## D & D Management Consultants, Inc.

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November 15, 1993

Alameda County Health Care Services Agency Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Attention: Ms. Juliet Shin

Subject: 21123 Meekland Avenue, Hayward, CA

Dear Ms. Shin:

In accordance with your letter of November 4, 1993, paragraph 4, find attached the "Soil Borings and Chemical Analysis" description your requested for the subject project.

If you have any questions please call.

Very Traly Yours,

Paul T. Drakowic

President

PTD: sed

cc Beck Roofing w/enclosure

93 NOV 17 AMIL: 35

## SOIL BORINGS AND CHEMICAL ANALYSIS

On July 14, 15, and 16, 1993 D & D Management drilled sixteen borings (indicated as B-3 through B-18) on the site. borings were drilled and sampled using a hollow stem auger and a California type sampler. The purpose of this work was to investigate for the presence of petroleum materials in the subsurface soils at the site. If visual contamination or noticeable gasoline odor was found in the first boring in a specific direction then that boring hole was abandoned and a new boring was started 3 feet further out from the boring until previous no further visual or odor contamination was encountered.

Borings B-3, B-4, B-5, B-6, B-7 and B-17 were placed in the northwest direction from the former tank area. Visual contamination or noticeable gasoline odors were found in borings B-3 through B7 at a depth of 11.5' to 20'. Boring B-17 had soil samples taken and analyzed at 5', 10', 15', 22', 24', 25.5', and 27'. Groundwater was encountered at 28.5' and a grab water sample was taken. Laboratory analysis results are summarized in Attachment A (Summary of Soil and Groundwater Sample Results for TPH-Gasoline and BTEX).

Borings B-8, B-9, B-10, B-11, B-12, B-15 and B-16 were placed in the west direction from the former tank area. Visual contamination or noticeable gasoline odors were found in boring B-8 through B-12 and in B-15 at a depth of 17' to 25'. Boring B-16 had soil sample taken and analyzed at 5', 10', 15', 23', 24', 26' and 28'. Groundwater was encountered at 29' and a grab water sample was taken. Laboratory analysis results are summarized in Attachment A.

Borings B-13, and B-14 were placed in the south direction from the former tank area. Visual contamination or noticeable gasoline odors were found in boring B-13 at a depth of 25'. Boring B-14 had soil samples taken and analyzed at 5', 10', 15', 19', 22', 26', and 27'. Groundwater was encountered at 28.5' and a grab water sample was taken. Laboratory analysis results are summarized in Attachment A.

Boring B-18 was placed in the east direction from the former tank area. Visual contamination or noticeable gasoline odors were not found. Boring B-18 has soil samples taken and analyzed at 5', 10', 15', 23', 24', 26' and 28'. Groundwater was encountered at 28.5' and a grab water sample was taken. Laboratory analysis results are summarized in Attachment A.

	Soil Sample	Groundwater Sample	Visual or Noticeable Contamination	TPH-Gasoline (mg/kg)Soil (mg/L) Water	Benzene (ug/kg)Soil (ug/L) Water	Toluene (ug/kg)Soll (ug/L) Water	Ethyl Benzene (ug/kg)Soll (ug/L) Water	Xylene (ug/kg)Soll (ug/L) Water
B-3 @ 11.5'	х		yes					
B-4 @ 15'	х		yes					
B-5 @ 15'	Х		yes					
B-6 @ 15'	x		yes					
B-7 @ 20'	х		yes					
B-8 @ 17'	Х		yes					
B-9 @ 18'	X		yes					
B-10 @ 18'	Х		yes					
B-11 @ 18'	x		yes					
B-12 @ 25'	X		yes					
B-13 @ 25'	X		yes					
B-14 @ 5'	Х			ND	ND	ND	ND	ND
B-14 @ 10'	Х			ND	ND	ND	ND	ND
B-14 @ 15'	Х			ИD	ND	ND	ND	ND
B-14 @ 19'	X			ND	10	4.2	4.4	5.5
B-14 @ 22'	Х			2.7	320	550	120	540
B-14 @ 26'	Х			23	330	780	160	760
B-14 @ 27'	Х			4.1	390	770	420	2,200
B-14 @ 28.5'		Х		91	7,800	11,000	3,200	18,000
B-15 @ 19'	X		yes					
B-16 @ 5' B-16 @ 10'	X			ND	ND	ND	ND	ND
B-16 @ 15'	X			ND	ND	ND	ND	ND
B-16 @ 23'	X			ND	ND	ND	ND	ND
B-16 @ 24'	X			6.9	340	310	150	500
B-16 @ 26'	X X			37	370	670	210	890
B-16 @ 281	X			48 23	530 300	620 660	430	2,000
B-16 @ 29'	X			64	9,000	11,000	180 2,000	1,000
B-17 @ 5'	Х			ND	ND	ND	2,000 ND	13,000 ND
B-17 @ 10'	x			ИD	ND	ND	ND	ND
B-17 @ 15'	X			ND	ND	ND	ND	ND
B-17 @ 22'	x			2.4	54	59	43	180
B-17 @ 24'	Х			44	80	530	330	1,400
B-17 @ 25.5'	X			1.70	1,100	8,200	4,000	22,000
B-17 @ 27'	Х			11	380	1,200	160	970
B-17 @ 28.51		x		56	5,700	5,700	1,500	11,000
B-18 @ 5'	Х			ND	ND	ND	ИД	ИD
B-18 @ 10;	Х			ND	ND	ND	ND	ND
B-18 @ 15:	Х			ND	ND	ND	ND	ND
B-18 @ 23*	Х			20	460	310	150	750
B-18 @ 24 ·	Х			43	690	1,700	590	3,300
	X			87	550	2,100	1,100	6,900
	х			23	170	350	84	470
B-18 @ 28.5'		X		61	11,000	3,800	2,400	12,000