Reference 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

CON 12-15
Doc #32399

February 22, 1994

MEMORANDUM

SUBJECT: On-Scene Coordinator's Summary Report, PRP-Removal Oversight, 7th Street Lead Site, Des Moines, Iowa

FROM: James F. Kudlinski, OSC
ENSV/EP&R/FIRE

TO: EP&R Branch File

THRU: Ron McCutcheon, Chief
ENSV/EP&R

I. INTRODUCTION

The 7th Street Lead site (hereinafter "site") was a former battery and scrap metal reclamation facility which operated from 1946 until 1980. EPA Region VII conducted a removal assessment at the site in July 1992. Lead concentrations up to 62,000 mg/kg were documented in surficial soils. Toxicity Characteristic Leaching Procedure (TCLP) lead up to 904 mg/l in surficial soils were also documented. Broken ebonite battery casings were observed dispersed across the site. Samples collected during the removal assessment documented the migration of contaminants off-site onto adjacent residential properties.

On January 25, 1993, the United States Environmental Protection Agency (EPA) issued a Unilateral Administrative Order (UAO) pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. Section 9606(a), as amended, to eleven Potentially Responsible Parties (PRPs). A copy of the UAO is included as an attachment to this report.

The UAO ordered the PRPs to conduct a response action at the 7th Street Lead site, Des Moines, Iowa. Specifically, the PRP group was ordered to: retain a qualified hazardous waste contractor; designate a Project Coordinator; submit to EPA a Work Plan (WP), Health and Safety Plan (H&SP), and Quality Assurance/Quality Control Plan (QAPP); and upon EPA approval of the WP, H&SP, QAPP, initiate a PRP-lead removal action at the site.

The EPA Region VII Superfund Removal Enforcement Section requested the Emergency Planning and Response Branch (EP&R) to provide oversight of the PRP-lead removal.

II. PRP REMOVAL ACTIVITIES

On February 17, 1993, the PRP group notified EPA, in writing, of their intent to comply with the UAO and conduct a response action at the site. On March 22, 1993, the PRPs' prime contractor, ENTACT, Inc., submitted the WP, H&SP, and QAPP to EPA for review and comment. On April 28, 1993, EPA approved, with comments, the WP, H&SP and QAPP. Copies of ENTACT's WP, H&SP, QAPP, and EPA's comments are included as attachments to this report. On May 23, 1993, ENTACT mobilized to the site and initiated removal activities. ENTACT remained on-site until removal activities were completed on December 15, 1993. Removal actions completed by ENTACT included:

- A total of 6,108 tons of lead contaminated soils were excavated, containerized, transported, and disposed at a Resource Conservation and Recovery Act (RCRA) Subtitle D Municipal Solid Waste Landfill;

- A total of 8,259 tons of TCLP lead hazardous waste soils were excavated, stabilized on-site, containerized, transported, and disposed at a RCRA Subtitle D Municipal Solid Waste Landfill;.

- A total of 25, 55-gallon drums of miscellaneous liquid and solid wastes were containerized, transported and disposed at a RCRA Subtitle C Hazardous Waste Disposal facility.

- Four residential dwellings were sampled for the presence of interior lead dust. All 4 dwellings contained interior lead dust above the Removal Action Level of 100 mg/kg. Two residential dwellings were decontaminated; two dwellings were left unabated because the resident refused to grant access.

- Restoration of excavated areas included backfilling with sand and topsoil, replacement of concrete walks, and replacement of gravel drives.

A detailed summary of ENTACT'S weekly activities are included as attachments to this report.

III. EP&R PRP OVERSIGHT ACTIVITIES

Throughout the duration of PRP removal activities, EP&R conducted weekly oversight at the site. EP&R's weekly oversight included monitoring PRPs' contractors to ensure work being

performed was conducted promptly and properly in accordance with the UAO and the collection of verification sample-splits for independent laboratory analyses. Field sheets, chain-of-custody, and valid analytical data from verification sample-spilt activities are included as attachments to this report.

IV. ATTACHMENTS

Unilateral Administrative Order
Modification to Unilateral Administrative Order
ENTACT Removal Action Workplan
ENTACT Health and Safety Plan
ENTACT Quality Assurance Project Plan
ENTACT Weekly Summaries
ENTACT Excavation Plan
ENTACT Actual Excavation Plan
ENTACT Analytical Data
EP&R Analytical Data

cc: Robert Morby, SPFD

Reference 6

ecology and environment, inc.

CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

MEMORANDUM

TO: Roy Crossland, EPA/DPO

FROM: Randy Schademann, E & E/TATM RJS

THRU: Joe Chandler, E & E/TATL

DATE: February 17, 1994

SUBJECT: Removal: 7th Street Lead Site, Des Moines, Iowa
TDD: T07-9304-022C
PAN: EIA0211RAA
EPA/OSC: Jim Kudlinski

INTRODUCTION

The Ecology and Environment, Inc., Technical Assistance Team (TAT) was tasked by the U.S. Environmental Protection Agency (EPA) Emergency Planning and Response (EP&R) Branch under Technical Direction Document (TDD) T07-9304-022 to assist the EPA with monitoring a potentially responsible party (PRP)- funded removal at the 7th Street Lead site in Des Moines, Iowa. TAT member (TATM) Randy Schademann was assigned as the TAT project manager. Jim Kudlinski was the EPA On-Scene Coordinator (OSC) for the project.

BACKGROUND

Lead contamination in the area of 7th and Raccoon Streets (Figure 1) was first documented in 1991 when background samples were collected on the site during removal activities at the adjacent Irwin Chemical site (Reference 1: TDD T07-9104-021). Subsequent samples collected by the Iowa Department of Natural Resources indicated lead concentrations ranging from 62,000 to 110,000 milligrams per kilogram (mg/Kg). The use of the area as a lead-acid battery recycling facility at some time in the past was inferred from the abundance of battery casing fragments, which were piled up to several feet thick in some areas.

A Quality Assurance Sampling Plan (QASP) was developed by the EPA and TAT in July of 1991 (Reference 2: TDD T07-9107-002). Implementation of the QASP, delayed because of access negotiations, was initiated during May and July of 1992 (Reference 3: TDD T07-9205-016). Following the work outlined in the QASP, approximately 200 in situ readings of soil were taken with an X-ray fluorescence spectrometer (XRF). Twenty-six soil samples were collected for laboratory analysis to verify the XRF results. The correlation between the XRF values and the

laboratory results exceeded parameters established by the EPA Emergency Response Team (ERT) in a standard operating procedure (SOP) for the XRF (Reference 3).

The characterization of the site during the QASP indicated that lead contamination above 1,000 mg/Kg existed in Lot 9 and the eastern half of Lot 10 of Block 42, and Lot 1 of Block 41 (Figure 2). Lead concentrations below 1,000 mg/Kg were found in Lots 2, 4, 7, and 10 of Block 41. No sampling occurred in Lot 8 of Block 42 or Lot 3 of Block 41 because of unresolved access issues.

ON-SITE ACTIVITIES

The PRP-funded removal was initiated in May 1993. A consortium of Exline Corp., and 11 individuals merged to form the 7th Street Lead Site PRP Group. The removal was conducted by ENTACT, Inc., of Irving, Texas. All the soil with a concentration of 500 mg/Kg lead or greater was excavated and removed from the site. Soil to be removed was determined from the previous investigation by EPA/TAT and from samples collected by ENTACT. An Outokumpu X-Met 880 X-ray fluorescence spectroanalyzer (XRF) was utilized by ENTACT to preliminarly determine the concentration both prior to and after excavation (Reference 4).

Soil above 500 mg/Kg and below the Resource Conservation and Recovery Act (RCRA) toxicity characteristic leaching procedure (TCLP) regulatory limit of 5.0 milligrams per liter (mg/L) for lead was disposed of in a Subtitle D landfill (Metro Park East Landfill or Ames-Story Landfill).

Soil that was above the TCLP limit was first stabilized with a cement mixture, resampled for TCLP, and transported to one of the two landfills (Reference 5). The stabilization was accomplished in situ with a machine similar to those used to remove a layer of asphalt from roads prior to resurfacing. Sampling to determine TCLP status of the untreated and treated material consisted of a single grab per 200 cubic yards (yds3) of excavated soil. Volume determinations were based upon dimensions of stockpiled materials.

After an area had been excavated and screened with the XRF to yield concentrations below 500 mg/Kg, a grab sample was collected to verify the preliminary results. The confirmation samples were submitted by ENTACT to NET Laboratory, Thorofare, New Jersey. A split of most confirmation samples was submitted to the EPA Region VII Laboratory. Removed material consisted of 5,250 cubic yards (yds3) of untreated soil and 6,635 yds3 of treated material. Soil was removed from Lots 6 through 10 of Block 42 and 1 through 5, 9, and 10 of Block 41.

TAT's role in the project, limited by the resource drain of the Federal Emergency Management Agency (FEMA) Midwest flood relief effort, was restricted to monitoring ENTACT while they collected clean-up confirmation samples. Splits of those samples were either delivered to the EPA Laboratory by TAT or shipped to the EPA Laboratory. When discrepancies between the two sets of data arose, the results of EPA's

analysis were used. A summary of the sample results, from both the EPA and NET, is included as an attachment to this report.

FOLLOWUP

The soil removal, delayed by persistent rains, was eventually completed by November 17, 1993. Off-site fill replaced the excavated areas and was graded and reseeded prior to ENTACTs departure. In December, the interiors of houses in the area of excavation were decontaminated (vacuum and washing), except for two residences where access has not been resolved.

ATTACHMENTS

Site Location Map
Site Map
EPA and NET Data Table

REFERENCES

1. Ecology and Environment, Inc. July 1, 1991. Removal funded; Irwin Chemical Co. US Environmental Protection Agency Technical Assistance Team Contract, Technical Direction Document TO7-9104-021, Kansas City, KS.

2. ----------. July 25, 1991. Site assessment: 7th Street lead. US Environmental Protection Agency Technical Assistance Team Contract, Technical Direction Document TO7-9107-002, Kansas City, KS.

3. ----------. September 21, 1992. Site Assessment: 7th Street lead. US Environmental Protection Agency Technical Assistance Team Contract, Technical Direction Document TO7-9205-016, Kansas City, KS.

4. ENTACT. March 22, 1993. Removal action workplan; 7th Street lead site. Irving, TX.

5. -------. January 26, 1994. Draft removal report; 7th Street lead site. Irving, TX.

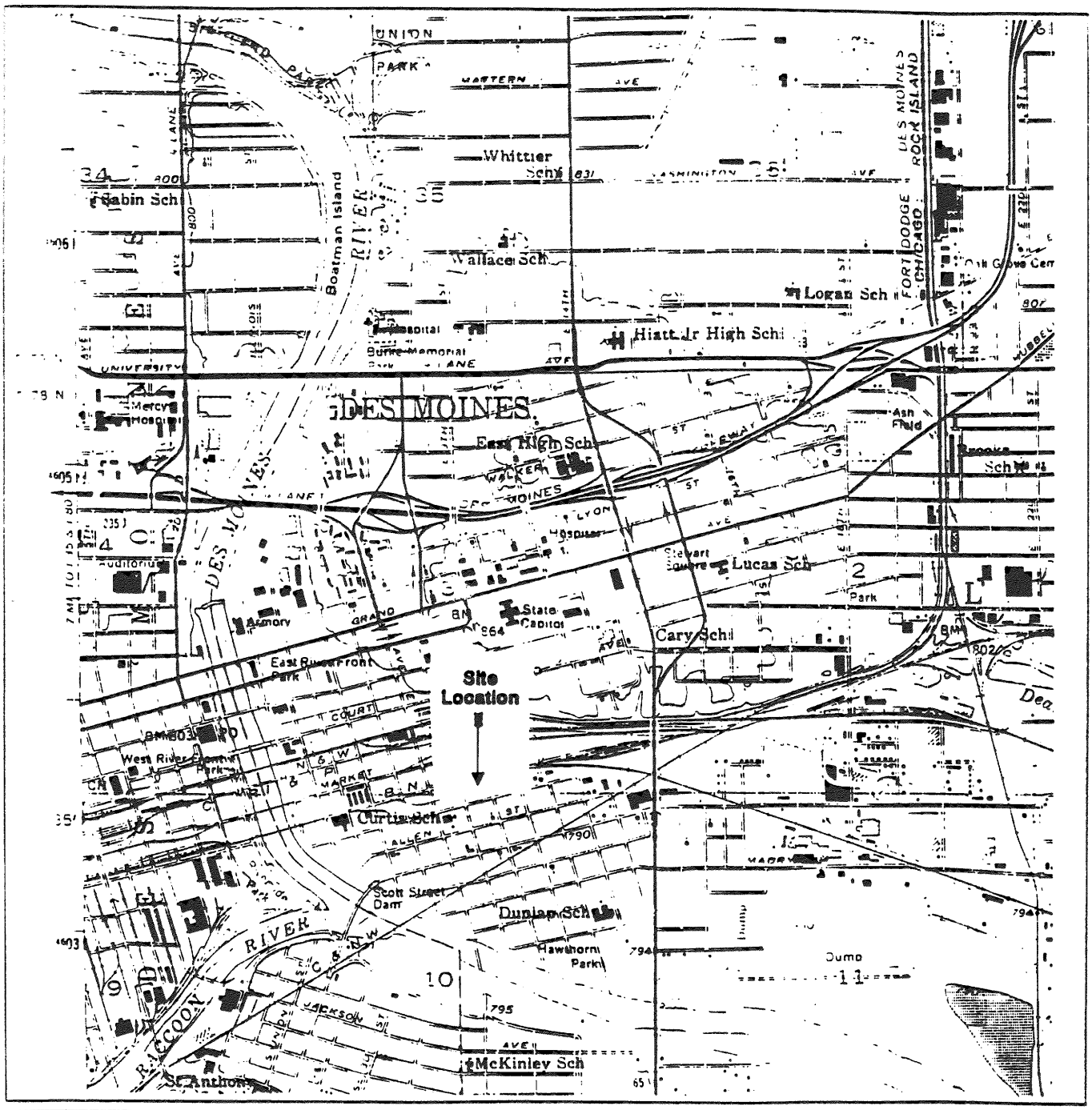

FIGURE 1: Site Location Map

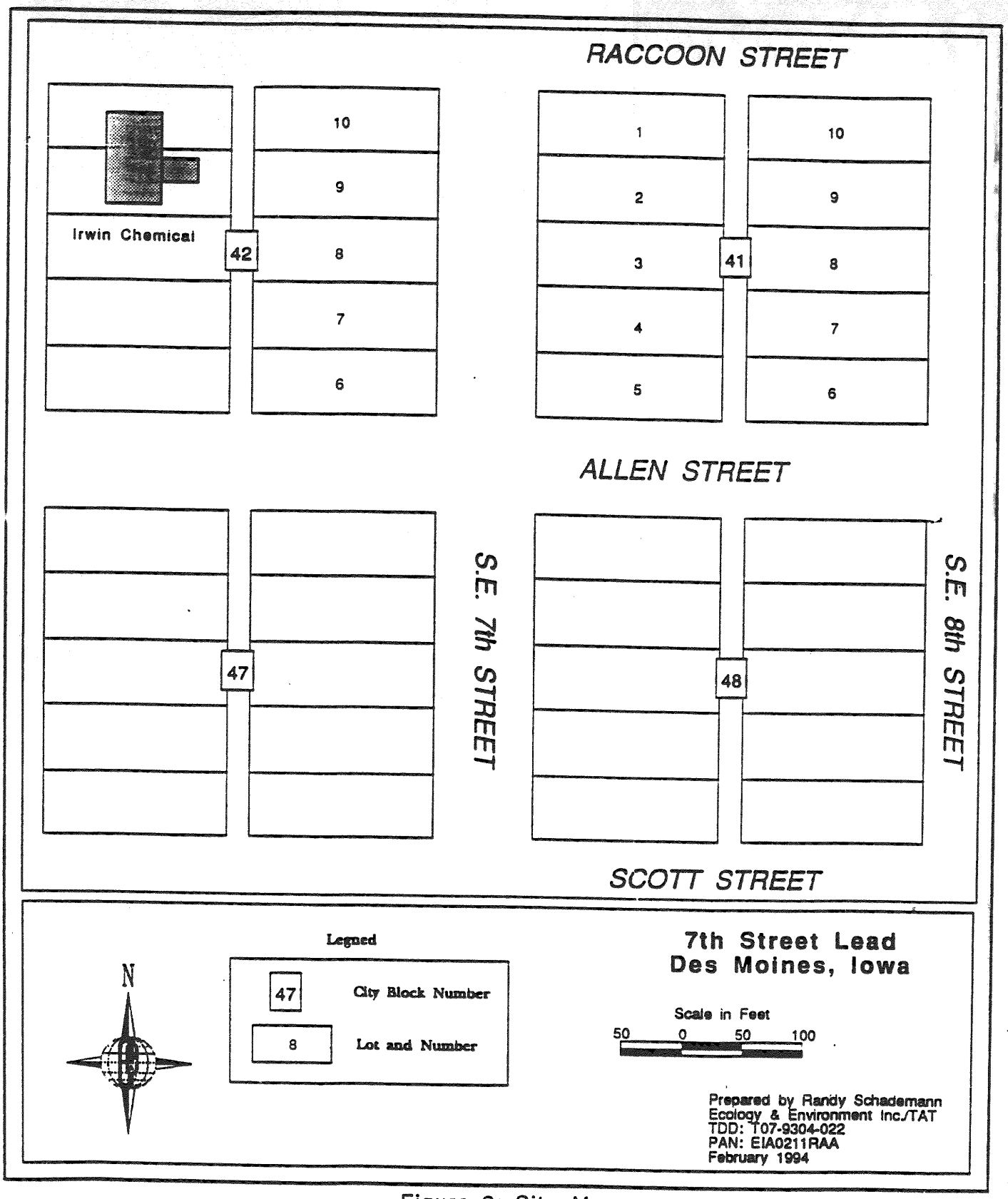

Figure 2: Site Map

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7TH STREET LEAD SITE
VERIFICATION SOIL SAMPLING DATA

DATE	EPA SAMPLE #	LEAD IN MG/KG	PRP SAMPLE #	LEAD IN MG/KG
6/16/93	KP1HS001	9.28	41.3-1-AV	9.60
	KP1HS002	869	41.3-2-AV	175
	KP1HS003	59.1	41.3-3-AV	58.9
	KP1HS004	333	41.3-4-AV	240
	KP1HS005	9.36	41.3-5-AV	26.6
	KP1HS006	17.5	41.3-6-AV	21.6
	KP1HS007	489	41.3-7-AV	333
	KP1HS008	179	41.3-8-AV	105
	KP1HS009	327	41.3-9-AV	278
	KP1HS010	446	41.3-10-AV	455
	KP1HS011	247	41.4-1-AV	394
	KP1HS012	11.8	41.4-2-AV	11.3
	KP1HS013	102	41.4-3-AV	92.6
	KP1HS014	205	41.4-4-AV	177
	KP1HS015	671	41.4-5-AV	570
	KP1HS016	13.2	41.4-6-AV	9.74
	KP1HS017	486	41.4-7-AV	178
	KP1HS018	60.3	41.4-8-AV	58.8
	KP1HS019	280	41.4-9-AV	426
	KP1HS020	10.1	41.4-10-AV	10.1
	KP1HS021	6.12	41.4-11-AV	18.4
	KP1HS022	8.99	41.4-12-AV	9.11
	KP1HS023	6.22	41.4-13-AV	8.14
	KP1HS024	595	41.4-14-AV	616
	KP1HS025	2470	41.4-15-AV	1100
	KP1HS026	60.1	41.5-1-AV	29
	KP1HS027	5.06	41.5-2-AV	6.88
	KP1HS028	19.1	41.5-3-AV	17.0
	KP1HS029	19.1	41.5-4-AV	22.8
	KP1HS030	43.6	41.5-5-AV	50
	KP1HS031	146	41.5-6-AV	318
	KP1HS032	68.6	41.5-7-AV	170
	KP1HS033	817	41.5-8-AV	97.1
	KP1HS034	64.6	41.5-9-AV	60.6
	KP1HS035	19.4	41.3-2-AV2	19.4
	KP1HS036	30.5	41.3-10-AV2	35.4
	KP1HS037	13.4	41.4-5-AV2	16.7

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7TH STREET LEAD SITE
VERIFICATION SOIL SAMPLING DATA

DATE	EPA SAMPLE #	LEAD IN MG/KG	PRP SAMPLE #	LEAD IN MG/KG
6/28/93	KP2HS001	8.81	41.10-1-AV	8.70
	KP2HS002	40.8	41.10-2-AV	39.2
	KP2HS003	72.7	41.10-3-AV	71.4
	KP2HS004	37.5	41.10-6-AV	21.3
	KP2HS005	11.2	41.10-7-AV	9.88
	KP2HS006	289	41.10-8-AV	341
	KP2HS009	13.8	41.10-11-AV	15
	KP2HS010	15.2	41.10-12-AV	18.1
	KP2HS011	223	41.10-13-AV	216
	KP2HS012	251	41.10-14-AV	143
	KP2HS013	54.8	41.10-15-AV	51.8
	KP2HS014	13.0	41.9-1-AV	15.8
	KP2HS015	51.3	41.9-2-AV	124
	KP2HS016	21.8	41.9-3-AV	13.9
	KP2HS017	17.7	41.9-4-AV	15.6
	KP2HS018	50.3	41.9-5-AV	38.6
	KP2HS019	8.53	41.9-6-AV	9.32
	KP2HS020	122	41.9-7-AV	21.7
	KP2HS021	4.57	41.9-8-AV	8.30
	KP2HS022	(625)	41.9-9-AV	360
	KP2HS023	25.4	41.9-10-AV	44.9
	KP2HS024	26.2	41.9-11-AV	44.8
	KP2HS025	251	41.9-12-AV	282
	KP2HS026	223	41.9-13-AV	216
	KP2HS027	251	41.9-14-AV	143
	KP2HS028	54.8	41.9-15-AV	51.8
	KP2HS029	52.8	41.7-1-AV	49.5
	KP2HS030	128	41.7-2-AV	155
	KP2HS031	3.9	41.7-3-AV	7.39
	KP2HS032	126	41.7-4-AV	136
6/29/93	KP2HS033	152	41.5-8-AV2	
	KP2HS034	4.60	41.4-14-AV2	
	KP2HS035	189	41.4-15-AV2	
	KP2HS036	107	42.8-2-AV	
	KP2HS037	60.6	42.8-3-AV	
	KP2HS038	234	42.8-4-AV	
	KP2HS039	13.5	42.8-5-AV	
	KP2HS040	(1200)	42.8-8-AV	
	KP2HS041	118	42.8-9-AV	
	KP2HS042	14.4	42.8-10-AV	
	KP2HS043	100	42.8-11-AV	

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7TH STREET LEAD SITE
VERIFICATION SOIL SAMPLING DATA

DATE	EPA SAMPLE #	LEAD IN MG/KG	PRP SAMPLE #	LEAD IN MG/KG
7/26/93	KP3HS001	17.2	41.9-9-AV2	
7/30/93	KP3HS002	4.33	41-ALY-1AV	
	KP3HS003	14.6	41-ALY-2AV	
	KP3HS004	3.45	41-ALY-3AV	
	KP3HS005	167	41.10-4-AV	
	KP3HS006	2.00	41.10-9-AV	
8/9/93	KP3HS007	11.0	42.7-1-AV	
	KP3HS008	15.8	42.6-1-AV	
	KP3HS009	15.2	42.7-2-AV	
	KP3HS010	10.4	42.6-5-AV	
	KP3HS011	16.3	42.7-3-AV	
	KP3HS012	17.6	42.6-2-AV	
	KP3HS013	34.0	42.7-6-AV	
	KP3HS014	32.0	42.6-7-AV	
	KP3HS015	40.6	42.7-7-AV	
	KP3HS016	16.7	42-ALY-2AV	
	KP3HS017	53.9	42-ALY-1AV	
	KP3HS018	10.8	42-ALY-3AV	
	KP3HS019	16.4	42.6-8-AV	
	KP3HS020	245.0	42-ALY-4AV	
	KP3HS021	15.2	42.6-3-AV	
	KP3HS022	267.0	42.7-8-AV	
	KP3HS023	13.4	42.6-9-AV	
	KP3HS024	6.67	42.6-4-AV	
	KP3HS025	21.1	42.7-9-AV	
	KP3HS026	9.58	42.6-6-AV	
	KP3HS027	16.4	42.7-4-AV	
	KP3HS028	12.1	42.6-10-AV	
	KP3HS029	11.9	42.7-5-AV	
	KP3HS030	163.0	42-EAS-2AV	
	KP3HS031	129.0	42-EAS-1AV	
	KP3HS032	36.3	42.7-10-AV	
	KP3HS033	301.0	42.8-12-AV	
	KP3HS034	490.0	42.8-1-AV	
	KP3HS035	3,200	42.8-6-AV	
	KP3HS036	5,330	42.8-13-AV	
	KP3HS037	352	42.8-9-AV	
8/11/93	KP3HS038	72.9	41-EAS-3AV	
	KP3HS039	298	41-EAS-1AV	
	KP3HS040	208	41-EAS-2AV	
	KP3HS041	83.5	41.10-10-AV	
	KP3HS042	94.4	41.10-5-AV	

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7TH STREET LEAD SITE
VERIFICATION SOIL SAMPLING RESULTS

DATE	EPA SAMPLE #	LEAD IN MG/KG	PRP SAMPLE #	LEAD IN MG/KG
9/30/93	KP4HS001	948.0	41.1-8-AV	1,113
	KP4HS002	39.6	41.1-9-AV	39.0
	KP4HS003	1,800	41.2-8-AV	924
	KP4HS004	43.4	41.1-1-AV	17.9
	KP4HS005	9.43	41.1-2-AV	20.4
	KP4HS006	24.10	41.1-3-AV	21.7
	KP4HS007	2040	41.1-4-AV	982.0
	KP4HS008	44.9	41.1-7-AV	22.9
	KP4HS009	13.0	41.2-7-AV	18.0
	KP4HS010	9.3	41.2-4-AV	22.8
	KP4HS011	1,600	41.2-3-AV	178.0
	KP4HS012	27.3	41.2-2-AV	39.8
	KP4HS013	1,170	41-EAS-7AV	172
	KP4HS014	295	41-EAS-6AV	238
	KP4HS015	30.0	42-EAS-3AV	24.4
	KP4HS016	20.0	42-EAS-4AV	18.5
	KP4HS017	796	42.8-1-AV2	64.6
	KP4HS018	66.0	42.8-8-AV2	684
	KP4HS019	1,540	42.9-1-AV	1,580
	KP4HS020	139	42.9-2-AV	132
	KP4HS021	205	42.9-3-AV	269
	KP4HS022	44.0	42.9-4-AV	48.0
	KP4HS023	948	42.9-5-AV	809
	KP4HS024	264	42.9-6-AV	237
	KP4HS025	27.9	42.9-7-AV	21.3
	KP4HS026	27.9	42.9-8-AV	25.8
	KP4HS027	227	42.10-1-AV	114
	KP4HS028	27.0	42.10-2-AV	22.0
	KP4HS029	27.2	42.10-3-AV	20.6
	KP4HS030	78.5	42.10-4-AV	18.3
	KP4HS031	84.6	42.10-5-AV	83.5
	KP4HS032	370	42.10-6-AV	320
	KP4HS033	17.5	42.10-7-AV	19.8
	KP4HS034	16.0	42.10-8-AV	19.9
	KP4HS035	23.2	42.10-9-AV	20.8
	KP4HS036	15.7	42.10-10-AV	19.4
	KP4HS037	71.3	42-ALY-5AV	59.8
	KP4HS038	603	42-ALY-6AV	540
10/01/93	KP4HS039	192	41-ALY-6AV	150
	KP4HS040	15.6	41.2-10-AV	21.7
	KP4HS041	9.12	41-ALY-5AV	20.0
	KP4HS042	228	41.2-5-AVV	222
	KP4HS043	20.8	42.9-10-AV	20.3
	KP4HS044	11.9	41-ALY-4AV	20.4
	KP4HS045	15.1	42.9-9-AV	23.9
	KP4HS046	30.1	41-EAS-5AV	24.4
	KP4HS047	327	41.1-5-AV	271
	KP4HS048	39.7	41-EAS-4AV	33.2
	KP4HS049	16.0	41.1-10-AV	22.0
9/30/93	KP4HS050	109	42.8-7-AV2	83.3
			41.2-9-AV	21.3

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7TH STREET LEAD SITE
VERIFICATION SOIL SAMPLING RESULTS

DATE	EPA SAMPLE #	LEAD IN MG/KG	PRP SAMPLE #	LEAD IN MG/KG
10/6/93	IP1HS001	74.1	41-EAS-10AV	75.9
	IP1HS002	44.6	41.3-13-AV	30.0
	IP1HS003	343	41.3-12-AV	238
	IP1HS004	26.6	41.3-11-AV	22.8
	IP1HS005	36.2	42-ALY-6AV2	20.3
	IP1HS006	60.4	41.3-15-AV	76.0
	IP1HS007	35.9	41.3-14-AV	18.0
	IP1HS008	71.7	41.3-16-AV	74.0
	IP1HS009	17.4	41.3-17-AV	17.4
	IP1HS010	287	41.1-4-AV2	276
	IP1HS011	14.3	41.1-8-AV2	24.3
	IP1HS012	9.28	41.2-8-AV2	18.4
	IP1HS013	132	42.8-13-AV2	112
	IP1HS014	20.6	42.5-1-AV	17.2
	IP1HS015	10.4	42.9-1-AV2	18.9
	IP1HS016	12.8	42.9-5-AV2	21.5
	IP1HS017	23.6	42.8-8-AV3	22.1
	IP1HS018	14.6	42-EAS-5AV	26.0
	IP1HS019	60.7	42-EAS-6AV	41.1
	IP1HS020	7.59	41.2-9-AV	21.3
	IP1HS021	49.1	41.2-3-AV2	
	IP1HS022	12.0	41-EAS-8AV	
	IP1HS023	20.5	42.8-1-AV3	
	IP1HS024	27.2	41.1-6-AV	
	IP1HS025	9.07	41.2-1-AV	
	IP1HS026	32.1	41-EAS-9-AV	
	IP1HS027	12.7	41.2-G-AV	
	IP1HS028	473	41.6-1-AV	
	IP1HS029	9.98	41-EAS-7-AV2	