ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502
(510)567-6700

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 3746 - 7200 Amador Valley Blvd, Dublin, CA

March 21, 1996

Mr. David Luick
Target Stores, Inc
P.O. Box 1392
Minneapolis, MN 55440

Dear Mr. Luick:

This letter confirms the completion of site investigation and remedial action for the four former underground storage tanks (3-12,000 gallon gasoline and 1-12,000 gallon diesel tanks) removed from the above site on September 26, 1990. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Jun Makishima

Jun Makishima, Interim Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Mike Harper, SWRCB (with attachment)
files (target8)

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QUALITY CONTROL BOARD

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: December 4, 1995**

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Target Store, Inc.**
Site facility address: **7200 Amador Valley Blvd, Dublin 94568**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3746**
URF filing date: **9/26/90** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Target Stores, Inc Attn. David Luick	P.O. Box 1392, Minneapolis MN 55440	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	12,000	Gasoline	Removed	9/26/90
2	12,000	Gasoline	Removed	9/26/90
3	12,000	Gasoline	Removed	9/26/90
4	12,000	Diesel	Removed	9/26/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Leaking UST and piping joints**
Site characterization complete? **YES**
Date approved by oversight agency: **7/21/94**
Monitoring Wells installed? **Yes** Number: **6**
Proper screened interval? **Yes, 5 to 20' bgs**
Highest GW depth below ground surface: **4.48** Lowest depth: **6.54' in MW-2**
Flow direction: **E, SE**
Most sensitive current use: **Commercial/Shopping Center**
Are drinking water wells affected? **No** Aquifer name: **NA**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank & Piping	4 USTs	Erickson, in Richmond	9/26/90
Soil	160 cy	Zanker Mat'l Rec. Sys, San Jose	2/14/91
Groundwater	6,440 gal	Gibson Envir., in Redwood City	1993-1994
	14,000 gal	Refinery Services, in Patterson	9/90

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After	Water (ppb) Before[2]	Water (ppb) After
TPH (Gas)	6,500	6,500	28,000	ND
TPH (Diesel)	50	50	2,000	ND
Benzene	51	51	1,500	4.6
Toluene	320	320	2,700	ND
Ethylbenzene	74	74	50	0.91
Xylenes	372	372	3,940	0.88
Oil & Grease				
Heavy metals	Total Pb		ND	
Other				

NOTE: 1. From south piping joint
2. Grab groundwater sample from tank excavation after purging twice.

Comments (Depth of Remediation, etc.):

No soil overexcavation after tanks were removed.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **YES**
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **YES**
Does corrective action protect public health for current land use? **YES**
Site management requirements: **None**

Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **None, pending site closure**
Number Decommissioned: **0** Number Retained: **6**
List enforcement actions taken: **NA**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: [signature] Date: 1/2/96

Reviewed by

Name: Dale Klettke Title: Haz Mat Specialist

Signature: [signature] Date: 12/21/95

Name: Barney Chan Title: Haz Mat Specialist

Signature: [signature] Date: 12/29/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 1/3/96 RB Response: Approved

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature: [signature] Date: 1/31/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

When 4 USTs (3 gas, 1 diesel) were removed in September 26, 1990 soil samples collected from the sidewalls, at the soil and groundwater interface at approximately 8' depth, exhibited up to 600 ppm TPH-G, 30 ppm TPH-D, and 0.05, 13, 14, and 74 ppm BTEX, respectively. Soil from a south piping joint exhibited up to 6,500 ppm TPH-G, 50 ppm TPH-D, and 51, 320, 74, and 372 ppm BTEX, respectively. No soil overexcavation was performed. (See Fig 1.)

Groundwater encountered in the tank pit contained a layer of floating product as well as dissolved tar wrapping. The pit was purged twice before a grab groundwater sample was collected. This sample exhibited up to 28,000 ppb TPH-G, 2,000 ppb TPH-D, and 1,500, 2,700, 50, and 3,940 ppb BTEX, respectively. Total lead was not detected. The excavation was backfilled with pea gravel and clean imported soil.

On February 21, 1991 five soil borings (SB-1 thru 5) were advanced to a depth of 9.5', except SB-2 which was advanced to 23' and converted to monitoring well MW-4. Soil samples collected from 5.5 to 6' bgs were analyzed only for BTEX (and TPH-D in boring SB-3), and soil samples from 6 to 6.5' bgs were analyzed only for TPH-G. Up to 40 ppm TPH-G, 24 ppm TPH-D, and 0.4, 0.1, 1.2, and 2.5 ppm BTEX, respectively were detected. It appears soil contamination is limited to the immediate vicinity of the former tank excavation, at 5.5 to 9.5' depths (within the capillary fringe and into groundwater). Elevated hydrocarbons detected from the south

piping also appears limited in extent, as boring SB-3 and SB-5, emplaced near the south piping joint did not detect remarkable levels of hydrocarbons. (See Fig 2 and Table 1.)

Four monitoring wells (MW-1 to 4) were constructed to delineate the extent of groundwater contamination. The nearest downgradient well, MW-4, exhibited up to 6,000 ppb TPH-G, and 680, ND, 160, and 250 ppb BTEX, respectively, in groundwater. The other wells detected low to non-detectable levels of petroleum hydrocarbons. (See Fig 3.)

In June 1991 five soil borings (GW-1 to GW-5) and monitoring well MW-5 were emplaced to determine the lateral extent of petroleum hydrocarbons in the shallow groundwater beneath the site. Grab groundwater samples show the highest concentration of contaminants to be in the former tank excavation, while the furthest downgradient boring, GW-2, exhibited 880 ppb TPH-G, 78, 52, 69, and 295 ppb BTEX, respectively. Groundwater contamination appears to be transported through a clayey sand stringer found between 10 to 18' bgs. (See Fig 3, and well log for MW-2.)

In September 1991 a 4" I.D. groundwater extraction well, MW-6, was installed through the former tank excavation. With a maximum pump rate of only 0.9 gpm, groundwater could only be extracted intermittently. Groundwater was extracted during each quarterly monitoring episode from October 1991 through June 1993. Extraction from well MW-2 began in September 1993, and ceased in June 1994. A total of 3,440 and 3,300 gallons of groundwater were extracted from wells MW-2 and MW-6, respectively, and recycled at Gibson Environmental, in Redwood City.

Downgradient wells have been sampled for 17 consecutive quarters (from 2/91 to 6/95). TPH-G and benzene concentrations have decreased where a maximum of 130 ppb TPH-G and 5.2 ppb benzene were detected in the last 3 sampling quarters. Diesel was not detected. Residual hydrocarbons in soil should continue to naturally bioattenuate. And, the potential for residual hydrocarbons to leach from soil into groundwater is minimal, as the site is capped with concrete or asphalt. Continued sampling is not warranted. (See Table 2.)

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