



DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4299 - 1830 Portola Ave Livermore, CA

October 2, 1995

Mr. Dennis Razzari
Davidon Homes
1600 Main Street, Suite 150
Walnut Creek, CA 94596

Dear Mr. Razzari:

This letter confirms the completion of site investigation and remedial action for the former septic pit removed from the above site in May 1989. 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 septic pit 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, Interim Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Mike Harper, SWRCB (with attachment)
files (portola.4)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: July 18, 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: **Portola Meadows**
Site facility address: **1830 Portola Ave, Livermore 94550**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4299**
URF filing date: **8/20/90** SWEEPS No: **N/A**

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
Davidon Homes Attn. Dennis Razzari	1600 S. Main Street Walnut Creek 94596	510/945-8000

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
--	Septic pit	Diesel/Waste Oil	Removed	May 1989

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Leaking septic pit**
Site characterization complete? **YES**
Date approved by oversight agency: **5/15/95**
Monitoring Wells installed? **Yes** Number: **3**
Proper screened interval? **Yes, 46.5 to 66,5' bgs**
Highest GW depth below ground surface: **47.13'** Lowest depth: **54.50' bgs**
Flow direction: **Generally southwesterly, with a relatively flat gradient**
Most sensitive current use: **Residential**
Are drinking water wells affected? **No** Aquifer name: **Mocho Subbasin**
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

527 WA 41 ENW 95
JUL 20 1995
ALAMEDA COUNTY
HAZARDOUS MATERIALS
DIVISION

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> (include units)	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank	2x2x4' deep septic pit	Unknown	May 1989
Soil	558 cy	Forward L.F. in Manteca	10/26-28/92

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	2,900	ND	ND	ND
TPH (Diesel)	420	ND	28,000 ¹	200
Benzene	ND	ND	ND	ND
Toluene	7.2	ND	16	ND
Ethylbenzene	.95	ND	ND	ND
Xylenes	40	.10	ND	ND
Oil & Grease	1,100	ND	24,000 ¹	ND
Heavy metals	Cr	ND	3,100 ²	ND ³
	Ni	210	2,800 ²	20 ³
	Zn	71	680 ²	170 ³
	Pb		100 ²	10 ³
	Cd	ND	ND	ND
Other	TPH-Kerosine	650	NA	NA
	SVOCs	NA	ND	NA

- Note: 1 Grab groundwater sample from boring S-1, at approximately 65' bgs
 2 Unfiltered sample (May/Sep 1993)
 3 Filtered sample (Jan 1995)

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

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: **3**
 List enforcement actions taken: **None**
 List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: *Eva Chu* Date: 7/20/95

Reviewed by

Name: Juliet Shin Title: Sr. Haz Mat Specialist

Signature: *Juliet Shin* Date: 7/25/95

Name: Amy Leech Title: Haz Mat Specialist

Signature: *Amy Leech* Date: July 19, 1995

VI. RWQCB NOTIFICATION

Date Submitted to RB: 7/21/95

RB Response: *Approved*

RWQCB Staff Name: Kevin Graves

Title: AWRCE

Signature: *Kevin Graves* Date: 8/11/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

In May 1989 soil within a septic pit (previously used by an automobile repair and garage facility), constructed of redwood planking, approximately 2 x 2 x 4' deep, was sampled and detected 2,900 ppm TPH-G, 650 ppm TPH-Kerosine, 7.2 ppm toluene, .95 ppm ethylbenzene, and 6.6 ppm xylenes. TPH-D and benzene were not detected. When excavating contaminated soils, a gravel leach field was encountered extending 7' radially from the pit. The gravel was completely removed and the pit excavated to 18' depth, removing approximately 400 cy of soil. Soil samples collected from bottom and sidewalls still detected elevated levels of petroleum hydrocarbons (up to 1,400 ppm TPH-G, 420 ppm TPH-D, and 3,200 ppm TOG). Chlorinated solvents and benzene were not detected.

On June 5, 1989 four soil borings were advanced in and around the pit to delineate the horizontal and vertical extent of soil contamination. A composite soil sample from the boundary borings B2-B4 at 5' depth detected 360 ppm TOG, the only analysis performed. Composite samples from B2-B4 at 10' detected 33 ppm TOG, and from 15' did not detect TOG. Boring B-1 through the middle of the pit detected 450 ppm TOG at 25' but none at 30' depth. It appeared soil contamination was limited to approximately 30' depth and near the outer borings to a depth of 10'.

Boring B-1 was advanced 65' and encountered groundwater at approximately 61'. A grab groundwater sample collected and analyzed for TPH-G, TPH-D, BTEX, and TOG only. Up to 128,000 ppb TPH-D and 24,000 ppb TOG was detected.

On June 26-27, 1989 the pit was again overexcavated, removing another 200 cy of contaminated soil. Soil samples collected at 30 to 35' depths did not detect TPH-D, TPH-G, TOG, or BTE. Xylenes were detected at 0.1 ppm.

In February 1990 a monitoring well, MW-1, was installed southeast of the former excavation. Groundwater was sampled in Feb and Nov 1990 and in Feb 1991 without detecting TPH-D, TPH-G, or TOG. BTEX was not detected in the Feb 1990 sampling event. It was not analyzed for in the other sampling events.

In February 1993 three additional soil borings (BP1, BP2, and BP3) were advanced. Two were converted into monitoring wells MW-2 and MW-3. Soil samples collected from the borings at 30-35' depths were analyzed for TPH-G, TPH-D, BTEX, TOG, 5 metals (Cd, Cr, Pb, Ni, and Zn), and semi-volatile compounds. Petroleum hydrocarbons were not detected. Cr and Ni were detected at concentrations greater than 10x STLC. (See Table 2, Summary of Soil Analysis)

Groundwater was sampled from the three monitoring wells in Feb, May, and Sep 1993, and in Jan and Mar 1995. Groundwater has detected low to non detectable levels of petroleum hydrocarbons (up to 1.2 ppm TOG, 200 ppb TPH-D, and 16 ppb toluene) during these sampling events. Unfiltered samples of groundwater also detected elevated levels of Cr, Ni, Pb and Zn. When groundwater was filtered, concentrations of metals detected were below MCLs for California primary drinking water standards. It appears metals were detected in a uniform distribution in the upper, middle, and lower vertical zones (see Table 2). Therefore, the apparent elevated levels may represent background levels. In addition, the absence of TPH in similar zones suggests these metals are most likely representative of background, naturally occurring elements.

600 cy of contaminated soil were bioremediated and disposed at Forward Landfill in Manteca. It appears soil excavation was effective in removing soil contamination. Groundwater does not appear to be significantly impacted by hydrocarbons or metals. Continued groundwater sampling is not warranted.

TABLE 1 - EXCAVATION SOIL ANALYSIS SUMMARY (CHRONOLOGICAL)

Sample Number	Location (estimated)	Date (COC)	Analysis (as reported)	Result in units reported by lab (detection limit)
S-1-H2	initial excavation	5-11-89	gasoline	2,900 mg/kg
			kerosene	650 mg/kg
			diesel	ND (100 mg/kg)
			other	ND (100 mg/kg)
			TVH as gasoline	250 µg/kg
			benzene	ND (100 µg/kg)
			toluene	7,200 µg/kg
			ethylbenzene	950 µg/kg
			total xylenes	6,600 µg/kg
S-2-H3	initial excavation	5-11-89	gasoline	ND (10 mg/kg)
			kerosene	153 mg/kg
			diesel	101 mg/kg
			other	ND (10 mg/kg)
S-GND-G/H/1	initial excavation sidewall(?)	5-11-89	gasoline	33 mg/kg does not match
			kerosene	ND (10 mg/kg)
			diesel	ND (10 mg/kg)
			other	ND (10 mg/kg)
			oil and grease	1,400 mg/kg
S-Pit-1/2	bottom of initial excavation near 18 feet	5-18-89	EPA 8010 purgable halogenated volatile organics	ND
			benzene	ND (800 µg/kg)
			toluene	ND (800 µg/kg)
			ethylbenzene	ND (800 µg/kg)
			total xylenes	40,000 µg/kg
			TPH-gasoline	1,400,000 µg/kg
			TPH-diesel	420,000 µg/kg
			total oil & grease	1,100,000 µg/kg
S-Pit-3	eastern sidewall initial excavation	5-18-89	EPA 8010 purgable halogenated volatile organics	ND
			benzene	ND (200 µg/kg)
			toluene	ND (200 µg/kg)
			ethylbenzene	ND (200 µg/kg)
			total xylenes	2,200 µg/kg
			TPH-gasoline	190,000 µg/kg
			TPH-diesel	120,000 µg/kg
			total oil & grease	ND (30,000 µg/kg)

TABLE 1 - EXCAVATION SOIL ANALYSIS SUMMARY (CHRONOLOGICAL) - continued

Sample Number	Location (estimated)	Date (COC)	Analysis (as reported)	Result in units reported by lab (detection limit)
S-GND-A/B S-SPOILS-1	western sidewall initial excavation includes spoil(?) sample	5-18-89	benzene	ND (100 µg/kg)
			toluene	ND (100 µg/kg)
			ethylbenzene	ND (100 µg/kg)
			total xylenes	200 µg/kg
			TPH-gasoline	51,000 µg/kg
			TPH-diesel	760,000 µg/kg
			total oil & grease	3,200,000 µg/kg
APPROXIMATE INTERIM 18-FOOT LEVEL OF EXCAVATION				
S-15'-1, S-20'-2	bottom of expanded excavation 15-20 feet	6-26-89	benzene	ND (100 µg/kg)
			toluene	ND (100 µg/kg)
			ethylbenzene	ND (100 µg/kg)
			total xylenes	ND (100 µg/kg)
			TPH-gasoline	28,000 µg/kg
			TPH-diesel	430,000 µg/kg
			total oil & grease	1,900,000 µg/kg
S-RhTB-1	bottom of expanded excavation 29 feet	6-26-89	benzene	ND (100 µg/kg)
			toluene	ND (100 µg/kg)
			ethylbenzene	ND (100 µg/kg)
			total xylenes	100 µg/kg
			TPH-gasoline	ND (1,000 µg/kg)
			TPH-diesel	ND (10,000 µg/kg)
			total oil & grease	ND (30,000 µg/kg)
S-4FTB-1	bottom of expanded excavation 29 feet	6-26-89	benzene	ND (100 µg/kg)
			toluene	ND (100 µg/kg)
			ethylbenzene	ND (100 µg/kg)
			total xylenes	ND (100 µg/kg)
			TPH-gasoline	ND (1,000 µg/kg)
			TPH-diesel	ND (10,000 µg/kg)
			total oil & grease	ND (30,000 µg/kg)
APPROXIMATE FINAL 30-FOOT LEVEL OF EXCAVATION				

TABLE 2 - BORING SAMPLES ANALYSIS SUMMARY

Sample Number (boring & depth)	Location	Date (COC)	Analysis (as reported)	Result in units reported by lab (detection limit)
S-25-B1 (B1 at 25 feet)	central area of pit silty sandy gravel	6-5-89	total oil & grease	450,000 µg/kg
S-30-B1 (B1 at 30 feet)	central area of pit silty clayey gravel	6-5-89	total oil & grease	ND (30,000 µg/kg)
S-35-B1 (B1 at 35 feet)	central area of pit silty clay	6-5-89	total oil & grease	ND (30,000 µg/kg)
S-5-B2,3,4 (Borings 2, 3, 4 at 5 feet)	B-2 eastern area of pit B-3 western area of pit B-4 northern area of pit - various materials	6-6-89	total oil & grease	360,000 µg/kg
S-10-B2,3,4 (Borings 2, 3, 4 at 10 feet)		6-6-89	total oil & grease	33,000 µg/kg
S-15-B2,3,4 (Borings 2, 3, 4 at 15 feet)		6-6-89	total oil & grease	ND (30,000 µg/kg)
S-20-B2,3,4 (Borings 2, 3, 4 at 20 feet)		6-6-89	total oil & grease	ND (30,000 µg/kg)
S-66-B5 MW-1 (monitor well)	apparently 10 samples at 6, 11, 16, 21, 32, 37, 41, 52, 56, 66 feet	2-21-90	benzene	ND (3 µg/kg)
			toluene	ND (3 µg/kg)
			ethylbenzene	ND (3 µg/kg)
			total xylenes	ND (3 µg/kg)
			TPH-gasoline	ND (1 mg/kg)
			TPH-diesel	ND (10 mg/kg)
			total oil & grease	ND (20 mg/kg)

TABLE 2 - SUMMARY OF SOIL ANALYSIS

Boring or Well No.	Sample	Depth (feet)	TPHd	TPHg	B	T	E	X	TOG	Cd	Cr mg/kg	Ni mg/kg	Pb	Zn mg/kg	SemiVolatiles (8270)
BP-1	L2	20	ND	ND	ND	ND	ND	ND	ND	ND	53	170	ND	59	ND
BP-1	L3	55	ND	ND	ND	ND	ND	ND	ND	ND	79	210	ND	71	ND
BP-2 (MW-2)	L2	35	ND	ND	ND	ND	ND	ND	ND	ND	47	140	ND	78	n/a
BP-2 (MW-2)	L5	55	ND	ND	ND	ND	ND	ND	ND	ND	46	83	ND	50	ND
BP-3 (MW-3)	L2	35	ND	ND	ND	ND	ND	ND	ND	ND	66	200	ND	60	n/a
BP-3 (MW-3)	L4	55	ND	ND	ND	ND	ND	ND	ND	ND	73	180	ND	63	ND

TABLE 3 - SUMMARY OF GROUNDWATER ANALYSIS

Boring or Well No.	Sample	Depth (feet)	TPHd µg/L	TPHg	B	T µg/L	E	X	TOG mg/L	Cd	Cr mg/L	Ni mg/L	Pb	Zn mg/L	SemiVolatiles (8270) µg/L
GRAB SAMPLES															
BP-2 (MW-2)	W1	20	n/a	ND	ND	ND	ND	ND	n/a	ND	ND	0.06	ND	0.025	n/a
BP-2 (MW-2)	W2	45	n/a	ND	ND	ND	ND	ND	n/a	ND	2.3	6.8	ND	3.1	n/a
BP-3 (MW-3)	W1	25	n/a	ND	ND	ND	ND	ND	n/a	ND	0.48	1.2	ND	0.58	n/a
BP-3 (MW-3)	W2	40	n/a	ND	ND	2.1	ND	ND	n/a	ND	0.06	0.16	ND	0.093	n/a
WELL SAMPLES															
MW-1	MW-1		ND	ND	ND	4.3	ND	ND	ND	ND	0.93	2.3	ND	0.65	ND
MW-2	MW-2		76	ND	ND	16	ND	ND	1.2	ND	0.93	2.6	ND	0.84	Dipropylene glycol methyl ether (20) Ethylhexanol (20)
MW-3	MW-3		ND	ND	ND	10	ND	ND	ND	ND	0.56	1.5	ND	0.56	Dipropylene glycol methyl ether (10)

Notes:

MCL .05 .1

ND - not detected; mg/L - milligrams per liter ("part per million, ppm"); µg/L - micrograms per liter ("part per billion, ppb");

mg/kg - milligrams per kilogram ("ppm"); n/a - not analyzed

TPHd - total petroleum hydrocarbons as diesel (high boiling point, C10-C23); TPHg - total petroleum hydrocarbons as gasoline (low boiling point, C6-C12).

B - benzene; T - toluene; X - total xylenes; E - ethyl-benzene; TOG - total oil and grease; Cd - cadmium, Cr - chromium, Ni - nickel, Pb - lead, Zn - zinc

SemiVolatiles - semi-volatile organic compounds per EPA Method 8270

Table 1
Historical Groundwater Analytical Results

Analyte	MW-1								MW-2					MW-3				
	02/90	11/90	02/91	02/93	05/93	09/93	01/95	03/95	02/93	05/93	09/93	01/95	03/95	02/93	05/93	09/93	01/95	03/95
TPH as Diesel	ND	ND	ND	ND	ND	ND	0.20	ND	0.076	ND	ND	0.090	ND	ND	ND	ND	ND	ND
TPH as Gasoline	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA
Toluene	ND	ND	ND	0.0043	ND	ND	ND	NA	0.016	ND	ND	ND	NA	0.010	ND	ND	ND	NA
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA
TOG	ND	ND	ND	ND	ND	ND	NA	NA	1.2	ND	ND	NA	NA	ND	ND	ND	ND	NA
Cadmium	NA	NA	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA
Chromium	NA	NA	NA	0.93	1.4	1.3	ND	NA	0.93	0.74	0.52	ND	NA	0.56	1.5	3.1	ND	NA
Nickel	NA	NA	NA	2.3	1.5	2.8	ND	NA	2.6	0.75	1.3	0.02	NA	1.5	1.6	1.1	ND	NA
Lead	NA	NA	NA	ND	0.1	0.037	0.01	NA	ND	0.027	0.015	ND	NA	ND	0.12	0.011	ND	NA
Zinc	NA	NA	NA	0.65	0.42	0.68	NA	NA	0.84	0.31	0.31	0.17	NA	0.56	0.16	0.29	0.01	NA
SVOC	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA

Notes:

All concentrations reported in milligrams per Liter (mg/L)

ND = Not detected

NA = Not Analyzed

All metal samples were unfiltered with the exception of the January 1995 sample

TPH = Total petroleum hydrocarbon

TOG = Total oil and grease

SVOC = Semi-volatile organic compounds per EPA Method 8270