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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH
Alameda County
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577

CC45

July 5, 1995

STID 1023

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Dan Kirk
Shell Oil Company
P.O. Box 4023
Concord, CA 94524

RE: SHELL STATION, 2175 MARINA BOULEVARD, SAN LEANDRO

Dear Mr. Kirk:

This letter confirms the completion of site investigation and remedial action for the five (5) underground storage tanks formerly located at the above-described location, a still-active service station. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including 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 storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e). If a change in land use is proposed, the owner must promptly notify this agency.

Please contact Scott Seery at (510) 567-6783 if you have any questions regarding this matter.

Sincerely,

Rafat A. Shahid
Director of Environmental Services

cc: Jun Makishima, Acting Chief, Env. Protection Division
Kevin Graves, RWQCB
Mike Harper, SWRCB
Mike Bakaldin, San Leandro Fire Department
Files/SOS

- SIGNED COPY -

Seery

01-1342

CALIFORNIA REGIONAL WATER

JUN 21 1995

QUALITY CONTROL BOARD

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: 05/31/95**

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy #250**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Scott Seery** Title: **Sr. Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **Shell Service Station**
Site facility address: **2175 Marina Blvd., San Leandro, CA 94577**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1023**
URF filing date: 5/19/89 SWEEPS No: **N/A**
10/3/89

Responsible Parties:	Addresses:	Phone Numbers:
Shell Oil Company	P.O. Box 2099 Houston, TX 77252	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	10,000	gasoline	removed	9/27/89
2	8,000	"	"	"
3	"	"	"	"
4	550	waste oil	"	"
5	500?	" "	"	2/6/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: fuel UST: ULRs (2) indicate pipe leak / spills
old W.O. UST: spillage (?)

Site characterization complete? YES

Date approved by oversight agency:

Monitoring Wells installed? YES Number: 3

Proper screened interval? YES

Highest GW depth below ground surface: 10.92' Lowest depth: 13.23'

Flow direction: predominantly SOUTH

Most sensitive current use: active retail gas station

Are drinking water wells affected? NO Aquifer name: San Leandro Cone

Leaking Underground Fuel Storage Tank Program

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 filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	2 x 8000; 1 x 10,000; 2 x 550 gals	disposal- Crosby & Overton Long Beach, CA	9/27/89
Piping	UNK		
Free Product	NA		
Soil	2466 yds^3	disposal- WCCLF Richmond, CA	12/13 and 12/27/89
Groundwater	NA		
Barrels	NA		

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before	Soil (ppm) After	Water (ppb) Before	Water (ppb) After
TPH (Gas)	14,000[1]	77	6600	410
TPH (Diesel)	ND	NA	NA	NA
TPH-mo	150[2]	140[2]	"	"
Benzene	250	0.25	ND	ND
Toluene	1100	0.28	"	2.7
Xylene	2400	0.62	"	3.5
Ethylbenzene	200	0.21	61	0.6
Oil & Grease	54[2]	440[2]	NA	NA
Metals (Pb)	29[3]	5.6	"	"
Other (HVOC)	ND	ND	"	ND
(SVOC, total)	ND[2]	6.9[2]	"	"
(PCB)	" [2]	NA	"	NA

Note: 1) "Before" soil results are from pre-closure assessment (soil borings) performed during 3/89. "After" soil results, unless indicated otherwise, are associated with 9/89 UST closures.

2) Soil results are for initial and final samples associated with abandoned waste oil UST excavation.

3) Only those metal analyses results which appear above likely background or otherwise noteworthy concentrations are presented herein.

Leaking Underground Fuel Storage Tank Program

Comments (Depth of Remediation, etc.):

No over-excavation was associated with the fuel UST replacement project. Only the abandoned waste oil UST closure had any associated soil over-excavation, details of which are described under Section VII, *Additional Comments, Data, Etc.*

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES
Site management requirements: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommisioned: NO

Number Decommisioned: NONE Number Retained: 3 (pending case closure)

List enforcement actions taken: NONE

List enforcement actions rescinded: NONE

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Sr. Haz Mat Specialist
Signature: Date: 6-12-95

Reviewed by
Name: Thomas Peacock Title: Supervising HMS
Signature: Date: 6-19-95

Name: Jennifer Eberle Title: Haz Mat Specialist
Signature: Date: 6-15-95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6-19-95 RB Response: Approved
RWQCB Staff Name: Kevin Graves Title: San. Engineering Asso. Date: 6/26/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

In preparation for UST closure and replacement, Shell's contractor advanced 4 soil borings around the (then) current USTs: three (3) borings around the fuel UST complex (borings S-B, S-C, and S-D), and one (1) adjacent to the waste oil UST (S-A) (Plates 1 and 5). A shallow "boring" was advanced into the regular UST sand backfill and a sample (S-G-1) collected adjacent to the tank's fill riser. An additional soil boring (S-E) was advanced in the area of the site where the new USTs were to be installed. GW was encountered at ~10' BG. Boring logs indicate "oil sheen" / "strong chemical odor" noted on the drill string and (ground) water encountered in boring S-D at ~10' depth, south of the fuel UST complex.

Soil samples submitted for analyses from soil borings were those collected from the apparent capillary zone @ 10 - 11' depth. All soil sample results were unremarkable for TPH-G and BTEX constituents; most were "ND," and those which were detected (borings S-B, S-C) were just above detection limits. Soil sampled from boring S-A, emplaced adjacent to waste oil UST, was additionally analyzed for HVOC, TPH-D, and TOG. None were detected.

However, the backfill sample (S-G-1) revealed 14,000 ppm TPH-G and 250 ppm benzene, among other elevated levels of the remaining aromatics. As a result of these initial results, an ULR was issued.

The four USTs were removed during 9/89 under SLFD oversight. USTs and soil are reported to have appeared "normal" by the SLFD inspector(s). Sidewall (3) and bottom (6) samples were collected from the fuel UST pit (Table 1, Plate 2). Two (2) soil samples were collected from below the waste oil UST. (Note: these two samples appear to have been collected one below the other - no explanation has been offered.) All laboratory results associated with the fuel USTs samples, although some low "hits" were identified, were nonetheless unremarkable. Waste oil UST sample results were even less remarkable, although analyses for SVOC and HVOC were not performed (Table 2, Plate 2).

"Strong" HC odor was noted by the SLFD inspector associated with the product piping trenches near one of the dispenser islands. Another ULR was issued by SLFD as a result of these observations. However, the perceived "hot" areas did not appear as such based on the unremarkable soil sample results (Table 1, Plate 3).

Concurrently with UST removals, a "temporary" trench (Plate 2) was excavated in an area where the new USTs were to be placed, and a sample collected (depth?). TPH-G was noted in this sample at 860 ppm, as well as detectable E and X. This trench appears to have been expanded to accept the new USTs. Sidewall and a "grab" GW samples were collected from the completed excavation (Plate 4). Only low concentrations of total xylenes were detected in sidewall samples. The GW samples revealed the presence of 190 ppb TPH-G with no BTEX.

An abandoned waste oil UST was later discovered 1/18/90 beneath a planter area at the intersection of Doolittle and Marina Blvd. (Plate 6) during work associated with a storm drain trenching project. The storm drain apparently passes through the Shell site. Old site maps (Plate 1) show a previous, pre-1970, configuration of the service station oriented much closer to this intersection, the subject UST likely associated with this earlier operation. Holes were reportedly punched into the UST during trenching just before its discovery, resulting in a small release. It is reported that Crosby & Overton pumped the remaining contents from the tank on 1/18/90, and the tank reportedly removed on 2/6/90 (SLFD present?).

Although the follow-up report indicates only "minor" impact, soil was excavated from the area of this abandoned UST in at least two rounds, expanding the size of the final excavation to an overall depth of ~8 - 12' in depth, and as much as 15' laterally (Table 3, Plate 7). Certain of the confirmatory samples were analyzed for TPH-G and -D, SVOC, HVOC, metals, TOG and PCBs. PCBs and HVOCs were not detected in any samples. Metals appear to be at geogenic concentrations and distribution. Detectable (ppb range) SVOC were identified in a few samples. Only TOG and TPH-mo appear to be left behind in any noteworthy concentrations (≤ 440/140 ppm, respectively, @ 9' BG). GW was reportedly encountered @ ~12' BG.

Three (3) wells were subsequently constructed adjacent to both generations of waste oil USTs and post-1970 fuel UST locations (Plate 6). Soil samples revealed either ND or unremarkable concentrations of target compounds: TPH-G/-D, BTEX, TPH-mo, TOG, metals, SVOC and HVOC (Table 4). Methylene chloride (ppb range) was detected in soil analyzed from each boring, though not in every soil sample from each boring, suggesting a lab-induced error.

Initial GW was encountered in a silty SAND at ~16' BG during drilling, stabilizing several feet higher in the well casings, suggesting confined conditions locally. Only low (ppb) concentrations of TPH-G/-D and TX were detected in water sampled from MW-3, located directly adjacent to the pre-1970 waste oil UST excavation (Table 5). (Note: the PNA bis(2-ethylhexl)phthalate was also detected in each well, but, as a plasticizer, such may be related to the use of disposable bailers, among other possible sources). No other noteworthy target compound concentrations were identified. GW was calculated to flow to the south/SE initially, suggesting wells were appropriately located.

From approximately November 1990 through October 1992 the wells were sampled and monitored quarterly, and then semi-annually through October 1994 (Table 7). During this period only low ppb concentrations of TPH-G and various BTEX constituents were detected periodically in water sampled only from MW-3, located adjacent to the pre-1970 waste oil UST. Benzene was detected only twice during this period, the highest concentration of 0.7 ppb discovered during 11/90. GW flow was consistently calculated towards the south to SSE, with one event (3/94) to the SW, and one (9/93) to the west (Plates 8 - 20).

Beginning with the 9/93 and subsequent sampling events, the lab indicated the presence of discrete peaks in the TPH-G range, which were not indicative of gasoline, in GW sampled from wells MW-1 and -3. As a result, ACDEH requested GW samples to be analyzed for the presence of both HVOC and SVOC to determine if these compounds could account for this apparent anomaly. Subsequent GW samples from wells MW-1 and -3 did not reveal the presence of HVOC or SVOC, even though the lab still indicated the presence of discrete peaks not indicative of gasoline in sample chromatograms. (Note: this site lies near, although not presently identified as being *within*, mapped VOC plumes associated w/ the central San Leandro HVOC study.) To date, the source of these reported peaks is unknown.

The data clearly document that the apparent release or releases from the fuel and waste oil USTs have not resulted in a marked impact to underlying GW. The apparent release from the former fuel UST system appears to have been significantly limited to the porous backfill. The apparent release from the abandoned waste oil UST appears to have been significantly limited by and bound to the soil matrix, which was subsequently removed.