summary of Chemical Analyses on Groundwater Samples from MW-3C*

Organic Compounds (parts per billion):	
Benzene	2640
Toluene	40
Ethylbenzene	1590
Xylenes	1591
Phenol	27
Naphthalene	123
2-Methylnaphthalene	82

Inorganic Compounds (parts per million):	
Arsenic	0.06
Barium	0.1
Zinc	0.06

* By EPA Test Method 624, EPA Test Method 625, EPA Test Method 503E, EPA 200 Series Methods

105648



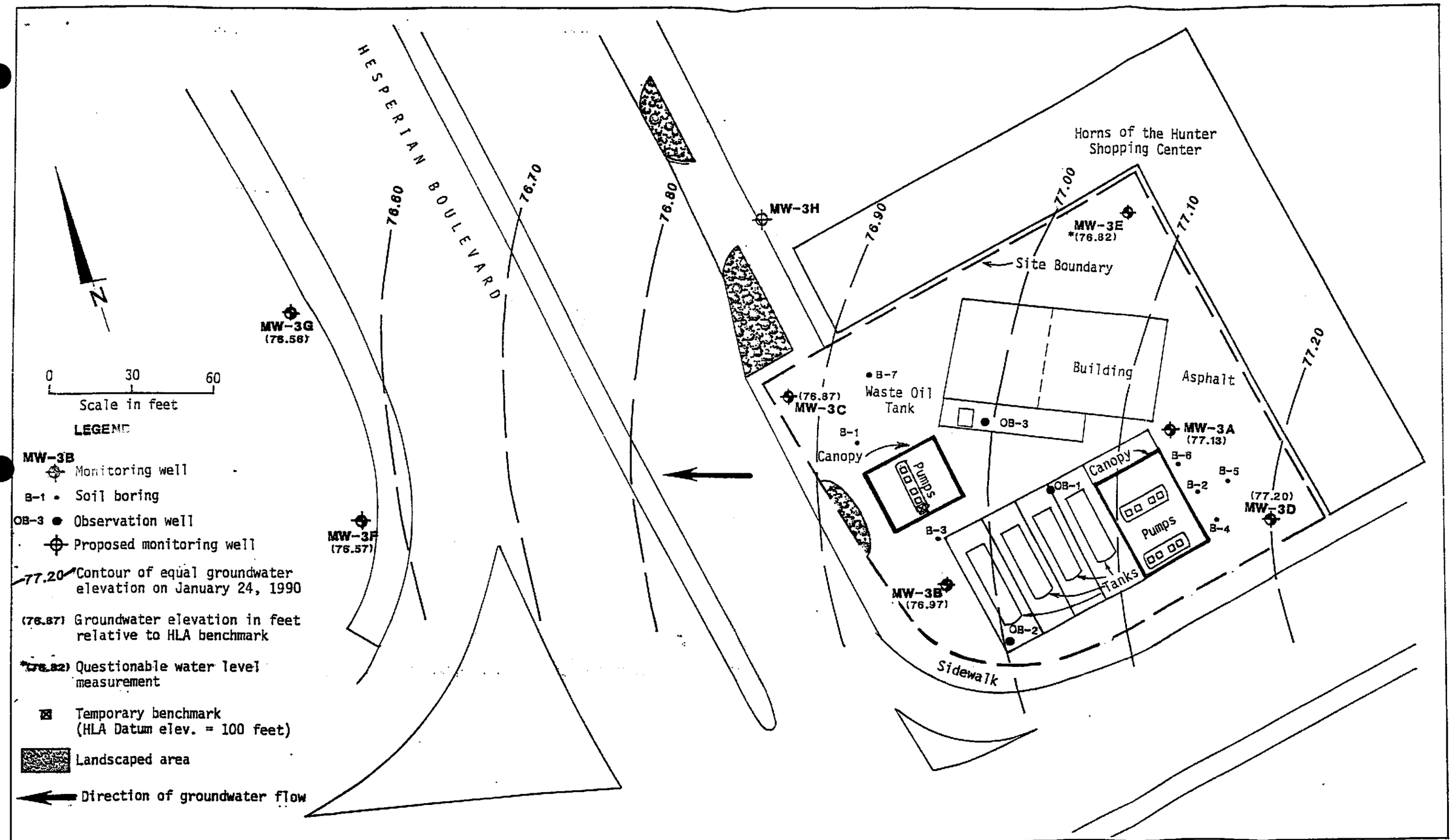
Harding Lawson Associates
Engineers and Geoscientists

Regional Map

Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California

PLATE **1**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
	2251,078.03		5/89		



Harding Lawson Associates
Engineering and Environmental Services

Ground Water Surface Map
23990 Hesperian Boulevard
Hayward, California

PLATE **4**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
DEV	02251,115.03		12/89	

DISTRIBUTION

4 copies: Texaco Refining and Marketing Inc.
10 Universal City Plaza
Universal City, California 91608

Attention: Mr. R.W. Conlon

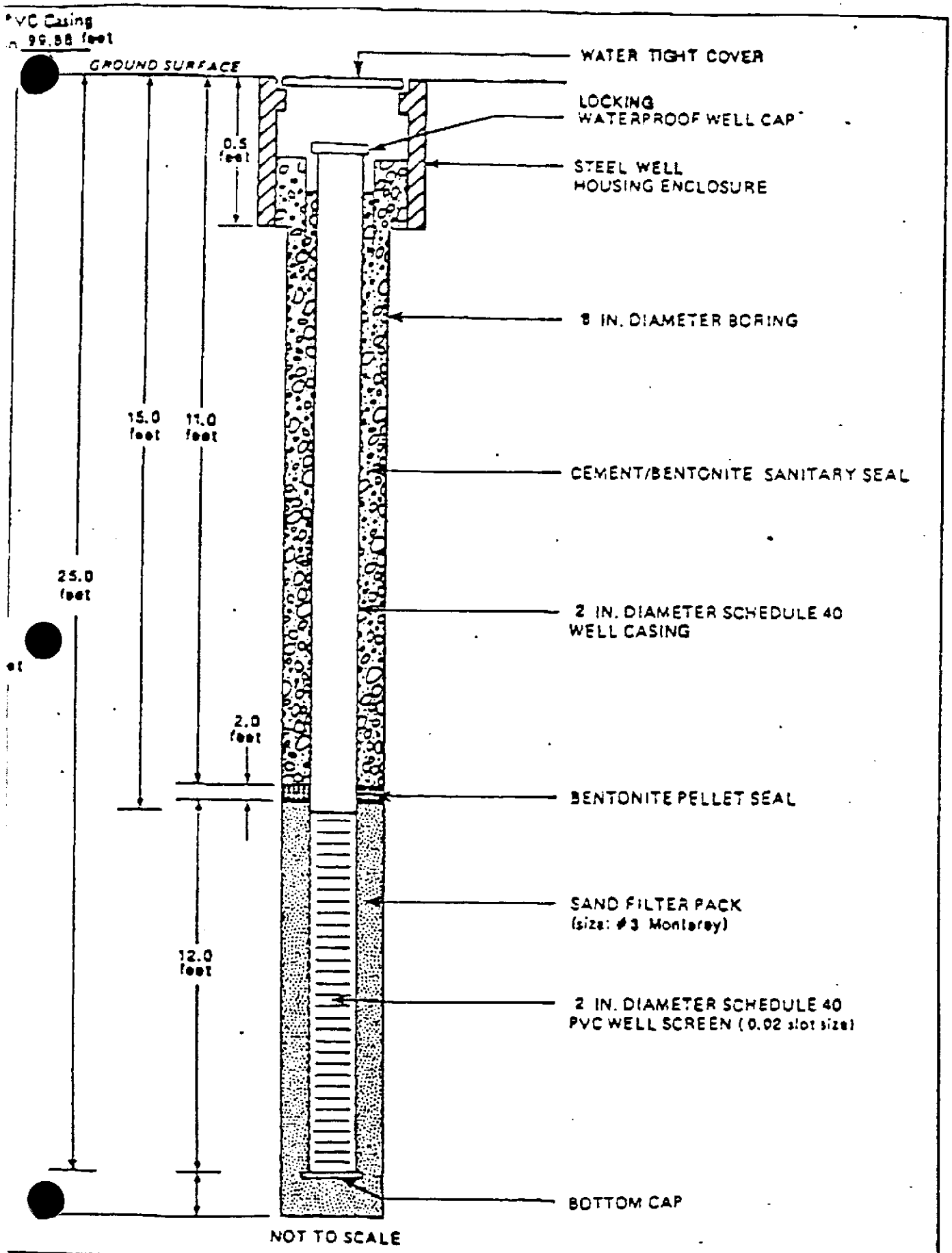
1 copy: Texaco Refining and Marketing Inc.
100 Cutting Boulevard
Richmond, California 94804

Attention: Mr. R. R. Zielinski

JSH/RS/mlw 031646P/R40

QUALITY CONTROL REVIEWER

Stephen J. Osborne
Principal Engineer



Harding Lawson Associates
Engineers, Geologists & Geophysicists

Monitoring Well MW-3A Completion Detail
Texaco Station - 62488000055
23990 Hesperian Boulevard
Hayward, California

(TYP. for all)

PLATE **7**

APPENDIX B

ory Tests

Depth (ft) Sample	Blows/foot **	PID * Reading (ppm)
0		
		—
5	8	
		0
10	8	
		350
15	15	
		220
20	6	
		320
25	12	
30		
35		
40		

Equipment 7-inch Hollow Stem Auger

Elevation ***100 feet Date 6/14/88

asphaltic concrete pavement
aggregate baserock
BROWN CLAY with sand (CL)
medium stiff, moist

DARK GRAY CLAY (CL)
stiff, moist, slight petroleum odor

DARK GREENISH GRAY CLAY (CL)
soft, strong petroleum odor
moist to wet
▽ water level 6/21/88

MOTTLED GRAY AND BROWN CLAY (CL)
stiff, moist, slight petroleum odor

bottom of boring 25 feet

photo ionization detector,
vac TIP
parts per million

Sampler blow counts converted
PT blow counts

ference Elevations
bitrary datum)

rofing Lawson Associates
gineers Geologists
Geophysicists

Log of Boring MW-3A
Texaco Station - 62488000055
23990 Hesperian Boulevard
Hayward, California

PLATE 3

JOB NUMBER APPROVED DATE DRAWN DATE

APPENDIX B

Equipment 7-inch Hollow Stem Auger

Elevation ***99.7 feet Date 6/15/88

Laboratory Tests	Blows/foot **	PID * Reading (ppm)	Depth (ft) Sample
			0
			asphaltic concrete pavement
			aggregate baserock
			DARK BROWN CLAY with gravel (CL) medium stiff, moist
			BROWN CLAY (CL) medium stiff, moist
	8	0	5
	8	0	10
	8	0	15
			GREENISH BROWN CLAY (CL) soft, moist, strong petroleum odor
	5	230	20
			▽ water level 6/21/88
			25
			bottom of boring 25 feet
			30
			35
			40

*PID = photo ionization detector, Photovac TIP
ppm = parts per million

**S&H Sampler blow counts converted to SPT blow counts

***Reference Elevation (arbitrary datum)

Harding Lawson Associates
Engineers, Geologists & Geophysicists

Log of Boring MW-3C
Texaco Station - 62488000055
23990 Hesperian Boulevard
Hayward, California

PLATE 5

JOB NUMBER APPROVED DATE REVISED DATE

Equipment 7-inch Hollow stem Auger

Elevation ***99.5 feet Date 6/14/88

Tests	Blows/foot **	PID * Reading (ppm)	Depth (ft)	Sample	
			0		asphaltic concrete pavement aggregate baserock BROWN CLAY (CL) stiff, moist
	9	0	5		
	9	0	10		
	14	20	15		MOTTLED BROWN AND GRAY CLAY (CL) stiff, moist, slight petroleum odor
	8	275	20		becomes wet strong petroleum odor ▽ water level 6/21/88
			25		bottom of boring 25 feet
			30		
			35		
			40		

photo ionization detector,
ic TIP
parts per million

mpler blow counts converted
f blow counts

rence Elevation
itrary datum)

ding Lawson Associates
neers, Geologists
eophysicists

Log of Boring MW-38
Texaco Station - 62488000055
23990 Hesperian Boulevard
Hayward, California

PLATE 4

JOB NUMBER 2251.049.04 APPROVED [signature] DATE 7/88 REVISED DATE

APPENDIX B

APPENDIX C

APPENDIX B

GROUNDWATER DATA

Table 9.4
Results of Groundwater Analyses
Post October 31, 1988
23990 Hesperian Blvd.
Hayward, California
(concentrations in micrograms per liter)

On/Off	Date	Location	Benzene	Toluene	Ethyl-benzene	Xylenes	TPHg	TPHd
On	02/02/89	MW-3A	8	ND	9	11	NA	NA
	10/30/89		9	ND(0.5)	14	15	480	ND(100)
	07/19/90		4.3	ND(0.5)	4.5	4	430	ND
	04/29/91		5.7	ND(0.5)	10	2	690	280
	11/07/91		11	ND(0.5)	12	3.4	970	NA
	05/07/92		3.0	ND	7.6	3.0	760	430
On	02/02/89	MW-3B	9000	2400	1600	8400	NA	NA
	10/30/89		8100	1800	2700	19000	140000	ND(1000)
	07/19/90		8200	1400	4100	16000	130000	11000
	04/29/91		8300	630	3400	12000	200000	21000
	11/07/91		10000	530	4900	18000	50000	370000
	05/07/92		3900	530	1400	5800	110000	72000
On	02/02/89	MW-3C	2100	65	660	1400	NA	NA
	10/30/89		2800	59	1100	2300	46000	ND(1000)
	07/19/90		2700	560	1800	3300	35000	ND
	04/29/91		4500	2100	4700	11000	370000	10000
	11/07/91		3600	980	3100	6800	39000	NA
	05/07/92		3500	810	3500	7200	5700	18000

Table 9.4
Results of Groundwater Analyses
Post October 31, 1988
23990 Hesperian Blvd.
Hayward, California
(concentrations in micrograms per liter)

On/Off	Date	Location	Benzene	Toluene	Ethyl-benzene	Xylenes	TPHg	TPHd
On	02/02/89	MW-3D	ND	ND	ND	ND	NT	NT
	10/30/89		ND(25)	ND(0.5)	ND(0.5)	ND(0.5)	ND(100)	ND(100)
	07/19/90		ND	ND	1.3	1.5	ND	ND
	04/29/91		ND	ND	1.9	0.8	ND	ND
	11/07/91		ND	ND	ND(0.5)	ND(0.5)	ND	ND
	05/26/92		ND	ND	ND	ND	ND	ND
On	02/02/89	MW-3E	ND	ND	ND	ND	NP	NP
	10/30/89		ND	ND(0.5)	ND(0.5)	ND(0.5)	ND(100)	ND(100)
	07/19/90		ND	ND	ND	ND	ND	ND
	04/29/91		ND	ND	ND	ND	ND	ND
	11/07/91		ND	ND	ND	ND	ND	ND
	05/26/92		ND	ND	ND	ND	ND	ND
Off	02/02/89	MW-3F	ND	4	3	3	NA	NA
	10/30/89		ND(25)	6.7	2.2	ND(0.5)	1200	ND(100)
	07/19/90		5.7	ND(0.5)	1.2	ND(0.5)	66	ND
	04/29/91		19	8.2	6.6	ND(0.5)	2000	200
	11/07/91		14	ND(0.5)	1.0	ND(0.5)	1200	230
	05/26/92		12	10	2.3	3.7	1400	430
Off	02/02/89	MW-3G	ND	ND	ND	ND	NT	NT
	10/30/89		ND	ND	ND	ND	ND	ND
	07/19/90		ND	ND	ND	ND	ND	ND
	04/29/91		ND	ND	ND	ND	90	ND
	11/07/91		ND	ND	ND	ND	ND	ND
	05/26/92		ND	ND	ND	ND	ND	ND

Table 9.4
Results of Groundwater Analyses
Post October 31, 1988
23990 Hesperian Blvd.
Hayward, California
(concentrations in micrograms per liter)

On/Off	Date	Location	Benzene	Toluene	Ethyl-benzene	Xylenes	TPHg	TPHd
Off	07/19/90	MW-3H	ND	ND	ND	ND	ND	ND
	04/29/91		ND	ND	ND	ND	60	ND
	11/07/91		ND	ND	ND	ND	100	ND
	05/26/92		ND	ND	ND	ND	330	ND
Detection Limits			0.5	0.5	0.5	0.5	50	50

Analytical Methods:
BTEX - EPA Method 8020
TPH* - EPA Method 8015
*TPH includes gasoline (TPHg), diesel (TPHd), motor oil (TPHmo also referred to as other hydrocarbon mixture)

TPH = Total petroleum hydrocarbons
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
NP = Analysis not performed
ND = Not detected
NT = Not tested

APPENDIX C

VAPOR EXTRACTION PILOT TEST DATA

Vapor-Extraction Test Report
Former Texaco Station, 239900 Hesperian Way, Hayward, California

Vapor Extraction Test Data Sheet
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
November 4, 1992
(Page 1 of 2)

Date Time	Extraction Well Data							Observation Well Data			
	Well No.	Vacuum (in. H_2O)	Air Velocity (lfm)	Air Flow rate (acfm)	Conc. TPHg ベンゼン (ppm/%LEL)	Conc. Oxygen (%)	I.C. Engine RPM	Well No.	Induced Vacuum (in. H_2O)	Well No.	Induced Vacuum (in. H_2O)
11/04/92											
1000	MW-3A	20	1900	41	50%	17	2050	-	-	-	-
1100	MW-3A	20	1900	41	500ppm/2.5%	18.5	2100	MW-3B	0.20	OB-2	0.015
1200	MW-3A	50	3000	65	-	-	2000	-	-	-	-
1210	MW-3B	50	3000	65	500ppm/90%	16	2100	-	-	-	-
1230	MW-3B	50	3000	65	500ppm/90%	16	2050	MW-3B	0.15	OB-2	0.005
1300	MW-3B	50	3000	65	500ppm/85%	16	2050	-	-	-	-
1330	MW-3B	50	3000	65	500ppm/85%	16	2050	-	-	-	-
1400	MW-3B	50	3000	65	500ppm/83%	16	2050	-	-	-	-
	MW-3B	50	3000	65	-	-	-	-	-	-	-
	MW-3B	40	2700	58	-	-	-	-	-	-	-
	MW-3B	30	2200	48	-	-	-	-	-	-	-
	MW-3B	20	1800	39	-	-	-	-	-	-	-
	MW-3B	10	1400	31	-	-	-	-	-	-	-
	MW-3B	05	900	20	-	-	-	-	-	-	-
1410	MW-3D	-	-	-	<1ppm	17.5	-	-	-	-	-
1420	MW-3E	-	-	-	<1ppm	17.5	-	-	-	-	-
1430	OB-2	-	-	-	200ppm	19.5	-	-	-	-	-
1440	OB-2	-	-	-	160ppm	19	-	-	-	-	-
1450	OB-2	-	3000	-	175ppm	18	-	-	-	-	-
1505	OB-1	-	-	-	125ppm	18	-	-	-	-	-
1515	OB-1	-	2000	-	150ppm	18.5	-	-	-	-	-
1525	MW-3C	50	2900	63	75%	12	2000	-	-	-	-
	MW-3C	50	3400	74	-	-	-	-	-	-	-
	MW-3C	40	2600	57	-	-	-	-	-	-	-
	MW-3C	30	2300	50	-	-	-	-	-	-	-
	MW-3C	20	1800	39	-	-	-	-	-	-	-
	MW-3C	10	1300	28	-	-	-	-	-	-	-

Please see notes on page 2 of 2.

Vapor-Extraction Test Report
Former Texaco Station, 239900 Hesperian Way, Hayward, California

Vapor Extraction Test Data Sheet
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
November 4, 1992
(Page 2 of 2)

Date Time	Extraction Well Data							Observation Well Data			
	Well No.	Vacuum (in. H_2O)	Air Velocity (lfm)	Air Flowrate (acfm)	Conc. TPHg (ppm/% LEL)	Conc. Oxygen (%)	I.C. Engine RPM	Well No.	Induced Vacuum (in. H_2O)	Well No.	Induced Vacuum (in. H_2O)
11/04/92											
	MW-3C	05	1000	22	-	-	-	-	-	-	-
	MW-3C	2.5	600	17	-	-	-	-	-	-	-

Notes:
in. H_2O = inches of water column vacuum
lfm = linear feet per minute
acfm = actual cubic feet per minute
Conc. = Concentration
- = Not Recorded
ppm = parts per million
% LEL = Concentrations greater than 500 ppm are recorded in percent of the lower explosive limit (LEL) as hexane.
RPM = Revolutions per minute

Excelchem
Environmental Labs
8112 Patton Avenue
Citrus Heights, CA 95610
(916) 729-5313

ANALYSIS REPORT

Attention: Mr. Mike Hodges
CEECON
72 Paloma Ave.
Pacifica, Ca. 94044

Project: Former Texaco-Hayward

Date Sampled : 11-4-92
Date Received: 11-5-92
BTEX Analyzed: 11-6-92
TPHg Analyzed: 11-6-92
Matrix: Air

	Benzene mg/M^3	Toluene mg/M^3	Ethyl-benzene mg/M^3	Total Xylenes mg/M^3	TPHg mg/M^3
Reporting Limit:	0.5	0.5	0.5	0.5	20
SAMPLE Laboratory Identification					
V1-INF-MW3A A1192051	110	3.5	3.8	5.3	930
V3-INF-MW3B A1192053	190	3.8	12	15	3000
V4-INF-OB1 A1192254	4.5	ND	2.0	3.3	220
V5-INF-MW3C A1192255	2.1	ND	ND	0.5	41
V6-INF-MW3C A1192256	0.5	1.1	0.7	2.5	30

mg/M^3 = milligrams per cubic meter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using modified EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

11-10-92
Date Reported

APPENDIX D

ANALYSES FOR CHLORINATED COMPOUNDS IN EXTRACTION VAPOR

Excelchem
Environmental Labs
6112 Patton Avenue
Citrus Heights, CA 95610
(916) 729-5313

ANALYSIS REPORT

Attention: Mr. Mike Hodges
CEECON
72 Paloma Ave.
Pacifica, Ca. 94044
Project #: Former Texaco Hayward
Sample ID: V5-INF-MW3C
Laboratory ID: A1192055

Date Sampled : 11-4-92
Date Received: 11-5-92
Date Analyzed: 11-7-92
Matrix: Air

Compound	Reporting Limit(mg/M)	Measured Value(mg/M)
Dichlorodifluoromethane	0.01	ND
Chloromethane	0.01	0.17
Vinyl Chloride	0.01	ND
Bromomethane	0.01	ND
Chloroethane	0.01	ND
Trichlorofluoromethane	0.01	ND
1,1-Dichloroethene	0.01	ND
Methylene Chloride	0.01	ND
Trans-1,2-Dichloroethene	0.01	ND
1,1-Dichloroethane	0.01	ND
Chloroform	0.01	ND
1,1,1-Trichloroethane	0.01	ND
Carbon Tetrachloride	0.01	ND
1,2-Dichloroethane	0.01	0.04
Trichloroethene	0.01	0.01
1,2-Dichloropropane	0.01	ND
Bromodichloromethane	0.01	ND
Cis-1,2-Dichloropropene	0.01	ND
Trans-1,3-Dichloropropene	0.01	ND
1,1,2-Trichloroethane	0.01	ND
Tetrachloroethene	0.01	0.01
Dibromochloromethane	0.01	ND
Bromoform	0.01	ND
1,1,2,2-Tetrachloroethane	0.01	ND
1,3-Dichlorobenzene	0.01	ND
1,4-Dichlorobenzene	0.01	ND
1,2-Dichlorobenzene	0.01	ND

MG/M = milligrams per cubic meter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using modified EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

11-10-92
Date Reported

Excelchem
Environmental Labs
8112 Patton Avenue
Citrus Heights, CA 95610
(916) 729-5313

ANALYSIS REPORT

Attention: Mr. Mike Hodges
CEECON
72 Paloma Ave.
Pacifica, Ca. 94044
Project #: Former Texaco-Hayward
Sample ID: V1-INF-MW3A
Laboratory ID: A1192051

Date Sampled : 11-4-92
Date Received: 11-5-92
Date Analyzed: 11-7-92
Matrix: Air

Compound	Reporting Limit(mg/M)	Measured Value(mg/M)
Dichlorodifluoromethane	0.01	ND
Chloromethane	0.01	ND
Vinyl Chloride	0.01	ND
Bromomethane	0.01	ND
Chloroethane	0.01	ND
Trichlorofluoromethane	0.01	ND
1,1-Dichloroethene	0.01	ND
Methylene Chloride	0.01	ND
Trans-1,2-Dichloroethene	0.01	ND
1,1-Dichloroethane	0.01	ND
Chloroform	0.01	ND
1,1,1-Trichloroethane	0.01	0.03
Carbon Tetrachloride	0.01	ND
1,2-Dichloroethane	0.01	ND
Trichloroethene	0.01	0.02
1,2-Dichloropropane	0.01	ND
Bromodichloromethane	0.01	ND
Cis-1,2-Dichloropropene	0.01	ND
Trans-1,3-Dichloropropene	0.01	ND
1,1,2-Trichloroethane	0.01	ND
Tetrachloroethene	0.01	ND
Dibromochloromethane	0.01	ND
Bromoform	0.01	ND
1,1,2,2-Tetrachloroethane	0.01	ND
1,3-Dichlorobenzene	0.01	ND
1,4-Dichlorobenzene	0.01	ND
1,2-Dichlorobenzene	0.01	ND

mg/M = milligrams per cubic meter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using modified EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

11-10-92
Date Reported

APPENDIX E
PERMIT TO DISCHARGE TREATED GROUNDWATER

EXHIBIT "A"

September 27, 1993

WORK PLAN & SPECIFICATION FOR
SOIL AND GROUNDWATER REMEDIATION SYSTEM
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

Texaco Environmental Services requests a bid to perform remediation services at the former Texaco service station located at 23990 Hesperian Boulevard in Hayward, California. The scope of work covered by this contract includes the cleanup of hydrocarbon impacted soils and groundwater. Soils shall be remediated to 100 ppm total petroleum hydrocarbon and groundwater shall be remediated to 1 ppb benzene. This is a bid request for a "Turn Key" job to construct, maintain and operate a soil and groundwater treatment system. Unless otherwise noted, contractor shall furnish all material, labor and equipment; pay all fees (including sub-contractor fees), obtain all permits, licenses, etc. for a "Lump Sum Fee" to cover all work noted in this document and its attachments. Because this is an operating service station, contractor is cautioned to take all necessary steps to minimize interference with its operation.

SITE DESCRIPTION

The site is an operating Exxon service station, located on the northeast corner of Hesperian Boulevard and Winton Avenue in Hayward, California (Figure 1). The location is relatively flat, with surface drainage to the southwest. Site elevation is about 50 feet above sea level (City of Hayward datum).

Structures at the service station include a building, three fuel pump islands, one 550-gallon underground waste oil tank, and four underground fuel tanks with a total capacity of 42,000 gallons. The station currently provides unleaded gasoline, diesel fuel, and automotive repair services. Four underground gasoline storage tanks were removed from the southwest corner of the site in 1985. Leaded gasoline was dispensed prior to first quarter 1992.

Data obtained during site investigations indicates that the subsurface consists dominantly of medium stiff to stiff clay with varying amounts of silt and sand. Minor sand lenses are interbedded with the clay. Groundwater is at approximately 21 feet below grade with a gradient of 0.002 to the west-northwest. Select boring logs are included as Appendix A.

Hydrocarbon impacted soil and groundwater have been observed in the area of the current and former underground tanks and down gradient (southern and western portions of the site). Hydrocarbon levels of up to 190 ppm have been detected in soils down gradient of the

subsurface storage tanks. Hydrocarbons have been detected in the capillary fringe and below the water table, probably due to seasonal fluctuations in groundwater level. Dissolved hydrocarbons are present in groundwater in the area of the underground storage tanks and pump islands. Groundwater surveys indicate that the greatest concentrations of dissolved hydrocarbon are in the vicinity of wells MW-3B and MW-3C, both down gradient of the underground fuel tanks and pump islands. No free product has been observed at the site since July 1988. The results of groundwater analyses are presented in Appendix B.

A vapor extraction test was performed at the site in November 1992. Test data, including well head vacuums, well flow rates, and the results of extraction vapor analyses are included in Appendix C. Monitoring of chlorinated compounds will be required to ensure that contaminants are not migrating in from off-site. Laboratory results detailing chlorinated compound concentrations observed in extraction vapor are presented as Appendix D.

GENERAL SCOPE OF WORK

The remediation system will consist of vapor extraction wells, groundwater extraction wells, a vapor/liquid separator, a thermal vapor treatment unit and a carbon adsorption water treatment system. The thermal vapor treatment unit will be replaced by two activated carbon vessels in series after the system mass extraction rate falls below 10 pounds per day for two consecutive weeks. For your quotation, assume that the thermal unit will be in operation for five months and the carbon units for nine months. Your quotation must be based on a total operating time of 14 months. Should the length of time to remediate the site or the operation period for the thermal treatment unit decrease or increase, the contractor will issue a monthly credit or charge for the actual time the equipment and its monthly operation and maintenance is utilized. For this purpose, indicate in your transmittal letter a monthly operation charge for the remediation system with the thermal vapor treatment unit and an operation charge for the system with activated carbon filters.

DESIGN/PERMITTING

The successful contractor will use the attached P&ID (Figure 2), to prepare site specific general arrangement drawings that detail actual field conditions. Submit these drawings with permit applications, to Texaco for approval prior to filling for permits. File for all necessary permits and pay all required fees. All permits shall include, but not be limited to those discussed below.

Obtain an air permit to construct and permit to operate for air discharge from the Bay Area Air Quality Management District (BAAQMD). The air permit shall allow for the replacement of the thermal vapor treatment unit with two-1000 pound activated carbon vessels in series after the mass extraction rate for the remediation system falls below 10 pounds per day for two continuous weeks.

Texaco Environmental Services has obtained a NPDES permit to discharge treated groundwater. The successful contractor will be responsible for meeting all required permit conditions . All self-monitoring reports will be submitted directly to agency with a copy to Texaco. A copy of the water discharge permit is included in Appendix E.

The contractor shall obtain a building permit and prepare a work plan for submittal to the appropriate agency detailing the scope of work. Prepare a health and safety plan for use at the site.

WELL INSTALLATION

Eight wells for vapor extraction and at least three wells for water extraction are to be installed (Figure 3). The eight vapor extraction wells are to be installed to a depth of 28 feet with screens from approximately 13 to 28 feet below grade. Actual screened intervals shall be determined in the field by a qualified geologist based on site characteristics. Wells are to be constructed with four-inch inside diameter PVC casing with 0.010 inch slots. Three previously installed monitoring wells (MW-3A, MW-3B, MW-3C) will also be converted into vapor/water extraction wells.

Water extraction wells will be installed with screens as appropriate for extraction of impacted groundwater and to dewater impacted soils within the capillary fringe and below the water table. Screened casing shall consist of four-inch diameter PVC casing with 0.010-inch slots.

Before drilling operations begin, the contractor shall engage the services of a subsurface locator to perform an investigation of all areas to be trenched or drilled. Based on information provided by the investigation, well and trenching designs shall be altered to avoid damaging or disturbing subsurface features.

During drilling, soil samples will be collected at five-foot intervals with a California-modified split-spoon sampler with three

six-inch brass sleeves. One sleeve from each sample shall be screened in the field for the presence of hydrocarbons. Three samples per boring shall be sealed, labeled, and sent to a State of California certified laboratory for analysis of total petroleum hydrocarbons (TPH) as gas and diesel and aromatic compounds using EPA methods 8015 and 8020.

A total of two samples shall be submitted for physical soil characteristics analyses. These analyses shall include horizontal and vertical permeability to air, particle size, water saturation, and hydrocarbon saturation.

The contractor shall contain rinsate water in 55-gallon drums. The rinsate water will later be disposed of through the water treatment system. The contractor is responsible for the disposal of all drill cuttings, with Texaco manifest as generator.

References to the installation of the three new water extraction wells referred to above was intended for those contractors that chose not to utilize the same well for combination vapor and liquid extraction.

CONSTRUCTION

The contractor shall construct a vapor and groundwater extraction and treatment system (Figure 2) that includes a thermal vapor treatment unit with a vacuum extraction blower, vapor/liquid separator, water extraction pumps, and carbon vessels. The equipment is to be
placed on the asphalt surface in the northeast corner of the service station property (Figure 3).

The thermal vapor treatment unit is to be replaced by two-1000 pound activated carbon vessels after the system mass extraction rate is calculated to be below 10 pounds per day for two consecutive weeks. Assume the thermal vapor treatment unit will be replaced after five months.
The equipment must meet the following specifications:

Thermal Vapor Treatment Unit: Airex Retox 600, or approved equal. The unit shall have a minimum capacity of 600 standard cubic feet per minute and a minimum guaranteed destruction efficiency of 97 percent. The unit must be capable of treating a minimum of 800 pounds of hydrocarbon per day. A natural gas meter is located at the northeast corner of the service station building. Assume that less than 50 ppmv of chlorinated VOCs will be

extracted in soil vapor.

The unit will be equipped with safety shutdowns to include: high and low oxidation temperature, low air flow, high vapor/liquid separator level, and high LEL. The unit shall also have shutdowns for high natural gas pressure, low natural gas pressure and burner failure if applicable. The unit will be equipped with a detection system that indicates the cause of the shutdown. The unit will be equipped with an automatic notification system to alert the proper personnel should a shutdown occur.

Carbon Vessels (Vapor Treatment): The vessels shall be equipped with four-inch inlet and outlets. Each vessel shall contain 1000 pounds of coconut shell 4x10 activated carbon. Two vessels will be placed in series with sample collection fittings before the primary carbon, the secondary carbon, and the discharge point.

Vacuum Extraction Blower: The vacuum extraction blower shall be a positive-displacement blower capable of 400 standard cubic feet per minute at an inlet vacuum of 15 inches of mercury (Hg). The unit shall be equipped with an inlet filter and an outlet silencer. The inlet filter shall be equipped with a differential pressure indicator. The blower will have an explosion-proof motor and motor controls. The starter shall be wired so that a shutdown of the thermal vapor treatment unit will shut down the blower.

Vapor/Liquid Separator: The vapor/liquid separator shall be a centrifugal-type separator with demister filter to protect the thermal treatment unit. The separator will hold a minimum of 100 gallons and be fitted with an automatic control system to pump collected water to the water treatment system. A high level switch will cause system shutdown in the event of pumping failure.

Water Treatment System: The water treatment system will be capable of treating up to 10 gallons per minute using three carbon adsorption filters in series. The water

treatment system shall also treat water collected in the vapor/liquid separator. The water system will have sample collection fittings as required by the permit for discharge. A totalizing meter will measure water discharge to the sewer. Contractor will specify water extraction pumps capable of extracting a minimum of two gallons per minute, controls, sensors, and other required items.

A six-inch diameter PVC main header will run from the vapor extraction wells to the vapor/liquid separator. Branch piping from the wells to the main header will be sized appropriately for accurate flow measurement. In addition to the eight newly installed vacuum extraction wells, three monitoring wells (MW-3A, MW-3B and MW-3C) will be included in the system as vapor/groundwater extraction wells. Each well head will be fitted with a ball valve, a vacuum gage, a vapor sampling port, and a flow measuring port.

All piping outside of the equipment compound and all wellheads will be below grade. Piping will be installed in trenches at least 12 inches deep, backfilled with sand and six inches of concrete. Backfill shall be compacted to 95 percent maximum density. Trenches shall be capped with a material of like appearance and quality to their surrounding area. Wellheads will be protected by Christy boxes rated for use in high traffic areas. To prevent settling, traffic boxes shall be supported by a concrete base at least two inches thick and extending at least one-half inch into the interior of the traffic box on all sides.

Six-inch diameter piping will connect the outlet of the vapor/liquid separator to the vacuum extraction blower. Six-inch diameter piping will connect the outlet of the vacuum blower to the inlet of the thermal vapor treatment unit. This pipe shall be of a material appropriate for the expected blower discharge temperatures.

Flow measurements shall be made using an averaging Pitot tube and manometer. Vapor sample ports will be multi-use fittings for use with syringe samplers, Tedlar bags, or evacuated flasks as appropriate.

The contractor shall install a sound wall around the equipment area (approximate dimensions: 15' x 15') so that the radiated noise levels at the station building are less then 65 Db. The soundwall shall be constructed so that equipment may be removed or installed

as necessary.

The contractor will install electrical service for the equipment to include a distribution panel with disconnects or breakers for each load. The contractor should assume that PG&E will provide 480 volt 3-phase power for a cost of $12,000. Bids will include utility connection costs as well as utility usage charges over the course of the remediation.

The contractor will install underground natural gas service for use as supplemental fuel by the thermal vapor treatment unit if necessary. A medium pressure gas main and a PG&E natural gas meter are located at the northeast corner of the service station, about 35 feet from the equipment compound. Assume PG&E will charge approximately $2,600 to install a natural gas service if required for vapor treatment.

The contractor shall install all required sub-grade piping for the water discharge line. The water discharge line shall be one and a half-inch PVC pipe. The discharge line shall be installed in a trench at least 12 inches deep and backfilled with sand and six inches of concrete. Backfill shall be compacted to 95 percent maximum density. Trenches shall be capped with a material of like appearance and quality to their surrounding area. The contractor will install phone service for the remote monitoring system.

STARTUP AND TESTING

The contractor shall test all equipment for proper operation prior to startup. This testing shall include electrical continuity checks, phase rotation checks, tests of all system safety shutdown, verification of all system setpoints, pressure-testing of water lines, and testing of the remote monitoring system. All vapor samples will be analyzed using EPA method 8015/8020.

Upon startup, a sound survey shall be performed on-site to ensure that equipment noise levels are below 65 Db at the station building and at all property lines.

In order to discharge treated groundwater to the storm-sewer, the contractor must provide onsite storm-sewer discharge point and meet all of the requirements set forth in the NPDES permit. The complete groundwater discharge permit is included in Appendix E. For projection of activated carbon usage, assume an initial average groundwater concentration of 5 ppm hydrocarbon.

A source test of the thermal vapor treatment unit shall be performed to verify the destruction efficiency. This test will

conform with required BAAQMD requirements, with a minimum of three inlet and three stack samples analyzed using EPA method 8015/8020.

Each well shall be brought on line independently and evaluated for flow rate and hydrocarbon concentration in the extraction vapor stream. A minimum of two flow measurements shall be made and two extraction vapor samples shall be collected and analyzed for each well; one at startup and the other after one hour. The mass extraction rate for each well shall be calculated. Wells not yet in service shall be used as observation wells and radius of influence measurements recorded. A minimum of 28 vapor samples will be analyzed during the source test and startup.

Vapor samples shall be collected from each well after one week of system operation. Vapor samples shall be analyzed by EPA method 8015/8020 (total of 11 samples). Samples will also be analyzed for chlorinated compounds using EPA method 8010. Wellhead vapor flows shall be measured to determine mass extraction rates from each well. In addition, the thermal vapor treatment unit inlet and stack shall be sampled and analyzed for TPH and speciated for various gasoline components at startup and after one week of operation. The thermal vapor treatment unit inlet and stack flows shall be measured in order to calculate destruction efficiency. The mass flow rate for the system will be calculated and a mass balance performed to ensure the accuracy of calculated wellhead extraction rates. All inlet samples shall also be analyzed for oxygen and carbon dioxide content and results recorded.

An Installation and Startup Report shall be submitted that includes boring logs, soil sample results, soil permeability and grain size distribution, as-built drawing, vapor concentrations and mass extraction rates for each well, and other pertinent data.

OPERATIONS AND MONITORING

The contractor shall be responsible for all operations, monitoring, and equipment maintenance for the life of the project. For purposes of this bid, the project life is assumed to be fourteen months (one week of startup and optimization, balance for routine operations).

Each week, vapor samples shall be taken from the thermal vapor treatment unit inlet and discharge stack or from before the primary vapor carbon, the secondary vapor carbon and the carbon discharge as applicable. These samples shall be analyzed for TPH using FID gas chromatography, corrected for methane, and reported as non-methane hydrocarbons. In addition, these samples shall be analyzed for the concentrations of the various aromatic

constituents, including benzene, toluene, ethylbenzene, and xylene. Vapor flow rates and vacuum shall be recorded for the system and for each well. Routine maintenance will be conducted as required.

Vapor treatment unit inlet samples shall also be analyzed for percent oxygen and percent carbon dioxide. The carbon dioxide production due to natural biodegradation and due to non-hydrocarbon sources shall be calculated based on field measurements and subtracted from the total carbon dioxide produced in the soil. The net carbon dioxide production shall then be converted into pounds of hydrocarbon consumed by soil microbes and included in the monthly operation report.

The system mass flow rate will be calculated each week. When the mass extraction rate is determined to be below 10 pound per day for two consecutive weeks, the thermal vapor treatment unit shall be replaced by two-1000 pound activated carbon vessels in series. For bid purposes, assume the thermal unit will be replaced after five months of operation.

Monthly vapor samples shall be taken from each wellhead. Vapor samples shall be analyzed for TPH and corrected for methane as required. In addition, these samples shall be analyzed for the concentrations of the various aromatic constituents, including benzene, toluene, ethylbenzene and xylene. The flow and vacuum at each sampling point shall be recorded. All wellhead vapor samples collected during the second and fifth months of operation shall be analyzed for chlorinated compounds to ensure that no chlorinated compounds are migrating in from off-site. Analyzing each well head for chlorinated compounds will allow possible sources of these compounds to be identified.

Following the water treatment system startup, water samples shall be taken as required by the water discharge permit. The monthly operations self monitoring report shall include volume of water treated, carbon changeouts, mass balance calculations, and runtime of the system.

The contractor shall also be responsible for replacing and/or regenerating the activated carbon used in both the vapor and the groundwater treatment systems. Assume that the vapor treatment system will require the replacement 2000 pounds of carbon on a monthly basis (18,000 pounds total) and include the cost of this change out in your quotation.

Each month the contractor will provide an operation report detailing the results of the routine analysis, the system run hours, and any significant events. The contractor shall replace and/or regenerate carbon as required throughout the life of the

project. Mass balance calculations are required to confirm projected carbon usage.

INTERIM BORING AND SAMPLING PROGRAM

After four months of operation, conduct an interim boring and sampling program to measure the effectiveness of the remediation system. Four soil borings will be advanced to a depth of 30 feet. Soil samples shall be collected at five-foot intervals and analyzed for total petroleum hydrocarbons using EPA methods 8015 and 8020. Two samples shall be analyzed for chlorinated compounds using EPA method 8010. In addition, these samples shall be screened in the field using a PID. These borings will be completed as additional vapor extraction wells and connected to the treatment system.

The contractor will provide a report detailing the results of the interim boring and sampling program.

CLOSURE ACTIVITIES

Clean-up criteria are as follows:

soil	TPH less than 100 ppm
water	benzene less than 1 ppb

Upon direction of Texaco Environmental Services, two confirmatory borings will be advanced to a depth of 30 feet. Soil samples will be collected at five-foot intervals and analyzed for total petroleum-based hydrocarbon using EPA methods 8015 and 8020 and for chlorinated compounds using EPA method 8010.

The contractor shall prepare a closure report detailing the system operations and the results of the closure borings. This report shall be submitted to Texaco for review and approval. All regulatory agency reporting will be performed by Texaco.

Upon submittal of the site closure report and Texaco's approval, the contractor shall demobilize all equipment, remove all above and below ground piping, remove all walls and enclosures, and properly close all extraction wells (excluding MW-3A, MW-3B, and MW-3C). Well vaults and trenches shall be filled with sand, topped with a 6" concrete cap, and all site areas returned to original grade.

DATA ACQUISITION MONITORS

Contractor will provide a telephone line to the remediation enclosure and install a Parafax remote monitoring system - For

telemonitoring both by contractor and Texaco.

ASSUMPTION AND EXCEPTIONS

1) Assume 30,000 pounds of hydrocarbon are in the subsurface.

2) Assume PG&E installation costs as follows:

480 volt, 3-phase power	$12,000
natural gas service	$ 2,600

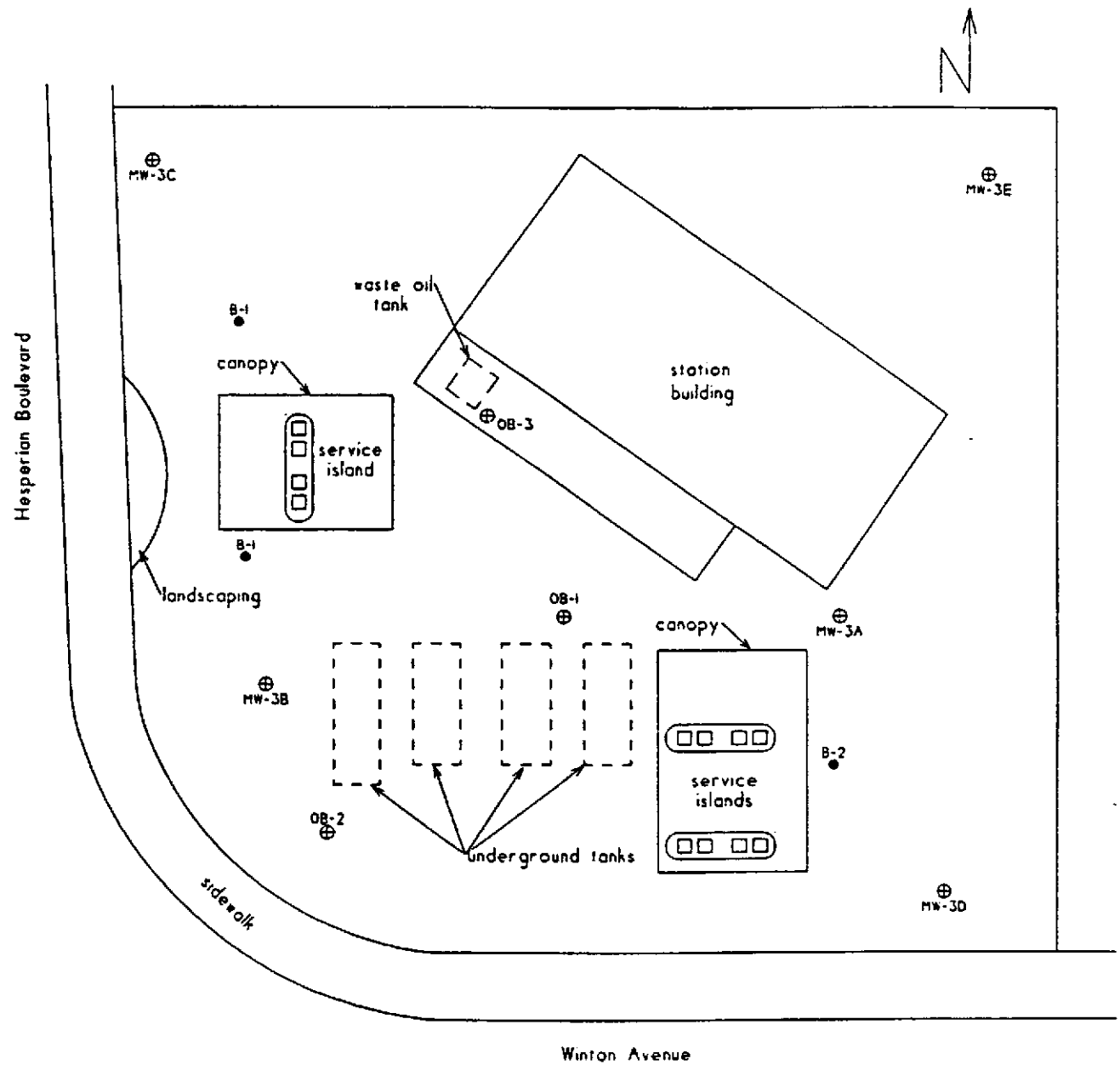
Bids will also include utility charges for the life of the project.

3) Bids will include all permit fees.

4) Assume the remediation system will be in operation for fourteen calendar months.

5) Assume for costing purposes that the thermal treatment unit will be replaced by activated carbon adsorption filters after five months of operation.

6) Assume that a groundwater extraction rate of 10 gallons per minute will lower the water table below the deepest extent of hydrocarbon impact.



0 scale in feet 25

LEGEND.

- MW-3E ⊕ monitoring well
- OB-1 ⊕ observation well
- B-2 ● soil boring
- / underground features

Plot Plan
23990 Hesperian Boulevard
Hayward, California

Project	30-0113	Drawn by	MKF
Date	8/9/93	Revision	0
Scale	1"=25'	Checked	

Texaco Environmental Services

Figure 1

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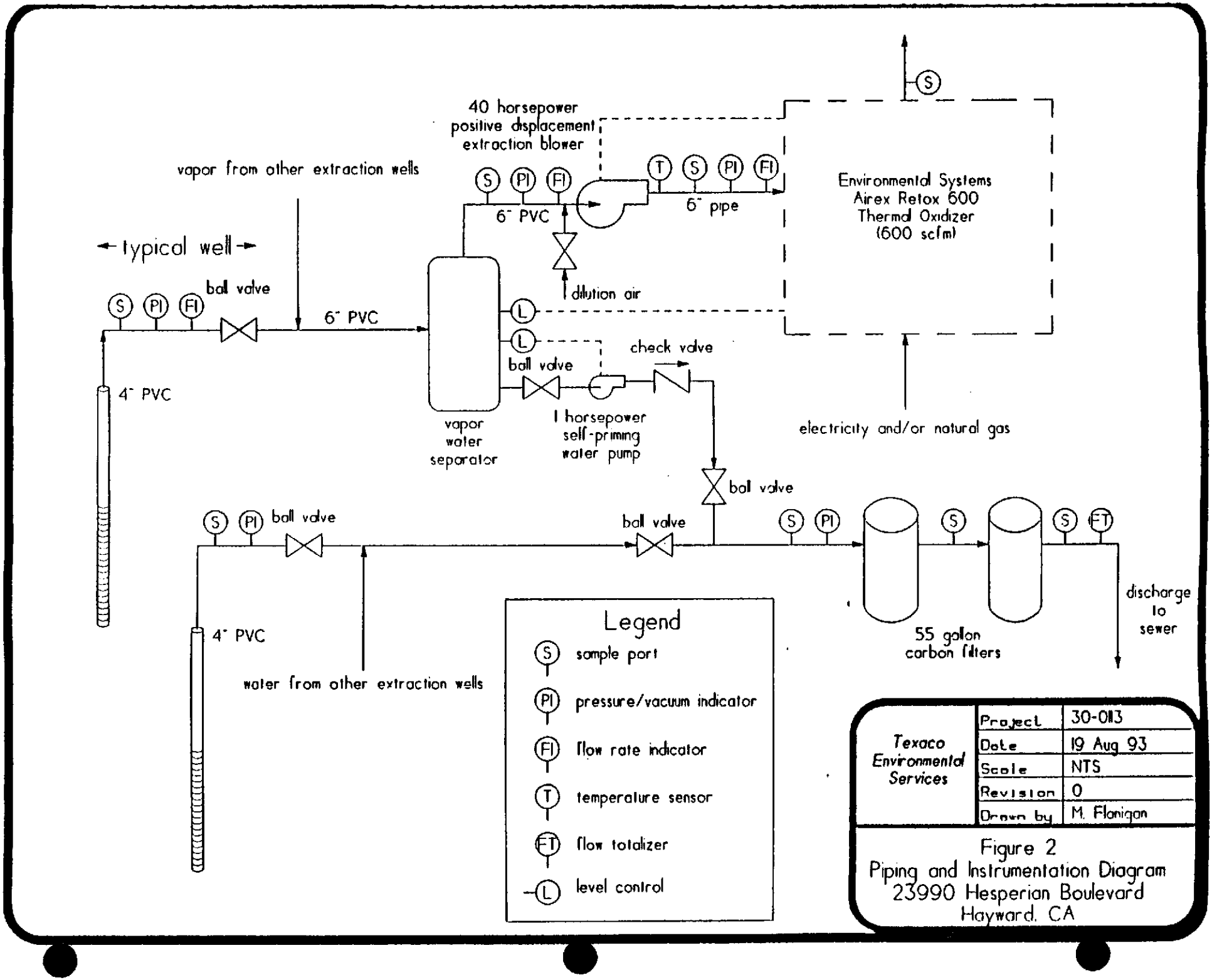
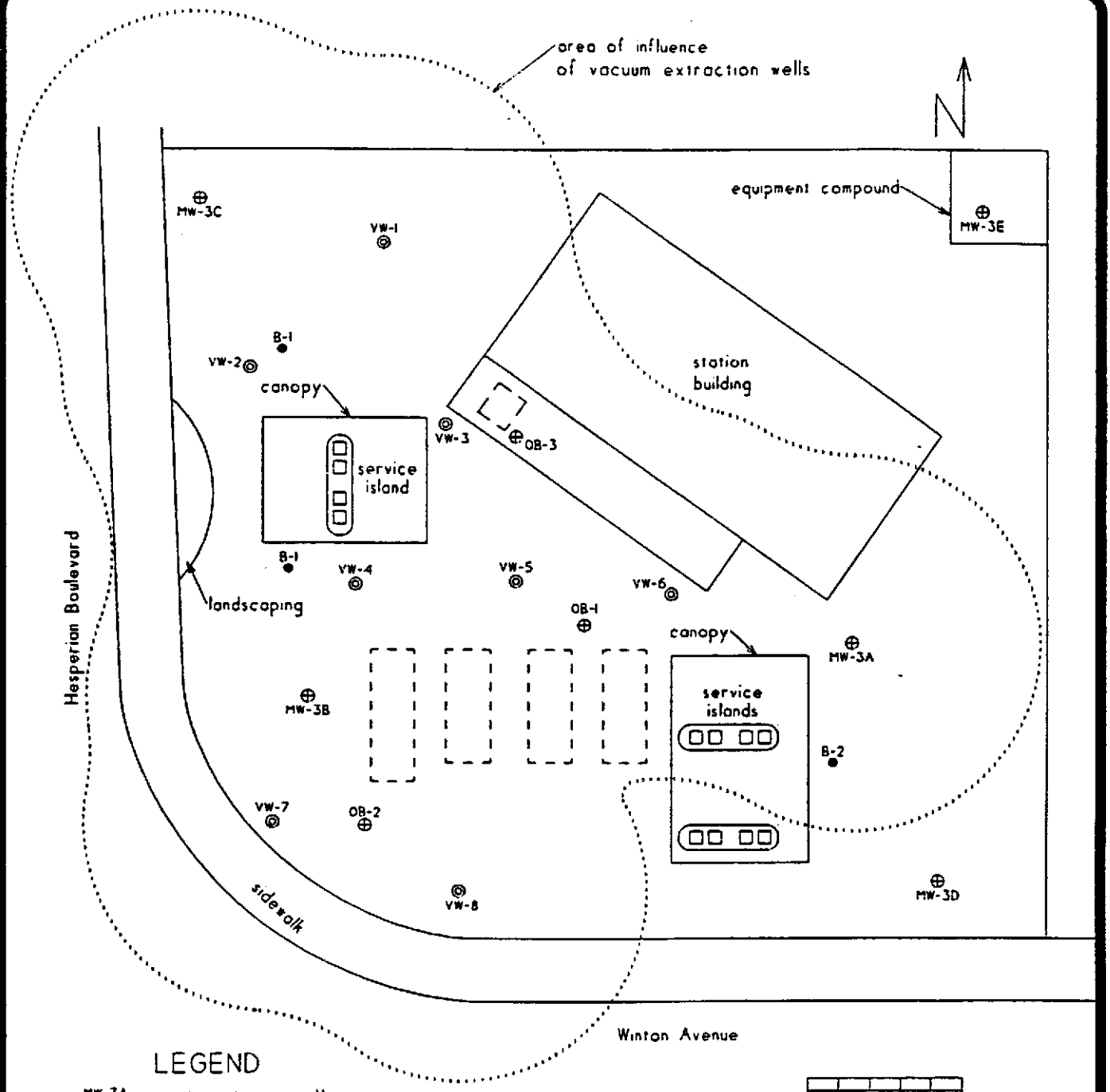

40 horsepower
positive displacement
extraction blower
vapor from other extraction wells
typical well
ball valve
6" PVC
4" PVC
6" PVC
6" pipe
dilution air
Environmental Systems
Airex Retox 600
Thermal Oxidizer
(600 scfm)
electricity and/or natural gas
vapor
water
separator
ball valve
check valve
1 horsepower
self-priming
water pump
ball valve
ball valve
ball valve
4" PVC
water from other extraction wells
55 gallon
carbon filters
discharge
to
sewer
Legend
sample port
pressure/vacuum indicator
flow rate indicator
temperature sensor
flow totalizer
level control
Texaco
Environmental
Services
Project 30-013
Date 19 Aug 93
Scale NTS
Revision 0
Drawn by M. Flanigan
Figure 2
Piping and Instrumentation Diagram
23990 Hesperian Boulevard
Hayward, CA



LEGEND

- MW-3A ⊕ monitoring well
- OB-1 ⊕ observation well
- B-1 ● soil boring
- VW-1 ◎ proposed well locations
- / underground storage tanks
- area of influence of vapor/extraction wells

0 scale in feet 25

Well Locations 23990 Hesperian Boulevard Hayward, California			
Project	30-0113	Drawn by	MKF
Date	8/30/93	Revision	2
Scale	1"-25'	Checked	
Texaco Environmental Services			Figure 3

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3.5 Station Location 7-0218 (Hayward) 23990 HESPERIAN

The analytical program for the soil samples collected from station location 7-0218 (Hayward) included analysis for the presence of five (5) common metals (cadmium, chromium, lead, nickel and zinc), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Total Oil and Grease (TOG), and Total Petroleum Hydrocarbons (TPH). Sources referenced in Section 2.1 were used to assess whether detected levels of these compounds/constituents exceed established levels. A summary of the results is provided below.

Compounds/constituents found to exceed established allowances are highlighted. An analytical summary is provided only for VOCs, SVOCs, TOG, and TPH where the level detected was found to exceed the analytical method detection limit.

Compounds/ Constituents	Detection Limit (mg/kg)	Level Detected (mg/kg)	Regulatory/Exxon Guidelines (mg/kg)
Metals			
Cadmium	0.2	0.7 (SB-1A) 0.5 (SB-2A)	10*
Chromium	0.5	56.0 (SB-1A) 58.0 (SB-2A)	5600
Lead***	1.0	18.0 (SB-1A) 16.0 (SB-2A)	50
Nickel	0.2	52.0 (SB-1A) 58.0 (SB-2A)	200
Zinc	0.5	68.0 (SB-1A) 56.0 (SB-2A)	2500
VOCs			
Acetone	0.15	0.28 (SB-1A)	N.E.**
Dichloromethane	0.075	0.12 (SB-1A) 0.11 (SB-2A)	.190

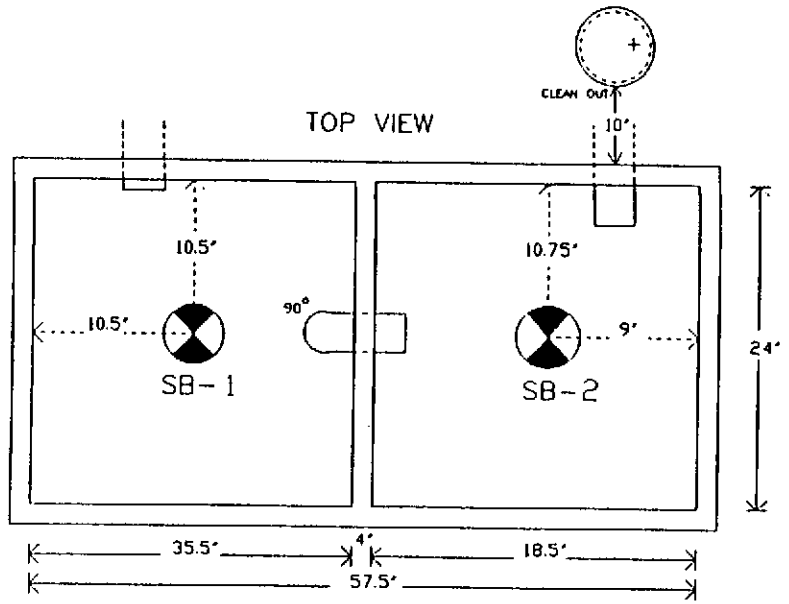
TPH Low Boiling Hydrocarbons (gasoline) High Boiling Hydrocarbons (diesel)	 1.0 1.0	 None Detected 11 (SB-1A)	 100

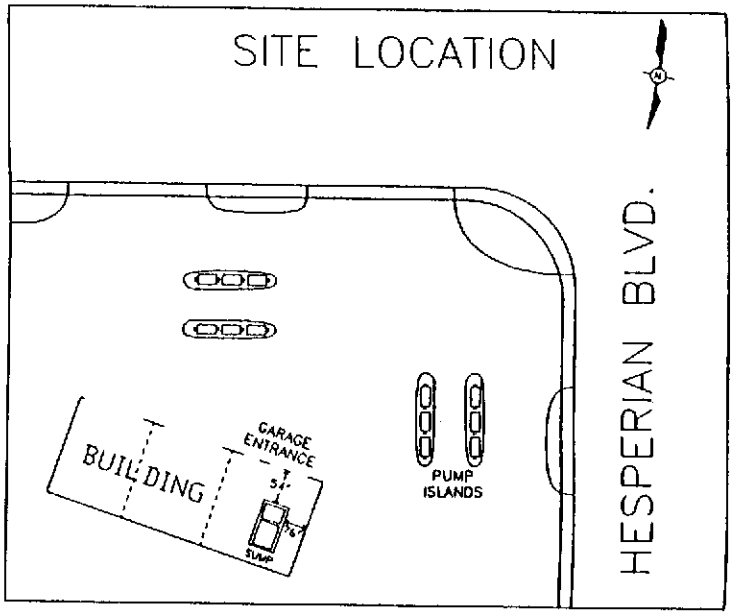
* Allowances provided are 10 times established STLC values. See Section 2.2 for further explanation.

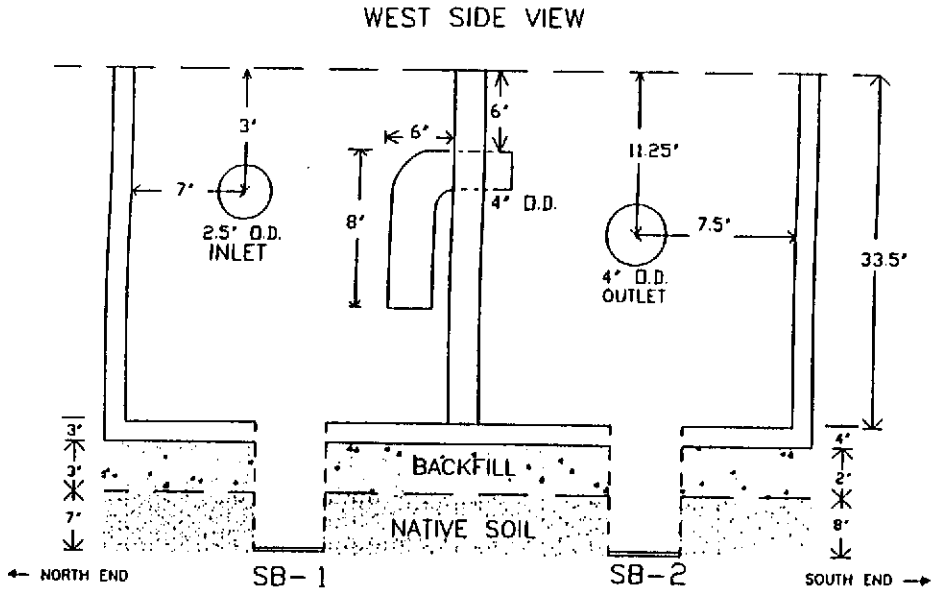
** N.E. - Allowable level has not been established.

*** Lead is analyzed according to EPA Method 6010.

DRAWN BY	J. MATA	CHECKED BY	C.D. 2/12/91	DRAWING NUMBER	7-0218-1
	12-18-90	APPROVED BY	B.C. 2/13/91		







- ALL DIMENTIONS ARE IN INCHES.
- NOT TO SCALE

BAY DRAIN CLOSURE
IT PROJECT No. 198075-05-04
EXXON RAS 7-0218
23990 HESPERIAN BLVD.
HAYWARD, CALIFORNIA

EXXON COMPANY U.S.A.
CONCORD, CALIFORNIA

INTERNATIONAL TECHNOLOGY CORPORATION

CEECON

CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

Transmittal Sheet

Document	LETTER REPORT OF A VAPOR-EXTRACTION TEST AT FORMER TEXACO SERVICE STATION, 23990 HESPERIAN WAY, HAYWARD, CA
From	Michael Hodges CEECON 1517 Palmetto Avenue, Suite 4 Pacifica, California 94044 TEL: (415) 738-1115 FAX: (415) 738-1117
Sent to	Mr. Robert Robles Texaco Environmental Services 10 Universal City Plaza, 7th Floor Universal City, California 91608 TEL: (818) 505-2476 FAX: (818) 505-2129
Copies Sent to	Mr. Hugh Murphy City of Hayward Fire Department 25151 Clawiter Road Hayward, California 94545 Ms. Kevin Tinsley Alameda County Health Care Service Agencies Department of Environmental Health Hazardous Materials Division 80 Swan Way, Room 200 Oakland, California 95621 Mr. Sumadhu Arigala California Regional Water Quality Control Board San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, California 94612
Texaco Proj. No. CEECON Proj. No.	 115-107
Site	Former Texaco Service Station 23990 Hesperian Boulevard Hayward, California
Via	U.S. Priority Mail
Date	July 29, 1993

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
AUG 02 1993
HAYWARD FIRE DEPARTMENT

CEECON
CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

July 29, 1993

COPY

Mr. Robert Robles
Texaco Environmental Services
10 Universal City Plaza, 7th Floor
Universal City, California 91608

Subject: Letter Report of a Vapor-Extraction Test Performed at former Texaco Service Station, 23990 Hesperian Boulevard, Hayward, California.

Mr. Robles:

At the request of Texaco Environmental Services (TES), California Environmental Engineers & Contractors (CEECON), performed a vapor-extraction test at the subject site on November 4, 1992. The site, formerly a Texaco Service Station and currently an operating Exxon Service Station, is located on the northeast corner of Hesperian Boulevard and Winton Avenue, as shown on the attached LOCATION MAP, LM-1. The businesses and residences located in the area surrounding the site are shown on the Area Map, AM-1. The location of groundwater monitoring wells and other pertinent site features are shown on the SITE MAP, SM-1.

INTRODUCTION

Prior subsurface investigations performed for TES by Harding Lawson Associates (HLA) and others indicate that soil underlying this site contains residual gasoline hydrocarbons, and that groundwater contains gasoline petroleum hydrocarbons and halogenated volatile organic compounds (VOCs). Previous work performed by HLA at this site included:

- Installation of five onsite groundwater monitoring wells (MW-3A through MW-3E) and three offsite groundwater monitoring wells (MW-3F through MW-3H).
- Performance of a slug test to evaluate the water-bearing characteristics of the soil beneath the site.

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- Receiving a treated groundwater discharge permit from the National Pollution Discharge Elimination System (NPDES).

SCOPE

This VET had three objectives: (1) to collect operational data to evaluate the efficiency and practicality of vapor extraction as a soil remediation alternative; 2) to select the most appropriate remediation alternative, if the operational data suggest that vapor extraction is a viable remediation alternative; and 3) expand laboratory analyses to include halogenated VOCs in addition to petroleum hydrocarbons.

This investigation included: extracting hydrocarbon-bearing vapor from onsite wells and observing induced vacuum in peripheral wells on the site; collecting influent and effluent vapor samples; submitting the samples for laboratory analyses; analyzing the field data and laboratory results; and preparing this letter report summarizing all results and conclusions.

Work performed at the site during this VET was conducted under the guidelines of a CEECON SITE SAFETY PLAN (dated November 4, 1992) created for this site. This VET was also performed under the VET notification and operation guidelines of the Bay Area Air Quality Management District (BAAQMD).

FIELD WORK

CEECON personnel delivered a CEECON C-2000 Internal Combustion (I.C.) Engine to the site on November 4, 1992. A Site Safety Meeting was held shortly thereafter. The equipment for vapor extraction consisted of a six-cylinder I.C. engine, a sampling pump, pvc piping, fittings, and wellhead connections.

Prior to beginning the VET, CEECON field personnel opened and measured depth-to-water in wells MW-3A through MW-3E, OB-1 and OB-2. Depth-to-water monitoring data are shown in GROUNDWATER MONITORING DATA, TABLE 1. Groundwater was measured between 20.61 and 22.80 feet below ground surface (bgs) in wells MW-3A and MW-3E; wells OB-1 and OB-2 were dry.

The I.C. Engine is equipped with indicators for measuring the following parameters: vacuum applied to the vapor-extraction well; linear flow; volumetric flow; percent oxygen; and I.C. engine revolutions per minute (RPM). CEECON personnel monitored these parameters and measured the concentration of VOCs in parts per million by volume (ppmv) with a Gastech Inc. Gastector (model 1314). All field measurements are summarized in the VAPOR EXTRACTION TEST FIELD OBSERVATIONS FOR I.C. ENGINE C-2000, TABLE 2. A

COPY

total of six vapor samples were also collected from a sample port on the I.C. engine for laboratory analyses.

CEECON extracted hydrocarbon-bearing vapor from monitoring well MW-3A for approximately two hours while monitoring induced vacuum in wells MW-3B and OB-2; one influent and one effluent sample were collected during this portion of the VET. An influent sample for laboratory analysis was collected after approximately 1½ hours. Wells MW-3B and OB-2 (approximately 100 feet and 97 feet from well MW-3A, respectively) were monitored for induced vacuum.

After recording the field measurements and collecting influent and effluent vapor samples from well MW-3A, the engine was operated in a similar manner on well MW-3B. The engine operated on well MW-3B for approximately two hours, during which time field measurements were recorded and one influent sample was collected. At the end of the test, flow measurements were recorded at 50, 40, 30, 20, 10, and 5 inches of water column vacuum to plot a FLOW-VS-VACUUM CHARACTERIZATION CURVE (attached).

The engine was then operated on wells MW-3D, MW-3E, OB-1, OB-2, and MW-3C to perform short-term tests and collect representative vapor samples from wells OB-1 and MW-3C. Field measurements of concentrations of VOCs in vapor from wells MW-3D and MW-3E were less than 1 ppm and in well OB-2 VOCs ranged from 160 ppm to 200 ppm.

The vapor-extraction equipment was moved to well MW-3C to induce vacuum at the increments of 50, 40, 30, 20, 10, 5, and 2½ inches of water column vacuum. Extracted vapor flow rates were observed to plot a FLOW-VS-VACUUM CHARACTERIZATION CURVE (attached) for this well.

VAPOR SAMPLING

During this vapor-extraction test, five influent and one effluent vapor sample were collected using sample ports located on the I.C. engine. The samples were sealed and labeled with the sample number, date, time and sampler's name. CEECON initiated a Chain of Custody Record and it accompanied the vapor samples to Excelchem Environmental Laboratories in Citrus Heights, California (Hazardous Waste Testing Laboratory Certification No. 1760).

The samples were analyzed for TPHg and the gasoline constituents BTEX using Environmental Protection Agency (EPA) Methods 8015/8020. In addition, influent samples from well MW-3A and MW-3C were analyzed for VOCs using EPA Method 601.

FIELD RESULTS

Field observations are summarized in VAPOR-EXTRACTION TEST FIELD OBSERVATIONS FOR I. C. ENGINE C-2000, TABLE 2. Overall VOC concentrations from field measurements using a Gastech Inc. Gastector (model 1314) ranged from less than 1 ppm in well MW-3D and MW-3E and 90 percent LEL in well MW-3B. Oxygen concentrations ranged from 12 percent in well MW-3C to 18.5 percent in well MW-OB1. Vacuum ranged from 20 inches of water column in well MW-3A to 50 inches of water column in well MW-3B and MW-3C. Volumetric flow rates ranged from 41.0 actual cubic feet per minute (ACFM) in well MW-3A to 65 ACFM in well MW-3B. Good vacuum communication was observed in both vacuum-at-a-distance tests as described above. FLOW-VS-VACUUM CHARACTERIZATION CURVES indicate an average optimum vacuum of approximately 50 inches of water column and an optimum average flow rate of 60 ACFM from each well.

LABORATORY RESULTS

Analytical results of the influent vapor samples indicated TPHg concentrations ranging from 30 milligrams per cubic meter (mg/m^3) to 3,000 mg/m^3 and benzene concentrations of 0.5 mg/m^3 to 190 mg/m^3. The effluent vapor sample from well MW-3A indicated a TPHg concentration of 28 mg/m^3 and a benzene concentration of 0.4 mg/m^3. Analytical results of the influent vapor samples from wells MW-3A and MW-3C indicated the presence of halogenated VOCs of 0.01 mg/m^3 trichloroethene and 0.17 mg/m^3 chloromethane. The laboratory results are summarized in ANALYTICAL RESULTS OF VAPOR SAMPLES, TABLE 3 AND TABLE 4. Copies of the Chain-of-Custody, laboratory results, and quality control reports are included in Appendix A.

Please call if you have any questions regarding this vapor-extraction test report.

Sincerely
CEECON

COPY

Lou Leet
Project Geologist

COPY

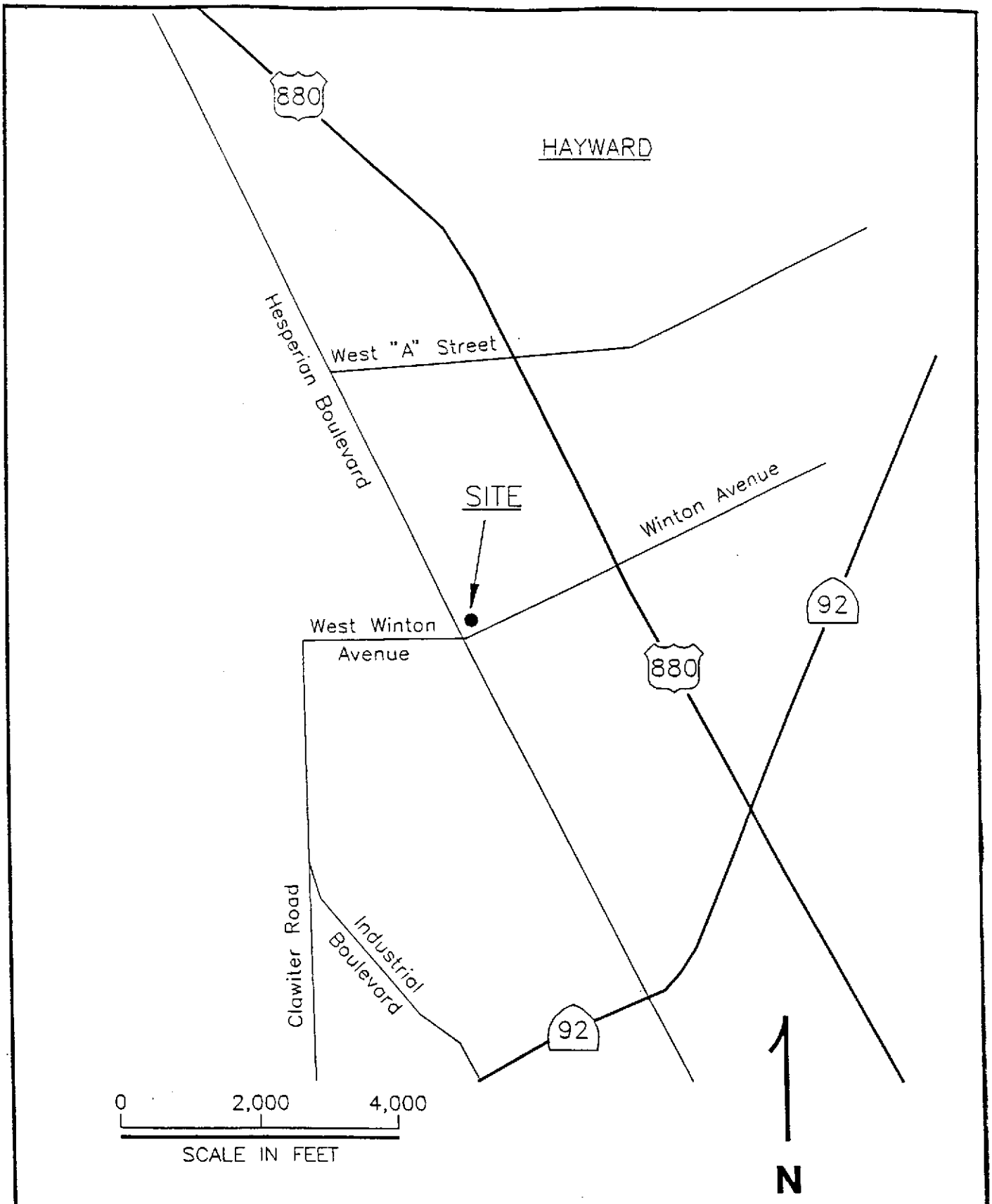
Michael Hodges
Engineering Manager

Attachments:

Location Map, LM-1
Area Map, AM-1
Site Map, SM-1
Flow-vs-Vacuum Characterization Curves

Table 1: Groundwater Monitoring Data
Table 2: Vapor-Extraction Test Field Observations for I.C. Engine C-2000
Table 3: Analytical Results of Vapor Samples
Table 4: Analytical Results of Vapor Samples-Halogenated Volatiles

Copies of Chain-of-Custody Records and Results of Laboratory Analysis of Vapor Samples



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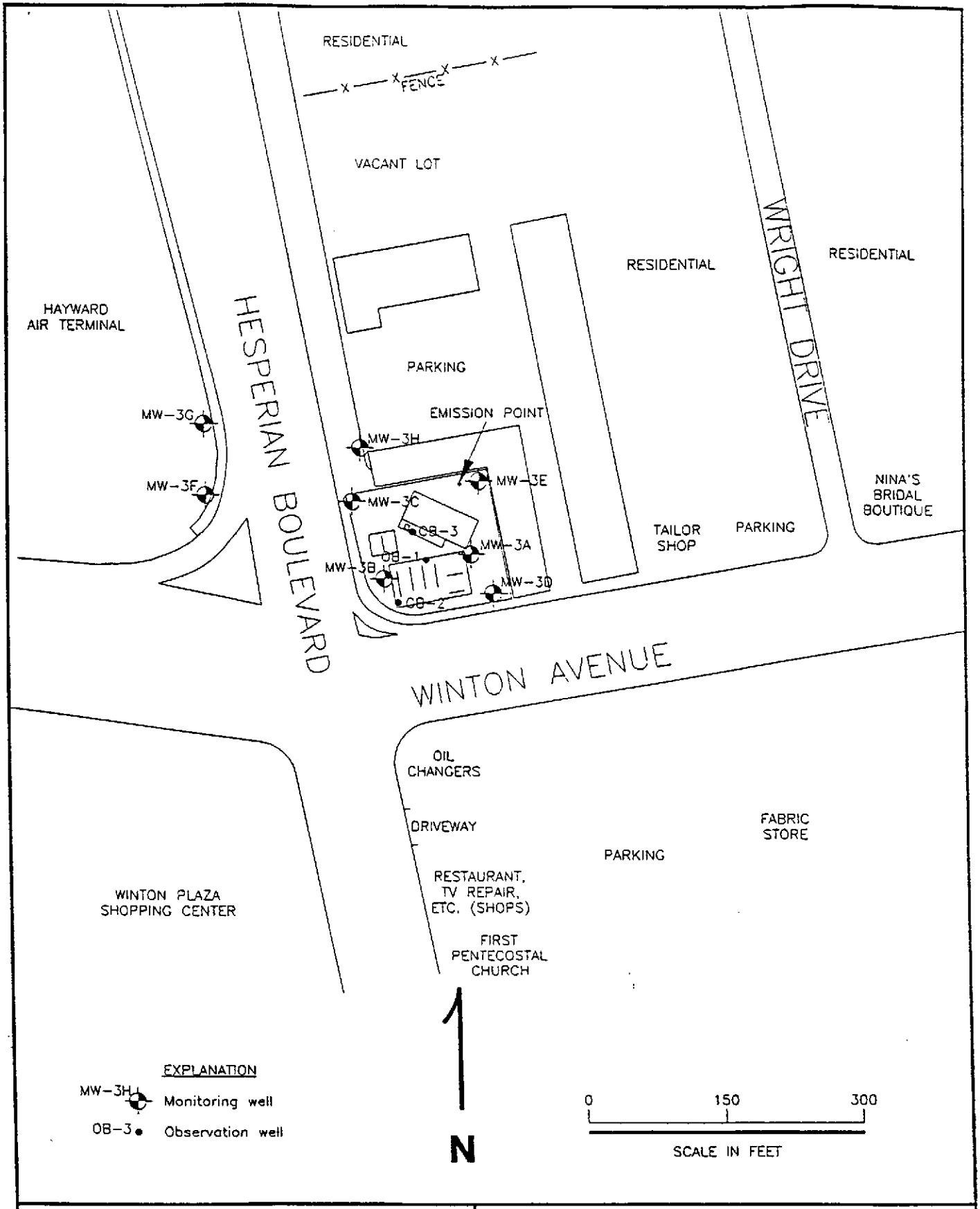
CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

Drawing: LM-1 Date: 07/15/93

Location Map

Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California



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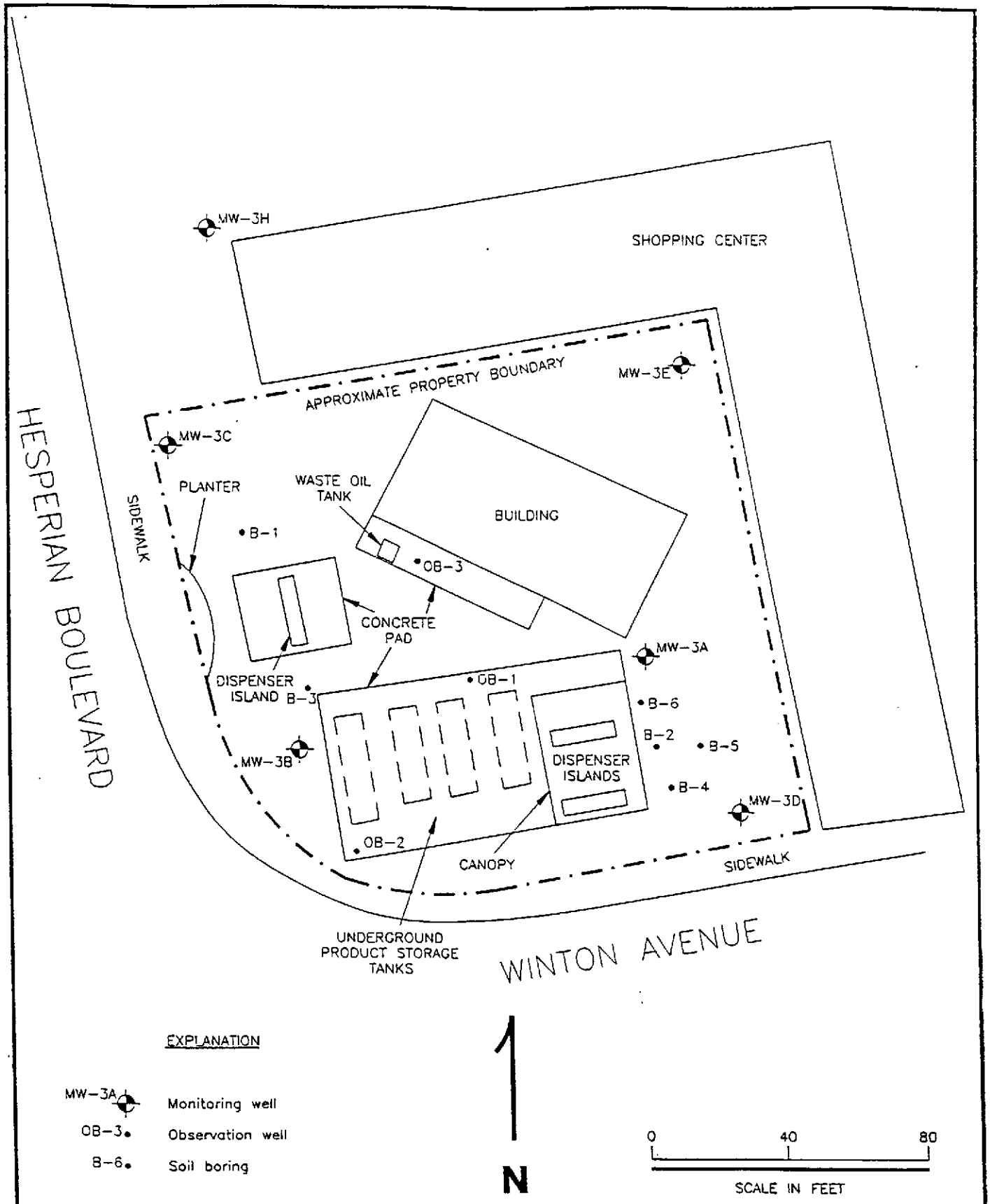
Drawing: AM-1 Date: 07/15/93

Area Map

Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California



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CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

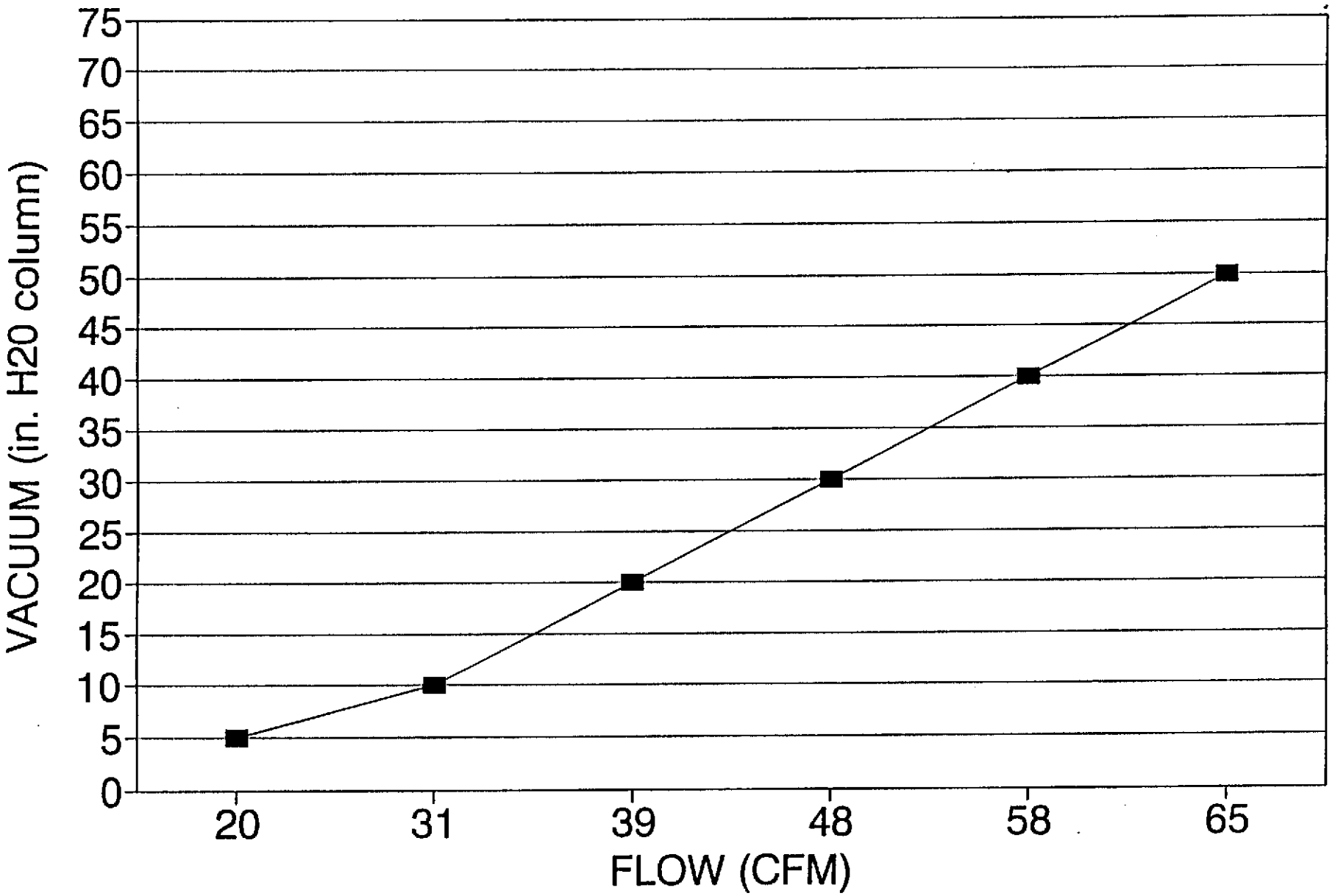
Drawing: SM-1 Date: 07/15/93

Site Map

Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California

VACUUM VS FLOW - MW-3B

CHARACTERIZATION CURVE



VACUUM VS FLOW - MW-3C

CHARACTERIZATION CURVE

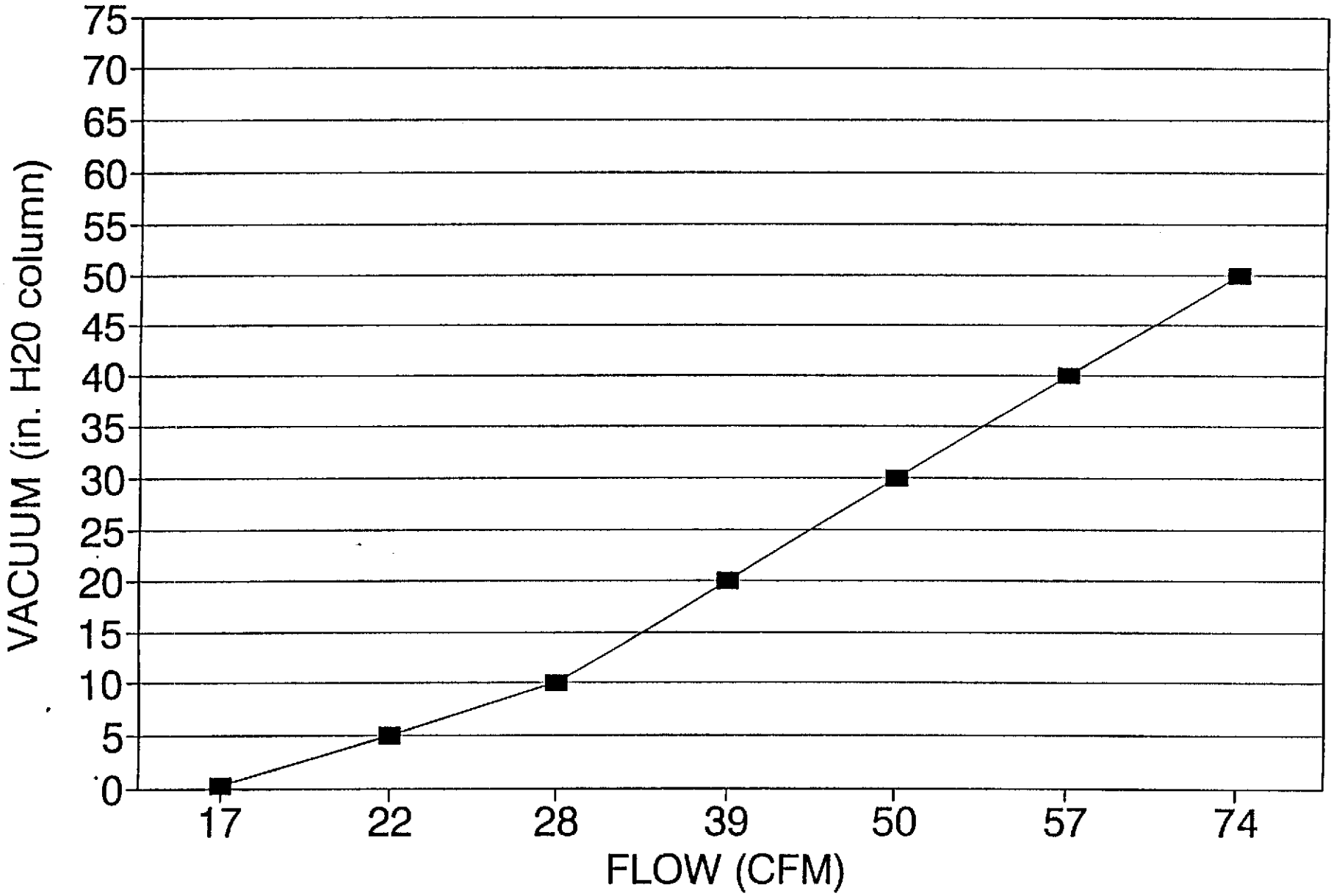


Table 1
Groundwater Monitoring Data
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
(November 4, 1992)

Date Time	Well MW-3A (feet)	Well MW-3B (feet)	Well MW-3C (feet)	Well MW-3D (feet)	Well MW-3E (feet)	Well OB-1 (feet)	Well OB-2 (feet)
11/04/92 08:15	22.53	20.61	22.00	21.90	22.80.	Dry	Dry

Notes:

All depth-to-water measurements are measured in feet.

Table 2
Vapor Extraction Test Field Observations for I.C. Engine C-2000
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
November 4, 1992
(Page 1 of 2)

Date Time	Extraction Well Data							Observation Well Data			
	Well No.	Vacuum Indicator (in. H_2O)	Air Velocity Indicator (lfm)	Air Flowrate Indicator (acfm)	Conc. TPHg Meter (ppm/%LEL)	Conc. Oxygen Indicator (%)	I.C. Engine RPM Indicator	Well No.	Induced Vacuum Indicator (in. H_2O)	Well No.	Induced Vacuum Indicator (in. H_2O)
11/04/92											
1000	MW-3A	20	1900	41	50%	17	2050	-	-	-	-
1100	MW-3A	20	1900	41	500ppm/2.5%	18.5	2100	MW-3B	0.20	OB-2	0.015
1200	MW-3A	50	3000	65	-	-	2000	-	-	-	-
1210	MW-3B	50	3000	65	500ppm/90%	16	2100	-	-	-	-
1230	MW-3B	50	3000	65	500ppm/90%	16	2050	MW-3B	0.15	OB-2	0.005
1300	MW-3B	50	3000	65	500ppm/85%	16	2050	-	-	-	-
1330	MW-3B	50	3000	65	500ppm/85%	16	2050	-	-	-	-
1400	MW-3B	50	3000	65	500ppm/83%	16	2050	-	-	-	-
	MW-3B	50	3000	65	-	-	-	-	-	-	-
	MW-3B	40	2700	58	-	-	-	-	-	-	-
	MW-3B	30	2200	48	-	-	-	-	-	-	-
	MW-3B	20	1800	39	-	-	-	-	-	-	-
	MW-3B	10	1400	31	-	-	-	-	-	-	-
	MW-3B	05	900	20	-	-	-	-	-	-	-
1410	MW-3D	-	-	-	< 1ppm	17.5	-	-	-	-	-
1420	MW-3E	-	-	-	< 1ppm	17.5	-	-	-	-	-
1430	OB-2	-	-	-	200ppm	19.5	-	-	-	-	-
1440	OB-2	-	-	-	160ppm	19	-	-	-	-	-
1450	OB-2	-	3000	-	175ppm	18	-	-	-	-	-
1505	OB-1	-	-	-	125ppm	18	-	-	-	-	-
1515	OB-1	-	2000	-	150ppm	18.5	-	-	-	-	-
1525	MW-3C	50	2900	63	75%	12	2000	-	-	-	-
	MW-3C	50	3400	74	-	-	-	-	-	-	-
	MW-3C	40	2600	57	-	-	-	-	-	-	-
	MW-3C	30	2300	50	-	-	-	-	-	-	-
	MW-3C	20	1800	39	-	-	-	-	-	-	-
	MW-3C	10	1300	28	-	-	-	-	-	-	-

Please see notes on page 2 of 2.

Table 2
Vapor Extraction Test Field Observations for I.C. Engine C-2000
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
November 4, 1992
(Page 2 of 2)

Date Time	Extraction Well Data							Observation Well Data			
	Well No.	Vacuum (in. H_2O)	Air Velocity (lfm)	Air Flowrate (acfm)	Conc. TPHg (ppm/%LEL)	Conc. Oxygen (%)	I.C. Engine RPM	Well No.	Induced Vacuum (in. H_2O)	Well No.	Induced Vacuum (in. H_2O)
11/04/92											
	MW-3C	05	1000	22	-	-	-	-	-	-	-
	MW-3C	2.5	600	17	-	-	-	-	-	-	-

Notes:
in. H_2O = inches of water column vacuum
lfm = linear feet per minute
acfm = actual cubic feet per minute
Conc. = Concentration
- = Not Recorded
ppm = parts per million, as measured with a Gastech Inc. Gastector (model 1314)
% LEL = Concentrations greater than 500 ppm are recorded in percent of the lower explosive limit (LEL) as hexane, as measured with a Gastech Inc. Gastector (model 1314)
RPM = Revolutions per minute

Table 3
Analytical Results of Vapor Samples
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
(November 4, 1992)

Sample No.	Location	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V1-INF-MW3A	Influent	930	110	3.5	3.8	5.3
V3-INF-MW3B	Influent	3,000	190	3.8	12	15
V4-INF-OB1	Influent	220	4.5	<0.5	2.0	3.3
V5-INF-MW3C	Influent	41	2.1	<0.5	<0.5	0.5
V6-INF-MW3C	Influent	30	0.5	1.1	0.7	2.5
V2-EFF-MW3A	Effluent	28	0.4	1.1	<0.7	2.5

Notes:
Analytical results are reported in milligrams per cubic meter
TPHg = total petroleum hydrocarbons as gasoline
< = Less than laboratory analytical detection limits

Table 4
Analytical Results of Vapor Samples-Halogenated Volatiles
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
(November 4, 1992)

Sample	Compound	Result
V1-INF-MW3A	1,1,1-Trichloroethane	0.03
	Trichloroethene	0.02
	Nondetectable concentration for 25 other compounds	<0.01
V5-INF-MW3C	Chloromethane	0.17
	1,2-Dichloroethane	0.04
	Trichloroethene	0.01
	Tetrachloroethene	0.01
	Nondetectable conentrations for 23 other compounds	<0.01

Notes:
All results in milligrams per cubic meter
Halogenate volatiles are measured by EPA method 601

Mike, Attached Plate summarizes VOC data available; Will Fax you my comments 11/18

Glenn Romig

RESNA
Working to Restore Nature

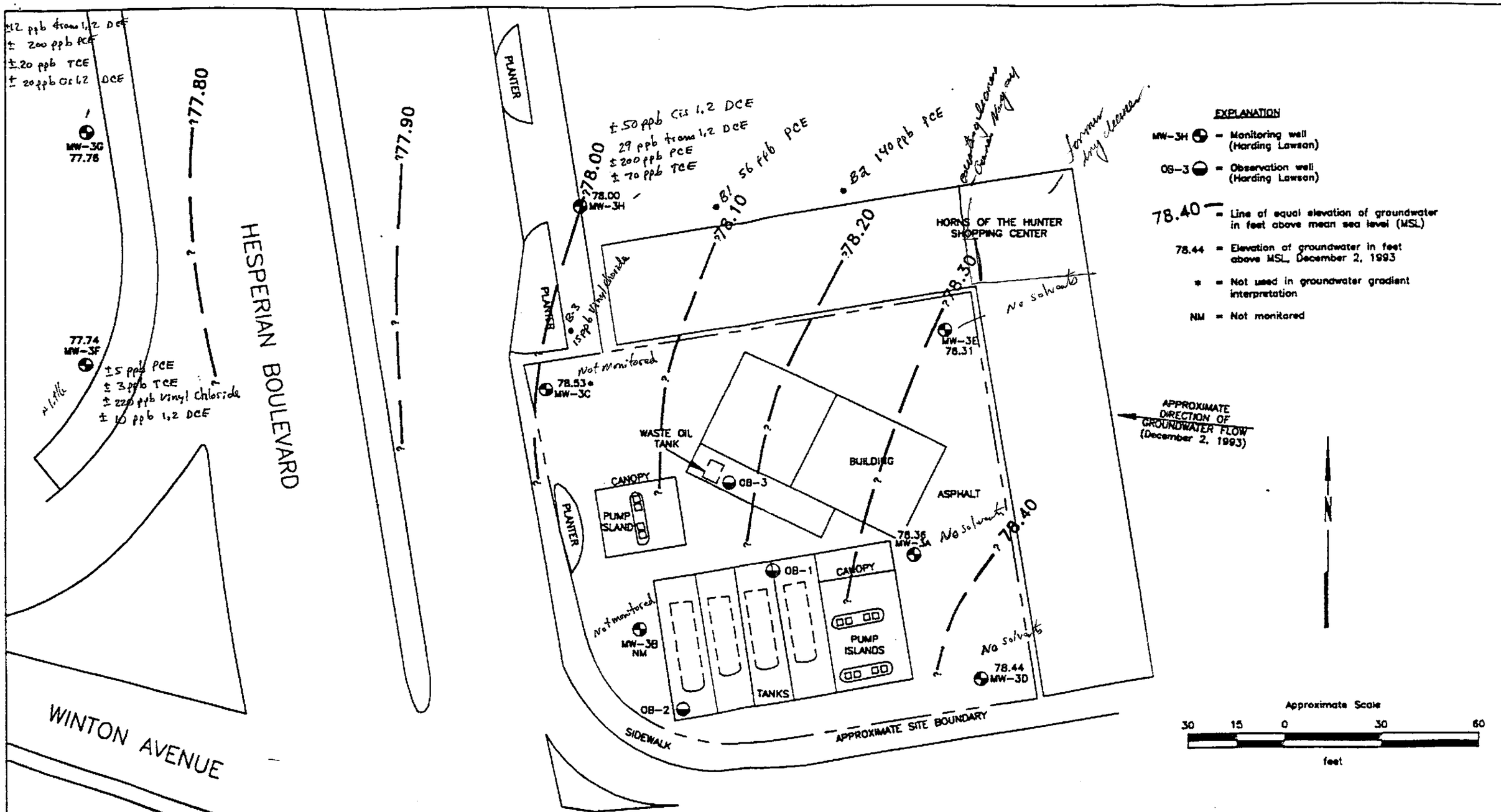
Fourth Quarter 1993 Quarterly Report
23990 Hesperian Boulevard, Hayward, California

December 29, 1993
62080.01

TABLE 3
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES, SELECTED ORGANIC COMPOUNDS
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California

Well / Date	Analysis Method	trans-1,2-Dichloroethene	Tetra-chloroethene	Tri-chloroethene	Vinyl Chloride	Cis-1,2-Dichloroethene
MW-3A						
03/25/93	601	<1.0	<1.0	<1.0	<1.0	NA
06/29/93	601	<1.0	<1.0	<1.0	<1.0	NA
MW-3D						
03/25/93	601	<1.0	<1.0	<1.0	<1.0	NA
06/29/93	601	<1.0	<1.0	<1.0	<1.0	NA
MW-3E						
03/25/93	601	<1.0	<1.0	<1.0	<1.0	NA
06/29/93			Not Sampled: Well Inaccessible			
MW-3F						
09/30/92	8240	<1.0	5.1	2.2	32	<1.0
03/25/93	601	<1.0	2.3	2.6	230	NA
03/25/93	8240	<5.0	<5.0	<5.0	220	<5.0
06/29/93	8240	<5.0	6.8	3.6	220	14
MW-3G						
03/25/93	601	12	110	16	<1.0	NA
03/25/93	8240	<5.0	150	18	<10.0	14
06/29/93	8240	<5.0	200	23	<5.0	20
MW-3H						
09/30/92	8240	<1.0	560	120	<2.0	140
03/25/93	601	29	110	40	<1.0	NA
03/25/92	8240	<5.0	170	39	<10.0	34
06/29/93	8240	<5.0	220	72	<5.0	56

Results in parts per billion (ppb).
NA : Not Analyzed
< : Less than the detection limit for the specified method of analysis.
Volatile or Purgeable Organic Compounds are analyzed by EPA Method 5030/601 or 5030/8240.



Source: Modified from site plan provided by Harding Lawson Associates, dated July 29, 1992.

RESNA
Working to Restore Nature

PROJECT 62080.01

GROUNDWATER GRADIENT MAP
Former Texaco Station
23990 Hesperian Boulevard
Hayward, California

PLATE
2

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
DEC 15 1993
HAYWARD FIRE DEPARTMENT

TERRA VAC

LETTER WORK PLAN
DUAL VACUUM EXTRACTION REMEDIATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

Prepared By

Terra Vac Corporation
San Leandro, CA

Greg L. Beyke
Project Manager

James A. Perkins
Registered Geologist

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
DEC 15 1993
HAYWARD FIRE DEPARTMENT

TERRA VAC
14798 WICKS BOULEVARD, SAN LEANDRO, CALIFORNIA 94577
TEL (510) 351-8900
FAX (510) 351-0221

Will get an addendum to address full contamination

December 14, 1993

Mr. Hugh Murphy
City of Hayward Fire Department
Hazardous Materials Division
25151 Clawiter Road
Hayward, CA 94545

Subject: Letter Work Plan for Remediation
23990 Hesperian Boulevard, Hayward, CA

Mr. Murphy:

Enclosed please find the requested Letter Work Plan for the proposed remediation of the former Texaco service station at 23990 Hesperian Boulevard in Hayward, California.

Well construction will begin in approximately one month. Please review the work plan by January 1, 1994. If you have any questions please feel free to contact me at (510) 351-8900.

Sincerely,

Greg Beyke

Greg Beyke
Project Manager

Enclosure
cc: File 30-0113.18

GB:mlc

TERRA VAC

13 December 1993
30-0113

LETTER WORK PLAN
DUAL VACUUM EXTRACTION REMEDIATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

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Figure 3 Pump & Treat Vs. Dual Vacuum Extraction
Figure 4 Process Flow Diagram

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Appendix B Health and Safety Plan

LETTER WORK PLAN
DUAL VACUUM EXTRACTION REMEDIATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

I. EXECUTIVE SUMMARY

Terra Vac proposes an eleven well dual extraction system to complete remediation at 23990 Hesperian Way in Hayward, California. Wells will remediate soil and groundwater by entrainment extraction. Entrainment extraction refers to the simultaneous removal of soil vapor and groundwater from system wells by entraining groundwater in the extraction vapor stream. Some advantages of entrainment extraction include:

1. Entrainment extraction will remediate soil and groundwater concurrently from the same system wells. Thus, fewer wells must be installed and operated.

2. Entrainment extraction will lower the water table to allow treatment to the full depth of the smear zone without the use of a downhole pump.

3. Entrainment extraction allows much of the dissolved hydrocarbon present in extracted groundwater to volatilize in the piping system, reducing the loading on the water treatment system.

The remediation system will be in operation for about fourteen months, five months with a thermal oxidizer and nine months with activated carbon.

II. INTRODUCTION

A. BACKGROUND

The site is an operating Exxon service station, located on the northeast corner of Hesperian Boulevard and Winton Avenue in Hayward, California (Figure 1). The location is relatively flat, with surface drainage to the southwest. Site elevation is about 50 feet above sea level (City of Hayward datum).

Structures at the service station include a building, three fuel pump islands, one 550-gallon underground waste oil tank, and four underground fuel tanks with a total capacity of 42,000 gallons. The station currently provides unleaded gasoline, diesel fuel, and automotive repair services. Four underground gasoline storage tanks were removed from the southwest corner of the site in 1985. Leaded gasoline was dispensed prior to first quarter 1992.

services. Four underground gasoline storage tanks were removed from the southwest corner of the site in 1985. Leaded gasoline was dispensed prior to first quarter 1992.

Data obtained during site investigations indicates that the subsurface consists dominantly of medium stiff to stiff clay with varying amounts of silt and sand. Minor sand lenses are interbedded with the clay. Groundwater is at approximately 21 feet below grade with a gradient of 0.002 to the west-northwest.

Hydrocarbon impacted soil and groundwater have been observed in the area of the current and former underground tanks and down gradient (southern and western portions of the site). Hydrocarbon levels of up to 190 ppm have been detected in soils down gradient of the subsurface storage tanks. Hydrocarbons have been detected in the capillary fringe and below the water table, probably due to seasonal fluctuations in groundwater level. Dissolved hydrocarbons are present in groundwater in the area of the underground storage tanks and pump islands. Groundwater surveys indicate that the greatest concentrations of dissolved hydrocarbon are in the vicinity of wells MW-3B and MW-3C, both down gradient of the underground fuel tanks and pump islands. No free product has been observed at the site since July 1988. Minor concentrations of chlorinated compounds were observed during a vapor extraction pilot test performed in November 1992.

B. OBJECTIVES

The objectives of this project are:

1. To perform operations in a safe and professional manner with minimal disturbance of the surrounding community.

2. To design, install, and operate the dual extraction system in the most cost-effective manner possible.

3. To install and operate the dual extraction system with minimal disturbance of the operating service station.

4. To perform tests to ensure that well arrangement is optimum for remediation.

III. TECHNICAL APPROACH

Terra Vac proposes an eleven well dual extraction system. This system will provide a well spacing of approximately 30 feet. Data obtained during an on-site vapor extraction test and Terra Vac's experiences at sites with similar soil types indicate a 30-foot well spacing can provide sufficient overlap of effect to achieve a fast and cost effective clean-up. The remediation system will be monitored throughout the project to ensure that all targeted areas are fully remediated. A site plan showing proposed well locations is included as Figure 2.

Variations in soil permeability and groundwater level throughout the site require well screen intervals to be determined in the field by a Terra Vac geologist. Wells will be designed to target less permeable soil layers and to remediate to the full depth of hydrocarbon impact. Terra Vac will collect radius of influence data from installed dual extraction wells during startup to ensure that all targeted soil is remediated. System adjustment will be made as required.

Dual extraction wells performing entrainment extraction will be used to remediate impacted soil currently below the water table in addition to vadose zone soils. Seasonal variations in groundwater depth have smeared contaminants throughout soil layers currently beneath the water table. These impacted soil layers are a constant source for groundwater contamination. In order for soil and groundwater to be fully remediated, the water table must be lowered, allowing these areas of hydrocarbon impacted soil to be treated.

Entrainment extraction utilizes a vacuum gradient to extract impacted groundwater. If free product is present at the site, it will be extracted via the vacuum gradient before the water table is lowered to prevent smearing the contaminant throughout deeper soil layers. When it is determined that no free product exists within the site subsurface, entrainment extraction will be used to lower the water table and expose all impacted soil to treatment by vacuum extraction. The advantages of entrainment extraction are depicted in Figure 3.

The depth of each well will be based on the depth of hydrocarbon impacted soil encountered during well installation. This depth will generally correspond to the lowest water table level occurring during contaminant presence in the subsurface. Available groundwater elevation data indicates that wells will be installed to a depth of about twenty-eight feet. Dewatering to this depth will ensure that all soil impacted by hydrocarbon will be exposed to treatment by vacuum extraction.

The NPDES permit issued to Texaco by the California Regional Water Quality Control Board limits the water discharge rate to 1500 gallons per day (about 1 gallon per minute). Due to the low permeability of the site soils, it is assumed that this extraction rate will be sufficient to lower the water table and expose all impacted soil.

Subsequent to system startup, the percentage of carbon dioxide in the extraction vapor will be monitored in order to determine the amount of biological activity occurring at the site. In most soils there is a native population of hydrocarbon-consuming microbes. The size of the population is limited by the amount of food, nutrients, or oxygen present in the soil. In a hydrocarbon impacted soil there is a plentiful supply of food (hydrocarbon). Therefore, the size of the microbe population is generally limited by the amount of oxygen in the soil. The vacuum extraction system supplies great quantities of fresh air to the soil, allowing the microbe population to grow and consume more hydrocarbons. This process is referred to as BioVac. Terra Vac will monitor the amount of biological activity occurring and take all possible steps to maximize the size and activity of the microbe population.

IV. SCOPE OF WORK

Task 1. Engineering and Planning

Engineering and planning includes the drafting of this work plan and a site health and safety plan, review of previous work by other contractors and subcontractor selection. The site health and safety plan includes site safety procedures, first aid procedures, and Material Safety Data Sheets for all site contaminants (Appendix B).

Task 2. Permitting

Permits will be obtained for full scale operation of the system. Such permits include: air permit, well installation permit, and waste water discharge permit.

The air permit will be obtained by Terra Vac from the Bay Area Air Quality Management District (BAAQMD). Groundwater will be discharged to the storm drain under a NPDES permit obtained by Texaco.

Task 3. Drilling and Excavation

Eight four-inch entrainment extraction wells be installed to an approximate depth of twenty-eight feet. Variations in soil permeability, groundwater elevation, and contaminant impact require the actual depth and screened interval of each well to be determined in the field by a Terra Vac geologist.

During well installation, each boring will be sampled at five-foot intervals with a California-modified split-spoon sampler with three six-inch brass sleeves. One sleeve from each sample shall be screened in the field with a photoionization detector (PID) for hydrocarbons. Three sample per boring shall be sealed, labeled, and sent to a State of California certified laboratory

for analyses of total petroleum hydrocarbons as gas and diesel using EPA methods 8015 and 8020. A total of two samples shall be submitted for physical soil characteristic analyses. These analyses shall include horizontal and vertical air permeability, particle size, water saturation, and hydrocarbon saturation.

All well heads will be completed subgrade and protected by a Christy box rated for heavy traffic areas. All system piping will be subgrade. In addition to the eight newly installed wells, three existing monitoring wells will be converted to entrainment extraction wells and connected to the extraction system via the subgrade piping system.

Task 4. Construction

The completed system will consist of an extraction unit, a thermal oxidizer, a vapor liquid separator, a water treatment system, a PVC piping system, and eleven entrainment extraction wells. Each well will be equipped with a flow monitoring port, a sample port, a well head vacuum gage, and a line vacuum gage. Branch piping to the wells will be 1½ inch PVC to improve the accuracy of flow readings at the well head. The extraction unit will be equipped with vacuum gages, thermometers, flow monitoring ports, and sample ports. Sample ports will also be installed at the inlet and stack of the thermal oxidizer. A generalized process and instrumentation diagram is shown in Figure 4.

After the system mass extraction rate is calculated to be below ten pounds per day for two consecutive weeks (after approximately five months of remediation), the thermal oxidizer will be replaced by two 1000-pound carbon vessels in series.

The following are possible system components.

Vacuum Extraction Equipment: A positive displacement extraction unit will supply the necessary soil vacuum. It is equipped with an explosion-proof motor and motor controls and noise suppression devices. The 40 hp motor operates on 480-Volt, 3-phase power. This pump has a capacity of 400 scfm at 15 inches mercury vacuum when used in soils similar to those existing at this site. The motor starter will be wired to shut down the blower should the thermal oxidizer shut down for any reason.

Vapor Treatment Equipment: An Airex RETOX 600 shall be used for vapor abatement. The unit has a capacity of 600 standard cubic feet per minute and 800 pounds of hydrocarbon a day. The unit has a guaranteed destruction efficiency of 97 percent.

The RETOX 600 is equipped with safety shutdowns including: high and low oxidation temperatures, low air flow, high vapor/liquid separator level, and high LEL. The unit will be equipped with a Para-Fax remote monitoring and control system.

Vapor-Liquid Separator: The vapor-liquid separator is a centrifugal separator with a capacity of 150 gallons. The separator has high and low water level controls which operate a one hp water pump. It also contains a high-high water level control that shuts down the system in the event of water pump failure to protect the extraction and treatment units from water damage.

Water Treatment System: Water pumped from the vapor-liquid separator will be treated using three carbon adsorption filters. The water treatment system will be capable of treating a minimum of 10 gallons per minute. However, the discharge rate is limited to 1 gallon per minute by the water discharge permit. The system will include sample ports prior to the primary carbon, the secondary carbon and the storm drain discharge. A totalizing meter will measure water discharge to the sewer. A subgrade discharge line will be installed from the treatment system to the discharge point.

Terra Vac will be responsible for obtaining all utility installations required to operate the vacuum extraction system including all necessary trenching and construction.

A noise abatement system will be constructed around the equipment compound to protect the surrounding area from excessive noise. It will consist of an eight foot high wall with sound insulation and a locking door.

Task 5. Equipment Mobilization

The following equipment will be installed at the site:

vacuum extraction equipment
thermal oxidizer
vapor treatment carbon
vapor/liquid separator
water treatment system

Task 6. Startup and Testing

All equipment and control systems will be checked for proper operation prior to start-up. Testing shall include electrical continuity checks, tests of all safety shut-downs, verification of system set points, pressure testing of water line, and testing of the Para-Fax remote monitoring and control system. A sound survey will be performed to ensure that noise levels are below 65 dB at the station building.

Startup consists of the first week of operations. During this time the system will be closely monitored. Each well will be brought on line and sampled individually to identify areas of high

hydrocarbon impact and of low permeability soils. The system will then be optimized to effectively remediate the targeted area.

A source test will be performed for the thermal oxidizer to verify destruction efficiency. The test will conform to the requirements of the BAAQMD and consist of a minimum of three inlet and three stack samples.

Treated groundwater shall be sampled as required by the NPDES permit. Groundwater samples shall be collected at startup and after five days of operation. All samples shall be analyzed as required by the NPDES permit. After startup sampling and reporting will continue on a monthly basis.

Terra Vac will regenerate or replace activated carbon for water treatment as required.

Each well will be brought on line independently and evaluated for flow rate and hydrocarbon concentration in the extraction vapor stream. The mass extraction rate for each well shall be calculated. Wells not yet in service shall be used as observation wells and radius of influence measurements recorded.

Vapor samples will be collected from each well upon start-up, after one hour of operation, and again after one week of operation. A gas chromatograph with a flame ionizing detector will be used by Terra Vac chemists to analyze all vapor samples.

Task 7. Operations

This task includes the operation and maintenance of all Terra Vac equipment. Terra Vac will be responsible for weekly data acquisition and analyses. Data collected each week will include inlet and stack vapor samples from the vapor abatement device, system vapor flow rates and system vacuums. All vapor samples will be analyzed by Terra Vac chemists using a gas chromatograph with a flame ionization detector. Samples shall be analyzed for the concentrations of the various aromatic compounds, including benzene, toluene, ethylbenzene, and xylene.

Each month vapor samples will be collected from each well head and the inlet and stack to the thermal oxidizer.

Task 8. Interim Boring and Sampling Program

Four interim borings will be installed to a depth of about 30 feet. The soil borings will be located based on extraction concentrations and trends observed throughout the project. During installation soil samples will be collected every five feet and analyzed in the field and by an

independent laboratory for total petroleum hydrocarbons. Two samples shall be analyzed for chlorinated compounds using EPA method 8010. Entrainment extraction wells will be installed in each of these borings. The new wells will speed clean-up and ensure that all areas of the site are fully remediated.

Task 9. Final Reporting and Demobilization

Two confirmatory borings will be installed to a depth of 30 feet. The borings will be located based on data obtained throughout the project and with approval from the Hayward Fire Department. Soil samples will be collected every five feet and analyzed in the field and by an independent laboratory. All soil samples shall be analyzed for total petroleum hydrocarbon using EPA methods 8015 and 8020 and for chlorinated compounds using EPA method 8010. Upon confirmation that remediation goals have been achieved (as characterized by soil and groundwater sampling), a final comprehensive report will be submitted to the Hayward Fire Department.

Upon submitting the final closure report and receiving Texaco approval, all equipment will be removed from the site and all wells will be destroyed. Well vaults will be filled with sand and concrete and the surface returned to the original grade. Subgrade piping will be left in place.

V. APPROXIMATE SCHEDULE/ DELIVERABLES

The following table shows the approximated schedule and deliverables for the project.

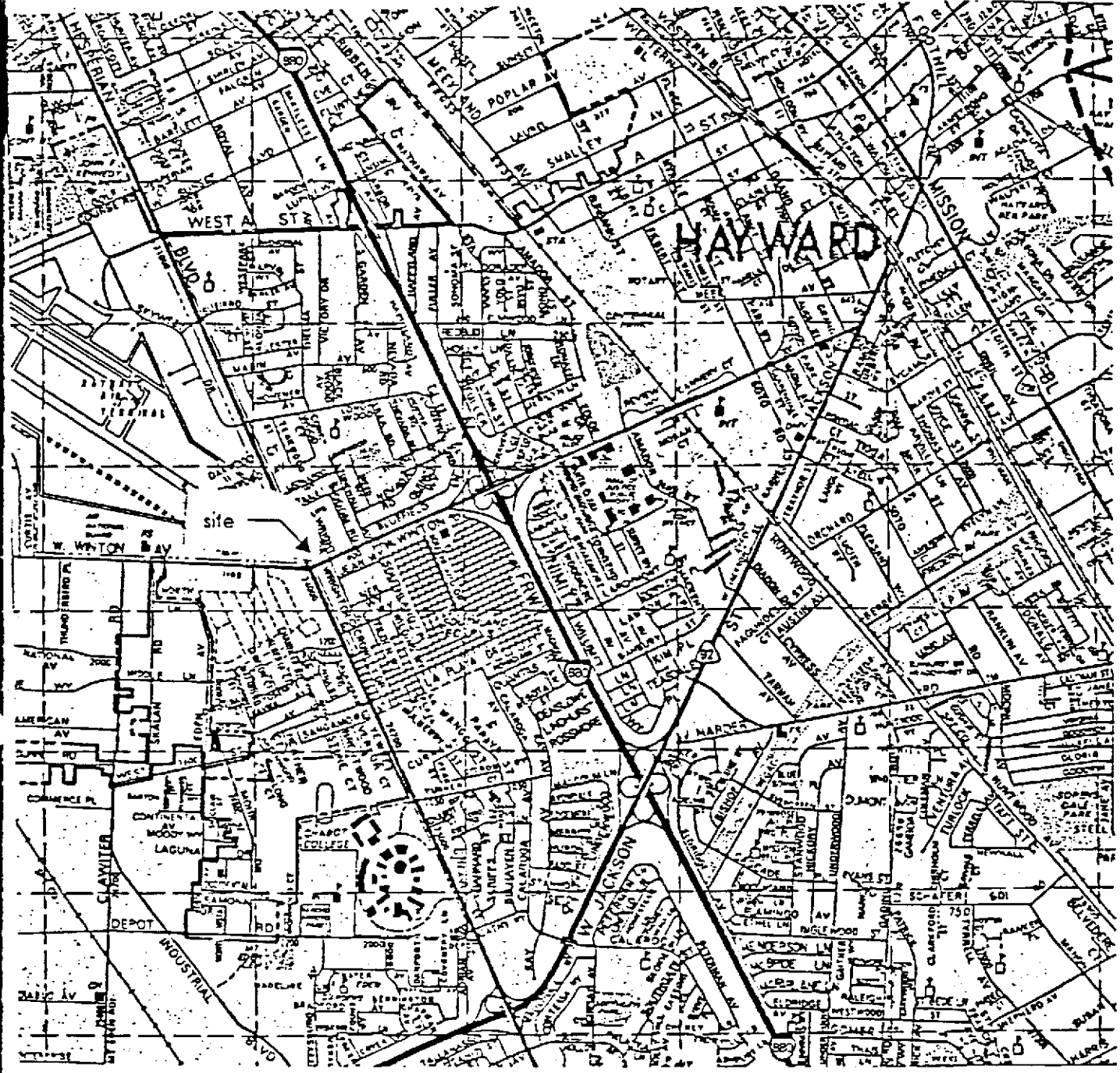
ITEM	SCHEDULE
Air Permit Application	Submitted November 2, 1993.
Water Permit Application	NPDES acquired by Texaco.
Well Permits	Submitted December 14, 1993.
Utility Connection	Scheduled for late January 1994.
Start Up	Planned for February 1, 1994, schedule will be accelerated if work plan is approved early and air permit is issued in a timely fashion.
Interim Borings	At 8 to 12 weeks after start-up.

ITEM	SCHEDULE
Soil Boring/ Sampling Report	Complete after 15th week of operation, after interim boring results are evaluated.
Final Report	Within four weeks of confirmatory soil borings and sampling.

VI. COMPLIANCE WITH STANDARDS, SPECIFICATIONS, AND LAWS

Terra Vac will perform its contractual tasks in a professional manner and in compliance with all codes, standards, permits, regulations and laws applicable to the project. The company is licensed to perform vacuum extraction installation and operation under the Visser-Malot patents, (U.S. Patent Numbers 4,593,760, 4,660,639, Re. 33,102). Terra Vac was selected by the United States Environmental Protection Agency to demonstrate vacuum extraction for the Superfund Innovative Evaluation (SITE Program).

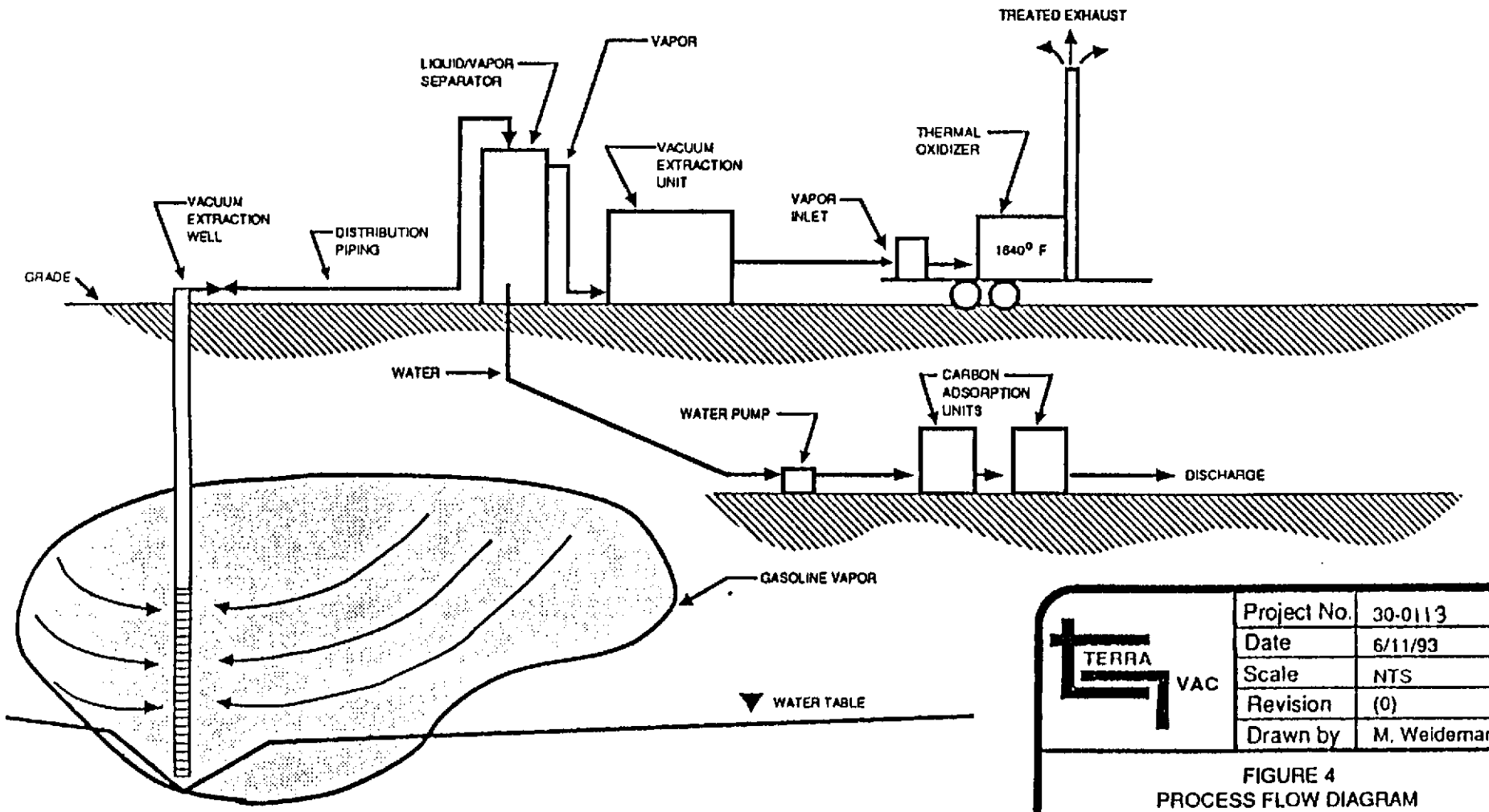
Remediation projects require extensive safety and health measures to assure the protection of Terra Vac employees. All Terra Vac employees involved in remediation work undergo safety training which meets or exceeds the requirements of 29 CFR 1910.120. The Health and Safety Plan for this project is included as Appendix B.



Project No.	30-0113
Date	11/23/93
Scale	1"=0.8 1mi
Revision	0
Drawn by	RAD

TERRA VAC

FIGURE 1
VICINITY MAP
23990 HESPERIAN BLVD
HAYWARD, CA



Project No.	30-0113
Date	6/11/93
Scale	NTS
Revision	(0)
Drawn by	M. Weideman

TERRA VAC

FIGURE 4
PROCESS FLOW DIAGRAM
THERMAL OXIDIZER SYSTEM
WITH
WATER TREATED BY CARBON

APPENDIX A

QUALITY ASSURANCE/CONTROL PLAN

QUALITY ASSURANCE OBJECTIVES

Operation and evaluation for the vacuum extraction process throughout the remediation period requires the collection of operating data. The data will be obtained from chemical analyses of vapors samples. Quality assurance objectives for these analyses are summarized in this section. Samples will be collected and then tested by protocol guidelines set forth in: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Volume IB, USEPA SW-846, Third Edition, 1986.

Precision, Accuracy and Representativeness:

Critical review of all data acquisition and analyses with respect to specific quality indicators will enable the QA/QC objectives to be achieved. These indicators are:

Precision: Precision normally measures the reproducibility of measurements under a given set of conditions.

Accuracy: Accuracy is a measurement of the standard error or bias that is inherent in the analytical process.

Representativeness: This is a function of the sampling method used and the procedures for processing the sample. The objective is to demonstrate the degree of quality of the data and the degree to which it represents the actual environmental condition. This can be determined by a comparison of the quality control data for samples analyzed against other data for similar samples under the same circumstances.

Every attempt will be made to validate all data generated. However, some samples may be lost in laboratory and field accidents and some may be deemed questionable based on internal QC procedures. Terra Vac anticipates that some 5 to 10 percent of the recovery values will be outside the QC limits owing to matrix interferences. In the event of gross matrix interferences, revised QA objectives will be developed by the QA officer. The objective is to have more than 90 percent valid data.

Completeness and Comparability:

It is recognized that the usefulness of the data is also contingent upon meeting the criteria for completeness and comparability. Wherever possible, reference methods and

standard sampling procedures will be used. The QA objective is that all measurements be comparable to the media and operation being evaluated. These specific objectives are summarized below:

Comparability: This is an expression of the confidence with which one data set can be compared to another. By using standard methodology and QA/QC procedures, the results of the analyses can be compared to other analyses by other laboratories.

Completeness: The indicator for completeness is the percent of samples judged to be valid compared to the total number of samples collected.

PLACEMENT OF WELLS

Extraction wells will be placed where there are high degrees of contamination, and each well will be tested shortly after installation. The purpose of the well testing procedure is to quantify the radius of influence, flow rates of vapors, and Volatile Organic Compounds (VOC) concentration at each location. This information will be evaluated by Terra Vac to adjust the location of subsequent wells in the area so that the spacing of the wells is consistent with the radius of influence actually measured in the wells.

After the system begins full scale remediation, wells will be monitored regularly so as to quantify the extraction rate of VOC from each well. This data will be used to establish initial conditions from which the effectiveness of the vacuum extraction remedy will be evaluated by Terra Vac throughout the proposed year of operation. The parameters to be measured include flow rate, vacuum levels, temperature, and VOC concentration. Normally these four vital measurements are taken at the same time from selected locations through out the vacuum extraction system. In general, these locations are in the following process areas:

1. Vacuum extraction wells
2. Field piping
3. Separators and condensate collectors
4. Vacuum pumping inlet
5. Ambient air

This information will them be transferred to a data base to be used in analytical computations.

SPECIFIC QA MEASURES TO ASSESS DATA QUALITY

Process Gas:

Gas samples will be compared with an independently prepared standard that is traceable to National Bureau of Standards. These will also be compared to standards prepared on site as a reference. Syringe blanks will be performed 1 in 20 samples as long as blanks show to be clean. If not, then more frequent blanks will be analyzed or a better cleaning method will be employed. Standards will be analyzed 1 in 20 samples, (or at least daily). Duplicate gas samples will be analyzed 1 in 20 samples. Detection limits for this analysis are anticipated to be in the range of 0.1 to 0.5 ppm.

Pressure, Temperature and Flow:

Pressure gauges, thermometers and flow devices will be routinely cross-checked with a calibrated gauge and thermometer. A field audit of gauges will be conducted monthly. Any gauge or measuring device that is suspected or found to be out of the accuracy range of the manufacturer specifications will be calibrated or replaced if necessary.

SAMPLING PLAN AND PROCEDURES

Sampling Objectives:

The planned sampling procedures to be used during all phases of the vacuum extraction remediation activities will include the collection of process vapors, and specific process operating data. Attachments 1 and 2 detail sampling protocol and standardization procedures.

SAMPLE LOCATIONS AND FREQUENCY

Vapor Samples:

During the remediation process, vapor samples will be collected at various locations and analyzed on a gas chromatograph to determine mass flow rates to the vapor treatment system. Each extraction header will be analyzed for mass flux daily for the first two weeks and after as determined by the contract.

CALIBRATION PROCEDURES

In order that QA/QC objectives can be achieved it is imperative that the response of all analytical equipment be calibrated to known standards.

Calibration will be achieved by using an independently prepared gas standard that is National Bureau of Standards traceable. Initial calibration of the gas chromatograph will be performed at least three times to assure consistency before standardization. A calibration test shall be performed at least every 20 samples, or daily, whichever is greater. Recalibration will occur if a standard is found to deviate more than 10 percent from the previous standard. No further samples will be analyzed until the instrument is calibrated.

The gas chromatograph and flame ionization detector (FID) will allow total petroleum hydrocarbon (TPH) and halogenated compounds to be analyzed.

DATA REPORTING, VALIDATION, AND REDUCTION

Analytical data are generated from two primary sources: field testing and laboratory testing. Terra Vac testing utilizes several instruments to obtain data. Field data is generated by flow meter, temperature, pressure and vacuum gauges, and by gas chromatograph.

Analytical data generated by the field gas chromatograph includes the chromatographic identification of compounds, concentrations, retention times and comparisons to standards.

Data production also includes internal records available for inspection during audits. These records include the following: laboratory notebooks, log book, worksheets, standards, records and associated quality control data. A complete record of each sample's history will be available to document the process from the field through the laboratory analysis.

Steps and checks used to validate the precision and accuracy of the analytical work performed and to support its representativeness, comparability and completeness include:

1. Documentation of analytical and QA/QC methodology.
2. Description of the controls for interfering contaminants (use of reference blanks and check standards for method accuracy and precision).
3. Description of the calibration of methods and instruments.

Validation of the analytical data will include review of the following:

1. Contaminants in syringe blanks and background analyses.
2. Agreement between samples and duplicates.

Levels of contaminants in syringe blanks must be low enough so as not to have an impact on the validity of the data. If contaminants are found in significant levels in one of the field blanks, the sample data will be reviewed to determine if comparable levels are found in other samples obtained that same day.

Attachment 1

TERRA VAC CORPORATION

Sampling Techniques of Volatile Organic Compounds

I. SCOPE

Volatile Organic Compounds (VOC) are regulated, toxic chemicals and should be treated with care to avoid personal and environmental contamination. When sampling vapors from the vacuum system it will be considered that the air stream is contaminated with VOC's. Care should be taken so that no contaminated air is discharged to atmosphere.

II. EQUIPMENT AND REAGENTS

1. Clean and well lighted work area
2. Hamilton Gastight Syringes 500ul size

III. PROCEDURE

1. Purge syringe with clean air
2. Insert syringe through sample port septum
3. Purge syringe with air stream to be sampled
4. Draw plunger back to desired volume
5. Withdraw needle from septum and stopper with a septum
6. Log time, location, wellhead vacuum and flow then return sample to GC

IV. PRECAUTIONS

Test syringe before use for leaking plunger and tight needle.

Attachment 2

TERRA VAC CORPORATION

Standards

I. SCOPE

The purpose of this procedure is to define the standardization of the gas chromatograph for reference in the quantitative analysis of samples containing unknown amounts of Volatile Organic Compounds. In this case, calibration is done with reference to site specific contaminants.

II. EQUIPMENT AND REAGENTS

1. Clean and well lighted work area
2. Gastight syringes 500 ul, 10 ul size
3. Pure liquid compounds (CAUTION: Some VOC's are known carcinogens and should be handled with care to avoid possi ble contamination.)
4. NBS traceable gas standards
5. Gas sampling bulb 500 ml size

III. PROCEDURES

For Liquid Standards

1. Run a blank of the syringe and gas sampling bulb to be used.
2. Inject a known volume (around 1 ul) of the standard into the 500 ml bulb (verify actual bulb volume beforehand).
3. Allow a few minutes for the liquid to disperse in the bulb. Warm gently, then allow to return to room temperature.
4. Using a gastight syringe, withdraw a 500 ul sample from the bulb and inject it into the GC. Volume utilized should approximate expected field concentrations.
5. Calculation of concentration at sea level:

$$\text{mg/L} = \frac{\text{vol. injected (ul)} * \text{spec gravity (mg/ul)}}{\text{bulb volume (L)}}$$

Note: specific gravity for reagents are given in the Handbook of Environmental Data for Organic Chemicals 2nd Ed

6. If not within 10% of previous calibration, repeat 4&5. Otherwise maintain calibration values established.

7. Calibrate to new values when repeatability is shown. See precautions.

8. Establish retention times for indicator compounds by injecting headspace samples of pure compounds.

For NBS Traceble Gases

1. Run a blank of the syringe.

2. Using a gas tight syringe, withdraw a 500 ul sample directly from the gas cylinder of known concentration.

3. Inject immediately into GC.

4. Calculation of concentration at sea level:

   mg/L = conc given (ppm) / conversion factor

   Note: the conversion factor used will be air pollution factors from the Handbook of Environmental Data for Organic Chmicals, 2nd Ed., and are in units of ppm per mg/L.

5. If not within 10% of previous calibration, repeat 2&3. Otherwize maintain calibration values established.

6. Calibrate to new values when repeatability is shown, or a new cylinder of gas is used.

7. Establish retention times as needed by injecting headspace samples of pure compounds.

IV. PRECAUTIONS

1. In injecting headspace vapor from pure compound, care must be taken not to overload the column.

2. A wide change in calibration values indicates that troubleshooting of the system or procedures is necessary.

TERRA VAC

14798 WICKS BOULEVARD, SAN LEANDRO, CALIFORNIA 94577

TEL (510) 351-8900

FAX (510) 351-0291

21 January 1994

Mr. Hugh Murphy
Hazardous Materials Division
25151 Clawiter Road
Hayward, CA 94545
(510) 293-8695

Subject: Letter Modification to Work Plan

Dear Mr. Murphy:

On 14 December 1993, Terra Vac submitted a work plan for dual vacuum extraction remediation of 23990 Hesperian Boulevard in Hayward, California. This letter addresses concerns that you raised as a result of your review of this plan.

Extent and Source of Chlorinated Volatile Organic Compounds (VOCs)

Based on the distribution of chlorinated VOCs (perchloroethylene and breakdown products) in groundwater samples, it appears that the source of this release is the drycleaner located to the immediate north of the station property. Terra Vac had originally proposed that soil samples be collected and analyzed for chlorinated VOCs during the installation of up to four interim borings and during the installation of confirmatory borings. Terra Vac will also measure the concentration of chlorinated VOCs in the extracted vapor from each wellhead at start-up and during the second and fifth months of operation.

Based on your recommendation, Terra Vac will analyze one soil sample each from wells VW-1 and VW-3 for chlorinated VOCs. Well VW-1 is located closest to the drycleaner and well VW-3 is located downgradient of the former waste oil tank. Comparison of the level of chlorinated VOCs from these two soil samples will help to confirm the source. Because two chlorinated VOC samples will be analyzed during initial well installation, Terra Vac will analyze two less chlorinated VOC samples during confirmatory boring installation.

Relationship of the Remediation Area to the Region of Hydrocarbon Impact

Based on the results of the most recent groundwater monitoring by RESNA, Terra Vac prepared an estimate of the benzene distribution in groundwater as Figure 1. It is unlikely that free phase hydrocarbon has migrated significantly downgradient; in fine-grained soils, hydrocarbon tends to spread by capillary wicking - similar to the way a sponge soaks up water. However, dissolved hydrocarbon will move downgradient with groundwater. Therefore, Figure 1 shows our estimate that the free phase hydrocarbon sheen is confined to the immediate vicinity of the release.

The 10 ppb dissolved benzene contour in Figure 1 is not shown to the north and west of the site due to lack of data. It is possible that the drycleaner to the north of the site contributed to the benzene plume through a release of stoddard solvent, used to clean leather and other goods. However, stoddard solvent only contains a small amount of benzene. It is possible that past operations at the airport may have contributed to, or caused the benzene plume to the west of Hesperian Boulevard.

During remediation, Terra Vac will monitor the boiling point distribution (BPD) of the extracted hydrocarbon. By comparing BPD data with that of dozens of other sites, it is possible to estimate if a significant amount of hydrocarbon lies past the edge of the effective treatment area of each well. Extraction operation will enable us to better refine the estimated extent of hydrocarbon. Four interim wells are planned for this remediation project during the third month of operation. These wells will be placed in locations that require additional remediation effort as determined by soil samples and operational BPD data.

The original work plan showed only the area of vacuum effect of the extraction wells. However, the larger area of bioventing effect was not shown. This area is depicted on Figure 2 as the region where Terra Vac anticipates that one-half soil pore volume of air will replaced per day. According to research by the US Air Force and Batelle Memorial Institute, exchange of one-half soil pore volume per day will lead to sufficient soil oxygen for maximum microbial consumption of hydrocarbon (probably between 5 ppm and 10 ppm reduction of soil concentration per day). The region bordering the area of bioventing effect shown in Figure 2 will also be subject to enhanced microbial consumption of hydrocarbon, though not to the maximum level. Please note that Figure 2 does not account for improvements due to the cap effect of the asphalt paving of Hesperian Boulevard and other areas.

Prior to beginning operation it is not feasible to accurately determine the exact distribution of hydrocarbon and the exact region of effect of the remediation system. Terra Vac will measure the vacuum influence at wells MW-3F, -3G, and -3H to help refine the estimated area of bioventing effect. In addition, during operation of the system Terra Vac will monitor the BPD of the extracted vapor from the remediation wells. With these data, Texaco, Terra Vac, and the

Hazardous Materials Division can evaluate the effectiveness of the remediation system in treating the hydrocarbon from the service station release.

Please call me at (510) 351-8900 if you have any questions or further comments.

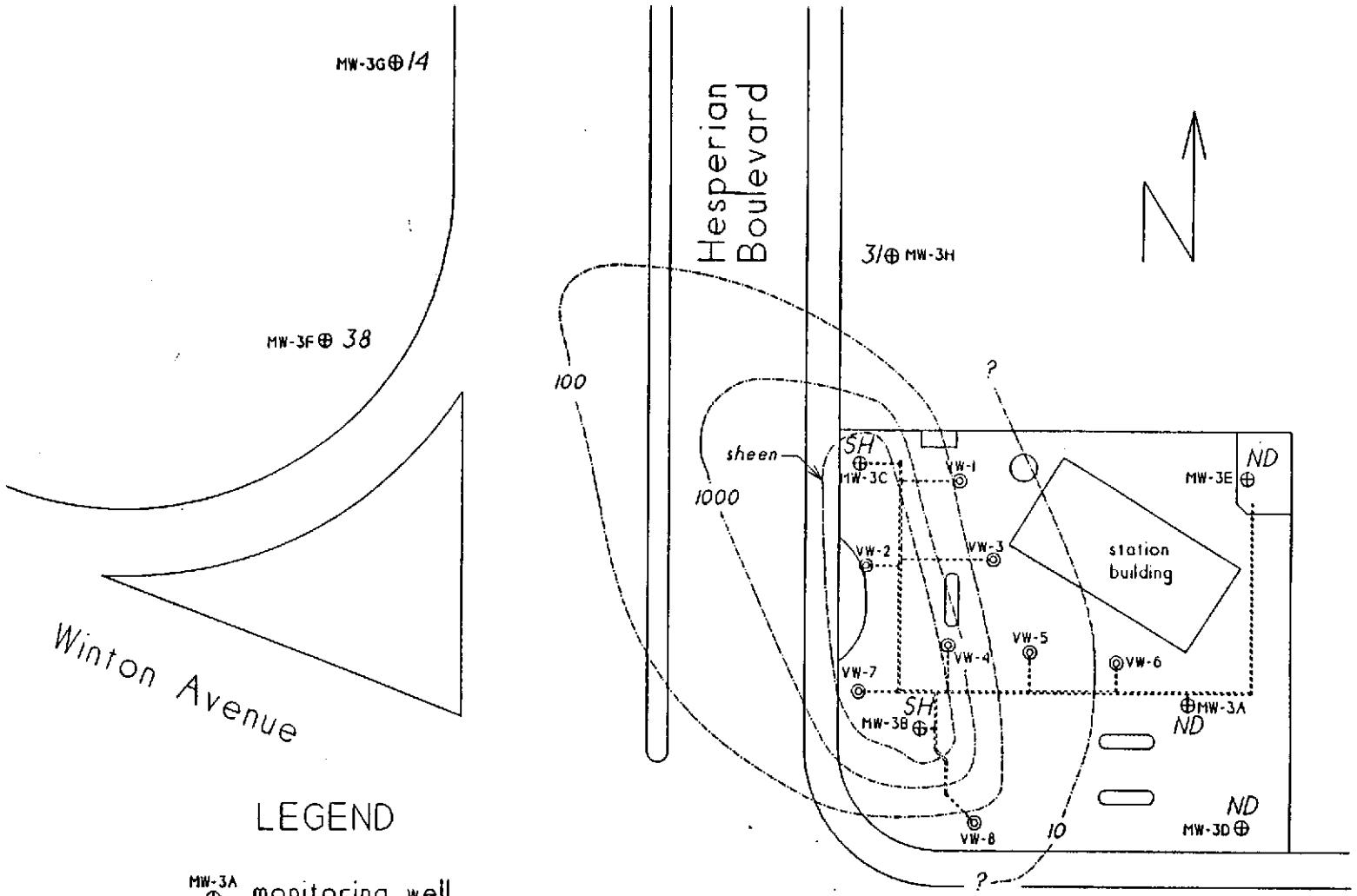
Sincerely,
Terra Vac Corporation

Greg Beyke
Project Manager

James A. Perkins
Registered Geologist

REGISTERED GEOLOGIST
JAMES A. PERKINS
6/94
No. 4472
STATE OF CALIFORNIA

cc: Mr. Robert Robles, Texaco Environmental Services
File 30-0113.17



LEGEND

- MW-3A ⊕ monitoring well
- VW-1 ◎ proposed well locations
- belowgrade PVC piping
- 100 groundwater benzene concentration in ppb (12/02/93)
- SH hydrocarbon sheen observed in well

0 scale in feet 50

Distribution of Hydrocarbons
23990 Hesperian Boulevard
Hayward, California

Project	30-0113	Drawn by	Flanigan
Date	13 Jan 94	Revision	1
Scale	1"=50'	Checked	

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14798 Wicks Boulevard
San Leandro, CA 94577
(510) 351-8900 fax 022

Figure 1

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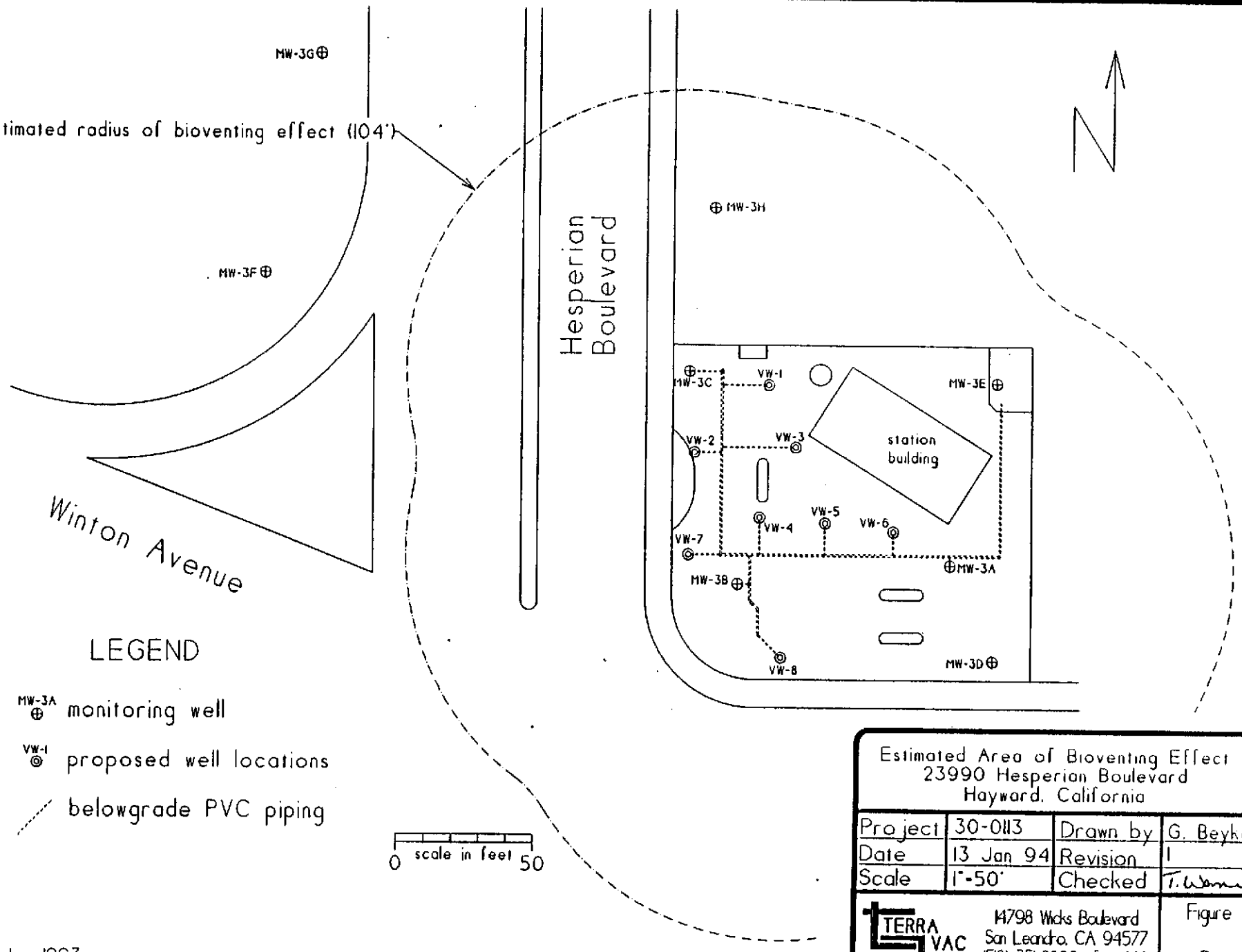

Estimated Area of Bioventing Effect
23990 Hesperian Boulevard
Hayward, California

Project	30-0113	Drawn by	G. Beyke
Date	13 Jan 94	Revision	1
Scale	1"=50'	Checked	T. Warner

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Figure 2

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TERRA VAC

FEB 2 1994

DRILLING REPORT
DUAL VACUUM EXTRACTION REMEDIATION
FORMER TEXACO SERVICE STATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA
PROJECT 30-0013

FEBRUARY 17, 1994

30-0113.35

TERRA VAC

DRILLING REPORT
DUAL VACUUM EXTRACTION REMEDIATION
FORMER TEXACO SERVICE STATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

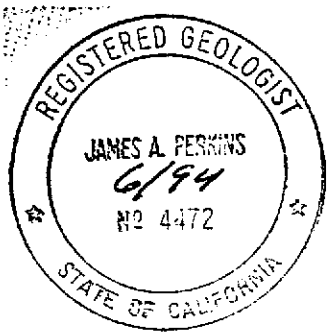
Prepared for
Texaco Refining and Marketing, Inc.

By Terra Vac Corporation

Maura L. Carlisle
Staff Geologist

Gregory L. Beyke
Project Manager

James A. Perkins, R.G.
Division Manager



February 17, 1994

30-0113.35

printed on recycled paper

DRILLING REPORT
DUAL VACUUM EXTRACTION REMEDIATION
FORMER TEXACO SERVICE STATION
23990 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

1.0 EXECUTIVE SUMMARY

The shallow subsurface beneath the site is characterized dominantly by silty clays and clayey silts. The native material from grade to a depth of approximately 14 feet consists of clayey silt. A discontinuous silty clay unit is present from approximately 14 to 20 feet below grade. Clayey silt occurs from 20 feet to at least 30 feet below grade.

Results from petrophysical analysis of the soils indicated relatively low permeabilities. Based on Terra Vac's experience, most fine silts and clays have permeabilities ranging from 0.06 to 3.0 millidarcy, and are usually at the lower end of that range. Horizontal and vertical permeabilities at the site range from 0.0172 to 0.719 millidarcy.

Previous investigations by others had classified the site lithology as predominantly clay. Terra Vac's investigation revealed the site consists primarily of low permeability clayey silt, as described above and in the attached boring logs (Appendix A).

After completion of the wells, the groundwater level was measured at approximately 20 feet below the top of the well casings.

2.0 INTRODUCTION

Texaco Refining and Marketing, Inc. contracted Terra Vac to perform soil and groundwater remediation services at 23990 Hesperian Boulevard in Hayward. The site is an operating Exxon service station. Structures at the service station include a building, three fuel pump islands, one above ground propane tank, one 550-gallon underground waste oil tank, and four underground fuel storage tanks with a total capacity of 42,000 gallons. The station currently provides unleaded gasoline, diesel fuel, and automotive repair services. Four underground fuel storage tanks were removed from the southwest corner of the site in 1985. Leaded gasoline was dispensed prior to first quarter 1992.

Hydrocarbon impacted soil and groundwater have been observed in the area of the current and former underground tanks and down gradient of these tanks (southern and western portions of the site). Hydrocarbons have been detected in the capillary fringe and below the water table, probably due to seasonal fluctuations in groundwater level. Dissolved hydrocarbons are present in groundwater in the area of the underground storage tanks and pump islands. Groundwater

surveys indicate that the greatest concentrations of dissolved hydrocarbon are in the vicinity of wells MW-3B and MW-3C, both down gradient of the underground fuel tanks and pump islands. No free product has been observed at the site since July 1988. Minor concentrations of chlorinated compounds were observed in influent vapor samples from wells MW-3A and MW-3C during a vapor extraction pilot test performed by others in November 1992. Additionally, minor concentrations of chlorinated compounds have been observed in groundwater samples collected from wells MW-3F, MW-3G and MW-3H, as reported in quarterly groundwater monitoring reports conducted by others.

A Letter Work Plan describing remedial activities was submitted to the City of Hayward Fire Department, Hazardous Materials Division in December 1993, and approved by the agency the following month. The design of the proposed remediation system specified an eleven well dual vacuum extraction system. Eight of these wells were to be installed by Terra Vac. Well permits were obtained from Zone 7 Water Resources Management, Alameda County Flood Control and Water Conservation District in January 1994, prior to well installation.

3.0 FIELD INVESTIGATION

Drilling activities were conducted from January 25 through 27, 1994, by West Hazmat Drilling of Newark, California. Drilling activities were supervised by a Terra Vac geologist. Drilling was performed using a truck mounted CME-75 drill rig using ten-inch, hollow-stem augers. The locations of the wells, designated VW-1 through VW-8, are shown in Figure 1. Well locations were selected to address known hydrocarbon impacted soil and groundwater.

Soil samples were collected from each boring using a California-modified split-spoon sampler with three six-inch brass sleeves driven eighteen inches ahead of the augers using a standard 140 pound hammer. A hand-held photoionization detector or PID (Thermoenvironmental Instruments model 580A) was used to evaluate all soil samples collected. Samples were collected at five-foot intervals for lithologic classification and volatile organic compound (VOC) screening analysis. The Unified Soils Classification System was used for field description of the soil samples.

All wells were completed with four-inch Schedule 40 PVC casing. Total depth of each well and screen interval were determined in the field based upon photoionization detector (PID) readings and lithologic conditions. Machine-slotted casing with 0.010 inch wide slots was selected for the screened intervals, based on the fine grained material known to be present at the site. Blank casing was set from the top of the screened casing to grade. All casing joints were flush-threaded.

The annular space of each well was backfilled with 10-20 grade silica sand from total depth to one foot above the screened interval. A one-foot-thick bentonite seal was placed above the sand

pack. The remaining annulus was backfilled with neat cement. Well completion details are included in Appendix A.

Prior to use and between samples, each split spoon was washed with Alconox detergent and triple water rinsed. Upon well completion, all auger flights, the auger bit, and all other pieces of equipment were steam cleaned to prevent cross contamination between borings.

The drill cuttings were placed in a roll-off bin for disposal at the BFI Landfill in Livermore, California. Decontamination water is temporarily stored in properly labeled 55-gallon DOT approved drums and remains on-site. The water will be treated on-site after the system is started.

4.0 ANALYTICAL RESULTS

During drilling soil samples were collected and retained for laboratory analysis. Samples selected for analyses were removed from the sampler and immediately sealed with Teflon tape, plastic endcaps, and airtight tape. All samples were appropriately labeled and stored on ice prior to courier pick-up with proper chain-of-custody documentation. Samples were analyzed by Mobile Chem Labs, Inc. of Martinez, a California state certified laboratory. Three samples from each of the eight wells were analyzed for BTEX/TPH using EPA Method 8015/8020. Laboratory results are summarized in Table 1. The on-site soil hydrocarbon concentrations are depicted in Figure 1.

At the request of the Mr. Hugh Murphy, City of Hayward Fire Department, Hazardous Materials Division, two additional samples, one from VW-1 and one from VW-3, were analyzed for chlorinated compounds using EPA Method 8010 (Appendix B). Analyses of these samples indicated non-detectable levels of chlorinated VOC contamination.

In addition, two samples were collected for petrophysical analysis by PNP Laboratories of Santa Fe Springs, California, to provide information on permeability and moisture content of the site soils. Both samples were collected from VW-5, at depths of 16 and 21 feet. Results indicated relative horizontal and vertical permeabilities of the silts and clays ranged from 0.0172 to 0.719 millidarcy. Moisture content by percent weight ranged from 23.6 to 28.7 percent (Appendix C).

TABLE 1
Analytical Results
BTEX/TPH 8015/8020
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
Page 1 of 2

Well	Depth of Sample (ft)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	E-Benz. (ppm)	Xylene (ppm)
VW-1	20	15	0.28	0.0088	1.0	1.3
VW-1	25	7.8	0.14	<0.005	0.21	0.27
* VW-1	25.5	<1.0	0.016	0.013	0.014	0.027
VW-1	30	<1.0	<0.005	<0.005	<0.005	0.017
VW-2	20	160	0.52	0.024	3.3	9.1
VW-2	25	14	0.16	0.029	0.65	1.5
VW-2	30	7.4	0.064	0.016	0.43	1.4
VW-3	18.5	810	2.3	0.23	16	44
VW-3	23.5	200	0.73	0.17	3.7	8.5
VW-3	28.5	11	0.061	0.013	0.55	1.3
* VW-3	30	8.2	0.070	0.020	0.48	1.2
VW-4	15	9.0	0.16	0.022	0.42	0.26
VW-4	20	83	0.59	0.082	2.5	4.54
VW-4	25	6.7	0.19	0.013	0.21	0.24
VW-5	17.5	57	0.080	0.013	0.53	1.2
VW-5	19	56	0.23	0.023	1.24	2.4
VW-5	26.5	43	0.18	0.14	0.46	0.71

* Samples also analyzed for chlorinated compounds, see Appendix B.

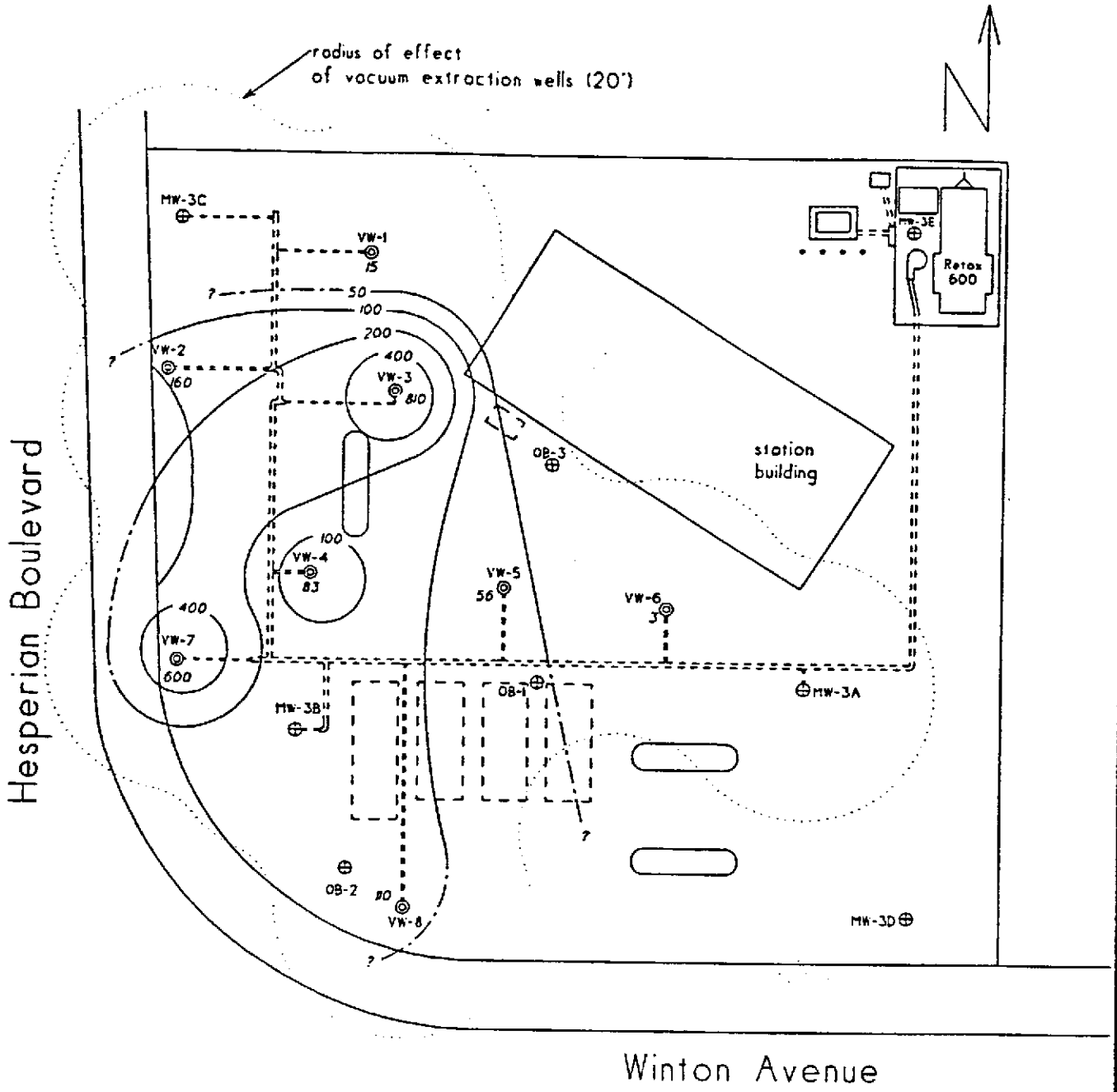
Analyzed by Mobile Chem Labs, Inc., Martinez, California

TABLE 1
Analytical Results
BTEX/TPH 8015/8020
Former Texaco Service Station
23990 Hesperian Boulevard
Hayward, California
Page 2 of 2

Well	Depth of Sample (ft)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	E-Benz. (ppm)	Xylene (ppm)
VW-6	15	<1.0	<0.005	0.013	<0.005	<0.005
VW-6	20	2.4	0.089	0.018	0.079	0.19
VW-6	25	2.8	0.0054	0.0057	<0.005	0.042
VW-7	20	600	86	0.23	16	36
VW-7	25	6.3	0.34	0.0082	0.36	0.48
VW-7	30.5	2.1	0.058	0.012	0.086	0.13
VW-8	20	110	0.61	0.19	2.6	3.6
VW-8	25	12	0.085	0.025	0.17	0.10
VW-8	15	14	0.078	0.029	0.25	0.56

* Samples also analyzed for chlorinated compounds, see Appendix B.

Analyzed by Mobile Chem Labs, Inc., Martinez, California



Soil TPH near the capillary fringe region (18' to 19.5' below grade). Measured in mg/kg (ppm). Samples collected 25-27 Jan 94.

0 scale in feet 25

LEGEND

- MW-3A ⊕ monitoring well
- OB-1 ⊕ observation well
- VW-1 ◎ proposed well locations
- underground storage tanks
- subgrade PVC piping

Soil Hydrocarbon Concentration
23990 Hesperian Boulevard
Hayward, California

Project	30-0113	Drawn by	MKF
Date	7 Feb 94	Revision	6
Scale	1"=25'	Checked	

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Figure

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TERRA VAC

Date Drilled: January 27, 1994 Boring/Well Number VW-1

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

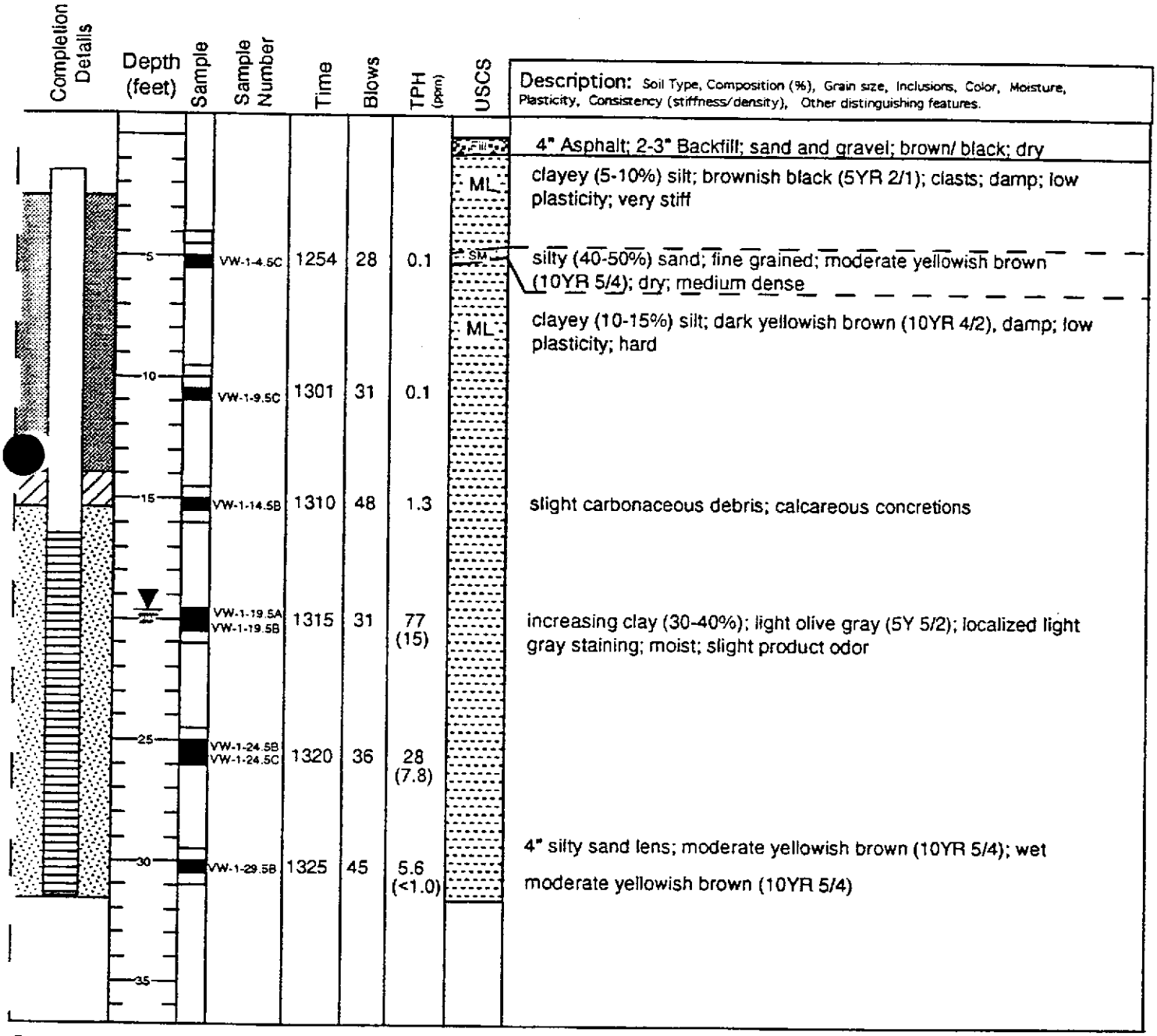
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31.5 feet Completed Depth: 31.5 feet Depth to Groundwater: 19.56' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



Completion Details	Depth (feet)	Sample	Sample Number	Time	Blows	TPH (ppm)	USCS	Description: Soil Type, Composition (%), Grain size, Inclusions, Color, Moisture, Plasticity, Consistency (stiffness/density), Other distinguishing features.
							Fill	4" Asphalt; 2-3" Backfill; sand and gravel; brown/ black; dry
							ML	clayey (5-10%) silt; brownish black (5YR 2/1); clasts; damp; low plasticity; very stiff
	5		VW-1-4.5C	1254	28	0.1	SM	silty (40-50%) sand; fine grained; moderate yellowish brown (10YR 5/4); dry; medium dense
							ML	clayey (10-15%) silt; dark yellowish brown (10YR 4/2), damp; low plasticity; hard
	10		VW-1-9.5C	1301	31	0.1		
	15		VW-1-14.5B	1310	48	1.3		slight carbonaceous debris; calcareous concretions
	20		VW-1-19.5A VW-1-19.5B	1315	31	77 (15)		increasing clay (30-40%); light olive gray (5Y 5/2); localized light gray staining; moist; slight product odor
	25		VW-1-24.5B VW-1-24.5C	1320	36	28 (7.8)		
	30		VW-1-29.5B	1325	45	5.6 (<1.0)		4" silty sand lens; moderate yellowish brown (10YR 5/4); wet moderate yellowish brown (10YR 5/4)
	35							

General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.

PH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.

COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 26, 1994 Boring/Well Number VW-2

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

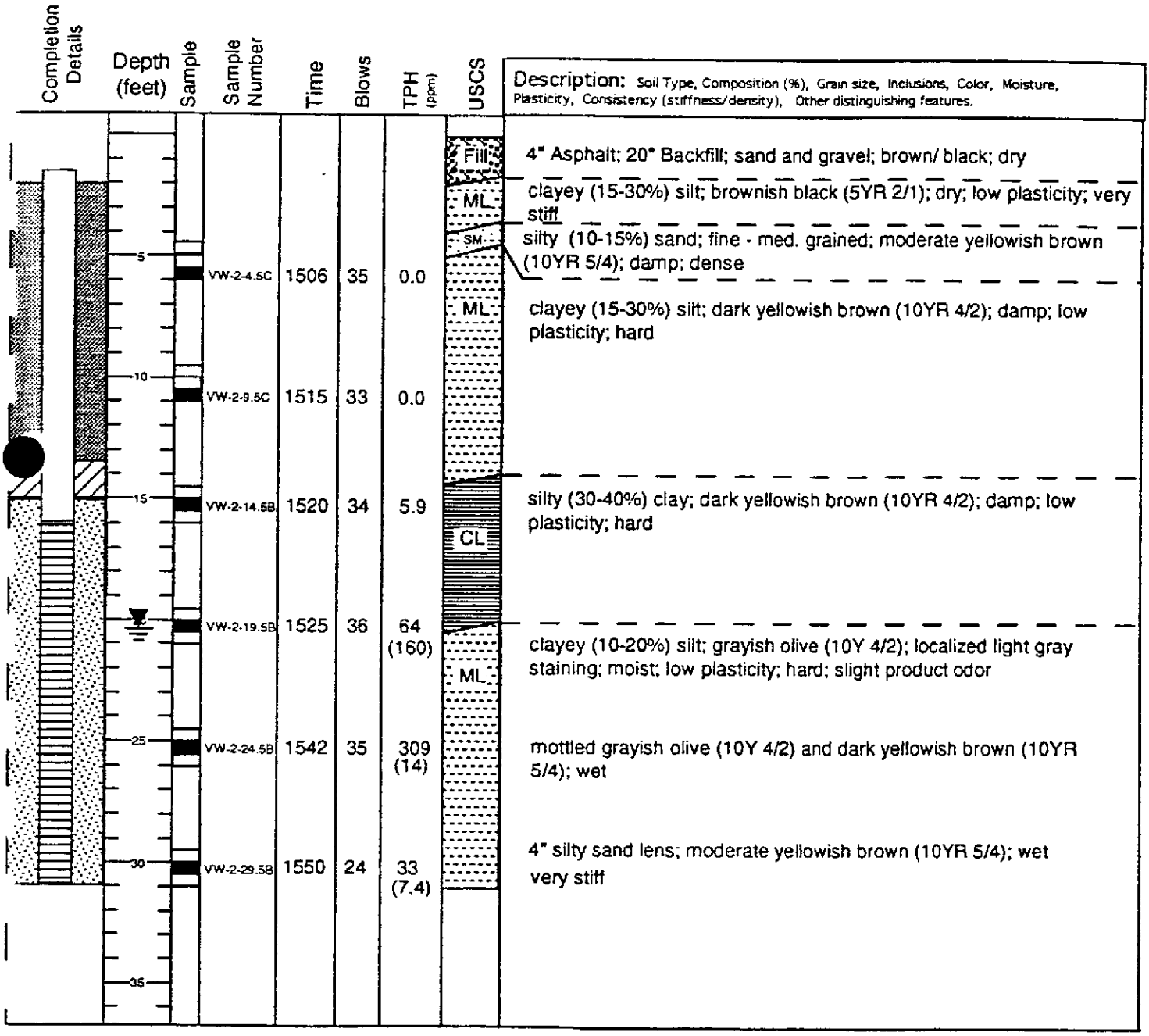
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater: 20.41' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.

TPH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.

COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 27, 1994 Boring/Well Number VW-3

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

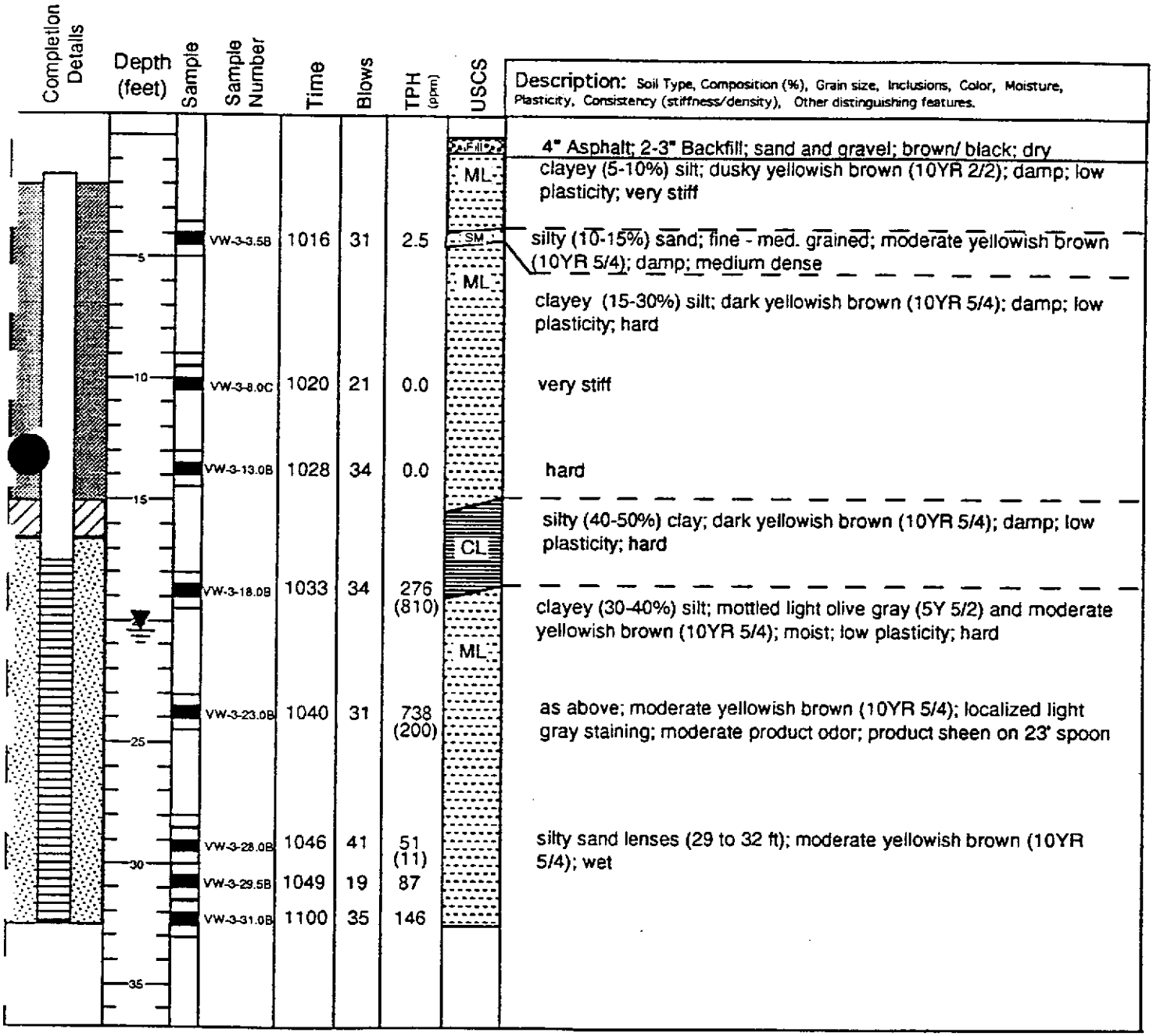
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 32.5 feet Completed Depth: 32.5 feet Depth to Groundwater: 20.40' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



Completion Details	Depth (feet)	Sample	Sample Number	Time	Blows	TPH (ppm)	USCS	Description: Soil Type, Composition (%), Grain size, Inclusions, Color, Moisture, Plasticity, Consistency (stiffness/density), Other distinguishing features.
							Fill	4" Asphalt; 2-3" Backfill; sand and gravel; brown/ black; dry
							ML	clayey (5-10%) silt; dusky yellowish brown (10YR 2/2); damp; low plasticity; very stiff
	5		VW-3-3.5B	1016	31	2.5	SM	silty (10-15%) sand; fine - med. grained; moderate yellowish brown (10YR 5/4); damp; medium dense
							ML	clayey (15-30%) silt; dark yellowish brown (10YR 5/4); damp; low plasticity; hard
	10		VW-3-8.0C	1020	21	0.0		very stiff
			VW-3-13.0B	1028	34	0.0		hard
	15						CL	silty (40-50%) clay; dark yellowish brown (10YR 5/4); damp; low plasticity; hard
			VW-3-18.0B	1033	34	276 (810)	ML	clayey (30-40%) silt; mottled light olive gray (5Y 5/2) and moderate yellowish brown (10YR 5/4); moist; low plasticity; hard
	25		VW-3-23.0B	1040	31	738 (200)		as above; moderate yellowish brown (10YR 5/4); localized light gray staining; moderate product odor; product sheen on 23' spoon
	30		VW-3-28.0B	1046	41	51 (11)		silty sand lenses (29 to 32 ft); moderate yellowish brown (10YR 5/4); wet
			VW-3-29.5B	1049	19	87		
			VW-3-31.0B	1100	35	146		
	35							

General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.

H = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.

COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 27, 1994 Boring/Well Number VW-4

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

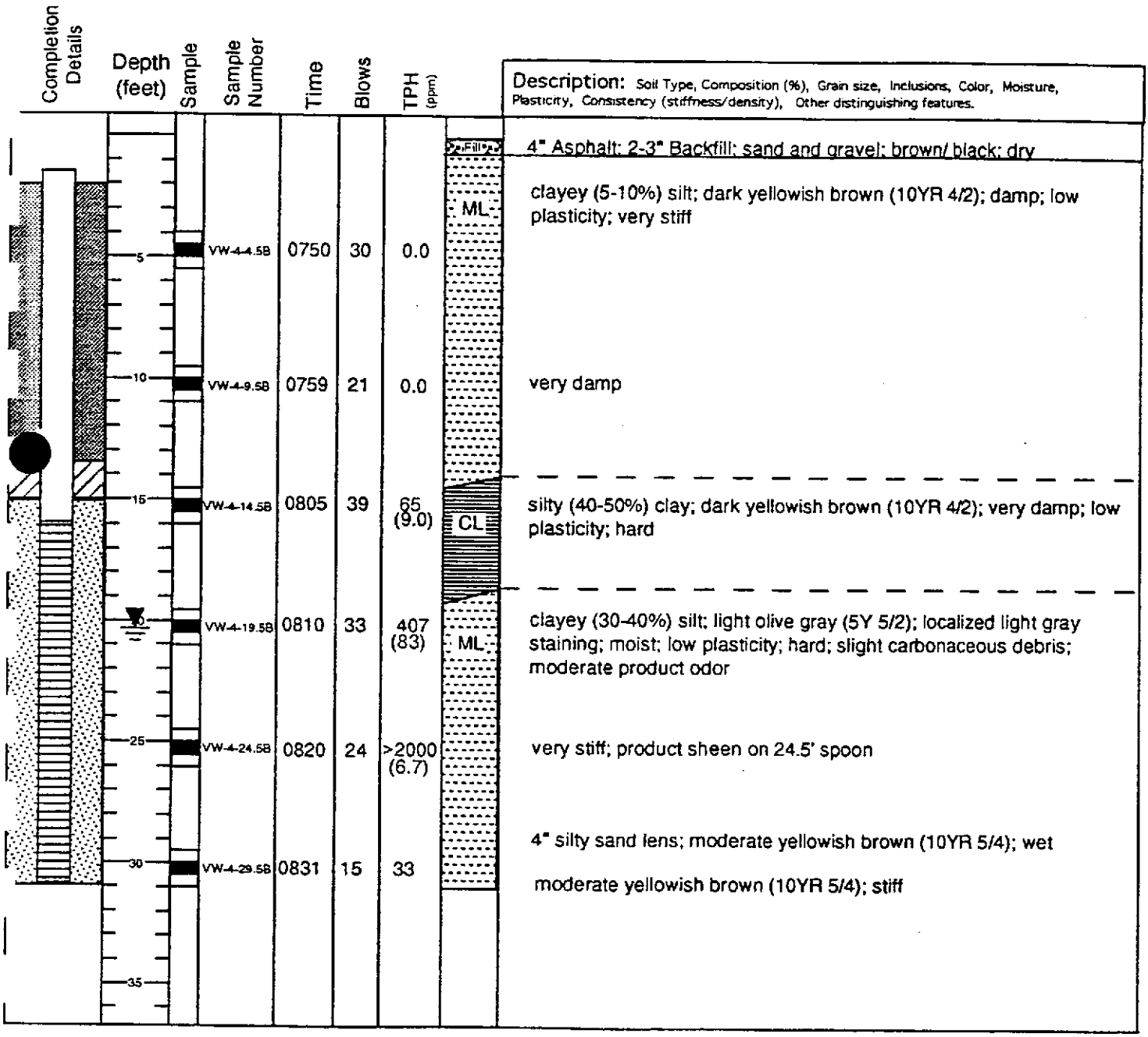
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater: 20.32' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



General Remarks:

- Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.
- TPH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.
- COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 25, 1994 **Boring/Well Number** VW-5

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 32 feet Completed Depth: 32 feet Depth to Groundwater:

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement

Completion Details	Depth (feet)	Sample	Sample Number	Time	Blows	TPH (ppm)	USCS	Description: Soil Type, Composition (%), Grain size, Inclusions, Color, Moisture, Plasticity, Consistency (stiffness/density), Other distinguishing features.
							Fill	4" Asphalt; 6-8" Backfill; sand and gravel; brown/ black; dry
							ML	sandy(5-10%), clayey(20-30%), silt; dark yellowish brown (10YR 4/2); very damp; low plasticity; hard
			VW-5-3.5B	0900	35	0.7		
	5		VW-5-5.0B	0910	28	0.0	SM	silty(10-15%), sand; fine - med. grained; moderate yellowish brown (10YR 5/4); damp; medium dense
			VW-5-6.5B	0925	38	0.0		
							ML	clayey (30-40%) silt; moderate yellowish brown (10YR 5/4); very damp; low plasticity; hard
	10		VW-5-9.5B	0942	29	0.0		
			VW-5-11.0B	0950	38	0.0		
								increasing clay (35-45%); dark yellowish brown (10YR 4/2)
			VW-5-14.0B VW-5-14.0C	1010	37	0.7		
	15		VW-5-15.5B	1018	55	11.0		silty (15-25%) clay; dark yellowish brown (10YR 4/2); localized light gray staining; very damp; low plasticity; hard; slight product odor
			VW-5-17.0B	1024	28	60.2 (57)	CL	increasing silt (20-30%); mottled dark yellowish brown (10YR 4/2) and light olive gray (5Y 5/2); localized light gray staining; calcareous concretions
			VW-5-18.5B	1035	20	143 (56)		
			VW-5-20.0C	1042	25	296		clayey (20-30%) silt; light olive gray (5Y 5/2); moist; low plasticity; very stiff
			VW-5-23.0B	1102	40	163		increasing clay (25-35%); wet; product sheen on 24.5' spoon
	25		VW-5-24.5B	1107	35	280	ML	
			VW-5-26.0B	1112	21	247 (43)		moderate yellowish brown (10YR 5/4); no product sheen
			VW-5-27.5B	1118	26	298		
	30		VW-5-29.0B	1125	22	71		4" silty sand lens; moderate yellowish brown (10YR 5/4); wet
			VW-5-30.5B	1135	20	20		
	35							

General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.

TPH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.

COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.

The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 25, 1994 **Boring/Well Number** VW-6

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

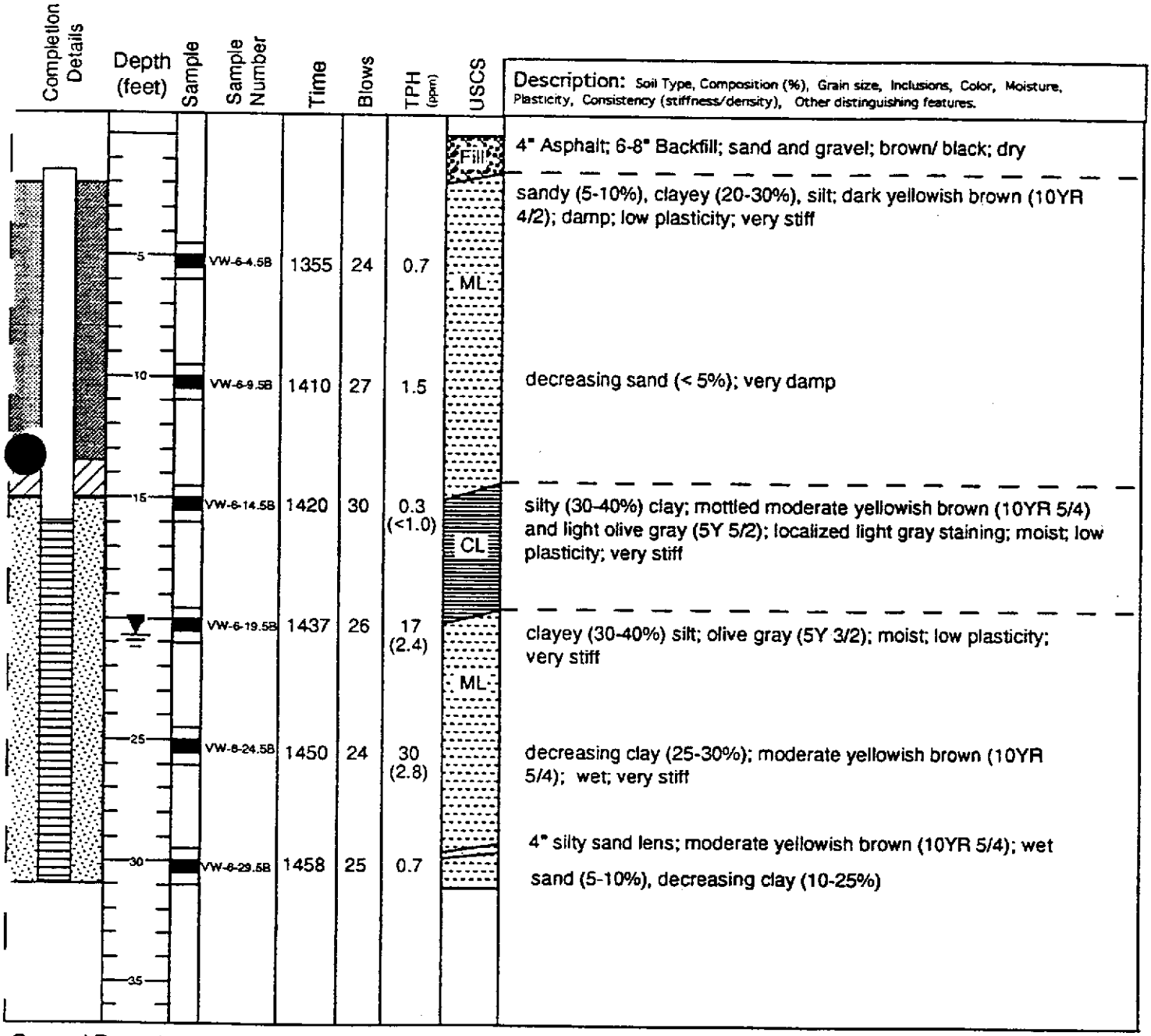
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater: 20.54' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.
TPH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.
* COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 26, 1994 **Boring/Well Number** VW-7

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

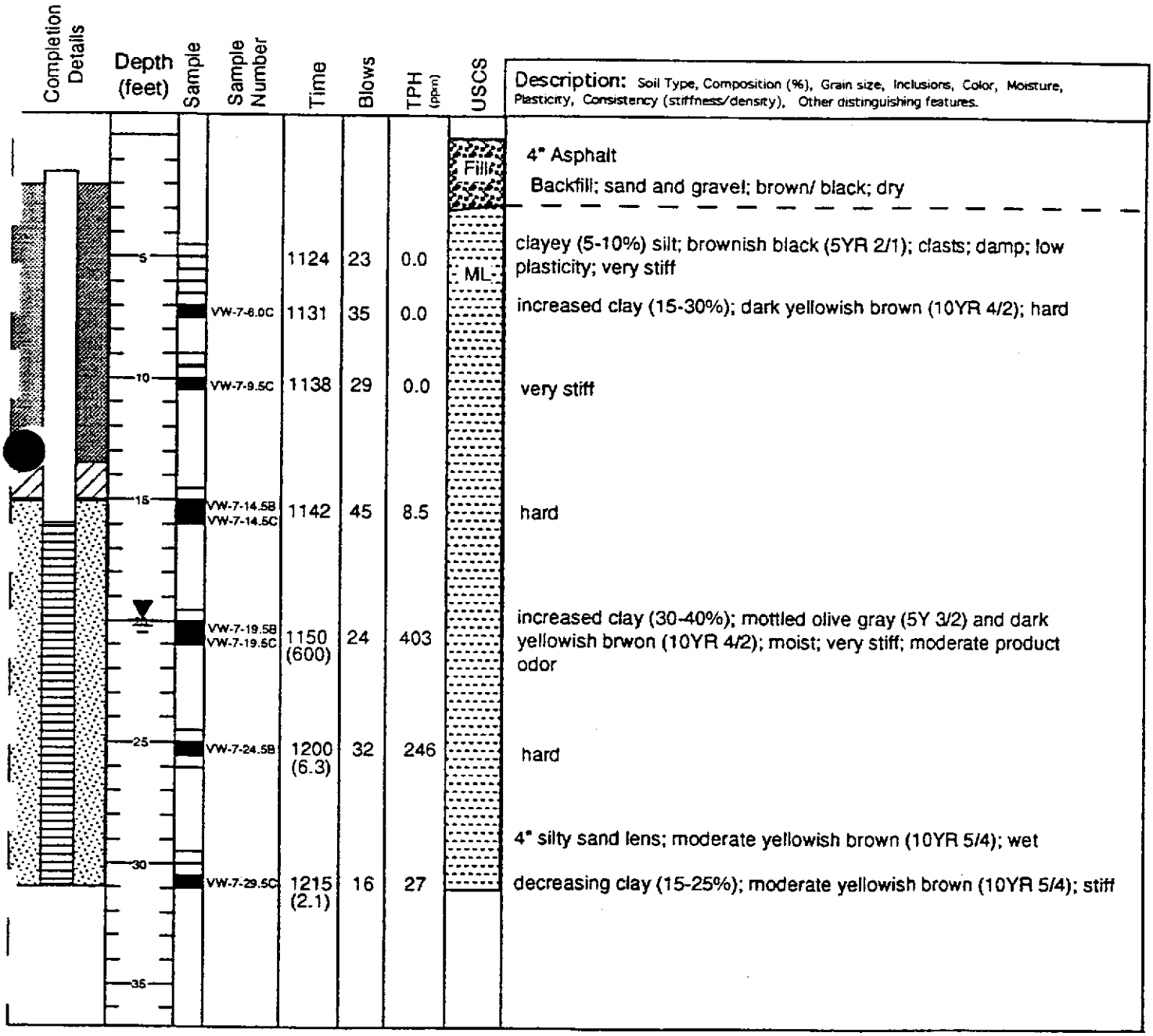
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater:

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



General Remarks:

- Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.
- PH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.
- COLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 26, 1994 **Boring/Well Number** VW-8

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

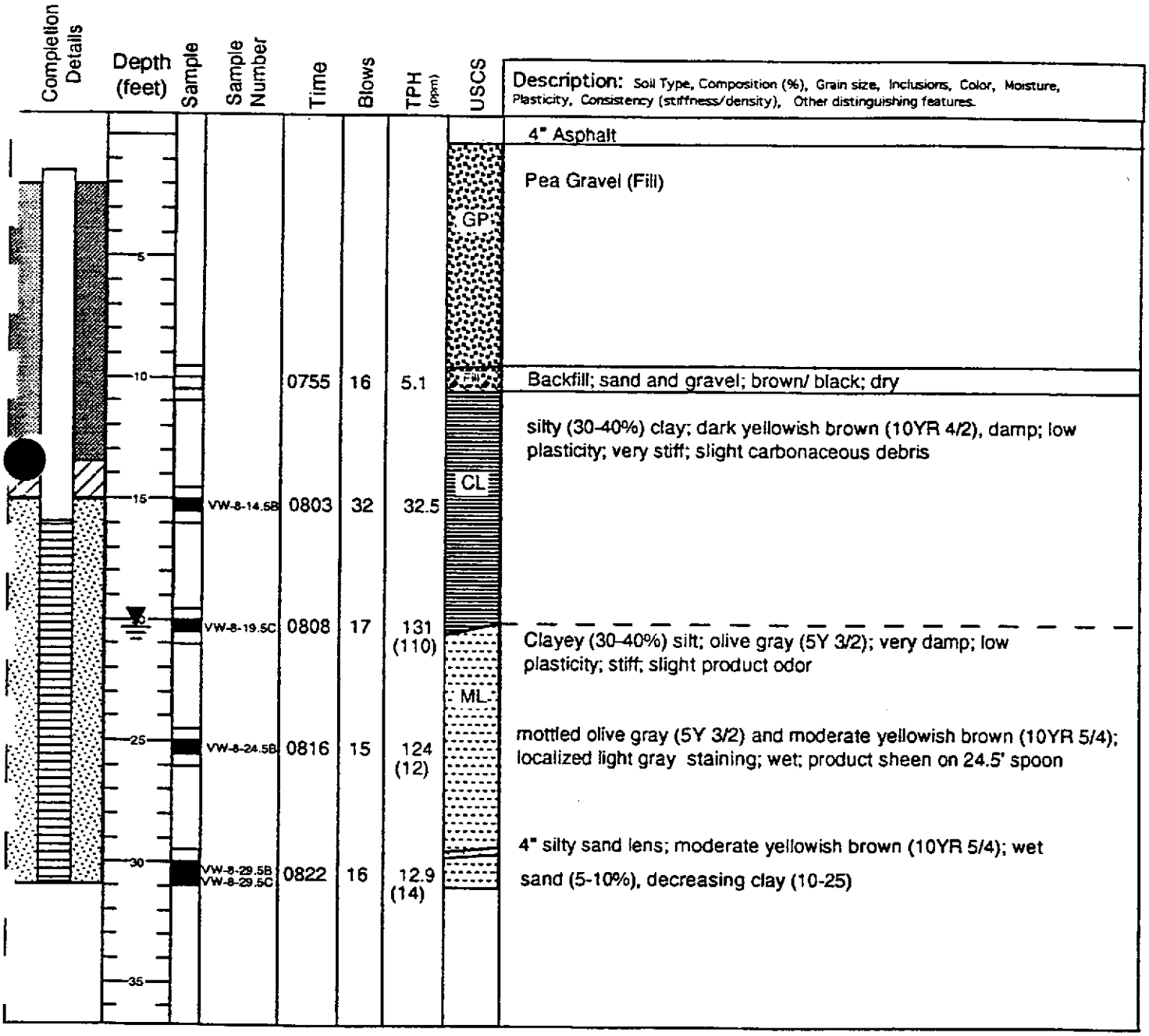
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater: 20.28' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



Completion Details	Depth (feet)	Sample	Sample Number	Time	Blows	TPH (ppm)	USCS	Description: Soil Type, Composition (%), Grain size, Inclusions, Color, Moisture, Plasticity, Consistency (stiffness/density), Other distinguishing features.
								4" Asphalt
	5						GP	Pea Gravel (Fill)
	10			0755	16	5.1	Fill	Backfill; sand and gravel; brown/ black; dry
	15		VW-8-14.5B	0803	32	32.5	CL	silty (30-40%) clay; dark yellowish brown (10YR 4/2), damp; low plasticity; very stiff; slight carbonaceous debris
	20		VW-8-19.5C	0808	17	131 (110)	ML	Clayey (30-40%) silt; olive gray (5Y 3/2); very damp; low plasticity; stiff; slight product odor
	25		VW-8-24.5B	0816	15	124 (12)		mottled olive gray (5Y 3/2) and moderate yellowish brown (10YR 5/4); localized light gray staining; wet; product sheen on 24.5' spoon
	30		VW-8-29.5B VW-8-29.5C	0822	16	12.9 (14)		4" silty sand lens; moderate yellowish brown (10YR 5/4); wet sand (5-10%), decreasing clay (10-25)
	35							

General Remarks:

* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.

PH = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.

OLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

TERRA VAC

Date Drilled: January 26, 1994 Boring/Well Number VW-8

Project: Texaco - Hayward Project Number: 30-0113

Address: 23990 Hesperian Blvd., Hayward, California

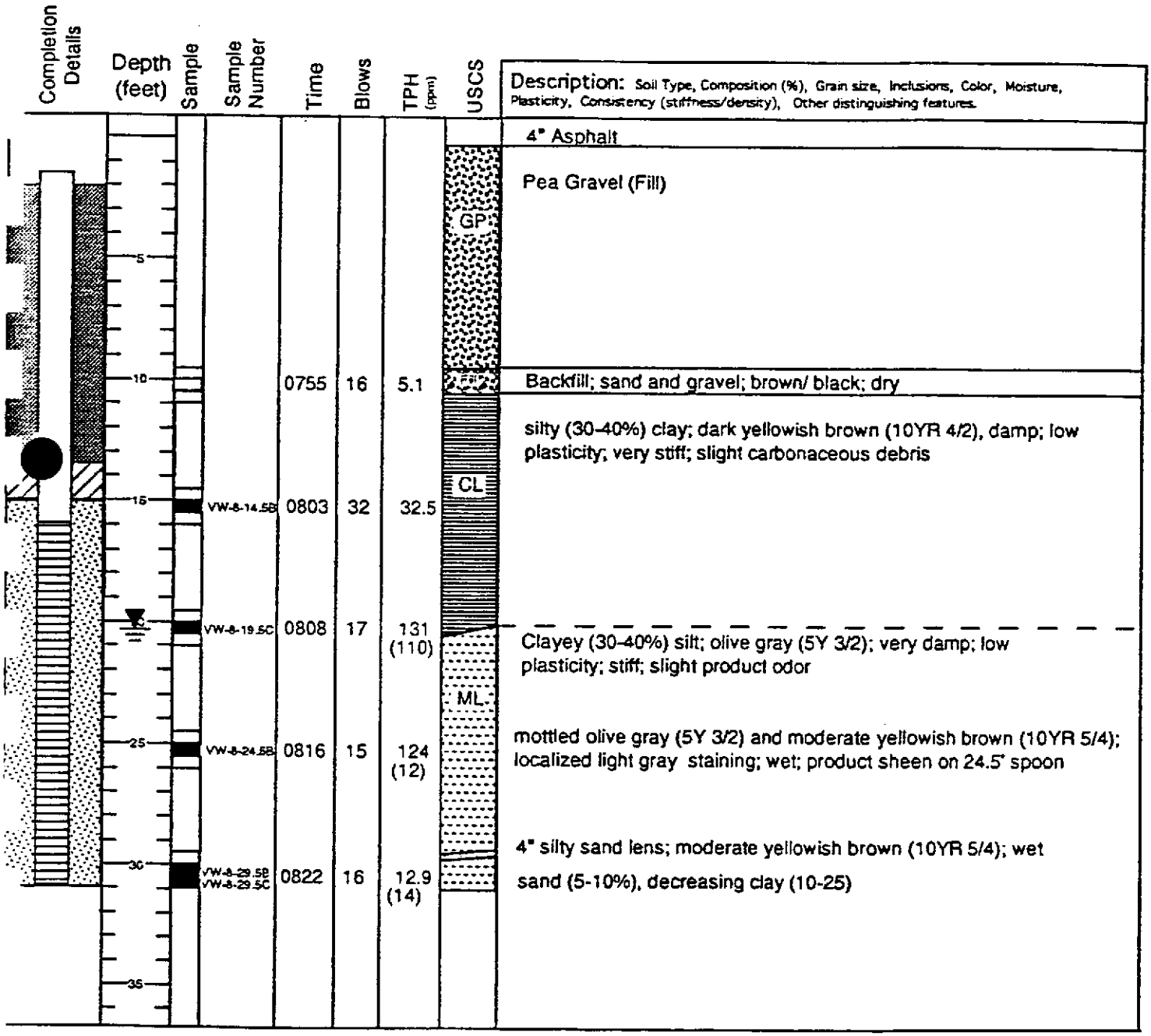
Drilling Contractor: West Hazmat Log by: M. L. Carlisle

Drill Rig CME-75 Auger Size/Type: 10 in Hollow Stem Sample Method: Split Spoon

Total Depth: 31 feet Completed Depth: 31 feet Depth to Groundwater: 20.28' (2/4/94)

Well Casing/Screen Material: Sch. 40 PVC Diameter: 4 inch Slot Size: .010 inch

Filter Material/Size: 10-20 grade sand Well Seal: Bentonite pellets Backfill/Grout Material: Type I/II neat cement



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* Blow counts are recorded for 12 inches of sampler penetration using a 140 lb hammer unless otherwise specified.
* I = Total Petroleum Hydrocarbon concentrations field screened with a PID, or lab analysis in parentheses.
* OLOR nomenclature is based upon 1) the color name and 2) the Munsell notation of color (consisting of separate notations for hue, value, and chroma, combined in that order to form the color designation). [Munsell Soil Color Chart]

This summary applies only at the location of this boring and at the time of drilling.
The data presented is a simplification of actual conditions encountered.

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
MAY 2 1994
HAYWARD FIRE DEPARTMENT

EXXON COMPANY, U.S.A.
POST OFFICE BOX 2180 • HOUSTON, TEXAS 77252-2180
P.O. BOX 2180, HOUSTON, TEXAS 77252-2180
MARKETING DEPARTMENT

FUEL PRODUCTS • BUSINESS SERVICES
ENVIRONMENTAL ENGINEERING

E. E. VILLASEÑOR
WEST ZONE SUPERVISOR

April 20, 1994

Subject Site:
Former Texaco Station
624880000055,
Exxon RAS No. 7-0218
23990 Hesperian Ave.
Hayward, CA

Mr. Bob Robles
Texaco Refining and Marketing, Inc.
Texaco Environmental Services
10 Universal City Plaza, Suite 724
Universal City, California 91608

Dear Mr. Robles:

We have carefully reviewed the information provided by Texaco Refining and Marketing ("Texaco") to Exxon Company, U.S.A. ("Exxon") regarding alleged impact at the subject site by the following compounds:

1. Tetrachloroethene (PCE);
2. Trichloroethene (TCE);
3. Cis,1, 2-dichloroethene; and
4. Vinyl chloride (collectively, "Chlorinated Hydrocarbons").

As you know, these compounds are not commonly associated with automobile fueling operations; however, they are commonly known industrial solvents used, for example, in the dry cleaning industry. Exxon currently understands that Texaco did not use these Chlorinated Hydrocarbons at the subject site; this understanding is based solely upon a review of your letter dated January 26, 1993 to Hugh Murphy of the Hayward Hazmat Office.

Exxon agrees that Texaco's Quarterly Monitoring Report dated December 29, 1993, **shows** impact by Chlorinated Hydrocarbons to groundwater samples taken from **downgradient, off-site** Monitoring Wells 3F, 3G and 3H. In contrast, groundwater samples taken from monitoring wells on the subject site **fail to show** impact by Chlorinated Hydrocarbons. These analytical results are inconsistent with Texaco's conclusion that the subject site is impacted from an off-site, third party source. The data submitted to Exxon does not suggest the subject site is impacted by an off-site source of contamination; however, the data does indicate that Texaco located an area contaminated by Chlorinated Hydrocarbons while delineating the extent of its contamination at the subject site.

Contrary to Texaco's suggestion, Exxon, as the current owner of the subject site, does not have responsibility for investigating contamination discovered by Texaco on property that is owned by a third party.

In conclusion, we remain concerned because Texaco is not remediating the confirmed contamination on Exxon's property. At this time, Exxon requests a complete copy of Texaco's remedial action plan for the subject site, so that we may review this situation in more depth. By this letter, Exxon in no way waives any rights or remedies it has regarding Texaco's failure to remediate the subject site.

If you have any additional information, which may clarify Texaco's interpretation of the data, please forward it to the undersigned at your earliest convenience.

Sincerely,

E. E. Villaseñor

/tdd
tex70218.doc

c: H. Murphy, City of Hayward Hazmat Office
P. Smith, Alameda County Environmental Health Services
C. D. Stevens, Exxon Company U.S.A.

Texaco Refining and Marketing Inc
108 Cutting Boulevard
Richmond CA 94804

RECEIVED BY
HAZARDOUS MATERIALS OFFICE
JUL 01 1994
HAYWARD FIRE DEPARTMENT

June 10, 1994

ENV - STUDIES, SURVEYS, & REPORTS
23990 Hesperian Boulevard
Hayward, CA

Mr. Hugh Murphy
City of Hayward Hazmat Office
25151 Clawiter Road
Hayward, CA 94545-2731

Dear Mr. Murphy:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on March 24, 1994, at the site referenced above (see Plate 1, Site Vicinity Map). Based on groundwater level measurements the areal hydraulic gradient was estimated to be west. The gradient map has been reviewed by a registered professional (see Plate 2, Groundwater Gradient Map). TPHg and benzene concentrations are shown on Plate 3. Tables 1 and 2 list historical groundwater monitoring data and analytical results, respectively.

The certified analytical report, chain-of-custody, field data sheets, and bill of lading are in the Appendix along with Blaine Tech Services' Field Procedures and Protocols Summary.

If you have any questions or comments regarding this site, please call the Texaco Environmental Services' site Project Coordinator, Ms. Karen Petryna at (510) 236-9139.

Best Regards,

Rebecca B. Digerness

Rebecca B. Digerness
Groundwater Monitoring Coordinator

Karen E. Petryna

Karen E. Petryna
Engineer
Texaco Environmental Services

RBD:hs
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Enclosures

CC: Mr. Paul Smith
Alameda County Environmental Health Department
80 Swan Way, Room 200
Oakland, CA 94621

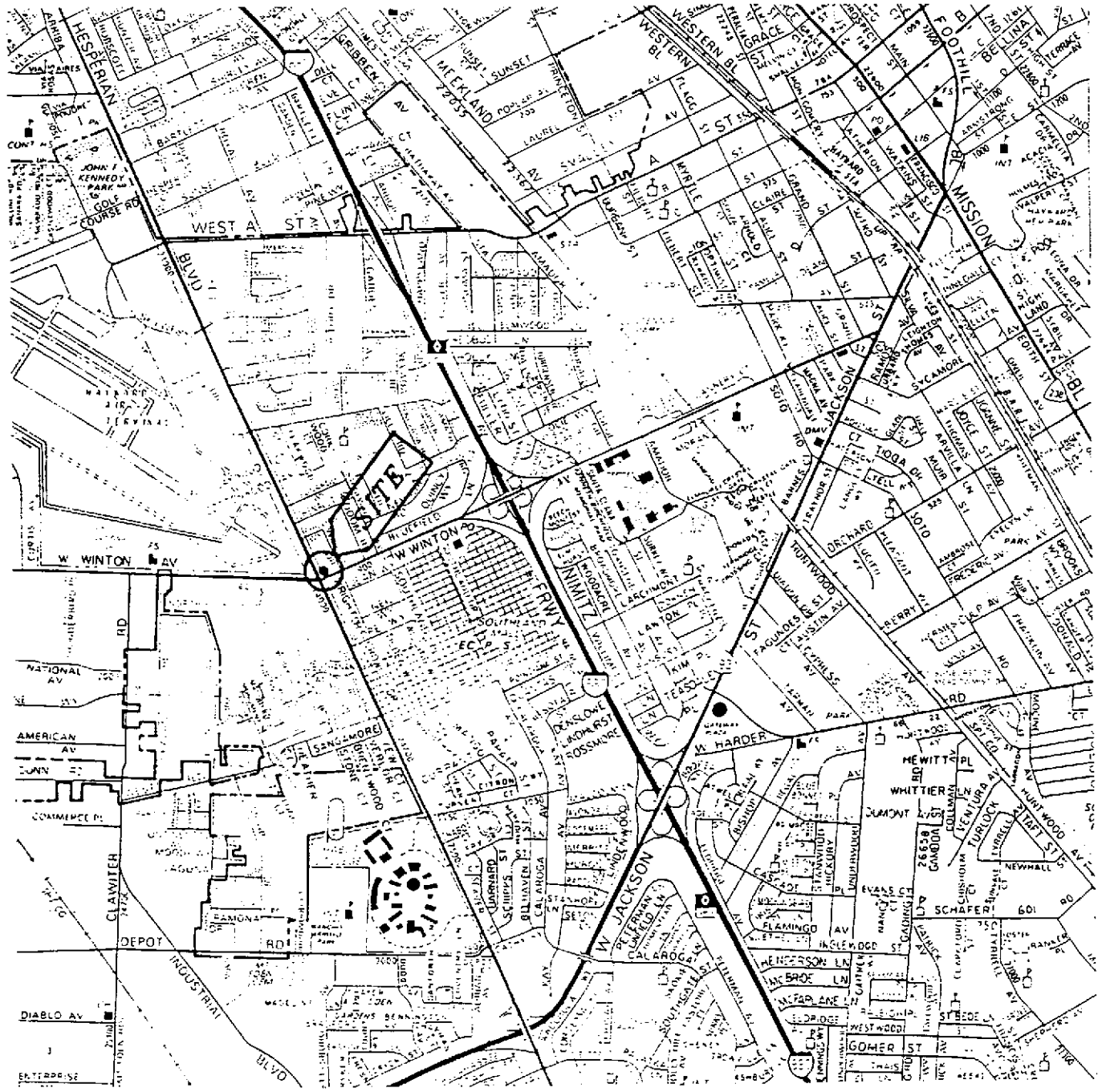
Mr. Edy So
CRWQCB - San Francisco Bay Region
2101 Webster St., Suite 500
Oakland, CA 94612

Mr. Michael Faber
Exxon Company, U. S. A.
2300 Clayton Rd., Suite 1250
Concord, CA 94520

RAOFile-UCPFile (w/enclosures) RACoughlin-RRZielinski (w/o enclosures)

PR: 10-P

Groundwater Monitoring and Sampling
First Quarter, 1994
at the
Former Texaco Station
23990 Hesperian Boulevard
Hayward, CA



SOURCE:
1993 THE THOMAS GUIDE
ALAMEDA COUNTY, PAGE 58 (B4)

N

0 1/4 1/2 3/4 1
MILE
1" = 2200'

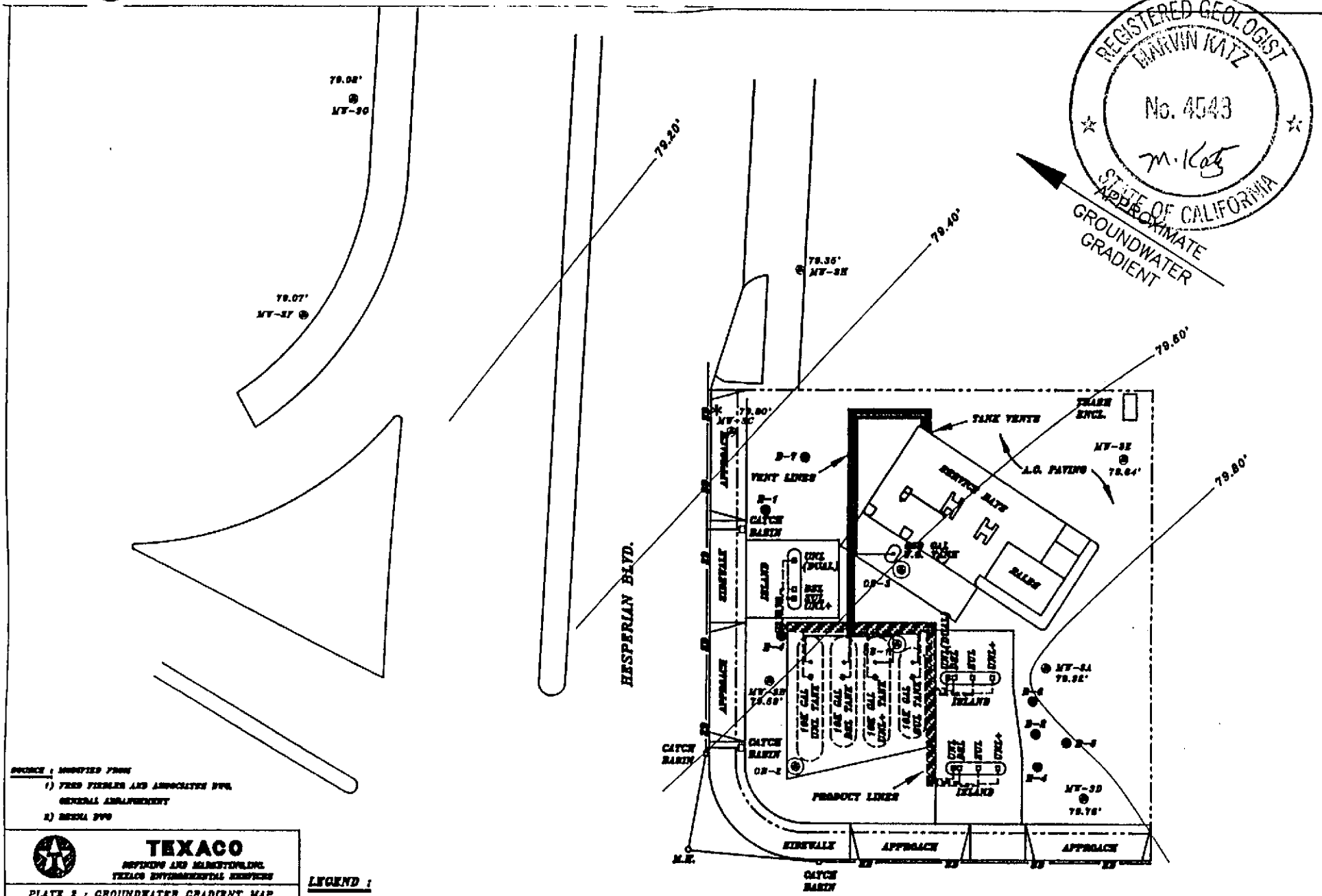
TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

23990 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA



SOURCE : MODIFIED FROM
1) TERRY PIERSON AND ASSOCIATES DWG. GENERAL ARRANGEMENT
2) BENDA DWG

TEXACO
REFINING AND MARKETING DIV.
TEXACO ENVIRONMENTAL SERVICES

PLATE 2 : GROUNDWATER GRADIENT MAP
(03/24/1994)

FORMER TEXACO SERVICE STATION
23990 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA

SCALE	1"=40'-0"	LOGGED BY	83-488-0055
DRAWN BY	AMA	DATE	06/02/1994
CHECKED BY	DH	DATE	6/17/94

LEGEND :

- MW-3A — MONITORING WELL LOCATION AND WELL NUMBER
- OB-1 — OBSERVATION WELL LOCATION AND WELL NUMBER
- B-1 — SOIL BORING LOCATION AND BORING NUMBER
- 79.08' — GROUNDWATER CONTOUR LINE / GROUNDWATER ELEVATION (ABOVE MSL)
- * — WELL NOT USED FOR CONTOURING

N

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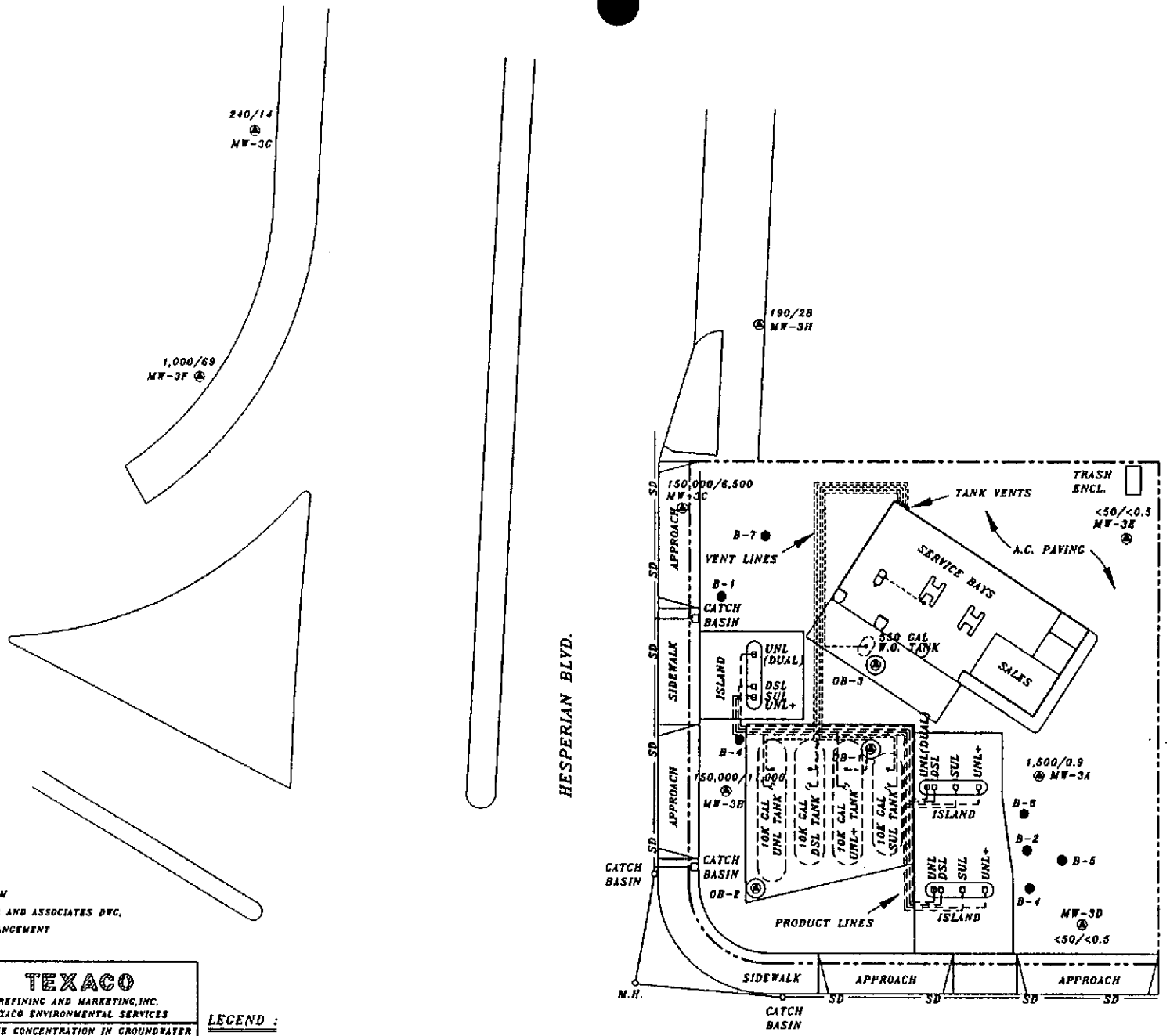


SOURCE : MODIFIED FROM
1) FRED FIEDLER AND ASSOCIATES DWG, GENERAL ARRANGEMENT
2) RESNA DWG

TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUNDWATER (05/24/1994)

FORMER TEXACO SERVICE STATION
23990 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA

SCALE	1" = 40'-0"	LOCATION #	62-488-0055
DRAWN BY	AMA	DATE	06/02/1994
CHECKED BY	RD	DATE	6/10/94
DRAWING NO.	(HAYWARD) RE-WI-HA.DWG		

LEGEND :

MW-3A	MONITORING WELL LOCATION AND WELL NUMBER
OB-1	OBSERVATION WELL LOCATION AND WELL NUMBER
B-1	SOIL BORING LOCATION AND BORING NUMBER
240/14	TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)

N

0 40
FEET

Table 1
Groundwater Elevation Data
23990 Hesperian Boulevard, Hayward, CA

Well	Date	Elevation of Wellhead*	Depth to Water	Elevation of Groundwater	Floating Product
MW-3A	11/19/90	99.89			
	5/7/92		21.71	78.18	None
	9/30/92		23.17	76.72	None
	3/25/93		19.32	80.57	None
	6/29/93		19.81	80.08	None
	9/30/93		20.97	78.90	None
	12/2/93		21.53	78.36	None
	3/24/94		19.97	79.92	None
MW-3B	2/2/89	99.05			
	5/7/92		21.05	78.00	None
	9/30/92		22.52	76.53	None
	3/25/93		18.63	80.42	Sheen
	6/29/93		19.20	79.85	Sheen
	9/30/93		20.34	78.71	Sheen
	12/2/93		Not Accessible		
	3/24/94		19.46	79.59	Sheen
MW-3C	11/19/90	99.47			
	5/7/92		21.53	77.94	None
	9/30/92		Not Accessible		
	3/25/93		19.70	79.77	Sheen
	6/29/93		19.47	80.00	Sheen
	9/30/93		20.43	79.04	Sheen
	12/2/93		20.94	78.53	Sheen
	3/24/94		19.67	79.80	Sheen
MW-3D	11/19/90	99.32			
	5/7/92		21.11	78.21	None
	9/30/92		22.55	76.77	None
	3/25/93		18.68	80.64	None
	6/29/93		19.15	80.17	None
	9/30/93		20.32	79.00	None
	12/2/93		20.88	78.44	None
	3/24/94		19.56	79.76	None
MW-3E	2/2/89	99.80			
	5/7/92		21.68	78.12	None
	9/30/92		23.15	76.65	None
	3/25/93		19.28	80.52	None
	6/29/93		Not Monitored - Inaccessible		
	9/30/93		Not Monitored - Inaccessible, car parked on well		
	12/2/93		21.49	78.31	None
	3/24/94		20.16	79.64	None

Table 1
Groundwater Elevation Data
23990 Hesperian Boulevard, Hayward, CA

Well	Date	Elevation of Wellhead*	Depth to Water	Elevation of Groundwater	Floating Product
MW-3F	11/7/91	99.07			
	5/7/92		21.40	77.67	None
	9/30/92		22.90	76.17	None
	3/25/93		18.98	80.09	None
	6/29/93		19.67	79.40	None
	9/30/93		20.83	78.24	None
	12/2/93		21.33	77.74	None
	3/24/94		20.00	79.07	None
MW-3G	2/2/89	99.68			
	5/7/92		22.03	77.65	None
	9/30/92		23.50	76.18	None
	3/25/93		19.57	80.11	None
	6/29/93		20.28	79.40	None
	9/30/93		21.42	78.26	None
	12/2/93		21.92	77.76	None
	3/24/94		20.60	79.08	None
MW-3H	11/19/90	99.03			
	5/7/92		21.08	77.95	None
	9/30/92		22.62	76.41	None
	3/25/93		18.77	80.26	None
	6/29/93		19.30	79.73	None
	9/30/93		20.48	78.55	None
	12/2/93		21.03	78.00	None
	3/24/94		19.68	79.35	None
Depth to water measured in feet below top of casing.					
*	Elevation relative to datum arbitrarily set at 100.00 feet.				

Table 2
Groundwater Analytical Data
23990 Hesperian, Hayward, CA

Well	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
MW-3A	5/7/92	760	3	<0.5	7.6	3	430#
	9/30/92	670	6	<0.5	0.67	12	NA
	3/25/93	4,200	5.5	<0.5	33	<0.5	NA
	6/29/93	1,000	0.6	<0.5	<0.5	<0.5	NA
	9/30/93	1,300	<0.5	<0.5	1.8	<0.5	NA
	12/2/93	90	<0.5	<0.5	<0.5	<0.5	NA
	3/24/94	1,500	0.9	<0.5	1.3	<0.5	NA
MW-3B	5/7/92	110,000	3,900	530	1,400	5,800	72,000@
	9/30/92	100	22	0.99	9.2	29	NA
	3/25/93		Not Sampled - Sheen Present				
	6/29/93		Not Sampled - Sheen Present				
	9/30/93		Not Sampled - Sheen Present				
	12/2/93		Not Sampled - Not Accessible				
	3/24/94	150,000	11,000	1,500	7,800	20,000	NA
MW-3C	5/7/92	57,000	3,500	810	3,500	7,200	18,000#
	9/30/92			Not Sampled			
	3/25/93		Not Sampled - Sheen Present				
	6/29/93		Not Sampled - Sheen Present				
	9/30/93		Not Sampled - Sheen Present				
	12/2/93		Not Sampled - Sheen Present				
	3/24/94	150,000	6,500	62	9,200	39,000	NA
MW-3D	5/7/92	<100	ND	<0.5	<0.5	<0.5	ND
	9/30/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/25/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/29/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	9/30/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	12/2/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/24/94	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3E	5/7/92	<100	ND	<0.5	<0.5	<0.5	ND
	9/30/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/25/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/29/93		Not Sampled - Well Inaccessible				
	9/30/93		Not Sampled - Well Inaccessible				
	12/2/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/24/94	<50	<0.5	<0.5	<0.5	<0.5	NA

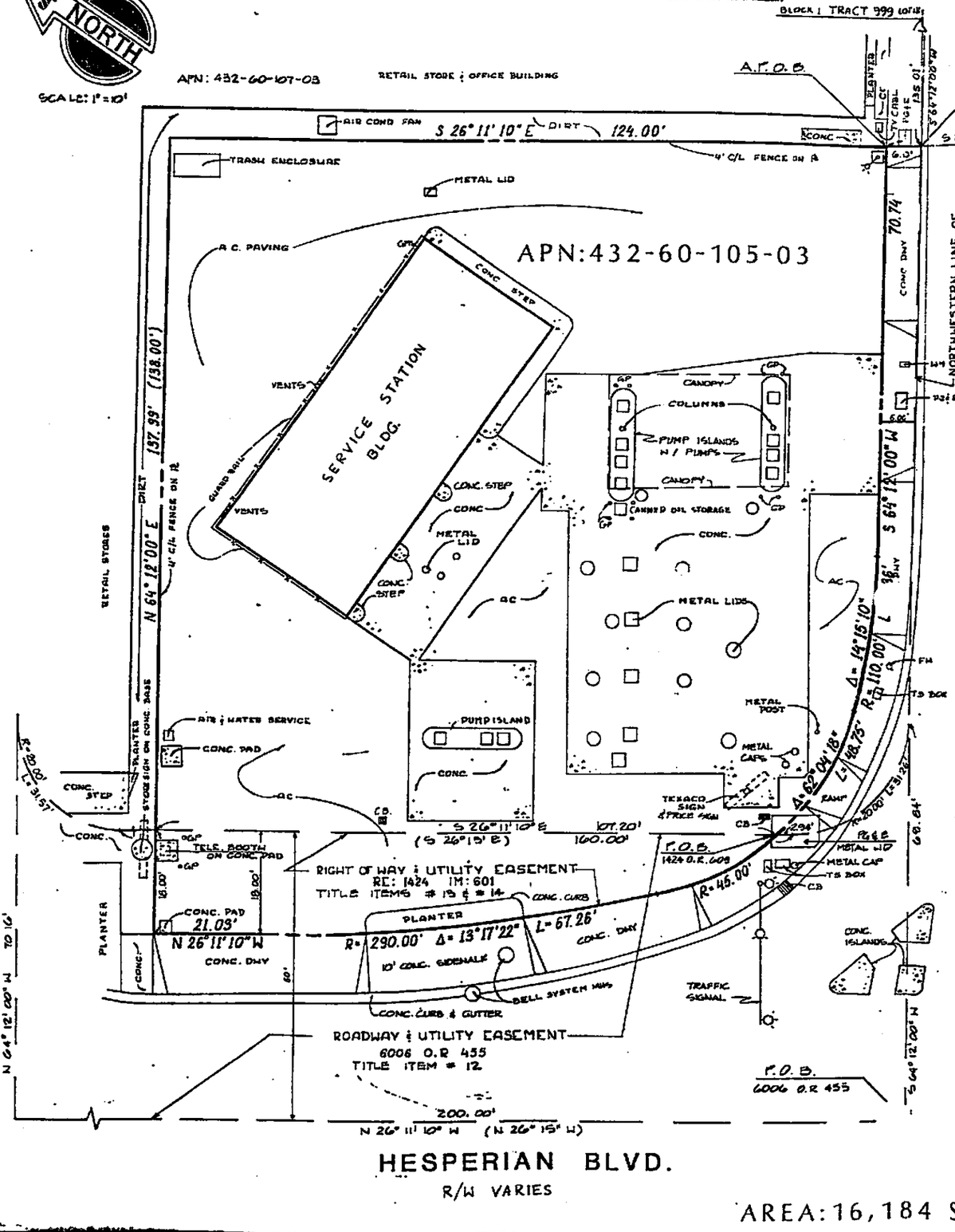
Table 2
Groundwater Analytical Data
23990 Hesperian, Hayward, CA

Well	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
MW-3F	5/7/92	1,400	12	10	2.3	3.7	430#
	9/30/92	550	11	0.58	<0.5	0.83	NA
	3/25/93	1,900	40	<0.5	1.4	1.5	NA
	6/29/93	240	6.1	<0.5	<0.5	1.2	NA
	9/30/93	740	5	<0.5	<0.5	<0.5	NA
	12/2/93	620	38	<0.5	1	<0.5	NA
	3/24/94	1,000	69	<0.5	2.5	15	NA
MW-3G	5/7/92	<100	ND	<0.5	<0.5	<0.5	ND
	9/30/92	78	7.6	<0.5	<0.5	<0.5	NA
	3/25/93	130	6	<0.5	<0.5	<0.5	NA
	6/29/93	120	<0.5	<0.5	<0.5	<0.5	NA
	9/30/93	250	<0.5	<0.5	<0.5	<0.5	NA
	12/2/93	280	14	<0.5	<0.5	<0.5	NA
	3/24/94	240	14	<0.5	<0.5	<0.5	NA
MW-3H	5/7/92	330*	ND	<0.5	<0.5	<0.5	ND
	9/30/92	380	85	<0.5	<0.5	<0.5	NA
	3/25/93	500	15	<0.5	0.7	2.3	NA
	6/29/93	110	<0.5	<0.5	<0.5	<0.5	NA
	9/30/93	430	<0.5	<0.5	<0.5	<0.5	NA
	12/2/93	260	31	<0.5	<0.5	<0.5	NA
	3/24/94	190	28	<0.5	<0.5	<0.5	NA
	MCLs:	-	1	-	680	1,750	-
	DWAL:	-	-	100	-	-	-

Results in parts per billion (ppb).

NA	Not Analyzed
ND	Nondetectable
TPHg	Total petroleum hydrocarbons as gasoline analyzed by EPA method 5030/602.
TPHd	Total petroleum hydrocarbons as diesel analyzed by EPA method 5030/602.
BTEX	Analyzed by EPA method 5030/602.
<	Less than the detection limit for the specified method of analysis.
MCLs	Adopted Maximum Contaminant Levels in Drinking Water, DHS (October 1990)
DWAL	Recommended Drinking Water Action Level, DHS (October 1990)
*	The laboratory reported that TPHg concentration is the result of several large peaks on gas chromatograph, or a chromatograph pattern uncommon to gasoline.
#	The positive result for TPHd appears to be a lighter hydrocarbon than diesel.
@	The positive result for TPHd appears to be a combination of lighter hydrocarbons and diesel rather than diesel.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES, EXCEPT AS SHOWN ON THIS SURVEY. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.



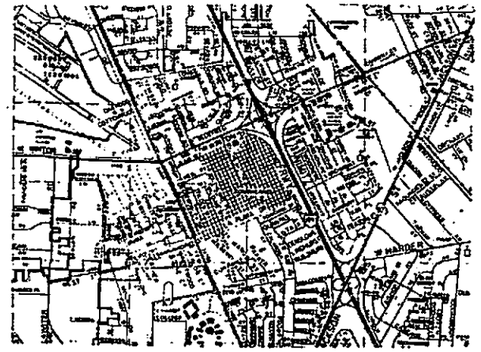
AREA: 16,184 SQ. FT. OR 0.3715 ACRES

MISCELLANEOUS ABBREVIATIONS

AC	ASPHALT CONCRETE
CB	CURB FACE
℄	CENTERLINE
DWY	DRIVEWAY
EM	ELECTRICAL METER
E/P	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELLED WAY
FH	FIRE HYDRANT
GM	GAS METER
GP	GUARD POST
GV	GAS VALVE
JP	JOINT POLE
℄	PROPERTY LINE
PP	POWER POLE
SDMH	STORM DRAIN MANHOLE
SSCO	SANITARY SEWER CLEAN-OUT
SSMH	SANITARY SEWER MANHOLE
T/C	TOP OF CURB
TP	TELEPHONE POLE
WM	WATER METER
WV	WATER VALVE

UNDERGROUND UTILITIES

CTV	CABLE TELEVISION
PB	PACIFIC BELL
PG&E	PACIFIC GAS & ELECTRIC
SLS	STREET LIGHT
TSCB	TRAFFIC SIGNAL CONTROL
TSM	TRAFFIC SIGNAL
YL	YARD LIGHT
PIV	POST-INDICATOR VALVE
FDC	FIRE DEPARTMENT CONNECTION
DCV	DETECTOR CHECK VALVE



VICINITY MAP

LEGAL DESCRIPTION

Real Property in the City of Hayward, County of Alameda, State of California, described as follows:

Commencing at a point on the northwestern line of West Winton Avenue, formerly Winton Avenue, 80 feet in width, distant thereon south 64° 12' west 135.01 feet from the intersection thereof with the southwestern line of Lot 18 in Block 1, as said Avenue, Lot and Block are shown on that certain map entitled "Tract 999", filed July 14, 1950 in Book 30 of Maps, at Page 88, in the Office of the County Recorder of Alameda County; and running thence north 25° 11' 10" west 5.00 feet to a line drawn parallel with and distant northeasterly at right angles, 5.00 feet from said northwestern line of West Winton Avenue to the actual point of beginning of the parcel herein described; thence along said parallel line so drawn, south 64° 12' west 70.74 feet; thence along the arc of a curve to the right, from a tangent bearing south 64° 12' west, with a radius of 118.00 feet, through an angle of 14° 15' 10", for a distance of 27.38 feet to a point of compound curve; thence westerly and northwesterly along the arc of said compound curve to the right, with a radius of 45.00 feet, through an angle of 62° 04' 18". for a distance of 48.75 feet to a point of compound curvature; thence along the arc of the last named compound curve to the right, with a radius of 290.00 feet, through an angle of 13° 17' 22", for a distance of 67.26 feet; thence north 25° 11' 10" west 21.03 feet; thence north 64° 12' east 138.00 feet; thence south 25° 11' 10" east 124.00 feet to the actual point of beginning.

TITLE ITEMS PER FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT FOR TITLE INSURANCE NO. 531183, DATED MAY 7, 1988

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.

3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water.

6. Any right, title, interest, estate or easement in land beyond the lines of the area specifically described or referred to in Schedule C, or in abutting streets, roads, avenues, alleys, lanes, ways or waterways, but nothing in this paragraph shall modify or limit the extent to which the ordinary right of an abutting owner for access to a physically open street or highway is insured by this policy.

7. Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions or location of any improvement now or hereafter erected on the land, or prohibiting a separation in ownership or a reduction in the dimensions or area of the land, or the effect of any violation of any such law, ordinance or governmental regulation.

8. Rights of eminent domain or governmental rights of police power unless notice of the exercise of such rights appears in the public records.

9. Defects, liens, encumbrances, adverse claims, or other matters (a) created, suffered, assumed or agreed to by the insured claimant; (b) not known to the public records and not otherwise excluded from coverage but known to the insured claimant either at Date of Policy or at the date such claimant acquired an estate or interest insured by this policy or acquired the insured mortgage and not disclosed in writing by the insured claimant to the Company prior to the date such insured claimant became an insured hereunder; (c) resulting in no loss or damage to the insured claimant; (d) attaching or created subsequent to Date of Policy; or (e) resulting in loss or damage which would not have been sustained if the insured claimant had been a purchaser or encumbrancer for value without knowledge.

10. PROPERTY TAXES, including any assessments collected with taxes, for the Fiscal year 1988-1989, a lien not yet due or payable.

11. THE LIEN of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code

12. EASEMENT for the purposes stated herein and incidents thereto
    Purpose : Roadway & utilities
    Granted to : Harry M. Pforsich, et al
    Recorded : January 31, 1950, Book 6006, Page 455, Official Records.
    Affects : The northwesterly corner of the premises

13. Right of Way-Contract
    By and Between : City of Hayward and William M. Manning, et ux
    Disclosed : Resolution 65-410
    Recorded : January 29, 1965, Reel 1424, Image 601, Official Records
    Series No. : AX-13026

14. EASEMENT for the purposes stated herein and incidents thereto
    Purpose : Existing utilities
    Reserved by : City of Hayward
    Recorded : January 29, 1965, Reel 1424, Image 601, Instrument No. AX-13026, Official Records.
    Affects : A westerly portion of the premises

15. Any and all subsisting leases.

16. Matters which may be disclosed by an inspection or by a survey of said land that is satisfactory to this Company, or by inquiry of the parties in possession thereof.

BASIS OF BEARINGS

THE NORTHWEST LINE OF WINTON AVENUE, AS SHOWN ON TRACT 999 MAP, FILED IN BOOK 30 OF MAPS, PAGE 88, TAKEN AS BORER 64°12'00" EAST, WAS USED AS BASIS OF BEARINGS FOR THIS SURVEY.

REFERENCES
1) TRACT 999 (30 M 88)
2) TOPOGRAPHIC SURVEY, SURVEY NO. 3515, DONE BY MARTIN & BISSELL CIVIL ENGINEERS

NOTE:
( ) INDICATES DATA PER DEED.

ZONING
CN - NEIGHBORHOOD COMMERCIAL

SETBACKS
FRONT - 10'
SIDE - 10'
REAR - NONE

FLOOD ZONE - C

SURVEYOR'S STATEMENT

TO TEXACO REFINING AND MARKETING, INC. AND FIRST AMERICAN TITLE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND ACSM IN 1986; AND MEET THE ACCURACY REQUIREMENTS OF A CLASS "A" SURVEY AS DEFINED THEREIN.

DATE: 6-10-1988

DIRK G. SLOOTEN, L.S. 5342

LS 5342
Exp Dec 31, 1991
STATE OF CALIFORNIA

NO.	BY	DATE	REVISIONS

DATE: JUNE 1988
SCALE: 1" = 20'
DESIGNED: PZ
DRAWN: EXZ
CHECKED: PZ
PROJ. ENGR.: DGS
PROJ. MGR.: DGS

Majors Engineering, Inc.
100 Park Place, Suite 220
San Ramon, California 94583
(415) 820-2423

ALTA/ACSM LAND TITLE SURVEY
FOR: TEXACO REFINING AND MARKETING INC.
LOCATION # 62486002055
23790 HESPERIAN BOULEVARD
COUNTY: ALAMEDA CALIFORNIA
CITY: HAYWARD

SHEET 1 OF 1 SHEETS
JOB NO. 3179

RECEIVED BY
HAZARDOUS MATERIALS OFFICE

SEP 13 1994

HAYWARD FIRE DEPARTMENT

Texaco Refining
and Marketing Inc

108 Cutting Boulevard
Richmond CA 94804

August 30, 1994

ENV - STUDIES, SURVEYS, & REPORTS
23990 Hesperian Boulevard
Hayward, CA

Mr. Hugh Murphy
City of Hayward Hazmat Office
25151 Clawiter Road
Hayward, CA 94545-2731

Dear Mr. Murphy:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on June 23, 1994, at the site referenced above (see Plate 1, Site Vicinity Map). Based on groundwater level measurements the areal hydraulic gradient was estimated to be west. The gradient map has been reviewed by a registered professional (see Plate 2, Groundwater Gradient Map). TPHg and benzene concentrations are shown on Plate 3. Tables 1 and 2 list historical groundwater monitoring data and analytical results, respectively.

The certified analytical report, chain-of-custody, field data sheets, and bill of lading are in the Appendix. Blaine Tech Services' Field Procedures and Protocols Summary may be found in Texaco's first quarter, 1994 monitoring report.

If you have any questions or comments regarding this site, please call the Texaco Environmental Services' site Project Coordinator, Ms. Karen Petryna at (510) 236-9139.

Best Regards,

Rebecca B. Digerness
Groundwater Monitoring Coordinator

Karen E. Petryna
Engineer
Texaco Environmental Services

RBD:hs
P:\GWMP\QMR\23990H\QMR.LET

Enclosures

Building on a Tradition of Quality

CC: Mr. Paul Smith
Alameda County Environmental Health Department
80 Swan Way, Room 200
Oakland, CA 94621

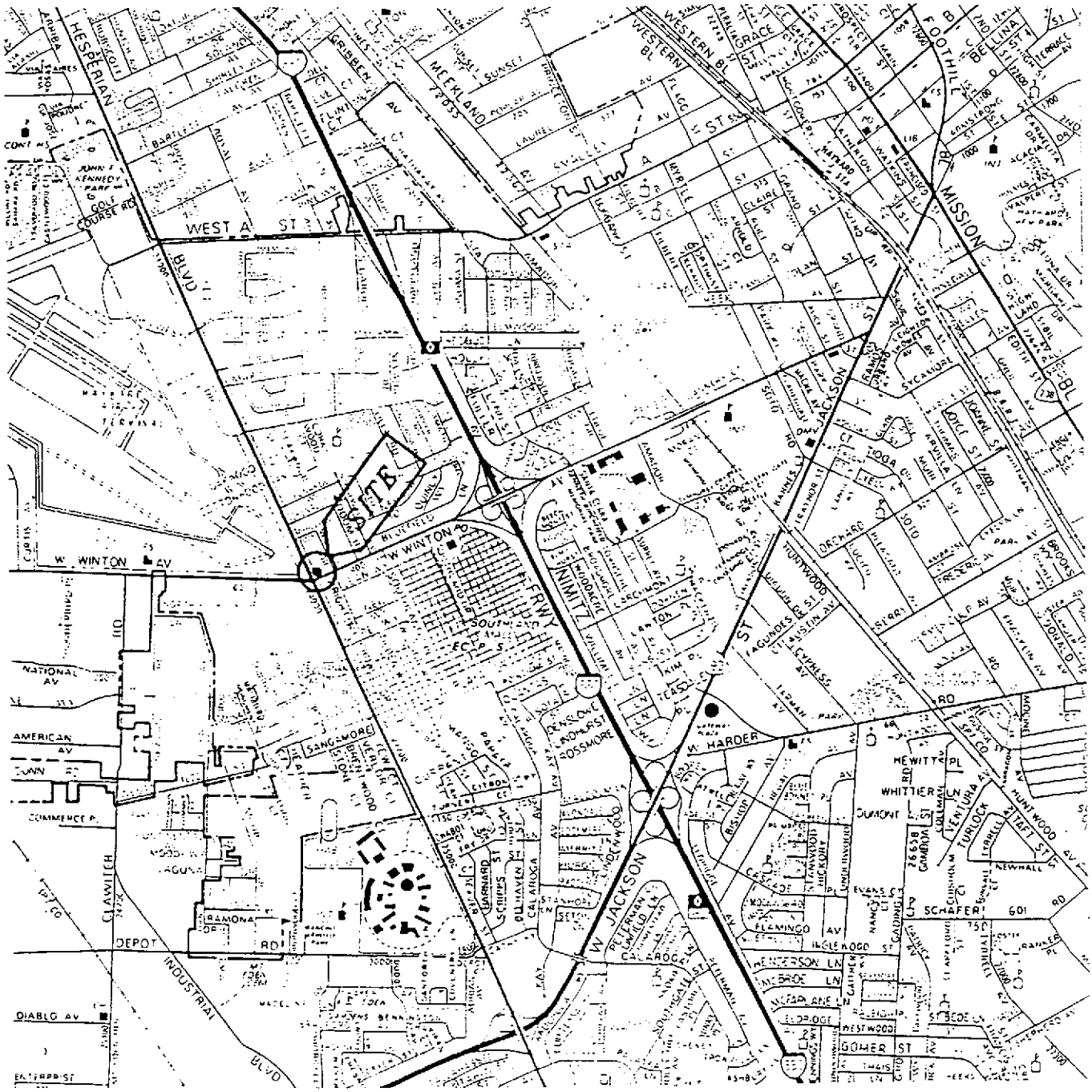
Mr. Edy So
CRWQCB - San Francisco Bay Region
2101 Webster St., Suite 500
Oakland, CA 94612

Mr. Michael Faber
Exxon Company, U. S. A.
2300 Clayton Rd., Suite 1250
Concord, CA 94520

RAOFile-UCPFile (w/enclosures) RACoughlin-RRZielinski (w/o enclosures)

PR: KEP

Groundwater Monitoring and Sampling
Second Quarter, 1994
at the
Former Texaco Station
23990 Hesperian Boulevard
Hayward, CA



SOURCE:
1993 THE THOMAS GUIDE
ALAMEDA COUNTY, PAGE 58 (B4)

N

0 1/4 1/2 3/4 1
MILE

1" = 2200'

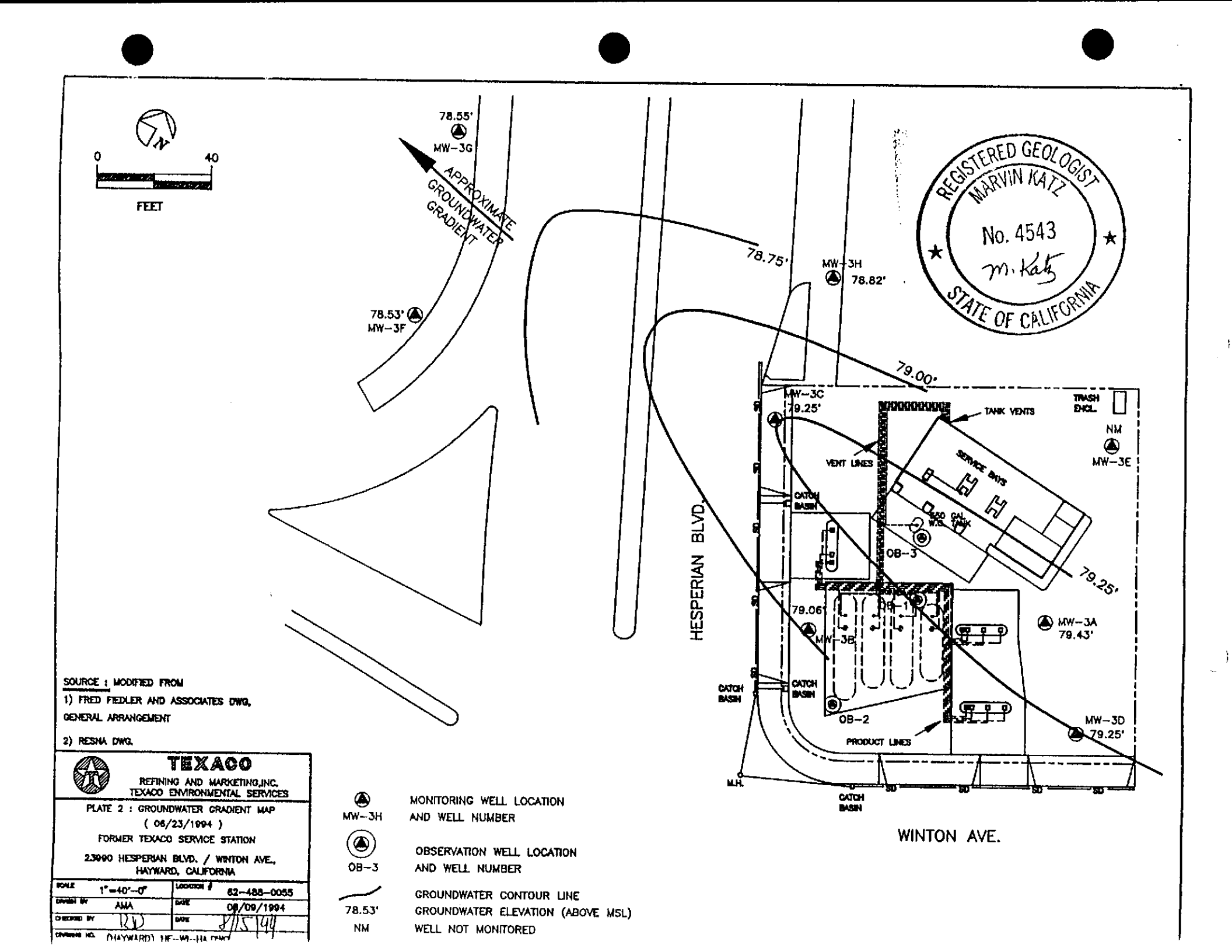
TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

23990 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA



SOURCE : MODIFIED FROM

1) FRED FIEDLER AND ASSOCIATES DWG, GENERAL ARRANGEMENT

2) RESNA DWG.

TEXACO

REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 2 : GROUNDWATER GRADIENT MAP
(06/23/1994)
FORMER TEXACO SERVICE STATION
23990 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA

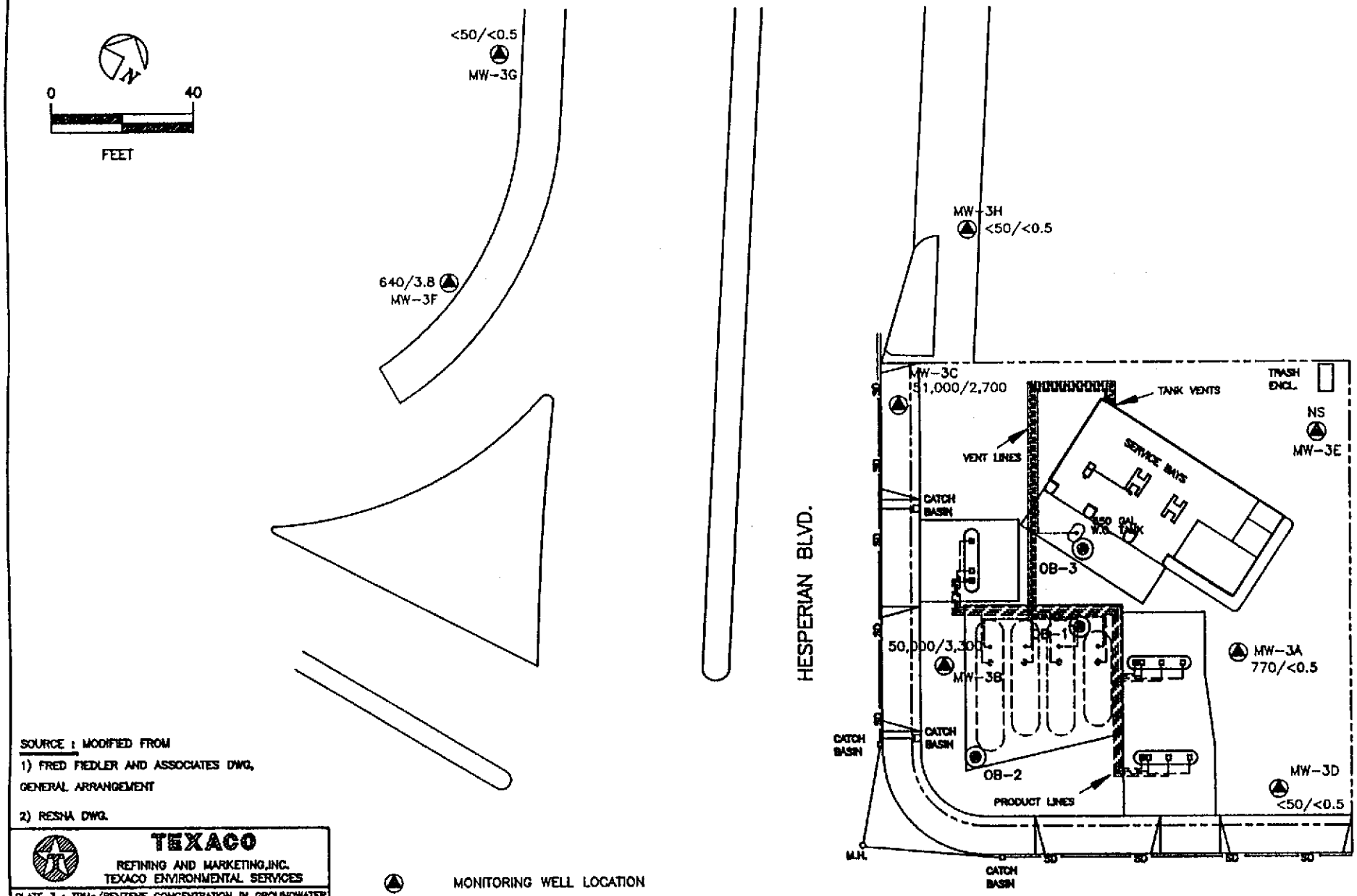
SCALE	1"=40'-0"	LOCATION #	62-488-0055
DRAWN BY	AMA	DATE	08/09/1994
CHECKED BY	RD	DATE	8/15/94
DRAWING NO.	(HAYWARD) HF-WI-HA.DWG		

MW-3H — MONITORING WELL LOCATION AND WELL NUMBER

OB-3 — OBSERVATION WELL LOCATION AND WELL NUMBER

78.53' — GROUNDWATER CONTOUR LINE
GROUNDWATER ELEVATION (ABOVE MSL)

NM — WELL NOT MONITORED



SOURCE : MODIFIED FROM

1) FRED FIEDLER AND ASSOCIATES DWG, GENERAL ARRANGEMENT

2) RESNA DWG.

TEXACO

REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUNDWATER
(06/23/1994)

FORMER TEXACO SERVICE STATION

23090 HESPERIAN BLVD. / WINTON AVE.,
HAYWARD, CALIFORNIA

SCALE	1"=40'-0"	LOCATION #	62-488-0055
DRAWN BY	AMA	DATE	06/09/1994
CHECKED BY	RD	DATE	8/15/94

MW-3H — MONITORING WELL LOCATION AND WELL NUMBER

OB-3 — OBSERVATION WELL LOCATION AND WELL NUMBER

<50/<0.5 — TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)

NS — WELL NOT SAMPLED

Table 1
Groundwater Elevation Data
23990 Hesperian Boulevard, Hayward, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)*	Depth to Water (feet, TOC)	Elevation of Groundwater (feet)	Floating Product
MW-3A	11/19/90	99.89			
	5/7/92		21.71	78.18	None
	9/30/92		23.17	76.72	None
	3/25/93		19.32	80.57	None
	6/29/93		19.81	80.08	None
	9/30/93		20.97	78.90	None
	12/2/93		21.53	78.36	None
	3/24/94		19.97	79.92	None
	6/23/94		20.46	79.43	None
MW-3B	2/2/89	99.05			
	5/7/92		21.05	78.00	None
	9/30/92		22.52	76.53	None
	3/25/93		18.63	80.42	Sheen
	6/29/93		19.20	79.85	Sheen
	9/30/93		20.34	78.71	Sheen
	12/2/93		Not Accessible		
	3/24/94		19.46	79.59	Sheen
	6/23/94		19.99	79.06	None
MW-3C	11/19/90	99.47			
	5/7/92		21.53	77.94	None
	9/30/92		Not Accessible		
	3/25/93		19.70	79.77	Sheen
	6/29/93		19.47	80.00	Sheen
	9/30/93		20.43	79.04	Sheen
	12/2/93		20.94	78.53	Sheen
	3/24/94		19.67	79.80	Sheen
	6/23/94		20.22	79.25	None
MW-3D	11/19/90	99.32			
	5/7/92		21.11	78.21	None
	9/30/92		22.55	76.77	None
	3/25/93		18.68	80.64	None
	6/29/93		19.15	80.17	None
	9/30/93		20.32	79.00	None
	12/2/93		20.88	78.44	None
	3/24/94		19.56	79.76	None
	6/23/94		20.07	79.25	None

Table 1
Groundwater Elevation Data
23990 Hesperian Boulevard, Hayward, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)*	Depth to Water (feet, TOC)	Elevation of Groundwater (feet)	Floating Product
MW-3E	2/2/89	99.80			
	5/7/92		21.68	78.12	None
	9/30/92		23.15	76.65	None
	3/25/93		19.28	80.52	None
	6/29/93		Not Monitored - Inaccessible		
	9/30/93		Not Monitored - Inaccessible, car parked on well		
	12/2/93		21.49	78.31	None
	3/24/94		20.16	79.64	None
	6/23/94		Not Monitored - Inaccessible, car parked on well		
MW-3F	11/7/91	99.07			
	5/7/92		21.40	77.67	None
	9/30/92		22.90	76.17	None
	3/25/93		18.98	80.09	None
	6/29/93		19.67	79.40	None
	9/30/93		20.83	78.24	None
	12/2/93		21.33	77.74	None
	3/24/94		20.00	79.07	None
	6/23/94		20.54	78.53	None
MW-3G	2/2/89	99.68			
	5/7/92		22.03	77.65	None
	9/30/92		23.50	76.18	None
	3/25/93		19.57	80.11	None
	6/29/93		20.28	79.40	None
	9/30/93		21.42	78.26	None
	12/2/93		21.92	77.76	None
	3/24/94		20.60	79.08	None
	6/23/94		21.13	78.55	None
MW-3H	11/19/90	99.03			
	5/7/92		21.08	77.95	None
	9/30/92		22.62	76.41	None
	3/25/93		18.77	80.26	None
	6/29/93		19.30	79.73	None
	9/30/93		20.48	78.55	None
	12/2/93		21.03	78.00	None
	3/24/94		19.68	79.35	None
	6/23/94		20.21	78.82	None
TOC = Top Of Casing					
* = Elevation relative to datum arbitrarily set at 100.00 feet.					

Table 2
Groundwater Analytical Data
23990 Hesperian, Hayward, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
MW-3A	5/7/92	760	3	<0.5	7.6	3
	9/30/92	670	6	<0.5	0.67	12
	3/25/93	4,200	5.5	<0.5	33	<0.5
	6/29/93	1,000	0.6	<0.5	<0.5	<0.5
	9/30/93	1,300	<0.5	<0.5	1.8	<0.5
	12/2/93	90	<0.5	<0.5	<0.5	<0.5
	3/24/94	1,500	0.9	<0.5	1.3	<0.5
	6/23/94	770	<0.5	<0.5	<0.5	<0.5
MW-3B	5/7/92	110,000	3,900	530	1,400	5,800
	9/30/92	100	22	0.99	9.2	29
	3/25/93		Not Sampled - Sheen Present			
	6/29/93		Not Sampled - Sheen Present			
	9/30/93		Not Sampled - Sheen Present			
	12/2/93		Not Sampled - Not Accessible			
	3/24/94	150,000	11,000	1,500	7,800	20,000
	6/23/94	50,000	3,300	66	3,500	5,000
MW-3C	5/7/92	57,000	3,500	810	3,500	7,200
	9/30/92			Not Sampled		
	3/25/93		Not Sampled - Sheen Present			
	6/29/93		Not Sampled - Sheen Present			
	9/30/93		Not Sampled - Sheen Present			
	12/2/93		Not Sampled - Sheen Present			
	3/24/94	150,000	6,500	62	9,200	39,000
	6/23/94	51,000	2,700	83	3,100	4,300
MW-3D	5/7/92	<100	ND	<0.5	<0.5	<0.5
	9/30/92	<50	<0.5	<0.5	<0.5	<0.5
	3/25/93	<50	<0.5	<0.5	<0.5	<0.5
	6/29/93	<50	<0.5	<0.5	<0.5	<0.5
	9/30/93	<50	<0.5	<0.5	<0.5	<0.5
	12/2/93	<50	<0.5	<0.5	<0.5	<0.5
	3/24/94	<50	<0.5	<0.5	<0.5	<0.5
	6/23/94	<50	<0.5	<0.5	<0.5	<0.5
MW-3E	5/7/92	<100	ND	<0.5	<0.5	<0.5
	9/30/92	<50	<0.5	<0.5	<0.5	<0.5
	3/25/93	<50	<0.5	<0.5	<0.5	<0.5
	6/29/93		Not Sampled - Well Inaccessible			
	9/30/93		Not Sampled - Well Inaccessible			
	12/2/93	<50	<0.5	<0.5	<0.5	<0.5
	3/24/94	<50	<0.5	<0.5	<0.5	<0.5
	6/23/94		Not Sampled - Well Inaccessible			

Table 2
Groundwater Analytical Data
23990 Hesperian, Hayward, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
MW-3F	5/7/92	1,400	12	10	2.3	3.7
	9/30/92	550	11	0.58	<0.5	0.83
	3/25/93	1,900	40	<0.5	1.4	1.5
	6/29/93	240	6.1	<0.5	<0.5	1.2
	9/30/93	740	5	<0.5	<0.5	<0.5
	12/2/93	620	38	<0.5	1	<0.5
	3/24/94	1,000	69	<0.5	2.5	15
	6/23/94	640	3.8	<0.5	<0.5	<0.5
MW-3G	5/7/92	<100	ND	<0.5	<0.5	<0.5
	9/30/92	78	7.6	<0.5	<0.5	<0.5
	3/25/93	130	6	<0.5	<0.5	<0.5
	6/29/93	120	<0.5	<0.5	<0.5	<0.5
	9/30/93	250	<0.5	<0.5	<0.5	<0.5
	12/2/93	280	14	<0.5	<0.5	<0.5
	3/24/94	240	14	<0.5	<0.5	<0.5
	6/23/94	<50	<0.5	<0.5	<0.5	<0.5
MW-3H	5/7/92	330*	ND	<0.5	<0.5	<0.5
	9/30/92	380	85	<0.5	<0.5	<0.5
	3/25/93	500	15	<0.5	0.7	2.3
	6/29/93	110	<0.5	<0.5	<0.5	<0.5
	9/30/93	430	<0.5	<0.5	<0.5	<0.5
	12/2/93	260	31	<0.5	<0.5	<0.5
	3/24/94	190	28	<0.5	<0.5	<0.5
	6/23/94	<50	<0.5	<0.5	<0.5	<0.5

ppb	parts per billion
NA	Not Analyzed
ND	Non Detectable
TPHg	Total petroleum hydrocarbons as gasoline analyzed by EPA method 5030/602.
TPHd	Total petroleum hydrocarbons as diesel analyzed by EPA method 5030/602.
BTEX	Analyzed by EPA method 5030/602.
<	Less than the detection limit for the specified method of analysis.
*	The laboratory reported that TPHg concentration is the result of several large peaks on gas chromatograph, or a chromatograph pattern uncommon to gasoline.

B C Analytical

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ANALYTICAL REPORT

LOG NO: G94-06-354

Received: 24 JUN 94

Mailed: JUL 11

Purchase Order: 94-1446346+4370

Requisition: 624880055
Project: FKEP1010L

Ms. Rebecca Digerness
Texaco Environmental Services
108 Cutting Boulevard
Richmond, CA 94804

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020)							
		Date Analyzed Date	Dilution Factor Times 1	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L	
RDL			1	50	0.5	0.5	0.5	0.5	
1*MW-3A	06/23/94	07/07/94	1	770	<0.5	<0.5	<0.5	<0.5	
2*MW-3B	06/23/94	07/07/94	50	50000	3300	66	3500	5000	
3*MW-3C	06/23/94	07/07/94	20	51000	2700	83	3100	4300	
4*ME-3D	06/23/94	07/07/94	1	<50	<0.5	<0.5	<0.5	<0.5	
5*MW-3F	06/23/94	07/07/94	1	640	3.8	<0.5	<0.5	<0.5	
6*MW-3G	06/23/94	07/07/94	1	<50	<0.5	<0.5	<0.5	<0.5	
7*MW-3H	06/23/94	07/07/94	1	<50	<0.5	<0.5	<0.5	<0.5	
8*EB	06/23/94	07/07/94	1	<50	<0.5	<0.5	<0.5	<0.5	
9*TB	06/23/94	07/07/94	1	<50	<0.5	<0.5	<0.5	<0.5	

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