



ALISTO ENGINEERING GROUP

June 16, 1997

ENVIRONMENTAL
PROTECTION

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Ms. Amy Leech
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

10-198

Subject: Request for No Further Action Status
Former Mobil Station 04-334
2492 Castro Valley Boulevard
Castro Valley, California

Dear Ms. Leech:

At the authorization of Mobil Business Resources Corporation (Mobil), Alisto Engineering Group prepared this request for your approval of no further action status for former Mobil Station 04-334, 2492 Castro Valley Boulevard, Castro Valley, California. From review and evaluation of reports on investigative activities completed to date at this and neighboring sites, it is apparent that no further action is warranted for this site. Mobil hereby rescinds the work plan for preliminary site assessment, dated February 3, 1994.

SUMMARY OF ENVIRONMENTAL ASSESSMENT

The former Mobil site is currently a Jiffy Lube oil change service station. East of the site, across from Stanton Avenue, is Thrifty Oil Company Station No. 054, at 2504 Castro Valley Boulevard, and about 300 feet southwest of the site is Unocal Service Station No. 3072, at 2445 Castro Valley Boulevard. The locations of the three sites are shown on Figure 1. A summary of environmental assessment activities completed at these sites based on review of files at the Alameda County Health Care Services Agency (ACHCSA) files is presented below.

Former Mobil Oil Corporation Station 04-334

Underground storage tanks were removed from the Mobil site in 1983. Soil samples were collected for geotechnical and physical analysis for compaction of the tank cavity, but not for chemical analysis. Petroleum hydrocarbon odor was not noted during backfilling of the tank cavity (Judd Hull and Associates, 1983). During a geotechnical assessment of the property in 1986, Borings B-1 to B-6 were drilled and sampled. Petroleum hydrocarbon odors were noted only during drilling of Boring B-3, within the tank backfill, but were not noted below a depth of 8 feet (Giles Engineering, 1986).

Castro Valley Boulevard and Stanton Avenue were subsequently widened, encroaching up to 40 feet of the property before construction of the Jiffy Lube station. A site plan showing the locations of the former tank cavity and soil borings is attached as Figure 2.

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Thrifty Oil Company Station No. 054

Beginning in December 1986, 16 soil borings were drilled on and offsite to depths of up to 5 feet below grade, and 12 groundwater monitoring wells were installed. Free floating product was noted in eight of the monitoring wells at thicknesses of up to 0.07 foot. Dissolved-phase benzene was detected in groundwater samples collected from nine of the wells at concentrations of up to 17000 micrograms per liter (ug/l).

A soil vapor extraction system was installed in August 1989 and began operation in April 1990. A groundwater extraction and treatment system began operation in January 1991. The system remains in operation, and as of September 19, 1996, approximately 16600 gallons of groundwater has reportedly been extracted (Thrifty Oil, 1997).

Results of the most recent groundwater sampling event available on file (June 19, 1996) indicate that free product was not observed in any of the wells, and benzene was detected at concentrations of up to 3300 ug/l. Groundwater gradient direction remains consistently in an easterly direction across the site.

One Thrifty Oil monitoring well, RS-9, was installed in the Stanton Avenue sidewalk in front of Jiffy Lube, which is about 20 feet downgradient of the former Mobil Oil underground fuel tanks. Review of the most recently available records documenting the September 1996 sampling event revealed that benzene, ethylbenzene and total xylenes were not detected in the sample collected from RS-9. TPH-G was detected at a concentration of 490 ug/l and appears to be steadily decreasing compared to earlier sampling events (Thrifty Oil, 1997). The attached table presents the results of sampling and analysis of RS-9.

Former Unocal Service Station No. 3072

In November 1989, three steel underground fuel tanks and one steel waste oil tank were removed from this site for subsequent replacement. Two holes were observed in one gasoline fuel tank. Analysis of compliance soil samples from the sidewalls of the tank cavity detected up to 160 parts per million (ppm) TPH-G and 0.33 ppm benzene. After further excavation of about 2400 cubic yards of soil in the vicinity of the tank field, soil samples were collected for laboratory analysis which detected up to 1900 ppm TPH-G and 17 ppm benzene in the samples. No additional excavation within the tank field was performed. Soil samples collected after removal of the pump islands detected up to 87 ppm TPH-G and 0.47 ppm benzene (Unocal, 1992).

To assess the nature and extent of petroleum hydrocarbons in the groundwater, five monitoring wells were installed onsite. Analysis of groundwater samples collected since March 1990 detected up to 44 ug/l TPH-G and 4.2 ug/l benzene. Between September 1991 and the final groundwater sampling event in June 1992, petroleum hydrocarbons were not

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detected above the reported detection limits in any of the monitoring wells. The groundwater gradient direction at this site as interpreted from groundwater elevation data, was northerly to easterly (Unocal, 1992).

An assessment of potential beneficial uses of groundwater was performed as part of Unocal's request for case closure in 1992. The study identified the nearest surface water as an unnamed tributary to San Lorenzo Creek, approximately 1200 feet southwest of the site. A survey of water wells within a 1/2-mile radius of the site identified one domestic water well at Eden Township Hospital, approximately 1/3 mile north of the site (Unocal, 1992). Based on the results of this study, it appears that there are no beneficial uses of groundwater that are or will be threatened from a release at the site (Alameda County Health Care Services Agency, 1993).

The California Regional Water Quality Control Board, San Francisco Bay Region, subsequently recommended case closure for the site and the wells were destroyed (Regional Water Quality Control Board, 1993).

RATIONALE FOR NO FURTHER ACTION

Based on the results of activities performed to date at this site and adjacent sites, it is apparent that no further action is warranted for the former Mobil Oil site for the following reasons:

- All underground storage tanks were removed from the former Mobil Oil station in 1983 and the property is no longer used as a retail service station. As such, there is no longer any primary source of petroleum hydrocarbons to the soil and groundwater.
- Review of groundwater assessment activities performed at the neighboring Thrifty Oil site shows that the groundwater gradient beneath the site has consistently been in a northerly to easterly direction. Depth to groundwater at the Thrifty Oil site has ranged from 10 to 4 feet below grade, varying only about 2 feet according to historical monitoring data.
- Groundwater Monitoring Well RS-9, installed by Thrifty Oil, at about 20 feet downgradient of the Mobil Oil former underground fuel tanks appears adequate to assess the nature and impact of residual petroleum hydrocarbons if any in the groundwater at the former Mobil Oil station. Analysis of a groundwater sample collected from RS-9 during the most recent available event in September 1996 did not detect benzene above the reported detection limit or TPH-G at concentrations that

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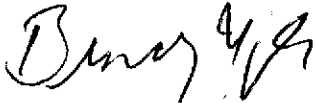
warrant additional action. The residual dissolved-phase hydrocarbons detected in Monitoring Well RS-9 are anticipated to eventually bioattenuate over time.

- There are no known sensitive receptors, such as domestic water supply wells and surface bodies of water, in the vicinity of the site that could be or could have been impacted by any residual petroleum hydrocarbons at the former Mobil Oil site.
- Considering the current uses of adjacent properties, the hydrogeologic conditions at the site, and the concentration of residual hydrocarbons in the groundwater, there appears to be no imminent threat to public health or the environment. *Based on?*

We appreciated your consideration of Mobil's request for no further action status at this site. Please call Ms. Cherine Fouch of Mobil, at (510) 625-1173, or me at (510) 295-1650 if you have questions or comments regarding this request.

Sincerely,

ALISTO ENGINEERING GROUP



Brady Nagle
Project Manager

Enclosure

cc: Mr. Eddy So, California Regional Water Quality Control Board,
San Francisco Bay Region (with enclosure)
Ms. Cherine Fouch, Mobil Business Resources Corporation (with enclosure)

→ 2063 Main St., Suite 501
Oakley 94561 510-625-1173

REFERENCES

Alameda County Health Care Services Agency, 1993. Letter to Richard Hiatt, California Regional Water Quality Control Board, from Scott Seery, ACHCSA. January 4.

California Regional Water Quality Control Board, San Francisco Bay Region, 1993. Case Closure for Underground Storage Tank Site, Unocal Station No. 3072, 2245 [sic] Castro Valley Boulevard, Castro Valley, California. April 15.

Giles Engineering, 1986. Geotechnical Engineering Exploration and Analysis, Proposed Jiffy Lube, Castro Valley Boulevard and Stanton Avenue, Castro Valley, California. June 26.

Judd Hull and Associates, 1983. Backfill of Tank Excavation at 2492 Castro Valley Boulevard, Alameda County, California. November 15.

Thrifty Oil Company, 1997. Third Quarter Report 1996, Thrifty Oil Company Station #054, 2504 Castro Valley Boulevard, Castro Valley, California. January 17.

Unocal, 1992. Request for Case Closure, Unocal Station No. 3072, 2445 Castro Valley Boulevard, Castro Valley, California.

SUMMARY OF GROUNDWATER MONITORING
 THRIFTY OIL CO. STATION NO. 054
 2504 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-198

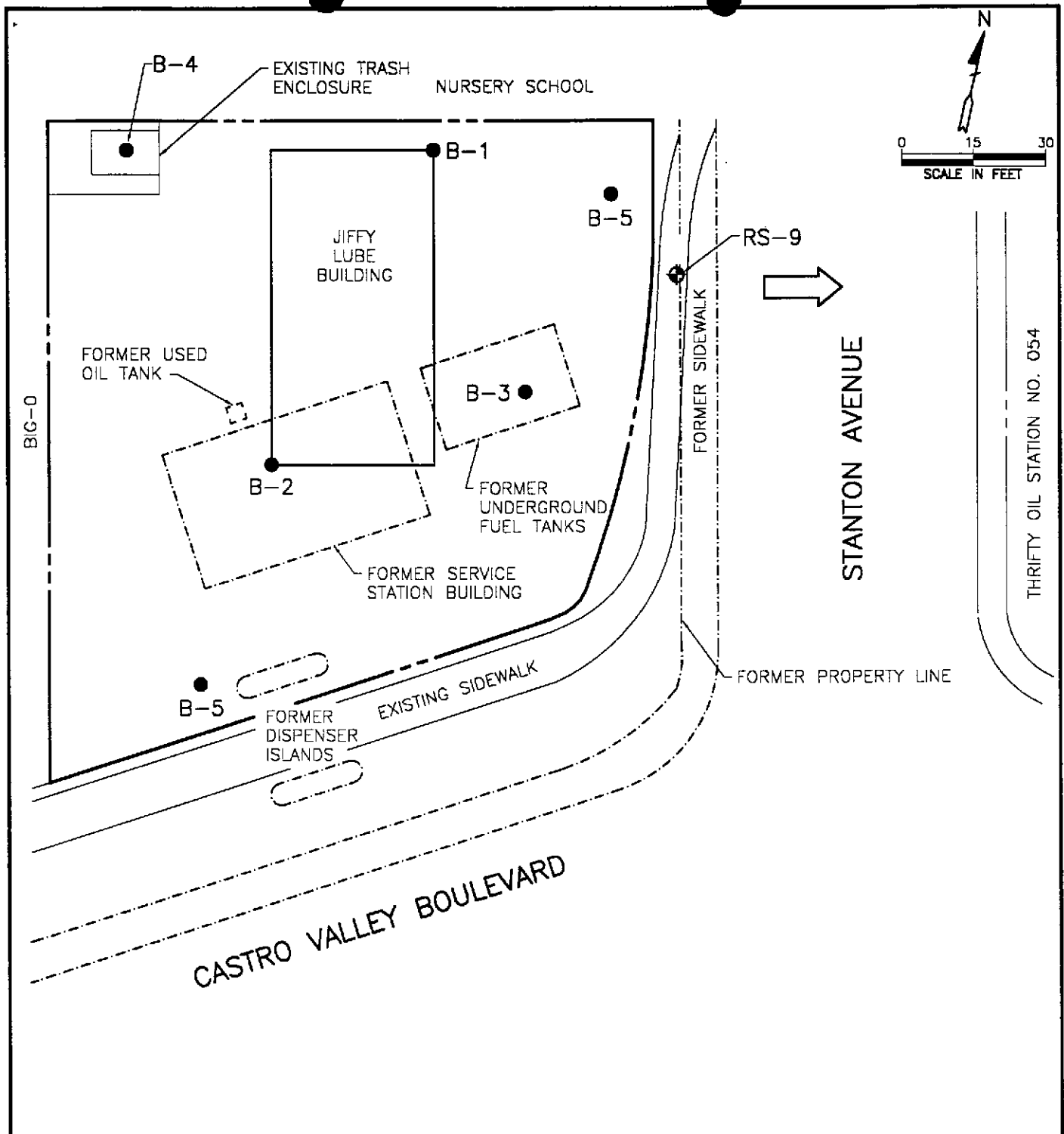
WELL ID	DATE	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)
RS-9	08/07/91	NA	0.5	ND	330	1200
	09/27/91	13000	3.5	3.0	82	140
	10/23/91	11000	ND	ND	39	340
	11/06/91	6800	8.4	0.6	22	230
	12/04/91	6500	6.5	0.7	87	200
	01/29/92	8100	22	10	140	260
	02/26/92	13000	40	16	220	600
	03/19/92	12000	21	12	100	280
	04/22/92	8600	ND	ND	20	37
	05/21/92	6000	21	10	53	210
	06/25/92	370	2.3	1.5	0.7	4.3
	07/30/92	3600	20	ND	39	80
	08/20/92	3000	0.7	5.2	2.0	5.3
	09/30/92	9200	4.8	6.5	12	91
	12/23/92	2000	17	ND	8.2	18
	03/10/93	1500	ND	2.6	21	12
	06/09/93	1300	0.6	1.7	ND	7.5
	09/14/93	1500	1.3	7.6	4.1	14.0
	12/14/93	560	ND	ND	ND	5.5
	03/02/94	1100	<0.3	<0.3	<0.3	<0.5
	06/06/94	290	0.58	0.53	1.1	5.8
	09/06/94	890	<0.3	<0.3	<0.3	3.1
	12/07/94	940	22	23	10	32
	03/08/95	1600	<0.5	<0.5	<0.5	2.3
	06/15/95	3200	2.2	5.3	4.3	3.1
	09/05/95	1100	<0.5	<0.5	<0.5	<1
	11/21/95	1100	1.1	2.9	3.5	3.0
	03/11/96	440	0.7	0.34	<0.3	3.7
06/19/96	580	3.8	0.49	1.2	<0.5	
09/16/96	490	<0.3	1.6	<0.3	<0.5	

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 ug/l Micrograms per liter
 NA Not applicable
 ND Not detected/measurable/analyzed

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LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- SOIL BORING
- ← INTERPRETED GROUNDWATER GRADIENT DIRECTION

FIGURE 2

SITE PLAN

FORMER MOBIL OIL CORPORATION
 STATION 04-334
 2492 CASTRO VALLEY BOULEVARD
 CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-198



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA