July 6, 1998

Mr. Thomas F. Peacock

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject:

Second Quarter Groundwater Monitoring/

Free Product Removal Progress ARAMARK Uniform Services, Inc. 330 Chestnut Street, Oakland, California

Dear Mr. Peacock:

This letter provides an update of groundwater monitoring results and free product removal progress at the above referenced facility during the second quarter 1998 (April through June). All activities were conducted in accordance with revised sampling requirements stipulated in a letter from Ms. Jennifer Eberle of the Alameda County Health Care Services Agency, dated November 12, 1996, and a telephone conversation between Ms. Eberle and Kevin Bate of RMT on March 14, 1997.

Background

ARAMARK Uniform Services, Inc., (ARAMARK) owns and operates an industrial laundry facility located at 330 Chestnut Street in Oakland, California. A 2,000-gallon diesel fuel underground storage tank (UST) was formerly maintained at this facility and was removed in December 1988. Based on the information presented in the tank closure documentation report, the Alameda County Environmental Health Department (ACEHD) requested a subsurface investigation to determine whether the soil and groundwater surrounding the former UST had been impacted by petroleum hydrocarbons. Remedial investigation activities were conducted by RMT from March 1989, through November 1992, and included the advancement of soil borings and four groundwater monitoring wells (RAO-1 through RAO-4) in the vicinity of the former excavation area (Attachment A). A product recovery canister (a buoy sheathed by a semi-permeable hydrophobic membrane atop a product storage sump) was installed in monitoring well RAO-3 in December 1992.

From December 1992 through May 1995, approximately 6,202-mL (1.64 gallons) of free-product were recovered, however, product recovery activities conducted during the period from June 1995 through October 1995 did not result in the recovery of additional free product. In

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November 1995, the ACEHD requested that ARAMARK collect groundwater samples from RAO-3 to determine groundwater quality in the vicinity of the former diesel fuel UST excavation. Based on an agreement between ACEHD and RMT, however, the sampling activities were postponed until the residual petroleum hydrocarbon buildup on the well screen and in the surrounding sand pack could be remediated. With ACEHD approval, RMT added approximately 15 gallons of a dilute (5%) hydrogen peroxide (H₂O₂) solution to product recovery well RAO-3 on a monthly basis from November 1995 through June 1998 to help remove the residual petroleum hydrocarbons present within the well packing.

Concurrent with free product collection activities at the site, two petroleum hydrocarbon USTs and one mop oil UST were removed from September 1993 to January 1994. Soil sampling activities were conducted during the UST removal activities, as required by the ACEHD. The results of the chemical analyses performed on the soil samples collected from the floor of the former diesel fuel dispenser vault excavations, the former mop oil tank excavation, and in the vicinity of the eastern section of the loading dock identified the presence of petroleum hydrocarbons. On May 5, 1995, two soil borings were advanced and two groundwater monitoring wells installed; MW-4 located in the vicinity of the former underground mop oil storage tank and MW-5 located in the vicinity of the former diesel fuel dispenser vaults. A site plan showing the location of the former diesel fuel tanks and the mop oil tank is presented in Attachment A.

Groundwater Monitoring Activities-Second Quarter 1998

Based on the revised sampling requirements requested by ACHCSA, all monitoring wells are to be sampled annually, and RAO-3 is to be sampled each quarter, if free product is not present. During the second quarter sampling event, only RAO-3 was to be sampled. Because of the presence of a free product sheen in RAO-3 at the time of sampling, a groundwater sample was not collected for analysis.

A dilute solution of hydrogen peroxide was added to this well each month during this quarterly reporting period to assist in the cleaning of the well screen and surrounding sand pack.



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Product Recovery Activities-Second Quarter 1998

Approximately 60mL of free product was recovered from the recovery well RAO-3 during the second quarter activities (April through June 1997) using the installed product recovery canister. On April 24, 1998, recovery well RAO-3 was subjected to augmented liquid extraction (ALE) to remove free phase hydrocarbons (FPH) and dissolved phase contamination from the vicinity of the wellbore. A vacuum truck was used to apply a vacuum pressure at recovery well RAO-3 by inserting a slotted drop pipe inside the sealed well for approximately 40 minutes. Recovery well RAO-3 was allowed to recharge for approximately 15 minutes before the vacuum was applied for an additional 20 minutes. Approximately 5 gallons of free phase hydrocarbons and approximately 360 gallons of an oil/water mixture were removed. Wastewater generated was transported as non-RCRA hazardous waste to the Evergreen Oil recycling facility located in Newark, California. A copy of the waste manifest is presented in Attachment B.

In summary, approximately 5 gallons of free product were recovered during the second quarter 1998 using the installed product canister and ALE. Product recovery to date at RAO-3 totals 7.31 gallons. A summary of the product recovery operations is presented in Attachment C.

If you have any questions regarding this report, please feel free to contact me at (847) 995-1500.

Sincerely,

RMT, Inc.

David B. McKenzie, P.E.

Project Manager

Attachments:

A: Site Plan

B. Waste Manifest

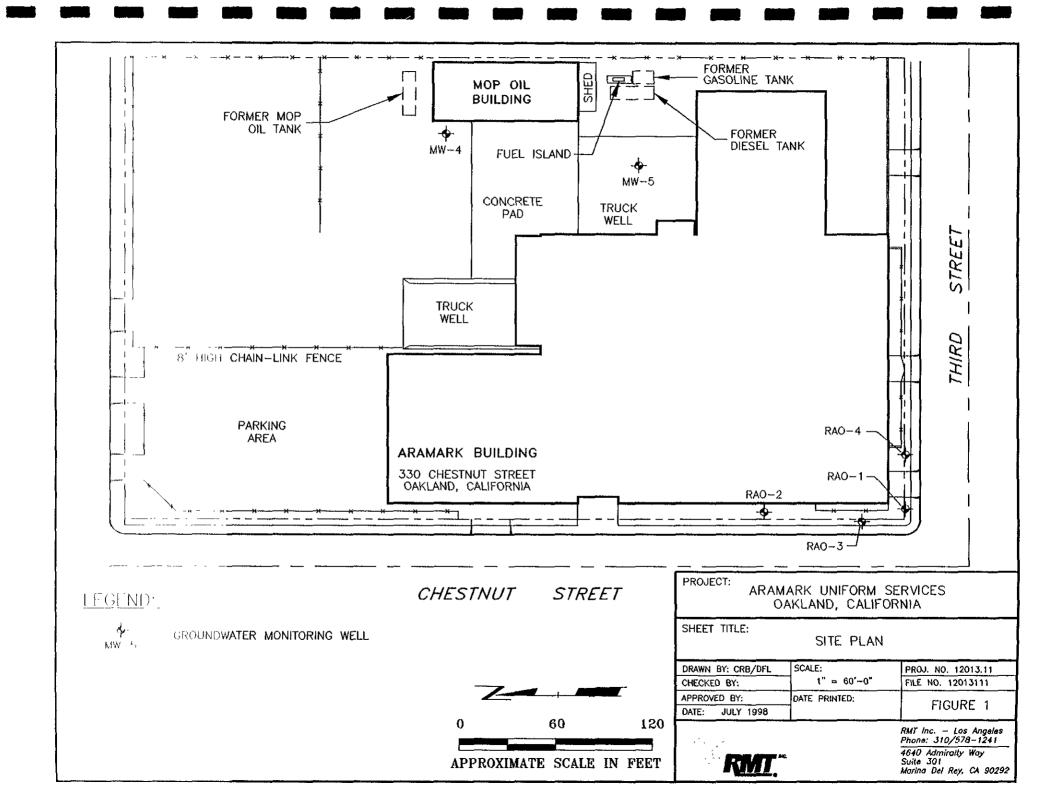
C. Product Recovery Activities

Samuel J. Niemann, The Wetlands Company



XC.

ATTACHMENT A
SITE PLAN



ATTACHMENT B
WASTE MANIFEST

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ATTACHMENT C PRODUCT RECOVERY ACTIVITIES

Sampling Date	Volume of Product Removed	Volume of Water Removed	Depth to Product	Depth to Water	Thickness of Product (ft)
Date	(mL)	(mL)	(ft-bgs)	(ft-bgs)	Froduct (II)
12-03-92	0	20	8.65	8.67	0.02
12-04-92	o	o	8.61	8.63	0.02
12-08-92	18	0	8.52	8.52	0.00
12-09-92	10	0	8.24	8.24	0.00
12-10-92	0	3	8.02	8.02	0.00
12-14-92	30	200	8.28	8.29	0.01
12-15-92	0	0	8.32	8.32	0.00
12-16-92	0	0	8.52	8.52	0.00
12-18-92	18	0	8.63	8.66	0.03
12-21-92	10	0	8.39	8.42	0.03
12-22-92	20	30	8.56	8.58	0.02
12-23-92	18	0	8.35	8.37	0.02
12-24-92	22	0	8.42	8.53	0.11
12-28-92	15	. 0	8.53	8.64	0.01
12-29-92	20	0	8.58	8,60	0.02
12-30-92	18	0	8.22	8.24	0.02
01-04-93	23	18	8.45	8.47	0.02
01-05-93	12	0	8.28	8.30	0.02
01-06-93	10	0	8.05	8.48	0.43
01-07-93	8	Ö	8.64	8.66	0.02
01-08-93	3	10	8.36	8.37	0.01
01-11-93	8	0	8.02	8.16	0.14
01-12-93	13	8	7.68	8.06	0.38
01-13-93	45	0	7.64	8.04	0.40
01-14-93	40	0	8.00	8.32	0.32
01-15-93	40	0	7.98	8.30	0.32
01-18-93	48	0	8.00	8.11	0.11
01-19-93	50	0	8.00	8.22	0.22
01-20-93	44	0	8.00	8.02	0.02
01-21-93	5	40	7.84	8.00	0.16
01-22-93	450	42	774	7 98	ი <u>24</u>
02-0 1 -93	25	500	7 99	8 45	0.46
03-25-93	380	70	8 11	8 20	0.09
04-09-93	500	18	811	8 20	0 09
04-23-93	210	63	7 49	7 51	0.02

Sampling	Volume of	Volume of	Depth to	Depth to	Thickness of
Date	Product Removed	Water Removed	Product	Water	Product (ft)
05.00.00	(mL)	(mL)	(ft-bgs)	(ft-bgs)	
05-03-93	560	90	8.54	8.58	0.04
05-11-93	38	114	8.35	8.45	0.10
05-20-93	1	0	8.39	8.42	0.03
06-02-93	5	65	8.37	8.41	0.04
06-18-93	100	0	8.46	8.57	0.14
07-09-93	150	0	8.20	8.25	0.05
11-11-93	40	80	7.98	7.91	0.07
12-10-93	20	25	8.62	8.59	0.03
01-29-94	0	0	8. <i>7</i> 6	8.76	0.00
03-10-94	0	0	8.63	8.63	0.00
05-03-94	1,976	658	8.93	9.15	0.22
06-17-94	6	565	8.85	8.85	0.00
06-21-94	1	540	8.50	8.52	0.02
06-28-94	5	400	8.69	8.71	0.01
07-08-94	26	500	8.61	8.61	0.00
07-14-94	0	400	8.73	8.73	0.00
07-20-94	20	500	8.60	8.62	0.02
07-26-94	60	560	8.68	8.71	0.03
08-02-94	21	500	8.46	8.50	0.04
08-12-94	30	640	7.74	7.79	0.05
08-18-94	0	550	9.24	9.24	0.00
08-25-94	0	550	8.78	8.78	0.00
08-31-94	0	550	8.74	8.74	0.00
09-09-94	150	3 7 5	7.74	7.76	0.02
09-15-94	0	525	8.93	8.93	0.00
09-22-94	5	305	8.97	8.99	0.02
09-30-94	0	420	8.86	8.86	0.00
10-07-94	0	550	8.74	8.74	0.00
10-14-94	0	520	8.80	8.80	0.00
10-21-94	0	520	8.88	8.88	0.00
10-28-94	0	525	8.90	8.90	0.00
11-04-94	0	550	8.00	8.00	0.00
11-09-94	0	520	7.99	7.99	0.00
11-18-94	80	430	8 D5	815	0.10
11-25-94	130	300	8.00	7 99	נו יול
11-30-94	3()	260	7 94	7.95	0.01
12-09-94	ئں	48C	8 03	8 O7	0.04

Sampling Date	Volume of	Volume of Water Removed	Depth to Product	Depth to Water	Thickness of Product (ft)
Date	Product Removed (mL)	yvater Kemoved (mL)	(ft-bgs)	(ft-bgs)	Product (It)
12-16-94	30	120	7.96	7.99	0.03
12-22-94	20	500	8.06	8.09	0.03
12-29-94	80	360	7.71	7.73	0.02
01-06-95	25	500	7.57	7.60	0.03
01-03-95	50	70	7.55	7.54	0.00
01-19-95	5	510	7.53	7.54	0.01
01-26-95	30	500	7.38	7.41	0.03
01-31-95	30	320	7.47	7.48	0.01
02-09-95	20	210	7.63	7.63	0.00
02-14-95	20	175	7.62	7.64	0.02
02-24-95	30	310	7.85	7.89	0.04
03-03-95	20	340	7.75	7.78	0.03
03-09-95	30	510	7.31	7.34	0.03
03-17-95	10	510	7.28	7.29	0.01
03-24-95	15	485	7.23	7.24	0.01
03-31-95	15	475	7.47	7.48	0.01
04-07-95	35	285	7.61	7.62	0.01
04-14-95	20	280	7.68	7.69	0.01
04-21-95	20	290	7.75	7.73	0.02
04-28-95	40	420	7.65	7.68	0.03
05-06-95	20	360	7.70	7.71	0.01
05-12-95	20	390	<i>7.7</i> 0	7.70	0.00
05-19-95	10	3 7 0	7.90	7.90	0.00
05-26-95	10	380	7.80	7.80	0.00
06-02-95	0	240	7.86	7.86	0.00
06-09-95	0	330	7.80	7.80	0.00
06-16-95	0	1 <i>7</i> 0	7.87	7.87	0.00
06-23-95	0	300	7.99	7.99	0.00
06-30-95	0	300	7.88	7.88	0.00
07-07-95	0	280	7.82	7.82	0.00
07-14-95	0	290	7.86	7.86	0.00
07-21-95	0	540	7.90	7.90	0.00
07-28-95	0	500	7.92	7.92	0.00
08-04-95	0	480	7 86	7 86	0.00
08-11-95	0	530	7 88	7 88	0.00
08-18-95	0	520	7.86	7.86	0.70
08-25-95	')	5.00	7 90	7 90	0.30

Sampling	Volume of Product Removed	Volume of	Depth to Product	Depth to Water	Thickness of
Date	mL)	Water Removed (mL)	(ft-bgs)	(ft-bgs)	Product (ft)
09-05-95	0	310	8.15	8.15	0.00
09-03-95	o	400	8.10	8.10	0.00
09-12-95	0	390	8.20	8.20	0.00
09-26-95	0	380	8.25	8.25	0.00
10-03-95	0	385	8.15	8.15	0.00
10-03-95	0	230	8.42	8.42	0.00
10-10-95	0	230 240	8.39	8.39	0.00
10-17-95	0	250	8.40	8.40	0.00
10-21-95	0	255	8.44	8.44	0.00
11-07-95	0	260	8.42	8.42	0.00
11-14-95	0	400	8.43	8.43	0.00
11-21-95	o	420	8.48	8.48	0.00
11-28-95	0	480	8.50	8.50	0.00
12-05-95	0	400	8.55	8.55	0.00
12-15-95	0	550	8.40	8.40	0.00
12-22-95	0	490	8.36	8.36	0.00
12-29-95	0	5 7 0	7.85	7.85	0.00
01-05-96	0	560	7.82	7.82	0.00
01-12-96	0	480	7.52	7.52	0.00
01-19-96	0	460	7.54	7.54	0.00
01-26-96	0	450	7.53	7.53	0.00
02-01-96	400	1000	7.03	7.12	0.09
02-09-96	275	480	7.34	7.36	0.02
02-16-96	<i>7</i> 5	400	7.35	7.37	0.02
02-23-96	100	360	7.33	7.36	0.03
03-01-96	100	350	7.32	7.34	0.02
03-08-96	90	360	7.34	7.36	0.02
03-15-96	95	355	7.35	7.37	0.02
03-22-96	90	360	7.33	7.35	0.02
03-29-96	80	350	7.34	7.36	0.02
04-05-96	90	355	7.44	7.47	0.03
04-12-96	70	360	7.48	7.50	0.02
04-19-96	7 5	350	7.58	7.60	0.02
04-26-96	60	500	7.74	7 75	C 01
05-03-96	50	460	7.75	7.76	9 m
(15-10-95	C	100	7.75	7.76	n
(15-17-96	0	480	7.78	7 78	()

Sampling	Volume of	Volume of 🦟	Depth to	Depth to	Thickness of
Date	Product Removed	Water Removed	Product	Water	Product (ft)
7-7-5-XXXXX	(mL)	(mL)	(ft-bgs)	(ft-bgs)	v v , a
05-24-96	0	490	7.90	7.90	0
05-31-96	10	495	7.60	7.60	0
06-08-96	0	490	7.72	7.72	0
06-14-96	10	490	7.72	7.72	0
06-21-96	0	480	7.74	7.74	0
06-28-96	0	490	7.76	7.76	0
07-05-96	0	4 85	<i>7.7</i> 5	7.75	0
07-12-96	0	495	7.76	7.76	0
07-19-96	10	400	7.90	7.90	0
07-26-96	0	425	7.85	7.85	0
08-02-96	0	420	7.90	7.90	0
08-16-96	0	430	7.82	7.82	0
08-30-96	0	450	7.80	7.80	0
09-13-96	10	550	8.15	8.15	0
09-27-96	0	500	8.20	8.20	0
10-11-96	0	525	8.30	8.30	0
10-25-96	5	545	8.28	8.28	0
11-08-96	0	500	8.26	8.26	0
11-22-96	0	525	8.10	8.10	0
12-06-96	0	500	8.20	8.20	0
12-23-96	0	540	7.92	7.92	0
01-03-97	10	510	7.46	7.46	0
01-16-97	50	500	7.36	7.38	0.02
01-31-97	240	250	7.13	7.17	0.04
02-14-97	100	300	7.25	7.26	0.01
02-28-97	90	350	7.26	7.27	0.01
03-14-97	100	<i>47</i> 0	7.72	7.74	0.02
03-28-97	90	480	7.74	7.76	0.02
04-11-97	80	490	7.82	7.83	0.01
04-25-97	0	400	7.90	7.90	0
05-09-97	0	450	7.92	7.92	0
05-23-97	0	400	7.94	7.94	0
06-06-97	10	490	7.77	7.77	0
06-20-97	10	520	8 04	804	. 0
07-03-97	10	170	<i>7</i> 95	7 95	()
07-18-97	O	490	8 10	8 10	n
08-01-97	0	495	8 20	S 20	ð