

AUG 28 2001

GETTLER-RYAN INC.

1364 N. McDowell Blvd., Suite B2, Petaluma, CA 94954
Phone (707) 789-3255, Fax (707) 789-3218

TRANSMITTAL

TO: Mr. Don Hwang
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502

DATE: August 24, 2001
PROJECT NO. 140158.04
SUBJECT: Tosco Station No. 4625
Closure Request

From: Jed Douglas

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	8/21/01	Site Information Summary and Request for Closure

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COMMENTS:

Signed: 

COPIES TO: Mr. David DeWitt – Tosco Marketing Company



GETTLER-RYAN INC.

August 21, 2001

Mr. Don Hwang
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502

AUG 28 2001

**Subject: Site Information Summary and Request For Closure
for Tosco (76) Service Station No. 4625,
3070 Fruitvale Avenue, Oakland, California.**

Dear Mr. Hwang:

At the request of Tosco Marketing Company (Tosco) Gettler-Ryan Inc. (GR) has prepared a site information summary for the subject site, and based on the findings requests case closure status. The site is currently an active service station located on the southeast corner of Fruitvale Avenue and School Street in Oakland, California (Figure 1). Current site facilities include a station building with two automotive service bays equipped with hydraulic lifts, four dispenser islands and two canopies, two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs), and one above ground waste-oil tank. Four groundwater monitoring wells exist at the site. Locations of the pertinent site features are shown on Figure 2.

In April and May of 1998, two gasoline USTs, product piping and dispensers were removed and replaced. Four soil samples were collected from the sidewalls of the former gasoline UST pit at a depth of approximately 8.5 feet bgs. Concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) in the soil samples ranged from 44 to 1,700 parts per million (ppm), benzene concentrations ranged from 0.16 to 17 ppm, and methyl tertiary butyl ether (MtBE) concentrations ranged from not detected (ND) to 16 ppm. Eight soil samples were collected from the beneath the former product dispensers at a depth of approximately 4 feet bgs. Concentrations of TPHg in the soil samples ranged from ND to 660 ppm, benzene concentrations ranged from ND to 5.1 ppm, and MtBE concentrations ranged from ND to 150 ppm.

Also in May of 1998, overexcavation was performed around the northeastern dispenser island. Approximately 11 cubic yards of soil was removed and one additional confirmation sample was collected. The confirmation sample was reported to contain TPHg (910 ppm), benzene (3.8 ppm) and MtBE (69 ppm).

A 550-gallon waste oil UST and associated piping was also removed in May 1998. One soil sample was collected from beneath the former waste oil UST at a depth of approximately 8.5 feet bgs. TPHg were detected in the soil sample at 820 ppm, benzene was detected at 2.7 ppm, Total Petroleum Hydrocarbons as diesel (TPHd) were detected at 200 ppm, Total Oil and Grease (TOG) was detected at 56 ppm, elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals were also reported. One soil sample was also collected from beneath the piping at a depth of approximately 2 feet bgs. The sample was reported as all ND except for TPHd at 1.5 ppm, and background concentrations of metals.

A total of approximately 1,166 tons of impacted soil was overexcavated and transported from the site to the Forward Inc. landfill in Manteca, California. Additionally, 40,000 gallons of groundwater was pumped from the UST pit and transported to the Tosco refinery in Rodeo, California for disposal. A conductor casing was installed in the backfill during installation of the replacement gasoline USTs. The waste oil tank was replaced with an above ground tank.

On November 30, 1999, groundwater was measured in the UST pit conductor casing at approximately 10 feet bgs. A grab groundwater sample was collected from the UST conductor casing, and was reported to contain a concentration of MtBE at 740 parts per billion (ppb) by EPA Method 8260. TPHg and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reported as ND.

On April 25 and 26, 2000, GR installed four groundwater monitoring wells (MW-1 through MW-4) to a depth of 25 feet bgs. MtBE was not detected in any of the soil samples analyzed from the four well borings. TPHg and BTEX were not detected in any of the soil samples analyzed from well borings MW-1 or MW-4. However, TPHg and BTEX were detected in shallow soil samples collected from well borings MW-2 and MW-3 at the following concentrations: MW-2 (10) contained TPHg at 1,600 ppm and benzene at 5.1 ppm; MW-3 (10) contained TPHg at 79 ppm and benzene at 0.031 ppm. TPHg and benzene were not detected in the 25 foot samples collected from well borings MW-2 or MW-3. TPHd was detected in each of the soil samples analyzed for this constituent at the following concentrations: MW-3 (10) at 8.4 ppm; MW-3 (25) at 1.3 ppm; and MW-4 (10) at 1.3 ppm. MW-3 (10) also contained detectable concentrations of TRPH at 140 ppm and total chromium at 48 ppm.

Initial groundwater samples collected from the wells in May of 2000 revealed that MtBE was not detected in groundwater from wells MW-2 through MW-4. TPHg and BTEX were not detected in wells MW-1, MW-3 or MW-4. However, in well MW-2, TPHg and BTEX were detected at concentrations of 2,400 ppb and 53 ppb, respectively. MtBE was detected in well MW-1 at a concentration of 14 ppb by EPA Method 8260 and TPHd was detected in well MW-3 at a concentration of 93 ppb. During the May 11, 2001, quarterly sampling event, TPHg, TPHd, benzene and MtBE were reported as ND in all wells, except for 1.99 ppb of benzene in well MW-2 and 16.3 MtBE in well MW-1.

In July, 2000, GR contacted the Alameda County Water Resources Department and requested a ½ mile radius well search be performed in the site vicinity. The well search did not identify any municipal, industrial or domestic water wells in the search area. One irrigation well was identified during the search, located approximately 1,700 feet south-southeast of the site. It is unknown whether the irrigation well is currently active. Attempts to contact the current residents of this property regarding the status of the well have been unsuccessful.

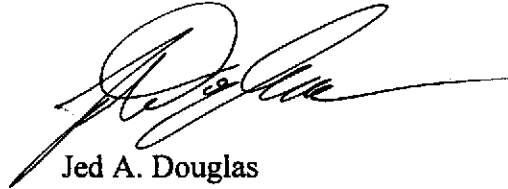
GR has observed the following conditions at the site:

- Dissolved hydrocarbons are currently at or near non detectable concentrations in all wells.
- Residual concentrations of dissolved hydrocarbons are stable or show a decreasing trend.
- Although groundwater flow direction has varied, the predominant flow trend is toward the southwest, as shown on Figure 3.
- Impacted groundwater is delineated in all directions, including downgradient.
- Based on the observed groundwater flow toward the southwest, and a 2,000 foot radius well search, there are no sensitive receptors downgradient of the site, except for the surface waters of Sausal Creek, located approximately 500 feet west of the site.
- Approximately 1,166 tons of hydrocarbon impacted soil was overexcavated and disposed offsite during UST replacement activities in 1998.
- Impacted soil is delineated both laterally and vertically.
- Hydrocarbons detected in soil samples during monitoring well installation are isolated in the capillary fringe and are subject to ongoing natural attenuation.
- It is GR's understanding that as of January 1, 2001, Tosco no longer distributes fuel containing MtBE to service stations in northern California.

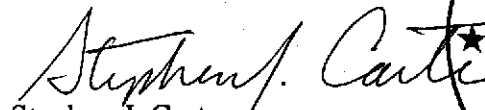
Based on the data collected during previous investigations and ongoing quarterly monitoring at the site, the hydrocarbon impact to soil and groundwater has been delineated. GR is of the opinion that no further investigation of hydrocarbon impact to the site is warranted. Therefore, GR, on behalf of Tosco, requests case closure for the site.

GR has prepared a site information summary (SIS) which contains current and historical information about the site. The SIS with its figures and tables is attached at the end of this report. If you have any questions or comments regarding the contents of this report or our request for case closure, please contact us at (707) 789-3255.

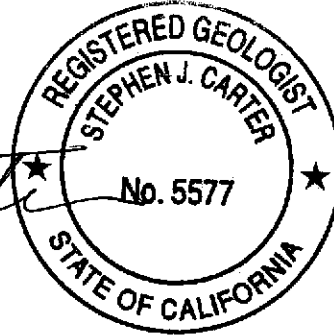
Sincerely,
Gettler-Ryan Inc.



Jed A. Douglas
Project Geologist

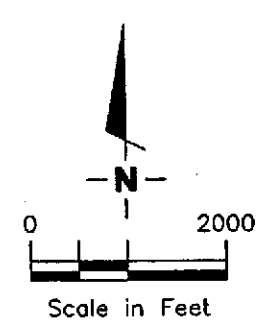
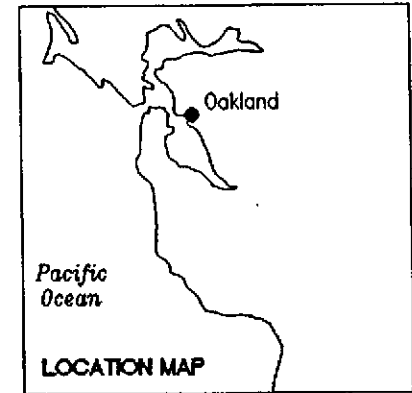
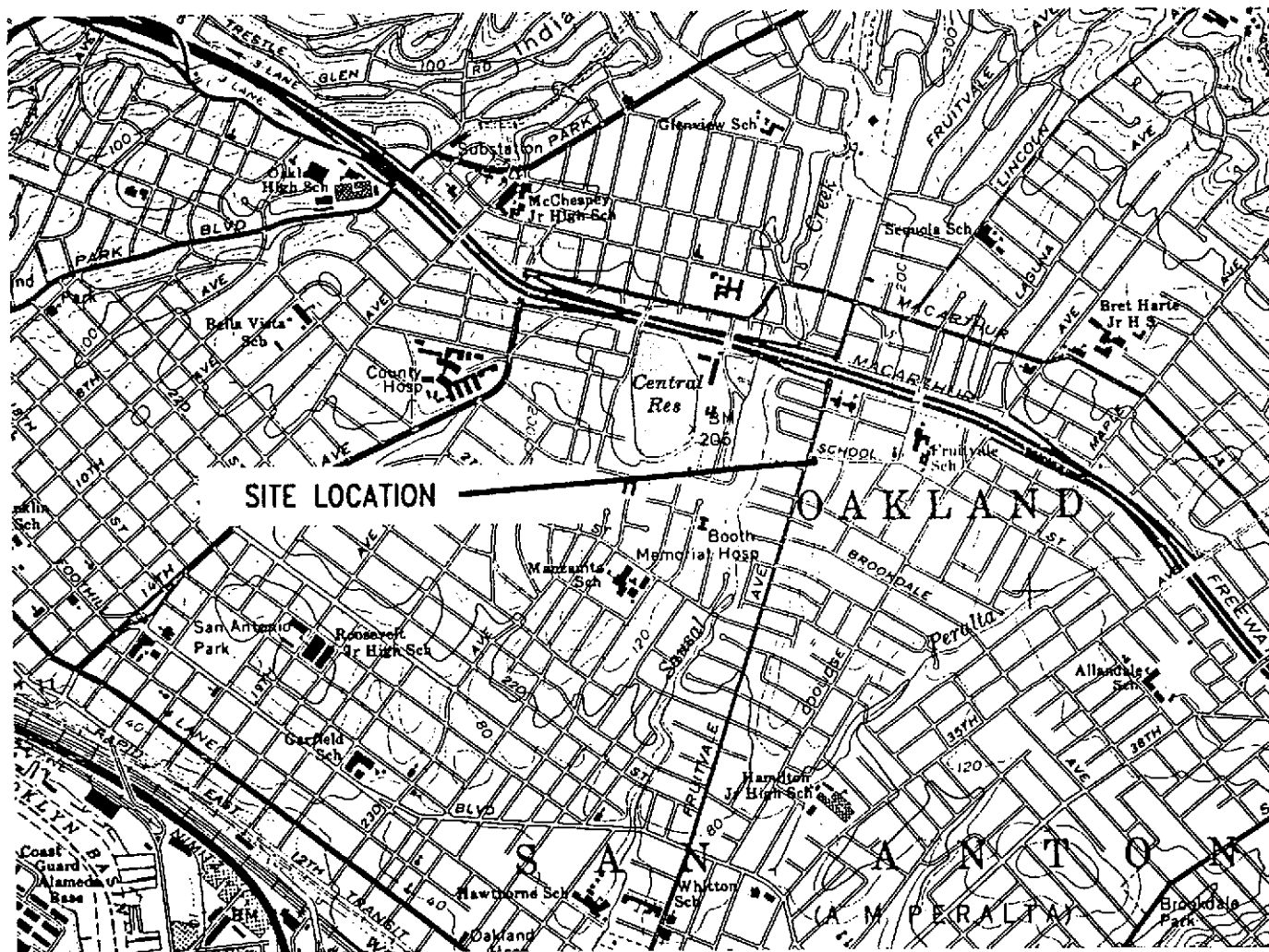


Stephen J. Carter
Senior Geologist
R.G. 5577



Attachments: Figure 1: Vicinity Map
Figure 2: Site Plan
Figure 3: Historical Groundwater Flow Directions
Site Information Summary

cc: Mr. David DeWitt, Environmental Project Manager, Tosco Marketing Company



Base Map: USGS Topographic Map



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

VICINITY MAP

Tosco (Unocal) Service Station No. 4625
3070 Fruitvale Avenue
Oakland, California

FIGURE



JOB NUMBER
140158

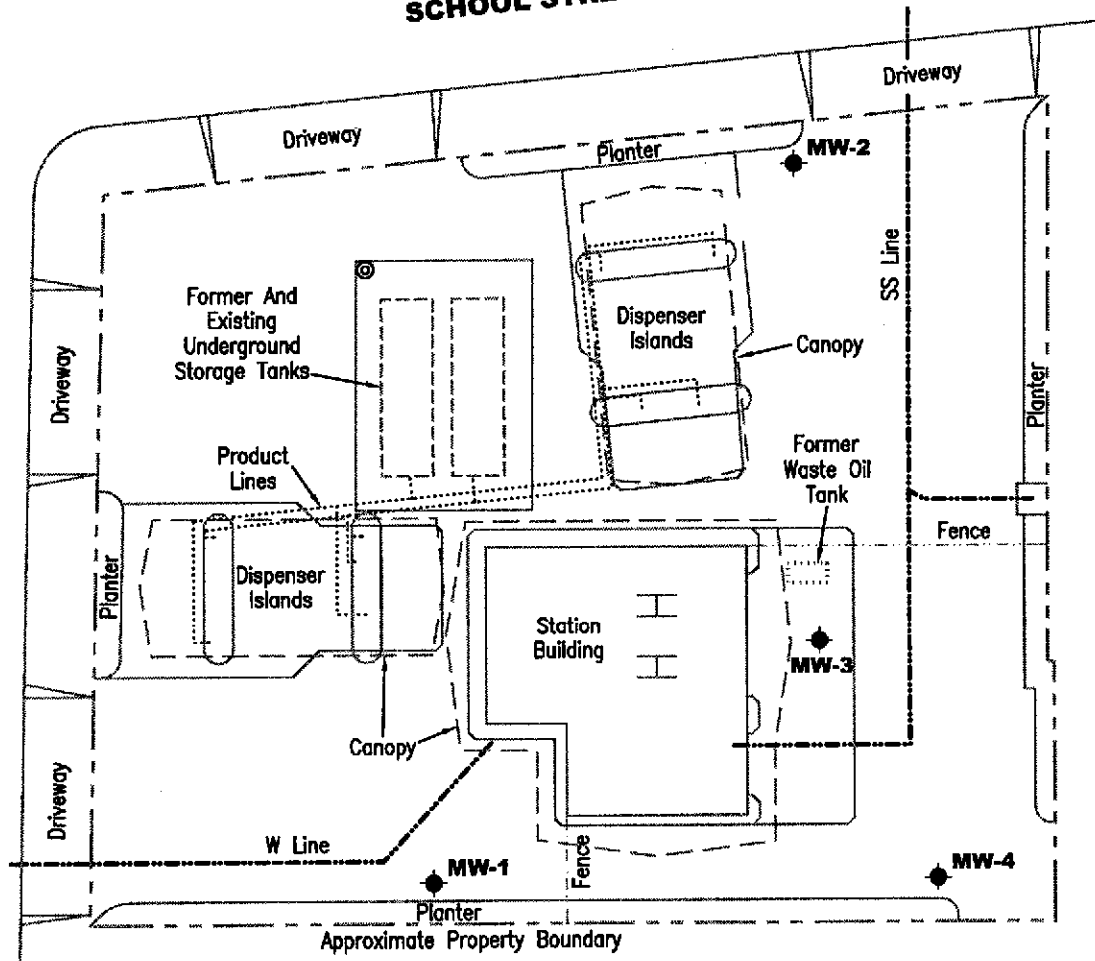
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DATE
01/00

REVISED DATE

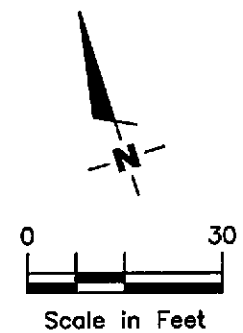
SCHOOL STREET

FRUITVALE AVENUE



EXPLANATION

- ◆ Groundwater monitoring well
- ⊙ Conductor casing



Source: Figure Modified From Drawing Provided By Unocal.



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SITE PLAN

Tosco (Unocal) Service Station No. 4625
3070 Fruitvale Avenue
Oakland, California

FIGURE

2

JOB NUMBER
140158.03

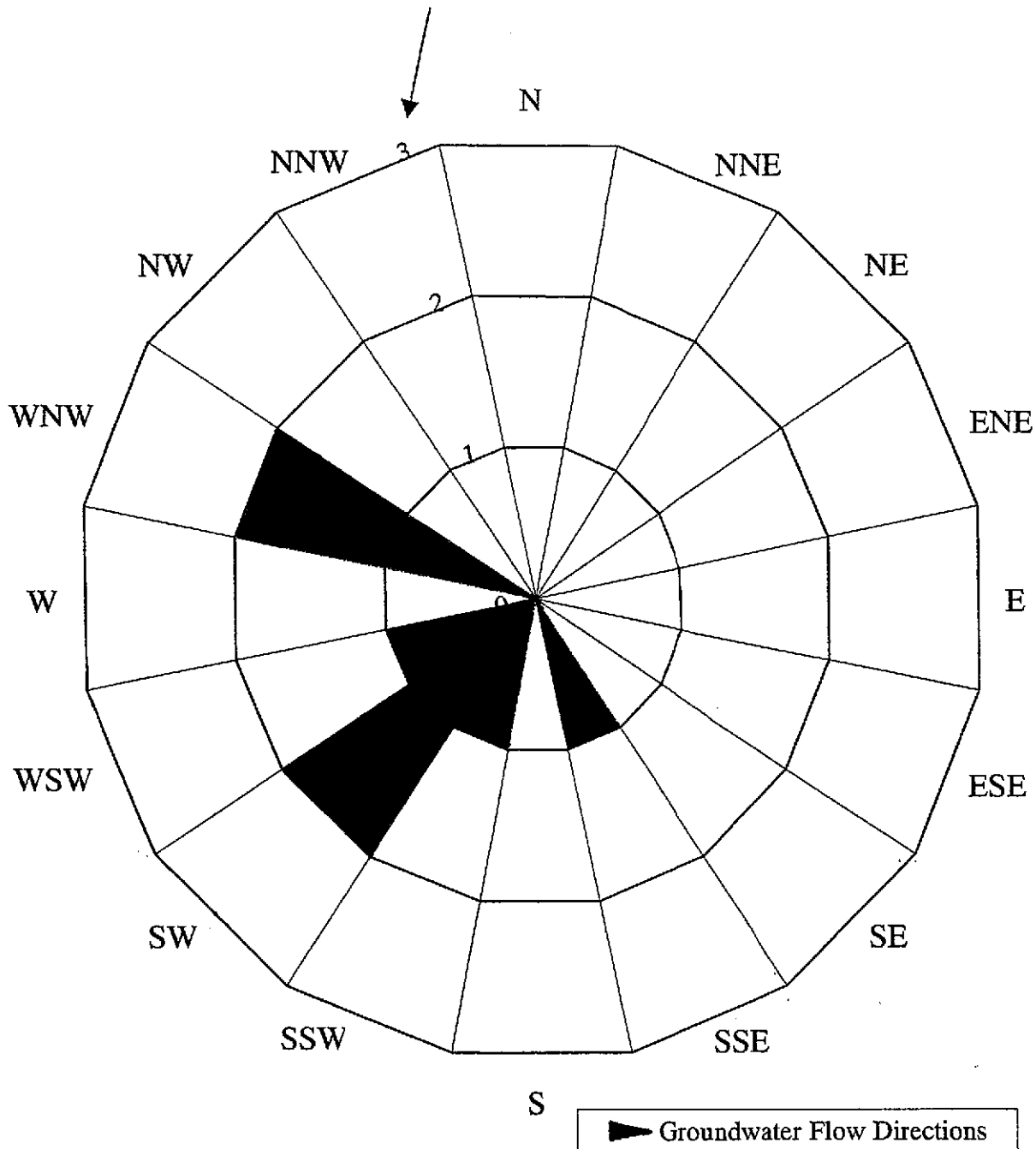
REVIEWED BY

DATE
6/00

REVISED DATE

FIGURE 3
Historical Groundwater Flow Directions
for Tosco (76) Service Station No. 4625

Number of monitoring events in which groundwater was reported to flow in a particular direction.



SITE INFORMATION SUMMARY

I. SITE INFORMATION

Site Facility Name:		Tosco Service Station No. 4625		
Site Facility Address:		3070 Fruitvale Avenue Oakland, California		
RWQCB LUST Case No.:		URF Filing Date:		
Responsible Parties (include address and phone numbers)		Mr. David DeWitt (925) 277-2384		
Tosco Marketing Company				
2000 Crow Canyon Place, Suite 400				
San Ramon, CA 94583				
Tank No.	Size in Gallons	Contents	Closed In -- Place/Removed?	Date
1	10,000	gasoline	removed and destroyed	4/23/98
2	10,000	gasoline	removed and destroyed	4/23/98
3	550	waste oil	removed and destroyed	4/23/98
4	12,000	gasoline	in use	8/1/01
5	12,000	gasoline	in use	8/1/01
6	550	waste oil	in use NOTE: above ground tank	8/1/01

II. INITIAL SITE ASSESSMENT (Information from previous investigations at nearby sites and other available sources may be used for applicable items if necessary)

Cause and Estimated Quantity of Release:		unknown	
Nearest Surface Water Bodies (including any unnamed creeks, tributaries, canals, etc.):		Their Geographical Distances From the Site:	
Sausal Creek		500 feet west	
Peralta Creek		2,300 feet southeast	
Nearest Domestic Water Wells (both public and private) within 2,000 feet:		Their Geographical Distances From the Site:	
Private irrigation well		1,700 feet south/southeast	
Minimum Groundwater Depth: 6.12		Max. Depth: 11.81	Flow Direction: southwest
Site Ground Surface Elevation and Geology: The site is located at an elevation of approximately 137 feet above MSL. Subsurface materials are composed of clay and silt to a depth of approximately 14 feet bgs, the total explored depth.			
Current Site and Surrounding land Use: The site is currently an operating Tosco (76) service station. The surrounding area is a mixture of commercial and residential uses.			
Preferential Pathways Such as Subsurface Utilities? No If Yes, Describe Due to the depth to water exceeding six feet bgs, it is unlikely that subsurface utilities are acting as preferential pathways.			
Number of Soil Borings: 4		Number of Monitoring Wells: 4	

III. REMEDIATION

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Free Product	NA		
Soil	1,165.98 tons	transported to Forward Landfill in Manteca, CA	4/28/98 to 5/18/98
Groundwater	40,000 gallons	transported to Tosco Refinery in Rodeo, CA	May-98
Vapor	NA		

COMMENTS

MAXIMUM DOCUMENTED SOIL POLLUTANT CONCENTRATIONS

Pollutant	Location		Soil (ppm)		Pollutant	Location		Soil (ppm)	
	Date(s)		Initial	Residual		Date(s)		Initial	Residual
TPH (Gas)	4/23/98	4/25/00	1,700	1,600	Xylene	4/23/98	4/25/00	240	54
TPH (Diesel)	4/23/98	4/25/00	200	8.4	Ethylbenzene	4/23/98	4/25/00	47	54
Benzene	4/23/98	4/25/00	17	5.1	Oil & Grease	4/23/98	4/25/00	56	140
Toluene	4/23/98	4/25/00	120.0	3.0	Lead	4/23/98	4/25/00	9.1	NA
MTBE	5/8/98	4/25/00	150	ND	Motor Oil	4/23/98	4/25/00	NA	NA
Chlorinated Solvents					Other				

GROUNDWATER CONCENTRATIONS (ppb) TRENDS AT SOURCE AREAS & PLUME/SITE BOUNDARIES

Date	Location	TPH-g	TPH-d	Benzene	Toluene	Ethylbenz	Xylene	MTBE	Chlor. vocs	Other	DTW
7/28/00	MW-1	ND	NA	ND	ND	ND	ND	19	NA	NA	7.79
10/29/00	MW-1	62	NA	ND	ND	ND	ND	3.9	NA	NA	7.90
2/9/01	MW-1	ND	NA	ND	ND	ND	ND	9.0	NA	NA	7.95
5/11/01	MW-1	ND	NA	ND	ND	ND	ND	16.3	NA	NA	7.22
7/28/00	MW-2	2200	NA	680	4.1	57	270	ND	NA	NA	9.95
10/29/00	MW-2	490	NA	67	ND	23	22	ND	NA	NA	8.38
2/9/01	MW-2	ND	NA	3.1	ND	0.52	1.1	ND	NA	NA	8.41
5/11/01	MW-2	ND	NA	1.99	ND	ND	ND	ND	NA	NA	8.93
7/28/00	MW-3	ND	ND	ND	ND	ND	ND	ND	NA	NA	8.82
10/29/00	MW-3	ND	ND	ND	ND	ND	ND	ND	NA	NA	7.33
2/9/01	MW-3	ND	72	ND	ND	ND	ND	ND	NA	NA	7.40
5/11/01	MW-3	ND	ND	ND	ND	ND	ND	ND	NA	NA	7.90
7/28/00	MW-4	ND	NA	ND	ND	ND	ND	ND	NA	NA	7.55
10/29/00	MW-4	ND	NA	ND	ND	ND	ND	ND	NA	NA	6.12
2/9/01	MW-4	ND	NA	ND	ND	ND	ND	ND	NA	NA	6.14
5/11/01	MW-4	ND	NA	ND	ND	ND	ND	ND	NA	NA	7.51

IV. LIST TECHNICAL REPORTS, CORRESPONDENCE ETC. IN CHRONOLOGICAL ORDER

TITLE/SUBJECT	DATE
Gettler-Ryan Inc., Groundwater Monitoring and Sampling Report, Second Quarter Event of May 11, 2001	6/20/01
..., Limited Subsurface Investigation Report	8/16/00
..., Underground Storage Tank and Product Line Replacement Report	8/10/98

V. ENCLOSE FOLLOWING FIGURES AND TABLES

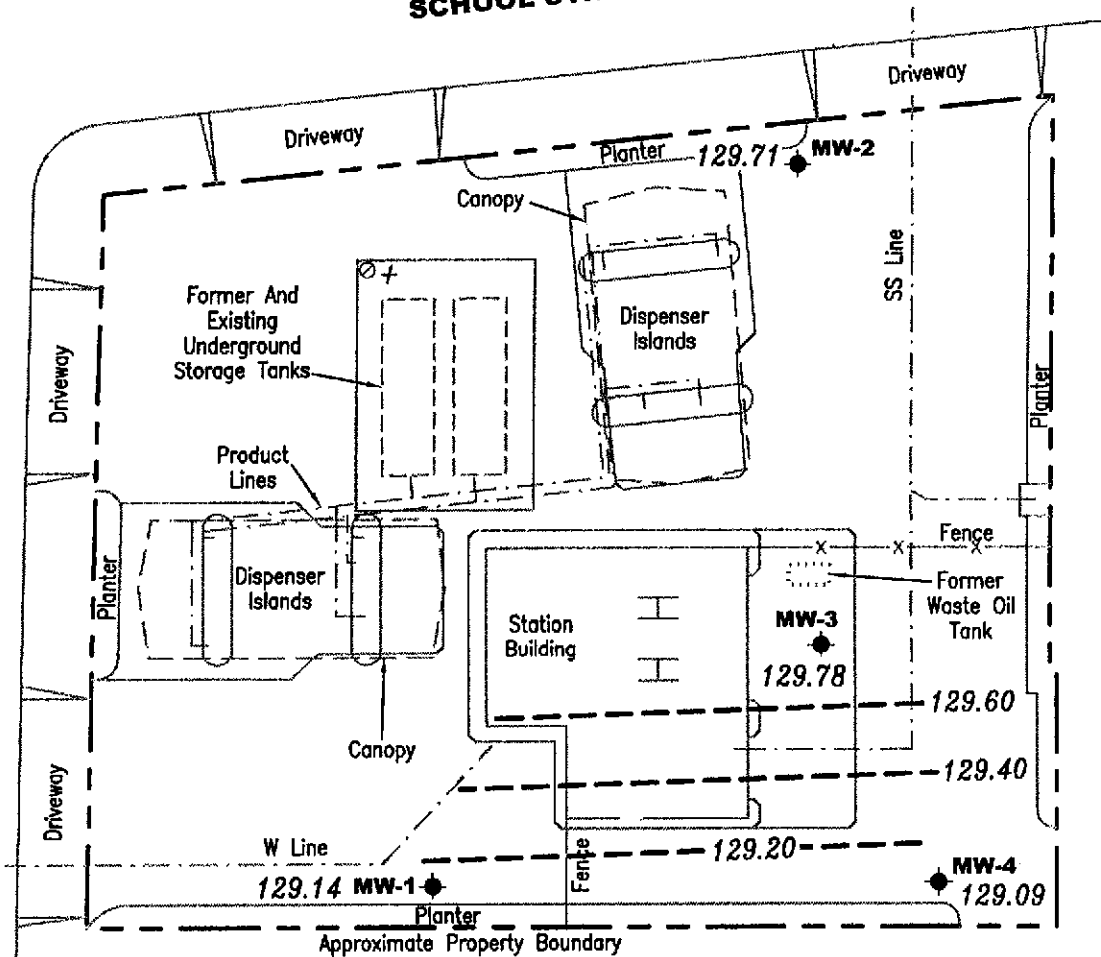
1. Site maps showing locations of existing buildings, former/current UST areas, subsurface utilities, and other pathways, groundwater flow direction, etc.
 2. Summary tables of all soil sampling results available, including any tank/excavation pit samples and confirmation samples, with sampling dates, location-identifications and depths (if applicable).
 3. Summary tables of all groundwater sampling results available, including depth to water/product measurements, with sampling dates and location-identifications.
 4. Figures showing all soil and groundwater sampling locations and monitoring well locations.
- Additional Comments:**

SCHOOL STREET

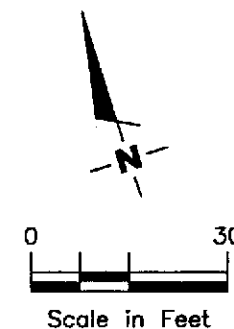
EXPLANATION

- ◆ Groundwater monitoring well
- UST Observation well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 - Groundwater elevation contour, dashed where inferred.
- + TOC not available

FRUITVALE AVENUE



Approximate groundwater flow direction at a gradient of 0.02 Ft./Ft.



Source: Figure modified from drawing provided by Unocal.

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 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

FIGURE

1

PROJECT NUMBER 180255	REVIEWED BY	DATE May 11, 2001	REVISED DATE
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FILE NAME: P:\ENVIRO\TOSCO\4625\001-4625.DWG | Layout Tab: Pot2

SCHOOL STREET

EXPLANATION

◆ Groundwater monitoring well

○ UST Observation well

A/B/C/D TPH(D) (Total Petroleum Hydrocarbons as Diesel)/TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb

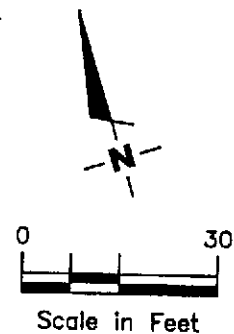
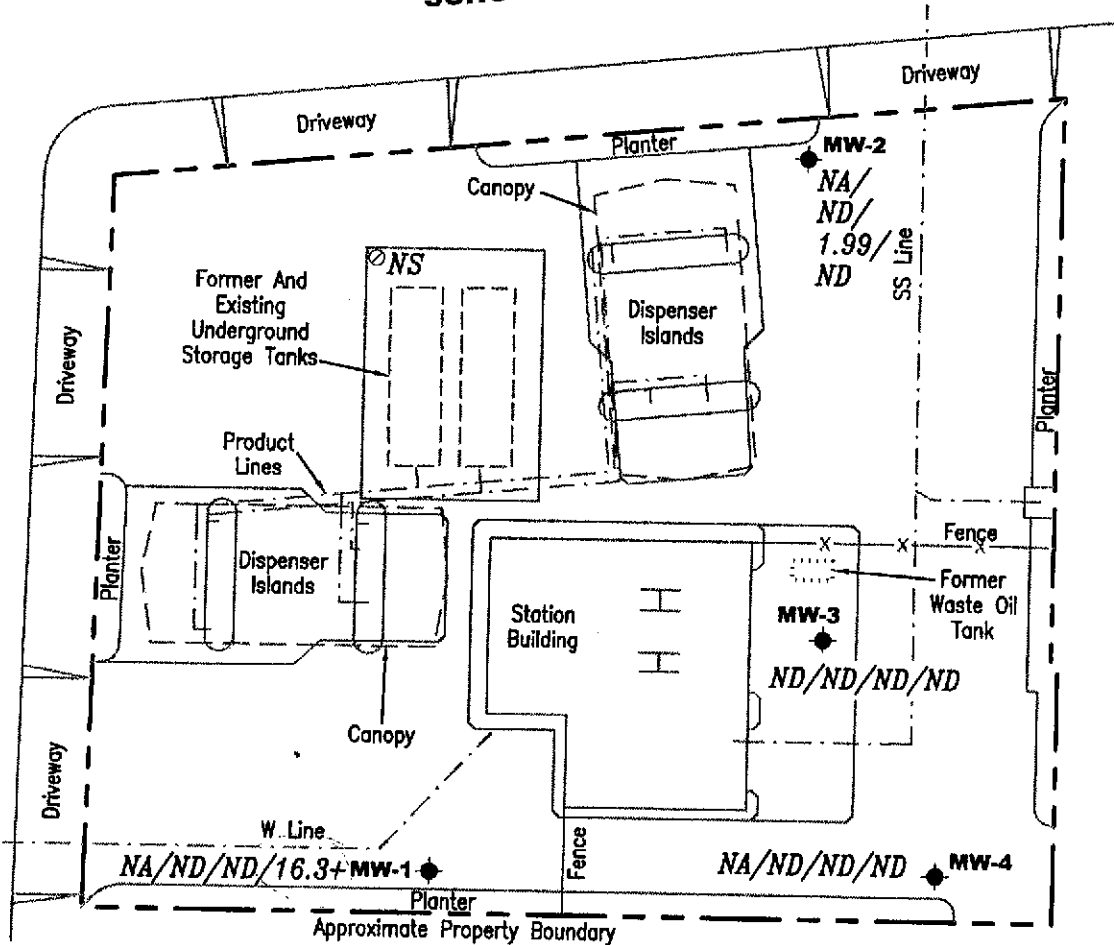
ND Not Detected

NA Not Analyzed

+ MTBE by EPA Method 8260

NS Not Sampled

FRUITVALE AVENUE



Source: Figure modified from drawing provided by Unocal.

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CONCENTRATION MAP
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

FIGURE
2

PROJECT NUMBER
180255

REVIEWED BY

DATE
 May 11, 2001

REVISED DATE

FILE NAME: P:\ENVIRO\TOSCO\4625\001-4625.DWG | Layout Tab: Con2

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1											
136.36	05/03/00	11.81	5.0-25.0	124.55	--	ND	ND	ND	ND	ND	11/14 ²
	07/28/00	7.79		128.57	--	ND	ND	ND	ND	ND	21/19 ²
	10/29/00	7.90		128.46	--	62 ¹	ND	ND	ND	ND	6.5/3.9 ²
	02/09/01	7.95		128.41	--	ND	ND	ND	ND	ND	9.0/9.0 ²
	05/11/01	7.22		129.14	--	ND	ND	ND	ND	ND	12.7/16.3 ²
MW-2											
138.64	05/03/00	8.59	5.0-25.0	130.05	--	2,400 ¹	53	ND ³	ND ³	240	³ ND/ND ²
	07/28/00	9.95		128.69	--	2,200 ¹	680	4.1	57	270	24/ND ²
	10/29/00	8.38		130.26	--	490 ¹	67	ND ³	23	22	ND ³
	02/09/01	8.41		130.23	--	ND	3.1	ND	0.52	1.1	ND
	05/11/01	8.93		129.71	--	ND	1.99	ND	ND	ND	ND
MW-3											
137.68	05/03/00	7.60	5.0-25.0	130.08	93 ⁵	ND	ND	ND	ND	ND	ND/ND ⁴
	07/28/00	8.82		128.86	ND ³	ND	ND	ND	ND	ND	ND/ND ⁴
	10/29/00	7.33		130.35	ND	ND	ND	ND	ND	ND	ND
	02/09/01	7.40		130.28	72 ⁶	ND	ND	ND	ND	ND	ND
	05/11/01	7.90		129.78	ND	ND	ND	ND	ND	ND	ND
MW-4											
136.60	05/03/00	6.48	5.0-25.0	130.12	--	ND	ND	ND	ND	ND	ND/ND ²
	07/28/00	7.55		129.05	--	ND	ND	ND	ND	ND	ND
	10/29/00	6.12		130.48	--	ND	ND	ND	ND	ND	ND
	02/09/01	6.14		130.46	--	ND	ND	ND	ND	ND	ND
	05/11/01	7.51		129.09	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
UST OBSERVATION WELL											
	05/03/00	8.00	--	--	--	--	--	--	--	--	--
	07/28/00	9.28		--	--	--	--	--	--	--	--
	10/29/00	7.75		--	--	--	--	--	--	--	--
	02/09/01	6.14		--	--	--	--	--	--	--	--
	05/11/01	7.96		--	--	--	--	--	--	--	--
Trip Blank											
TB-LB	05/03/00	--	--	--	--	ND	ND	ND	ND	ND	ND
	07/28/00	--		--	--	ND	ND	ND	ND	ND	ND
	10/29/00	--		--	--	ND	ND	ND	ND	ND	ND
	02/09/01	--		--	--	ND	ND	ND	ND	ND	ND
	05/11/01	--		--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (76) Service Station #4625
3070 Fruitvale Avenue
Oakland, California

EXPLANATIONS:

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

S.I. = Screen Interval

(ft. bgs.) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

* TOC elevations were surveyed based on a cut square on School Street, City of Oakland Benchmark No. 3783, (Elevation = 136.99 feet msl).

¹ Laboratory report indicates gasoline C6-C12.

² MTBE by EPA Method 8260.

³ Detection limit raised. Refer to analytical reports.

⁴ MTBE by EPA Method 8240.

⁵ Laboratory report indicates unidentified hydrocarbons C9-C24.

⁶ Laboratory report indicates discrete peaks.

Table 2
Groundwater Analytical Results
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

WELL ID	DATE	VOCs (ppb)	SVOCs (ppb)	Chromium (ppm)	TOG (ppm)
MW-3	05/03/00	ND	ND	ND	ND
	07/28/00	ND ¹	ND	1.8	ND
	10/29/00	ND	ND	ND	7.0
	02/09/01	ND	ND	0.038	ND
	05/11/01	ND	ND	ND	ND

EXPLANATIONS:

VOCs = Volatile Organic Compounds
 SVOCs = Semi-Volatile Organic Compounds
 TOG = Total Oil and Grease
 (ppb) = Parts per billion
 (ppm) = Parts per million
 ND = Not Detected

¹ All VOCs by EPA Method 8240 were ND, except for Tetrachloroethene was detected at 2.7 ppb.

ANALYTICAL METHODS:

EPA Method 8240B for VOCs
 EPA Method 8270B for SVOCs
 EPA 200 Series Methods for Chromium

All EPA Method 8240 and 8270 constituents were ND, unless noted.

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (76) Service Station #4625
 3070 Fruitvale Avenue
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	02/09/01	ND	ND	9.0	ND	ND	ND	ND	ND
	05/11/01	ND	ND	16.3	ND	ND	ND	ND	ND
MW-3	07/28/00	--	ND	ND	ND	ND	ND	ND	ND

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 1,2-DCA = 1,2-Dichloroethane
 EDB = Ethylene dibromide or 1,2-Dibromoethane
 (ppb) = Parts per billion
 -- = Not Analyzed
 ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

TABLE 1 - GROUNDWATER MONITORING AND CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 4625
3070 Fruitvale Avenue
Oakland, California

Sample No.	Sample Date	Total Well Depth (ft.)	Well ¹ Elev. (ft. MSL)	Depth to Water (ft.)	Floating Product (ft.)	Ground Water Elevation (ft. MSL)	TPHg (ppb)	TPHd (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	MTBE ² (ppb)	MTBE ³ (ppb)	VOC's (ppb)
MW-1	5/3/00	25.06	136.36	7.335	0.0	129.025	ND	NA	ND	ND	ND	ND	11	14	NA
MW-2	5/3/00	24.28	138.64	7.740	0.0	130.900	2,400	NA	53	ND	ND	240	ND	ND	NA
MW-3 ⁴	5/3/00	24.73	137.68	6.815	0.0	130.865	ND	93 ⁵	ND	ND	ND	ND	ND	ND	ND
MW-4	5/3/00	24.65	136.60	8.685	0.0	127.915	ND	NA	ND	ND	ND	ND	ND	ND	NA
Trip Blank	---	---	---	---	---	---	ND	NA	ND	ND	ND	ND	ND	NA	NA

EXPLANATION:

ft. = feet
ft. MSL = feet relative to Mean Sea Level.
ppb = parts per billion
ND = not detected
--- = not applicable
NA = not analyzed

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)
(see laboratory reports for detection limits)

- 1 = Well elevations reported as top of casing (TOC) surveyed by Turner & Associates, Licensed California Land Surveyor No. 4029.
- 2 = MTBE by EPA Method 8020
- 3 = MTBE by EPA Method 8260
- 4 = sample also analyzed for SVOCs (ND), Total chromium (ND) and TOG (ND)
- 5 = laboratory reports unidentified hydrocarbons C9 - C24

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified
TPHd = Total Petroleum Hydrocarbons as diesel according to EPA Method 8015 Modified
Benzene, Toluene, Ethylbenzene, and Total Xylenes according to EPA Method 8020
MTBE = Methyl tertiary butyl ether according to EPA Method 8020/8260
VOCs = volatile organic compounds according to EPA Method 8240
SVOCs = semi-volatile organic compounds according to EPA Method 8270
Total chromium according to EPA Method 200.7
TOG = total oil and grease according to EPA Method 5520

TABLE 2 - SOIL CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 4625

3070 Fruitvale Avenue

Oakland, California

Sample No.	Sample Depth (feet)	Date Collected	TPHg (ppm)	TPHd (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)	8240 (ppm)	8270 (ppm)	TRPH (ppm)	Total Chromium (ppm)	Total Lead (ppm)
MW-1-10	10	4/25/00	ND	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
MW-2-10	10	4/25/00	1,600	NA	5.1	3.0	54	54	ND	NA	NA	NA	NA	NA
MW-2-25	25	4/25/00	ND	NA	ND	0.0061	0.012	0.038	ND	NA	NA	NA	NA	NA
MW-3-10	10	4/25/00	79	8.4 ¹	0.031	0.24	0.73	0.48	ND	ND	ND	140	48	NA
MW-3-25	25	4/25/00	ND	1.3 ²	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
MW-4-10	10	4/26/00	ND	1.3 ²	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Stockpile														
SS-1	--	4/26/00	56	3.1	0.11	0.26	1.1	4.0	ND	ND ³	ND	180	78 ⁴	11

EXPLANATION:

ppm = parts per million
 ND = not detected
 NA = not analyzed
 -- = not applicable

1 = laboratory reports unidentified hydrocarbons < C16

2 = laboratory reports unidentified hydrocarbons > C16

3 = no 8240 compounds detected other than toluene (1.2 ppm), ethylbenzene (4.4 ppm) and total xylenes (17 ppm).

4 = other metals analyzed include nickel (130 ppm), zinc (56 ppm) and cadmium (ND)

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)
 (see laboratory reports for detection limits)

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified

TPHd = Total Petroleum Hydrocarbons as diesel according to EPA Method 8015 Modified

Benzene, Toluene, Ethylbenzene, and Total Xylenes according to EPA Method 8020

MTBE = Methyl tertiary butyl ether according to EPA Method 8020

8240 = Volatile Organic Compounds according to EPA Method 8240B

8270 = Semi-Volatile Organic Compounds according to EPA Method 8270B

TRPH = Total recoverable petroleum hydrocarbons according to EPA Method 5520

Total Chromium and other metals according to EPA Method 6010

Total Lead according to EPA Method 6010

Table 1 - Soil Sample Analytical Results

Tosco (Unocal) Service Station No. 4625

3070 Fruitvale Avenue

Oakland, California

Sample Location and ID	Date Collected	Sample Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-Benzene (ppm)	Xylenes (ppm)	MTBE by 8020 (ppm)	TPHd (ppm)	O&G (ppm)	VOCs (ppb)	SVOCs (ppb)
UST Complex Excavation												
UX-1-8.5	4/23/98	8.5	44 ¹	0.16	0.1	ND*	ND*	0.23	--	--	--	--
UX-2-8.5	4/23/98	8.5	1100	13	76	22	120	8.2	--	--	--	--
UX-3-8.5	4/23/98	8.5	1700	17	120	47	240	16	--	--	--	--
UX-4-8.5	4/23/98	8.5	1400	7.3	75	39	210	ND*	--	--	--	--
Product Lines And Overexcavation												
UT-1-4	5/8/98	4	660	5.1	35	11	65	150	--	--	--	--
UT-1-8	5/8/98	8	910	3.8	38	15	96	69	--	--	--	--
UT-2-4	5/8/98	4	220 ¹	0.67	ND*	0.56	3.5	1.4	--	--	--	--
UT-3-4	5/8/98	4	13 ¹	0.029	0.015	0.030	0.17	0.071	--	--	--	--
UT-4-4	5/8/98	4	8.1 ¹	0.042	0.0050	0.020	0.050	0.075	--	--	--	--
UT-5-4	5/8/98	4	4.2	0.27	0.0059	0.0077	0.0094	0.30	--	--	--	--
UT-6-4	5/8/98	4	3.0 ¹	0.013	0.0057	0.0062	0.047	1.0	--	--	--	--
UT-7-4	5/8/98	4	140 ¹	ND*	1.8	2.0	13	ND*	--	--	--	--
UT-8-4	5/8/98	4	ND	ND	ND	ND	ND	0.70	--	--	--	--
Waste Oil UST Excavation												
UW-1-8.5	4/23/98	8.5	820	2.7	38	22	120	1.4	200 ²	56	(1)	(1)
Waste Oil UST Remote Fill Line												
UWT-1-2	5/8/98	2	ND	ND	ND	ND	ND	ND	1.5 ²	ND	ND	ND

Sample ID	Date Collected	Depth (feet)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
Waste Oil UST Excavation							
UW-1-8.5	4/23/98	8.5	ND	700	ND	1400	22
Waste Oil UST Remote Fill Line							
UWT-1-2	5/8/98	2	ND	46	9.1	61	56

Sample Location and ID	Date Collected	Sample Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-Benzene (ppm)	Xylenes (ppm)	MTBE by 8020 (ppm)	TPHd (ppm)	O&G (ppm)	VOCs (ppb)	SVOCs (ppb)
Stockpiles												
US-1 (A-D)comp	4/24/98	--	49 ³	ND*	0.21	ND*	0.20	0.62	--	--	--	--
US-2 (A-D)comp	4/24/98	--	8.2 ³	ND	0.021	0.013	0.018	0.14	--	--	--	--
US-3 (A-D)comp	4/24/98	--	16 ³	ND	0.049	0.024	0.082	0.13	--	--	--	--
US-4 (A-D) comp	4/24/98	--	5.5 ¹	0.010	0.0098	0.021	0.0064	0.20	--	--	--	--
US-5 (A-D) comp	4/24/98	--	850 ³	ND*	1.2	4.0	24	4.5	--	--	--	--
US-6 (A-D) comp	4/24/98	--	660	0.74	2.6	4.4	34	2.2	--	--	--	--
US-7 (A-D) comp	4/24/98	--	2000 ¹	ND*	6.3	13	89	ND*	--	--	--	--
UWS-1 (A-D) comp	4/24/98	--	140 ¹	ND*	ND*	ND*	ND*	ND*	840 ²	2,400	(1)	(1)

Sample ID	Date Collected	Depth (feet)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
Stockpiles							
UWS-1 (A-D) comp	4/24/98	--	ND	43	35	63	65
US-1 (A-D)comp	4/24/98	--	--	--	19	--	--
US-5 (A-D)comp	4/24/98	--	--	--	7.5	--	--

ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1210 and 1271)

EXPLANATION:

ppm = parts per million

ppb = parts per billion

ND = Not Detected

-- = analysis not requested/not applicable

(1) = See chemical analytical data for detection limits and individual concentrations.

¹ = Gas and Unidentified Hydrocarbon, Weathered Gas, or Unidentified Hydrocarbon C6-C12

² = Unidentified Hydrocarbon C9-C24

³ = Unidentified Hydrocarbon +>C10 and Weathered Gas C6-C12

* = Elevated detection limit. See analytical report for detection limits.

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified

TPHd = Total Petroleum Hydrocarbons as diesel according to EPA Method 8015 Modified

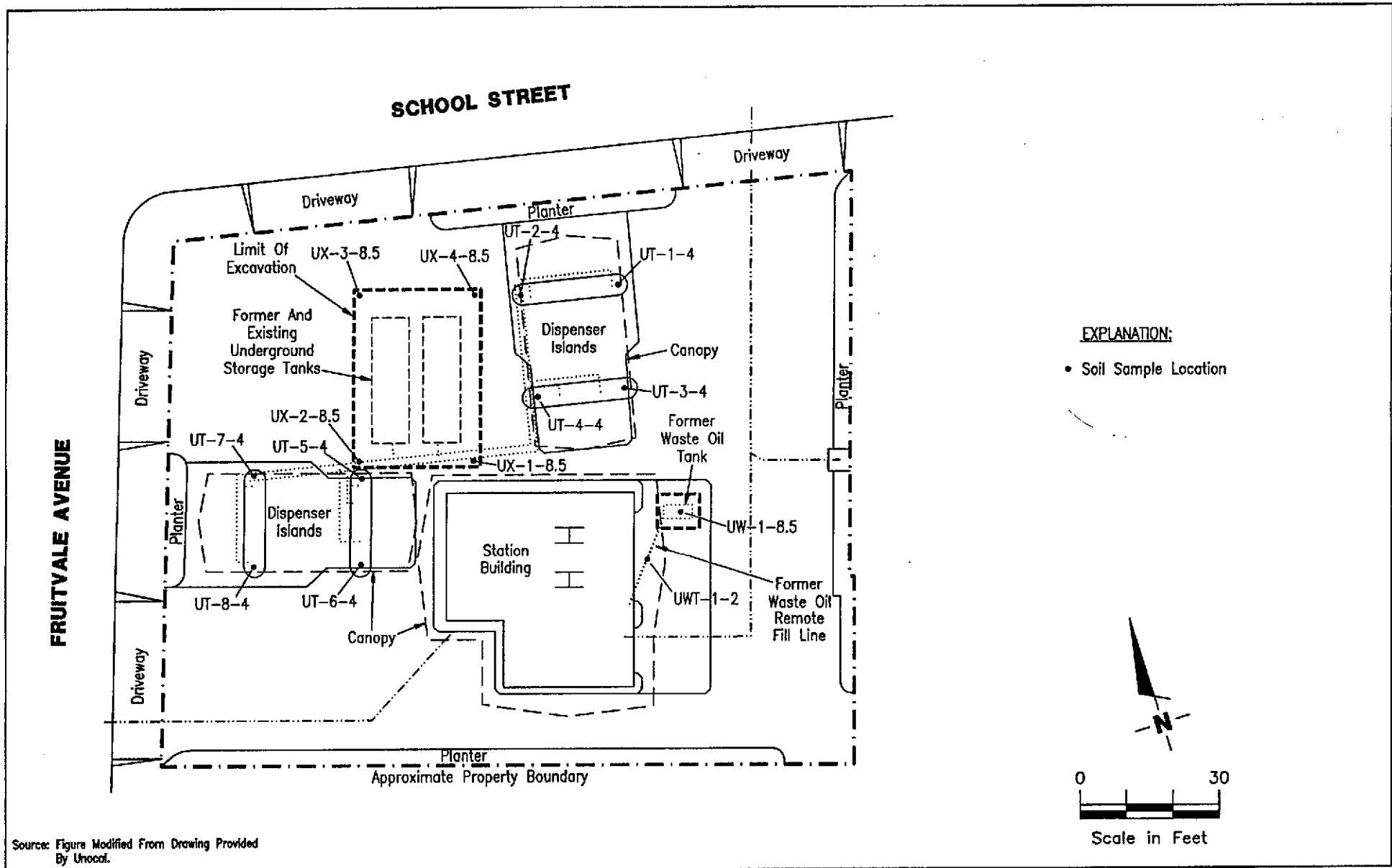
MTBE = Methyl tertiary butyl ether according to EPA Method 8020

O&G = Total Oil and Grease according to Standard Methods 5520 E&F

VOCs = volatile organic compounds according to EPA Method 8240

SVOCs = semi-volatile organic compounds according to EPA Method 8270

Metals = Cadmium, Chromium, Lead, Nickel, Zinc according to EPA Method 6010



Gettler - Ryan Inc.

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SITE PLAN/SAMPLE LOCATION MAP
Tosco (Unocal) Service Station No. 4625
3070 Fruitvale Avenue
Oakland, California

FIGURE

2

JOB NUMBER
140158

REVIEWED BY

DATE
06/98

REVISED DATE