

Treadwell & Rollo

10 March 2003
Project 3433.04

Mr. Barney Chan
Hazardous Materials Specialist
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Alameda County

APR 15 2003

Environmental Health

Subject: Data Summary
Mandela Gateway Redevelopment Site
Seventh Street and Mandela Parkway
Oakland, California

Dear Mr. Chan:

Attached please find chemical data and reports for investigations at the above-referenced site. Mandela Gateway Associates, CLP, plans to develop the site for mixed commercial and low-income residential use. Attached to this letter are tables of chemical data from soil and groundwater sampling performed in 2002 and 2003 by Treadwell & Rollo and Professional Services Industries (PSI), associated site plans, and previous environmental reports by PSI and others on the east block of the site. You have already received the Treadwell & Rollo 2 August 2002 report *Phase I and Phase II Environmental Site Assessment, Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California*.

The attached Figure 1 presents a site plan with recent previous use and the locations of soil and groundwater sample points. The west block of the site was recently occupied by the Westwood Gardens housing development. Prior use of the west block was for private housing and light industry (machine shop, wood planing mill) early in the Twentieth Century, followed by military housing. The east block currently contains J&A Truck Repair in the southeast corner. The remainder of the east block is vacant, having recently been occupied by a CalTrans parking lot and a portion of a parking lot owned by AT Systems, Inc. Previous use of the east block included residential and light industrial use (such as truck and automotive repair businesses).

Figure 2 shows the planned conceptual development at the ground level. In the west block, the northernmost part will contain townhouses at ground level. The rest of the block will contain parking and commercial use at ground level, with multi-story residential units above. The east block will contain ground-level residential units in the northern half and commercial use and parking in the southern half. The podium parking and commercial areas in the southern half of the east block will have multi-story residential units above.

Figure 3 shows the analytical results for all in-situ soil sampling performed by Treadwell & Rollo for the west block. These data are also provided in Tables A-1, A-2, and A-3. Figure 4

Mr. Barney Chan
Department of Environmental Health
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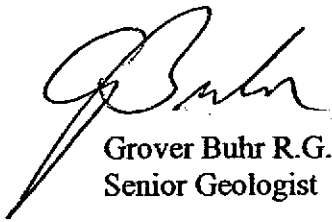
shows the analytical results for all in-situ soil sampling performed by Treadwell & Rollo and PSI for the east block. These data are also provided in Tables B-1, B-2, and B-3. Groundwater data for both blocks are shown in Figure 5 and Tables C-1 and C-2.

The following reports by other consultants are also sent with this letter.

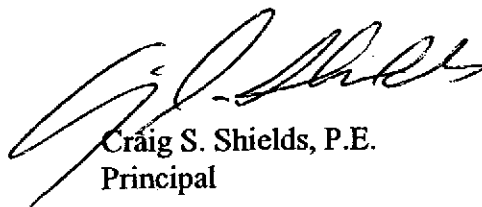
- Department of Transportation – District 04, Memorandum from Celia McCuaig to Doug Sibley, *Hazardous Waste Investigation, Existing 7th and Mandela Park and Ride Lot*, 21 March 2002,
- Professional Service Industries, Inc., *Draft Hazardous Waste Preliminary Site Investigation Workplan To Number 04-44680K-GL Contract Number 43A0078, 7th & Mandela, Park & Ride Lot, Oakland, California*, 19 February 2002,
- Ward & Associates, *Phase I Environmental Site Assessment, 1370 7th Street, Oakland, California*, 20 June 2001,
- Blymyer Engineers, Inc., *Limited Subsurface Investigation Letter Report, D.K. Green Property, 1370 7th Street, Oakland, California*, 31 July 1995,
- Tetra Tech, *Site Investigation for Kelly's Truck Repair, Oakland, CA*, February 1993.

We appreciate your help in this project. Please call me at (510) 874-4500, extension 529, if you have any questions.

Sincerely yours,
TREADWELL & ROLLO, INC.



Grover Buhr R.G.
Senior Geologist



Craig S. Shields, P.E.
Principal

34330408.OAK

cc: Mr. Jesse Wu, Mandela Gateway Associates, CLP (w/o attachments)
Mr. John Gregory, Farella Braun + Martel, LLP (w/o attachments)

Table A-1. Soil Analytical Results, LUFT 5 Metals
West Block

Sample ID	Sample Date	LEAD (Total) mg/kg	LEAD (STLC) mg/l	LEAD (TCLP) mg/l	Cadmium mg/kg	Chromium mg/kg	Nickel mg/kg	Zinc mg/kg
B-10-0.5	5/4/2002	140	--	--	--	--	--	--
B-10-1.5	5/4/2002	99	--	--	--	--	--	--
B-10-2.5	5/4/2002	< 5.0	--	--	--	--	--	--
B-11-0.5	5/4/2002	<i>(1,400)</i>	--	--	--	--	--	--
B-11-1.5	5/4/2002	11	--	--	--	--	--	--
B-11-2.5	5/4/2002	< 5.0	--	--	--	--	--	--
B-12-0.5	5/4/2002	210	--	--	--	--	--	--
B-12-1.5	5/4/2002	12	--	--	--	--	--	--
B-13-0.5	5/4/2002	140	--	--	--	--	--	--
B-13-1.5	5/4/2002	43	--	--	--	--	--	--
B-13-2.5	5/4/2002	5.6	--	--	--	--	--	--
B15-0.0	8/13/2002	110	--	--	--	--	--	--
B15-1.5	8/13/2002	5.9	--	--	--	--	--	--
B16-0	8/13/2002	150	--	--	--	--	--	--
B16-1.5	8/13/2002	15	--	--	--	--	--	--
B17-0	8/13/2002	150	--	--	--	--	--	--
B17-1.5	8/13/2002	2.4	--	--	--	--	--	--
B18-0	8/13/2002	120	--	--	--	--	--	--
B18-1.5	8/13/2002	2.4	--	--	--	--	--	--
B19-0	8/13/2002	130	--	--	--	--	--	--
B19-1.5	8/13/2002	61	--	--	--	--	--	--
B20-0.0	8/13/2002	160	--	--	--	--	--	--
B20-1.5	8/13/2002	110	--	--	--	--	--	--
B21-0	8/13/2002	220	--	--	--	--	--	--
B21-1.5	8/13/2002	3.5	--	--	--	--	--	--
B22-0	8/13/2002	220	--	--	--	--	--	--
B22-1.5	8/13/2002	190	--	--	--	--	--	--
WB-1-1.0	2/18/2003	9.9	0.56	--	1.5	8.8	17	35
WB-1-2.5	2/18/2003	49	--	--	--	--	--	--
WB-1-5.0	2/18/2003	6.8	--	--	--	--	--	--
WB-2-1.0	2/18/2003	11	< 0.5	--	1.8	7.8	22	40
WB-2-2.5	2/18/2003	55	--	--	--	--	--	--
WB-2-5.0	2/18/2003	4.1	--	--	--	--	--	--
WB-3-1.0	2/18/2003	15	< 0.5	--	1.6	10	18	39
WB-3-2.5	2/18/2003	94	--	--	--	--	--	--
WB-3-5.0	2/18/2003	8.0	--	--	--	--	--	--
WB-4-1.0	2/19/2003	320	<u>63</u>	< 0.5	1.8	20	15	110
WB-4-2.5	2/19/2003	2.3	--	--	--	--	--	--
WB-4-5.0	2/19/2003	2.3	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; mg/l - milligrams per liter

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "WB-1-1.0" - Boring sample collected by Treadwell & Rollo

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table A-1. Soil Analytical Results, LUFT 5 Metals
West Block

Sample ID	Sample Date	LEAD (Total) mg/kg	LEAD (STLC) mg/l	LEAD (TCLP) mg/l	Cadmium mg/kg	Chromium mg/kg	Nickel mg/kg	Zinc mg/kg
WB-5-1.0	2/18/2003	14	< 0.5	--	1.5	8.8	17	40
WB-5-2.5	2/18/2003	15	0.74	--	--	--	--	--
WB-5-5.0	2/18/2003	2.5	--	--	--	--	--	--
WB-6-1.0	2/18/2003	65	3.8	--	1.2	22	16	83
WB-6-2.5	2/18/2003	3.4	--	--	--	--	--	--
WB-6-5.0	2/18/2003	2.9	--	--	--	--	--	--
WB-7-1.0	2/18/2003	220	<u>11</u>	< 0.5	--	--	--	--
WB-7-2.5	2/18/2003	3.3	--	--	--	--	--	--
WB-7-5.0	2/18/2003	1.5	--	--	--	--	--	--
WB-8-0.5	2/18/2003	15	0.71	--	1.6	11	19	41
WB-8-1.5	2/18/2003	2.7	--	--	--	--	--	--
WB-8-5.0	2/18/2003	1.7	--	--	--	--	--	--
WB-9-1.0	2/18/2003	180	<u>8.5</u>	0.72	1.5	27	18	140
WB-9-2.5	2/18/2003	12	--	--	--	--	--	--
WB-9-5.0	2/18/2003	1.9	--	--	--	--	--	--
WB-10-1.0	2/18/2003	--	--	--	--	--	--	--
WB-10-2.5	2/18/2003	37	--	--	--	--	--	--
WB-10-5.0	2/18/2003	44	--	--	--	--	--	--
WB-11-1.0	2/18/2003	5.7	1.3	--	--	--	--	--
WB-11-2.5	2/18/2003	150	<u>10</u>	--	--	--	--	--
WB-11-5.0	2/18/2003	2.3	--	--	--	--	--	--
WB-12-1.0	2/18/2003	94	--	--	--	--	--	--
WB-12-5.0	2/18/2003	1.9	--	--	--	--	--	--
WB-13-1.0	2/18/2003	11	--	--	--	--	--	--
WB-13-2.5	2/18/2003	47	--	--	--	--	--	--
WB-13-5.0	2/18/2003	2.7	--	--	--	--	--	--
WB-14-1.0	2/19/2003	81	<u>6.2</u>	--	--	--	--	--
WB-14-2.5	2/19/2003	130	--	--	--	--	--	--
WB-14-5.0	2/19/2003	1.6	--	--	--	--	--	--
WB-15-1.0	2/19/2003	20	--	--	--	--	--	--
WB-15-2.5	2/19/2003	1.9	--	--	--	--	--	--
WB-15-5.0	2/19/2003	2.3	--	--	--	--	--	--
WB-16-1.0	2/18/2003	11	--	--	--	--	--	--
WB-16-2.5	2/18/2003	24	--	--	--	--	--	--
WB-16-5.0	2/18/2003	1.3	--	--	--	--	--	--
WB-17-0.5	2/18/2003	8.5	--	--	--	--	--	--
WB-17-1.5	2/18/2003	29	--	--	--	--	--	--
WB-17-5.0	2/18/2003	2.8	--	--	--	--	--	--
WB-18-1.0	2/18/2003	45	2	--	--	--	--	--
WB-18-2.5	2/18/2003	100	--	--	--	--	--	--
WB-18-5.0	2/18/2003	11	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; mg/l - milligrams per liter

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "WB-1-1.0" - Boring sample collected by Treadwell & Rollo

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table A-2. Analytical Results, CAM 17* Metals
West Block

Sample ID	Sample Date	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Cobalt mg/kg	Copper mg/kg	Molybdenum mg/kg	Selenium mg/kg	Silver mg/kg	Thallium mg/kg	Vanadium mg/kg	Mercury mg/kg
WB-1-1.0	2/18/2003	<2.0	3.6	250	0.72	5.5	14	<1.0	<2.0	<1.0	<1.0	17	0.97
WB-2-1.0	2/18/2003	<2.0	3.4	300	0.7	9.6	11	<1.0	<2.0	<1.0	<1.0	15	2.2
WB-3-1.0	2/18/2003	<2.0	3.6	180	0.69	9.5	19	<1.0	<2.0	<1.0	<1.0	19	1.5
WB-4-1.0	2/19/2003	<2.0	4.5	83	<0.5	4.2	17	<1.0	<2.0	<1.0	<1.0	19	0.22
WB-5-1.0	2/18/2003	<2.0	3.8	160	0.72	8.7	16	<1.0	<2.0	<1.0	<1.0	19	0.88
WB-6-1.0	2/18/2003	<2.0	2.8	90	<0.5	3.9	17	<1.0	<2.0	<1.0	<1.0	19	0.21
WB-8-0.5	2/18/2003	<2.0	3.4	180	0.65	7.7	12	<1.0	<2.0	<1.0	<1.0	19	2.2
WB-9-1.0	2/18/2003	<2.0	3.2	87	<0.5	3.8	19	<1.0	<2.0	<1.0	<1.0	20	0.19

Results in units at top: mg/kg - milligrams per kilogram

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "WB-1-1.0" - Boring sample collected by Treadwell & Rollo

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

* CAM 17 metals exclusive of LUFT 5 metals

Table A-3. Soil Analytical Results, Organic Compounds
West Block

Sample ID	Sample Date	TPH-g mg/kg	TPH-d mg/kg	TPH-mo mg/kg	Aldrin ug/kg	Dieldrin ug/kg	Endrin* ug/kg	4,4 -DDD ug/kg	4,4 -DDT ug/kg	4,4 -DDE ug/kg	alpha-BHC ug/kg
B-10-0.5	5/4/2002	--	--	--	< 10	170	< 10	< 10	12	< 10	< 10
B-10-2.5	5/4/2002	--	--	--	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
B-10-3.5	5/4/2002	--	< 1.0	< 50	--	--	--	--	--	--	--
B-11-0.5	5/4/2002	--	--	--	< 10	28	< 10	< 10	< 10	< 10	< 10
B-11-2.5	5/4/2002	--	--	--	< 2.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.5
B-12-0.5	5/4/2002	--	--	--	< 500	< 500	1,300	< 500	5,400	2,500	< 500
B-12-1.5	5/4/2002	--	< 1.0	< 50	< 2.0	< 2.0	6.4	2.2	29	24	< 2.0
B-13-0.5	5/4/2002	--	--	--	< 10	< 10	< 10	< 10	19	15	< 10
B15-0.0	8/13/2002	--	--	--	<10	16	<10	<10	16	<10	<10
B16-0	8/13/2002	--	--	--	<10	18	<10	<10	<10	<10	<10
B16-1.5	8/13/2002	--	--	--	<10	14	<10	<10	<10	<10	<10
B17-0	8/13/2002	--	--	--	<10	<10	<10	<10	<10	<10	<10
B18-0	8/13/2002	--	--	--	<10	<10	<10	<10	<10	<10	<10
B19-0	8/13/2002	--	--	--	<10	25	<10	<10	<10	<10	<10
B19-1.5	8/13/2002	--	--	--	<10	<10	<10	<10	<10	<10	<10
B20-0.0	8/13/2002	--	--	--	<10	<10	<10	<10	22	<10	<10
B20-1.5	8/13/2002	--	--	--	<10	<10	<10	<10	21	<10	<10
B21-0	8/13/2002	--	--	--	<10	<10	<10	<10	150	170	<10
B21-1.5	8/13/2002	--	--	--	<10	<10	<10	<10	<10	<10	<10
B22-0	8/13/2002	--	--	--	<10	<10	<10	<10	25	10	<10
B22-1.5	8/13/2002	--	--	--	<10	<10	<10	<10	10	<10	<10
WB-1-1.0	2/18/2003	< 1.0	22	85	190	230	58	< 10	< 10	< 10	< 10
WB-1-2.5	2/18/2003	--	--	--	4,800	1,900	< 500	< 500	< 500	< 500	< 500
WB-2-1.0	2/18/2003	< 1.0	3.3	< 50	4.0	3.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
WB-3-1.0	2/18/2003	< 1.0	2.3	< 50	220	360	< 50	< 50	< 50	< 50	< 50
WB-3-2.5	2/18/2003	--	--	--	3.1	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
WB-5-1.0	2/18/2003	< 1.0	14	< 50	1,700	910	< 100	< 100	< 100	< 100	< 100
WB-5-2.5	2/18/2003	--	--	--	50	15	< 2	< 2	< 2	< 2	< 2
WB-6-1.0	2/18/2003	--	--	--	2.5	11	< 2.0	< 2.0	< 2.0	4.3	< 2.0
WB-7-1.0	2/18/2003	--	--	--	< 10	< 10	< 10	< 10	240	200	< 10
WB-8-0.5	2/18/2003	< 1.0	5.7	< 50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
WB-8-1.5	2/18/2003	< 1.0	1.9	< 50	--	--	--	--	--	--	--
WB-8-5.0	2/18/2003	< 1.0	1.0	< 50	--	--	--	--	--	--	--
WB-9-1.0	2/18/2003	< 1.0	14	170	< 2.0	3.0	< 2.0	< 2.0	20	2.5	< 2.0
WB-9-2.5	2/18/2003	< 1.0	2.5	< 50	--	--	--	--	--	--	--
WB-9-5.0	2/18/2003	< 1.0	1.3	< 50	--	--	--	--	--	--	--
WB-10-1.0	2/18/2003	--	--	--	27	23	< 2.0	< 2.0	2.3	2.7	2.2
WB-17-0.5	2/18/2003	< 1.0	3.7	< 50	--	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; ug kg - micrograms per kilogram; > 1.0 - Not detected at detection limit given; nd - not detected, detection limit varies; -- Not analyzed

"B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo; "T-5E-0.5" - Trench sample collected by Treadwell & Rollo; "PB-14-2" - Boring sample collected by PSI

TPH-g - Total Petroleum Hydrocarbons quantified as gasoline; TPH-d,mo - Total Petroleum Hydrocarbons quantified as diesel and motor oil, respectively BTEX - benzene, toluene, ethyl benzene, xylenes; VOCs - volatile organic compounds; "endrin*" includes both endrin and endrin ketone

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC; Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table B-1. Soil Analytical Results, LUFT 5 Metals
East Block

Sample ID	Sample Date	LEAD (Total) mg/kg	LEAD (STLC) mg/l	LEAD (TCLP) mg/l	Cadmium mg/kg	Chromium mg/kg	Chromium (VI) mg/kg	Nickel mg/kg	Zinc mg/kg
B-1-0.5	5/4/2002	19	--	--	--	--	--	--	--
B-1-2.5	5/4/2002	< 5.0	--	--	--	--	--	--	--
B-2-0.5	5/4/2002	550	--	--	--	--	--	--	--
B-2-2.5	5/4/2002	91	--	--	--	--	--	--	--
B-3-0.5	5/4/2002	110	--	--	--	--	--	--	--
B-3-2.5	5/4/2002	66	--	--	--	--	--	--	--
B-4-0.5	5/4/2002	8.5	--	--	--	--	--	--	--
B-4-2.5	5/4/2002	< 5.0	--	--	--	--	--	--	--
B-5-0.5	5/4/2002	130	--	--	3.2	10	--	12	120
B-5-1.5	5/4/2002	33	--	--	--	--	--	--	--
B-5-3.5	5/4/2002	5.2	--	--	1	21	--	13	16
B-6-0.5	5/4/2002	830	--	--	--	--	--	--	--
B-6-2.5	5/4/2002	< 5.0	--	--	--	--	--	--	--
B-7-0.5	5/4/2002	21	--	--	2.4	4.7	--	7.4	65
B-7-1.5	5/4/2002	960	--	--	1.6	20	--	16	290
B-8-0.5	5/4/2002	150	--	--	2.3	21	--	19	140
B-8-1.5	5/4/2002	(1,700)	--	--	--	--	--	--	--
B-8-2.5	5/4/2002	3.4	--	--	0.91	20	--	13	19
B-9-0.5	5/4/2002	1.5	--	--	1.7	< 1.0	--	1.5	25
B-9-1.5	5/4/2002	150	--	--	--	--	--	--	--
B-9-2.5	5/4/2002	2.1	--	--	0.97	22	--	14	13
B-14-0.5	5/4/2002	7.0	--	--	--	--	--	--	--
B-14-2.5	5/4/2002	2.2	--	--	--	--	--	--	--
B-23-0.5	8/13/2002	48	--	--	3.2	--	--	--	--
B-23-1.5	8/13/2002	18	--	--	--	--	--	--	--
B-24-0.5	8/13/2002	520	--	--	3	--	--	--	--
B-24-1.5	8/13/2002	62	--	--	--	--	--	--	--
B-25-0.5	8/13/2002	47	--	--	2.1	--	--	--	--
B-25-1.5	8/13/2002	49	--	--	--	--	--	--	--
EB-1-1.0	2/18/2003	73	--	--	2.7	12	--	12	100
EB-1-2.5	2/18/2003	230	<u>11</u>	< 0.5	--	--	--	--	--
EB-1-5.0	2/18/2003	2.4	--	--	--	--	--	--	--
EB-2-0.0	2/18/2003	4.9	< 0.5	--	0.86	25	--	17	21
EB-2-1.5	2/18/2003	2.3	--	--	--	--	--	--	--
EB-2-5.0	2/18/2003	3.1	--	--	--	--	--	--	--
EB-3-1.0	2/19/2003	1.6	< 0.5	--	--	--	--	--	--
EB-3-2.5	2/19/2003	37	0.9	--	--	--	--	--	--
EB-3-5.0	2/19/2003	2.6	--	--	--	--	--	--	--
EB-4-0.0	2/18/2003	280	<u>22</u>	< 0.5	--	--	--	--	--
EB-4-1.5	2/18/2003	320	<u>9.3</u>	< 0.5	--	--	--	--	--
EB-4-5.0	2/18/2003	4.4	< 0.5	--	--	--	--	--	--
EB-5-1.0	2/19/2003	81	<u>6.5</u>	--	--	--	--	--	--
EB-5-2.5	2/19/2003	2.0	--	--	--	--	--	--	--
EB-5-5.0	2/19/2003	2.4	--	--	--	--	--	--	--
EB-6-1.0	2/19/2003	170	<u>7.3</u>	--	1.9	47	--	54	80
EB-6-2.5	2/19/2003	21	1.6	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; mg/l - milligrams per liter

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo

"PB-14-2" - Boring sample collected by PSI

"T-5E-0.5" - Trench sample collected by Treadwell & Rollo

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table B-1. Soil Analytical Results, LUFT 5 Metals
East Block

Sample ID	Sample Date	LEAD (Total) mg/kg	LEAD (STLC) mg/l	LEAD (TCLP) mg/l	Cadmium mg/kg	Chromium mg/kg	Chromium (VI) mg/kg	Nickel mg/kg	Zinc mg/kg
EB-6-5.0	2/19/2003	1.6	< 0.50	--	--	--	--	--	--
EB-7-1.0	2/19/2003	53	4.5	--	--	--	--	--	--
EB-7-2.5	2/19/2003	120	--	--	--	--	--	--	--
EB-7-5.0	2/19/2003	2.2	--	--	--	--	--	--	--
EB-8-1.0	2/18/2003	14	--	--	--	--	--	--	--
EB-8-2.5	2/18/2003	4.0	--	--	--	--	--	--	--
EB-8-5.0	2/18/2003	1.7	--	--	--	--	--	--	--
EB-9-1.0	2/18/2003	300	<u>12</u>	< 0.5	--	--	--	--	--
EB-9-2.5	2/18/2003	350	<u>12</u>	--	--	--	--	--	--
EB-9-5.0	2/18/2003	1.9	--	--	--	--	--	--	--
EB-10-1.0	2/19/2003	5.3	--	--	2.6	2.3	--	5.8	72
EB-10-2.5	2/19/2003	60	--	--	--	--	--	--	--
EB-10-5.0	2/19/2003	2.1	--	--	--	--	--	--	--
EB-11-1.0	2/19/2003	24	2.4	--	--	--	--	--	--
EB-11-2.5	2/19/2003	420	<u>29</u>	--	--	--	--	--	--
EB-11-5.0	2/19/2003	2.0	--	--	--	--	--	--	--
PB-14-2	1/8/2002	98	1.42	--	< 2.0	38.3	--	33.5	179
PB-14-5	1/8/2002	2.0	--	--	< 2.0	27.4	--	18.8	14
PB-14-8	1/8/2002	7.0	--	--	< 2.0	44.4	--	29.4	24
PB-15-5	1/8/2002	< 2.0	--	--	< 2.0	22	--	11.9	11
PB-15-8	1/8/2002	2.0	--	--	< 2.0	26.6	--	27	18
PB-16-3	1/8/2002	6.0	--	--	< 2.0	24	< 10	14.3	16
PB-16-10	1/8/2002	3.0	--	--	< 2.0	54.2	--	32.5	--
PB-17-2	1/8/2002	485	<u>38.7</u>	--	< 2.0	21.7	--	14.7	314
PB-17-5	1/8/2002	2.0	--	--	< 2.0	22.9	< 10	13.6	11
PB-17-8	1/8/2002	21	--	--	< 2.0	24.8	--	15.7	35
PB-18-5	1/8/2002	< 2.0	--	--	< 2.0	20.5	--	13.2	11
PB-18-8	1/8/2002	172	1.48	--	< 2.0	32.1	< 10	20.4	237
PB-19-2	1/8/2002	2,280	--	0.21	2.5	27.6	--	22.1	995
PB-19-5	1/8/2002	3.0	--	--	< 2.0	20.3	--	12	15
PB-19-8	1/8/2002	2.0	--	--	< 2.0	25.7	--	25.4	17
PB-20-5	1/8/2002	3.0	--	--	< 2.0	22.8	--	12.8	14
PB-20-12	1/8/2002	2.0	--	--	< 2.0	31.6	< 10	27.7	20
T-4E-0.5	7/1/2002	180	--	--	--	--	--	--	--
T-4E-1.5	7/1/2002	380	--	--	--	--	--	--	--
T-4W-0.5	7/1/2002	220	--	--	--	--	--	--	--
T-4W-1.5	7/1/2002	140	--	--	--	--	--	--	--
T-5E-0.5	7/2/2002	150	--	--	--	--	--	--	--
T-5E-1.5	7/3/2002	570	--	--	--	--	--	--	--
T-5W-0.5	7/2/2002	24	--	--	--	--	--	--	--
T-5W-1.5	7/3/2002	520	--	--	--	--	--	--	--
T-8E-0.5	7/1/2002	130	--	--	--	--	--	--	--
T-8E-1.5	7/1/2002	50	--	--	--	--	--	--	--
T-8W-0.5	7/1/2002	71	--	--	--	--	--	--	--
T-8W-1.5	7/1/2002	160	--	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; mg/l - milligrams per liter

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo

"T-5E-0.5" - Trench sample collected by Treadwell & Rollo

"PB-14-2" - Boring sample collected by PSI

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table B-2. Soil Analytical Results, CAM 17* Metals
East Block

Sample ID	Sample Date	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Cobalt mg/kg	Copper mg/kg	Molybdenum mg/kg	Selenium mg/kg	Silver mg/kg	Thallium mg/kg	Vanadium mg/kg	Mercury mg/kg
EB-1-1.0	2/18/2003	< 2.0	6.9	82	< 0.5	6.2	23	< 1.0	< 2.0	< 1.0	< 1.0	26	0.45
EB-2-0.0	2/18/2003	< 2.0	2.6	72	< 0.5	5.4	6.3	< 1.0	< 2.0	< 1.0	< 1.0	18	< 0.5
EB-6-1.0	2/19/2003	< 2.0	4.8	65	< 0.5	7.6	150	< 1.0	< 2.0	< 1.0	< 1.0	24	0.19
EB-10-1.0	2/19/2003	< 2.0	6.5	77	< 0.5	5.4	13	< 1.0	< 2.0	< 1.0	< 1.0	22	0.17
PB-14-2	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	50.7	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-14-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	4.9	< 5.0	< 2.0	< 4.0	< 4.0	22	< 0.3
PB-14-8	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	6	< 5.0	< 2.0	< 4.0	< 4.0	27	< 0.3
PB-15-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	4.8	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-15-8	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	5.6	< 5.0	< 2.0	< 4.0	< 4.0	22	< 0.3
PB-16-3	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	5.6	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-16-10	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	7.3	< 5.0	< 2.0	< 4.0	< 4.0	28	< 0.3
PB-17-2	1/8/2002	< 4.0	4.5	210	< 2.0	< 10.0	50.2	< 5.0	< 2.0	< 4.0	< 4.0	< 20	0.4
PB-17-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	5	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-17-8	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	9.6	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-18-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	4.7	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-18-8	1/8/2002	< 4.0	4.7	124	< 2.0	< 10.0	46.8	< 5.0	< 2.0	< 4.0	< 4.0	20	0.9
PB-19-2	1/8/2002	< 4.0	4.6	744	< 2.0	< 10.0	76.3	< 5.0	< 2.0	< 4.0	< 4.0	32	< 0.3
PB-19-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	5.1	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-19-8	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	5.3	< 5.0	< 2.0	< 4.0	< 4.0	20	< 0.3
PB-20-5	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	8.3	< 5.0	< 2.0	< 4.0	< 4.0	< 20	< 0.3
PB-20-12	1/8/2002	< 4.0	< 4.0	< 80	< 2.0	< 10.0	6.2	< 5.0	< 2.0	< 4.0	< 4.0	25	< 0.3

Results in units at top: mg/kg - milligrams per kilogram

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo

"T-5E-0.5" - Trench sample collected by Treadwell & Rollo

"PB-14-2" - Boring sample collected by PSI

Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC

Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

* CAM 17 metals exclusive of LUFT 5 metals

Table B-3. Soil Analytical Results, Organic Compounds
East Block

Sample ID	Sample Date	TPH-g mg/kg	TPH-d mg/kg	TPH-mo mg/kg	BTEX ug/kg	Other VOCs ug/kg	Ethylene Glycol mg/kg	Aldrin ug/kg	Dieldrin ug/kg	Endrin* ug/kg	4,4 -DDD ug/kg	4,4 -DDT ug/kg	4,4 -DDE ug/kg	alpha- BHC ug/kg
B-1-0.5	5/4/2002	--	49	250	--	--	--	--	--	--	--	--	--	--
B-1-2.5	5/4/2002	--	< 1.0	< 50	--	--	--	--	--	--	--	--	--	--
B-2-3.5	5/4/2002	--	< 1.0	< 50	--	--	--	--	--	--	--	--	--	--
B-3-2.5	5/4/2002	--	40	530	--	--	--	--	--	--	--	--	--	--
B-5-0.5	5/4/2002	--	130	2,300	--	--	--	--	--	--	--	--	--	--
B-5-1.5	5/4/2002	< 1.0	2.6	< 50	--	nd	< 25	--	--	--	--	--	--	--
B-5-3.5	5/4/2002	< 1.0	< 1.0	< 50	--	--	--	--	--	--	--	--	--	--
B-6-0.5	5/4/2002	--	21	380	--	--	--	--	--	--	--	--	--	--
B-7-0.5	5/4/2002	--	16	280	--	--	--	--	--	--	--	--	--	--
B-7-1.5	5/4/2002	< 1.0	7.6	< 50	--	nd	< 25	--	--	--	--	--	--	--
B-8-0.5	5/4/2002	< 1.0	130	530	--	nd	< 25	--	--	--	--	--	--	--
B-8-2.5	5/4/2002	< 1.0	1.1	< 50	--	nd	< 25	--	--	--	--	--	--	--
B-9-0.5	5/4/2002	< 1.0	4.1	< 50	--	nd	< 25	--	--	--	--	--	--	--
B-9-2.5	5/4/2002	< 1.0	< 1.0	< 50	--	nd	< 25	--	--	--	--	--	--	--
B-14-3.5	5/4/2002	--	< 1.0	< 50	--	--	--	--	--	--	--	--	--	--
B-23-1.5	8/13/2002	<1.0	<1.0	< 50	< 5	--	--	--	--	--	--	--	--	--
B-24-1.5	8/13/2002	<1.0	3.4	< 50	< 5	--	--	--	--	--	--	--	--	--
B-25-1.5	8/13/2002	<1.0	<1.0	< 50	< 5	--	--	--	--	--	--	--	--	--
EB-1-1.0	2/18/2003	< 1.0	160	800	--	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
EB-1-2.5	2/18/2003	< 1.0	4.5	< 50	--	--	--	--	--	--	--	--	--	--
EB-3-2.5	2/19/2003	< 1.0	1.7	< 50	--	--	--	--	--	--	--	--	--	--
EB-3-5.0	2/19/2003	< 1.0	9.5	89	--	--	--	--	--	--	--	--	--	--
EB-5-2.5	2/19/2003	< 1.0	1.4	< 50	--	--	--	--	--	--	--	--	--	--
EB-5-5.0	2/19/2003	< 1.0	2.7	< 50	--	--	--	--	--	--	--	--	--	--
EB-6-1.0	2/19/2003	< 1.0	5.8	< 50	--	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
EB-7-1.0	2/19/2003	< 1.0	5.2	74	--	--	--	--	--	--	--	--	--	--
EB-7-2.5	2/19/2003	< 1.0	3.1	< 50	--	--	--	--	--	--	--	--	--	--
EB-11-1.0	2/19/2003	< 1.0	280	3,200	--	--	--	--	--	--	--	--	--	--
PB-14-2	1/8/2002	0.125	23	19	--	--	--	--	--	--	--	--	--	--
PB-14-5	1/8/2002	< 0.06	11	< 10	--	--	--	--	--	--	--	--	--	--
PB-14-8	1/8/2002	0.276	11	< 10	--	--	--	--	--	--	--	--	--	--
PB-15-5	1/8/2002	0.479	15	< 10	--	--	--	--	--	--	--	--	--	--
PB-15-8	1/8/2002	< 0.06	< 10	< 10	--	--	--	--	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; ug kg - micrograms per kilogram; > 1.0 - Not detected at detection limit given; nd - not detected, detection limit varies; -- Not analyzed
 "B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo; "T-5E-0.5" - Trench sample collected by Treadwell & Rollo; "PB-14-2" - Boring sample collected by PSI
 TPH-g - Total Petroleum Hydrocarbons quantified as gasoline; TPH-d,-mo - Total Petroleum Hydrocarbons quantified as diesel and motor oil, respectively
 BTEX - benzene, toluene, ethyl benzene, xylenes; VOCs - volatile organic compounds; * "endrin" includes both endrin and endrin ketone
Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC; Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table B-3. Soil Analytical Results, Organic Compounds
East Block

Sample ID	Sample Date	TPH-g mg/kg	TPH-d mg/kg	TPH-mo mg/kg	BTEX ug/kg	Other VOCs ug/kg	Ethylene Glycol mg/kg	Aldrin ug/kg	Dieldrin ug/kg	Endrin* ug/kg	4,4 -DDD ug/kg	4,4 -DDT ug/kg	4,4 -DDE ug/kg	alpha- BHC ug/kg
PB-16-2	1/8/2002	< 0.06	--	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd
PB-16-3	1/8/2002	< 0.06	< 10	< 10	--	--	--	--	--	--	--	--	--	--
PB-16-10	1/8/2002	< 0.06	27	< 10	--	--	--	--	--	--	--	--	--	--
PB-17-2	1/8/2002	< 0.06	19	62.9	--	nd	nd	nd	nd	nd	nd	nd	nd	nd
PB-17-5	1/8/2002	< 0.06	15	< 10	--	--	--	--	--	--	--	--	--	--
PB-17-8	1/8/2002	< 0.06	23	44	--	--	--	--	--	--	--	--	--	--
PB-18-5	1/8/2002	< 0.06	< 10	< 10	--	--	--	--	--	--	--	--	--	--
PB-18-8	1/8/2002	0.243	51	66	--	--	--	--	--	--	--	--	--	--
PB-19-2	1/8/2002	< 0.06	16	19	--	nd	nd	nd	nd	nd	nd	nd	nd	nd
PB-19-5	1/8/2002	< 0.06	< 10	< 10	--	--	--	--	--	--	--	--	--	--
PB-19-8	1/8/2002	< 0.06	< 10	< 10	--	--	--	--	--	--	--	--	--	--
PB-20-5	1/8/2002	< 0.06	29	< 10	--	--	--	--	--	--	--	--	--	--
PB-20-12	1/8/2002	< 0.06	<10	< 10	--	--	--	--	--	--	--	--	--	--

Results in units at top: mg/kg - milligrams per kilogram; ug kg - micrograms per kilogram; > 1.0 - Not detected at detection limit given; nd - not detected, detection limit varies; -- Not analyzed
 "B-1-0.5", "EB-1-1.0" - Boring sample collected by Treadwell & Rollo; "T-5E-0.5" - Trench sample collected by Treadwell & Rollo; "PB-14-2" - Boring sample collected by PSI
 TPH-g - Total Petroleum Hydrocarbons quantified as gasoline; TPH-d,-mo - Total Petroleum Hydrocarbons quantified as diesel and motor oil, respectively
 BTEX - benzene, toluene, ethyl benzene, xylenes; VOCs - volatile organic compounds; * "endrin" includes both endrin and endrin ketone
Bold - Result exceeds USEPA Residential PRG; *Italics* - Result exceeds 10-times STLC; Underline - Result exceeds STLC; (Parens) - Exceeds TTLC

Table C-1. Groundwater Analytical Results, Metals
East and West Block

Sample ID	Sample Date	Cadmium ug/l	Chromium ug/l	Lead ug/l	Nickel ug/l	Zinc ug/l	Barium ug/l	Cobalt ug/l	Molybdenum ug/l
B-5-GW	5/4/2002	< 2	< 5	< 5	11	23	--	--	--
B-7-GW	5/4/2002	< 2	< 5	< 5	16	27	--	--	--
B-10-GW	5/4/2002	< 2	< 5	< 5	< 5	26	--	--	--
B-12-GW	5/4/2002	< 2	< 5	< 5	< 5	16	--	--	--
PB-14-W	1/8/2002	nd	nd	nd	17	nd	42	19	16
PB-15-W	5/4/2002	nd	nd	nd	42	nd	105	9	3
PB-16-W	5/4/2002	nd	nd	nd	37	nd	52	31	43
PB-17-W	5/4/2002	nd	nd	nd	58	nd	89	57	50
PB-18-W	5/4/2002	nd	nd	nd	21	nd	46	17	59
PB-19-5	1/8/2002	nd	nd	nd	65	nd	102	76	54
PB-20-8	1/8/2002	nd	nd	nd	35	nd	112	44	15

Results in units at top: ug/l - micrograms per liter

> 1.0 - Not detected at detection limit given, -- Not analyzed

"B-5-GW" - Groundwater sample collected by Treadwell & Rollo

"PB-14-W" - Groundwater sample collected by PSI

The following metals were also analyzed by PSI and were not detected: Antimony, Arsenic, Beryllium, Copper, Mercury, Selenium, Silver, Thallium and Vanadium

Table C-2. Groundwater Analytical Results, Organic Compounds
East and West Block

Sample ID	Sample Date	TPH-G mg/l	TPH-D mg/l	TPH-MO mg/l	Toluene ug/l	Ethyl Benzene ug/l	Xylenes ug/l	1,2-DCA ug/l	Other VOCs
B-5-GW	5/4/2002	50	180	< 640	< 0.5	< 0.5	< 1	2.1	nd
B-7-GW	5/4/2002	< 50	94	< 630	< 0.5	< 0.5	< 1	< 0.5	nd
B-10-GW	5/4/2002	< 50	< 60	< 600	1.8	< 0.5	1.6	< 0.5	nd
B-12-GW	5/4/2002	< 50	< 59	< 590	< 0.5	< 0.5	< 1	< 0.5	nd
PB-14-W	1/8/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd
PB-15-W	5/4/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd
PB-16-W	5/4/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd
PB-17-W	5/4/2002	< 0.05	< 0.05	< 0.05	1.0	1.0	nd	nd	nd
PB-18-W	5/4/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd
PB-19-5	1/8/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd
PB-20-8	1/8/2002	< 0.05	< 0.05	< 0.05	nd	nd	nd	nd	nd

Results in units at top: mg/l - milligrams per liter, ug/l - micrograms per liter

> 1.0 - Not detected at detection limit given, nd - Not detected, detection limit varies, -- Not analyzed

"B-5-GW" - Groundwater sample collected by Treadwell & Rollo

"PB-14-W" - Groundwater sample collected by PSI

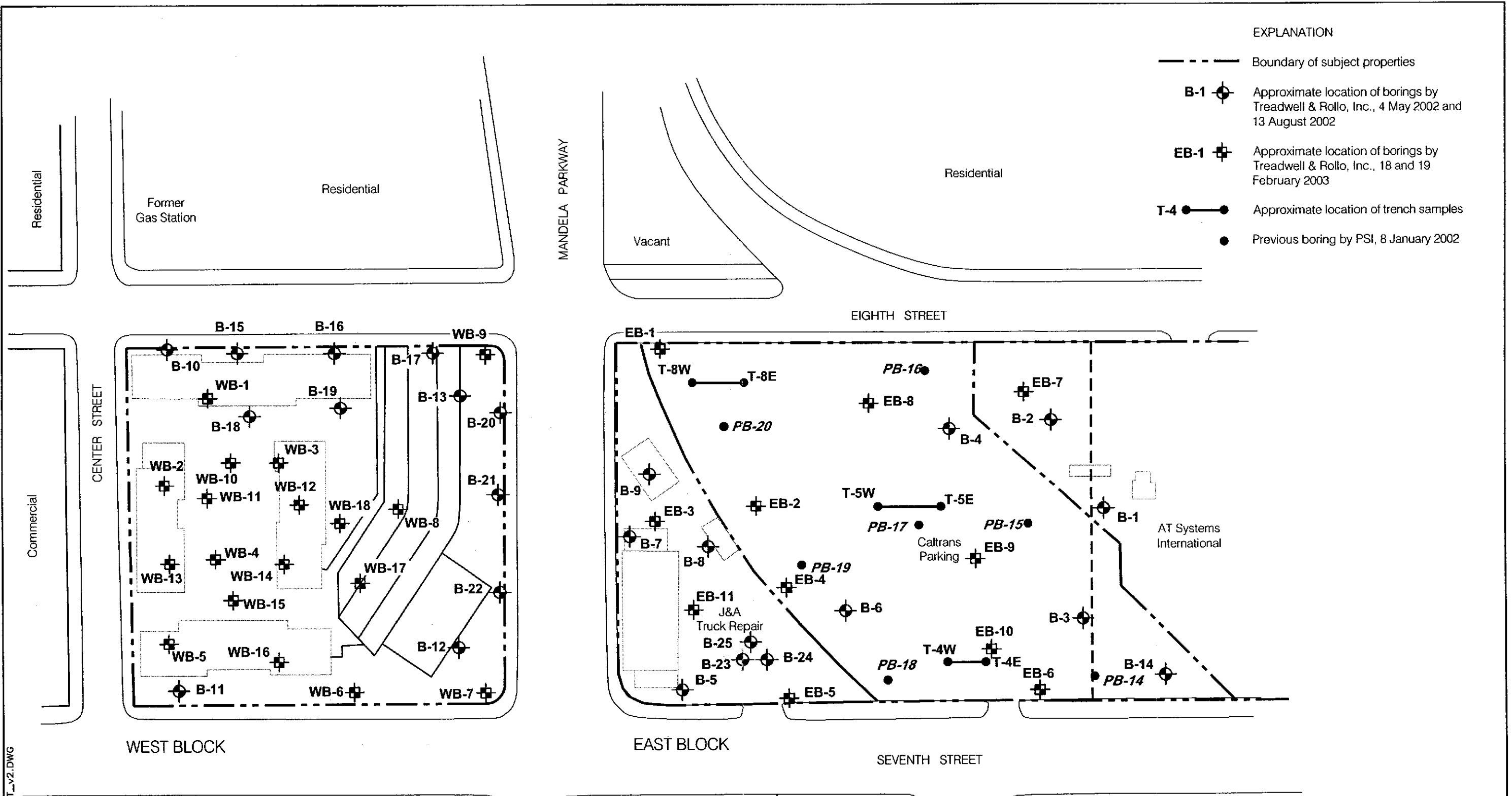
TPH-G - Total Petroleum Hydrocarbons quantified as gasoline

BTEX - benzene, toluene, ethyl benzene, xylenes

TPH-D and -MO - Total Petroleum Hydrocarbons quantified as diesel and motor oil, respectively

1,2-DCA - 1,2-dichloroethane

343302_PROP_SOIL_SAMP_RESULT_V2.DWG



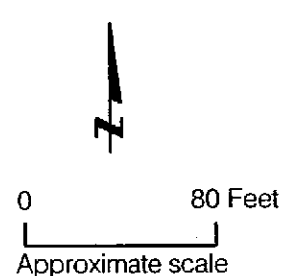
- EXPLANATION
- Boundary of subject properties
 - B-1 [Symbol] Approximate location of borings by Treadwell & Rollo, Inc., 4 May 2002 and 13 August 2002
 - EB-1 [Symbol] Approximate location of borings by Treadwell & Rollo, Inc., 18 and 19 February 2003
 - T-4 [Symbol] Approximate location of trench samples
 - Previous boring by PSI, 8 January 2002

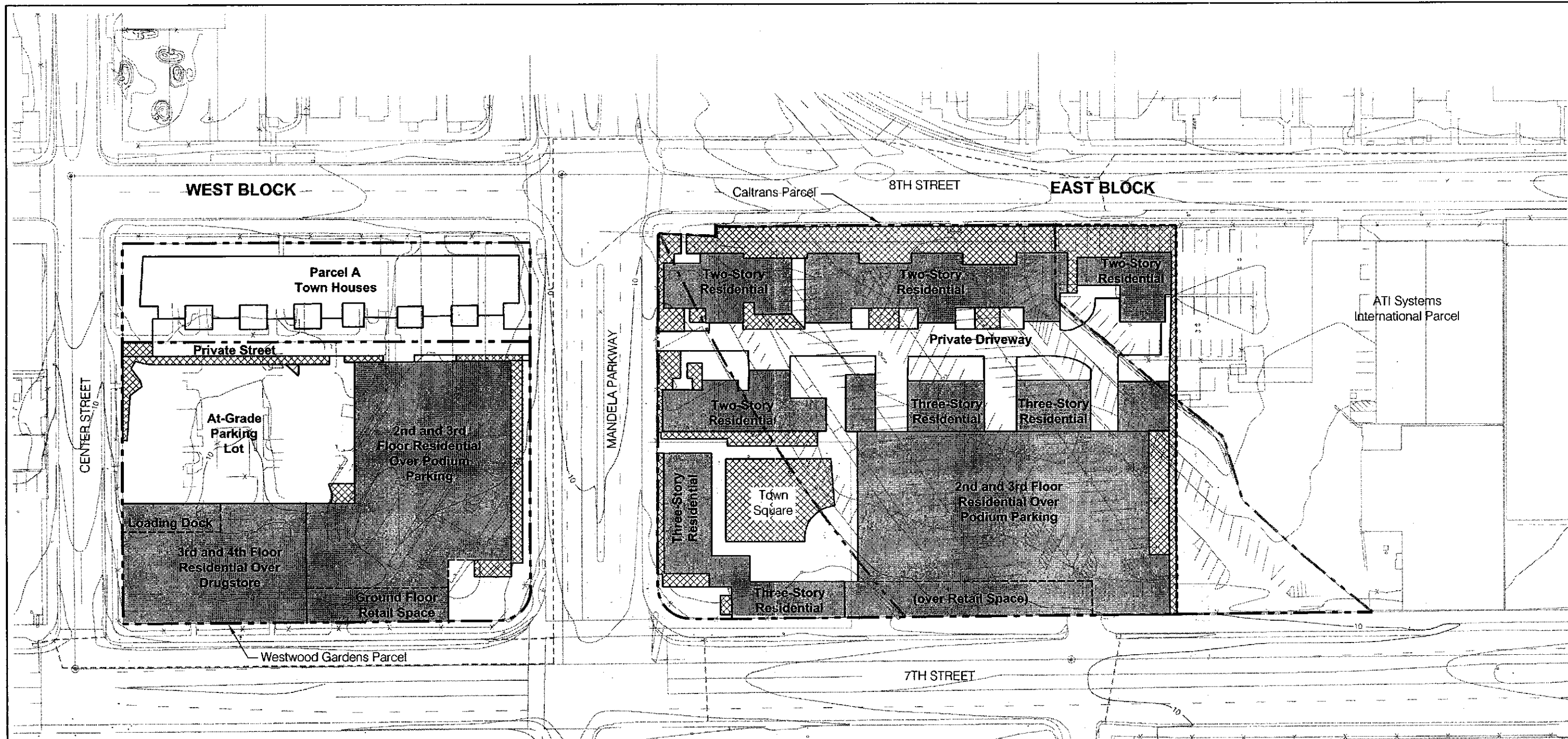
MANDELA GATEWAY
Oakland, California

SITE PLAN AND SAMPLE LOCATIONS

Date 03/10/03	Project No. 3433.02	Figure 1
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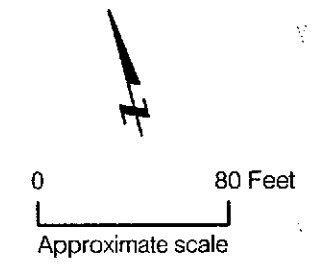
Treadwell & Rollo





EXPLANATION

- Existing property line
- - - Proposed lot line adjustment
- Proposed building
- ▨ Landscaped Areas or Mixed Landscape and Walkways



Reference: 1. DK Associates, "Topographic Survey - Mandela Gateway", May 30, 2002.
 2. Site plan prepared by Michael Willis Architects, dated 11 July 2002.

MANDELA GATEWAY Oakland, California		
PROPOSED DEVELOPMENT		
Date 02/28/03	Project No. 3433.04	Figure 2
Treadwell&Rollo		

343304_PROPOSED DEVELOPMENT.DGW