K/HS-167
Rev. 1

K-25

OAK RIDGE K-25 SITE

MARTIN MARIETTA

3004.u 2.A.1 Assessment
for the
Oak Ridge Gaseous Diffusion Plant

OCTOBER 1988
~~April 1987~~

T. A. Bowers
Environmental Management Department
Health, Safety, and Environmental Affairs

APPROVAL FOR RELEASE

Document: # K/HS-167 ; Date 4/87 ;

Title/Subject 3004.u 2.A.1 ASSESSMENT FOR THE OAK RIDGE GASEOUS DIFFUSION PLANT

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Irwin S. Davis (JB) 3/25/93

K-25 Classification & Information Control Officer — Date

Prepared for the U.S. Department of Energy
under Contract No. DE-AC05-840R21400

TA ENERGY SYSTEMS, INC.
STATES
ENERGY

1155

UNIT NUMBER 001

UNIT NAME K-1070-A Old Contaminated Burial Ground

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #1 and photograph #1

APPROXIMATE DIMENSIONS 1.0 acre

CAPACITY NA

FUNCTION Burial of low-level contaminated waste

DATES OPERATED Late 1940s through 1975

DESCRIPTION OF WASTE (or list attached references):

See Attachment 1 for an itemized list of the waste buried at this unit.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

A RFI plan is presently being prepared for this unit. This plan provides details of how the unit will be characterized to determine if a release is occurring.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

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RCRA FACILITY ASSESSMENTS FOR THE OAK RIDGE GASEOUS DIFFUSION PLANT

October 1988

T. A. Bowers
Environmental Management Department
Health, Safety, and Environmental Affairs

1. K-1070-A Old Contaminated
   Burial Ground

ATTACHMENT #1

K-1070-A Old Contaminated Burial Ground

X.Y Current Information-K-33 Contaminated Burial Ground

The following is an itemized list of the contents of the various graves which makeup the K-33 Contaminated Burial Ground. The information is a compilation based on files obtained from the ORGDP Health and Environmental Affairs Department.

TABLE X.Y.1
Itemized Manifest of Contents of K-33 Contaminated Burial Ground Graves

GRAVE NO.	CONTAINERS	DESCRIPTION	U-235 (grams)	ENRICHMENT
1-7	unk.	alumina and carbon from K-1131 absorption traps	unk.	unk.
8	19 boxes	scrap metal-Fairchild Operation	unk.	unk.
	3x55 gal	thorium oxide	unk.	unk.
	32x6 gal	thorium fluoride	unk.	unk.
	55 drums	thorium slag	unk.	unk.
	20 drums	cell cleanout	unk.	unk.
	3x55 gal	"duds"	unk.	unk.
9	53x55 gal	sheared feed,press cake, cell cleanout from thorium operation	unk.	unk.
10	39x55 gal	thorium and magnesium-NASA project	unk.	unk.
11	5 drums	Vitro fines	unk.	unk.
	2 drums	National Lead Fines	unk.	unk.
	3 drums	National Lead vacuum cleanings	unk.	unk.
12	unk.	thorium drums (empty)	unk.	unk.
	350	obsolete UF_6 product cylinders	unk.	unk.
13	2 drums	uranium chips and magnesium thorium	unk.	unk.
	2xdump truck	bagged gravel-K-601 roof	unk.	unk.
	2xdump truck	tar and felt-k-601 roof	unk.	unk.
	40 AS^9 cans	from 8A	unk.	unk.
14	7 AS cont. w/dollies	contaminate MFL oil-K1420	unk.	unk.
	220x5 gal	buckets-National Lead shipment	unk.	unk.

	6 boxes	equipment-K-1004D	unk.	unk.
	3.5 dump trucks	gravel etc-K-601 roof	unk.	unk.
	6 bottles	depleted material-Univ of Virginia	unk.	unk.
	1 AS can	MgF_2 and NaF(Code 209)	unk.	unk.
	1 dump truck	K-1131 stack (4 sect.)	unk.	unk.
	6 dump truck	roof material-K-1420	unk.	unk.
15	3x5 gal	K-1131 stack material	unk.	unk.
	12 dump truck	K-1420 roof material	unk.	unk.
	1 tallboy	NaF and MgF_2-Lab A	unk.	unk.
	1 drum	NaF and depleted U-K-1413	unk.	unk.
	98 AS cans	U_3O_8-from 8A	unk.	unk.
	67	containers (empty)[1]	unk.	unk.
	40x55 gal	container (empty)[1]	unk.	unk.
	8x30 gal	container (empty)[1]	unk.	unk.
	12x5 gal	container (empty)[1]	unk.	unk.
	1x30 gal	MgF_2	unk.	unk.
	2x5 gal	bucket-BrF_3	unk.	unk.
	1x5 gal	bucket-$AlBrF_3$	unk.	unk.
16	17 dump truck	K-1420 roof material	unk.	unk.
	35 AS cans	U_3O_8 from 8A	unk.	unk.
	8x55 gal	drums (empty)[2]	unk.	unk.
17	2 boxes	chemicals	unk.	unk.
	14x55 gal	drums (empty)[2]	unk.	unk.
	6x30 gal	drums (empty)[2]	unk.	unk.
	49x55 gal	drums (empty)[1]	unk.	unk.
	31x30 gal	drums (empty)[1]	unk.	unk.
	27x5 gal	buckets (empty)[1]	unk.	unk.
	28	tallboy containers[1]	unk.	unk.
	48 AS cans	cans (empty)[1]	unk.	unk.
	31x55 gal	drum (empty)	unk.	unk.
	27x30 gal	drum (empty)	unk.	unk.
	4 AS cans	cans (empty)	unk.	unk.
	5	MD cylinders	unk.	unk.
	1x20 gal	can-beryllium oxide	unk.	unk.
		instrument manifold from Lab D	unk.	unk.
	1x30 gal	drum-UO_2F_2	unk.	unk.
	24x30 gal	drums (empty)[2]	unk.	unk.
	14 AS cans	material-K-1131 stack	unk.	unk.
		section K-1131 stack	unk.	unk.
	5 AS cans	cans contaminated w MFL oil	unk.	unk.
	24 AS cans	cans	unk.	unk.

	6x30 gal	drums	unk.	unk.
	4	tallboys	unk.	unk.
	1x5 gal	container	unk.	unk.
18	2	10 ton cylinders	unk.	unk.
	75x5 gal	buckets[3]	unk.	unk.
	5x55 gal	drums of bottles[3]	unk.	unk.
	2 boxes	residue-K-33 equipment	unk.	unk.
	48	cylinders(contaminated)	unk.	unk.
	4x30 gal	drums (empty)	unk.	unk.
	4x55 gal	drums (empty)	unk.	unk.
	1 filter	Pu and Be contaminated	unk.	unk.
	2	2.5 ton cylinders	unk.	unk.
	5x55 gal	drums (empty)	unk.	unk.
	6 AS cans	Al contaminated w WF_6	unk.	unk.
	1x30 gal	drum (empty)	unk.	unk.
	1x20 gal	can w Th,Be,U contaimnated material	unk.	unk.
	1	plastic tallboy	unk.	unk.
	10x55 gal	NaF w depleted UF_6	unk.	unk.
	2x55 gal	drums (empty)[4]	unk.	unk.
	1x30 gal	drums (empty)[4]	unk.	unk.
	1x5 gal	filter paper w Th	unk.	unk.
	4x55 gal	drums (empty)[2]	unk.	unk.
	1 AS can	Al contaminated w depleted U	unk.	unk.
	1 jar	MgF^2	unk.	unk.
	1x5 gal	bucket of valves	unk.	unk.
	26x55 gal	drums w depleted UF_6	unk.	unk.
	6x55 gal	drums	unk.	unk.
	7x5 gal	sludge-K-1420	unk.	unk.
	12x30 gal	drums K-1420 (empty)	unk.	unk.
	6x55 gal	drums K-1420 (empty)	unk.	unk.
	7x5 gal	bucket K-1420 (empty)	unk.	unk.
	1 can	Be from K-1004-D	unk.	unk.
	1 tank	lead lined from Peninsula	unk.	unk.
	1 GI can	plutonium wasted-Lab C	unk.	unk.
	1 cyl.	#39256 from K-1004-L	unk.	unk.
	37	containers K-1420	unk.	unk.
	1x10 gal	depleted U turnings	unk.	unk.
	4 cans	"gunk" K-1131	unk.	unk.
	64	containers from Vault 8A (empty)	unk.	unk.
	1x30 gal	scrap K-1004-D	unk.	unk.
	1x5 gal	Be chips K-1025	unk.	unk.
	54x55 gal	drums (empty)	unk.	unk.
19	1	container scrap metal	unk.	unk.
	26x55 gal	oil drums (empty)	unk.	unk.
	68	cans from Vault 8A	unk.	unk.
	6x5 gal	buckets of Te K-1413	unk.	unk.
	2x55 gal	drums of Te K-1413	unk.	unk.
	3 GI cans	oily rags K-33	unk.	unk.

	2x5 gal	Be scrap	unk.	unk.
	1 gal	can K-1006	unk.	unk.
	24x30 gal	drums NaF K-1413	unk.	unk.
	12	containers K-1420	unk.	unk.
	15	containers of oil	unk.	unk.
	3	containers of screenings K-1420	unk.	unk.
	72x5 gal	buckets K-1420	unk.	unk.
	6 cyl.	from K-1405	unk.	unk.
	11 cyl.	contents unknown	unk.	unk.
	147	containers contents unknown	unk.	unk.
	17x30 gal	drums contents unknown	unk.	unk.
	30x55 gal	drums contents unknown	unk.	unk.
	64x55 gal	drums (empty)	unk.	unk.
	33	drums (empty)	unk.	unk.
		material from Y-12 810 acct. transfer 9014	unk.	unk.
	1 GI can	scrap from K-1131	unk.	unk.
	11 cyl.	from stores	unk.	unk.
20	167	containers of nuclear scrap	4148	<5.0
	123	containers of nuclear scrap	unk.	<0.9%
	67	containers of nuclear scrap	unk.	>0.9%<10%
21	45x5 gal	containers of nuclear scrap	unk.	unk.
	1x5 gal	bucket of D38 metal	unk.	unk.
	89	containers misc. scrap	unk.	unk.
	108	containers misc. scrap	unk.	unk.
	43x5 gal	cont. Al_2O_3	640	<5%
	5x55 gal	cont. Al_2O_3	unk.	unk.
	100	cans (empty)	unk.	unk.
	20x55 gal	drums (empty)	unk.	unk.
	51x30 gal	drums (empty)	unk.	unk.
	64x5 gal	buckets (empty)	unk.	unk.
	14x5 gal	Soda lime and salt	unk.	unk.
	2x5 gal	unknown solid waste	unk.	unk.
	1x5 gal	carbon and Al_2O_3	unk.	unk.
	1x5 gal	unknown liq. lab waste	unk.	unk.
	3x5 gal	carbonate solution	unk.	unk.
	2x5 gal	vacuum cleanings	unk.	unk.
	1x5 gal	Soda lime and salt	unk.	unk.
	2x30 gal	UO_2F_2	unk.	unk.
	5x30 gal	vacuum cleanings	unk.	unk.
	2	NaF-individually safe cans	unk.	unk.
	1	soda salt and Al_2O_3 in individually safe cans	unk.	unk.
22	86x5 gal	leached Al_2O_3	991	<5%

	42x5 gal	contaminated Al_2O_3	unk.	unk.
23	34	misc. U scrap	1,145	<2%
	9x5 gal	MFL filter cake	unk.	<2%
	1x5 gal	solid waste	unk.	<2%
	4x5 gal	NaF	unk.	<2%
	2x5 gal	soda, salt, Al_2O_3	unk.	<2%
	13x5 gal	container (empty)[2]	unk.	<2%
	3x5 gal	container (empty)[5]	unk.	<2%
	1x5 gal	container (empty)[6]	unk.	<2%
24	53x5 gal	leached Al_2O_3	930	unk.
25	9	misc. U scrap	200	<5%
	1x5 gal	soda lime and salt	unk.	unk.
	5x5 gal	MFL filter cake	unk.	unk.
	1x5 gal	solid waste	unk.	unk.
	1x5 gal	NaF	unk.	unk.
	1 individ. safe can	Al_2O_3	unk.	unk.
26	18	misc. U scrap	1,200	<3%
	5 individ. safe cans	Al_2O_3	unk.	unk.
	2x5 gal	soda,salt, Al_2O_3	unk.	unk.
	2 individ. safe cans	solid waste	unk.	unk.
	9x5 gal	MFL filter cake	unk.	unk.
27	13	misc. U scrap	600	<5%
	8 individ. safe cans	Al_2O_3	unk.	unk.
	1x5 gal	MFL filter cake	unk.	unk.
	3x5 gal	containers (empty)[5]	unk.	unk.
	1x5 gal	containers (empty)[6]	unk.	unk.
28	45x5 gal	leached Al_2O_3	240	<5%
29	23x5 gal	leached Al_2O_3	345	<5%
30	23x5 gal	leached Al_2O_3	138	<5%
31	21x5 gal	leached Al_2O_3	274	<5%
	12x5 gal	leached Al_2O_3	unk.	unk.
32	12x5 gal	leached Al_2O_3	193	<5%
33	32x5 gal	leached Al_2O_3	246	<5%
34	25x5 gal	leached Al_2O_3	868	<5%
35	25x5 gal	leached Al_2O_3	582	<5%
36	30x5 gal	leached Al_2O_3	858	<5%

37	40x5 gal	leached Al_2O_3	1145.8	unk.
38	39x5 gal	leached Al_2O_3	522.5	unk.
39	48x5 gal	leached Al_2O_3	825	unk.
40	49x5 gal	leached Al_2O_3	1010	unk.
41	40x5 gal	leached Al_2O_3	1169.4	unk.
42	110x5 gal	leached Al_2O_3	1045.9	unk.
43	21x5 gal	leached Al_2O_3	835	unk.
	10x5 gal	MFL filter cake	39	unk.
44	22x5 gal	leached Al_2O_3	220	unk.
45	42x5 gal	leached Al_2O_3	374	unk.
46	47x5 gal	leached Al_2O_3	896	unk.
47	16x5 gal	K-1413 scrap[7]	unk.	unk.
	3x30 gal	K-1413 scrap[7]	30.593	unk.
48	1x5 gal	K-1413 scrap[7]	94.483	unk.
	3x30 gal	K-1413 scrap[7]	157.45	unk.
49	2x30 gal	K-1413 scrap[7]	416	unk.
50	3x30 gal	K-1413 scrap[7]	25.319	unk.
51	3x30 gal	K-1413 scrap[7]	24.881	unk.
52	3x30 gal	K-1413 scrap[7]	591.960	unk.
53	7x30 gal	screened tails-K-1231	unk.	unk.
	4x10 gal	rags	unk.	unk.
	1x5 gal	rags	unk.	unk.
	2x55 gal	Zorball	unk.	unk.
	8	tallboys (empty)	unk.	unk.
	2	tallboys-Zorball	unk.	unk.
	1x55 gal	low assay material	unk.	unk.
	3	tarps	unk.	unk.
	3	cell heaters	unk.	unk.
	1x30 gal	drums (empty)	unk.	unk.
	4x5 gal	containers (empty)	unk.	unk.
	14x1 gal	containers (empty)	unk.	unk.
	1x.5 gal	container (empty)	unk.	unk.
	22 individ safe cans	cans (empty)	unk.	unk.
	15x30 gal	scrap material[8]	unk.	unk.
	1x5 gal	scrap material	unk.	unk.
	4	51622 grams Th scrap	unk.	unk.

54	3x5 gal	scrap	unk.	unk.
	1x1 gal	scrap	unk.	unk.
	23x30 gal	misc. scrap	unk.	unk.
	3x55 gal	misc. scrap	unk.	unk.
	67x55 gal	Al_2O_3	unk.	unk.
55	3x30 gal	Incinerator ash[10]	unk.	unk.
56	1x30 gal	Incinerator ash[10]	unk.	unk.
	2x30 gal	K-1413 scrap[7]	83.14	unk.
57	1x55 gal	K-1413 scrap[7]	2725.18	unk.
	8x5 gal	K-1413 scrap[7]	183.17	unk.
58	1x55 gal	K-1413 scrap[7]	2552.38	unk.
	6x6 gal	K-1413 scrap[7]	39.99	unk.
59	14x5 gal	Leached Al_2O_3	unk.	unk.
60	2x30 gal	Incinerator ash[10]	958	unk.
	3 individ. safe cans	Incinerator ash[10]	54	unk.
61	2x30 gal	Incinerator ash[10]	911	unk.
	3 individ safe cans	Incinerator ash[10]	46	unk.
62	30x5 gal	Leached Al_2O_3	284.46	unk.
	14 small jars	Misc. material	13.0	unk.
63	28x5 gal	Leached Al_2O_3	318.75	unk.
	13x15"cans	Incinerator ash[10]	286.9	<0.7%
64	11	contents unknown	163	unk.
	15x5 gal	contents unknown	3202	unk.
65	20x15 l.	MFL oil	unk.	unk
	1x5 gal	Zr shavings	unk.	unk.
	1 can	Zr shavings	unk.	unk.
	11x55 gal	Al_2O_3	2038.5	unk.
	1x300 ml	unknown	unk.	unk.
	6x100 gr	Arsenious oxide	unk.	unk.
	1x100 gr	Arsenic metal	unk.	unk.
	1x100 gr	Anhydrone	unk.	unk.
	1x500 gr	Lead nitrate	unk.	unk.
	1 bottle	Antimony chloride	unk.	unk.
66	15x5 gal	Al_2O_3, U_3O_8	unk.	unk.
	17x5 gal	leached Al_2O_3, filters	145.9	unk.
67	14x5 gal	leached Al_2O_3, filters	113.0	unk.
	8x5 gal	filters from centrifuge	54.45	unk.

1) previously contained low U solutions
2) previously contained carbonate solutions
3) previously contained uranium oxide from 1X
4) previoulsy contained thorium plating solution
5) previously contained UF_6 and coolant
6) previously contained lab waste
7) see NSC #177 for burial of K-1413 scrap
8) IGNITION DANGER-one drum contains glass bottle filled with thorium
9) indicates an ALWAYS SAFE type container
10) see NSC #180 for burial of incinerator ash

UNIT NUMBER 002

UNIT NAME K-1070-B Old Classified Burial Ground

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #2 and photograph #2

APPROXIMATE DIMENSIONS 3.7 acres

CAPACITY NA

FUNCTION Burial of classified waste

DATES OPERATED 1950s to 1972

DESCRIPTION OF WASTE (or list attached references):

Records are not available identifing the types of materials buried at this location. The only materials which have been identified are low-level incinerator ash, potassium fluoride, and HF electrolyte sludge. The classified waste consisted of process wastes such as equipment and other potentially hazardous and/or low-level chemical wastes.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

This unit is part of a waste area group which includes the K-1070-B Old Classified Burial Ground, the K-1407-B Holding Pond, and the K-1407-A Neutralization Pit. One RFI plan will be prepared for this group. Since this unit could have released hazardous constituents to Poplar Creek, it will be addressed as part of the Oak Ridge offsite RFI.

2. K-1070-B Old Classified Burial Ground

UNIT NUMBER 003

UNIT NAME K-1407-A Neutralization Pit

REGULATORY STATUS - 3004.u (RCRA Part B Permit Application submitted)

LOCATION - shown on map See ORGDP topographic map #3 and photograph #3

APPROXIMATE DIMENSIONS 28 feet wide by 12 feet deep Inground tank

CAPACITY 35,000 gallons

FUNCTION Neutralization of corrosive waste waters.

DATES OPERATED 1940s to the present

DESCRIPTION OF WASTE (or list attached references):

See Attachment 1

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NO

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared for this unit and will be submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Groundwater and soil

COMMENTS:

This facility will be assessed according to the standards for hazardous waste management tanks (40 CFR 264.191).

3. K-1407-A Neutralization Pit

ATTACHMENT #1

K-1407-A Neutralization Pit

ytical data of waste waters treated at the K-1407-A Neutralization Pit.

CHEMICAL ANALYSES OF UNTREATED LIQUID EFFLUENTS

FROM K-1501 STEAM PLANT

(mg/l)

Parameter	Coal Pile Run-Off	Continuous Blowdown	MUD Drum Blowdown	Sodium Softener	Hydrogen Softener
Silver	<0.006	<0.006	0.032	<0.0061	0.007
Aluminum	5.0	0.44	4.5	0.12	1.0
Arsenic	<0.05	<0.05	<0.05	<0.5	<0.05
Beryllium	0.0019	<0.003	<0.0003	<0.0003	<0.0003
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003
Chloride	37	75	57	5200	20
Chromium	0.10	0.038	0.19	<0.01	0.014
Copper	0.092	0.094	1.3.	<0.004	<0.004
Dis Solids	701	1007	520	—	—
F ride	0.13	0.32	0.20	0.06	0.05
Nic.l	0.18	0.012	0.11	<0.01	0.023
Nitrates	3.0	29	8.3	2.2	4.05
Lead	<0.05	<0.05	<0.05	0.25	<0.05
pH	3.0	11.8	10.7	6.9	0.8
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05
TIO	<0.01	<0.0	<0.01	0.75	0.07
Uranium	0.006	0.003	0.006	0.004	0.006
Zinc	0.71	0.21	0.30	0.76	0.16

K-1401 CHEMICAL ANALYSIS OF UNTREATED TANK EFFLUENTS

SOURCE (mg/l)

Parameter	Hot Water Rinse Tank	HCL-Tank	Alkali Tank	Diversey Tank
Silver	<0.5	0.18	<0.05	<0.06
Aluminum	<0.2	<0.2	31.0	400.0
Boron	<0.2	0.34	1.3	1.70
Barium	<0.1	<0.1	0.91	0.098
Beryllium	<0.02	<0.02	<0.02	<0.003
Calcium	25.0	140.0	110.0	830.0
Cadmium	<0.04	0.54	<0.04	0.20
Chloride	10.0	——	——	125.0
Cobalt	<0.06	1.4	0.18	0.22
Chromium	<0.05	15.0	5.6	1.4
Copper	0.62	120.0	5.8	12.0
Cyanide	<0.002	<0.002	——	0.006
Iron	15.0	9500.0	130.0	480.0
Fluoride	6.0	<1.0	<1.0	<1.0
Potassium	2.35	24.3	230.0	44.7
Lithium	0.01	0.07	0.07	3.0
Magnesium	6.3	28.0	16.0	84.0
Manganese	0.22	71.0	0.24	0.03
Molybdenum	<0.2	<0.2	<0.2	<0.1
Sodium	17.6	70.8	61450	408.0
Niobium	<0.08	<0.08	<0.08	0.14
Nickel	1.4	0.15	1.6	0.21
Phosphorous	<2.0	<2.0	75.0	18.0
Lead	<0.5	<0.5	65.0	<0.5
Silicon	1.8	0.57	76.0	13.0
Strontium	0.04	<0.02	0.28	1.4
TTO	<0.01	0.79	<0.25*	<0.25*
Uranium	<1.0	10.0	<1.0	5.0
Zinc	0.15	6.3	30.0	0.06
Zirconium	<0.02	<0.02	<0.02	0.10

*Due to the concentration of the caustic solution, the sample was diluted which raised the detection limit to 0.25 mg/l.

CHEMICAL ANALYSES OF K-1420 UNTREATED EFFLUENTS

Parameter	SOURCE (mg/l)								
	Rinse Water Stripping Tank (3)	Electro Nickel Sulfamate Bath	Electro Nickel Sulfamate Rinse	Electro Nickel Sulfamate-HCL	HCL Tank (3)	HCL Nickel Stripping	HNO_3 Stripping Tank (3)	Plating Rinse	Electroless Nickel Sulfamate
Aluminum	<0.2	4.6	<0.2	12	<0.2	<0.2	1.2	<0.2	4.9
Barium ✓	<0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11
Beryllium	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Boron	<0.2	0.86	<0.2	2.0	2.0	<0.2	1.2	<0.2	1.2
Cadmium ✓	<0.04	0.18	<0.04	4.9	1.8	<0.04	0.41	<0.04	0.04
Calcium	32	240	36	41	62.0	68.0	2.3	32	110
Chloride	100	27.0	10.0	---	---	---	<1.0	3.0	230
Chromium ✓	<0.05	4.9	<0.05	0.83	18.0	57.0	2.0	<0.05	5.1
Cobalt	<0.06	34.0	<0.06	0.07	0.56	0.5	2.0	<0.06	36
Copper	0.06	<0.05	<0.05	26.0	23.0	12.0	<0.05	<0.05	<0.05
Cyanide	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.027
Fluoride	<1.0	3.0	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0
Iron	2.4	20.0	5.4	130.0	3600.0	2700.0	61.0	0.19	23
Lead ✓	<0.5	<0.5	<0.5	0.7	7.7	4.8	6.1	<0.5	<0.5
Lithium	0.01	1.20	0.01	<0.01	<0.01	<0.01	0.3	<0.01	0.90
Magnesium	8.6	54.0	8.6	9.3	17.0	18.0	0.46	8.6	58
Manganese	<0.02	0.56	<0.02	1.4	25.0	19.0	0.49	<0.02	0.60
Molybdenum	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	2.6	5500	1.4	63.0	52.0	870.0	12000.0	<0.1	5600
Niobium	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Phosphorous	7.9	72000	<2.0	14.0	10.0	37.0	1900	3.6	78000
Potassium	2.74	60.6	2.38	2.12	3.3	3.3	0.4	2.4	61.2
Silicon	1.3	49.0	1.6	2.2	3.7	4.4	0.56	1.3	51
Silver ✓	<0.05	<0.05	<0.05	<0.05	0.29	0.26	0.41	<0.05	<0.05
Sodium	14.4	23000	6.9	16.2	26.7	24.3	296.0	9.9	24500
Strontium	0.06	0.34	0.06	0.1	0.13	0.15	0.006	0.06	0.29
TTO(2)	0.05	<0.01	<0.01	<0.25(1)	1.89	<0.25(1)	0.45	0.19	<0.01
Uranium	<1.0	<1.0	<1.0	4.0	62.0	14.0	<1.0	<1.0	11
Zinc	0.08	3.2	0.06	2.6	6.4	1.2	<0.03	<0.03	5.1
Zirconium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

(1) Due to the acid concentration of the solution, the sample was diluted which raised the detection limit to 0.25 mg/l.

(2) Total Toxic Organics are calculated according to 40 CFR 413 Section 413.02.

(3) Waste stream neutralized at the K-1407-A Neutralization Pit.

UNIT NUMBER 004

UNIT NAME K-1407-B Retention Basin

REGULATORY STATUS 3004.u (RCRA Part B Permit Application submitted)

LOCATION - shown on map See ORGDP topographic map #4 and photograph #4

APPROXIMATE DIMENSIONS 1.3 acres

CAPACITY Approximately 1 million gallons

FUNCTION Settling basin for precipitates generated during the neutralization of K-1407-A.

DATES OPERATED 1940s to the present

DESCRIPTION OF WASTE (or list attached references):

Wastewaters entering the pond are discharged from the K-1407-A Neutralization Pit. See the data submitted for the K-1407-A unit. The water entering the pond contains metal hydroxides and precipitates generated from the neutralization process. The data from a sludge sampling program for the K-1407-B Retention Basin are shown in Attachment 1.

DESCRIPTION OF RELEASES (or list attached references):

See groundwater summary data for four quarters as shown in Attachment 2 for K-1407-B Retention Basin.

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

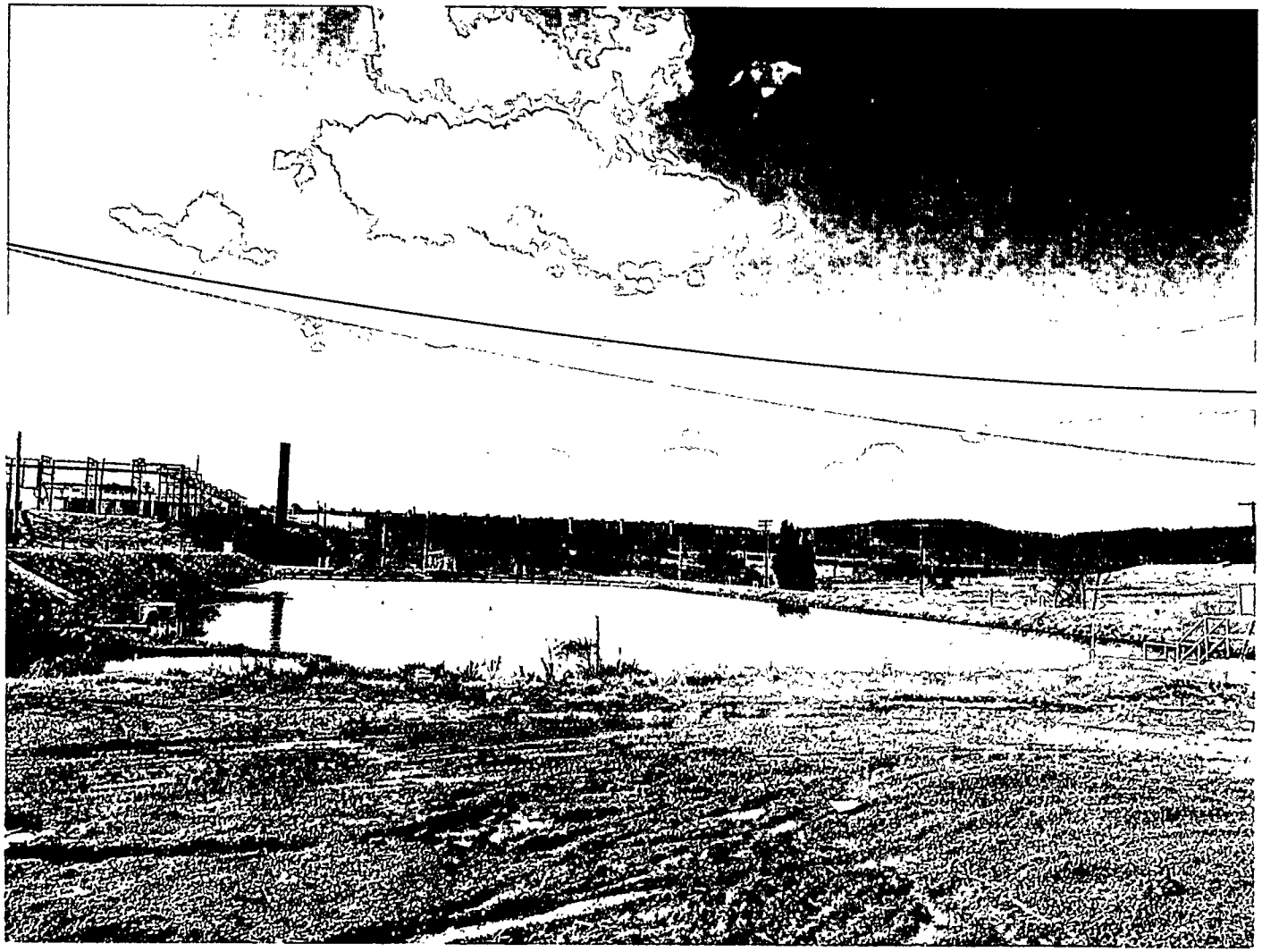
A RFI plan will be prepared for this unit and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Groundwater and soil

COMMENTS:

This unit is part of a waste area grouping that includes the K-1407-A Neutralization Pit, the K-1407-B Retention Basin, and the K-1070-B Old Classified Burial Ground. A RFI will be prepared for this waste area group. This unit will be closed by November 1, 1988. The K-1407-B unit could have discharged hazardous constituents to Poplar Creek and it will be addressed as part of the Oak Ridge offsite RFI.



4. K-1407-B Pond

ATTACHMENT #1

K-1407-B Retention Basin

Sludge Data

B Pond data
summary of all of the data
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	36294.	62000.	15000.	ug/g
Arsenic	53.	250.	5.0	ug/g
Barium	152.	630.	48.	ug/g
Beryllium	1.2	3.1	0.19	ug/g
Boron	80.	190.	19.	ug/g
Cadmium	0.84	5.6	0.30	ug/g
Calcium	22826.	20000.	1400.	ug/g
Chromium	463.	3200.	31.	ug/g
Cobalt	25.	61.	6.9	ug/g
Copper	538.	1700.	4.2	ug/g
Iron	49387.	20000.	13000.	ug/g
Lead	58.	220.	5.0	ug/g
Lithium	29.	53.	14.	ug/g
Magnesium	5070.	16000.	1300.	ug/g
Manganese	812.	5400.	240.	ug/g
Molybdenum	10.	49.	1.0	ug/g
Nickel	2051.	9700.	33.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	5111.	21000.	280.	ug/g
Potassium	4750.	11000.	110.	ug/g
Selenium	77.	140.	5.0	ug/g
Sodium	634.	3100.	88.	ug/g
Strontium	53.	190.	6.9	ug/g
Thorium	21.	58.	20.	ug/g
Titanium	250.	460.	120.	ug/g
Vanadium	44.	76.	17.	ug/g
Zinc	288.	1300.	29.	ug/g
		radionuclides		
Cesium	15.	20.	15.	DPM/G
Neptunium	4.7	17.	0.10	DPM/G
Plutonium	4.8	19.	0.050	DPM/G
Technetium	5284.	15000.	84.	DPM/G
Uranium	272.	1416.	1.7	UG/G
U-235	1.6	2.8	0.76	Wt. %
		organics		
acetone	0.0010	0.0010	0.0010	ug/g
bromoform	0.0010	0.0010	0.0010	ug/g
carbon tetrachloride	0.0030	0.0030	0.0030	ug/g
chlorobenzene	0.0010	0.0010	0.0010	ug/g

B Pond data
summary of all of the data
except the leach test

parameter	mean	maximum	minimum	units
cis-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
ethyl benzene	0.0010	0.0010	0.0010	ug/g
fluorocarbons	0.0010	0.0010	0.0010	ug/g
freon-113	0.0010	0.0010	0.0010	ug/g
freon-114	0.0010	0.0010	0.0010	ug/g
freon-123	0.0010	0.0010	0.0010	ug/g
Methyl Chloroform	0.013	0.025	0.0010	ug/g
methyl ethyl ketone (MEK)	0.0010	0.0010	0.0010	ug/g
other halomethanes	0.0010	0.0010	0.0010	ug/g
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.029	0.082	0.0020	ug/g
toluene	0.0010	0.0010	0.0010	ug/g
toxaphene	0.0018	0.0030	0.0010	ug/g
trans-1,2-dichloroethylene	0.0022	0.0030	0.0010	ug/g
trans-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
trichloroethylene	0.035	0.069	0.0010	ug/g
trichlorofluoromethane	0.0010	0.0010	0.0010	ug/g
1,1-dichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2-trichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2,2-tetrachloroethane	0.0010	0.0010	0.0010	ug/g
1,2-dichloropropane	0.0010	0.0010	0.0010	ug/g
other analyses				
Density	1.1	1.2	1.1	G/ML
pH	7.0	7.4	6.7	
Phosphate (Total)	15334.	63000.	840.	ug/g

B Pond leach test data
summary of all of the leach test data

parameter	mean	maximum	minimum	units
endrin	0.000085	0.00013	0.000070	mg/L
lindane	0.0091	0.036	0.000020	mg/L
methoxychlor	0.000068	<0.00010	0.000060	mg/L
silvex	0.013	0.074	0.00030	mg/L
2,4-D	0.041	0.12	0.0020	mg/L
	metals			
Arsenic	0.0071	0.022	0.0050	mg/L
Barium	0.26	0.92	0.10	mg/L
Cadmium	0.028	0.085	0.0020	mg/L
Chromium	0.023	0.31	0.010	mg/L
Lead	0.0075	0.025	0.0040	mg/L
Mercury	0.0014	0.012	0.0010	mg/L
Nickel	9.3	38.	0.010	mg/L
Selenium	0.0051	0.011	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

B pond data
summary of the data for the sludge layer
except the leach test

Parameter	mean	max	min	units
	metals			
Aluminum	36200.	49000.	19000.	ug/g
Arsenic	162.	250.	5.0	ug/g
Barium	221.	290.	120.	ug/g
Beryllium	2.0	3.1	1.4	ug/g
Boron	110.	190.	77.	ug/g
Cadmium	2.0	5.6	0.30	ug/g
Calcium	58000.	20000.	29000.	ug/g
Chromium	815.	2400.	290.	ug/g
Cobalt	42.	61.	22.	ug/g
Copper	1030.	1600.	420.	ug/g
Iron	75500.	20000.	35000.	ug/g
Lead	121.	180.	66.	ug/g
Lithium	23.	37.	16.	ug/g
Magnesium	6790.	16000.	4700.	ug/g
Manganese	642.	830.	460.	ug/g
Molybdenum	17.	49.	1.0	ug/g
Nickel	4133.	7100.	34.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	12790.	21000.	6200.	ug/g
Potassium	4100.	7300.	2000.	ug/g
Selenium	88.	140.	5.0	ug/g
Sodium	1151.	3100.	390.	ug/g
Strontium	136.	190.	81.	ug/g
Thorium	21.	30.	20.	ug/g
Titanium	363.	460.	220.	ug/g
Vanadium	44.	61.	17.	ug/g
Zinc	607.	810.	480.	ug/g
	radionuclides			
Cesium	15.	16.	15.	DPM/G
Neptunium	7.2	17.	1.3	DPM/G
Plutonium	7.1	19.	1.9	DPM/G
Technetium	8088.	15000.	2500.	DPM/G
Uranium	516.	1044.	69.	UG/G
U-235	1.2	1.3	1.1	Wt. %

B pond data
summary of the data for the sludge layer
except the leach test

Parameter	mean	max	min	units
		organics		
acetone	0.0010	0.0010	0.0010	ug/g
fluorocarbons	0.0010	0.0010	0.0010	ug/g
PCB	0.0010	0.0010	0.0010	ug/g
trans-1,2-dichloroethylene	0.0030	0.0030	0.0030	ug/g
		other analyses		
Density	1.1	1.2	1.1	G/ML
pH	7.0	7.4	6.7	
Phosphate (Total)	38370.	63000.	18600.	ug/g

B Pond data
summary of the leach test data for the sludge layer

parameter	mean	max	min	units
		pesticides		
endrin	0.00010	0.00013	0.000070	mg/L
lindane	0.023	0.036	0.011	mg/L
methoxychlor	0.000080	0.00010	0.000060	mg/L
silvex	0.038	0.074	0.0030	mg/L
toxaphene	0.0020	0.0030	0.0010	mg/L
2,4-D	0.079	0.12	0.030	mg/L
		metals		
Arsenic	0.010	0.022	0.0050	mg/L
Barium	0.42	0.92	0.20	mg/L
Cadmium	0.055	0.085	0.025	mg/L
Chromium	0.045	0.31	0.010	mg/L
Lead	0.0083	0.025	0.0040	mg/L
Mercury	0.0021	0.012	0.0010	mg/L
Nickel	21.	33.	3.7	mg/L
Selenium	0.0050	0.0050	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

B Pond data
summary of the data for the top six inches of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
	metals			
Aluminum	39153.	62000.	26000.	ug/g
Arsenic	10.	66.	5.0	ug/g
Barium	97.	190.	52.	ug/g
Beryllium	0.77	1.5	0.19	ug/g
Boron	52.	88.	19.	ug/g
Cadmium	0.36	1.2	0.30	ug/g
Calcium	12076.	68000.	1400.	ug/g
Chromium	481.	3200.	48.	ug/g
Cobalt	19.	48.	8.0	ug/g
Copper	239.	1700.	26.	ug/g
Iron	41000.	93000.	25000.	ug/g
Lead	44.	220.	5.0	ug/g
Lithium	33.	53.	16.	ug/g
Magnesium	4415.	8000.	1300.	ug/g
Manganese	588.	1800.	250.	ug/g
Molybdenum	5.8	24.	1.7	ug/g
Nickel	1859.	9700.	71.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	2840.	20000.	350.	ug/g
Potassium	4293.	9300.	110.	ug/g
Selenium	76.	140.	43.	ug/g
Sodium	437.	1200.	88.	ug/g
Strontium	23.	89.	7.2	ug/g
Thorium	22.	58.	20.	ug/g
Titanium	212.	310.	170.	ug/g
Vanadium	46.	76.	23.	ug/g
Zinc	220.	1300.	50.	ug/g
	radionuclides			
Cesium	15.	20.	15.	DPM/G
Neptunium	2.6	9.0	0.10	DPM/G
Plutonium	3.0	9.0	0.050	DPM/G
Technetium	2990.	15000.	84.	DPM/G
Uranium	297.	1416.	12.	UG/G
U-235	1.9	2.8	1.2	Wt. %
	organics			
acetone	0.0010	0.0010	0.0010	ug/g
PCB	0.0012	0.0040	0.0010	ug/g
trans-1,2-dichloroethylene	0.0020	0.0020	0.0020	ug/g
trichloroethylene	0.0010	0.0010	0.0010	ug/g

B Pond data
summary of the data for the top six inches of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
tetrachloroethylene	0.0030	0.0030	0.0030	ug/g
other analyses				
Phosphate (Total)	8522.	60000.	1050.	ug/g

B Pond data
summary of the leach test data
for the top six inches of the soil layer

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000075	0.000080	0.000070	mg/L
lindane	0.0040	0.0080	0.000020	mg/L
methoxychlor	0.000065	0.000070	0.000060	mg/L
silvex	0.0011	0.0020	0.00030	mg/L
toxaphene	0.0015	0.0020	0.0010	mg/L
2,4-D	0.043	0.084	0.0020	mg/L
	metals			
Arsenic	0.0056	0.011	0.0050	mg/L
Barium	0.22	0.65	0.10	mg/L
Cadmium	0.020	0.070	0.0020	mg/L
Chromium	0.014	0.070	0.010	mg/L
Lead	0.0085	0.016	0.0040	mg/L
Mercury	0.0012	0.0030	0.0010	mg/L
Nickel	5.7	38.	0.060	mg/L
Selenium	0.0054	0.011	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

B Pond data
summary of the data for the dirt from 6 to 12 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	33000.	48000.	15000.	ug/g
Arsenic	5.0	5.0	5.0	ug/g
Barium	153.	630.	48.	ug/g
Beryllium	0.97	1.5	0.57	ug/g
Boron	87.	140.	41.	ug/g
Cadmium	0.30	0.30	0.30	ug/g
Calcium	3554.	10000.	1900.	ug/g
Chromium	121.	760.	31.	ug/g
Cobalt	17.	30.	6.9	ug/g
Copper	24.	44.	4.2	ug/g
Iron	39545.	67000.	13000.	ug/g
Lead	19.	79.	5.0	ug/g
Lithium	29.	50.	14.	ug/g
Magnesium	4281.	7000.	2100.	ug/g
Manganese	1230.	5400.	240.	ug/g
Molybdenum	8.6	19.	1.0	ug/g
Nickel	386.	2700.	33.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	814.	2500.	280.	ug/g
Potassium	5881.	11000.	2800.	ug/g
Selenium	69.	110.	21.	ug/g
Sodium	398.	590.	250.	ug/g
Strontium	13.	33.	6.9	ug/g
Thorium	20.	24.	20.	ug/g
Titanium	191.	380.	120.	ug/g
Vanadium	42.	72.	23.	ug/g
Zinc	80.	250.	29.	ug/g
		radionuclides		
Uranium	20.	71.	1.7	UG/G
U-235	1.5	2.6	0.76	Wt. %
		organics		
acetone	0.0010	0.0010	0.0010	ug/g
bromoform	0.0010	0.0010	0.0010	ug/g
carbon tetrachloride	0.0030	0.0030	0.0030	ug/g
chlorobenzene	0.0010	0.0010	0.0010	ug/g
cis-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
ethyl benzene	0.0010	0.0010	0.0010	ug/g
freon-113	0.0010	0.0010	0.0010	ug/g

B Pond data
summary of the data for the dirt from 6 to 12 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
freon-114	0.0010	0.0010	0.0010	ug/g
freon-123	0.0010	0.0010	0.0010	ug/g
methyl ethyl ketone (MEK)	0.0010	0.0010	0.0010	ug/g
other halomethanes	0.0010	0.0010	0.0010	ug/g
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.042	0.082	0.0020	ug/g
toluene	0.0010	0.0010	0.0010	ug/g
trans-1,2-dichloroethylene	0.0010	0.0010	0.0010	ug/g
trans-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
trichloroethylene	0.069	0.069	0.069	ug/g
trichlorofluoromethane	0.0010	0.0010	0.0010	ug/g
1,1-dichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2-trichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2,2-tetrachloroethane	0.0010	0.0010	0.0010	ug/g
1,2-dichloropropane	0.0010	0.0010	0.0010	ug/g
other analyses				
Phosphate (Total)	2443.	7500.	840.	ug/g

B Pond data
summary of the leach test data
for the dirt from 6 to 12 inches
from the top of the soil layer

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000080	0.000080	0.000080	mg/L
lindane	0.000020	0.000020	0.000020	mg/L
Methyl Chloroform	0.013	0.025	0.0010	mg/L
methoxychlor	0.000060	0.000060	0.000060	mg/L
silvex	0.00030	0.00030	0.00030	mg/L
toxaphene	0.0020	0.0020	0.0020	mg/L
2,4-D	0.0020	0.0020	0.0020	mg/L
	metals			
Arsenic	0.0050	0.0060	0.0050	mg/L
Barium	0.15	0.31	0.10	mg/L
Cadmium	0.0075	0.030	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.0054	0.012	0.0040	mg/L
Mercury	0.0010	0.0010	0.0010	mg/L
Nickel	0.61	3.8	0.010	mg/L
Selenium	0.0050	0.0050	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

B Pond data
summary of data
for the east end of B pond
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	41875.	62000.	19000.	ug/g
Arsenic	52.	250.	5.0	ug/g
Barium	137.	290.	48.	ug/g
Beryllium	1.1	2.9	0.48	ug/g
Boron	84.	190.	37.	ug/g
Cadmium	0.31	0.59	0.30	ug/g
Calcium	26993.	20000.	1700.	ug/g
Chromium	482.	3200.	50.	ug/g
Cobalt	23.	49.	6.9	ug/g
Copper	558.	1700.	38.	ug/g
Iron	50875.	20000.	27000.	ug/g
Lead	62.	220.	5.0	ug/g
Lithium	35.	53.	16.	ug/g
Magnesium	5400.	16000.	2300.	ug/g
Manganese	453.	790.	250.	ug/g
Molybdenum	9.9	29.	1.0	ug/g
Nickel	2206.	9700.	34.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	4684.	20000.	340.	ug/g
Potassium	4950.	11000.	2500.	ug/g
PCB	0.0010	0.0010	0.0010	ug/g
Selenium	84.	140.	19.	ug/g
Sodium	568.	1200.	220.	ug/g
Strontium	60.	190.	7.4	ug/g
Thorium	23.	58.	20.	ug/g
Titanium	257.	430.	130.	ug/g
Vanadium	51.	76.	29.	ug/g
Zinc	304.	1300.	63.	ug/g
		radionuclides		
Cesium	15.	15.	15.	DPM/G
Neptunium	4.8	9.0	0.70	DPM/G
Plutonium	5.1	9.0	1.0	DPM/G
Technetium	5125.	15000.	2500.	DPM/G
Uranium	299.	1416.	8.8	UG/G
U-235	1.5	2.6	0.76	Wt. %
		organics		
acetone	0.0010	0.0010	0.0010	ug/g
bromoform	0.0010	0.0010	0.0010	ug/g

B Pond data
summary of data
for the east end of B pond
except the leach test

parameter	mean	maximum	minimum	units
carbon tetrachloride	0.0030	0.0030	0.0030	ug/g
chlorobenzene	0.0010	0.0010	0.0010	ug/g
cis-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
ethyl benzene	0.0010	0.0010	0.0010	ug/g
fluorocarbons	0.0010	0.0010	0.0010	ug/g
freon-113	0.0010	0.0010	0.0010	ug/g
freon-114	0.0010	0.0010	0.0010	ug/g
freon-123	0.0010	0.0010	0.0010	ug/g
methyl ethyl ketone (MEK)	0.0010	0.0010	0.0010	ug/g
other halomethanes	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.042	0.082	0.0030	ug/g
toluene	0.0010	0.0010	0.0010	ug/g
trans-1,2-dichloroethylene	0.0015	0.0020	0.0010	ug/g
trans-1,3-dichloropropene	0.0010	0.0010	0.0010	ug/g
trichloroethylene	0.035	0.069	0.0010	ug/g
trichlorofluoromethane	0.0010	0.0010	0.0010	ug/g
1,1-dichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2-trichloroethane	0.0010	0.0010	0.0010	ug/g
1,1,2,2-tetrachloroethane	0.0010	0.0010	0.0010	ug/g
1,2-dichloropropane	0.0010	0.0010	0.0010	ug/g
other analyses				
Density	1.1	1.2	1.1	G/ML
pH	7.1	7.4	7.0	
Phosphate (Total)	14053.	60000.	1020.	ug/g

B Pond data
summary of leach teat data
for the east end of B pond

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000073	0.000080	0.000070	mg/L
lindane	0.0063	0.011	0.000020	mg/L
methoxychlor	0.000060	0.000060	0.000060	mg/L
silvex	0.025	0.074	0.00030	mg/L
toxaphene	0.0013	0.0020	0.0010	mg/L
2,4-D	0.038	0.084	0.0020	mg/L
	metals			
Arsenic	0.0076	0.022	0.0050	mg/L
Barium	0.26	0.67	0.10	mg/L
Cadmium	0.032	0.070	0.0020	mg/L
Chromium	0.014	0.070	0.010	mg/L
Lead	0.0084	0.015	0.0040	mg/L
Mercury	0.0011	0.0030	0.0010	mg/L
Methyl Chloroform	0.013	0.025	0.0010	mg/L
Nickel	8.9	38.	0.020	mg/L
Selenium	0.0053	0.011	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

B Pond data
summary of data
for the west end of B pond
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	31333.	49000.	15000.	ug/g
Arsenic	54.	220.	5.0	ug/g
Barium	165.	630.	55.	ug/g
Beryllium	1.2	3.1	0.19	ug/g
Boron	77.	130.	19.	ug/g
Cadmium	1.3	5.6	0.30	ug/g
Calcium	19122.	75000.	1400.	ug/g
Chromium	445.	2400.	31.	ug/g
Cobalt	28.	61.	9.0	ug/g
Copper	523.	1600.	4.2	ug/g
Iron	47800.	95000.	13000.	ug/g
Lead	55.	180.	5.0	ug/g
Lithium	23.	44.	14.	ug/g
Magnesium	4777.	7700.	1300.	ug/g
Manganese	1130.	5400.	240.	ug/g
Molybdenum	10.	49.	1.0	ug/g
Nickel	1913.	7100.	33.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	5491.	21000.	280.	ug/g
Potassium	4572.	9300.	110.	ug/g
Selenium	72.	120.	5.0	ug/g
Sodium	693.	3100.	88.	ug/g
Strontium	47.	170.	6.9	ug/g
Thorium	20.	20.	20.	ug/g
Titanium	243.	460.	120.	ug/g
Vanadium	37.	61.	17.	ug/g
Zinc	275.	810.	29.	ug/g
		radionuclides		
Cesium	15.	20.	15.	DPM/G
Neptunium	4.6	17.	0.10	DPM/G
Plutonium	4.7	19.	0.050	DPM/G
Technetium	5391.	15000.	84.	DPM/G
Uranium	248.	1044.	1.7	UG/G
U-235	1.6	2.8	1.0	Wt. %
		organics		
acetone	0.0010	0.0010	0.0010	ug/g
fluorocarbons	0.0010	0.0010	0.0010	ug/g
PCB	0.0011	0.0040	0.0010	ug/g

B Pond data
summary of data
for the west end of B pond
except the leach test

parameter	mean	maximum	minimum	units
tetrachloroethylene	0.0020	0.0020	0.0020	ug/g
trans-1,2-dichloroethylene	0.0030	0.0030	0.0030	ug/g
other analyses				
density	1.1	1.2	1.1	G/ML
pH	6.9	7.3	6.7	
Phosphate (Total)	16473.	63000.	840.	ug/g

B Pond data
summary of leach test data
for the west end of B pond

parameter	mean	maximum	minimum	units
	pesticides			
endrin	.00009666667	0.00013	0.000080	mg/L
lindane	0.012	0.036	0.000020	mg/L
methoxychlor	0.000076	0.00010	0.000060	mg/L
silvex	0.0012	0.0030	0.00030	mg/L
toxaphene	0.0023	0.0030	0.0020	mg/L
2,4-D	0.044	0.12	0.0020	mg/L
	metals			
Arsenic	0.0067	0.013	0.0050	mg/L
Barium	0.27	0.92	0.10	mg/L
Cadmium	0.024	0.085	0.0020	mg/L
Chromium	0.030	0.31	0.010	mg/L
Lead	0.0068	0.025	0.0040	mg/L
Mercury	0.0017	0.012	0.0010	mg/L
Nickel	9.6	33.	0.010	mg/L
Selenium	0.0050	0.0050	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

ATTACHMENT #2

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B

PARAMETER	QTR	WELL IDENTIFICATION UNW-1[1]	UNW-2	UNW-3	UNW-4	UNW-5[2]
Aluminum-U[3] (mg/l)	1ST	4.1	0.52	1.0	0.90	0.15
	2ND	6.5	9.1	4.9	3.8	1.1
	3RD	8.8	1.8	1.2	3.2	< 0.020
	4TH	8.7	5.0	4.2	8.4	0.35
Aluminum-F[4] (mg/l)	1ST	0.91	0.13	< 0.020	< 0.020	< 0.020
	2ND	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
	3RD	0.043	< 0.020	< 0.020	< 0.020	< 0.020
	4TH	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Antimony-U (mg/l)	1ST	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	2ND					
	3RD	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	4TH	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Antimony-F (mg/l)	1ST	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	2ND					
	3RD	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	4TH	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Arsenic-U (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	0.007
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	0.006
	4TH	0.005	< 0.005	< 0.005	< 0.005	0.011
Arsenic-F (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4TH	< 0.005	< 0.005	< 0.005	< 0.005	0.009
Barium-U (mg/l)	1ST	0.17	0.055	0.91	0.020	0.30
	2ND	0.18	0.086	0.11	0.018	0.30
	3RD	0.18	0.046	0.062	0.078	0.35
	4TH	0.24	0.075	0.089	0.027	0.40

[1]Upgradient well

[2]Upgradient Well

[3]U = Unfiltered Sample (Total Metals)

[4]F = Filtered Sample (Dissolved Metals)

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Barium-F (mg/l)	1ST	0.13	0.056	0.077	0.016	0.29
	2ND	0.14	0.039	0.061	0.0079	0.26
	3RD	0.11	0.036	0.048	0.022	0.32
	4TH	0.16	0.045	0.049	< 0.0010	0.38
Beryllium-U (mg/l)	1ST	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	2ND	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	3RD	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	4TH	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Beryllium-F (mg/l)	1ST	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	2ND	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	3RD	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	4TH	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Boron-U (mg/l)	1ST	0.020	0.024	0.056	0.029	0.019
	2ND	0.027	0.15	0.81	0.051	0.083
	3RD	0.0057	0.014	0.048	0.013	0.045
	4TH	0.0099	0.037	0.066	0.042	0.0067
Boron-F (mg/l)	1ST	0.014	0.025	0.057	0.028	0.030
	2ND	0.73	0.041	0.86	0.67	0.046
	3RD	< 0.0040	0.0082	0.038	0.016	0.039
	4TH	0.041	0.039	0.067	0.054	0.0094
Cadmium-U (mg/l)	1ST	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	2ND	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	3RD	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	4TH	0.0050	< 0.0030	0.0060	0.0086	0.0034
Cadmium-F (mg/l)	1ST	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	2ND	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	3RD	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	4TH	< 0.0030	< 0.0030	< 0.0030	< 0.0030	0.0044
Calcium-U (mg/l)	1ST	47	200	240	140	160
	2ND	67	230	270	160	180
	3RD	59	250	290	190	200
	4TH	62	270	300	220	220

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Calcium-F (mg/l)	1ST	46	190	230	140	160
	2ND	65	130	280	170	180
	3RD	57	240	290	190	200
	4TH	66	280	300	200	220
Chloride (mg/l)	1ST	16	137	274	66	199
	2ND	17.9	189	348	8.7	174
	3RD	21	162	321	91	277
	4TH	20	235	356	210	265
Chromium-U (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	0.010	< 0.010	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	0.013	< 0.010	< 0.010	0.023	< 0.010
Chromium-F (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Cobalt-U (mg/l)	1ST	0.020	< 0.0050	0.0053	< 0.0050	0.011
	2ND	0.0051	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	0.013	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	0.018	0.0067	0.0061	0.0092	0.0090
Cobalt-F (mg/l)	1ST	0.017	< 0.0050	< 0.0050	< 0.0050	0.091
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	0.011	< 0.0050	0.0086	< 0.0050	0.0094
Copper-U (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0048
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Copper-F (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Iron-U	1ST	1.2	0.20	0.23	0.11	17
(mg/l)	2ND	9.7	11	8.9	4.6	28
	3RD	12	1.8	1.5	3.2	19
	4TH	18	5.1	5.6	9.7	22
Iron-F	1ST	6.2	0.60	1.7	1.4	18
(mg/l)	2ND	0.029	0.15	0.097	0.053	15
	3RD	0.030	0.039	< 0.0040	< 0.0040	16
	4TH	0.90	< 0.0040	< 0.0040	< 0.0040	18
Lead-U	1ST	0.006	0.004	< 0.004	0.005	< 0.004
(mg/l)	2ND	< 0.004	0.010	< 0.004	< 0.004	< 0.004
	3RD	0.008	0.007	0.004	0.006	0.004
	4TH	0.010	0.006	0.009	0.004	0.005
Lead-F	1ST	0.005	< 0.004	< 0.004	0.005	0.008
(mg/l)	2ND	< 0.004	0.004	< 0.004	< 0.004	< 0.004
	3RD	0.005	< 0.004	< 0.004	0.004	0.004
	4TH	< 0.004	0.004	0.008	0.006	< 0.004
Lithium-U	1ST	0.0048	< 0.0040	0.0048	0.0058	< 0.0040
(mg/l)	2ND	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	0.0073	0.0045	0.0058	0.012	< 0.0040
Lithium-F	1ST	< 0.0040	< 0.0040	0.0048	0.0050	< 0.0040
(mg/l)	2ND	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	0.0043	0.0042	< 0.0040
Magnesium-U	1ST	19	23	37	16	19
(mg/l)	2ND	23	25	37	16	18
	3RD	19	24	36	17	21
	4TH	20	26	37	20	21
Magnesium-F	1ST	18	25	39	15	18
(mg/l)	2ND	22	24	38	16	18
	3RD	16	23	36	16	21
	4TH	19	26	36	16	21

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Manganese-U (mg/l)	1ST	6.5	0.20	6.7	0.40	19
	2ND	4.8	0.59	6.0	0.36	17
	3RD	7.1	0.27	7.4	0.36	19
	4TH	4.4	0.50	7.4	0.50	19
Manganese-F (mg/l)	1ST	7.5	0.21	7.0	0.38	19
	2ND	5.0	0.0026	6.2	0.30	17
	3RD	6.4	0.17	7.1	0.31	19
	4TH	4.0	0.21	7.6	0.25	19
Mercury-U (mg/l)	1ST	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	2ND	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	3RD	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	4TH	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Mercury-F (mg/l)	1ST	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	2ND	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	3RD	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002
	4TH	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Molybdenum-U (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Molybdenum-F (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nickel-U (mg/l)	1ST	0.015	< 0.010	0.024	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	0.015	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	0.018	0.020	< 0.010
Nickel-F (mg/l)	1ST	0.012	< 0.010	0.026	< 0.010	0.010
	2ND	< 0.010	0.018	< 0.010	< 0.010	< 0.010
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	0.016	< 0.010	< 0.010

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Niobium-U (mg/l)	1ST	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	2ND	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	3RD	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	4TH	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
Niobium-F (mg/l)	1ST	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	2ND	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	3RD	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	4TH	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
Nitrate (as Nitrogen) (mg/l)	1ST	< 0.11	2.6	< 0.11	< 0.11	< 0.11
	2ND	< 0.11	0.66	< 0.11	< 0.5	< 0.11
	3RD	< 0.11	0.32	< 0.11	< 0.11	< 0.11
	4TH	< 0.11	0.27	< 0.11	< 0.11	< 0.11
Phenols (mg/l)	1ST	0.002	0.002	0.003	0.003	0.002
	2ND	0.002	< 0.003	0.004	0.002	< 0.001
	3RD	0.011	< 0.001	< 0.001	0.002	< 0.001
	4TH	< 0.001	< 0.001	< 0.001	< 0.001	0.007
Phosphorus-U (mg/l)	1ST	0.25	0.24	< 0.20	< 0.20	0.45
	2ND	< 0.20	0.20	< 0.20	< 0.20	< 0.20
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	0.65	< 0.20	0.87	0.27	0.26
Phosphorus-F (mg/l)	1ST	< 0.20	< 0.20	< 0.20	< 0.20	0.52
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	0.31	< 0.20	< 0.20	< 0.20	0.29
Potassium-U (mg/l)	1ST	2.8	2.9	3.9	2.9	1.9
	2ND	3.8	5.4	4.8	4.2	0.68
	3RD	3.4	1.5	2.3	2.9	1.1
	4TH	5.1	4.2	4.4	8.3	1.0
Potassium-F (mg/l)	1ST	2.3	3.3	4.2	3.0	1.9
	2ND	1.2	1.6	2.9	1.6	< 0.60
	3RD	0.89	1.3	2.2	1.4	1.3
	4TH	2.6	3.0	3.6	2.8	1.6

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Selenium-U (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	0.006
	4TH	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Selenium-F (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	0.007
	4TH	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silicon-U (mg/l)	1ST	7.5	6.0	6.6	8.7	6.5
	2ND	11	15	12	12	6.4
	3RD	14	7.7	6.4	11	5.7
	4TH	14	13	12	19	6.7
Silicon-F (mg/l)	1ST	4.0	5.8	5.7	7.4	6.1
	2ND	2.3	5.3	5.0	6.5	5.1
	3RD	2.2	4.4	4.6	6.5	5.5
	4TH	2.4	5.2	4.8	6.5	5.8
Silver-U (mg/l)	1ST	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	3RD	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	4TH	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
Silver-F (mg/l)	1ST	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	3RD	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	4TH	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
Sodium-U (mg/l)	1ST	6.9	42	140	23	14
	2ND	7.2	44	130	25	15
	3RD	6.9	47	130	26	22
	4TH	6.2	57	140	31	21
Sodium-F (mg/l)	1ST	7.3	43	150	23	13
	2ND	8.2	46	130	26	16
	3RD	6.7	49	130	26	23
	4TH	6.4	60	140	29	21

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Strontium-U (mg/l)	1ST	0.13	0.24	0.47	0.23	0.41
	2ND	0.14	0.23	0.48	0.22	0.37
	3RD	0.13	0.21	0.44	0.25	0.43
	4TH	0.12	0.25	0.46	0.27	0.41
Strontium-F (mg/l)	1ST	0.13	0.25	0.50	0.24	0.40
	2ND	0.14	0.24	0.49	0.23	0.37
	3RD	0.12	0.21	0.43	0.24	0.42
	4TH	0.12	0.25	0.44	0.24	0.41
Sulfate (mg/l)	1ST	30	190	455	58	5
	2ND	30	211	472	72	12
	3RD	30	229	455	78	19
	4TH	25	246	480	180	13
Thallium-U (mg/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	3RD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4TH	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thallium-F (mg/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	3RD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4TH	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thorium-U (mg/l)	1ST	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thorium-F (mg/l)	1ST	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Titanium-U (mg/l)	1ST	0.16	0.017	0.031	0.049	0.0083
	2ND	0.15	0.12	0.092	0.12	0.021
	3RD	0.29	0.062	0.056	0.12	0.0041
	4TH	0.37	0.20	0.20	0.38	0.039

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Titanium-F (mg/l)	1ST	0.027	0.0074	0.0064	0.0044	0.038
	2ND	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	3RD	0.0069	0.013	0.0053	0.0065	< 0.0030
	4TH	0.022	0.015	0.021	0.023	0.023
Total Organic Carbon (mg/l)	1ST	90	110	80	85	255
	2ND	6.2	5.1	4.1	3.0	8.2
	2ND	6.3	5.4	4.4	2.1	9.1
	2ND	5.1	5.9	3.5	4.0	9.3
	2ND	8.3	5.9	4.0	3.8	
	3RD	96	130	67	101	112
	3RD	94	170	67	98	112
	3RD	90	140	67	104	112
	3RD	91	140	66	97	115
	4TH	101	96	65	107	111
	4TH	101	92	67	107	112
	4TH	102	94	67	107	108
	4TH	99	101	67	98	111
Total Organic Chloride (ug/l)	1ST	23	200	280	131	320
	1ST	22	200	280	133	340
	1ST	23	200	300	118	380
	1ST	24	180	300	125	360
	2ND	97	520	37	50	17
	2ND	92	500	30	48	16
	2ND	93	530	28	50	18
	2ND	96	540	35	47	18
	3RD	1400	140	140	100	380
	3RD	1400	140	140	100	380
	3RD	1400	130	140	90	380
	3RD	1400	170	140	50	390
	4TH	53	560	300	150	1040
	4TH	53	570	290	180	980
	4TH	54	560	330	190	1010
	4TH	51	550	330	190	990
Jranium-U (ug/l)	1ST	0.007	0.006	0.007	0.009	0.009
	2ND	0.004	0.004	0.005	0.006	0.004
	3RD	< 0.001	0.001	< 0.001	0.002	0.002
	4TH	< 0.001	0.001	< 0.001	0.001	0.001

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Uranium-F (ug/l)	1ST	0.009	0.016	0.018	0.018	0.015
	2ND	0.003	0.001	0.003	0.005	0.005
	3RD	0.004	0.004	< 0.001	< 0.001	< 0.001
	4TH	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vanadium-U (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	0.0094	0.0055	< 0.0050	0.011	< 0.0050
Vanadium-F (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc-U (mg/l)	1ST	0.062	0.062	0.051	0.16	0.066
	2ND	0.015	< 0.0010	< 0.0010	0.019	0.0078
	3RD	0.048	0.059	0.053	0.038	0.016
	4TH	0.030	0.024	0.014	0.044	0.029
Zinc-F (mg/l)	1ST	0.043	0.062	0.037	0.061	0.043
	2ND	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0021
	3RD	0.044	0.060	0.051	0.013	0.033
	4TH	0.0038	0.0061	0.0053	0.0077	0.026
Zirconium-U (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	0.010	< 0.0050	< 0.0050
Zirconium-F (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	0.0071	< 0.0050
2,4-D (ug/l)	1ST	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	2ND	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3RD	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	4TH	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Endrin (ug/l)	1ST	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	2ND	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	3RD	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
	4TH	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoride (ug/l)	1ST	0.12	0.06	0.06	0.07	0.11
	2ND	IS[5]	IS	IS	IS	IS
	3RD	0.2	0.1	0.1	0.1	0.1
	4TH	0.3	0.2	0.1	0.1	0.2
Lindane (ug/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	3RD	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4TH	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Methoxychlor (ug/l)	1ST	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	2ND	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	3RD	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
	4TH	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Silvex (ug/l)	1ST	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	2ND	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	3RD	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4TH	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene (ug/l)	1ST	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	2ND	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3RD	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	4TH	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Alpha Activity (pCi/l)	1ST	72.41[6]	79[7]	61.43[8]	47.39[9]	28.65[10]
	2ND	6	14.6	1.93	2.25	8.14
	3RD	< 3	< 3	< 3	< 3	7.7
	4TH	< 1	5	9	2	< 1.2
Beta Activity (pCi/l)	1ST	98.83[11]	2027[12]	96.40[13]	63.60[14]	44.95[15]
	2ND	6.5	1105[18]	30	12.8	3.60
	3RD	< 7	923[17]	29	3.5	1.8
	4TH	3	753[18]	26	8	< 1.7

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[6]Exceeds EPA Primary Interim Drinking Water Standards

[7]Exceeds EPA Primary Interim Drinking Water Standards

[8]Exceeds EPA Primary Interim Drinking Water Standards

[9]Exceeds EPA Primary Interim Drinking Water Standards

[10]Exceeds EPA Interim Primary Drinking Water Standards

[11]Exceeds EPA Primary Interim Drinking Water Standards

[12]Exceeds EPA Primary Interim Drinking Water Standards

[13]Exceeds EPA Primary Interim Drinking Water Standards

[14]Exceeds EPA Primary Interim Drinking Water Standards

[15]Exceeds EPA Primary Interim Drinking Water Standards

[16]Exceeds EPA Primary Interim Drinking Water Standards

[17]Exceeds EPA Primary Interim Drinking Water Standards

[18]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
Conductivity (umho/cm)	1ST	320	800	1600	800	1000
	2ND	518	1260	1963	1140	1270
	2ND	547	1305	2060	1040	1270
	2ND	530	1303	2070	1010	1270
	2ND	527	1306	2070	1020	1280
	3RD	423	1352	1934	964	1210
	3RD	421	1343	1934	956	1273
	3RD	421	1350	1937	958	1226
	3RD	420	1349	1943	963	1206
	4TH	465	1643	2250	1147	1349
	4TH	463	1642	2240	1125	1296
	4TH	465	1617	2240	1123	1339
	4TH	462	1641	2240	1129	1357
Temperature (deg. C)	1ST	19	17	16.5	18	16
	2ND	16	10.9	15	15	12.9
	3RD	25.3	24.4	24.1	26.7	20
	4TH	25.0	26.0	23.0	22.4	22.3
Total Coliform Bacteria (cc/100 ml)	1ST	NF[19]	NF	NF	NF	NF
	2ND	NF	NF	NF	NF	NF
	3RD	NF	NF	NF	NF	NF
	4TH	2[20]	NF	NF	NF	NF
Total Radium (pCi/l)	1ST	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
	2ND	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
	3RD	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
	4TH	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
Uranium-235 (wt. %)	1ST	IU[21]	IU	1.35	IU	IU
	2ND	IU	IU	IU	IU	IU
	3RD	IU	IU	IU	IU	IU
	4TH	IU	IU	IU	IU	IU

[19]Not found
[20]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-B, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-1	UNW-2	UNW-3	UNW-4	UNW-5
pH (units)	1ST	5.92	6.39	6.16	6.66	6.20
	2ND	6.5	7.0	6.7	6.9	6.7
	2ND	6.5	7.1	6.7	6.8	6.7
	2ND	6.5	7.1	6.7	6.8	6.7
	2ND	7.1	7.2	7.4	7.1	7.2
	3RD	6.6	7.1	7.4	7.2	6.8
	3RD	6.6	7.1	7.2	7.2	6.8
	3RD	6.5	7.1	7.4	7.1	6.8
	3RD	6.5	7.3	7.2	7.3	6.9
	4TH	6.5	7.1	7.1	7.2	6.8
	4TH	6.5	7.1	7.1	7.2	7.1
	4TH	6.5	7.1	7.1	7.2	6.7
	4TH	6.6	7.0	7.0	7.2	6.7
Groundwater Elevation (ft.)	1ST	762.5	751.8	751.7	751.8	760.0
	2ND	762.9	751.6	752.0	753.6	759.6
	3RD	761.7	753.9	754.0	754.4	762.2
	4TH	761.5	749.6	752.0	750.8	759.2

UNIT NUMBER 005

UNIT NAME K-1070-C/D Classified Burial Ground

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #5 and photograph #5.1

APPROXIMATE DIMENSIONS 22 acres

CAPACITY NA

FUNCTION Burial of classified equipment

DATES OPERATED 1972 to the present

DESCRIPTION OF WASTE (or list attached references):

The burial ground contains classified nonhazardous materials such as hardware and equipment. Also located in the same general area are disposal trenches used to dispose of hazardous chemicals and solvents. Approximately 9,100 gallons of solvents and 1,600 pounds of chemicals were disposed of in these pits.

DESCRIPTION OF RELEASES (or list attached references):

A surface water stream located near the burial ground has shown detectable concentrations of volatile organic compounds. The source of this material will be determined during the RFI process.

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Groundwater and soil

COMMENTS:

5. K-1070-C/D Classified
Burial Ground

5.1 K-1070-C/D Classified
Burial Ground and Pits

UNIT NUMBER 006

UNIT NAME K-901-A Holding Pond

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #6 and photograph #6

APPROXIMATE DIMENSIONS 5 acres

CAPACITY N/A

FUNCTION Settling of chromium hydroxide precipitates

DATES OPERATED 1960s to the present

DESCRIPTION OF WASTE (or list attached references):

Prior to the installation of a reduction unit in 1975, the wastewater was discharged with soluble hexavalent chromium. Since 1975, the wastewater was discharged with trivalent chromium, which settled in the holding pond.

DESCRIPTION OF RELEASES (or list attached references):

The only releases identified have been through the outfall permitted under the NPDES. Excursions of the 0.05 mg/l total chromium limit have occurred.

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

A RFI will be prepared for this unit by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Sludge and groundwater

COMMENTS:

Since this unit discharged soluble chromium to the Clinch River, it will be addressed as part of the Oak Ridge offsite RFI.

6. K-901-A Holding Pond

UNIT NUMBER 007

UNIT NAME K-1064 Drum Storage and Burn Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #7 and photograph #7

APPROXIMATE DIMENSIONS 1 acre

CAPACITY N/A

FUNCTION Open burning of waste solvents and drum storage of waste solvents.

DATES OPERATED 1950s through 1960s for open burning. 1960 to 1979 for drum storage.

DESCRIPTION OF WASTE (or list attached references):

The types of waste include waste oils, solvents, PCB waste liquids, and paint wastes. Records indicate that 1,800 drums were stored at the facility prior to shutting down the area for drum storage.

DESCRIPTION OF RELEASES (or list attached references):

To be determined

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

7. K-1064 Burn Area/Peninsula Storage

UNIT NUMBER 008 & 009

UNIT NAME K-770 Scrap Metal Yard and Contaminated Debris

REGULATORY STATUS 3004.u (low-level radioactive waste only)

LOCATION - shown on map See ORGDP topographic map #8 & 9 and photograph #8 & 9

APPROXIMATE DIMENSIONS 30 acres

CAPACITY Approximately 40,000 tons of metal presently stored

FUNCTION Storage of low-level contaminated scrap metal

DATES OPERATED

DESCRIPTION OF WASTE (or list attached references):

This waste consists of various types of metals generated from the K-25 process. The scrap metal is contaminated with radioactive materials, primarily uranium.

DESCRIPTION OF RELEASES (or list attached references):

Samples collected in a storm drain in the storage area revealed detectable concentrations of radioactive consitutuents. Soil samples collected in the past also revealed detectable concentrations of radioactive constituents.

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared for this unit and submitted by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil, groundwater, and surface water

COMMENTS:

The K-770 Contaminated Debris is a pile of miscellaneous metals that were trashed during the cleanup of the K-770 Scrap Metal Yard. They will be considered as one unit during the preparation of the RFI plan.

8. K-770 Scrap Metal Yard

9. K-770 Contaminated Debris

UNIT NUMBER 010

UNIT NAME K-1420 Oil Storage

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #10 and photograph #10

APPROXIMATE DIMENSIONS 275 feet by 50 feet

CAPACITY N/A

FUNCTION Storage of radioactively contaminated waste oil

DATES OPERATED 1960 to the present

DESCRIPTION OF WASTE (or list attached references):

Waste oil contaminated with uranium. The uranium concentration in the waste oil has been as high as 2-3 percent. The unit is being evaluated because of evidence showing that containers have leaked and/or small spills have occurred.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Pavement, soil, and groundwater

COMMENTS:

10. K-1420 Oil Storage

UNIT NUMBER 011

UNIT NAME K-1410 Neutralization Pit

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #11 and photograph #11

APPROXIMATE DIMENSIONS 10 feet x 10 feet x 20 feet deep (Inground tank)

CAPACITY Approximately 15,800 gallons

FUNCTION Neutralization of corrosive waste waters from the nickel plating process.

DATES OPERATED 1975 through 1979

DESCRIPTION OF WASTE (or list attached references):

Acids and bases used in the nickel plating process.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

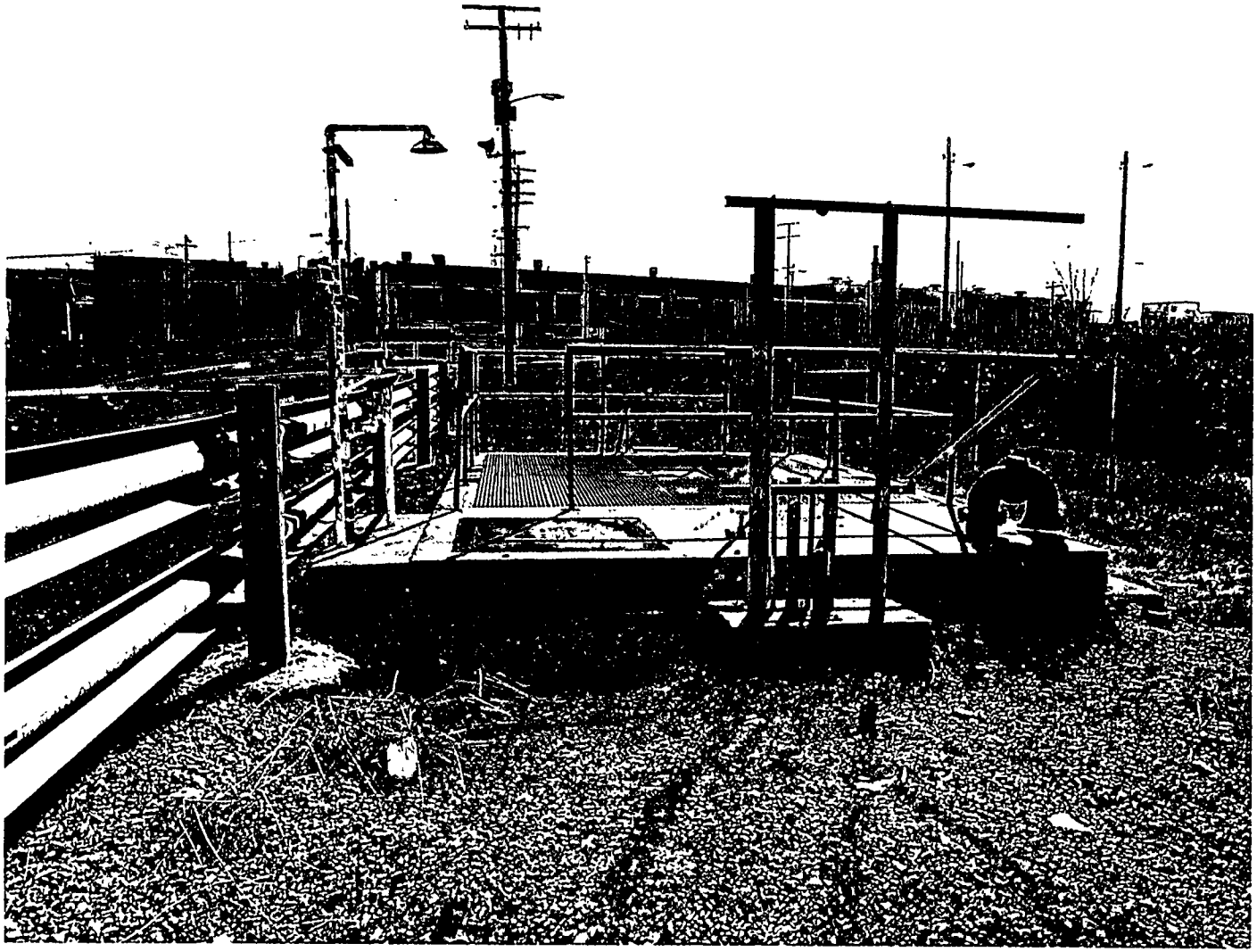
A RFI plan will be prepared and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Groundwater and soil

COMMENTS:

During operation of this unit, the effluent was permitted under the NPDES program.



11. K-1410 Neutralization Pit

UNIT NUMBER 012

UNIT NAME K-1420 Mercury Recovery Room

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #12 and photograph #12

APPROXIMATE DIMENSIONS 12 feet by 12 feet

CAPACITY N/A

FUNCTION Equipment used to clean and recover used mercury.

DATES OPERATED From the 1960s to the 1970s

DESCRIPTION OF WASTE (or list attached references):

Mercury solutions

DESCRIPTION OF RELEASES (or list attached references):

Some of the waste mercury solutions had the potential of being discharged from the unit through a drain in the room. Mercury vapors have been detected on air samples collected from the unit.

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

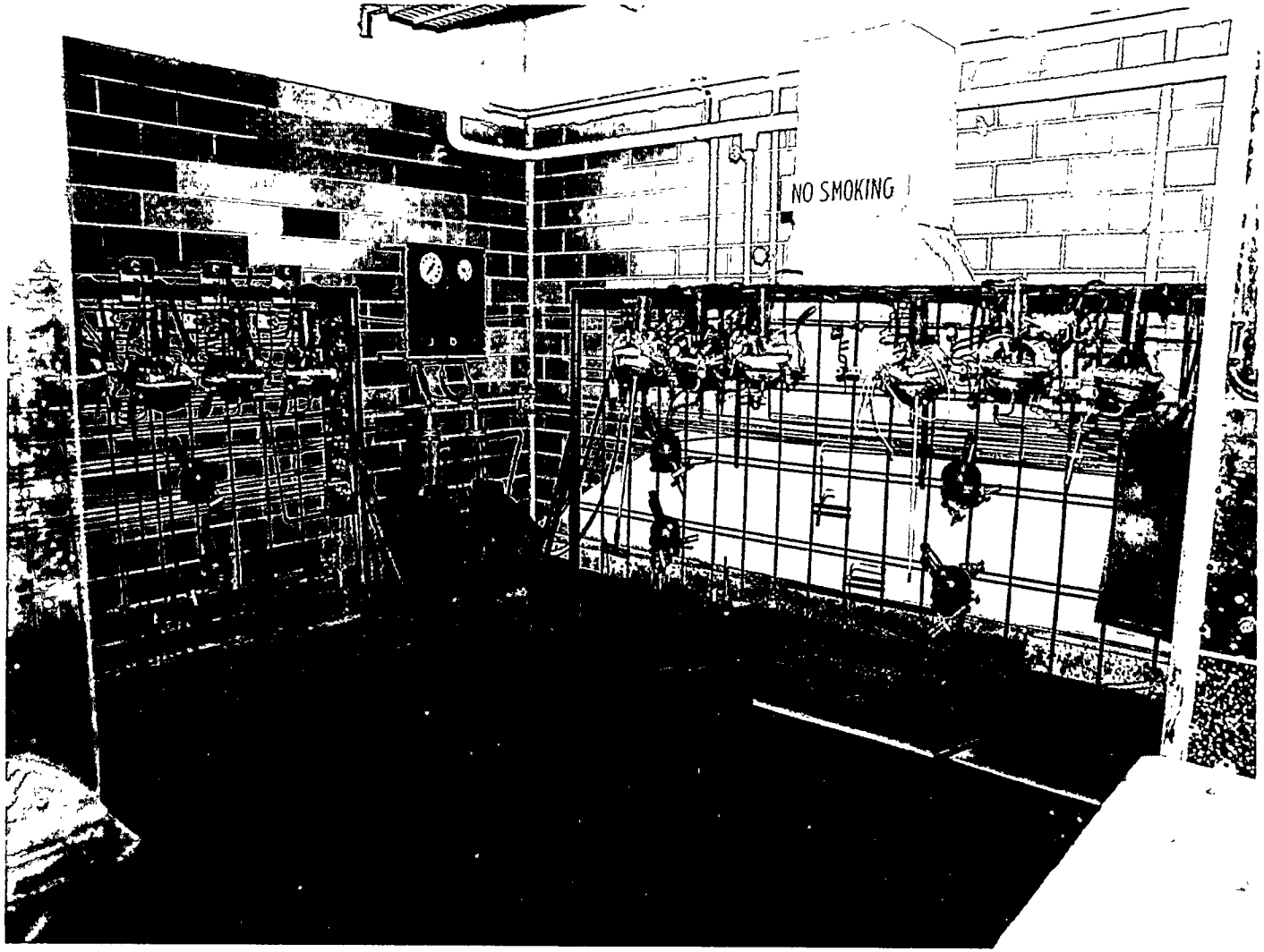
REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared for this unit, and it will be submitted by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Equipment, air, and drains

COMMENTS:



12. K-1420 Mercury Recovery Room

UNIT NUMBER 013

UNIT NAME K-1401 Acid Line

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #13 and photograph #13

APPROXIMATE DIMENSIONS 10-inch drain approximately 600 feet long

CAPACITY NA

FUNCTION Transfer corrosive solutions to the K-1407-A Neutralization Facility

DATES OPERATED 1940s to the present

DESCRIPTION OF WASTE (or list attached references):

The waste streams that are transported through this acid line include a caustic alkali, HCL, rinse water, and a diversey (caustic) bath. The analysis from samples collected from each bath over a two month period is shown in Attachment 1.

DESCRIPTION OF RELEASES (or list attached references):

In 1978, a survey was performed on this acid line. It was discovered that the acid line had deteriorated resulting in cracks and breaks of the line. This problem was corrected at the time by replacing broken sections and inserting, the full length, a plastic liner in the acid line.

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NA

REMEDIAL INVESTIGATION PLANNED?

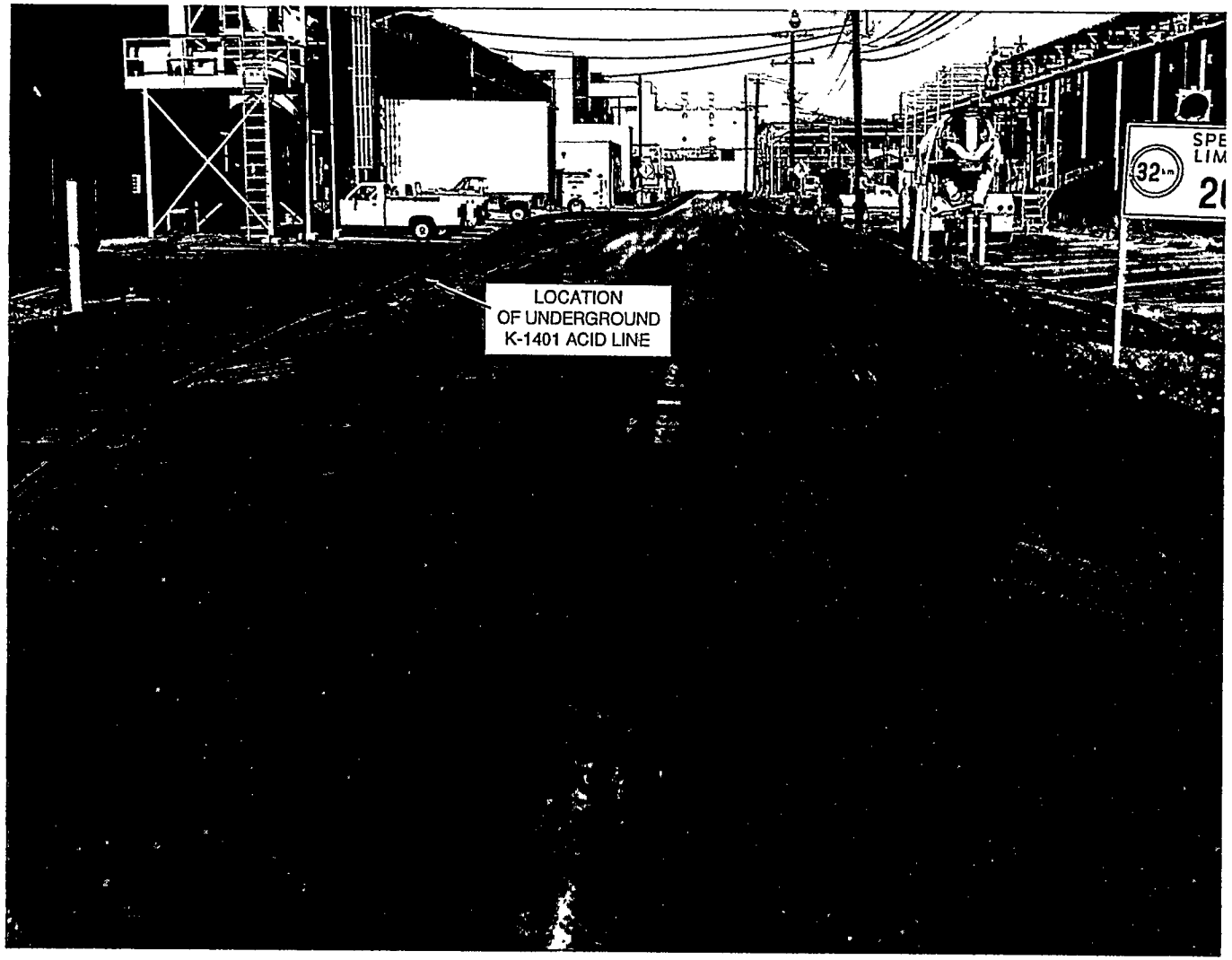
A RFI plan will be prepared and implemented to determine if releases of corrosive waste has affected the surrounding soil and groundwater. The RFI plan will be submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

This unit has discharged corrosive solutions into Poplar Creek.



13. K-1401 Acid Line

ATTACHMENT #1
K-1401 Acid Line

Caustic Alkali Bath

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LEIT
Customer Sample Number: CAUSTIC/303 Lab Sample Number: 861024-058
Date Sample Received: 24-OCT-1986 Date Sample Completed:
Material Description: CAUSTIC CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0908	IP-1853	IP-0908	Aluminum	<2.0	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Barium	0.21	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Beryllium	<0.030	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Boron	<0.70	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Cadmium	<0.30	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Calcium	87	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Chromium	<0.30	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Cobalt	0.26	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Copper	0.69	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Iron	64	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Lead	<5.0	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Lithium	0.14	mg/L	EA HESTER	29-OCT-1986
	IP-1853	IP-0908	Magnesium	25	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Manganese	0.56	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Molybdenum	<0.40	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Nickel	<3.0	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Niobium	<2.0	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Phosphorus	34	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Potassium	43	mg/L	EA HESTER	29-OCT-1986
	IP-1853	IP-0908	Silicon	8.3	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Silver	0.36	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Sodium	9400	mg/L	EA HESTER	29-OCT-1986
	IP-1853	IP-0908	Strontium	0.26	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Thorium	<4.0	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Titanium	0.21	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Vanadium	<0.10	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Zinc	5.8	mg/L	EA HESTER	28-OCT-1986
	IP-1853	IP-0908	Zirconium	0.31	mg/L	EA HESTER	28-OCT-1986
I004		EPA-206.2	Arsenic	0.070	mg/L	NB HAROLD	31-OCT-1986
		EPA-270.2	Selenium	<0.005	mg/L	NB HAROLD	31-OCT-1986
I005		EPA-245.1	Mercury	<0.001	mg/L	CB SCHAEFER	31-OCT-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-05B	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	DC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LETT	Customer Sample ID:	CAUSTIC/303
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	5-DEC-1986	Date Analyzed:	5-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	100
Percent Moisture (Decanted):		Analyst:	DH OBANION

CAS Number		ug/L	CAS Number		ug/L
74-87-3	Chloromethane	1000U	79-34-5	1,1,2,2-Tetrachloroethane	500U
74-83-9	Bromomethane	1000U	78-87-5	1,2-Dichloropropane	500U
75-01-4	Vinyl Chloride	1000U	10061-02-6	Trans-1,3-Dichloropropene	500U
75-00-3	Chloroethane	1000U	79-01-6	Trichloroethene	500U
75-09-2	Methylene Chloride	500U	124-48-1	Dibromochloromethane	500U
67-64-1	Acetone	6200 B	79-00-5	1,1,2-Trichloroethane	500U
75-15-0	Carbon Disulfide	500U	71-43-2	Benzene	500U
75-35-4	1,1-Dichloroethene	630	10061-01-5	Cis-1,3-Dichloropropene	500U
75-34-3	1,1-Dichloroethane	500U	110-75-8	2-Chloroethylvinylether	1000U
156-60-5	Trans-1,2-Dichloroethene	500U	75-25-2	Bromoform	500U
67-66-3	Chloroform	500U	591-78-6	2-Hexanone	1000U
107-06-2	1,2-Dichloroethane	500U	108-10-1	4-Methyl-2-Pentanone	1000U
78-93-3	2-Butanone	1000U	127-18-4	Tetrachloroethene	500U
71-55-6	1,1,1-Trichloroethane	500U	108-88-3	Toluene	500U
56-23-5	Carbon Tetrachloride	500U	108-90-7	Chlorobenzene	500U
108-05-4	Vinyl Acetate	1000U	100-41-4	Ethylbenzene	500U
75-27-4	Bromodichloromethane	500U	100-42-5	Styrene	500U
				Total Xylenes	500U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

	Amount	Amount	Percent

Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETI
Customer Sample Number: CAUSTIC/303 Lab Sample Number: 861024-053
Date Sample Received: 24-OCT-1986 Date Sample Completed:
Material Description: CAUSTIC CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Analysis	Spiked	Recovered	Recovered
TOLUENE-D8	50	61.1	122.20
BROMOFLUOROBENZENE	50	47.2	94.40
1,2-DICHLOROETHANE-D4	50	42.4	84.80

Program Manager: CR Kirkpatrick
Date Approved:

ATTACHMENT #1
K-1401 Acid Line

Hot Water Rinse

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: [illegible]
Customer Sample Number: HOT WATER TANK   Lab Sample Number: [illegible]
Date Sample Received: 24-OCT-1986   Date Sample Completed: 11-DEC-1986
Material Description: HOT WATER T[illegible]   Rec. Number:

Acc. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0909	TP-1853	TP-0908	Aluminum	<2.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Barium	0.13	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Beryllium	<0.030	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Boron	<0.70	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cadmium	<0.30	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Calcium	29	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Chromium	0.33	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cobalt	0.21	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Copper	<0.10	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Iron	3.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lead	<5.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lithium	0.17	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Magnesium	8.1	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Manganese	<0.080	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Molybdenum	<0.40	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Nickel	<3.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Niobium	<2.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Phosphorus	<4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Potassium	<20	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Silicon	1.9	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Silver	<0.20	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Sodium	<3.0	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Strontium	0.054	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Thorium	<4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Titanium	0.15	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Vanadium	<0.10	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Zinc	<0.30	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Zirconium	<0.20	mg/L	EA HESTER	28-OCT-1986
1004		EPA-206.2	Arsenic	0.015	mg/L	NB HAROLD	31-OCT-1986
		EPA-270.2	Selenium	<0.005	mg/L	NB HAROLD	31-OCT-1986
1009		EPA-245.1	Mercury	<0.001	mg/L	CD SCHAEFER	31-OCT-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Environmental Chem. Lab.	Case No.:	
Lab Sample ID:	[illegible]	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	[illegible]	Customer Sample ID:	[illegible]
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	LOW	Matrix:	
Date Extracted/Prepared:	3-DEC-1986	Date Analyzed:	3-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1000
Percent Moisture (Decanted):		Analyst:	DM DEANIN

CAS Number		ug/L	CAS Number		ug/L
74-87-3	Chloromethane	10000U	79-34-5	1,1,2,2-Tetrachloroethane	5000U
74-83-9	Bromomethane	10000U	78-87-5	1,2-Dichloropropane	5000U
75-01-4	Vinyl Chloride	10000U	10061-02-6	Trans-1,3-Dichloropropene	5000U
75-00-3	Chloroethane	10000U	79-01-6	Trichloroethene	5000U
75-09-2	Methylene Chloride	5000U	124-48-1	Dibromochloromethane	5000U
67-64-1	Acetone	10000U	79-00-5	1,1,2-Trichloroethane	5000U
75-15-0	Carbon Disulfide	5000U	71-43-2	Benzene	5000U
75-35-4	1,1-Dichloroethene	5000U	10061-01-5	Cis-1,3-Dichloropropene	5000U
75-34-3	1,1-Dichloroethane	5000U	110-75-8	2-Chloroethylvinylether	10000U
156-60-5	Trans-1,2-Dichloroethene	5000U	75-25-2	Bromoform	5000U
67-66-3	Chloroform	5000U	591-78-6	2-Hexanone	10000U
107-06-2	1,2-Dichloroethane	5000U	108-10-1	4-Methyl-2-Pentanone	10000U
78-93-3	2-Butanone	10000U	127-18-4	Tetrachloroethene	5000U
71-55-6	1,1,1-Trichloroethane	5000U	108-88-3	Toluene	5000U
56-23-5	Carbon Tetrachloride	5000U	108-90-7	Chlorobenzene	5000U
108-05-4	Vinyl Acetate	10000U	100-41-4	Ethylbenzene	5000U
75-27-4	Bromodichloromethane	5000U	100-42-5	Styrene	5000U
				Total Xylenes	5000U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Sample	Amount	Recovery

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LEE
Customer Sample Number: HOT WATER TAN
Date Sample Received: 24-OCT-1995
Material Description: HOT WATER TAN
Lab Sample Number: 951024-060
Date Sample Completed: 31-OCT-1995
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Anal. By	Date Completed

Analysis	Spiked	Recovered	Recovered
TOLUENE-D8	50	61.3	122.60
BROMOFLUOROBENZENE	50	49.0	98.00
1,2-DICHLOROETHANE-D4	50	53.6	107.20

ORGANIC ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	SE1124-060	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LETT	Customer Sample ID:	HOT WATER TAP
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	11-DEC-1986	Date Analyzed:	11-DEC-1986
Preparation Procedure No.:		Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/L	CAS Number		ug/L
62-75-9	N-Nitrosodimethylamine	10U	99-09-02	3-Nitroaniline	50U
108-95-2	Phenol	4.J	83-32-9	Acenaphthene	10U
62-53-3	Aniline	10U	51-28-5	2,4-Dinitrophenol	50U
111-44-4	Bis(2-Chloroethyl)Ether	10U	100-02-7	4-Nitrophenol	50U
95-57-8	2-Chlorophenol	10U	132-64-9	Dibenzofuran	10U
541-73-1	1,3-Dichlorobenzene	10U	121-14-2	2,4-Dinitrotoluene	10U
106-46-7	1,4-Dichlorobenzene	10U	606-20-2	2,6-Dinitrotoluene	10U
100-51-6	Benzyl Alcohol	10U	84-66-2	Diethylphthalate	10U
95-50-1	1,2-Dichlorobenzene	10U	7005-72-3	4-Chlorophenyl-phenylether	10U
95-48-7	2-Methylphenol	10U	86-73-7	Fluorene	10U
39638-32-9	Bis(2-chloroisopropyl)Ether	10U	100-01-6	4-Nitroaniline	50U
106-44-5	4-Methylphenol	10U	534-52-1	4,6-Dinitro-2-Methylphenol	50U
621-64-7	N-Nitroso-Di-n-Propylamine	10U	86-30-6	N-Nitrosodiphenylamine	10U
67-72-1	Hexachloroethane	10U	101-55-3	4-Bromophenyl-phenylether	10U
98-95-3	Nitrobenzene	10U	118-74-1	Hexachlorobenzene	10U
78-59-1	Isophorone	10U	87-86-5	Pentachlorophenol	50U
88-75-5	2-Nitrophenol	10U	85-01-8	Phenanthrene	10U
105-67-9	2,4-Dimethylphenol	10U	120-12-7	Anthracene	10U
65-85-0	Benzoic Acid	50U	84-74-2	Di-n-Butylphthalate	10U
111-91-1	Bis(2-chloroethoxy)Methane	10U	206-44-0	Fluoranthene	10U
120-83-2	2,4-Dichlorophenol	10U	92-87-5	Benzidine	80U
120-82-1	1,2,4-Trichlorobenzene	10U	129-00-0	Pyrene	10U
91-20-3	Naphthalene	10U	85-68-7	Butylbenzylphthalate	10U
106-47-8	4-Chloroaniline	10U	91-94-1	3,3'-Dichlorobenzidine	20U
87-68-3	Hexachlorobutadiene	10U	56-55-3	Benzo(a)Anthracene	10U
59-50-7	4-Chloro-3-Methylphenol	10U	117-81-7	Bis(2-Ethylhexyl)Phthalate	2.JB
91-57-6	2-Methylnaphthalene	10U	218-01-9	Chrysene	10U
77-47-4	Hexachlorocyclopentadiene	10U	117-84-0	Di-n-Octyl Phthalate	10U
88-06-2	2,4,6-Trichlorophenol	10U	205-99-2	Benzo(b)Fluoranthene	10U

... Pilot Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: HOT WATER TANK Lab Sample Number: 9E1024-059
Date Sample Received: 24-OCT-1991 Date Sample Completed: 11-DEC-1991
Material Description: HOT WATER TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis		Result	Units	Analyst	Date Completed
95-95-4	2,4,5-Trichlorophenol		50U	207-08-9	Benzo(k)Fluoranthene			10U
91-58-7	2-Chloronaphthalene		10U	50-32-8	Benzo(a)Pyrene			10U
88-74-4	2-Nitroaniline		50U	193-39-5	Indeno(1,2,3-cd)Pyrene			10U
131-11-3	Dimethyl Phthalate		10U	53-70-3	Dibenz(a,h)Anthracene			10U
208-96-8	Acenaphthalene		10U	191-24-2	Benzo(g,h,i)Perylene			10U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
NITROBENZENE-D5	100	38.	38.00
2-FLUOROBIPHENYL	100	39.	39.00
TERPHENYL-D14	100	42.	42.00
PHENOL-D5	200	44.	22.00
2-FLUOROPHENOL	200	76.	38.00
2,4,6-TRIBROMOPHENOL	200	80.	40.00

Program Manager: CR Kirkpatrick
Date Approved: 11-DEC-1986

Acid/Base/Neutral Organics Extraction Data

Extracted Sample Height = 810
Final Extracted Volume = 1
Extraction Method = Separatory Funnel
Extraction Solvent = Methylene Chloride
[illegible]iated Blank = 861204-035
[illegible] = TM KREIS
Date Completed = 9-DEC-1986

ATTACHMENT #1
K-1401 Acid Line

HCL Acid Bath

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: ACID/306 Lab Sample Number: 861024-057
Date Sample Received: 24-OCT-1986 Date Sample Completed:
Material Description: ACID CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0908	TP-1853	TP-0908	Aluminum	11	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Barium	0.24	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Beryllium	<0.030	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Boron	<0.70	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cadmium	4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Calcium	37	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Chromium	2.5	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cobalt	0.50	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Copper	12	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Iron	860	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lead	<5.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lithium	0.20	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Magnesium	9.6	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Manganese	14	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Molybdenum	<0.40	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Nickel	18	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Niobium	<2.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Phosphorus	<4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Potassium	<20	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Silicon	10	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Silver	<0.20	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Sodium	81	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Strontium	0.11	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Thorium	<4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Titanium	3.1	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Vanadium	0.37	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Zinc	3.5	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Zirconium	0.23	mg/L	EA HESTER	28-OCT-1986
1004		EPA-206.2	Arsenic	0.054	mg/L	NB HAROLD	31-OCT-1986
		EPA-270.2	Selenium	<0.005	mg/L	NB HAROLD	31-OCT-1986
1005		EPA-245.1	Mercury	0.001	mg/L	CD SCHAEFER	31-OCT-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-057	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LEIT	Customer Sample ID:	AC ID/306
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	5-DEC-1986	Date Analyzed:	5-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	100
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/L	CAS Number		ug/L
74-87-3	Chloromethane	1000U	79-34-5	1,1,2,2-Tetrachloroethane	500U
74-83-9	Bromomethane	1000U	78-87-5	1,2-Dichloropropane	500U
75-01-4	Vinyl Chloride	1000U	10061-02-6	Trans-1,3-Dichloropropene	500U
75-00-3	Chloroethane	1000U	79-01-6	Trichloroethene	500U
75-09-2	Methylene Chloride	500U	124-48-1	Dibromochloromethane	500U
-64-1	Acetone	150000 B	79-00-5	1,1,2-Trichloroethane	500U
,.-15-0	Carbon Disulfide	500U	71-43-2	Benzene	500U
75-35-4	1,1-Dichloroethene	500U	10061-01-5	Cis-1,3-Dichloropropene	500U
75-34-3	1,1-Dichloroethane	500U	110-75-8	2-Chloroethylvinylether	1000U
156-60-5	Trans-1,2-Dichloroethene	500U	75-25-2	Bromoform	500U
67-66-3	Chloroform	500U	591-78-6	2-Hexanone	1000U
107-06-2	1,2-Dichloroethane	500U	108-10-1	4-Methyl-2-Pentanone	1000U
78-93-3	2-Butanone	1000U	127-18-4	Tetrachloroethene	500U
71-55-6	1,1,1-Trichloroethane	500U	108-88-3	Toluene	500U
56-23-5	Carbon Tetrachloride	500U	108-90-7	Chlorobenzene	500U
108-05-4	Vinyl Acetate	1000U	100-41-4	Ethylbenzene	500U
75-27-4	Bromodichloromethane	500U	100-42-5	Styrene	500U
				Total Xylenes	500U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

	Amount	Amount	Percent

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: ACID/306 Lab Sample Number: 861024-057
Date Sample Received: 24-OCT-1986 Date Sample Completed:
Material Description: ACID CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Analysis	Spiked	Recovered	Recovered
TOLUENE-D8	50	54.7	109.40
BROMOFLUOROBENZENE	50	43.1	86.20
1,2-DICHLOROETHANE-D4	50	35.5	71.00

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-057	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LEIT	Customer Sample ID:	ACID/306
Requisition Number:			

TENTATIVELY IDENTIFIED COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	5-DEC-1986	Date Analyzed:	5-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	100
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/L	CAS Number		ug/L
————	HYDROCARBONS	PRESENT J	76-13-1	FREON 113	1800 J

Data Reporting Qualifiers:

B - Analyte was found in the blank as well as the sample

J - Indicates an estimated value

Program Manager: CR Kirkpatrick
Date Approved:

ATTACHMENT #1
K-1401 Acid Line

Diversey Caustic Bath

Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: VERSENE/305 Lab Sample Number: 861024-059
Date Sample Received: 24-OCT-1986 Date Sample Completed: 11-DEC-1986
Material Description: VERSENE CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0908	TP-1853	TP-0908	Aluminum	710	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Barium	0.16	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Beryllium	<0.030	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Boron	<0.70	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cadmium	0.64	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Calcium	980	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Chromium	2.3	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Cobalt	0.43	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Copper	19	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Iron	860	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lead	<5.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Lithium	0.78	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Magnesium	540	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Manganese	16	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Molybdenum	<0.40	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Nickel	18	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Niobium	<2.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Phosphorus	830	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Potassium	190	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Silicon	9.6	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Silver	0.67	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Sodium	1500	mg/L	EA HESTER	29-OCT-1986
	TP-1853	TP-0908	Strontium	3.6	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Thorium	<4.0	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Titanium	15	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Vanadium	0.88	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Zinc	24	mg/L	EA HESTER	28-OCT-1986
	TP-1853	TP-0908	Zirconium	0.91	mg/L	EA HESTER	28-OCT-1986
1004		EPA-206.2	Arsenic	0.025	mg/L	NB HAROLD	31-OCT-1986
		EPA-270.2	Selenium	0.314	mg/L	NB HAROLD	31-OCT-1986
1008		EPA-245.1	Mercury	0.002	mg/L	CD SCHAEFER	31-OCT-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-059	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LETT	Customer Sample ID:	VERSENE/30E
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	8-DEC-1986	Date Analyzed:	8-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	10000
Percent Moisture (Decanted):		Analyst:	DM OSANION

CAS Number		ug/L	CAS Number		ug/L
74-87-3	Chloromethane	100000U	79-34-5	1,1,2,2-Tetrachloroethane	50000U
74-83-9	Bromomethane	100000U	78-87-5	1,2-Dichloropropane	50000U
75-01-4	Vinyl Chloride	100000U	10061-02-6	Trans-1,3-Dichloropropene	50000U
75-00-3	Chloroethane	100000U	79-01-6	Trichloroethene	50000U
75-09-2	Methylene Chloride	50000U	124-48-1	Dibromochloromethane	50000U
67-64-1	Acetone	100000U	79-00-5	1,1,2-Trichloroethane	50000U
75-15-0	Carbon Disulfide	50000U	71-43-2	Benzene	50000U
75-35-4	1,1-Dichloroethene	50000U	10061-01-5	Cis-1,3-Dichloropropene	50000U
75-34-3	1,1-Dichloroethane	50000U	110-75-8	2-Chloroethylvinylether	100000U
156-60-5	Trans-1,2-Dichloroethene	50000U	75-25-2	Bromoform	50000U
67-66-3	Chloroform	50000U	591-78-6	2-Hexanone	100000U
107-06-2	1,2-Dichloroethane	50000U	108-10-1	4-Methyl-2-Pentanone	100000U
78-93-3	2-Butanone	100000U	127-18-4	Tetrachloroethene	50000U
71-55-6	1,1,1-Trichloroethane	50000U	108-88-3	Toluene	50000U
56-23-5	Carbon Tetrachloride	50000U	108-90-7	Chlorobenzene	50000U
108-05-4	Vinyl Acetate	100000U	100-41-4	Ethylbenzene	50000U
75-27-4	Bromodichloromethane	50000U	100-42-5	Styrene	50000U
				Total Xylenes	50000U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

	Amount	Amount	Percent

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: VERSENE/305 Lab Sample Number: 861024-059
Date Sample Received: 24-OCT-1986 Date Sample Completed: 11-DEC-1986
Material Description: VERSENE CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Analysis	Spiked	Recovered	Recovered
TOLUENE-D8	50	52.2	104.40
BROMOFLUOROBENZENE	50	49.0	98.00
1,2-DICHLOROETHANE-D4	50	48.1	96.20

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-059	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LETT	Customer Sample ID:	DEFSENS/305
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	11-DEC-1986	Date Analyzed:	11-DEC-1986
Preparation Procedure No.:		Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1000
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/L	CAS Number		ug/L
62-75-9	N-Nitrosodimethylamine	10000U	99-09-02	3-Nitroaniline	50000U
108-95-2	Phenol	10000U	83-32-9	Acenaphthene	10000U
62-53-3	Aniline	10000U	51-28-5	2,4-Dinitrophenol	50000U
111-44-4	Bis(2-Chloroethyl)Ether	10000U	100-02-7	4-Nitrophenol	50000U
95-57-8	2-Chlorophenol	10000U	132-64-9	Dibenzofuran	10000U
541-73-1	1,3-Dichlorobenzene	10000U	121-14-2	2,4-Dinitrotoluene	10000U
106-46-7	1,4-Dichlorobenzene	10000U	606-20-2	2,6-Dinitrotoluene	10000U
100-51-6	Benzyl Alcohol	10000U	84-66-2	Diethylphthalate	10000U
95-50-1	1,2-Dichlorobenzene	10000U	7005-72-3	4-Chlorophenyl-phenylether	10000U
95-48-7	2-Methylphenol	10000U	86-73-7	Fluorene	10000U
39638-32-9	Bis(2-chloroisopropyl)Ether	10000U	100-01-6	4-Nitroaniline	50000U
106-44-5	4-Methylphenol	10000U	534-52-1	4,6-Dinitro-2-Methylphenol	50000U
621-64-7	N-Nitroso-Di-n-Propylamine	10000U	86-30-6	N-Nitrosodiphenylamine	10000U
67-72-1	Hexachloroethane	10000U	101-55-3	4-Bromophenyl-phenylether	10000U
98-95-3	Nitrobenzene	10000U	118-74-1	Hexachlorobenzene	10000U
78-59-1	Isophorone	10000U	87-86-5	Pentachlorophenol	50000U
88-75-5	2-Nitrophenol	10000U	85-01-8	Phenanthrene	10000U
105-67-9	2,4-Dimethylphenol	10000U	120-12-7	Anthracene	10000U
65-85-0	Benzoic Acid	50000U	84-74-2	Di-n-Butylphthalate	10000U
111-91-1	Bis(2-chloroethoxy)Methane	10000U	206-44-0	Fluoranthene	10000U
120-83-2	2,4-Dichlorophenol	10000U	92-87-5	Benzidine	80000U
120-82-1	1,2,4-Trichlorobenzene	10000U	129-00-0	Pyrene	10000U
91-20-3	Naphthalene	10000U	85-68-7	Butylbenzylphthalate	10000U
106-47-8	4-Chloroaniline	10000U	91-94-1	3,3'-Dichlorobenzidine	20000U
87-68-3	Hexachlorobutadiene	10000U	56-55-3	Benzo(a)Anthracene	10000U
59-50-7	4-Chloro-3-Methylphenol	10000U	117-81-7	Bis(2-Ethylhexyl)Phthalate	93000000
91-57-6	2-Methylnaphthalene	10000U	218-01-9	Chrysene	10000U
77-47-4	Hexachlorocyclopentadiene	10000U	117-84-0	Di-n-Octyl Phthalate	10000U
88-06-2	2,4,6-Trichlorophenol	10000U	205-99-2	Benzo(b)Fluoranthene	10000U

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HERMAN LETT
Customer Sample Number: VERSENE/305 Lab Sample Number: 861024-059
Date Sample Received: 24-OCT-1986 Date Sample Completed: 11-DEC-1986
Material Description: VERSENE CLEANING TANK Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
95-95-4	2,4,5-Trichlorophenol		50000U				
91-58-7	2-Chloronaphthalene		10000U				
88-74-4	2-Nitroaniline		50000U				
131-11-3	Dimethyl Phthalate		10000U				
208-96-8	Acenaphthalene		10000U				
207-08-9	Benzo(k)Fluoranthene		10000U				
50-32-8	Benzo(a)Pyrene		10000U				
193-39-5	Indeno(1,2,3-cd)Pyrene		10000U				
53-70-3	Dibenz(a,h)Anthracene		10000U				
191-24-2	Benzo(g,h,i)Perylene		10000U				

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analyte	Amount Spiked	Amount Recovered	Percent Recovered

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	861024-059	QC Report No.:	
Sample Matrix:	WATER	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	24-OCT-1986
Customer Name:	HERMAN LETT	Customer Sample ID:	VERSENE/305
Requisition Number:			

TENTATIVELY IDENTIFIED COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	8-DEC-1986	Date Analyzed:	8-DEC-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	10000
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/L	CAS Number		ug/L
	Substituted ethanol	35000 J		Unknown alcohols	1700000 J
	Unknown	470000 J			

Data Reporting Qualifiers:

B - Analyte was found in the blank as well as the sample

J - Indicates an estimated value

Program Manager: CR Kirkpatrick
Date Approved: 11-DEC-1986

Acid/Base/Neutral Organics Extraction Data

Extracted Sample Weight =	700
Final Extracted Volume =	1
Extraction Method	= Separatory Funnel
Extraction Solvent	= Methylene Chloride
Associated Blank	= 861204-035
Analyst	= TM KREIS
Date Completed	= 9-DEC-1986

UNIT NUMBER 014

UNIT NAME K-1232 Treatment Facility

REGULATORY STATUS 3004.u/RCRA Part B Permit Application has been submitted

LOCATION - shown on map See ORGDP topographic map #14 and photograph #14

APPROXIMATE DIMENSIONS 150 feet by 100 feet

CAPACITY Batch operation 1,000-2,000 gallons

FUNCTION Treatment of corrosive and organic laden wastewaters

DATES OPERATED 1984 to the present

DESCRIPTION OF WASTE (or list attached references):

This facility was originally used to treat corrosive wastewaters by neutralization, metal removal, and carbon filtration for aqueous waste with organic constituents. At the present time, the unit is used to neutralize a nitric acid stream then shipped back to Y-12 for storage. There is also a nickel plating stream and laboratory waste acids and bases treated at this facility.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

N/A

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

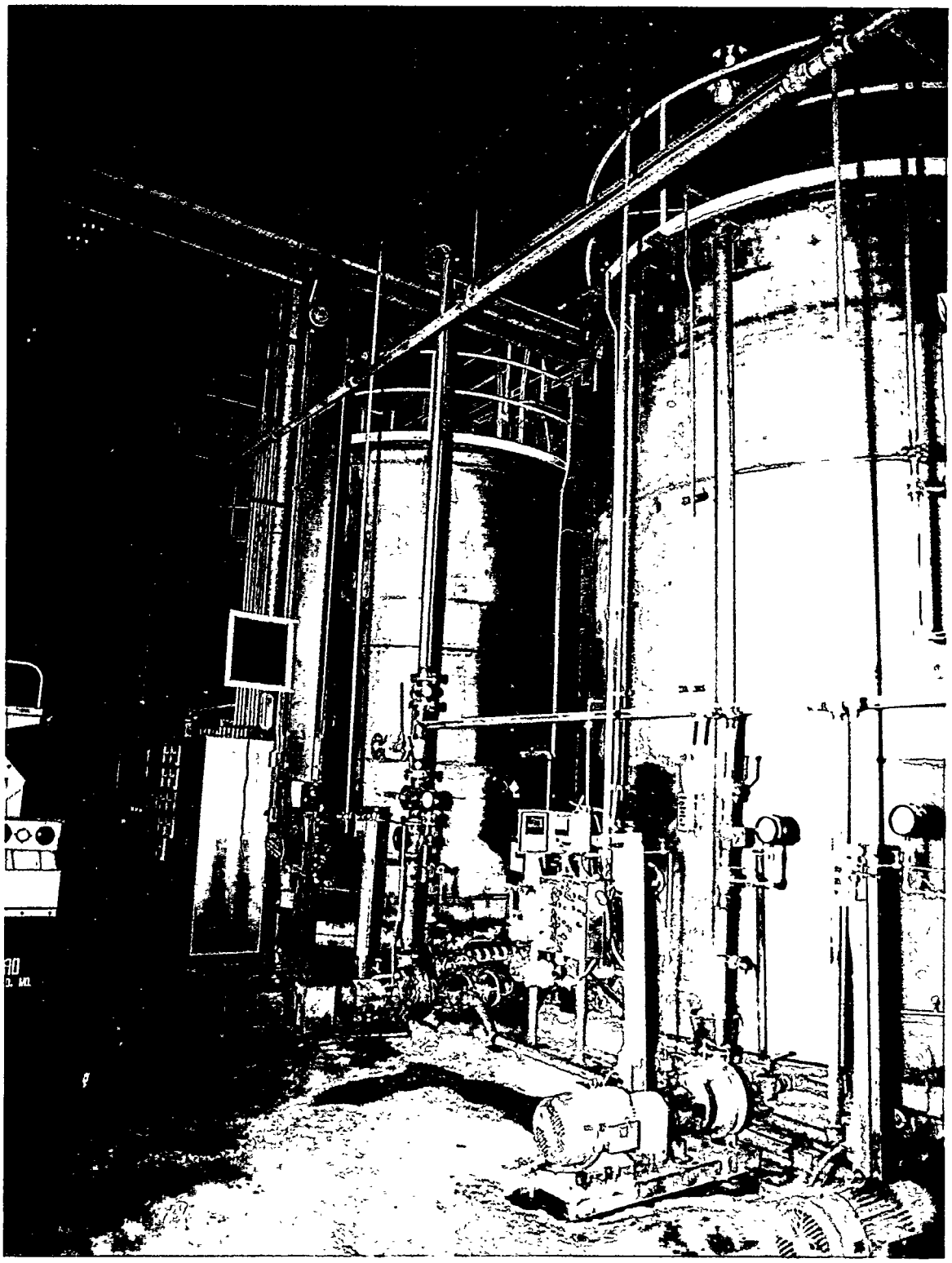
Since there are underground settling tanks associated with this unit, a RFI will be prepared for the unit. The RFI will be submitted by the end of CY 1988.

MEDIA TO BE ADDRESSED:

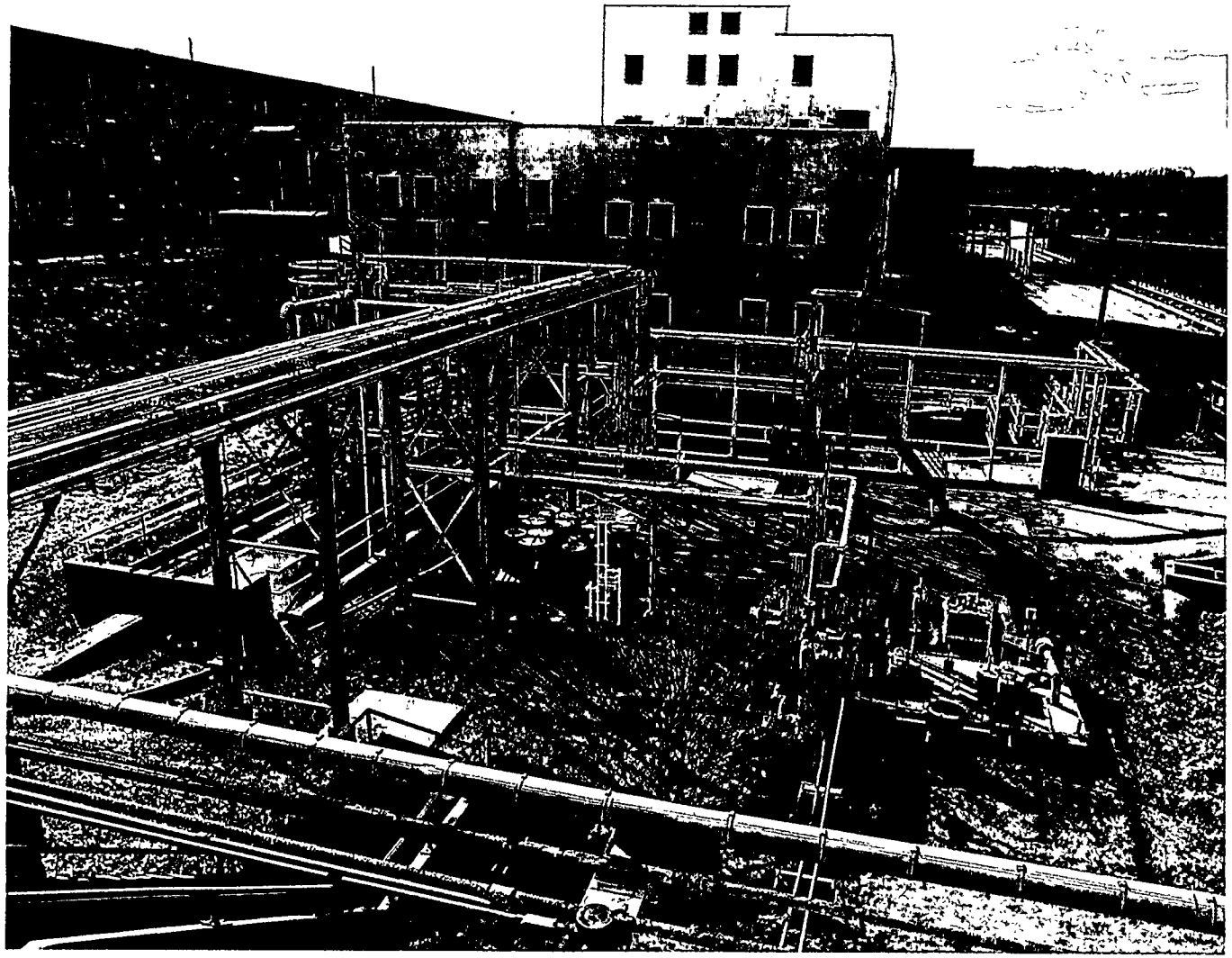
Groundwater

COMMENTS:

The underground tanks will be assessed according to the regulations of 40 CFR 264.191.



14. K-1232 Treatment Facility



14.1 K-1232 Treatment Facility Lagoon Area

UNIT NUMBER 015

UNIT NAME K-1413 Treatment Tank

REGULATORY STATUS 3004.u/RCRA part B Permit Application submitted

LOCATION - shown on map See ORGDP topographic map #15 and photograph #15

APPROXIMATE DIMENSIONS 15 feet by 15 feet by 12 feet deep

CAPACITY 21,000 gallons

FUNCTION Neutralization of corrosive wastes

DATES OPERATED 1974 to the present

DESCRIPTION OF WASTE (or list attached references):

Corrosive waste solutions from a development laboratory.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

N/A

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

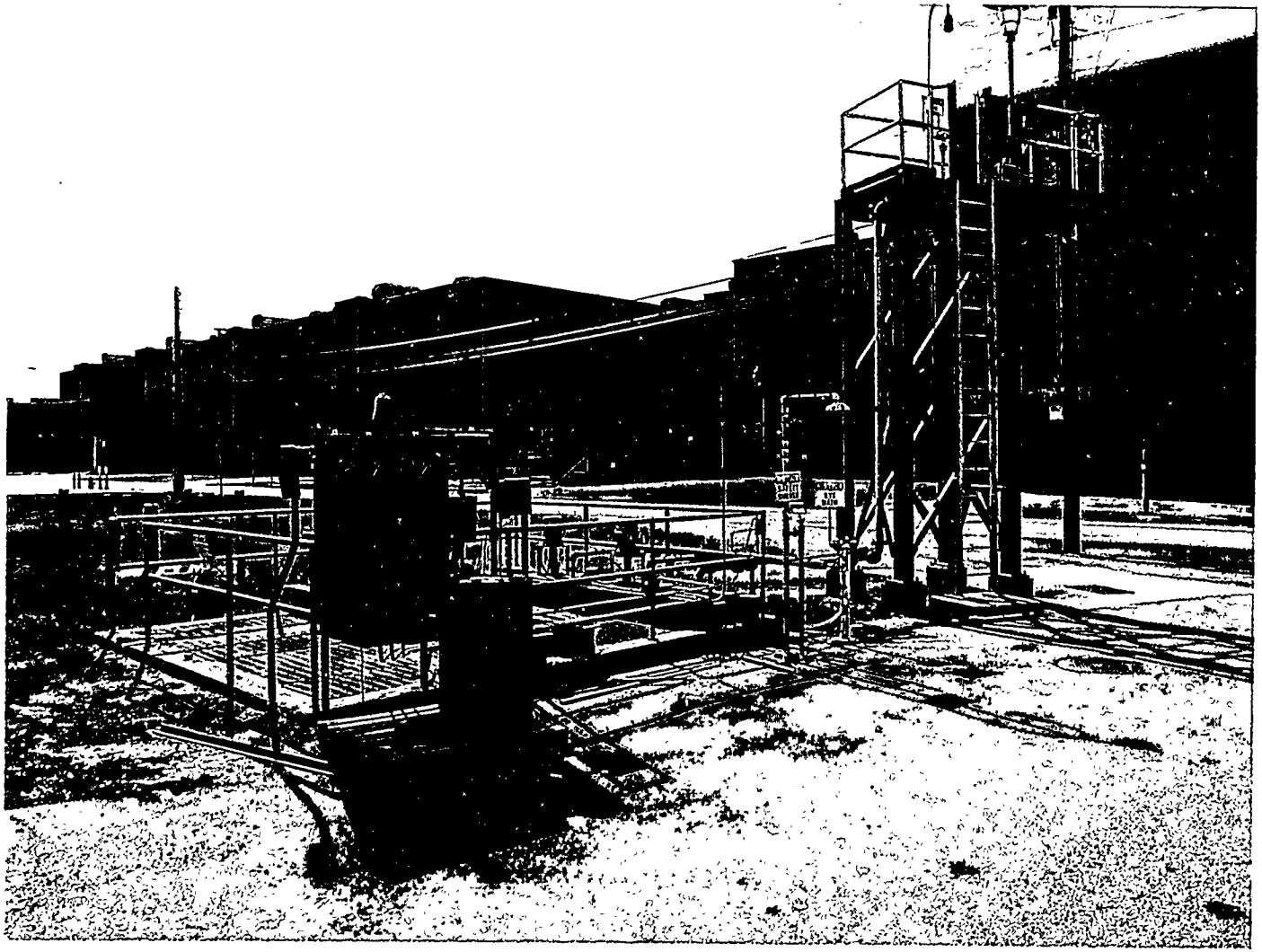
A RFI plan will be prepared and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

This unit has been used sparingly for the past five years. Present plans are to close the facility and withdraw the RCRA permit application.



15. K-1413 Treatment Facility

UNIT NUMBER 016

UNIT NAME K-1420 Process Lines

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #16 and photograph #16

APPROXIMATE DIMENSIONS Several underground pipes approximately 300 ft. long

CAPACITY N/A

FUNCTION Transfer of waste water from the K-1420 Decontamination Building to the K-1407-B Pond.

DATES OPERATED 1940s to the present

DESCRIPTION OF WASTE (or list attached references):

Corrosives, detergents, and rinse waters.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

N/A

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Abandoned process lines that were discovered during the construction of new facilities have been found to contain uranium, mercury, and PCBs. The abandoned lines and the lines presently being used will be assessed to determine if hazardous constituents are being discharged.

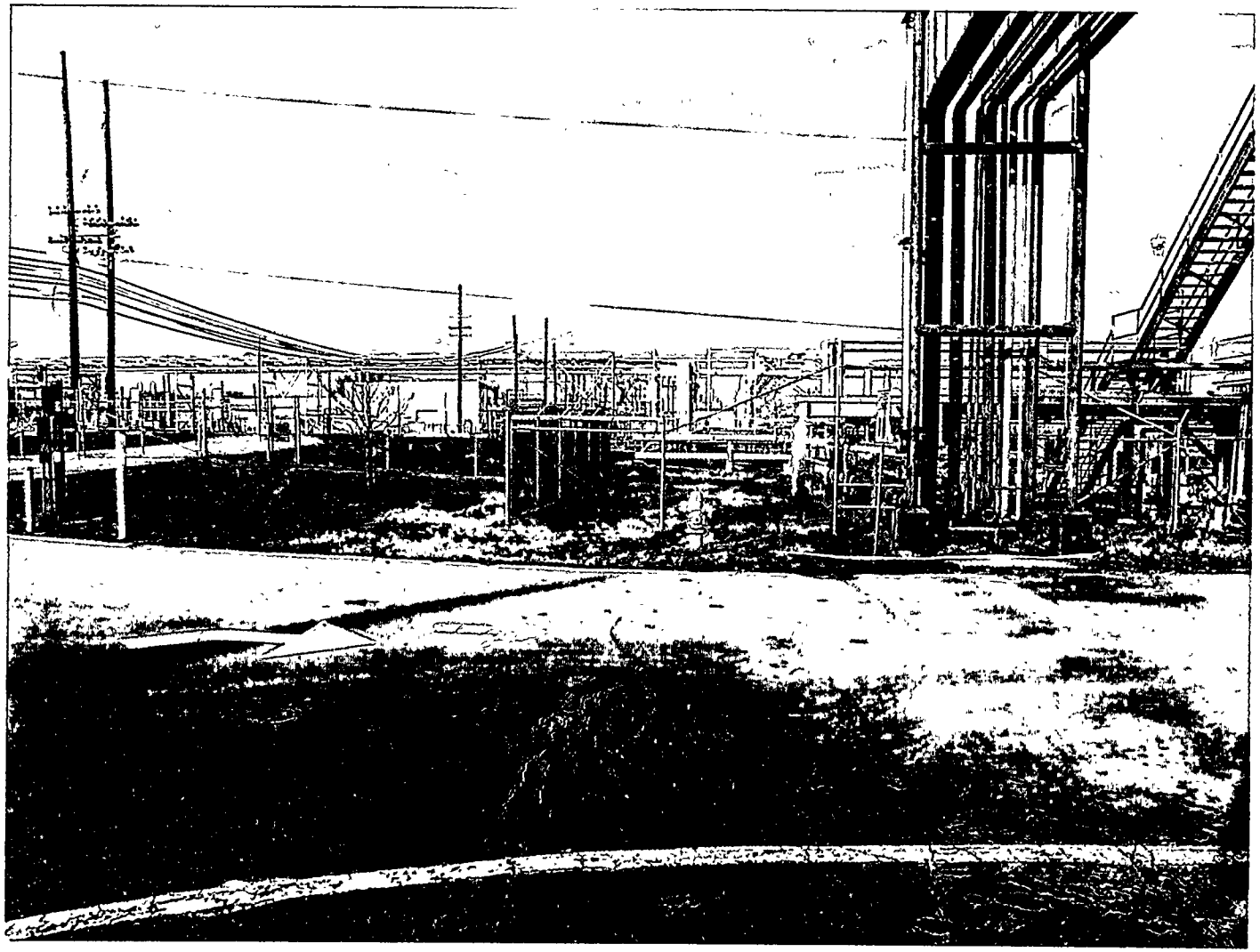
REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared and submitted to the Environmental Protection Agency by the end of CY 1988.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:



16. K-1420 Process Lines

UNIT NUMBER 017

UNIT NAME K-1004 Area Lab Drain

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic Map #17 and photograph #17

APPROXIMATE DIMENSIONS 24-inch drain approximately 0.25 miles long

CAPACITY N/A

FUNCTION A storm drain that is also intercepted by waste drains from the laboratory areas.

DATES OPERATED 1940s to the present

DESCRIPTION OF WASTE (or list attached references):

The laboratory wastes that had been discharged through this drain were small quantities of reagents used for the various analytical procedures. The chemicals include small quantities of solvents, acids, and bases. A list of these chemicals is shown on the K-1004 Attachment 1.

DESCRIPTION OF RELEASES (or list attached references):

There had been no reason in the past to suspect a leak in the drain line.

DOCUMENTATION OF NO RELEASE (or list attached references):

N/A

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared and implemented to determine the integrity of the drain line and to determine if leaks have occurred in the past from the drain.

MEDIA TO BE ADDRESSED:

Drain line evaluations and soil samples.

COMMENTS:

This lab drains discharges into the K-1007-B pond, which is also being evaluated (see K-1007-B Holding Pond report). The discharge of chemicals was discontinued in 1985 as required by the NPDES permit that required a Best Management Practice Plan for collecting the waste solutions. The effluent of the K-1007-B Pond is permitted under the NPDES program.

17.K-1004 Area Lab Drain

ATTACHMENT #1

K-1004 AREA LAB DRAIN

LABORATORY CHEMICALS DISCHARGED TO K-1004-B NPDES POINT

Acetic acid

Acetone

Acetonitrile

Ethanol

Ammonium hydroxide

Chloroform

Chromic acid

Hexane

Hydroiodic acid

Hydrofluoric acid

Hypophosphorous acid

Isopropyl alcohol

Methyl alcohol

Methyl ethyl ketone

Nitric acid

Phosphoric acid

Potassium dichromate

Poassium hydroxide

Sodium Hydroxide

Sulfuric acid

Toluene

Photographic solutions

UNIT NUMBER 018

UNIT NAME K-1070-F Construction Spoil Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #18 and photograph #18

APPROXIMATE DIMENSIONS Approximately 5 acres

CAPACITY NA

FUNCTION - Burial of construction rubble.

DATES OPERATED Early 1970s to 1978

DESCRIPTION OF WASTE (or list attached references):

Wood, concrete, roofing, soil, asphalt, and general construction rubble.

DESCRIPTION OF RELEASES (or list attached references):

Unknown at this time.

DOCUMENTATION OF NO RELEASE (or list attached references):

There is no evidence that hazardous or radioactive constituents were buried at this unit. However, records are not available for the materials buried in the early 1970s.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Groundwater monitoring is presently being planned for this unit.

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared for this unit, but no corrective measures are expected based upon the buried materials.

MEDIA TO BE ADDRESSED:

Groundwater

COMMENTS:

18. K-1070-F Old Contractors Burial Ground

UNIT NUMBER 019

UNIT NAME K-1099 Blair Quarry

REGULATORY STATUS 3004.u

LOCATION -- shown on map See ORGDP topographic map #19 and photograph #19

APPROXIMATE DIMENSIONS 0.1 acre

CAPACITY N/A

FUNCTION

DATES OPERATED Open burning of low-level radioactively contaminated trash.

DESCRIPTION OF WASTE (or list attached references):

Combustible wastes such as paper, wood, construction rubble, etc., contaminated with uranium.

DESCRIPTION OF RELEASES (or list attached references):

A groundwater sample collected from a characterization well at the unit indicated alpha activity above the drinking water standard of 15 pCi/l. A groundwater monitoring program is currently being designed for the unit.

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Groundwater monitoring is being provided for this unit, and a final decision concerning the need for a RFI will be made when the monitoring data have been made available.

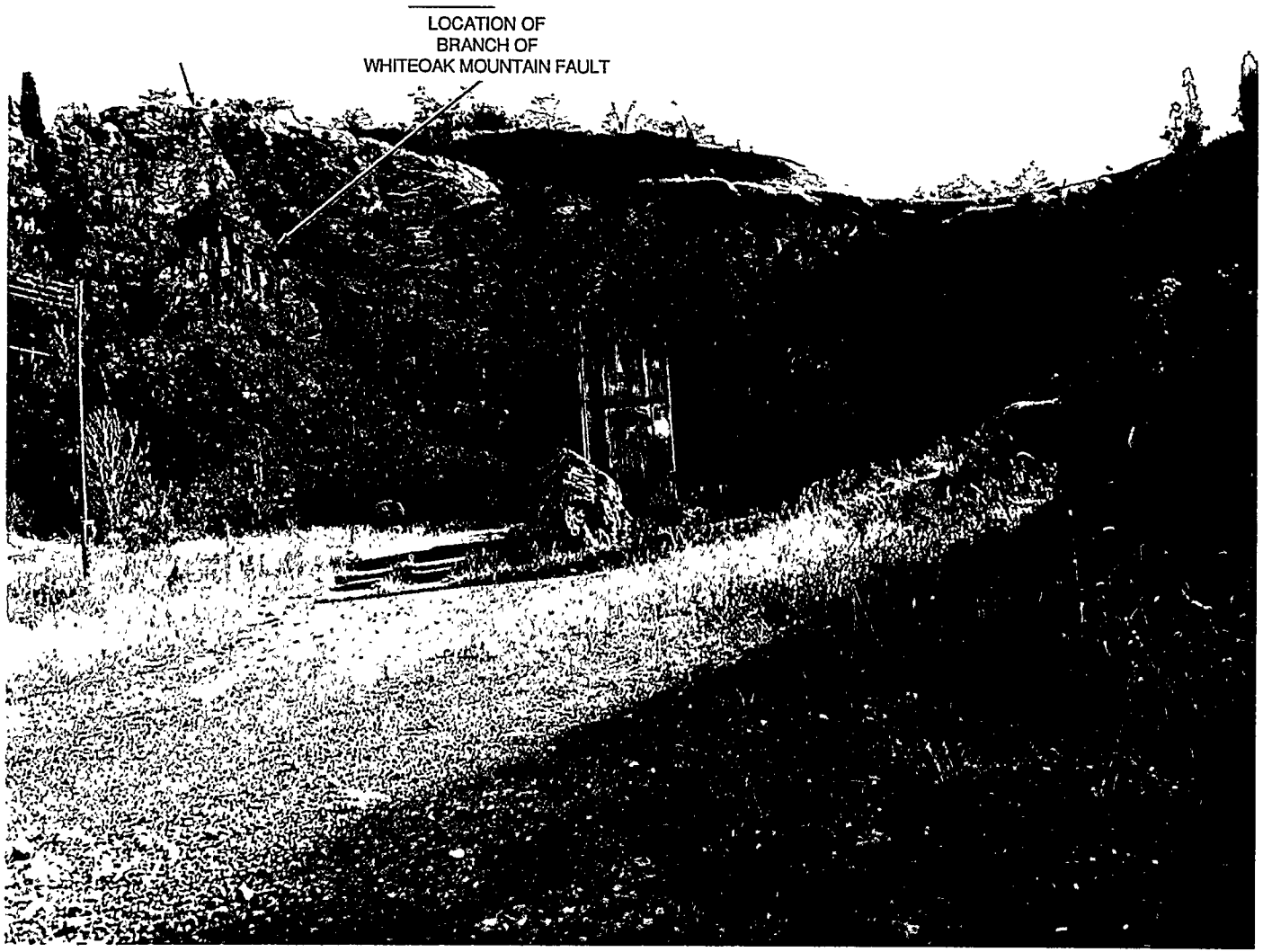
REMEDIAL INVESTIGATION PLANNED?

To be determined

MEDIA TO BE ADDRESSED:

Groundwater

COMMENTS:



19. K-1099 Blair Quarry

UNIT NUMBER 020

UNIT NAME K-1064-G Drum Deheading Facility

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #20 and photograph #20

APPROXIMATE DIMENSIONS 75 feet by 50 feet and a 1,000 storage tank

CAPACITY 1,000 gallons

FUNCTION Storage of waste liquids from used drums

DATES OPERATED 1970 through 1979

DESCRIPTION OF WASTE (or list attached references):

The residual quantities of various solvents and aqueous materials were poured from 55-gallon drums in order to remove the tops from the drums and for the use to store other materials.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

This operation was discontinued in 1979. Material in the underground tank was removed, and the tank has not been used since that time. In the summer of 1986, samples were taken of the soil around the tank and of water that was in the tank. Some samples results are shown in Attachment 1 and 2.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

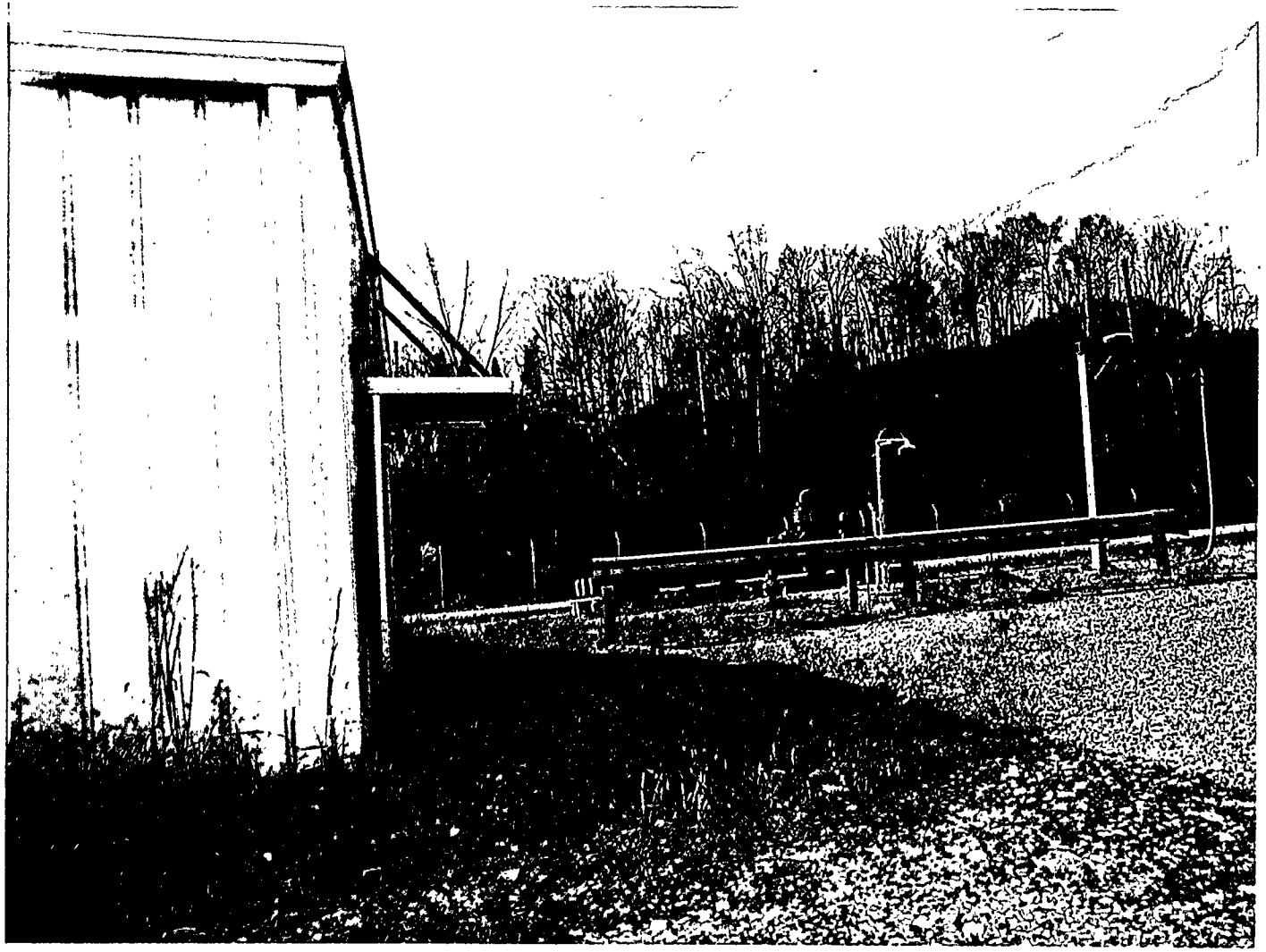
REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

COMMENTS:

The results of the samples collected from the unit indicated that the soil surrounding the underground storage tank was not contaminated during opration of this facility. It is recommended that no further actions be taken for this unit. See Attachment 3 for EP-toxicity analytical method.



20. K-1064-G Drum Deheading

ATTACHMENT #1

K-1064-G Drum Deheading Facility

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: ZINGS
Customer Sample Number: 1064C
Lab Sample Number: 860416-048
Date Sample Received: 16-APR-1986
Date Sample Completed: 24-APR-1986
Date Sampled:
Sampled By:
Material Description: 1064 TANK
Req. Number:

Activity Number	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-200.7	EPA-200.7	Aluminum	0.024	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Barium	0.014	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Beryllium	<0.0003	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Boron	0.020	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Cadmium	<0.0030	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Calcium	25	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Chromium	<0.010	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Cobalt	<0.0050	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Copper	0.012	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Iron	2.2	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Lead	<0.050	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Lithium	<0.0040	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Magnesium	8.1	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Manganese	0.041	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Molybdenum	<0.010	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Nickel	0.059	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Niobium	<0.0070	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Phosphorus	0.50	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Potassium	12	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Silicon	1.0	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Silver	<0.0060	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Sodium	23	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Strontium	0.037	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Thorium	<0.20	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Titanium	<0.0030	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Vanadium	<0.0050	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Zinc	0.63	mg/L	EA HESTER	6-APR-1986
	EPA-200.7	EPA-200.7	Zirconium	<0.0050	mg/L	EA HESTER	6-APR-1986

Program Manager: LW McMahon
Date Approved: 24-APR-1986

AnaLIS ID: 860416-048
Laboratory Name: Organic Mass Spectroscopy
File ID:
Instrument ID:
Data Release Authorized By: DC Canada

Customer Sample ID: 1064C
Customer Name: ZINGG
Sample Matrix: WATER
Requisition Number:
Date Sample Received: 16-APR-1986

B/N/A Fraction Organic Compounds - CLP

Date Extracted/Prepared: 24-APR-1986
Preparation Procedure Number: EPA-625
Percent Mositure:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 24-APR-1986
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ PARDUE JR

CAS		ug/L	CAS		ug/L
108-95-2	phenol	---	100-01-6	4-nitroaniline	50U
111-44-4	bis(2-chloroethyl)ether	10U	87-68-3	hexachlorobutadiene	10U
95-57-8	2-chlorophenol	10U	59-50-7	4-chloro-3-methylphenol	10U
541-73-1	1,3-dichlorobenzene	10U	91-57-6	2-methylnaphthalene	10U
106-46-7	1,4-dichlorobenzene	10U	77-47-4	hexachlorocyclopentadiene	10U
100-51-6	benzyl alcohol	10U	88-06-2	2,4,6-trichlorophenol	10U
95-50-1	1,2-dichlorobenzene	10U	95-95-4	2,4,5-trichlorophenol	50U
95-48-7	2-methylphenol	10U	91-58-7	2-chloronaphthalene	10U
39638-32-9	bis(2-chloroisopropyl)ether	10U	88-74-4	2-nitroaniline	50U
106-44-5	4-methylphenol	10	131-11-3	dimethylphthalate	10U
621-64-7	n-nitrosodi-n-propylamine	10U	208-96-8	acenaphthylene	10U
67-72-1	hexachloroethane	10U	99-09-2	3-nitroaniline	50U
98-95-3	nitrobenzene	10U	83-32-9	acenaphthene	10U
78-59-1	isophorone	10U	51-28-5	2,4-dinitrophenol	50U
88-75-5	2-nitrophenol	10U	100-02-7	4-nitrophenol	50U
105-67-9	2,4-dimethylphenol	10U	132-64-9	dibenzofuran	10U
65-85-0	benzoic acid	50U	121-14-2	2,4-dinitrotoluene	10U
111-91-1	bis(2-chloroethoxy)methane	10U	606-20-2	2,6-dinitrotoluene	10U
120-83-2	2,4-dichlorophenol	10U	84-66-2	diethylphthalate	10U
120-82-1	1,2,4-trichlorobenzene	10U	7005-72-3	4-chlorophenyl phenyl ether	10U
91-20-3	naphthalene	10U	86-73-7	fluorene	10U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

AnaLIS ID: 860416-048
Laboratory Name: Organic Mass Spectroscopy
File ID:
Instrument ID:
Data Release Authorized By: QC Canada

Customer Sample ID: 10640
Customer Name: ZINGG
Sample Matrix: WATER
Requisition Number:
Date Sample Received: 16-APR-1986

B/N/A Fraction Organic Compounds - CLP

Date Extracted/Prepared: 24-APR-1986
Preparation Procedure Number: EPA-625
Percent Mositure:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 24-APR-1986
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ PARDUE JR

CAS		ug/L	CAS		ug/L
100-01-6	4-nitroaniline	50U	53-70-3	dibenzo(a,h)anthracene	10U
534-52-1	2-methyl-4,6-dinitrophenol	50U	191-24-2	benzo(ghi)perylene	10U
86-30-6	n-nitrosodiphenylamine	10U			
101-55-3	4-bromophenyl phenyl ether	10U			
118-74-1	hexachlorobenzene	10U			
87-86-5	pentachlorophenol	50U			
85-01-8	phenanthrene	---			
120-12-7	anthracene	10U			
84-74-2	di-n-butyl phthalate	10U			
206-44-0	fluoranthene	10U			
129-00-0	pyrene	---			
85-68-7	benzyl butyl phthalate	10U			
91-94-1	3,3'-dichlorobenzidine	20U			
56-55-3	benzo(a)anthracene	10U			
117-81-7	bis(2-ethylhexyl)phthalate	10U			
218-01-9	chrysene	10U			
117-84-0	di-n-octyl phthalate	1 J			
205-99-2	benzo(b)fluoranthene	10U			
207-08-9	benzo(k)fluoranthene	10U			
50-32-8	benzo(a)pyrene	10U			
193-39-5	indeno(1,2,3-cd)pyrene	10U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

Surrogate Recovery Data

Surrogate Compound	Amount Spiked	Amount Recovered	Percent Recovered
2-FLUOROPHENOL	200	82	41.0
PHENOL-D5	200	62	31.0
2,4,6-TRIBROMOPHENOL	200	114	57.0
NITROBENZENE-D5	100	55	55.0
2-FLUOROBIPHENYL	100	47	47.0
TERPHENYL-D14	100	47	47.0

EPA-625 EPA-625 phenanthrene <10 ug/L GJ PARDUE JR 24-APR-1986

EPA-625	EPA-625	phenol	<10 ug/L	GJ PARDLE JR	24-APR-1986
EPA-625	EPA-625	pyrene	<10 ug/L	GJ PARDLE JR	24-APR-1986
	TP-1530	1,1,1-trichloroethane	<1 Percent	RE HOWARD	18-APR-1986
	TP-1530	1,1,2-trichloroethylene	<1 Percent	RE HOWARD	18-APR-1986
	TP-1530	freon-113	<1 Percent	RE HOWARD	18-APR-1986
	TP-1530	methylene chloride	<1 Percent	RE HOWARD	18-APR-1986
	TP-1530	tetrachloroethylene	<1 Percent	RE HOWARD	18-APR-1986

ORGANIC ANALYSIS DATA REPORT

AnaLIS ID: 860416-048
Laboratory Name: Organic Mass Spectroscopy
File ID:
Instrument ID:
Data Release Authorized By: QC Canada

Customer Sample ID: 10640
Customer Name: ZINGG
Sample Matrix: WATER
Requisition Number:
Date Sample Received: 16-APR-1986

Tentatively Identified Compounds

Date Extracted/Prepared: 24-APR-1986
Preparation Procedure Number: EPA-625
Percent Mositure:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 24-APR-1986
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ PARDUE JR

CAS		ug/L	CAS		ug/L
----------	4-tertbutyl phenol	4 B J	----------	tributyl phosphate	2 J
----------	unknown substituted indole	23 J			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

cid/Base/Neutral Organics Extraction Data

ɔcted Sample Weight = 725
inal Extracted Volume = 1
xtraction Method = Separatory Funnel
xtraction Solvent = Methylene Chloride
ssociated Blank = 860414-080
nalyst = SK POLING
ate Completed = 22-APR-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analysess

Customer Name: MCCALL/ZINGG
Customer Sample Number: K1064-1-C
Lab Sample Number: 860711-065
Date Sample Received: 11-JUL-1986
Date Sample Completed: 1-OCT-1986
Date Sampled:
Sampled By: MCH
Material Description: K1064 DRUM DEHEADING
Req. Number:

Activity Number	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0804	EPA-3050	TP-0804	Sample Preparation (ICP)	c		13794	7-AUG-1986
0904	EPA-3050(7.6)	EPA-6010	Aluminum	26000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Barium	46	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	0.29	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.0	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Calcium	200	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Chromium	29	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	4.1	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Copper	17	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Iron	33000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Lead	24	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Lithium	19	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	1400	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Manganese	170	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	9.5	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Nickel	13	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	220	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Potassium	2000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Silicon	440	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Sodium	93	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Strontium	5.8	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Titanium	100	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Uranium	<3.0	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	37	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Zinc	49	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	9.9	ug/g	EA HESTER	7-AUG-1986
1006	EPA-3050	EPA-7060	Arsenic	7.3	ug/g	LG HAMILTON	13-AUG-1986
	EPA-3050	EPA-245.5	Mercury	<1.0	ug/g	LG HAMILTON	13-AUG-1986
	EPA-3050	EPA-7740	Selenium	<0.5	ug/g	LG HAMILTON	13-AUG-1986
1825		TP-1825	pH	5.1		SB WOODFIN	8-AUG-1986
1829		TP-1829	Weight Loss	19.9	%	W SANDERS	8-AUG-1986
1		TP-1831	Fluoride	0.10	MG/L	SB WOODFIN	8-AUG-1986
2051		TP-2051	Archive	R3S5		NW KEGLEY	23-SEP-1986
2402		EPA-625	aniline	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
		EPA-625	benzidine	<2600	ug/Kg	GJ PARDUE JR	11-AUG-1986
		EPA-625	n-nitrosodimethylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986

EPA-625	1,2-dichlorobenzene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,3-dichlorobenzene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,4-dichlorobenzene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,5-trichlorophenol	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,6-trichlorophenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dichlorophenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dimethylphenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrophenol	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrotoluene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,6-dinitrotoluene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chloronaphthalene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chlorophenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methyl-4,6-dinitrophenol	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylnaphthalene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylphenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitroaniline	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitrophenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3,3'-dichlorobenzidine	<660 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3-nitroaniline	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-bromophenyl phenyl ether	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloro-3-methylphenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloroaniline	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chlorophenyl phenyl ether	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-methylphenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitroaniline	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitrophenol	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthylene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	anthracene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)anthracene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)pyrene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(b)fluoranthene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(ghi)perylene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(k)fluoranthene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzoic acid	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl alcohol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl butyl phthalate	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroethoxy)methane	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroethyl)ether	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroisopropyl)ether	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-ethylhexyl)phthalate	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	chrysene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-butyl phthalate	1920 B ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-octyl phthalate	46 JB ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzo(a,h)anthracene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzofuran	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	diethylphthalate	294 JB ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dimethylphthalate	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluoranthene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluorene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobenzene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobutadiene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorocyclopentadiene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachloroethane	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	indeno(1,2,3-cd)pyrene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	isophorone	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodi-n-propylamine	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodiphenylamine	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	naphthalene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	nitrobenzene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	pentachlorophenol	<1600 ug/Kg	GJ PARDUE JR	11-AUG-1986

EPA-625	phenanthrene	<330	ug/kg	GJ PARDUE JR	11-AUG-1986
EPA-625	phenol	<330	ug/kg	GJ PARDUE JR	11-AUG-1986
EPA-625	pyrene	<330	ug/kg	GJ PARDUE JR	11-AUG-1986

Program Manager: DS Zingg
Date Approved: 16-OCT-1986

EPA-8080	PCB (Aroclor-1016)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1221)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1232)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1242)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1248)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1254)	<1	ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1260)	<1	ug/G	LC FELLERS	1-OCT-1986

ORGANIC ANALYSIS DATA REPORT

AnaLIS ID: 860711-065
Laboratory Name: Organic Mass Spectroscopy
File ID:
Instrument ID:
Data Release Authorized By: DC Canada

Customer Sample ID: K1064-1-C
Customer Name: MCCALL/ZINGG
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 11-JUL-1986

Tentatively Identified Compounds

Date Extracted/Prepared: 11-AUG-1986
Preparation Procedure Number:
Percent Mositure: 19.1
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 11-AUG-1986
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ PARDUE JR

CAS		ug/L	CAS		ug/L
----------	diacetone alcohol	227100 B J	----------	valeric acid	199 J
----------	3-methyl cyclohexanone	412 J	----------	octanoic acid	325 B J
----------	nonanoic acid	100 B J	----------	tributyl phosphate	1234 B J
----------	myristic acid	17200 B J	----------	palmitic acid	16500 B J
----------	stearic acid	839 J	----------	isopropyl acetate	6356 B J
----------	unknown hydrocarbons	13940 J			

Data Reporting Qualifiers:

U. - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

PCB Extraction Data

Dry Sample Weight = 8.13
Extracted Sample Weight = 10.047
Final Extracted Volume = 10
Percent Solids = 80.9
Extraction Method = Soxhlet
Extraction Solvent = Hexane/Acetone
Extraction Cleanup = Gel Permiation Chromatography
Associated Blank = 860804-122
Analyst = KO EVANS
Date Completed = 8-AUG-1986

Acid/Base/Neutral Organics Extraction Data

Dry Sample Weight = 8.13
Extracted Sample Weight = 10.047
Final Extracted Volume = 1
Percent Solids = 80.9
Extraction Method = Soxhlet
Extraction Solvent = Methlylene Chloride/Acetone
Associated Blank = 860804-121
[illegible]t = KO EVANS
Date Completed = 8-AUG-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analysess

Customer Name: MCCALL/ZINGG
Customer Sample Number: K1064-2-C
Lab Sample Number: 860711-066
Date Sample Received: 11-JUL-1986
Date Sample Completed: 1-OCT-1986
Date Sampled:
Sampled By: MCH
Material Description: K1064 DRUM DEHEADING
Req. Number:

Activity Number	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0804	EPA-3050	TP-0804	Sample Preparation (ICP)	c		13794	7-AUG-1986
0904	EPA-3050(7.6)	EPA-6010	Aluminum	15000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Barium	110	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	0.71	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Boron	11	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.8	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Calcium	55000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Chromium	59	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	26	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Copper	130	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Iron	34000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Lead	52	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Lithium	19	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	11000	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1700	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	10	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Nickel	290	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	840	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Potassium	3200	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Silicon	460	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Silver	0.64	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Sodium	190	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Strontium	39	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Titanium	170	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Uranium	<3.0	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	26	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Zinc	230	ug/g	EA HESTER	7-AUG-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	9.4	ug/g	EA HESTER	7-AUG-1986
1006	EPA-3050	EPA-7060	Arsenic	23.0	ug/g	LG HAMILTON	13-AUG-1986
	EPA-3050	EPA-245.5	Mercury	<1.0	ug/g	LG HAMILTON	13-AUG-1986
	EPA-3050	EPA-7740	Selenium	<0.5	ug/g	LG HAMILTON	13-AUG-1986
1825		TP-1825	pH	5.1		SB WOODFIN	8-AUG-1986
1829		TP-1829	Weight Loss	21.0	%	W SANDERS	8-AUG-1986
		TP-1831	Fluoride	0.06	MG/L	SB WOODFIN	8-AUG-1986
2051		TP-2051	Archive	R395		N& KEELER	23-SEP-1986
2402		EPA-625	aniline	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
		EPA-625	benzidine	<2600	ug/Kg	GJ PARDUE JR	11-AUG-1986
		EPA-625	n-nitrosodimethylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
				<330	ug/Kg	GJ PARDUE JR	11-AUG-1986

EPA-625	1,2-dichlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,3-dichlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,4-dichlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,5-trichlorophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,6-trichlorophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dichlorophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dimethylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrotoluene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,6-dinitrotoluene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chloronaphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chlorophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methyl-4,6-dinitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylnaphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitrophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3,3'-dichlorobenzidine	<660	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-bromophenyl phenyl ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloro-3-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloroaniline	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chlorophenyl phenyl ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthylene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)pyrene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(b)fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(ghi)perylene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(k)fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzoic acid	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl alcohol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl butyl phthalate	100 JB	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroethoxy)methane	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroethyl)ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroisopropyl)ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-ethylhexyl)phthalate	345	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	chrysene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-butyl phthalate	3276 B	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-octyl phthalate	96 JB	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzo(a,h)anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzofuran	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	diethylphthalate	296 JB	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dimethylphthalate	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluorene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobutadiene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorocyclopentadiene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachloroethane	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	indeno(1,2,3-cd)pyrene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	isophorone	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodi-n-propylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodiphenylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	naphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	nitrobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	pentachlorophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986

EPA-625	phenanthrene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	phenol	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	pyrene	<330 ug/Kg	GJ PARDUE JR	11-AUG-1986

Program Manager: DS Zingg
Date Approved: 16-OCT-1986

EPA-8080	PCB (Aroclor-1016)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1221)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1232)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1242)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1248)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1254)	<1 ug/G	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1260)	<1 ug/G	LC FELLERS	1-OCT-1986

[illegible]

Lab ID: [illegible]
Laboratory Name: Organic Mass Spectrosco
File ID:
Instrument ID:
Date Release Authorized By: DC Canada

Customer Sample ID: [illegible]
Customer Name: MCCALL/ZINN
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 11-JUL-1986

Tentatively Identified Compounds

Date Extracted/Prepared: 11-AUG-1986
Preparation Procedure Number:
Percent Moisture: 19.6
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 11-AUG-1986
Analysis Procedure Number: EPA-625
Conc Dilution Factor: 1.0
Analyst: GJ PARQUE JR

CAS		ug/L	CAS		ug/L
----------	diacetone alcohol	462875 B J	----------	valeric acid	271 J
----------	octanoic acid	354 B J	----------	decanoic acid	299 B J
----------	dodecanoic acid	59 B J	----------	tributyl phosphate	2549 B J
----------	myristic acid	15491 B J	----------	palmitic acid	2115 B J
----------	unknown hydrocarbons	7640 J			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

PCB Extraction Data

Dry Sample Weight = 8.20
Extracted Sample Weight = 10.194
Final Extracted Volume = 10
Percent Solids = 80.4
Extraction Method = Soxhlet
Extraction Solvent = Hexane/Acetone
Extraction Cleanup = Gel Permiation Chromatography
Associated Blank = 860804-122
Analyst = KO EVANS
Date Completed = 6-AUG-1986

Acid/Base/Neutral Organics Extraction Data

Dry Sample Weight = 8.20
Extracted Sample Weight = 10.194
Final Extracted Volume = 1
Percent Solids = 80.4
Extraction Method = Soxhlet
Extraction Solvent = Methylene Chloride-Acetone
Associated Blank = 860804-121
Analyst = KO EVANS
Date Completed = 6-AUG-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: MCCALL/ZINGG
Customer Sample Number: K1064-3-C
Date Sample Received: 11-JUL-1996
Date Sampled:
Material Description: K1064 DRUM DEHEADING
Lab Sample Number: [illegible]
Date Sample Completed: [illegible]
Sampled By: [illegible]
Req. Number:

Activity Number	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0804	EPA-3050	TP-0804	Sample Preparation (ICP)	C		13794	7-AUG-1996
0804	EPA-3050(7.6)	EPA-6010	Aluminum	28000	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Barium	54	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Beryllium	0.36	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Cadmium	2.2	ug/g	EA HESTER	[illegible]
	EPA-3050(7.6)	EPA-6010	Calcium	440	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Chromium	35	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Cobalt	4.3	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Copper	19	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Iron	34000	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Lead	28	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Lithium	24	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Magnesium	1400	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Manganese	110	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Molybdenum	1.0	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Nickel	16	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Niobium	<0.79	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Phosphorus	160	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Potassium	2100	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Silicon	400	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Silver	<0.20	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Sodium	110	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Strontium	11	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Titanium	81	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Uranium	<3.0	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Vanadium	39	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Zinc	53	ug/g	EA HESTER	8-AUG-1996
	EPA-3050(7.6)	EPA-6010	Zirconium	11	ug/g	EA HESTER	8-AUG-1996
[illegible]	EPA-3050	EPA-7060	Arsenic	8.0	ug/g	JB HAMILTON	13-AUG-1996
	EPA-3050	EPA-245.5	Mercury	<1.0	ug/g	JB HAMILTON	13-AUG-1996
	EPA-3050	EPA-7740	Selenium	[illegible]	ug/g	JB HAMILTON	13-AUG-1996
1325		TP-1325	pH	[illegible]		[illegible]	[illegible]
[illegible]		TP-[illegible]	Weight Loss	[illegible]		[illegible]	[illegible]
[illegible]		TP-[illegible]	Fluoride	[illegible]	[illegible]	[illegible]	[illegible]
2051		TP-2051	Archive	[illegible]		[illegible]	[illegible]-SEP-1996
2402		EPA-625	aniline	[illegible]	[illegible]	[illegible]	[illegible]
		EPA-625	benzidine	[illegible]	[illegible]	[illegible]	[illegible]
		EPA-625	n-nitrosodimethylamine	[illegible]	[illegible]	[illegible]	[illegible]

EPA-625	1,2-dichlorobenzene	[illegible]	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,3-dichlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	1,4-dichlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,5-trichlorophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4,6-trichlorophenol	330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dichlorophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dimethylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,4-dinitrotoluene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2,6-dinitrotoluene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chloronaphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-chlorophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methyl-4,6-dinitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylnaphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	2-nitrophenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3,3'-dichlorobenzidine	<660	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	3-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-bromophenyl phenyl ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloro-3-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chloroaniline	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-chlorophenyl phenyl ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-methylphenol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitroaniline	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	4-nitrophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	acenaphthylene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(a)pyrene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(b)fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(ghi)perylene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzo(k)fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzoic acid	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl alcohol	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	benzyl butyl phthalate	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroetnoxy)methane	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroethyl)ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-chloroisopropyl)ether	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	bis(2-ethylhexyl)phthalate	419	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	chrysene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-butyl phthalate	1924 B	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	di-n-octyl phthalate	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzo(a,h)anthracene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dibenzofuran	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	diethylphthalate	276 JB	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	dimethylphthalate	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluoranthene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	fluorene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorobutadiene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachlorocyclopentadiene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	hexachloroethane	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	indeno(1,2,3-cd)pyrene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	isophorone	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodi-n-propylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	n-nitrosodiphenylamine	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	naphthalene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	nitrobenzene	<330	ug/Kg	GJ PARDUE JR	11-AUG-1986
EPA-625	pentachlorophenol	<1600	ug/Kg	GJ PARDUE JR	11-AUG-1986

Sample ID: 960711-987
Laboratory Name: Organic Mass Spectroscop
File ID:
Instrument ID:
Data Release Authorized By: DC Canada

Customer Sample ID: [illegible]
Customer Name: MCCALL ENGI
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 11-JUL-1996

Tentatively Identified Compounds

Date Extracted/Prepared: 11-AUG-1996
Preparation Procedure Number:
Percent Moisture: 18.5
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 11-AUG-1996
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ FARQUE JR

CAS		ug/L	CAS		ug/L
----------	diacetone alcohol	135700 B J	----------	cyclohexanone	804 J
----------	valeric acid	218 J	----------	butyl cellosolve	234 B J
----------	hexanoic acid	826 J	----------	octanoic acid	534 B J
----------	octanoic acid	172 B J	----------	tributyl phosphate	1321 B J
----------	myristic acid	246300 B J	----------	palmitic acid	107200 B J
----------	stearic acid	820 J	----------	isopropyl acetate	4943 B J
----------	unknown hydrocarbons	15540 J			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

PCB Extraction Data

Dry Sample Weight	=	8.53
Extracted Sample Weight	=	10.467
Final Extracted Volume	=	10
Percent Solids	=	81.5
Extraction Method	=	Soxhlet
Extraction Solvent	=	Hexane/Acetone
Extraction Cleanup	=	Gel Permiation Chromatography
Associated Blank	=	960804-122
Analyst	=	KD EVANS
Date Completed	=	5-AUG-1996

Acid/Base/Neutral Organics Extraction Data

Dry Sample Weight	=	8.53
Extracted Sample Weight	=	10.467
Final Extracted Volume	=	1
Percent Solids	=	81.5
Extraction Method	=	Soxhlet
Extraction Solvent	=	Methylene Chloride/Acetone
Associated Blank	=	960804-121
Analyst	=	KD EVANS
Date Completed	=	5-AUG-1996

This sample is a duplicate of sample 960711-975

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Program Manager: BS Zinge
Date Approved: 16-OCT-1986

EPA-8080	PCB (Aroclor-1016)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1221)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1232)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1242)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1248)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1254)	<1 ug/g	LC FELLERS	1-OCT-1986
EPA-8080	PCB (Aroclor-1260)	<1 ug/g	LC FELLERS	1-OCT-1986

AnaLIS ID: 860416-048
Laboratory Name: Organic Mass Spectroscopy
File ID:
Instrument ID:
Data Release Authorized By: DC Canada

Customer Sample ID: 1064C
Customer Name: ZINGG
Sample Matrix: WATER
Requisition Number:
Date Sample Received: 16-APR-1986

B/N/A Fraction Organic Compounds - CLP

Date Extracted/Prepared: 24-APR-1986
Preparation Procedure Number: EPA-625
Percent Mositure:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 24-APR-1986
Analysis Procedure Number: EPA-625
Conc/Dilution Factor: 1.0
Analyst: GJ PARDUE JR

CAS		ug/L	CAS		ug/L
108-95-2	phenol	---	100-01-6	4-nitroaniline	50U
111-44-4	bis(2-chloroethyl)ether	10U	87-68-3	hexachlorobutadiene	10U
95-57-8	2-chlorophenol	10U	59-50-7	4-chloro-3-methylphenol	10U
541-73-1	1,3-dichlorobenzene	10U	91-57-6	2-methylnaphthalene	10U
106-46-7	1,4-dichlorobenzene	10U	77-47-4	hexachlorocyclopentadiene	10U
100-51-6	benzyl alcohol	10U	88-06-2	2,4,6-trichlorophenol	10U
95-50-1	1,2-dichlorobenzene	10U	95-95-4	2,4,5-trichlorophenol	50U
95-48-7	2-methylphenol	10U	91-58-7	2-chloronaphthalene	10U
39638-32-9	bis(2-chloroisopropyl)ether	10U	88-74-4	2-nitroaniline	50U
106-44-5	4-methylphenol	10	131-11-3	dimethylphthalate	10U
621-64-7	n-nitrosodi-n-propylamine	10U	208-96-8	acenaphthylene	10U
67-72-1	hexachloroethane	10U	99-09-2	3-nitroaniline	50U
98-95-3	nitrobenzene	10U	83-32-9	acenaphthene	10U
78-59-1	isophorone	10U	51-28-5	2,4-dinitrophenol	50U
88-75-5	2-nitrophenol	10U	100-02-7	4-nitrophenol	50U
105-67-9	2,4-dimethylphenol	10U	132-64-9	dibenzofuran	10U
65-85-0	benzoic acid	50U	121-14-2	2,4-dinitrotoluene	10U
111-91-1	bis(2-chloroethoxy)methane	10U	606-20-2	2,6-dinitrotoluene	10U
120-83-2	2,4-dichlorophenol	10U	84-66-2	diethylphthalate	10U
120-82-1	1,2,4-trichlorobenzene	10U	7005-72-3	4-chlorophenyl phenyl ether	10U
91-20-3	naphthalene	10U	86-73-7	fluorene	10U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not Detected.

EPA-625	EPA-625	phenol	<10	ug/L	GJ PARDUE JR	24-APR-1986
EPA-625	EPA-625	pyrene	<10	ug/L	GJ PARDUE JR	24-APR-1986
	TP-1530	1,1,1-trichloroethane	<1	Percent	RE HOWARD	18-APR-1986
	TP-1530	1,1,2-trichloroethylene	<1	Percent	RE HOWARD	18-APR-1986
	TP-1530	freon-113	<1	Percent	RE HOWARD	18-APR-1986
	TP-1530	methylene chloride	<1	Percent	RE HOWARD	18-APR-1986
	TP-1530	tetrachloroethylene	<1	Percent	RE HOWARD	18-APR-1986

ATTACHMENT #3
K-1064-G Drum Deheading Facility

The waste characteristic most applicable to the samples being taken around the ORGDP site is EP toxicity. A waste sample is considered to have the characteristic of EP toxicity if analysis of the leachate resulting from Extraction Procedure (EPA Method 1310) reveals that the concentration of any of the fourteen regulated contaminants (As, Ba, Cd, Cr, Pb, Hg, Se, Ag, Endrin, Lindane, Methoxychlor, Toxaphene, 2,4-D, 2,4,5-TP) exceed the maximum concentration as specified in the method. The concentration of contaminants in the final leachate are dependent on two factors:

1) The absolute concentration of the analyte in the waste;

2) The extractability of the analyte from the waste.

In order to maximize the information while keeping analytical costs to a minimum, soil samples were analyzed for the inorganic EP Toxicity contaminants after a quantitative dissolution of the soil sample (equivalent to the analyte being 100% extractable). This analysis protocol eliminates the time consuming Extraction Procedure and evaluates factor 1 above. If on the basis of this analysis the individual contaminant are found to be absent or at such low concentrations that the appropriate regulatory thresholds could not possibly be exceeded then the Extraction Procedure need not and will not be performed (40 CFR 261 Appendix II 1.2). If on the other hand, some or all of the inorganic contaminants are present at or above a concentration which could possibly exceed appropriate regulatory thresholds then the Extraction Procedure will be carried out.

Note: This analytical rational was used in the analysis of the soil samples collected that are presented in this report.

UNIT NUMBER 021

UNIT NAME K-1515-F Land Treatment

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #21 and photograph #21

APPROXIMATE DIMENSIONS NA

CAPACITY NA

FUNCTION NA

DATES OPERATED NA

DESCRIPTION OF WASTE (or list attached references):

NA

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

See comments

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

See Attachment 1 and suspected area in Photograph 21.

21. K-1515-F Sludge Disposal

ATTACHMENT #1

K-1515-F Land Treatment

The K-1515 Land Treatment unit has been listed as a solid waste management unit based upon statements of retired employees who thought the area may have been used to dispose of sludge from the K-1515 Lagoon. Further investigation revealed that this activity was never implemented. Samples were collected from the suspected area and analyzed for total aluminum. The total aluminum concentrations in the K-1515 Lagoon ranged from 5 to 9 percent while the aluminum concentration in the soil around ORGDP ranged from 2 to 3 percent. The samples collected from the suspected area had aluminum concentrations typical of the surrounding soil, which confirms that the K-1515 Lagoon sludge was not placed at this unit. It was also discovered from current employees of ORGDP that the sludge disposal program was considered only for implementation and was never actually used. Therefore, it is recommended that the unit be removed from the SWMU list in the ORNL Part B Permit.

UNIT NUMBER 022

UNIT NAME K-1515 Lagoon

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #22 and photograph #22

APPROXIMATE DIMENSIONS Approximately 2 acres

CAPACITY Approximately 2.6×10^6 gallons (2 acres by 3 feet deep)

FUNCTION Settling pond for particulate removal

DATES OPERATED 1960s to the present

DESCRIPTION OF WASTE (or list attached references):

The sludge in the pond consists of aluminum sulfate, which is used in the treatment of sanitary water for the ORGDP. The aluminum sulfate is used as a coagulant for particulate removal.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

A sampling plan was prepared and implemented for this unit during 1986. The results of the sampling program indicate that the sludge in the pond is not a regulated site and further actions are not proposed for this unit.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

See data in Attachment 1 for four random samples that show the EP toxic extraction results for sludge samples collected from the pond. Based upon this data, it is recommended that the unit be removed from the SWMU list in the ORNL Part B Permit. The effluent from this unit is permitted under the NPDES regulations with the TDHE.

22. K-1515 Lagoon

ATTACHMENT #1
K-1515 Lagoon
Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-10B
Lab Sample Number: 860605-112
Date Sample Received: 05-JUN-1986
Date Sample Completed: 18-JUL-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-200.7	EPA-200.7	Aluminum	0.32	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Barium	0.28	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Beryllium	<0.0003	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Boron	0.012	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Cadmium	<0.0030	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Calcium	30	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Chromium	<0.010	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Cobalt	<0.0050	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Copper	<0.0040	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Iron	0.033	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Lead	<0.050	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Lithium	<0.0040	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Magnesium	3.3	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Manganese	0.10	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Molybdenum	<0.010	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Nickel	<0.010	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Niobium	<0.0070	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Phosphorus	<0.20	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Potassium	1.3	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Silicon	0.23	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Silver	<0.0060	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Sodium	1.1	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Strontium	0.088	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Thorium	<0.20	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Titanium	<0.0030	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Vanadium	<0.0050	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Zinc	0.0094	mg/L	EA HESTER	20-JUN-1986
	EPA-200.7	EPA-200.7	Zirconium	<0.0050	mg/L	EA HESTER	20-JUN-1986
1004		EPA-206.2	Arsenic	<0.005	ug/L	LG HAMILTON	16-JUL-1986
		EPA-270.2	Selenium	<0.005	mg/L	LG HAMILTON	16-JUL-1986
1008		EPA-245.1	Mercury	<0.0002	mg/L	CD SCHAEFER	19-JUN-1986
1506		EPA-8150	2,4-D	<2.0	ug/L	RE HOWARD	18-JUL-1986
		EPA-8080	endrin	<0.10	ug/L	RE HOWARD	8-JUL-1986
		EPA-8080	lindane	<0.02	ug/L	RE HOWARD	8-JUL-1986
		EPA-8080	methoxychlor	<0.08	ug/L	RE HOWARD	8-JUL-1986
		EPA-8150	silvex	<0.2	ug/L	RE HOWARD	18-JUL-1986
		EPA-8080	toxaphene	<2.0	ug/L	RE HOWARD	8-JUL-1986
1703		EPA-1310	EP-TOX Extraction	1	-	GL ROBERTS	19-JUN-1986
1831		EPA-340.2	Fluoride	0.1	MG/L	BH PHILLIPS	20-JUN-1986

EP-toxic sample results of four random samples

Project Manager: DS Zingg

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-10 Lab Sample Number: 860605-129
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	86000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	150	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.1	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	2.5	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.2	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	3600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	59	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	13	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	35	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	23000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	63	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	32	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2500	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1100	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.8	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	29	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	2700	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	2900	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	490	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	140	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	45	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	87	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	43	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	110	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	14	ug/g	EA HESTER	10-JUL-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1603	Alpha Activity	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1603	Beta Activity	4.01	pCi/g	SR SMITH	17-SEP-1986
		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	<10	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.6	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.3	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	77.8	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	1	ug/g	VL FOUST	27-JUN-1986
2051		TP-2051	Archive	R5S5		WD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-30 Lab Sample Number: 860605-120
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	32000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	130	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	0.78	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	1.2	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	1.8	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	1300	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	33	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	23	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	18	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	26000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	32	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	21	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2100	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1500	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.3	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	21	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	1000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	2500	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	1500	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	100	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	11	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	150	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	32	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	67	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	8.0	ug/g	EA HESTER	17-JUL-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	1.5	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1603	Alpha Activity	1	pCi/g	EE CLARK	30-SEP-1986
		TP-1603	Beta Activity	1.4	pCi/g	EE CLARK	30-SEP-1986
		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	<10	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.4	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.1	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	43.8	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	2	ug/g	VL FOUST	27-JUN-1986
2051		TP-2051	Archive	R5S5		WD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-308 Lab Sample Number: 860605-113
Date Sample Received: 05-JUN-1986 Date Sample Completed: 16-JUL-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-200.7	EPA-200.7	Aluminum	<0.020	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Barium	0.23	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Beryllium	<0.0003	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Boron	0.0081	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Cadmium	<0.0030	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Calcium	14	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Chromium	<0.010	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Cobalt	<0.0050	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Copper	<0.0040	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Iron	0.0048	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Lead	<0.050	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Lithium	<0.0040	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Magnesium	1.6	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Manganese	5.5	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Molybdenum	<0.010	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Nickel	<0.010	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Niobium	<0.0070	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Phosphorus	<0.20	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Potassium	1.0	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Silicon	0.55	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Silver	<0.0060	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Sodium	1.2	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Strontium	0.064	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Thorium	<0.20	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Titanium	<0.0030	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Vanadium	<0.0050	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Zinc	0.0043	mg/L	EA HESTER	20-JUN-19
	EPA-200.7	EPA-200.7	Zirconium	<0.0050	mg/L	EA HESTER	20-JUN-19
1004		EPA-206.2	Arsenic	<0.005	mg/L	LG HAMILTON	16-JUL-19
		EPA-245.1	Mercury	<0.0002	mg/L	LG HAMILTON	16-JUL-19
		EPA-270.2	Selenium	<0.005	mg/L	LG HAMILTON	16-JUL-19
1506		EPA-8150	2,4-D	<2.0	ug/L	RE HOWARD	18-JUL-19
		EPA-8080	endrin	<0.10	ug/L	RE HOWARD	8-JUL-19
		EPA-8080	lindane	<0.02	ug/L	RE HOWARD	8-JUL-19
		EPA-8080	methoxychlor	<0.08	ug/L	RE HOWARD	8-JUL-19
		EPA-8150	silvex	<0.2	ug/L	RE HOWARD	18-JUL-19
		EPA-8080	toxaphene	<2.0	ug/L	RE HOWARD	8-JUL-19
1703		EPA-1310	EP-TOX Extraction	1	-	GL ROBERTS	19-JUN-19
1831		EPA-340.2	Fluoride	0.1	MG/L	BH PHILLIPS	20-JUN-19

Program Manager: DS Zingg

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49 Lab Sample Number: 860605-119
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	97000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	190	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.3	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	4.5	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	3.0	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	5300	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	63	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	14	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	53	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	26000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	66	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	43	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	3000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	2400	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	3.5	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	29	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	5800	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	3000	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	1500	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	0.72	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	130	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	40	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	150	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	48	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	140	ug/g	EA HESTER	17-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	18	ug/g	EA HESTER	17-JUL-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1603	Alpha Activity	1.52	pCi/g	SR SMITH	17-SEP-1986
		TP-1603	Beta Activity	13.77	pCi/g	SR SMITH	17-SEP-1986
		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	<10	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.4	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.8	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	86.7	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	1	ug/g	VL FOUST	27-JUN-1986
2051		TP-2051	Archive	R5S5		WD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-2 Lab Sample Number: 860605-130
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	78000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	150	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.2	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.0	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	3100	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	62	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	13	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	30	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	24000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	29	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2400	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1100	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.0	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	32	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	1600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	2300	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	360	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	120	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	39	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	91	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	41	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	100	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	15	ug/g	EA HESTER	10-JUL-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1603	Alpha Activity	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1603	Beta Activity	8.07	pCi/g	SR SMITH	17-SEP-1986
		TP-1612	Cesium	6.76	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	16.30	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.6	pCi/g	GD PITT	15-SEP-1986
1826		ASTM-2976	pH	6.7	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	72.3	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	3	ug/g	VL FOUST	27-JUN-1986
2051		TP-2051	Archive	R5S5		WD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-2-AD
Lab Sample Number: 860605-148
Date Sample Received: 05-JUN-1986
Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	83000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	150	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.2	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	2800	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	54	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	14	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	27	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	27000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	65	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	36	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2900	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1300	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	1.7	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	30	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	1500	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	3700	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	120	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	130	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	37	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	57	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	46	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	110	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	17	ug/g	EA HESTER	10-JUL-1986
1603		TP-1603	Alpha Activity	6.10	pCi/g	SR SMITH	22-SEP-1986
		TP-1603	Beta Activity	24.65	pCi/g	SR SMITH	22-SEP-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	23	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	0.6	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.7	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	74.7	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	3	ug/g	VL FOUST	30-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-2-AD
Lab Sample Number: 860605-138
Date Sample Received: 05-JUN-1986
Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Program Manager: DS Zinsg
Date Approved: 30-SEP-1986

This sample is a duplicate of sample 860605-137

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-25 Lab Sample Number: 860605-114
Date Sample Received: 05-JUN-1986 Date Sample Completed: 18-JUL-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-200.7	EPA-200.7	Aluminum	0.63	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Barium	0.45	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Beryllium	<0.0003	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Boron	0.022	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Cadmium	<0.0030	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Calcium	33	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Chromium	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Cobalt	<0.0050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Copper	<0.0040	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Iron	0.034	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Lead	<0.050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Lithium	<0.0040	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Magnesium	3.8	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Manganese	3.2	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Molybdenum	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Nickel	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Niobium	<0.0070	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Phosphorus	<0.20	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Potassium	3.5	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Silicon	0.19	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Silver	<0.0060	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Sodium	1.7	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Strontium	0.083	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Thorium	<0.20	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Titanium	<0.0030	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Vanadium	<0.0050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Zinc	0.013	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Zirconium	<0.0050	mg/L	EA HESTER	20-JUN-198
1004		EPA-206.2	Arsenic	<0.005	mg/L	LG HAMILTON	16-JUL-198
		EPA-245.1	Selenium	0.006	mg/L	LG HAMILTON	16-JUL-198
1008		EPA-245.1	Mercury	<0.0002	mg/L	CD SCHAEFER	17-JUN-198
1506		EPA-8150	2,4-D	<2.0	ug/L	RE HOWARD	18-JUL-198
		EPA-8080	endrin	<0.10	ug/L	RE HOWARD	8-JUL-198
		EPA-8080	lindane	<0.02	ug/L	RE HOWARD	8-JUL-198
		EPA-8080	methoxychlor	<0.08	ug/L	RE HOWARD	8-JUL-198
		EPA-8150	silvex	<0.2	ug/L	RE HOWARD	18-JUL-198
		EPA-8080	toxaphene	<2.0	ug/L	RE HOWARD	8-JUL-198
1703		EPA-1310	EP-TOX Extraction	1	-	GL ROBERTS	18-JUN-198
1831		EPA-340.2	Fluoride	0.1	MG/L	BH PHILLIPS	20-JUN-198

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-20
Lab Sample Number: 860605-137
Date Sample Received: 05-JUN-1986
Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	79000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	150	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	0.50	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.2	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	3000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	54	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	14	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	27	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	25000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	64	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	34	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2800	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1200	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.8	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	30	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	1600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	3400	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	130	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	140	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	36	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	51	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	45	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	110	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	17	ug/g	EA HESTER	10-JUL-1986
1603		TP-1603	Alpha Activity	7.05	pCi/g	SR SMITH	22-SEP-1986
		TP-1603	Beta Activity	38.38	pCi/g	SR SMITH	22-SEP-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	<10	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	1.4	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.6	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	73.9	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	3	ug/g	VL FOUST	30-JUN-1986
				pass		MR HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-49-2D
Lab Sample Number: 860605-137
Date Sample Received: 05-JUN-1986
Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Program Manager: DS Zingg
Date Approved: 30-SEP-1986

This sample is a duplicate of sample 860605-138

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYHORE
Customer Sample Number: L-72 Lab Sample Number: 860605-131
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	77000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	160	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.4	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	3000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	110	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	15	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	29000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	61	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	41	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	3100	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	1600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.9	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	53	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	2600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	3300	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	350	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	<0.60	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	150	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	23	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	76	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	48	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	120	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	18	ug/g	EA HESTER	10-JUL-1986
1603		TP-1603	Alpha Activity	6.52	pCi/g	SR SMITH	22-SEP-1986
		TP-1603	Beta Activity	29.19	pCi/g	SR SMITH	22-SEP-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1612	Cesium	9.56	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	21	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.6	pCi/g	GO PITT	15-SEP-1986
1826		ASTM-2976	pH	6.4	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	78.0	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	3	ug/g	VL FOUST	30-JUN-1986
2051		TP-2051	Archive	R5S5		WD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-72 Lab Sample Number: 860605-131
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Program Manager: DS Zinsg
Date Approved: 30-SEP-1986

This sample is a duplicate of sample 860605-132

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYMORE
Customer Sample Number: L-72-2 Lab Sample Number: 860605-132
Date Sample Received: 05-JUN-1986 Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-3050(7.6)	EPA-6010	Aluminum	99000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Barium	190	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Beryllium	1.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Boron	<0.40	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cadmium	2.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Calcium	8200	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Chromium	56	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Cobalt	14	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Copper	55	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Iron	23000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lead	81	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Lithium	35	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Magnesium	2600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Manganese	2500	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Molybdenum	2.3	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Nickel	34	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Niobium	<0.70	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Phosphorus	12000	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Potassium	2600	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silicon	360	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Silver	0.90	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Sodium	160	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Strontium	56	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Thorium	<20	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Titanium	93	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Vanadium	44	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zinc	160	ug/g	EA HESTER	10-JUL-1986
	EPA-3050(7.6)	EPA-6010	Zirconium	20	ug/g	EA HESTER	10-JUL-1986
1603		TP-1603	Alpha Activity	3.50	pCi/g	SR SMITH	22-SEP-1986
		TP-1603	Beta Activity	15.76	pCi/g	SR SMITH	22-SEP-1986
1615		TP-1615	Neptunium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1616		TP-1616	Plutonium	<1.0	pCi/G	DS VAUGHN	8-SEP-1986
1625		TP-1612	Cesium	<1	pCi/g	EE CLARK	30-SEP-1986
		TP-1625	Gamma Activity	<10	pCi/g	EE CLARK	30-SEP-1986
		TP-1608	Technetium	<28	pCi/g	SR SMITH	17-SEP-1986
1627		TP-1627	Strontium	<0.4	pCi/g	GD PITT	15-SEP-1986
1826		ASTM-2976	pH	6.9	-	GL ROBERTS	19-JUN-1986
1829		TP-1829	Weight Loss	92.2	%	VL FOUST	16-JUN-1986
1839		TP-1839	Uranium	1	ug/g	VL FOUST	30-JUN-1986
				2555		VD HEDGE	26-JUN-1986

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: HAYHORE
Customer Sample Number: L-72-2
Lab Sample Number: 860605-132
Date Sample Received: 05-JUN-1986
Date Sample Completed: 30-SEP-1986
Material Description: K1515 LAGOON
Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed

Program Manager: DS Zinns
Date Approved: 30-SEP-1986

This sample is a duplicate of sample 860605-131

Oak Ridge Gaseous Diffusion Plant
Analytical Chemistry Department
Results of Analyses

Customer Name: MAYHORE
Customer Sample Number: L-728 Lab Sample Number: 860605-115
Date Sample Received: 05-JUN-1986 Date Sample Completed: 18-JUL-1986
Material Description: K1515 LAGOON Req. Number:

Act. No.	Preparation Procedure No.	Analysis Procedure No.	Analysis	Result	Units	Analyst	Date Completed
0904	EPA-200.7	EPA-200.7	Aluminum	0.51	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Barium	0.39	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Beryllium	<0.0003	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Boron	0.014	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Cadmium	<0.0030	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Calcium	28	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Chromium	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Cobalt	<0.0050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Copper	<0.0040	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Iron	0.079	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Lead	<0.050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Lithium	<0.0040	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Magnesium	4.2	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Manganese	9.1	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Molybdenum	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Nickel	<0.010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Niobium	<0.0070	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Phosphorus	<0.20	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Potassium	1.8	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Silicon	0.73	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Silver	<0.0060	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Sodium	1.2	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Strontium	0.076	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Thorium	<0.20	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Titanium	<0.0030	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Vanadium	<0.0050	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Zinc	<0.0010	mg/L	EA HESTER	20-JUN-198
	EPA-200.7	EPA-200.7	Zirconium	<0.0050	mg/L	EA HESTER	20-JUN-198
1004		EPA-206.2	Arsenic	<0.005	mg/L	LG HAMILTON	16-JUL-198
		EPA-270.2	Selenium	<0.005	mg/L	LG HAMILTON	16-JUL-198
1008		EPA-245.1	Mercury	<0.0002	mg/L	CD SCHAEFER	19-JUN-198
1506		EPA-8150	2,4-D	<2.0	ug/L	RE HOWARD	18-JUL-198
		EPA-8080	endrin	<0.10	ug/L	RE HOWARD	3-JUL-198
		EPA-8080	lindane	<0.02	ug/L	RE HOWARD	3-JUL-198
		EPA-8080	methoxychlor	<0.08	ug/L	RE HOWARD	3-JUL-198
		EPA-8150	silvex	<0.2	ug/L	RE HOWARD	18-JUL-198
		EPA-8080	toxaphene	<2.0	ug/L	RE HOWARD	3-JUL-198
1703		EPA-1310	EP-TOX Extraction	1	-	GL ROBERTS	18-JUN-198
1831		EPA-340.2	Fluoride	<0.1	MG/L	BH PHILLIPS	20-JUN-198

UNIT NUMBER 023 & 024

UNIT NAME K-1407-C Soil and K-1417 Soil

REGULATORY STATUS 3004.u (Low-Level Radioactive Waste Only)

LOCATION - shown on map See ORGDP topographic map #23 and 24 and photograph #23 and 24.

APPROXIMATE DIMENSIONS 150 feet long, 50 feet wide, and 10 feet high

CAPACITY Total volume of soil is estimated at 1,535 cubic meters

FUNCTION Waste pile of soil contaminated with uranium

DATES OPERATED 1983 to the present

DESCRIPTION OF WASTE (or list attached references):

The contaminated soil was discovered during the construction of new facilities at ORGDP. Samples collected from the soil indicated very low concentrations of uranium. It is estimated that the total uranium content is 4.2×10^{-2} curies of total uranium.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Due to the low concentrations of uranium in the soil, any releases from the area would not have an affect on the surrounding environment.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

COMMENTS:

The K-1417 soil has been combined with the K-1407-C soil pile. The soil will be used to fill a surface impoundment being closed.

23. K-1407-C Soil/K-1417 Soil

UNIT NUMBER 025

UNIT NAME K-900 Bottle Smasher

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #25 and photograph #25

APPROXIMATE DIMENSIONS 3 feet by 5 feet by 2 feet box

CAPACITY NA

FUNCTION Disposal of sensitive discarded chemicals

DATES OPERATED 1980 to the present

DESCRIPTION OF WASTE (or list attached references):

Waste chemicals which have been disposed of at this unit include methyl ethyl ketone peroxide, anhydrous ether, isopropyl ether, 1,4 Dioxane, and 2,4 Dinitrophenyldydrazine. These materials and other sensitive materials are generated in small quantities on a very infrequent basis.

DESCRIPTION OF RELEASES (or list attached references):

The only release of material from this unit would be during the ignition of the waste materials.

DOCUMENTATION OF NO RELEASE (or list attached references):

A sampling plan was written and implemented to verify that organic constituents had not been released from the container. An organic analysis was performed since the wastes disposed at the unit were primarily organic compounds. The results of the analysis are shown in Attachment 1.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

Based upon the information collected from the sampling program, it is recommended that this unit be removed from the list of SWMU in the ORNL Part B Permit. No additional investigations or corrective measures will be performed at this unit.

25. K-900 Bottle Smasher

ATTACHMENT #1
K-900 Bottle Smasher
ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-143	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	K900-NORTHEAST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	95J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	40J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	330U
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	81J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	160J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	290J
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	930J
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	260J
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	260J
91-20-3	Naphthalene	25J	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	330U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	330U
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	11J	218-01-9	Chrysene	140J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	130J
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	330U

Analytical results of soil samples collected around the unit.

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-143	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	K900-NORTHEAST
Requisition Number:			

TENTATIVELY IDENTIFIED COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
-	DIACETONE ALCOHOL	160000 J	-	PALMITIC ACID	300 J
-	BENZOANTHRACENE	1300 J	-	ALKYL HYDROCARBONS	550 J
-	UNKNOWN	210 J	-	UNKNOWN	210 J
-	UNKNOWN	210 J			

Data Reporting Qualifiers:

B - Analyte was found in the blank as well as the sample

J - Indicates an estimated value

Program Manager: DS Zingg
Date Approved:

Acid/Base/Neutral Organics Extraction Data

Dry Sample Weight	= 27.30
Extracted Sample Weight	= 30.5377
Final Extracted Volume	= 1
Percent Solids	= 89.4
Extraction Method	= Sonification
Extraction Solvent	= Methlylene Chloride/Acetone
Associated Blank	= 860909-084
Analyst	= TM KREIS
Date Completed	= 10-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	S60821-152	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	X900-N.EAST/U0A
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	47.5	95.00
[illegible]HOFLUOROBENZENE	50	46.5	93.00
[illegible]-DICHLOROETHANE-D4	50	57.2	114.40

Program Manager: DS Zingg
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-151	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	DC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	R900-NORTH/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM CRANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloroethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	8 B	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	53.9	107.80
BROMOFLUOROBENZENE	50	49.9	99.80
1,2-DICHLOROETHANE-D4	50	59.3	118.60

Program Manager: DS Zingg

Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	B60821-142	QC Report No.:	
Sample matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	N300-WORTH
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	210J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	90J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	195J
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	190J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	5000
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	710
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	378J
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	8800
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	9300
91-20-3	Naphthalene	42J	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	4300
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	17J	218-01-9	Chrysene	5000
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	330U
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	6000

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-150	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	[illegible]-BKGRD
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	3-OCT-1986	Date Analyzed:	3-OCT-1986
Preparation Procedure No.:		Analysis Procedure No.:	EPA-625
Percent Moisture:	10.7	Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	GJ PARDUE JR

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	17 J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	6 J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	330U
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	16 J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-Methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	331
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	57 J
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	61 JB
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	608
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	709
91-20-3	Naphthalene	330U	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	368
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	330U	218-01-9	Chrysene	426
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	330U
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	354

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-159	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	DC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	K900-BKGPB/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	50.3	100.60
BROMOFLUOROBENZENE	50	46.9	93.80
1,2-DICHLOROETHANE-D4	50	57.8	115.60

Program Manager: DS Zingg

Date Approved: 2-SEP-1987

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-149	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	[illegible]-NORTHWEST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	3-OCT-1986	Date Analyzed:	3-OCT-1986
Preparation Procedure No.:		Analysis Procedure No.:	EPA-625
Percent Moisture:	10	Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	GJ PARNUE JR

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	978
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	481
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	30 JB
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	892
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	20373 J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	21657 J
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	98 JB
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	330U
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	42391 J
91-20-3	Naphthalene	220 J	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	17403 J
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	99 J	218-01-9	Chrysene	19580 J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	330U
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	33247 J

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-158	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	KP00-N.WEST/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM ORANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	48.9	97.80
BROMOFLUOROBENZENE	50	46.2	92.40
1,2-DICHLOROETHANE-D4	50	60.7	121.40

Program Manager: DS Zingg
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-148	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	K500-SOUTH EAST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	3-OCT-1986	Date Analyzed:	3-OCT-1986
Preparation Procedure No.:		Analysis Procedure No.:	EPA-625
Percent Moisture:	11.9	Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	GJ PARIOUE JR

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	20 J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	4 J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	70 JB
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	14 J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	203 J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	48 J
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	57 JB
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	326 J
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	323 J
91-20-3	Naphthalene	330U	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	209 J
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	330U	218-01-9	Chrysene	200 J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	330U
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	147 ..

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-157	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	[illegible]-E.EAST/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	51.8	103.60
BROMOFLUOROBENZENE	50	49.0	98.00
1,2-DICHLOROETHANE-D4	50	60.7	121.40

Program Manager: MS Zingg
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-147	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	A700-WEST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	3-OCT-1986	Date Analyzed:	5-OCT-1986
Preparation Procedure No.:		Analysis Procedure No.:	EPA-625
Percent Moisture:	11.9	Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	GJ PARDUE JR

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	547
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	241 J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	27 JB
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	463
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	12548 J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	1702
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	115 JB
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	21983 J
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	24748 J
91-20-3	Naphthalene	110 J	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	10656 J
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	49 J	218-01-9	Chrysene	11985 J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	330U
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	16512 J

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-156	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	X900-WEST/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM OBANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	51.0	102.00
BROMOFLUOROBENZENE	50	45.4	90.80
1,2-DICHLOROETHANE-D4	50	57.9	115.80

Program Manager: DS Zingg
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-146	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	1900-SOUTHWEST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	MK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	140J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	57J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	213J
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	120J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	2900
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	420
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	330U
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	4900
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	4900
91-20-3	Naphthalene	30J	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	860U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	2400
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	12J	218-01-9	Chrysene	2700
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	173J
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	2900

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Analytical Chem. Dept.
Lab Sample ID: B60821-155
Sample Matrix: SEDIMENT
Data Release Authorized By: DC Canada
Customer Name: MCCALL/ZINGG
Requisition Number:

Case No.:
QC Report No.:
Contract No.:
Date Sample Received: 21-AUG-1986
Customer Sample ID: A960-3.WEST/UGA

VOLATILE COMPOUNDS

Concentration: Low Medium
Date Extracted/Prepared: 2-SEP-1986
Preparation Procedure No.: EPA-624
Percent Moisture:
Percent Moisture (Decanted):

Date Analyzed: 2-SEP-1986
Analysis Procedure No.:
Conc/Dil Factor: 1.0
Analyst: DM OBANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	50.4	100.80
BROMOFLUOROBENZENE	50	44.8	89.60
1,2-DICHLORDETHANE-D4	50	59.1	118.20

Program Manager: DG Zingg
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-145	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	DC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	N900-SOUTH
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	65J
62-53-3	Aniline	340U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	23J
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
100-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	70BJ
95-50-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	53J
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-Methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	340U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	130J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	23BJ
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	64BJ
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	250J
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	270J
91-20-3	Naphthalene	13J	85-68-7	Butylbenzylphthalate	52BJ
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	140J
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	5J	218-01-9	Chrysene	150J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	20BJ
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	140J

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-154	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	KR00-SOUTH/VOA
Requisition Number:			

VOLATILE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	2-SEP-1986	Date Analyzed:	2-SEP-1986
Preparation Procedure No.:	EPA-624	Analysis Procedure No.:	
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	DM ORANION

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	10U	79-34-5	1,1,2,2-Tetrachloroethane	5U
74-83-9	Bromomethane	10U	78-87-5	1,2-Dichloropropane	5U
75-01-4	Vinyl Chloride	10U	10061-02-6	Trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	10U	79-01-6	Trichloroethene	5U
75-09-2	Methylene Chloride	5U	124-48-1	Dibromochloromethane	5U
67-64-1	Acetone	10U	79-00-5	1,1,2-Trichloroethane	5U
75-15-0	Carbon Disulfide	5U	71-43-2	Benzene	5U
75-35-4	1,1-Dichloroethene	5U	10061-01-5	Cis-1,3-Dichloropropene	5U
75-34-3	1,1-Dichloroethane	5U	110-75-8	2-Chloroethylvinylether	10U
156-60-5	Trans-1,2-Dichloroethene	5U	75-25-2	Bromoform	5U
67-66-3	Chloroform	5U	591-78-6	2-Hexanone	10U
107-06-2	1,2-Dichloroethane	5U	108-10-1	4-Methyl-2-Pentanone	10U
78-93-3	2-Butanone	10U	127-18-4	Tetrachloroethene	5U
71-55-6	1,1,1-Trichloroethane	5U	108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U	108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U	100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U	100-42-5	Styrene	5U
				Total Xylenes	5U

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Analyte was found in the blank as well as the sample.

J - Indicates an estimated value.

Spike Recovery Data

Analysis	Amount Spiked	Amount Recovered	Percent Recovered
TOLUENE-D8	50	50.1	100.20
BROMOFLUOROBENZENE	50	47.4	94.80
1,2-DICHLOROETHANE-D4	50	60.5	121.00

Program Manager: DS Zinga
Date Approved: 2-SEP-1986

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	Analytical Chem. Dept.	Case No.:	
Lab Sample ID:	860821-144	QC Report No.:	
Sample Matrix:	SEDIMENT	Contract No.:	
Data Release Authorized By:	QC Canada	Date Sample Received:	21-AUG-1986
Customer Name:	MCCALL/ZINGG	Customer Sample ID:	[illegible]-EAST
Requisition Number:			

EXTRACTABLE COMPOUNDS

Concentration:	Low Medium		
Date Extracted/Prepared:	30-SEP-1986	Date Analyzed:	30-SEP-1986
Preparation Procedure No.:	EPA-625	Analysis Procedure No.:	EPA-625
Percent Moisture:		Conc/Dil Factor:	1.0
Percent Moisture (Decanted):		Analyst:	AK HEADRICK

CAS Number		ug/Kg	CAS Number		ug/Kg
62-75-9	N-Nitrosodimethylamine	330U	99-09-02	3-Nitroaniline	1600U
108-95-2	Phenol	330U	83-32-9	Acenaphthene	6J
62-53-3	Aniline	330U	51-28-5	2,4-Dinitrophenol	1600U
111-44-4	Bis(2-Chloroethyl)Ether	330U	100-02-7	4-Nitrophenol	1600U
95-57-8	2-Chlorophenol	330U	132-64-9	Dibenzofuran	330U
541-73-1	1,3-Dichlorobenzene	330U	121-14-2	2,4-Dinitrotoluene	330U
106-46-7	1,4-Dichlorobenzene	330U	606-20-2	2,6-Dinitrotoluene	330U
[illegible]-51-6	Benzyl Alcohol	330U	84-66-2	Diethylphthalate	330U
[illegible]-1	1,2-Dichlorobenzene	330U	7005-72-3	4-Chlorophenyl-phenylether	330U
95-48-7	2-Methylphenol	330U	86-73-7	Fluorene	330U
39638-32-9	Bis(2-chloroisopropyl)Ether	330U	100-01-6	4-Nitroaniline	1600U
106-44-5	4-Methylphenol	330U	534-52-1	4,6-Dinitro-2-Methylphenol	1600U
621-64-7	N-Nitroso-Di-n-Propylamine	330U	86-30-6	N-Nitrosodiphenylamine	330U
67-72-1	Hexachloroethane	330U	101-55-3	4-Bromophenyl-phenylether	330U
98-95-3	Nitrobenzene	330U	118-74-1	Hexachlorobenzene	330U
78-59-1	Isophorone	330U	87-86-5	Pentachlorophenol	1600U
88-75-5	2-Nitrophenol	330U	85-01-8	Phenanthrene	130J
105-67-9	2,4-Dimethylphenol	330U	120-12-7	Anthracene	330U
65-85-0	Benzoic Acid	1600U	84-74-2	Di-n-Butylphthalate	330U
111-91-1	Bis(2-chloroethoxy)Methane	330U	206-44-0	Fluoranthene	300J
120-83-2	2,4-Dichlorophenol	330U	92-87-5	Benzidine	2600U
120-82-1	1,2,4-Trichlorobenzene	330U	129-00-0	Pyrene	340
91-20-3	Naphthalene	330U	85-68-7	Butylbenzylphthalate	330U
106-47-8	4-Chloroaniline	330U	91-94-1	3,3'-Dichlorobenzidine	660U
87-68-3	Hexachlorobutadiene	330U	56-55-3	Benzo(a)Anthracene	220J
59-50-7	4-Chloro-3-Methylphenol	330U	117-81-7	Bis(2-Ethylhexyl)Phthalate	330U
91-57-6	2-Methylnaphthalene	330U	218-01-9	Chrysene	220J
77-47-4	Hexachlorocyclopentadiene	330U	117-84-0	Di-n-Octyl Phthalate	78J
88-06-2	2,4,6-Trichlorophenol	330U	205-99-2	Benzo(b)Fluoranthene	230J

UNIT NUMBER 026

UNIT NAME K-1070-D1, D2, and D3 Storage Dikes

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #26A, 26B, and 26C and photograph #26A, 26B, and 26C.

APPROXIMATE DIMENSIONS D1=0.15 acre, D2=0.26 acre, and D3=0.21 acre

CAPACITY Storage total for all dikes was 912 drums

FUNCTION Storage of hazardous waste liquids

DATES OPERATED November 1980 through April 1985

DESCRIPTION OF WASTE (or list attached references):

See Attachment 1

DESCRIPTION OF RELEASES (or list attached references):

No releases are known to have occurred at these dikes.

DOCUMENTATION OF NO RELEASE (or list attached references):

A closure plan was submitted and approved by the Tennessee Department of Health and Environment (TDHE) see Attachment 2. A sampling plan was implemented as specified in the closure plan, and the results were submitted to the TDHE. Based upon the sample results, the proposed closure plan was implemented and accepted by the TDHE (see Attachment 3).

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

The samples collected during analysis of the closure activity indicated no releases from the dikes. The sampling consisted of collecting soil samples from the storage dikes 1 to 4 feet deep and analyzing for toxic metals and organics. The closure plan consisted of a nonRCRA cap and revegetating the area. These disposal pits could be a source of organic materials discharged to Poplar Creek and/or Mitchell Branch (K-1700 Watershed)

26. K-1070-D1 Storage Dike A

26.1 K-1070-D2 Storage Dike B

26.2 K-1070-D3 Storage Dike C

ATTACHMENT #1
K-1070-D1, D2, & D3 Storage Dikes

Inventory of waste types stored

1. Trichloroethane and water
2. Waste Oil >5 ppm PCBs, <50 ppm PCBs
3. Paint waste
4. Ethylene glycol and water
5. Trichloroethylene and water
6. Varsol
7. Gasoline and water
8. Methylene chloride
9. Isopropyl alcohol
10. Freon and water*
11. Freon contaminated with uranium
12. Vartex
13. Methyl ethyl ketone (MEK)
14. Dearborn 537
15. Perchloroethylene*
16. Oil filters
17. Sorb-all and oil
18. Cimcool
19. Sludge from wash rack in garage
20. Acetone
21. Xylene
22. Classified liquid (?)
23. Rust ban
24. Tolyl triazole and xylene
25. Scintillation waste and xylene
26. Oil and quinoline
27. A and B refrigerant oil
28. Tributyl/phosphate
29. Dioctyl phthalate
30. Classified oil
31. Freon, oil, and water
32. Freon trichloroethane, methylene chloride and water
33. Sulfanic acid
34. Microbiotreatment, Freon, and water
35. Ethylalcohol
36. Classified materials (lab-packs)
37. Paint thinner
38. Uranium and hexane
39. Uranium and penta-ether
40. Nutek
41. Non-PCB solvents and chemicals
42. Degreaser residue
43. Adsorbents
44. Sweeping compound
45. Non-PCB oils

ATTACHMENT #2
K-1070-D1, D2, & D3 Storage Dikes

TDHE Closure Plan Approval

STATE OF TENNESSEE
DEPARTMENT OF HEALTH AND ENVIRONMENT
1605 PROSSER ROAD
KNOXVILLE, TENNESSEE 37914-3434

January 8, 1986

Mr. H. Doran Fletcher
Director of Enriching Operations
United States Department of Energy
Environmental Protection Branch
P. O. Box E
Oak Ridge, TN 37831

Re: RCRA Closure Plan - K-1070 - D1, D2, D3 Drum Storage Dikes A,B and C;
E.P.A. I.D. No. TN0890090004

Dear Mr. Fletcher:

The Division of Solid Waste Management has reviewed all of your submittals concerning the aforementioned closure plan and finds that it meets the minimum requirements for closure plans as outlined in the Rules Governing Hazardous Waste Management In Tennessee.

If you have any questions, please contact this office.

Sincerely,

Mark S. Burris

Mark S. Burris
Environmental Engineer
Division of Solid Waste Management

MSB/cb

cc: Nashville, DSWM
Roane County Health Department
East Tennessee Regional Health Office
U.S. E.P.A. - Mr. Don Gibeaut or Ms. Rita Ford
Mr. Earl Leming - Bureau of Environment
Mr. Tommy Bowers - Martin Marietta Energy Systems, Inc.

#0082

ATTACHMENT #3
K-1070-D1, D2, & D3 Storage Dikes

TDHE Closure Acceptance

RECORD COPY

3575

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
CUSTOMS HOUSE
701 BROADWAY
NASHVILLE, TENNESSEE 37219-5403

November 20, 1986

Mr. William F. Manning, Director
Enriching Operations Division
Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, TN 37831

Re: Closure of hazardous waste storage facility K-1070-D1, D2, and D3, TN4 89 009 0018

Dear Mr. Manning:

The certifications submitted by both the owner or operator and by an independent registered professional engineer stating that the facility has been closed in accordance with the specifications in the approved closure plan have been received and accepted.

Sincerely,

Tom Tiesler, Director
Division of Solid Waste Management

TT/dje 850 SWM D-4

cc: SWM - Knoxville
EPA - Region IV

1986 DEC -4 AM 11:32

UNIT NUMBER 027

UNIT NAME K-1025-C Storage Building

REGULATORY STATUS 3004.u (RCRA Part B Permit submitted)

LOCATION - shown on map See ORGDP topographic map #27 and photograph #27

APPROXIMATE DIMENSIONS 40 feet by 20 feet

CAPACITY Eighty 55-gallon drums (materials not normally stored in drums)

FUNCTION Storage of discarded commercial products.

DATES OPERATED 1979 to the present

DESCRIPTION OF WASTE (or list attached references):

Various P and U listed materials as well as D001 through D011 characteristically listed hazardous wastes.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The facility consists of a diked building with an epoxy sealed floor. Any spills in the area have been immediately cleaned up and no spills have been discharged from inside the curbed area. Bulk liquids are not normally stored in the unit.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No.

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

Small quantities of laboratory chemicals are stored at this unit until they are lab packed and sent offsite for commercial disposal. Based upon the past and present operation of this facility, it is recommended that this unit be removed from the SWMU list in the ORNL Part B Permit.

27. K-1025-C Storage Building

UNIT NUMBER 028

UNIT NAME K-1035-A Satellite Drum Storage Area

REGULATORY STATUS 3004.u (RCRA Part B Permit application submitted)

LOCATION - shown on map See ORGDP topographic map #28 and photograph #28

APPROXIMATE DIMENSIONS 6 feet by 18 feet

CAPACITY Sixteen 55-gallon drums

FUNCTION Storage of hazardous waste from a circuit board cleaning facility

DATES OPERATED 1980 to the present

DESCRIPTION OF WASTE (or list attached references):

D002 and D004 through D011 characteristically listed hazardous wastes.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

This facility was constructed for storage of the hazardous wastes described above. The facility consists of an enclosed diked area for the storage of 55-gallon drum quantities of waste materials. No spills have occurred at this site.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

NO

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

Drums at this area are stored inside an aluminum container to keep incompatibles from mixing in the event of a leak or spill. Any spilled or leaked materials would be collected in this container before it could reach the floor. Based upon the past and present operation, it is recommended that this unit be removed from the SWMU list in the ORNL permit and that no remedial actions be taken.

28. K-1035-A Satellite Drum Storage

UNIT NUMBER 029

UNIT NAME K-311-1 Radiogenic Storage Vault

REGULATORY STATUS 3004.u (RCRA Part B Permit Application has been submitted)

LOCATION - shown on map See ORGDP topographic map #29 and photograph #29

APPROXIMATE DIMENSIONS 2,500 sq. ft.

CAPACITY 51 tons presently stored

FUNCTION Storage location for radiogenic lead

DATES OPERATED 1960s to the present

DESCRIPTION OF WASTE (or list attached references):

Radiogenic lead consists of lead slag, lead ingots, and lead powder. All material is in solid form.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The material is in solid form and no liquids have been exposed to the material; therefore, eliminating the potential for environmental contamination.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since the material is in solid form and no releases to the environment have occurred, it is recommended that this unit be removed from the remedial action list.

29. K-311-1 Radiogenic Lead

UNIT NUMBER 030

UNIT NAME K-306-1 Vault 23A Hazardous Waste Storage Facility

REGULATORY STATUS 3004.u (RCRA Part B Application submitted)

LOCATION - shown on map See ORGDP topographic map #30 and photograph #30

APPROXIMATE DIMENSIONS 290 feet by 45 feet

CAPACITY 3,000 drums

FUNCTION Storage of RCRA waste materials

DATES OPERATED 1984 to the present

DESCRIPTION OF WASTE (or list attached references):

Waste water treatment sludges, spent carbon filtration media, and corrosives.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

This is a new facility that was modified in 1984 to store waste materials. The unit is diked and the floor has been sealed with a compatable material. No material has been released from the storage area.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

N/A

COMMENTS:

Since this unit is new and no materials have been released from the storage area, it is recommended that no additional actions be taken.

30. K-306-1 Vault 23A Storage

UNIT NUMBER 031

UNIT NAME K-306-1 PCB/HW Drum Storage

REGULATORY STATUS 3004.u/RCRA Part B Permit Application submitted

LOCATION - shown on map See ORGDP topographic map #31 and photograph #31

APPROXIMATE DIMENSIONS 160 feet by 20 feet

CAPACITY (864) 55-gallon drums

FUNCTION Storage unit for hazardous wastes

DATES OPERATED 1977 to the present

DESCRIPTION OF WASTE (or list attached references):

This area is being used for the storage of PCB waste materials including pure PCB liquids and equipment containing pure PCB liquids.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The storage area is diked, and the floor has been sealed. The area is inspected on a weekly basis, and no leaks have been detected from the diked area.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

Since the area is diked and no waste material has been released into the environment from the unit, it is recommended that this unit be removed from the remedial action list.

MEDIA TO BE ADDRESSED:

COMMENTS:

31. K-306-1 PCB/Hazardous Waste Storage Facility

UNIT NUMBER 032

UNIT NAME K-1419 Sludge Fixation Plant

REGULATORY STATUS 3004.u (RCRA Part B Application submitted)

LOCATION-- shown on map See ORGDP topographic map #32 and photograph #32

APPROXIMATE DIMENSIONS NA

CAPACITY NA

FUNCTION Concrete fixation of hazardous waste sludges.

DATES OPERATED Facility is under construction and will begin operation in early 1987.

DESCRIPTION OF WASTE (or list attached references):

Waste to be treated at the facility include wastewater treatment sludges and D004 through D011 characteristically listed hazardous sludges.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Facility has never operated therefore no releases could have occurred from this unit.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

NA

COMMENTS:

Since the facility is new and has never be in operation, it is recommended that the unit be removed from the SWMU list. No additional activities will be performed for investigation or corrective measure activities.

32. K-1419 Sludge Fixation

UNIT NUMBER 033

UNIT NAME K-1417 Block Casting/Storage Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #33 and photograph #33

APPROXIMATE DIMENSIONS 3 acres

CAPACITY Approximately 2.0 million gallons

FUNCTION Storage of waste which has been fixed in concrete

DATES OPERATED Facility will become operational in early 1987.

DESCRIPTION OF WASTE (or list attached references):

The waste to be fixed in concrete is from the K-1407-B and K-1407-C surface impoundments. The wastes are a listed waste generated from a plating process and also contain radioactive constituents. See the K-1407-B and K-1407-C report for analysis of the waste sludges.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Facility has never operated

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

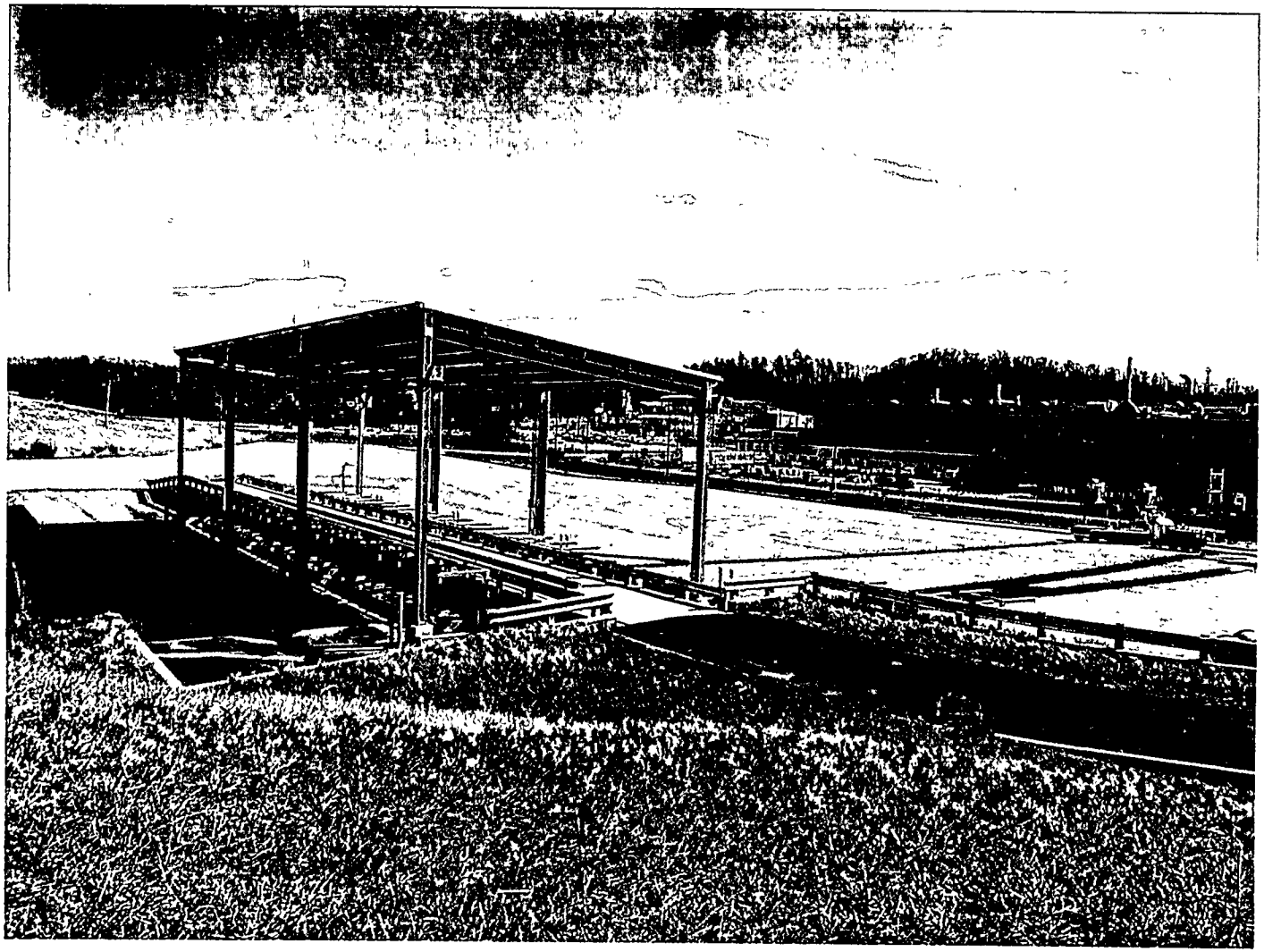
No

MEDIA TO BE ADDRESSED:

No

COMMENTS:

Since this facility is not operational and has not released material to the environment, it is recommended that this unit be removed from the remedial action list in the ORNL permit.



33. K-1417 Block Storage

UNIT NUMBER 034

UNIT NAME K-1435 HW/PCB Incinerator

REGULATORY STATUS 3004.u (RCRA Part B Permit Application submitted)

LOCATION-- shown on map See ORGDP topographic map #34 and photograph #34

APPROXIMATE DIMENSIONS Approximately 120 acre total

CAPACITY NA

FUNCTION Incineration of hazardous wastes

DATES OPERATED Under construction

DESCRIPTION OF WASTE (or list attached references):

Wastes to be incinerated include various organic hazardous wastes generated at DOE operated facilities. The types of wastes to be disposed include PCBs, sludges, and solvents.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

This facility has not been operational nor stored waste materials.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?:

None

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

No

COMMENTS:

Since this unit is new and has not been in operation, it is recommended that the unit be removed from the SWMU list in the ORNL Part B Permit.

34. K-1435 Incinerator

UNIT NUMBER 035

UNIT NAME K-1407-H Central Neutralization Facility

REGULATORY STATUS 3004.u (RCRA part B Application submitted)

LOCATION - shown on map See ORGDP topographic map #35 and photograph #35

APPROXIMATE DIMENSIONS NA

CAPACITY NA

FUNCTION Neutralization, precipitation, and settling of hazardous waste solutions.

DATES OPERATED Under construction

DESCRIPTION OF WASTE (or list attached references):

Corrosive and EP-toxic metals. Will receive waste from the K-1419 Sludge Fixation Facility, the K-1435 TSCA Incinerator, and various process wastewaters.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Facility has not released material because it is a new facility and has not been operated.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

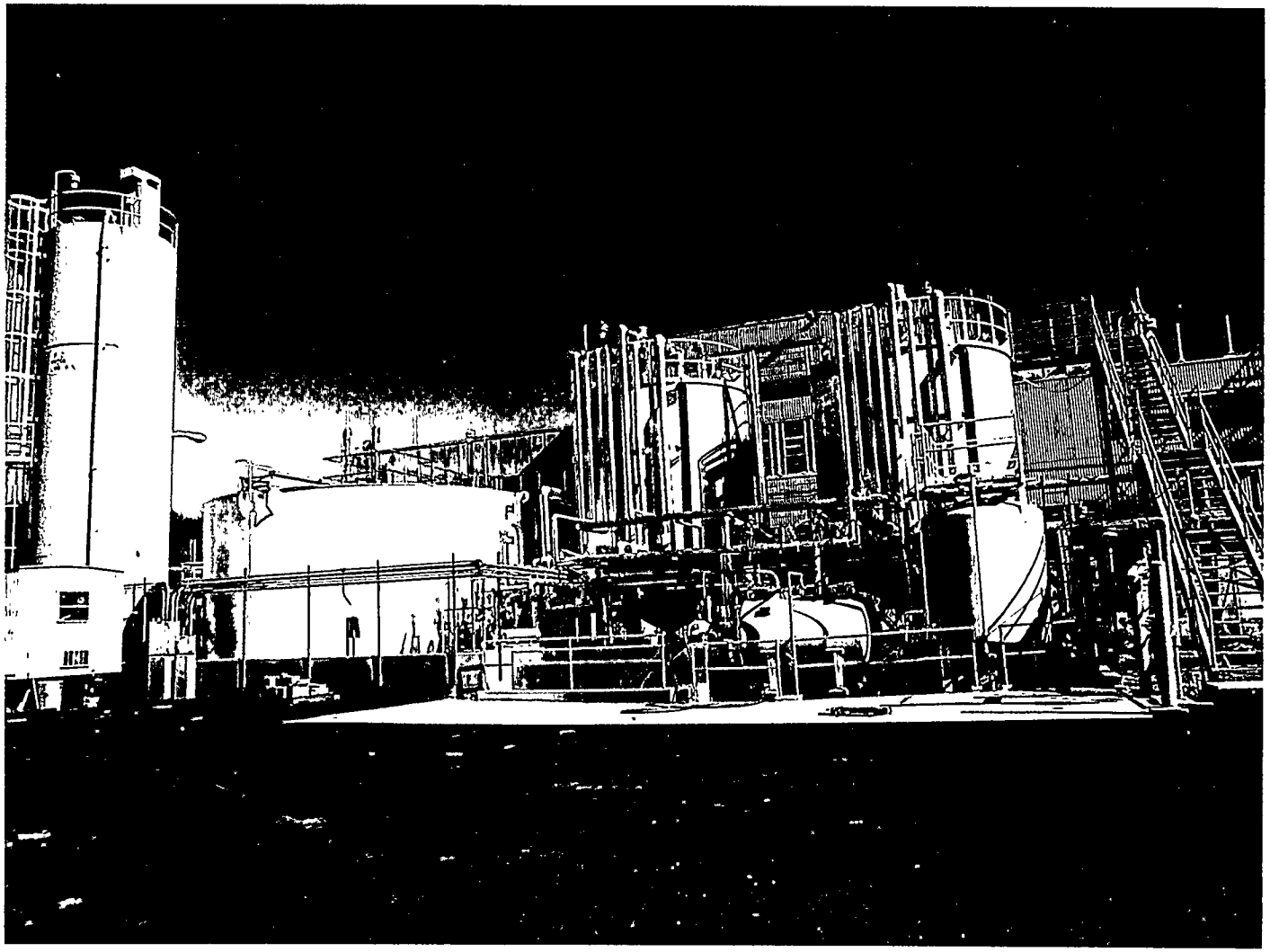
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

The liquid effluent from the facility will be discharged through a NPDES permitted location. Since the facility has not operated, it is recommended that this unit be removed from the SWMU list in the ORNL Part B Permit.



35. K-1407-H Central Neutralization Facility

UNIT NUMBER 036

UNIT NAME K-1425 Waste Oil/Hazardous Waste/PCB-Drum Storage

REGULATORY STATUS 3004.u (RCRA Part B-Permit Application submitted)

LOCATION - shown on map See ORGDP topographic map #36 and photograph #36

APPROXIMATE DIMENSIONS 2,000 square foot drum storage area and four 22,500 gallon tanks.

CAPACITY 480 drums in storage area and 88,000 gallons in the tanks

FUNCTION Drum and tank storage of hazardous waste liquids

DATES OPERATED: January 1985 to the present

DESCRIPTION OF WASTE: (or list attached references):

Waste oils, spent chlorinated solvents, degreaser residues, and paint. These wastes may also contain EP toxic metals.

DESCRIPTION OF RELEASES (or list attached references):

None.

DOCUMENTATION OF NO RELEASE (or list attached references):

The drum and tank storage areas are diked. Any small spills which have occurred are immediately cleaned up. No materials have been spilled or released outside the diked area.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

This facility is relatively a new facility and has been operated according to RCRA requirements. Since there have been no materials spilled outside the facility, it is recommended that no additional actions be taken at this unit, and it should be removed from the SWMU list in the ORNL Part B Permit.

36. K-1425 Waste Oil/Hazardous Storage Facility

UNIT NUMBER 037

UNIT NAME K-1420-A Flammable Waste Storage Tank

REGULATORY STATUS 3004.u (RCRA part B Permit Application has been submitted)

LOCATION - shown on map See ORGDP topographic map #37 and photograph #37

APPROXIMATE DIMENSIONS 70 feet by 8 feet

CAPACITY 22,000 gallons

FUNCTION Storage of waste flammable materials and other solvents

DATES OPERATED 1985 to the present

DESCRIPTION OF WASTE (or list attached references):

Isopropyl alcohol, methylene chloride, acetone, toulene, ethyl alcohol, hexane, gasoline, paint waste, water, and acetonitrile.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The storage tank is within a dike that provides secondary containment for the tank. No releases have been observed from the tank, which is inspected on a weekly basis.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

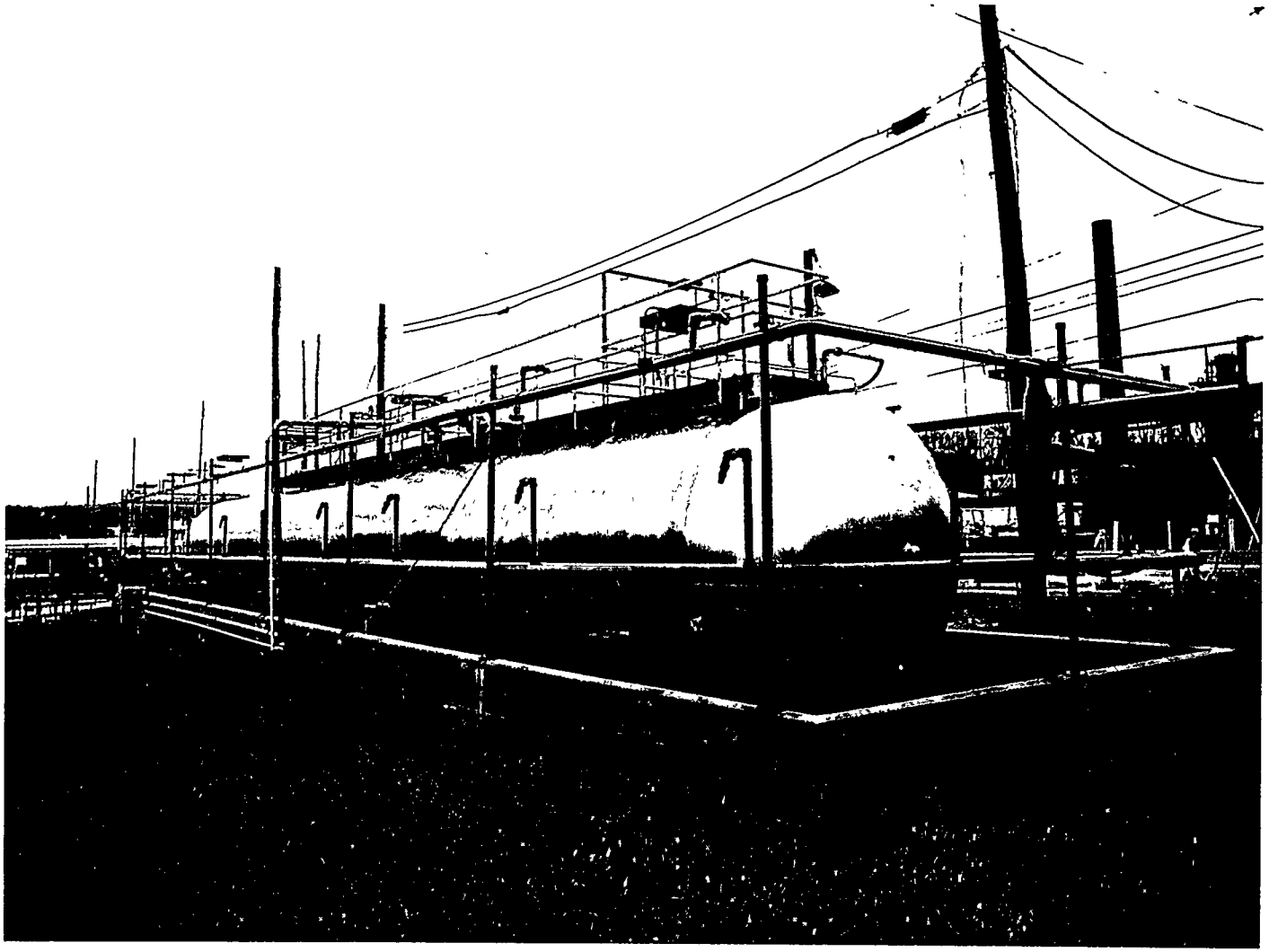
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no releases have occurred from the unit, it is recommended that the unit be removed from the remedial action list in the ORNL RCRA permit.



37. 1420-A Flammable Liquid Storage Tank

UNIT NUMBER 038

UNIT NAME K-1302 Gas Cylinder Storage Area

REGULATORY STATUS 3004.u (RCRA Part B Permit Application has been submitted)

LOCATION - shown on map See ORGDP topographic map #38 and photograph #38

APPROXIMATE DIMENSIONS 16 feet by 5 feet

CAPACITY- Approximately 20 cylinders

FUNCTION Storage of gas cylinders

DATES OPERATED 1979 to the present

DESCRIPTION OF WASTE (or list attached references):

Various gases that include hydrogen fluoride, fluorine, phosgene, chlorine, and other nonflammable compressed gases.

DESCRIPTION OF RELEASES (or list attached references):

Gas cylinders have been stored in this unit since 1979, and there have been no uncontrolled releases of gas from the storage area.

DOCUMENTATION OF NO RELEASE (or list attached references):

The only releases from the unit have been under controlled conditions where cylinders are vented through an exhaust stack within the storage area. This stack is permitted under the Clean Air Requirements with the Tennessee Department of Health and Environment.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

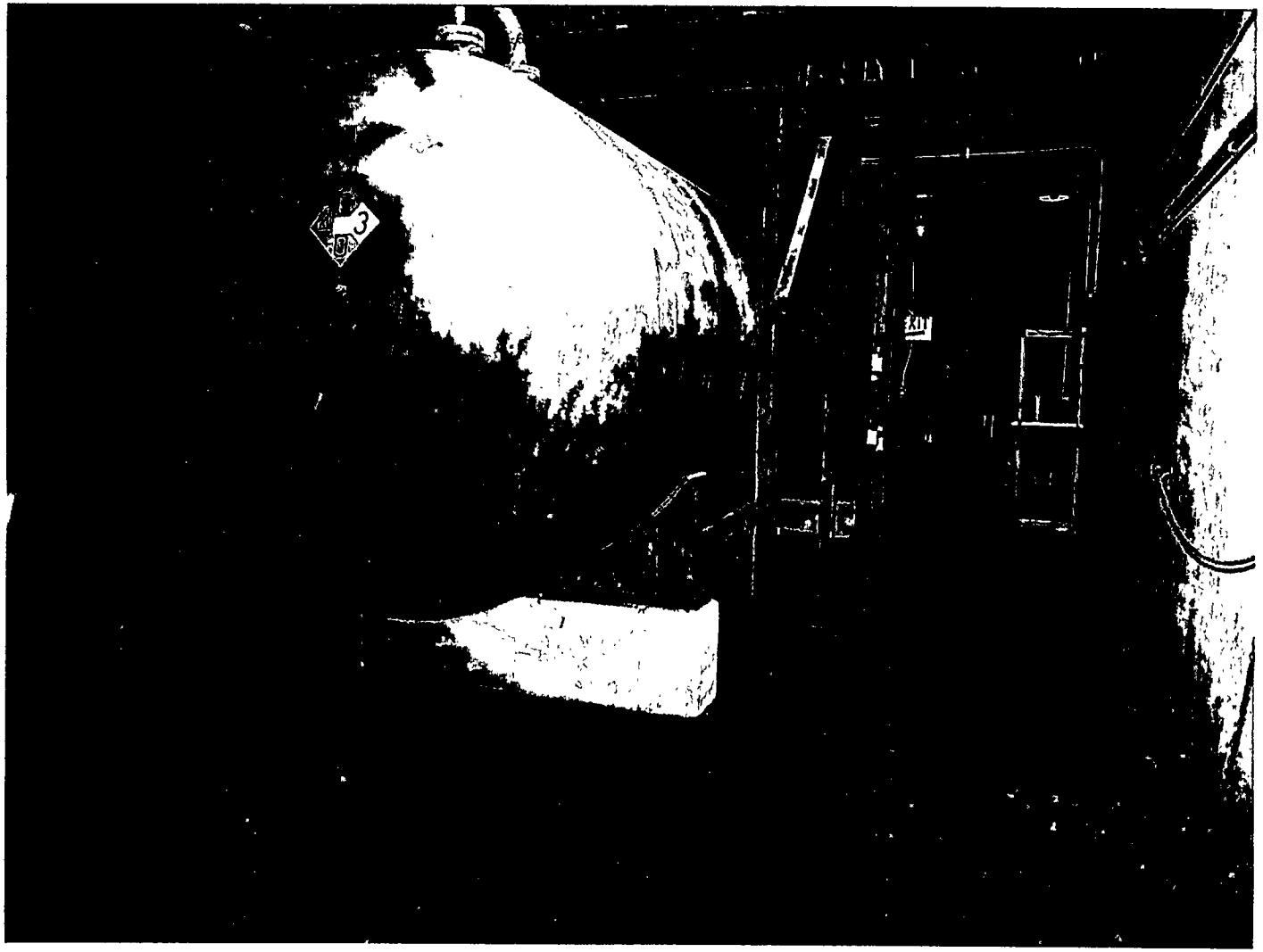
REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

COMMENTS:

Since there have been no known releases from the unit and there is no mode of transport into the soil or groundwater, it is recommended that this unit be removed from the remedial action list in the ORNL RCRA permit.



38. K-1302 Gas Cylinder Storage Area

UNIT NUMBER 039

UNIT NAME K-1407-C Retention Basin

REGULATORY STATUS 3004.u (RCRA Part B Permit Application submitted)

LOCATION - shown on map See ORGDP topographic map #39 and photograph #39

APPROXIMATE DIMENSIONS 300 feet long by 75 feet wide

CAPACITY Presently contains approx. 2.5 million gallons of sludge and water

FUNCTION Surface impoundment for waste storage

DATES OPERATED 1973 to the present

DESCRIPTION OF WASTE (or list attached references):

See Attachment 1

DESCRIPTION OF RELEASES (or list attached references):

See groundwater monitoring data in Attachment 3.

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

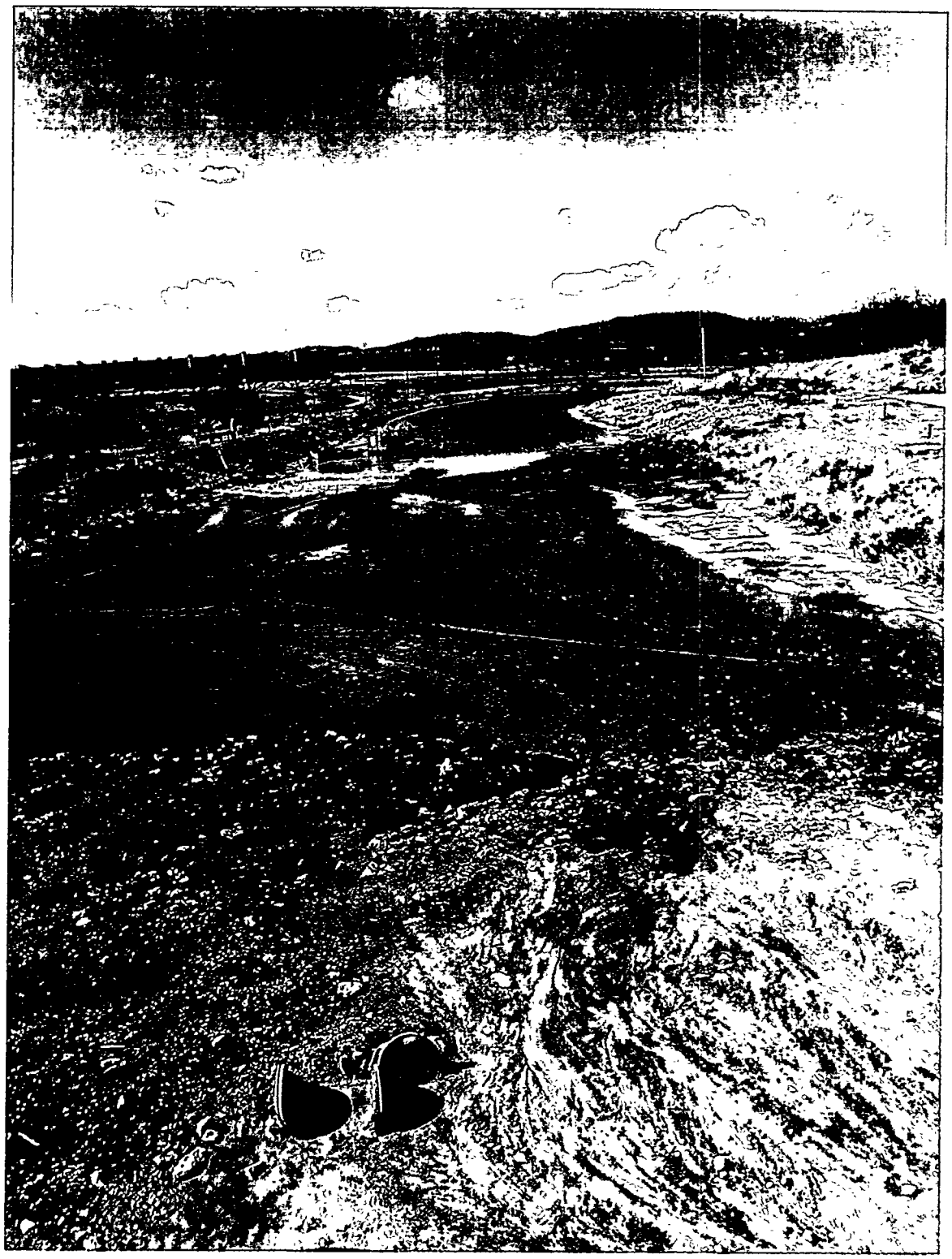
REMEDIAL INVESTIGATION PLANNED?

Since the present plans are to clean close the unit, a RFI is not being planned for this unit. Samples will be collected after the waste material has been removed to verify that all the waste has been removed.

MEDIA TO BE ADDRESSED:

Soil

COMMENTS:



39. K-1407-C Retention Basin

ATTACHMENT #1

K-1407-C Retention Basin

The K-1407-C Retention Basin was built initially for the storage of sludge that was dredged from the K-1407-B Retention Basin in 1973. The sludge from K-1407-B consisted of precipitates generated during neutralization at the K-1407-A Neutralization Pit. The sludge also contained radioactive constituents. Since that time, the K-1407-C Basin has also been used to store waste materials such as potassium hydroxide and other corrosive materials.

In order to characterize the pond, a sampling plan was prepared and implemented in 1984. The results of that sampling program are summarized in Attachment 2. Based upon the data from the sampling program, a clean-closure plan is being implemented for the facility beginning in early 1987.

ATTACHMENT #2
K-1407-C Retention Basin

Table 1.
Summary of all of the data for C Pond
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	33715.	73000.	8500.	ug/g
Arsenic	10.	97.	5.0	ug/g
Barium	101.	230.	13.	ug/g
Beryllium	0.22	1.1	0.030	ug/g
Boron	1199.	11000.	23.	ug/g
Cadmium	0.51	1.8	0.30	ug/g
Calcium	3823.	90000.	370.	ug/g
Chromium	234.	2400.	19.	ug/g
Cobalt	29.	210.	2.0	ug/g
Copper	195.	2000.	0.40	ug/g
Iron	30600.	73000.	2500.	ug/g
Lead	34.	140.	6.0	ug/g
Lithium	21.	33.	2.9	ug/g
Magnesium	5427.	23000.	2200.	ug/g
Manganese	1671.	6500.	73.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	1915.	21000.	12.	ug/g
Niobium	1.2	5.3	0.70	ug/g
Phosphorus	2116.	18000.	310.	ug/g
Potassium	5586.	15000.	1400.	ug/g
Selenium	5.2	13.	5.0	ug/g
Sodium	3910.	20000.	740.	ug/g
Strontium	42.	150.	5.2	ug/g
Thorium	25.	52.	20.	ug/g
Titanium	277.	770.	110.	ug/g
Vanadium	40.	72.	11.	ug/g
Zinc	118.	660.	39.	ug/g
		radionuclides		
Cesium	68.	511.	15.	DPM/G
Neptunium	25.	183.	0.10	DPM/G
Plutonium	35.	241.	0.050	DPM/G
Technetium	1878.	13600.	55.	DPM/G
Uranium	194.	1841.	1.0	UG/G
U-235	1.3	2.6	0.70	Wt. %
		organics		
acetone	0.19	1.0	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G

Table 1.
Summary of all of the data for C Pond
except the leach test

parameter	mean	maximum	minimum	units
bromoform	0.050	0.050	0.050	UG/G
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
fluorocarbons	0.0030	0.0040	0.0020	ug/g
freon-113	0.10	0.27	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl Chloroform	0.040	0.040	0.040	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.040	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
permethylated cyclosiloxane	2.4	2.4	2.4	UG/G
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.060	0.090	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
other analyses				
Density @25C	1.3	1.7	1.1	G/ML
pH	10.	11.	8.1	
Phosphate (Total)	6350.	54000.	930.	ug/g

C Pond leach test data
summary of all of the leach test data

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000062	0.000090	0.000050	mg/L
lindane	0.083	0.10	0.000020	mg/L
methoxychlor	0.000047	0.000070	0.000040	mg/L
silvex	0.0088	0.010	0.0040	mg/L
toxaphene	0.0010	0.0020	0.0010	mg/L
2,4-D	0.033	0.059	0.028	mg/L
	metals			
Arsenic	0.0057	0.016	0.0050	mg/L
Barium	0.55	1.9	0.10	mg/L
Cadmium	0.0051	0.040	0.0020	mg/L
Chromium	0.030	0.28	0.010	mg/L
Lead	0.0088	0.071	0.0040	mg/L
Mercury	0.0034	0.032	0.0010	mg/L
Nickel	1.7	18.	0.010	mg/L
Selenium	0.0075	0.034	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C Pond Data
Data for the sludge layer
except the leach test

parameter	mean	max	min	units
		metals		
Aluminum	25392.	42000.	8500.	ug/g
Arsenic	20.	97.	5.0	ug/g
Barium	89.	150.	13.	ug/g
Beryllium	0.030	0.030	0.030	ug/g
Boron	4252.	11000.	85.	ug/g
Cadmium	0.65	1.8	0.30	ug/g
Calcium	35000.	90000.	30000.	ug/g
Chromium	601.	2400.	30.	ug/g
Cobalt	51.	210.	2.0	ug/g
Copper	583.	2000.	120.	ug/g
Iron	25185.	73000.	2500.	ug/g
Lead	42.	140.	6.0	ug/g
Lithium	16.	31.	2.9	ug/g
Magnesium	7885.	11000.	5500.	ug/g
Manganese	383.	1000.	73.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	5667.	21000.	240.	ug/g
Niobium	2.7	5.3	0.70	ug/g
Phosphorus	5016.	18000.	320.	ug/g
Potassium	9507.	15000.	2600.	ug/g
Selenium	6.0	13.	5.0	ug/g
Sodium	7388.	15000.	740.	ug/g
Strontium	111.	150.	95.	ug/g
Thorium	37.	52.	20.	ug/g
Titanium	361.	770.	110.	ug/g
Vanadium	23.	45.	11.	ug/g
Zinc	221.	660.	68.	ug/g
		radionuclides		
Cesium	119.	511.	15.	DPM/G
Neptunium	45.	183.	1.5	DPM/G
Plutonium	62.	241.	1.0	DPM/G
Technetium	3476.	13600.	293.	DPM/G
Uranium	515.	1841.	58.	UG/G
U-235	1.6	2.6	1.3	Wt. %
		organics		
acetone	0.32	1.0	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G
bromoform	0.050	0.050	0.050	UG/G

C Pond Data
Data for the sludge layer
except the leach test

parameter	mean	max	min	units
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
fluorocarbons	0.0030	0.0040	0.0020	ug/g
freon-113	0.11	0.27	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methyl Chloroform	0.040	0.040	0.040	UG/G
methylene chloride	0.030	0.040	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
permethylated cyclosiloxane	2.4	2.4	2.4	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.062	0.090	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
other analyses				
pH	10.	11.	8.1	
Density @25C	1.4	1.7	1.1	G/ML
Phosphate (Total)	15049.	54000.	960.	ug/g

C Pond data
summary of the leach test data for the sludge layer

parameter	mean	max	min	units
	pesticides			
endrin	0.000052	0.000060	0.000050	mg/L
lindane	0.083	0.10	0.034	mg/L
methoxychlor	0.000042	0.000050	0.000040	mg/L
silvex	0.0077	0.010	0.0050	mg/L
toxaphene	0.0010	0.0010	0.0010	mg/L
2,4-D	0.036	0.059	0.028	mg/L
	metals			
Arsenic	0.0074	0.016	0.0050	mg/L
Barium	0.51	1.0	0.22	mg/L
Cadmium	0.010	0.030	0.0020	mg/L
Chromium	0.090	0.28	0.010	mg/L
Lead	0.0046	0.011	0.0040	mg/L
Mercury	0.0051	0.025	0.0010	mg/L
Nickel	5.2	18.	0.33	mg/L
Selenium	0.0057	0.015	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C pond data
summary of the data for the top six inches of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
	metals			
Aluminum	41500.	73000.	26000.	ug/g
Arsenic	8.8	20.	5.0	ug/g
Barium	115.	230.	61.	ug/g
Beryllium	0.42	1.1	0.030	ug/g
Boron	48.	89.	30.	ug/g
Cadmium	0.49	0.84	0.30	ug/g
Calcium	3877.	11000.	1100.	ug/g
Chromium	42.	65.	22.	ug/g
Cobalt	15.	26.	6.0	ug/g
Copper	11.	32.	0.40	ug/g
Iron	33111.	53000.	20000.	ug/g
Lead	29.	43.	12.	ug/g
Lithium	24.	33.	15.	ug/g
Magnesium	4044.	7700.	2400.	ug/g
Manganese	2325.	6500.	290.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	45.	130.	14.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	570.	920.	420.	ug/g
Potassium	4583.	11000.	2000.	ug/g
Selenium	5.0	5.0	5.0	ug/g
Sodium	3292.	20000.	880.	ug/g
Strontium	11.	17.	6.7	ug/g
Thorium	20.	20.	20.	ug/g
Titanium	258.	330.	180.	ug/g
Vanadium	51.	72.	30.	ug/g
Zinc	71.	84.	47.	ug/g
	radionuclides			
Cesium	15.	22.	15.	DPM/G
Neptunium	0.81	5.8	0.10	DPM/G
Plutonium	0.84	3.6	0.050	DPM/G
Technetium	90.	206.	55.	DPM/G
Uranium	25.	77.	7.0	UG/G
U-235	1.2	1.5	0.70	Wt. %
	organics			
acetone	0.12	0.29	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G
bromoform	0.050	0.050	0.050	UG/G

C pond data
summary of the data for the top six inches of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
freon-113	0.10	0.10	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.030	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.060	0.060	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
Methyl Chloroform	0.040	0.040	0.040	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
other analyses				
Phosphate (Total)	1710.	2760.	1260.	ug/g

C Pond data
summary of the leach test data
for the top six inches of the soil layer

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000066	0.000090	0.000050	mg/L
lindane	0.062	0.10	0.000020	mg/L
methoxychlor	0.000050	0.000070	0.000040	mg/L
silvex	0.0084	0.010	0.0040	mg/L
toxaphene	0.0012	0.0020	0.0010	mg/L
2,4-D	0.036	0.050	0.030	mg/L
	metals			
Arsenic	0.0051	0.0070	0.0050	mg/L
Barium	0.76	1.9	0.10	mg/L
Cadmium	0.0021	0.0040	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.011	0.071	0.0040	mg/L
Mercury	0.0011	0.0040	0.0010	mg/L
Nickel	0.18	1.1	0.020	mg/L
Selenium	0.0079	0.034	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C pond data
Summary of the data for the dirt from 6 to 12 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
Aluminum	34545.	54000.	24000.	ug/g
Arsenic	5.2	7.4	5.0	ug/g
Barium	104.	170.	53.	ug/g
Beryllium	0.26	0.81	0.030	ug/g
Boron	41.	59.	24.	ug/g
Cadmium	0.52	0.97	0.30	ug/g
Calcium	6219.	35000.	370.	ug/g
Chromium	61.	99.	27.	ug/g
Cobalt	23.	77.	5.1	ug/g
Copper	13.	47.	1.2	ug/g
Iron	34545.	47000.	21000.	ug/g
Lead	32.	55.	13.	ug/g
Lithium	22.	33.	14.	ug/g
Magnesium	5872.	23000.	2300.	ug/g
Manganese	2237.	4200.	320.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	89.	700.	16.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	598.	1000.	380.	ug/g
Potassium	3209.	6200.	1400.	ug/g
Selenium	5.0	5.0	5.0	ug/g
Sodium	2010.	3500.	870.	ug/g
Strontium	10.	18.	6.0	ug/g
Thorium	20.	29.	20.	ug/g
Titanium	220.	320.	160.	ug/g
Vanadium	47.	62.	30.	ug/g
Zinc	64.	80.	46.	ug/g
	radionuclides			
Cesium	15.	15.	15.	DPM/G
Neptunium	0.20	0.20	0.20	DPM/G
Plutonium	0.20	0.20	0.20	DPM/G
Technetium	55.	55.	55.	DPM/G
Uranium	11.	24.	1.0	UG/G
U-235	1.2	1.6	0.92	Wt. %
	organics			
acetone	0.16	0.63	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G
bromoform	0.050	0.050	0.050	UG/G
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G

C pond data
Summary of the data for the dirt from 6 to 12 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
freon-113	0.10	0.10	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.030	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.060	0.060	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
Methyl Chloroform	0.040	0.040	0.040	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
	other analyses			
Phosphate (Total)	1794.	3000.	1140.	ug/g

C pond data
Summary of the data for the dirt from 6 to 12 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000063	0.000070	0.000050	mg/L
lindane	0.10	0.10	0.10	mg/L
methoxychlor	0.000046	0.000050	0.000040	mg/L
silvex	0.010	0.010	0.010	mg/L
toxaphene	0.0010	0.0010	0.0010	mg/L
2,4-D	0.030	0.030	0.030	mg/L
	metals			
Arsenic	0.0050	0.0050	0.0050	mg/L
Barium	0.43	0.90	0.10	mg/L
Cadmium	0.0020	0.0030	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.0060	0.015	0.0040	mg/L
Mercury	0.0010	0.0020	0.0010	mg/L
Nickel	0.037	0.14	0.010	mg/L
Selenium	0.0080	0.023	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C Pond data
summary of the data for the dirt from 12 to 18 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
Aluminum	30400.	39000.	20000.	ug/g
Arsenic	5.0	5.0	5.0	ug/g
Barium	84.	110.	64.	ug/g
Beryllium	0.030	0.030	0.030	ug/g
Boron	30.	38.	23.	ug/g
Cadmium	0.30	0.30	0.30	ug/g
Calcium	1094.	1600.	820.	ug/g
Chromium	41.	65.	19.	ug/g
Cobalt	15.	21.	11.	ug/g
Copper	3.5	6.5	0.40	ug/g
Iron	26000.	34000.	19000.	ug/g
Lead	26.	34.	15.	ug/g
Lithium	19.	25.	14.	ug/g
Magnesium	2800.	3300.	2200.	ug/g
Manganese	2074.	3200.	970.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	24.	55.	12.	ug/g
Niobium	0.70	0.70	0.70.	ug/g
Phosphorus	438.	540.	310.	ug/g
Potassium	2420.	5100.	1500.	ug/g
Selenium	5.0	5.0	5.0	ug/g
Sodium	1822.	2900.	810.	ug/g
Strontium	8.5	11.	5.2	ug/g
Thorium	20.	20.	20.	ug/g
Titanium	246.	310.	200.	ug/g
Vanadium	43.	50.	38.	ug/g
Zinc	54.	60.	39.	ug/g
	radionuclides			
Cesium	15.	15.	15.	DPM/G
Neptunium	0.20	0.20	0.20	DPM/G
Plutonium	0.10	0.10	0.10	DPM/G
Technetium	55.	55.	55.	DPM/G
Uranium	8.0	15.	1.0	UG/G
U-235	1.1	1.1	1.0	Wt. %
	organics			
acetone	0.21	0.68	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G
bromoform	0.050	0.050	0.050	UG/G
carbon tetrachloride	0.030	0.030	0.030	UG/G

C Pond data
summary of the data for the dirt from 12 to 18 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
freon-113	0.10	0.10	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.030	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.060	0.060	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
Methyl Chloroform	0.040	0.040	0.040	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
other analyses				
Phosphate (Total)	1314.	1620.	930.	ug/g

C Pond data
summary of the leach test data
for the dirt from 12 to 18 inches
from the top of the soil layer

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000070	0.000070	0.000070	mg/L
lindane	0.10	0.10	0.10	mg/L
methoxychlor	0.000050	0.000050	0.000050	mg/L
silvex	0.010	0.010	0.010	mg/L
toxaphene	0.0010	0.0010	0.0010	mg/L
2,4-D	0.030	0.030	0.030	mg/L
	metals			
Arsenic	0.0054	0.0070	0.0050	mg/L
Barium	0.30	0.57	0.11	mg/L
Cadmium	0.0098	0.040	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.019	0.053	0.0040	mg/L
Mercury	0.0020	0.0050	0.0010	mg/L
Nickel	0.36	1.6	0.010	mg/L
Selenium	0.011	0.022	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C Pond data
summary of the data for the dirt from 18 to 24 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
Aluminum	29000.	29000.	29000.	ug/g
Arsenic	5.0	5.0	5.0	ug/g
Barium	100.	100.	100.	ug/g
Beryllium	0.030	0.030	0.030	ug/g
Boron	40.	40.	40.	ug/g
Cadmium	0.30	0.30	0.30	ug/g
Calcium	1300.	1300.	1300.	ug/g
Chromium	23.	23.	23.	ug/g
Cobalt	11.	11.	11.	ug/g
Copper	2.5	2.5	2.5	ug/g
Iron	22000.	22000.	22000.	ug/g
Lead	18.	18.	18.	ug/g
Lithium	18.	18.	18.	ug/g
Magnesium	2800.	2800.	2800.	ug/g
Manganese	2200.	2200.	2200.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	31.	31.	31.	ug/g
Niobium	0.70	0.70	0.70	ug/g
Phosphorus	500.	500.	500.	ug/g
Potassium	1900.	1900.	1900.	ug/g
Selenium	5.0	5.0	5.0	ug/g
Sodium	2300.	2300.	2300.	ug/g
Strontium	12.	12.	12.	ug/g
Thorium	20.	20.	20.	ug/g
Titanium	300.	300.	300.	ug/g
Vanadium	40.	40.	40.	ug/g
Zinc	63.	63.	63.	ug/g
	radionuclides			
Cesium	15.	15.	15.	DPM/G
Neptunium	2.3	2.3	2.3	DPM/G
Plutonium	1.4	1.4	1.4	DPM/G
Technetium	55.	55.	55.	DPM/G
Uranium	9.0	9.0	9.0	UG/G
U-235	1.1	1.1	1.1	Wt. %
	organics			
PCB	0.0010	0.0010	0.0010	ug/g
	other analyses			
Phosphate (Total)	1500.	1500.	1500.	ug/g

C Pond data
summary of the data for the dirt from 18 to 24 inches
from the top of the soil layer
except the leach test

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000060	0.000060	0.000060	mg/L
lindane	0.10	0.10	0.10	mg/L
methoxychlor	0.000050	0.000050	0.000050	mg/L
silvex	0.010	0.010	0.010	mg/L
toxaphene	0.0010	0.0010	0.0010	mg/L
2,4-D	0.030	0.030	0.030	mg/L
	metals			
Arsenic	0.0050	0.0050	0.0050	mg/L
Barium	0.18	0.18	0.18	mg/L
Cadmium	0.0020	0.0020	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.0040	0.0040	0.0040	mg/L
Mercury	0.0020	0.0020	0.0020	mg/L
Nickel	0.050	0.050	0.050	mg/L
Selenium	0.0050	0.0050	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C Pond data
summary of data
for the east end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
		metals		
Aluminum	34736.	73000.	11000.	ug/g
Arsenic	9.5	68.	5.0	ug/g
Barium	81.	150.	13.	ug/g
Beryllium	0.18	0.77	0.030	ug/g
Boron	2026.	11000.	30.	ug/g
Cadmium	0.60	1.8	0.30	ug/g
Calcium	17591.	50000.	370.	ug/g
Chromium	57.	94.	26.	ug/g
Cobalt	15.	77.	2.0	ug/g
Copper	60.	350.	4.5	ug/g
Iron	28347.	53000.	2500.	ug/g
Lead	27.	55.	6.4	ug/g
Lithium	19.	31.	2.9	ug/g
Magnesium	6015.	23000.	2200.	ug/g
Manganese	954.	2900.	80.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	168.	1200.	12.	ug/g
Niobium	1.7	5.3	0.70	ug/g
Phosphorus	579.	1000.	310.	ug/g
Potassium	6278.	14000.	1400.	ug/g
Selenium	5.4	13.	5.0	ug/g
Sodium	6000.	20000.	1100.	ug/g
Strontium	40.	130.	5.2	ug/g
Thorium	29.	52.	20.	ug/g
Titanium	277.	770.	110.	ug/g
Vanadium	43.	72.	11.	ug/g
Zinc	72.	110.	39.	ug/g
		radionuclides		
Cesium	15.	19.	15.	DPM/G
Neptunium	2.6	11.	0.10	DPM/G
Plutonium	1.8	5.9	0.050	DPM/G
Technetium	340.	997.	55.	DPM/G
Uranium	37.	109.	1.0	UG/G
U-235	1.4	2.6	0.98	Wt. %
		organics		
acetone	0.28	1.0	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G

C Pond data
summary of data
for the east end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
bromoform	0.050	0.050	0.050	UG/G
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
freon-113	0.10	0.27	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.040	0.030	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
other halomethanes	0.10	0.10	0.10	UG/G
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.061	0.090	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
Methyl Chloroform	0.040	0.040	0.040	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
	other analyses			
Phosphate (Total)	1738.	3000.	930.	ug/g
pH	11.	11.	9.2	
Density @25C	1.4	1.7	1.1	G/ML

C Pond data
summary of data
for the east end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000065	0.000090	0.000050	mg/L
lindane	0.085	0.10	0.000020	mg/L
methoxychlor	0.000050	0.000070	0.000040	mg/L
silvex	0.0097	0.010	0.0080	mg/L
toxaphene	0.0011	0.0020	0.0010	mg/L
2,4-D	0.031	0.042	0.030	mg/L
	metals			
Arsenic	0.0052	0.0070	0.0050	mg/L
Barium	0.45	1.9	0.10	mg/L
Cadmium	0.0022	0.0040	0.0020	mg/L
Chromium	0.010	0.010	0.010	mg/L
Lead	0.0085	0.071	0.0040	mg/L
Mercury	0.0026	0.025	0.0010	mg/L
Nickel	0.51	1.8	0.010	mg/L
Selenium	0.0081	0.034	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

C Pond data
summary of data
for the west end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
	metals			
Aluminum	33109.	50000.	8500.	ug/g
Arsenic	11.	97.	5.0	ug/g
Barium	113.	230.	25.	ug/g
Beryllium	0.24	1.1	0.030	ug/g
Boron	708.	10000.	23.	ug/g
Cadmium	0.46	0.97	0.30	ug/g
Calcium	95648.	90000.	800.	ug/g
Chromium	339.	2400.	19.	ug/g
Cobalt	37.	210.	2.9	ug/g
Copper	275.	2000.	0.40	ug/g
Iron	31937.	73000.	3000.	ug/g
Lead	38.	140.	6.0	ug/g
Lithium	21.	33.	5.5	ug/g
Magnesium	5078.	12000.	2300.	ug/g
Manganese	2097.	6500.	73.	ug/g
Molybdenum	1.0	1.0	1.0	ug/g
Nickel	2953.	21000.	12.	ug/g
Niobium	0.97	4.4	0.70	ug/g
Phosphorus	3029.	18000.	320.	ug/g
Potassium	5175.	15000.	1500.	ug/g
Selenium	5.1	11.	5.0	ug/g
Sodium	2669.	9900.	740.	ug/g
Strontium	43.	150.	6.6	ug/g
Thorium	22.	52.	20.	ug/g
Titanium	276.	430.	160.	ug/g
Vanadium	39.	62.	14.	ug/g
Zinc	145.	660.	47.	ug/g
	radionuclides			
Cesium	93.	511.	15.	DPM/G
Neptunium	36.	183.	0.20	DPM/G
Plutonium	52.	241.	0.10	DPM/G
Technetium	2617.	13600.	55.	DPM/G
Uranium	286.	1841.	3.0	UG/G
U-235	1.2	1.6	0.70	Wt. %
	organics			
acetone	0.12	0.27	0.10	UG/G
benzene	0.040	0.040	0.040	UG/G
bromodichloromethane	0.020	0.020	0.020	UG/G

C Pond data
summary of data
for the west end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
bromoform	0.050	0.050	0.050	UG/G
carbon tetrachloride	0.030	0.030	0.030	UG/G
chlorobenzene	0.060	0.060	0.060	UG/G
chloroform	0.020	0.020	0.020	UG/G
cis-1,3-dichloropropene	0.050	0.050	0.050	UG/G
dibromochloromethane	0.030	0.030	0.030	UG/G
ethyl benzene	0.070	0.070	0.070	UG/G
freon-113	0.10	0.18	0.10	UG/G
freon-114	0.10	0.10	0.10	UG/G
freon-123	0.10	0.10	0.10	UG/G
methyl ethyl ketone (MEK)	0.10	0.10	0.10	UG/G
methylene chloride	0.030	0.030	0.030	UG/G
other halomethanes	0.10	0.10	0.10	UG/G
PCB	0.0010	0.0010	0.0010	ug/g
permethylated cyclosiloxane	2.4	2.4	2.4	UG/G
tetrachloroethylene	0.040	0.040	0.040	UG/G
toluene	0.060	0.060	0.060	UG/G
trans-1,2-dichloroethylene	0.020	0.020	0.020	UG/G
trans-1,3-dichloropropene	0.050	0.050	0.050	UG/G
trichloroethylene	0.020	0.020	0.020	UG/G
trichlorofluoromethane	0.10	0.10	0.10	UG/G
Methyl Chloroform	0.040	0.040	0.040	UG/G
1,1-dichloroethane	0.050	0.050	0.050	UG/G
1,1-dichloroethylene	0.030	0.030	0.030	UG/G
1,1,2-trichloroethane	0.050	0.050	0.050	UG/G
1,1,2,2-tetrachloroethane	0.070	0.070	0.070	UG/G
1,2-dichloroethane	0.030	0.030	0.030	UG/G
1,2-dichloropropane	0.060	0.060	0.060	UG/G
other analyses				
Density @25C	1.3	1.6	1.1	G/ML
Phosphate (Total)	9089.	54000.	960.	ug/g
pH	9.4	11.	8.1	

C Pond data
summary of data
for the west end of C Pond
except the leach test

parameter	mean	maximum	minimum	units
	pesticides			
endrin	0.000058	0.000070	0.000050	mg/L
fluorocarbons	0.0030	0.0040	0.0020	mg/L
lindane	0.081	0.10	0.014	mg/L
methoxychlor	0.000045	0.000050	0.000040	mg/L
silvex	0.0081	0.010	0.0040	mg/L
toxaphene	0.0010	0.0010	0.0010	mg/L
2,4-D	0.035	0.059	0.028	mg/L
	metals			
Arsenic	0.0060	0.016	0.0050	mg/L
Barium	0.61	1.9	0.11	mg/L
Cadmium	0.0069	0.040	0.0020	mg/L
Chromium	0.043	0.28	0.010	mg/L
Lead	0.0089	0.053	0.0040	mg/L
Mercury	0.0040	0.032	0.0010	mg/L
Nickel	2.4	18.	0.010	mg/L
Selenium	0.0071	0.023	0.0050	mg/L
Silver	0.010	0.010	0.010	mg/L

ATTACHMENT #3

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C

PARAMETER	QTR	WELL IDENTIFICATION UNW-6[1]	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Aluminum-U[2] (mg/l)	1ST	1.1	1.0	0.68	0.55	0.75	1.4
	2ND	15	2.8	24	5.3	18	2.0
	2ND		5.4				
	3RD	46	0.28	6.4	6.5	0.65	0.15
	4TH	2.4	1.4	3.5	1.3	6.2	7.2
Aluminum-F[3] (mg/l)	1ST	0.97	0.26	0.077	0.16	0.087	0.72
	2ND	< 0.020	< 0.020	< 0.020	< 0.020	0.072	0.18
	2ND		< 0.020				
	3RD	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.025
	4TH	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Antimony-U (mg/l)	1ST	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	2ND						
	2ND						
	3RD	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	4TH	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Antimony-F (mg/l)	1ST	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	2ND						
	2ND						
	3RD	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	4TH	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Arsenic-U (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	0.012	< 0.005	0.005	< 0.005	< 0.005
	2ND		< 0.005				
	3RD	< 0.005	< 0.005	0.008	< 0.005	< 0.005	< 0.005
	4TH	< 0.005	0.006	< 0.005	0.007	0.010	< 0.005
Arsenic-F (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND		< 0.005				
	3RD	< 0.005	< 0.005	0.006	< 0.005	< 0.005	< 0.005
	4TH	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005

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[1]Upgradient well

[2]U = Unfiltered Sample (Total Metals)

[3]F = Filtered Sample (Dissolved Metals)

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Barium-U (mg/l)	1ST	0.016	0.12	0.055	0.16	0.16	0.061
	2ND	0.040	0.12	0.15	0.16	0.17	0.029
	2ND		0.12				
	3RD	0.14	0.13	0.071	0.17	0.14	0.031
	4TH	0.0035	0.14	0.053	0.13	0.19	0.15
Barium-F (mg/l)	1ST	0.013	0.12	0.052	0.16	0.15	0.053
	2ND	0.0057	0.10	0.046	0.15	0.12	0.025
	2ND		0.10				
	3RD	0.0056	0.13	0.042	0.14	0.12	0.037
	4TH	< 0.0010	0.14	0.037	0.14	0.15	0.058
Beryllium-U (mg/l)	1ST	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	2ND	< 0.0003	< 0.0003	< 0.0003	0.0003	0.0004	< 0.0003
	2ND	<	0.0003				
	3RD	0.0093	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	4TH	0.0004	< 0.0003	0.0004	< 0.0003	0.0003	0.0006
Beryllium-F (mg/l)	1ST	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	2ND	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	2ND	<	0.0003				
	3RD	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
	4TH	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Boron-U (mg/l)	1ST	< 0.0040	0.032	0.017	0.031	0.027	0.042
	2ND	0.034	0.083	0.080	0.080	0.23	0.030
	2ND		0.055				
	3RD	0.020	0.015	0.014	0.015	0.0040	0.010
	4TH	0.0041	0.034	0.018	0.010	0.0093	0.077
Boron-F (mg/l)	1ST	< 0.0040	0.032	0.0042	0.027	0.023	0.036
	2ND	0.023	0.039	0.051	0.041	0.066	0.75
	2ND		0.049				
	3RD	< 0.0040	0.023	< 0.0040	0.014	0.015	0.016
	4TH	0.017	0.036	0.0084	0.021	0.059	< 0.0040

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Cadmium-U (mg/l)	1ST	< 0.0030	< 0.0030	< 0.0030	0.0050	< 0.0030	0.011[4]
	2ND	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	2ND		< 0.0030				
	3RD	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	4TH	< 0.0030	< 0.0030	0.0046	< 0.0030	< 0.0030	< 0.0030
Cadmium-F (mg/l)	1ST	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	2ND	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	2ND		< 0.0030				
	3RD	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	4TH	< 0.0030	< 0.0030	0.0030	0.0062	< 0.0030	< 0.0030
Calcium-U (mg/l)	1ST	61	77	70	140	110	48
	2ND	66	92	88	160	150	8.1
	2ND		91				
	3RD	72	120	82	170	140	22
	4TH	72	120	78	160	130	70
Calcium-F (mg/l)	1ST	61	79	72	150	110	50
	2ND	66	88	76	160	150	8.0
	2ND		90				
	3RD	67	120	78	170	130	38
	4TH	74	120	79	170	130	61
Chloride (mg/l)	1ST	4	158	35	208	36	3.9
	2ND	1.7	193	1.5	204	23	3.3
	2ND		162				
	3RD	2.7	236	35	202	46	3.4
	4TH	3.2	228	37	178	35	2.5
Chromium-U (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	0.011	< 0.010	0.027	< 0.010	0.018	< 0.010
	2ND		< 0.010				
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.018

[4]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Chromium-F (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND		< 0.010				
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Cobalt-U (mg/l)	1ST	< 0.0050	0.015	< 0.0050	0.058	0.0051	< 0.0050
	2ND	< 0.0050	0.0057	0.016	0.057	0.012	< 0.0050
	2ND		0.0062				
	3RD	0.036	0.0083	< 0.0050	0.056	< 0.0050	< 0.0050
	4TH	0.0055	0.020	0.0060	0.052	0.012	0.0074
Cobalt-F (mg/l)	1ST	< 0.0050	0.014	< 0.0050	0.055	0.0052	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	0.049	< 0.0050	< 0.0050
	2ND		< 0.0050				
	3RD	< 0.0050	0.0059	< 0.0050	0.050	< 0.0050	< 0.0050
	4TH	< 0.0050	0.015	< 0.0050	0.056	< 0.0050	< 0.0050
Copper-U (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0040	0.0075
	2ND	0.010	< 0.0040	< 0.0040	0.0040	0.019	0.016
	2ND		0.0066				
	3RD	0.061	< 0.0040	< 0.0040	0.0040	0.022	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Copper-F (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND	< 0.0040	< 0.0040	< 0.0040	0.0040	0.78	0.011
	2ND		< 0.0040				
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Iron-U (mg/l)	1ST	2.1	4.1	0.74	11	15	1.7
	2ND	24	4.9	31	21	28	2.3
	2ND		6.9				
	3RD	82	1.8	6.7	22	13	0.13
	4TH	2.4	3.2	3.2	11	21	8.8
Iron-F (mg/l)	1ST	0.79	1.3	0.14	10	11	0.62
	2ND	0.027	0.48	0.034	12	1.6	0.070
	2ND		0.29				
	3RD	0.0068	0.94	< 0.0040	11	1.5	< 0.0040
	4TH	< 0.0040	0.16	< 0.0040	4.5	0.023	0.013

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION					
		UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Lead-U (mg/l)	1ST	0.046	< 0.004	0.004	0.004	0.007	0.334[5]
	2ND	< 0.004	< 0.004	0.004	0.28[6]	< 0.004	0.016
	2ND		< 0.004				
	3RD	0.250[7]	0.004	0.055[8]	0.057[9]	0.005	0.007
	4TH	0.007	< 0.004	0.010	0.006	0.025	0.015
Lead-F (mg/l)	1ST	0.015	< 0.004	0.011	< 0.004	< 0.004	0.124[10]
	2ND	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	2ND		< 0.004				
	3RD	< 0.004	0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4TH	< 0.004	< 0.004	< 0.004	0.005	< 0.004	0.015
Lithium-U (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND	0.0064	< 0.0040	0.0097	< 0.0040	0.011	< 0.0040
	2ND		< 0.0040				
	3RD	0.030	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0040	0.0062
Lithium-F (mg/l)	1ST	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	2ND		< 0.0040				
	3RD	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
	4TH	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040

[5]Exceeds EPA Primary Interim Drinking Water Standards

[6]Exceeds EPA Primary Interim Drinking Water Standards

[7]Exceeds EPA Primary Interim Drinking Water Standards

[8]Exceeds EPA Primary Interim Drinking Water Standards

[9]Exceeds EPA Primary Interim Drinking Water Standards

[10]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

		WELL IDENTIFICATION					
PARAMETER	QTR	UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Magnesium-U	1ST	11	17	6.3	23	19	6.6
(mg/l)	2ND	9.9	17	11	22	20	1.7
	2ND		17				
	3RD	11	19	7.0	22	19	3.3
	4TH	8.9	18	5.8	19	18	8.8
Magnesium-F	1ST	10	17	6.3	24	19	6.8
(mg/l)	2ND	9.4	16	5.4	21	19	1.5
	2ND		16				
	3RD	8.3	19	5.5	21	18	4.9
	4TH	8.8	18	5.2	20	18	6.5
Manganese-U	1ST	0.20	9.0	0.089	22	7.3	0.18
(mg/l)	2ND	0.75	8.4	0.95	22	9.3	0.069
	2ND		8.3				
	3RD	3.35	9.9	0.28	21	5.9	0.022
	4TH	0.094	10	0.13	18	6.2	0.41
Manganese-F	1ST	0.095	9.1	0.060	22	7.2	0.12
(mg/l)	2ND	0.0025	8.0	0.049	21	9.2	0.040
	2ND		8.2				
	3RD	0.027	9.4	0.045	21	5.4	0.034
	4TH	< 0.0010	10	0.038	19	5.6	0.030
Mercury-U	1ST	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
(mg/l)	2ND	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	2ND		< 0.0002				
	3RD	0.0004	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	4TH	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Mercury-F	1ST	< 0.0002	< 0.0002	< 0.0002	0.0002	< 0.0002	< 0.0002
(mg/l)	2ND	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	2ND		< 0.0002				
	3RD	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	4TH	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Molybdenum-U	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
(mg/l)	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND		< 0.010				
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Molybdenum-F (mg/l)	1ST	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	2ND		< 0.010				
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nickel-U (mg/l)	1ST	< 0.010	0.012	< 0.010	0.013	0.013	< 0.010
	2ND	0.013	< 0.010	0.055	< 0.010	0.031	0.027
	2ND		< 0.010				
	3RD	0.048	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.016
Nickel-F (mg/l)	1ST	0.011	0.011	0.020	0.013	< 0.010	< 0.010
	2ND	< 0.010	< 0.010	< 0.010	< 0.010	0.014	0.023
	2ND		< 0.010				
	3RD	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	4TH	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Niobium-U (mg/l)	1ST	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	2ND	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	2ND		< 0.0070				
	3RD	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	4TH	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
Niobium-F (mg/l)	1ST	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	2ND	< 0.0070	< 0.0070	< 0.0070	< 0.0070	0.0070	0.0077
	2ND		< 0.0070				
	3RD	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
	4TH	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070
Nitrate (as Nitrogen) (mg/l)	1ST	0.16	< 0.11	< 0.11	< 0.11	0.11	5.3
	2ND	0.28	< 0.11	< 0.11	< 0.11	0.11	2.03
	2ND		< 0.11				
	3RD	0.32	< 0.11	< 0.11	< 0.11	0.11	1.52
	4TH	0.39	< 0.11	< 0.11	< 0.11	0.11	1.53
Phenols (mg/l)	1ST	< 0.001	0.008	0.002	0.004	< 0.001	0.008
	2ND	< 0.001	0.003	< 0.001	0.001	0.002	0.003
	2ND		0.003				
	3RD	< 0.001	0.005	< 0.001	0.012	< 0.001	0.005
	4TH	< 0.001	< 0.001	< 0.001	0.002	0.008	0.002

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Phosphorus-U (mg/l)	1ST	< 0.20	0.22	< 0.20	0.24	0.38	< 0.20
	2ND	0.45	< 0.20	0.55	< 0.20	0.50	< 0.20
	2ND		< 0.20				
	3RD	1.9	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	0.30	0.32	0.24	0.43	0.42	< 0.20
Phosphorus-F (mg/l)	1ST	< 0.20	0.25	< 0.20	0.23	0.34	< 0.20
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND		< 0.20				
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	< 0.20	0.32	< 0.20	0.27	0.34	< 0.20
Potassium-U (mg/l)	1ST	2.7	3.2	5.5	6.8	3.4	3.5
	2ND	5.1	2.8	18	6.8	5.9	2.1
	2ND		3.2				
	3RD	6.6	2.3	6.1	5.7	2.3	1.8
	4TH	2.2	3.1	6.5	6.6	5.0	4.3
Potassium-F (mg/l)	1ST	2.6	2.9	4.9	6.7	3.6	3.0
	2ND	1.5	1.5	4.5	5.3	2.5	1.6
	2ND		1.9				
	3RD	0.83	1.3	2.3	4.3	1.8	1.8
	4TH	1.9	3.4	4.5	6.3	3.7	2.3
Selenium-U (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND		< 0.005				
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4TH	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Selenium-F (mg/l)	1ST	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2ND		< 0.005				
	3RD	< 0.005	< 0.005	< 0.005	< 0.005	0.005	< 0.005
	4TH	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silicon-U (mg/l)	1ST	5.0	4.5	7.6	4.5	3.6	6.1
	2ND	19	6.9	38	9.7	14	5.9
	2ND		11				
	3RD	46	3.7	16	13	3.8	3.7
	4TH	6.5	5.5	12	5.8	9.2	13

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Silicon-F (mg/l)	1ST	4.8	3.6	6.9	4.2	2.9	5.9
	2ND	3.4	2.7	5.7	3.5	2.7	3.4
	2ND		2.7				
	3RD	3.3	3.2	6.1	3.6	2.6	4.0
	4TH	3.7	3.3	6.3	3.7	2.5	5.1
Silver-U (mg/l)	1ST	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND		< 0.0060				
	3RD	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	4TH	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
Silver-F (mg/l)	1ST	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	2ND		< 0.0060				
	3RD	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
	4TH	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
Sodium-U (mg/l)	1ST	1.8	190	5.2	100	31	3.2
	2ND	1.8	190	8.2	96	23	2.7
	2ND		180				
	3RD	1.5	230	5.3	96	32	3.1
	4TH	1.5	240	5.5	89	30	2.1
Sodium-F (mg/l)	1ST	1.8	190	5.4	100	30	3.3
	2ND	1.9	180	7.8	97	23	3.6
	2ND		190				
	3RD	1.7	220	4.7	95	29	2.8
	4TH	1.5	240	5.4	96	30	1.9
Strontium-U (mg/l)	1ST	0.053	0.15	0.094	0.26	0.17	0.069
	2ND	0.040	0.14	0.090	0.22	0.16	0.014
	2ND		0.14				
	3RD	0.041	0.16	0.078	0.22	0.15	0.026
	4TH	0.037	0.16	0.071	0.19	0.15	0.091
Strontium-F (mg/l)	1ST	0.053	0.15	0.096	0.27	0.17	0.070
	2ND	0.038	0.14	0.075	0.22	0.15	0.013
	2ND		0.14				
	3RD	0.033	0.016	0.070	0.21	0.14	0.039
	4TH	0.037	0.16	0.068	0.21	0.14	0.078

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Sulfate (mg/l)	1ST	6	67	10	116	20	12
	2ND	7.1	70	12	112	53	3.1
	2ND		74				
	3RD	5.7	84	7.5	122	9.7	4.0
	4TH	7	86	7	118	12	2.6
Thallium-U (mg/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01
	2ND		< 0.01				
	3RD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4TH	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thallium-F (mg/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND		< 0.01				
	3RD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4TH	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thorium-U (mg/l)	1ST	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND		< 0.20				
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thorium-F (mg/l)	1ST	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2ND		< 0.20				
	3RD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4TH	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Titanium-U (mg/l)	1ST	0.0088	0.019	0.023	0.0098	0.023	0.026
	2ND	0.18	0.047	0.39	0.075	0.24	0.050
	2ND		0.16				
	3RD	0.52	0.014	0.21	0.19	0.019 <	0.0030
	4TH	0.089	0.070	0.13	0.071	0.19	0.20
Titanium-F (mg/l)	1ST	0.0078	0.0039 <	0.0030 <	0.0030 <	0.0030	0.0078
	2ND	< 0.0030 <	0.0030 <	0.0030 <	0.0030 <	0.0030 <	0.0030
	2ND	<	0.0030				
	3RD	0.0038	0.0061 <	0.0030	0.0039 <	0.0030 <	0.0030
	4TH	0.022	0.016	0.014	0.017	0.021 <	0.0030

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Total Organic Carbon (mg/l)	1ST	120	360	300	155	195	45
	2ND	1.7	5.2	1.5	5.6	9.1	30
	2ND	1.2	5.5	1.7	4.8	9.5	30
	2ND	1.2	4.8	1.5	3.3	9.2	35
	2ND	2.6	5.0	0.8	5.0	8.6	35
	3RD	46	181	85	190	146	42
	3RD	47	198	84	175	146	41
	3RD	48	190	85	180	149	40
	3RD	42	182	80	185	151	45
	4TH	47	190	73	190	145	36
	4TH	47	192	79	205	146	37
	4TH	47	204	79	201	137	38
	4TH	49	185	79	200	139	33
Total Organic Chloride (ug/l)	1ST	1.7	1750	400	133	17	39
	1ST	1.1	1700	360	107	18	38
	1ST	2.0	1700	490	149	20	37
	1ST	1.8	1850	390	138	20	41
	2ND	< 5	53	17	71	45	18
	2ND	< 5	52	30	108	45	18
	2ND	< 5	58	22	53	51	19
	2ND	17		37	97	52	16
	3RD	140	1400	300	1370	220	300
	3RD	120	1370	310	1410	430	320
	3RD	83	1370	320	1440	130	330
	3RD	97	1410	280	1480	340	280
	4TH	200	2780	240	1040	107	52
	4TH	190	2620	250	1040	86	81
	4TH	180	2580	230	1040	92	60
	4TH	220	2720	250	1050	124	62
Uranium-U (ug/l)	1ST	0.010	0.011	0.006	0.007	0.007	0.006
	2ND	0.003	0.003	< 0.001	< 0.001	0.006	< 0.001
	2ND		0.004				
	3RD	0.005	0.003	< 0.001	< 0.001	0.001	< 0.001
	4TH	< 0.001	0.003	0.001	< 0.001	< 0.001	0.004
Uranium-F (ug/l)	1ST	0.020	0.026	0.029	0.013	0.019	0.012
	2ND	0.003	< 0.001	< 0.001	< 0.001	0.003	0.030
	2ND		0.001				
	3RD	0.004	0.001	< 0.001	0.004	0.002	0.002
	4TH	0.001	0.004	< 0.001	0.001	0.009	0.001

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Vanadium-U (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	0.26	< 0.0050	0.018	< 0.0050	0.025	< 0.0050
	2ND		< 0.0050				
	3RD	0.11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	0.0050	0.0078	0.0095
Vanadium-F (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND		< 0.0050				
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc-U (mg/l)	1ST	0.089	0.034	0.037	0.051	0.12	0.17
	2ND	0.084	0.022	0.052	0.013	0.058	0.11
	2ND		0.019				
	3RD	0.30	0.030	0.036	0.030	0.068	< 0.0010
	4TH	0.71	0.013	0.018	0.012	0.027	0.050
Zinc-F (mg/l)	1ST	0.14	0.048	0.029	0.094	0.055	0.14
	2ND	0.0018	0.0024	0.0094	0.0011	0.016	0.085
	2ND		< 0.0010				
	3RD	0.0049	0.035	0.023	0.017	0.036	< 0.0010
	4TH	0.0067	0.013	0.013	0.011	0.0062	0.022
Zirconium-U (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	0.0059	< 0.0050	< 0.0050	0.0050	0.014	< 0.0050
	2ND		< 0.0050				
	3RD	0.017	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium-F (mg/l)	1ST	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	2ND		< 0.0050				
	3RD	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	4TH	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
2,4-D (ug/l)	1ST	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	2ND	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3RD	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	4TH	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Endrin (ug/l)	1ST	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	2ND	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	3RD	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
	4TH	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoride (ug/l)	1ST	0.09	0.05	0.04	0.04	0.12	0.09
	2ND	0.153	0.081	0.063	0.066	IS[11]	0.07
	2ND		0.073				
	3RD	0.2	0.1	0.1	0.1	0.2	< 0.1
	4TH	0.2	0.1	0.1	0.1	0.2	0.1
Lindane (ug/l)	1ST	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	2ND	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	3RD	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4TH	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Methoxychlor (ug/l)	1ST	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	2ND	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	3RD	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
	4TH	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Silvex (ug/l)	1ST	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	2ND	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	3RD	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4TH	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene (ug/l)	1ST	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	2ND	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3RD	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	4TH	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

[11]Insufficient sample for analysis

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Alpha Activity (pCi/l)	1ST	60.18[12]	59.32[13]	30.86[14]	24.77[15]	25.51[16]	26.34[17]
	2ND	54[18]	41[19]	74[20]	28[21]	15.9[22]	23[23]
	2ND		7.9				
	3RD	4.8	0.33	< 1	< 3	< 3	1.9
	4TH	6	8	8	1	2	10

[12]Exceeds EPA Primary Interim Drinking Water Standards

[13]Exceeds EPA Primary Interim Drinking Water Standards

[14]Exceeds EPA Primary Interim Drinking Water Standards

[15]Exceeds EPA Primary Interim Drinking Water Standards

[16]Exceeds EPA Primary Interim Drinking Water Standards

[17]Exceeds EPA Primary Interim Drinking Water Standards

[18]Exceeds EPA Primary Interim Drinking Water Standards

[19]Exceeds EPA Primary Interim Drinking Water Standards

[20]Exceeds EPA Primary Interim Drinking Water Standards

[21]Exceeds EPA Primary Interim Drinking Water Standards

[22]Exceeds EPA Primary Interim Drinking Water Standards

[23]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

		WELL IDENTIFICATION					
PARAMETER	QTR	UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Beta Activity (pCi/l)	1ST	85.32[24]	109[25]	65.14[26]	43.51	36.76	36.40
	2ND	34	68[27]	145[28]	21	15.9	35
	2ND		59[29]				
	3RD	9.9	48.3	9.28	11.6	3.5	4.0
	4TH	8	73[30]	19	11	9	13
Conductivity (umho/cm)	1ST	387	1088	461	1404	768	297
	2ND	418	1098	517	1530	783	89
	2ND	424	1495	518	1420	783	256
	2ND	424	1454	549	1540	806	256
	2ND	432	1478	532	1550	808	279
	2ND		1418				
	2ND		1491				
	2ND		1475				
	2ND		1534				
	3RD	379	1524	458	1371	788	164
	3RD	363	1527	473	1375	800	142
	3RD	362	1521	463	1384	806	140
	3RD	364	1529	458	1374	823	136
	4TH	225	1779	432	1487	891	325
	4TH	328	1772	480	1476	881	300
	4TH	331	1758	433	1472	886	295
	4TH	332	1771	444	1475	882	297

[24]Exceeds EPA Primary Interim Drinking Water Standards

[25]Exceeds EPA Primary Interim Drinking Water Standards

[26]Exceeds EPA Primary Interim Drinking Water Standards

[27]Exceeds EPA Primary Interim Drinking Water Standards

[28]Exceeds EPA Primary Interim Drinking Water Standards

[29]Exceeds EPA Primary Interim Drinking Water Standards

[30]Exceeds EPA Primary Interim Drinking Water Standards

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

PARAMETER	QTR	WELL IDENTIFICATION UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
Temperature (deg. C)	1ST	24	15	15	20	22	16
	2ND	15.3	12.3	15.0	13.5	12.8	9.1
	3RD	17	23	17.2	17.8	23.0	22.6
	4TH	22.9	21.6	18.1	19.3	17.0	20.4
Total Coliform Bacteria (cc/100 ml)	1ST	NF[31]	NF	NF	NF	NF	NF
	2ND	NF	NF	NF	NF	NF	NF
	2ND		2[32]				3[33]
	3RD	NF	NF	NF	NF	NF	NF
	4TH	1[34]	NF	NF	NF	NF	NF
Total Radium (pCi/l)	1ST	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
	2ND	2.97	< 2.70	3.24	< 2.70	< 2.70	< 2.70
	3RD	5.41[35]	< 2.70	10.27[36]	< 2.70	5.95[37]	4.59
	4TH	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70
Uranium-235 (wt. %)	1ST	IU[38]	IU	IU	IU	IU	1.02
	2ND	IU	IU	IU	IU	IU	IU
	2ND		IU				
	3RD	IU	IU	IU	IU	IU	IU
	4TH	IU	IU	IU	IU	IU	IU

[31] Not found

[32] Exceeds EPA Primary Interim Drinking Water Standards

[33] Exceeds EPA Primary Interim Drinking Water Standards

[34] Exceeds EPA Primary Interim Drinking Water Standards

[35] Exceeds EPA Primary Interim Drinking Water Standards

[36] Exceeds EPA Primary Interim Drinking Water Standards

[37] Exceeds EPA Primary Interim Drinking Water Standards

[38] Insufficient uranium for assay analysis

FIRST YEAR INTERIM STATUS
ORGDP GROUNDWATER MONITORING WELL DATA

K-1407-C, Continued

		WELL IDENTIFICATION					
PARAMETER	QTR	UNW-6	UNW-7	UNW-8	UNW-9	UNW-10	UNW-11
pH (units)	1ST	7.1	6.4	6.5	6.2	6.8	6.9
	2ND	7.3	6.4	6.6	7.1	6.8	6.0
	2ND	7.3	6.5	6.6	7.1	6.9	7.0
	2ND	7.3	6.5	6.5	6.7	7.0	7.0
	2ND	7.8	6.8	7.1	6.7	7.0	7.0
	2ND		6.4				
	2ND		6.4				
	2ND		6.5				
	2ND		6.9				
	3RD	7.6	6.7	7.3	6.7	7.2	6.4
	3RD	7.6	6.7	6.7	6.6	6.9	6.2
	3RD	7.5	6.7	6.7	6.6	6.9	6.2
	3RD	7.5	6.6	6.7	6.5	6.8	6.2
	4TH	8.8	6.5	6.5	6.4	6.9	6.7
	4TH	7.6	6.5	6.6	6.4	6.9	6.7
	4TH	7.6	6.5	6.6	6.4	6.9	6.7
	4TH	7.5	6.5	6.5	6.4	6.8	6.8
Groundwater Elevation (ft.)	1ST	759.9	753.8	752.6	754.8	753.6	754.9
	2ND	765.1	755.5	753.5	751.8	750.6	753.3
	3RD	755.0	752.4	748.1	749.3	749.6	751.8
	4TH	753.0	754.0	751.5	751.7	749.6	751.3

UNIT NUMBER 040

UNIT NAME K-726 PCB Storage Facility

REGULATORY STATUS 3004 u (TSCA)

LOCATION — shown on map See ORGDP topographic map #40 and photograph #40

APPROXIMATE DIMENSIONS 75 feet by 50 feet

CAPACITY Approximately five-hundred 55-gallon drums

FUNCTION Drum storage of PCB liquids and solids

DATES OPERATED 1978 to the present

DESCRIPTION OF WASTE (or list attached references):

PCB wastes which include capacitors, kerosene, soil, and ballasts.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The facility is diked and the concrete floor has been sealed. The area is inspected weekly and no waste materials are being released from the diked area.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

No

REMEDIAL INVESTIGATION PLANNED?

None

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since PCB materials have not been released from the unit, it is recommended that this unit be removed from the remedial action list in the ORNL RCRA permit.

40. K-726 PCB Storage

UNIT NUMBER 041

UNIT NAME K-33 ANDCO Water Treatment Unit

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #41 and photograph #41

APPROXIMATE DIMENSIONS N/A

CAPACITY Rated capacity 864,000 gallons per day

FUNCTION Reduction of Cr+6 to Cr+3

DATES OPERATED 1970s to 1986 (used periodically)

DESCRIPTION OF WASTE (or list attached references):

Wastewater consists of cooling water used in the enrichment process. The water contains chromium which is used as a corrosion inhibitor. The waste is reduced from the soluble Cr^{+6} volume to the insoluble Cr^{+3} volume in the ANDCO unit.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

The treatment unit is in an enclosed building, and no releases have been known to occur.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

None

REMEDIAL INVESTIGATION PLANNED?

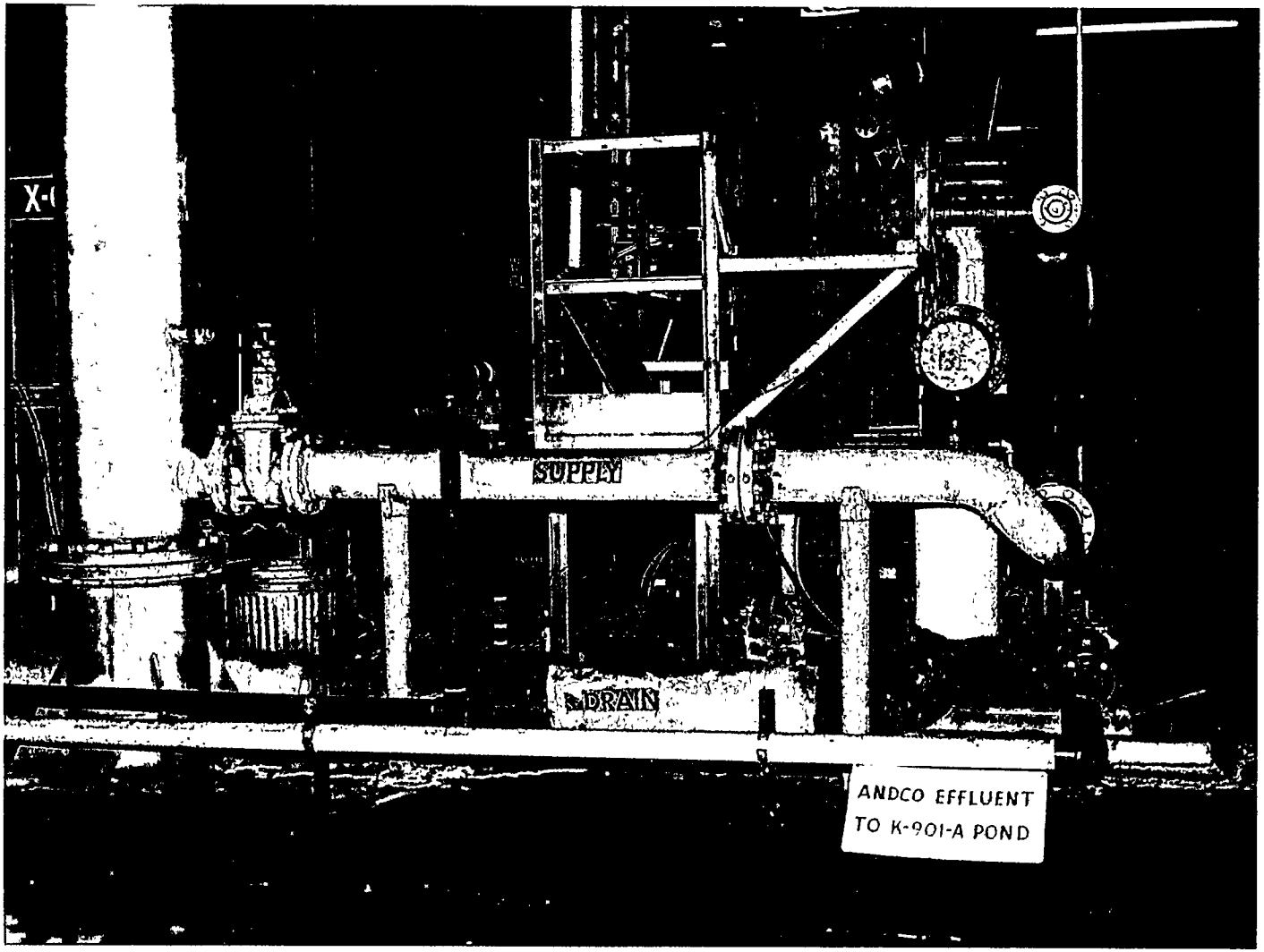
The area outside the ANDCO unit will be evaluated for remedial action since there are transfer lines nearby associated with the cooling tower system. The cooling towers at ORGDP will be evaluated as a CERCLA unit.

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since the ANDCO treatment unit is a solid-piped treatment unit and no releases have been known to occur, it is recommended that this unit be removed from the remedial action list.



41. K-33 ANDCO Water Treatment Unit

UNIT NUMBER 042

UNIT NAME K-1004 Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #42 and photograph #42

APPROXIMATE DIMENSIONS 40 feet by 40 feet

CAPACITY 25 drums

FUNCTION Temporary storage of hazardous waste

DATES OPERATED 1985 to the present

DESCRIPTION OF WASTE (or list attached references):

Flammables, solvents, acids, bases, and sludges that are generated during routine laboratory procedures. The waste solutions are stored as part of the Best Management Practice procedure implemented for the collection of laboratory waste.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

This is a temporary storage unit which has been in operation for approximately two years. No materials are known to have been released from this area.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

N/A

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

N/A

COMMENTS:

This temporary storage area has not released material from the collection area. Any small spills which may occur during the transfer of materials are immediately cleaned up. It is recommended that this unit not be further evaluated for additional actions.

42. K-1004 Waste Accumulation Area

UNIT NUMBER 043

UNIT NAME K-1085 Old Firehouse Burn Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #43 and photograph #43

APPROXIMATE DIMENSIONS - 0.1 acre

CAPACITY NA

FUNCTION Open burning of waste solvents

DATES OPERATED 1950 through 1960

DESCRIPTION OF WASTE (or list attached references):

Details of the types and quantities of waste burned at this unit are unknown. Available information indicates various waste solvents such as trichloroethane, acetone, perchloroethylene, and paint wastes were burned in an open container at the unit.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

None

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Groundwater monitoring is currently being installed at the unit, and soil samples will be collected in the summer of 1987 for analysis. This information will allow us to determine if a RFI needs to be prepared for the unit.

REMEDIAL INVESTIGATION PLANNED?

This will be determined after the planned sampling program has been completed.

MEDIA TO BE ADDRESSED:

Groundwater, soil

COMMENTS:

It is not expected that a RFI will be required for this unit.

43. K-1085 Old Firehouse Burn Area

UNIT NUMBER 044

UNIT NAME K-1007-P1 Holding Pond

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #44 and photograph #44

APPROXIMATE DIMENSIONS: Approximately 44 acres

CAPACITY N/A

FUNCTION Flow equalization for chemicals discharged from the laboratory.

DATES OPERATED 1950s to the present

DESCRIPTION OF WASTE (or list attached references):

The waste discharged to the pond from the laboratory were reagents used for various analytical procedures such as solvents, acids, and bases in small volumes and concentrations. The discharge of these chemicals into the pond was discontinued in 1985.

DESCRIPTION OF RELEASES (or list attached references):

The only known release from the unit is through the outfall that is permitted under the NPDES.

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Additional information is needed from this unit to determine if a RFI plan will be required. Sludge samples will be collected and analyzed to determine if hazardous constituents are present.

REMEDIAL INVESTIGATION PLANNED?

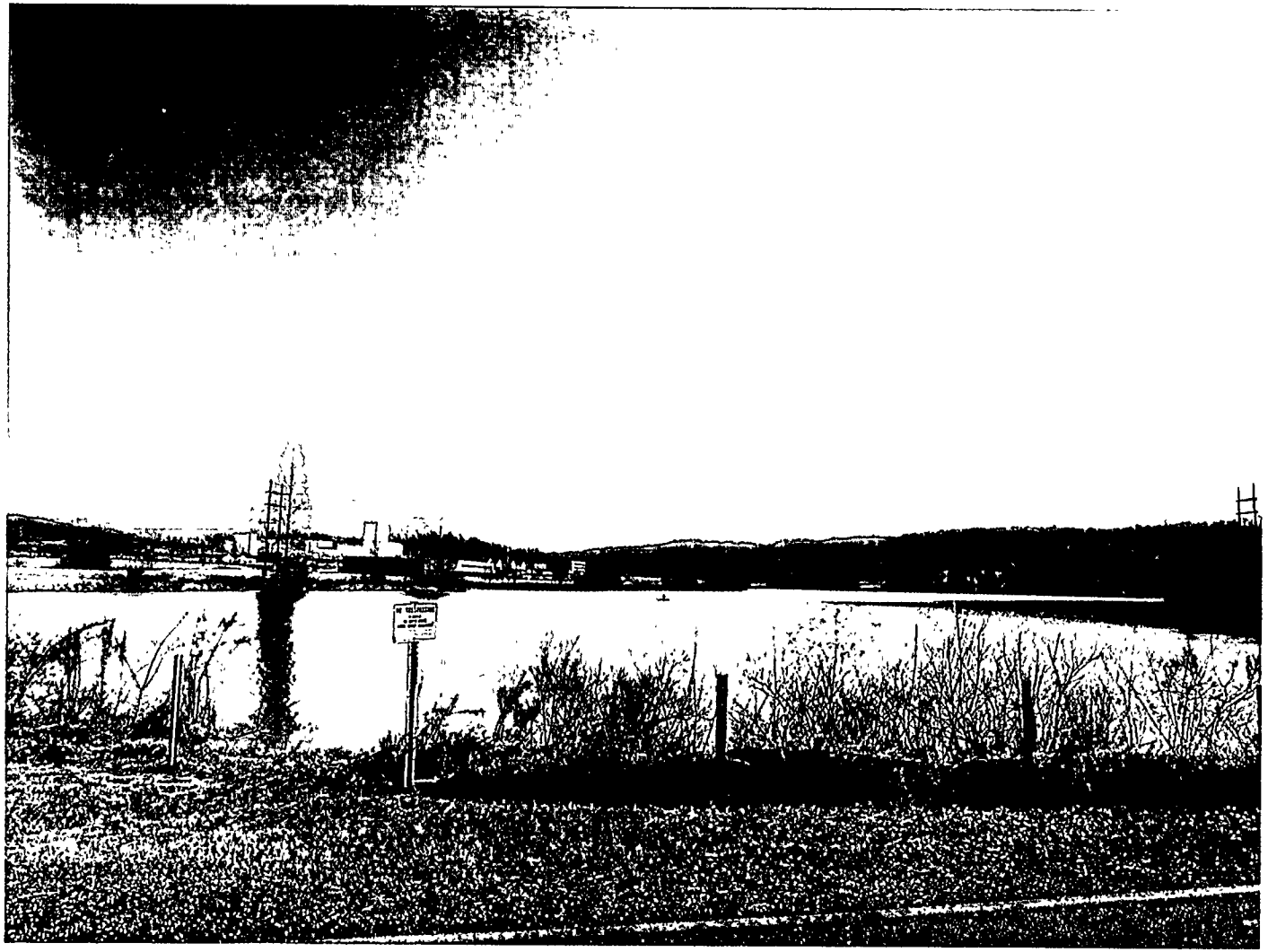
To be determined.

MEDIA TO BE ADDRESSED:

Sludge

COMMENTS:

The discharge from the unit is permitted under the NPDES program.



44. K-1007-P1 Holding Pond

UNIT NUMBER 045

UNIT NAME K-720 Fly Ash Pile

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #45 and photograph #45

APPROXIMATE DIMENSIONS Approximately 20 acres

CAPACITY N/A

FUNCTION Waste pile for fly ash

DATES OPERATED 1940s through 1960s

DESCRIPTION OF WASTE (or list attached references):

Fly ash from the coal-fired steam plant

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Samples will be collected to determine if additional information will be required. It is not expected that a RFI will be prepared for the unit.

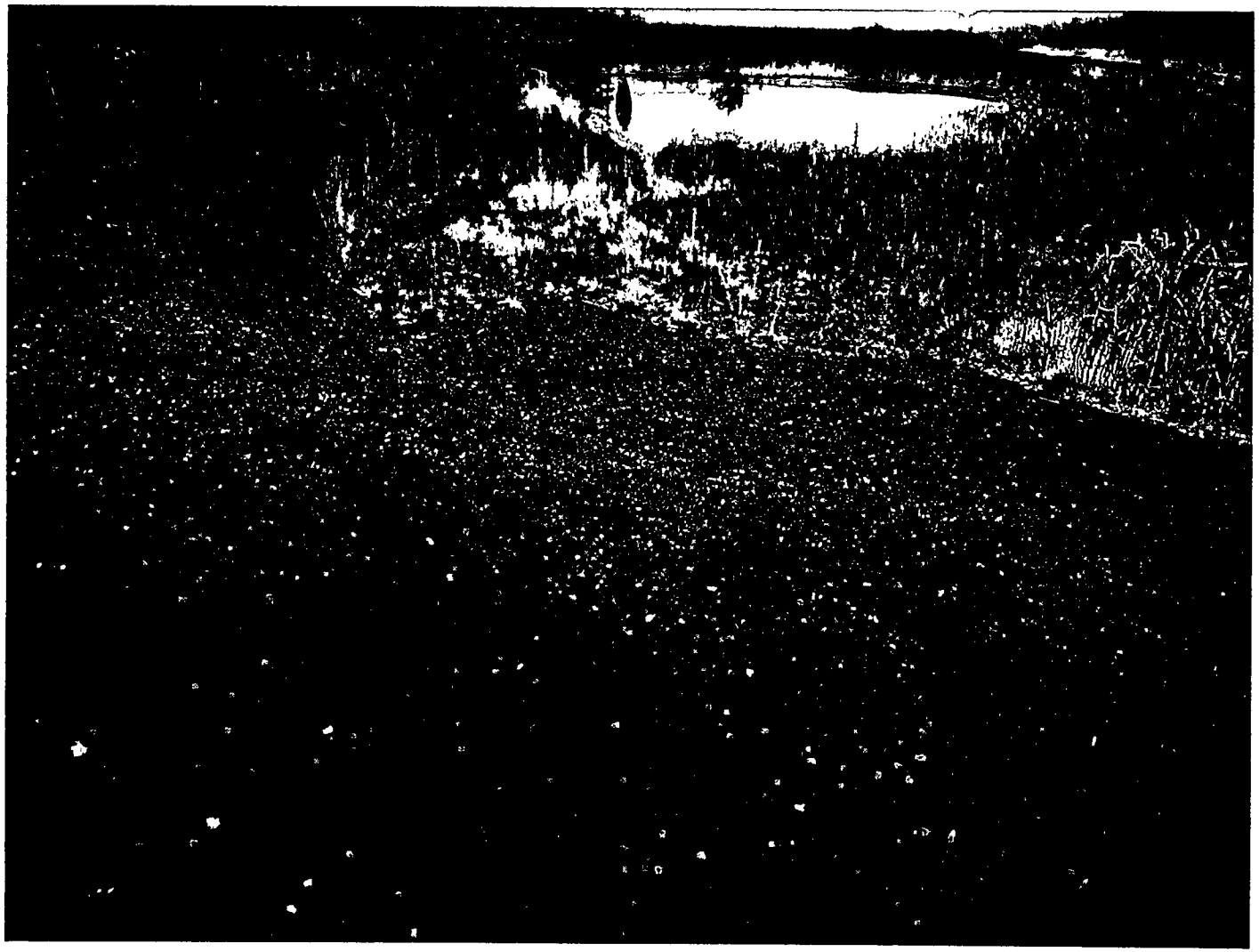
REMEDIAL INVESTIGATION PLANNED?

Not at this time.

MEDIA TO BE ADDRESSED:

Fly ash and soil

COMMENTS:



45. K-720 Fly Ash Pile

UNIT NUMBER 046

UNIT NAME K-1004-L Vaults

REGULATORY STATUS 3004.u (Radioactive Waste Only)

LOCATION - shown on map See ORGDP topographic map #46

APPROXIMATE DIMENSIONS Approximately 25 feet by 25 feet area

CAPACITY Unknown

FUNCTION Underground storage of spent samples of nuclear fuel elements

DATES OPERATED 1940s to 1950s

DESCRIPTION OF WASTE (or list attached references):

The waste stored at this unit has been described as samples of spent nuclear fuel elements that were shipped to the ORGDP for analyis. The samples were stored in underground concrete casts after analyses were completed. It is assumed that the samples were removed when the project ended.

DESCRIPTION OF RELEASES (or list attached references):

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

More information is needed before a decision is made concerning a RFI for the unit. If it can be verified that the material was removed from the unit, no additional actions will be taken.

REMEDIAL INVESTIGATION PLANNED?

To be determined.

MEDIA TO BE ADDRESSED:

To be determined.

COMMENTS:

46. K-1004-L Vaults

UNIT NUMBER 047

UNIT NAME K-1503 Neutralization Pit

REGULATORY STATUS 3004.u

LOCATION - shown on map. See ORGDP topographic map #47 and photograph #47

APPROXIMATE DIMENSIONS 10 feet by 10 feet by 15 feet deep

CAPACITY Approximately 10,000 gallons

FUNCTION Originally used as a neutralization pit for corrosive wastewaters from the K-1501 Steam Plant.

DATES OPERATED 1975 to 1980

DESCRIPTION OF WASTE (or list attached references):

Corrosive wastewaters generated from the regeneration of the zeolite water softening system.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Samples are to be collected around the pit to determine if releases of corrosive wastewaters have occurred.

REMEDIAL INVESTIGATION PLANNED?

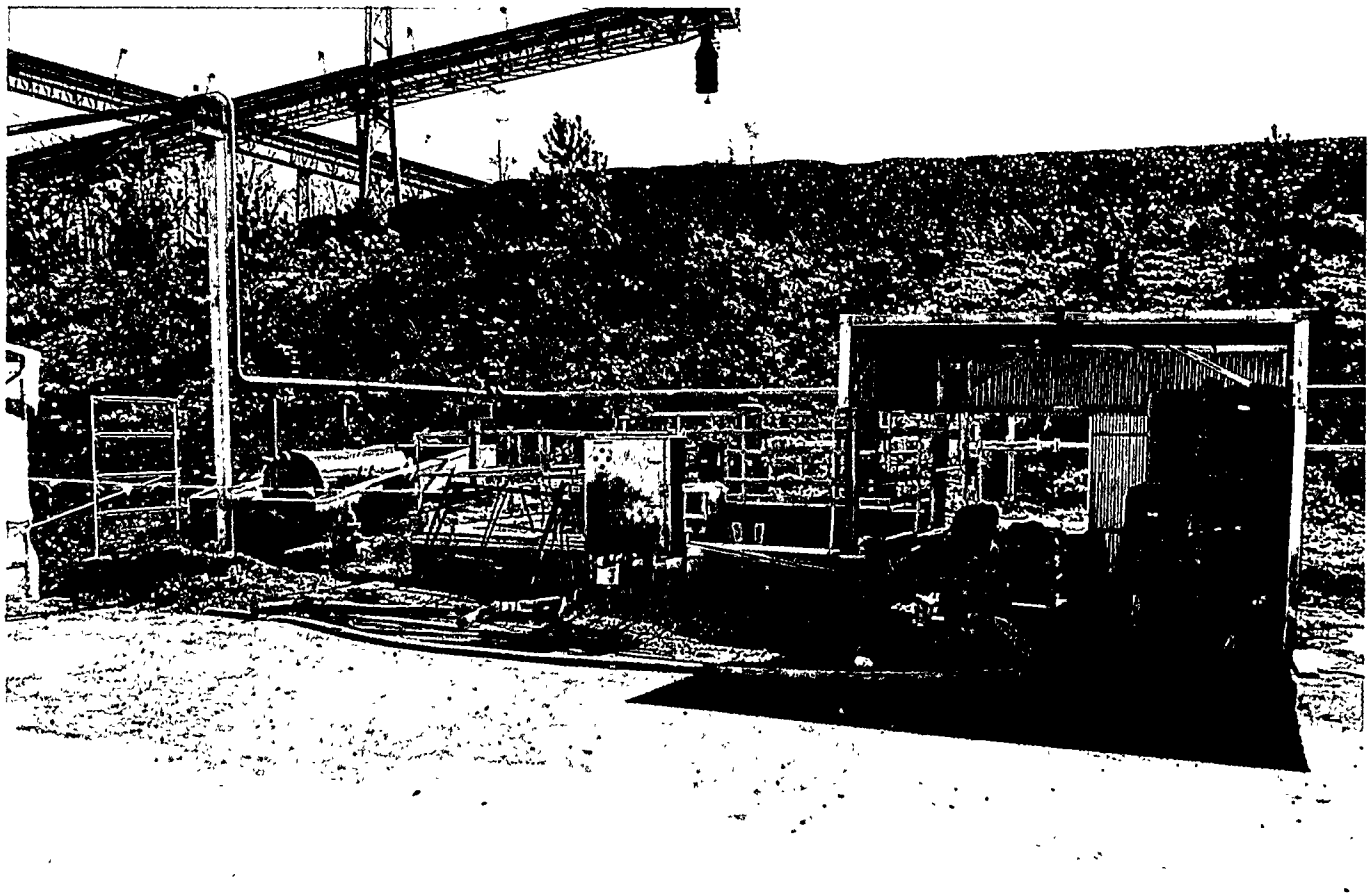
Not at the present time.

MEDIA TO BE ADDRESSED:

Soil

COMMENTS:

The pit has been used as a sump since 1980 from which water is pumped in an aboveground line to K-1407-A for neutralization.



47. K-1503 Neutralization Pit

UNIT NUMBER 048

UNIT NAME K-1001-B Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #48 and photograph #48

APPROXIMATE DIMENSIONS 5 feet by 5 feet

CAPACITY 30 gallons

FUNCTION Temporary storage of photographic waste solutions

DATES OPERATED March 1987 to the present

DESCRIPTION OF WASTE (or list attached references):

Photographic waste solutions containing silver.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Prior to March 1987, the silver was removed by a silver recovery unit and the wastewater discharged through a NPDES permitted location. Beginning in March 1987, the waste is being collected for treatment at a ORO facility.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

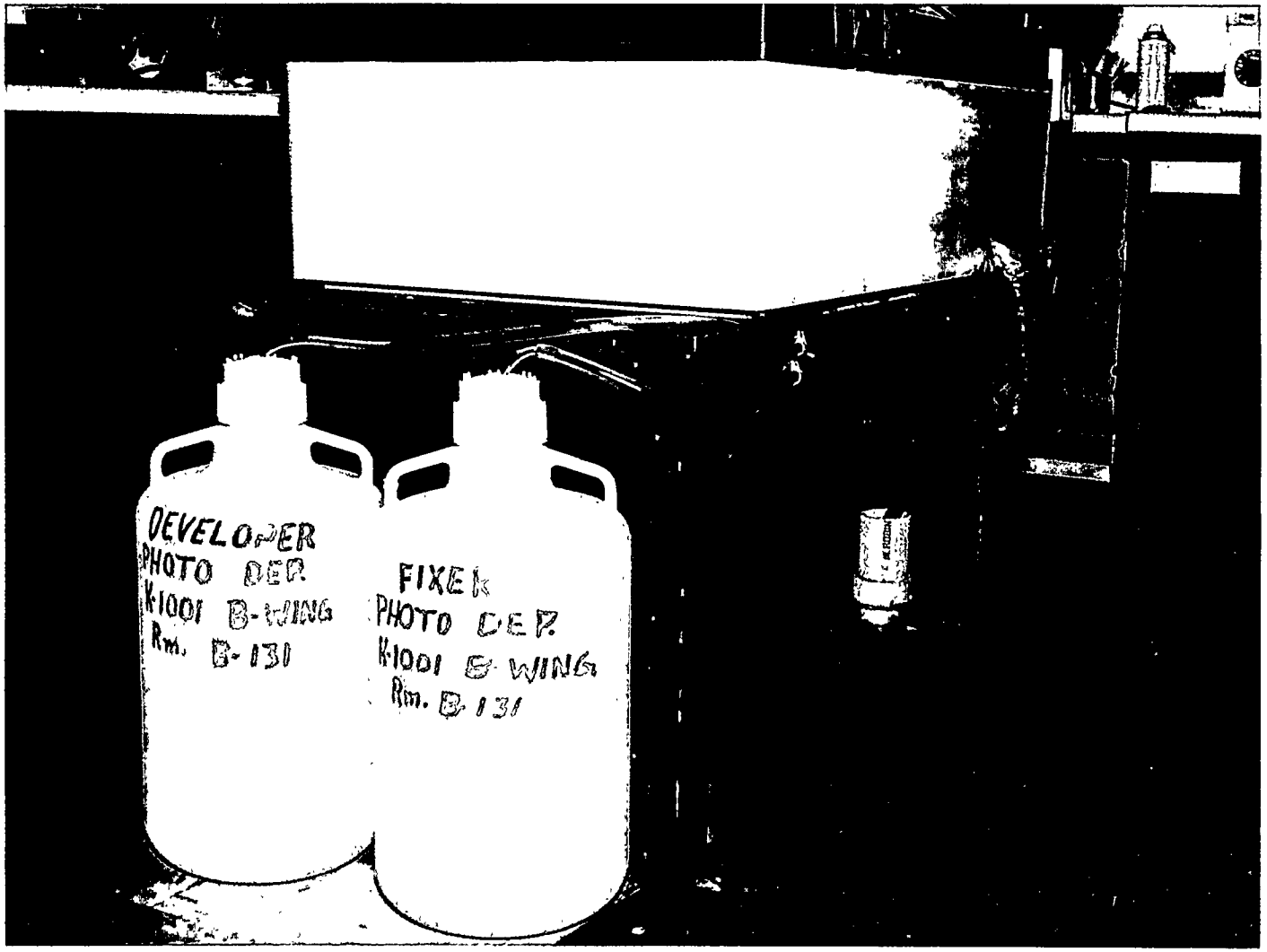
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no spills have occurred at this accumulation area, it is recommended that this unit not be included as a unit requiring remedial action.



48. K-1001-B Waste Photographic Accumulation Area

UNIT NUMBER 049

UNIT NAME K-1001-C Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #49 and photograph #49

APPROXIMATE DIMENSIONS 5 feet by 5 feet

CAPACITY 30 gallons

FUNCTION Temporary storage of photographic waste solutions

DATES OPERATED March 1987

DESCRIPTION OF WASTE (or list attached references):

Photographic waste solutions containing silver.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Prior to March 1987, the silver was removed by a silver recovery unit, and the wastewater discharged through a NPDES permitted location. Beginning in March 1987, the waste is being collected for treatment at a ORO facility.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

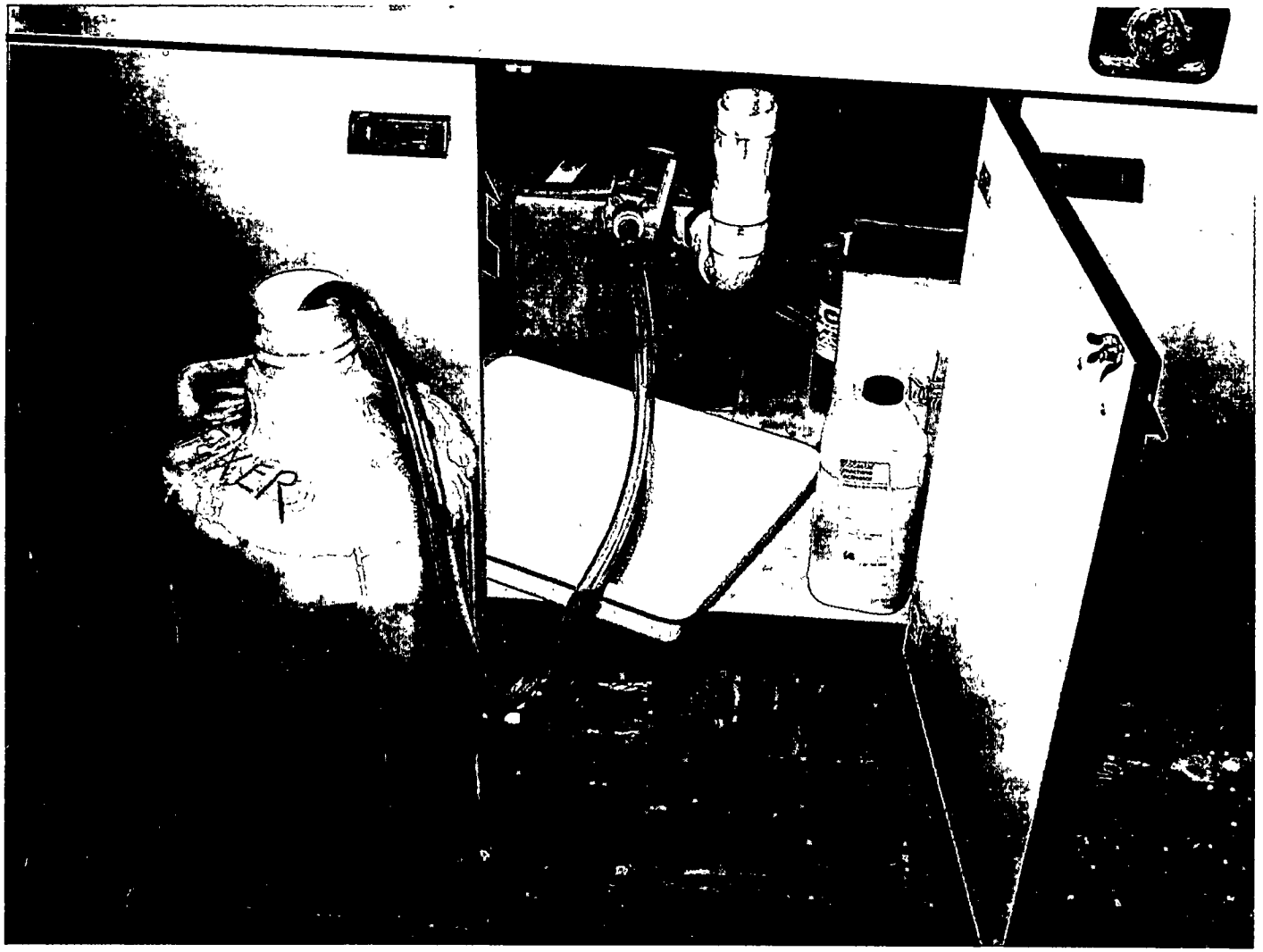
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no spills have occurred at this accumulation area, it is recommended that this unit not be included as a unit requiring remedial action.



49. K-1001-C Waste Photographic Accumulation Area

UNIT NUMBER 050

UNIT NAME K-1001-D Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #50 and photograph #50

APPROXIMATE DIMENSIONS 5 feet by 5 feet

CAPACITY 30 gallons

FUNCTION Temporary storage of photographic waste solutions

DATES OPERATED March 1987 to the present

DESCRIPTION OF WASTE (or list attached references):

Photographic waste solutions containing silver.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Prior to March 1987, the silver was removed by a silver recovery unit, and the wastewater discharged through a NPDES permitted location. Beginning in March 1987, the waste is being collected for treatment at a ORO facility.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

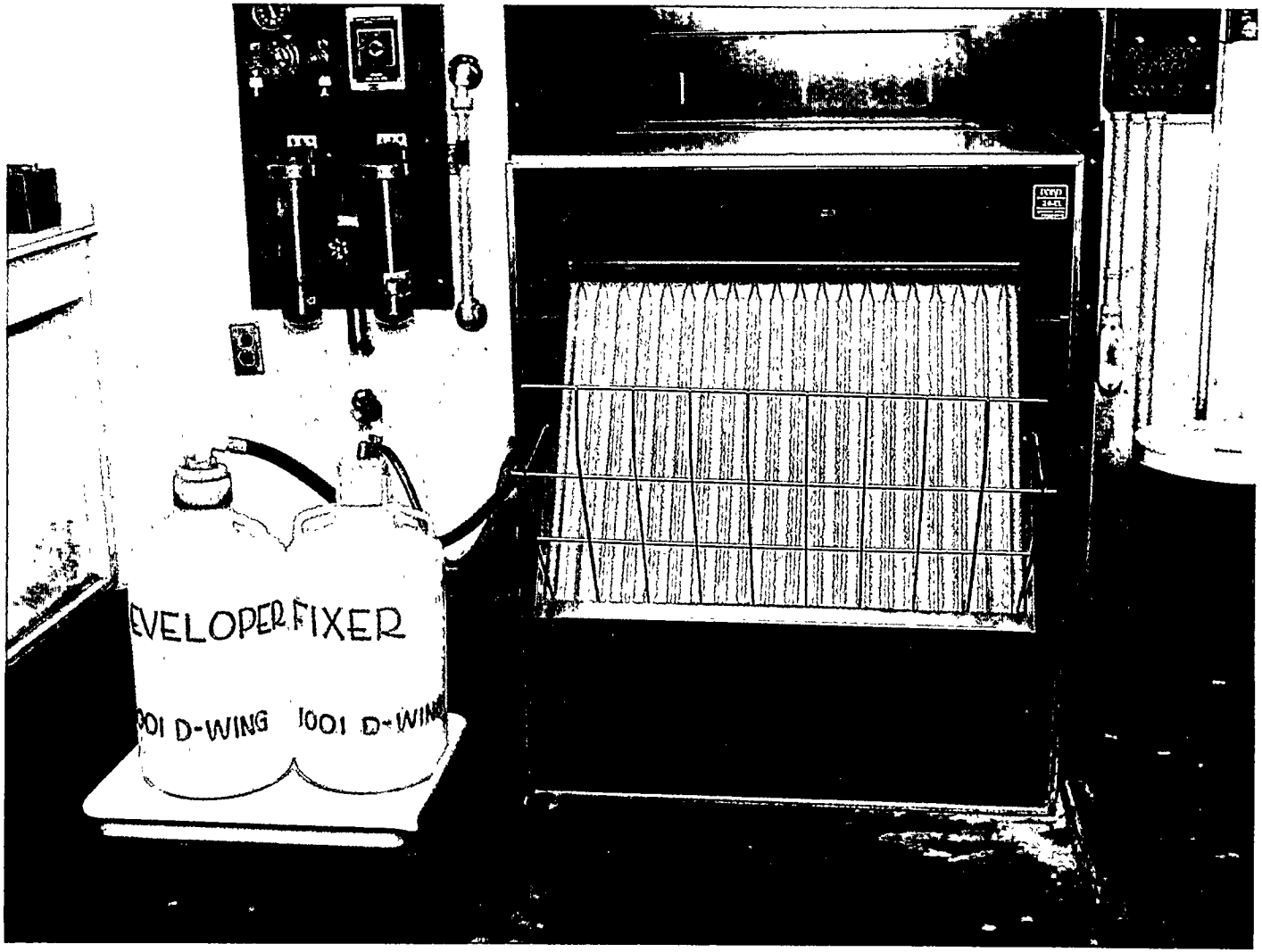
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no spills have occurred at this accumulation area, it is recommended that this unit not be included as a unit requiring remedial action.



50. K-1001-D Waste Photographic Accumulation Area

UNIT NUMBER 051

UNIT NAME K-1003 Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #51 and photograph #51

APPROXIMATE DIMENSIONS 5 feet by 5 feet

CAPACITY 30 gallons

FUNCTION Temporary storage of photographic waste solutions

DATES OPERATED March 1987 to the present

DESCRIPTION OF WASTE (or list attached references):

Photographic waste solutions containing silver.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Prior to March 1987, the silver was removed by a silver recovery unit, and the wastewater discharged through a NPDES permitted location. Beginning in March 1987, the waste is being collected for treatment at a ORO facility.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

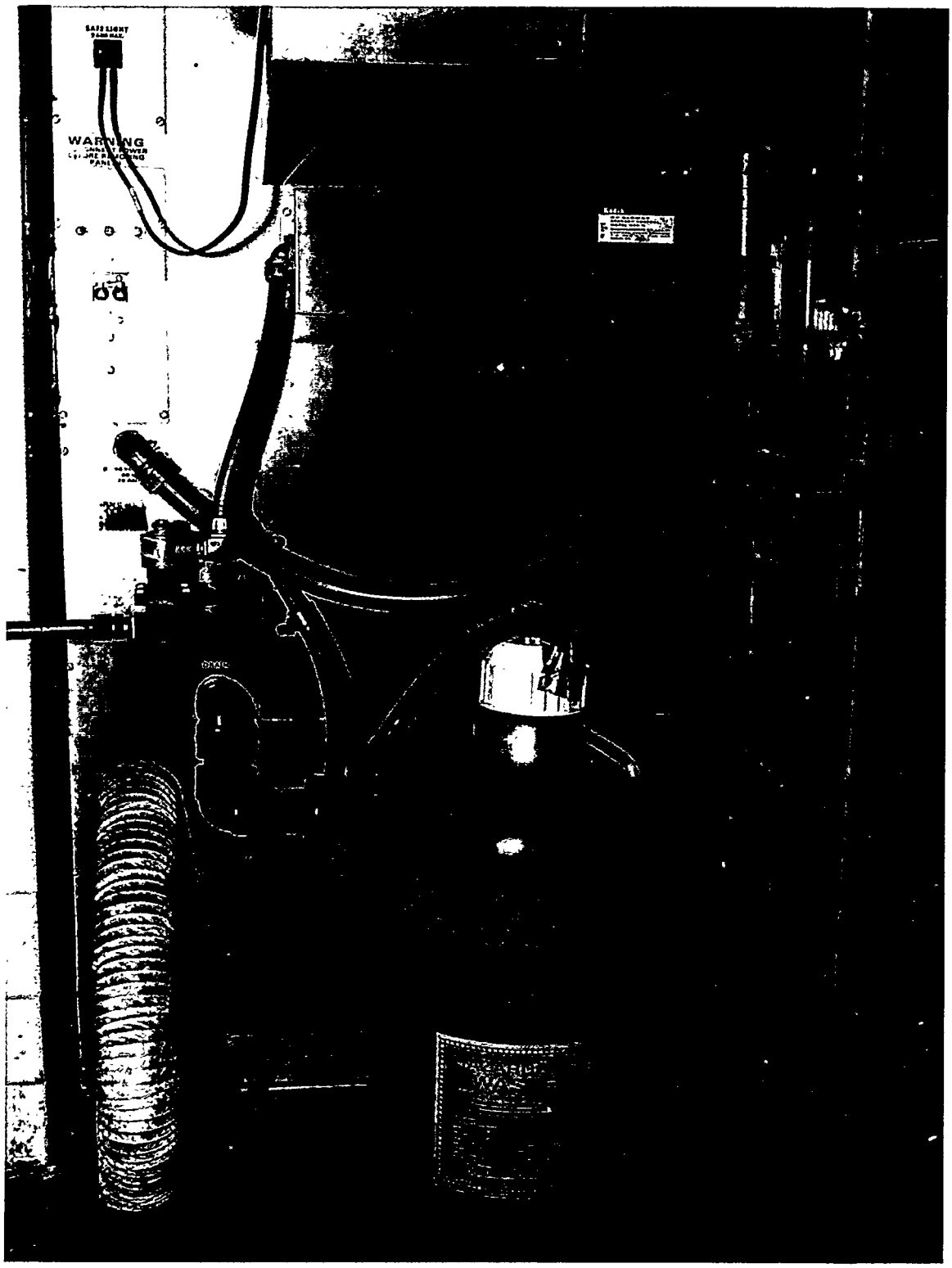
No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no spills have occurred at this accumulation area, it is recommended that this unit not be included as a unit requiring remedial action.



51. K-1003 Waste Photographic Accumulation Area

UNIT NUMBER 052

UNIT NAME K-1007 Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #52 and photograph #52

APPROXIMATE DIMENSIONS 5 feet by 5 feet

CAPACITY 30 gallons

FUNCTION Temporary storage of photographic waste solutions

DATES OPERATED March 1987 to the present

DESCRIPTION OF WASTE (or list attached references):

Photographic waste solutions containing silver.

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

Prior to March 1987, the silver was removed by a silver recovery unit, and the wastewater discharged through a NPDES permitted location. Beginning in March 1987, the waste is being collected for treatment at a ORO facility.

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

No

MEDIA TO BE ADDRESSED:

None

COMMENTS:

Since no spills have occurred at this accumulation area, it is recommended that this unit not be included as a unit requiring remedial action.

52. K-1007 Waste Photographic Accumulation Area

UNIT NUMBER 053

UNIT NAME K-1095 Waste Accumulation Area

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #53 and photograph #53

APPROXIMATE DIMENSIONS 20 feet by 20 feet

CAPACITY Approximately 500 gallons

FUNCTION Temporary drum storage of paint waste solutions

DATES OPERATED March 1987

DESCRIPTION OF WASTE (or list attached references):

Paints, solvents, and varsol

DESCRIPTION OF RELEASES (or list attached references):

None

DOCUMENTATION OF NO RELEASE (or list attached references):

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Soil samples will be collected at the edge of the accumulation area to determine if spilled material has been released from the units.

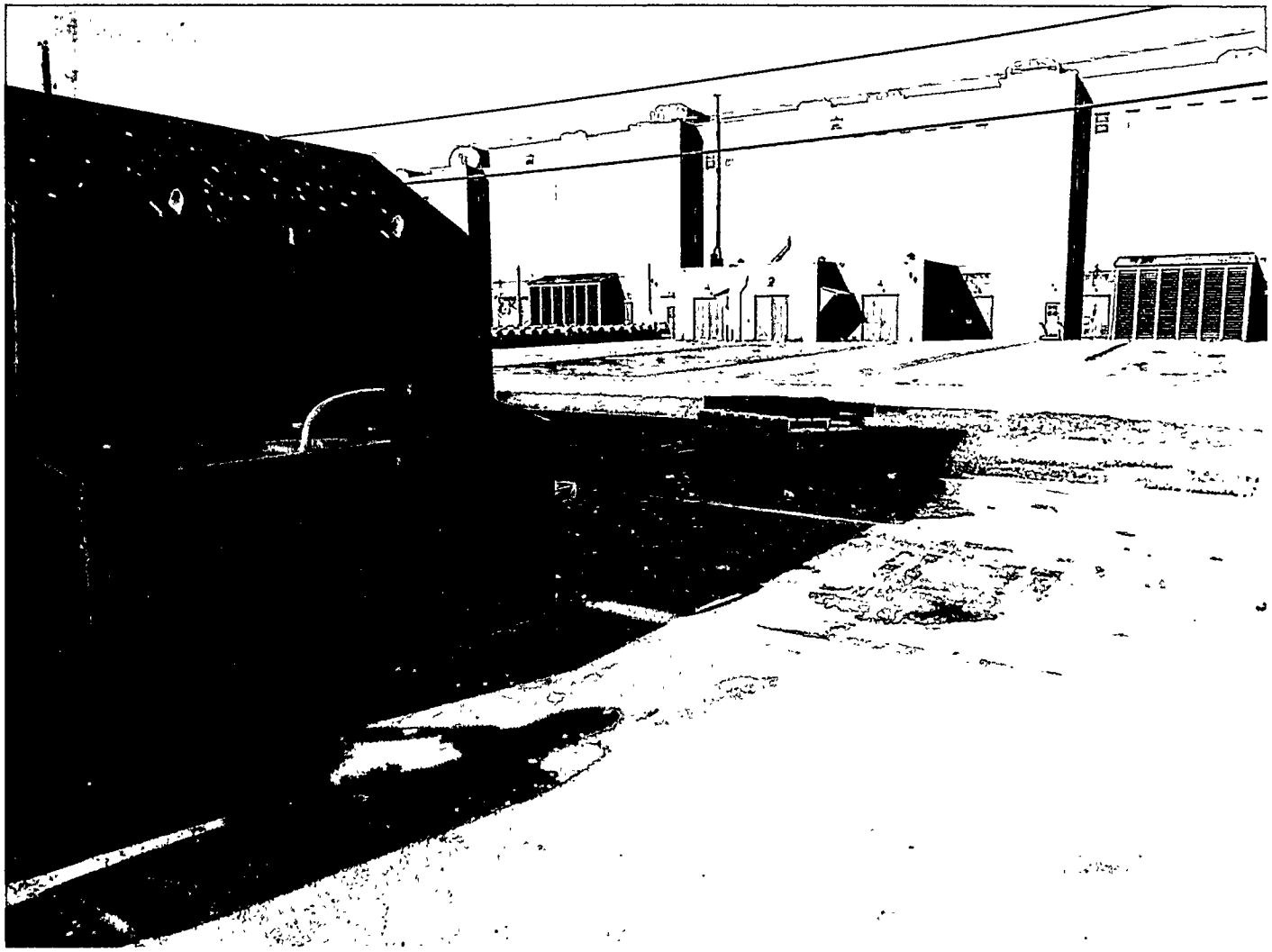
REMEDIAL INVESTIGATION PLANNED?

Unknown

MEDIA TO BE ADDRESSED:

Soil

COMMENTS:



53. K-1095 Waste Paint Accumulation Area

UNIT NUMBER 054

UNIT NAME K-1070-G Burial Ground

REGULATORY STATUS 3004.u

LOCATION - shown on map See ORGDP topographic map #54 and photograph #54

APPROXIMATE DIMENSIONS 100 feet by 100 feet

CAPACITY Unknown

FUNCTION Burial of waste materials

DATES OPERATED Unknown at this time

DESCRIPTION OF WASTE (or list attached references):

The contents of the burial ground are unknown at this time. Surface materials indicate construction rubble and pipe.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

REMEDIAL INVESTIGATION PLANNED?

A RFI plan will be prepared for this unit since the contents of the burial ground are unknown.

MEDIA TO BE ADDRESSED:

Soil and groundwater

COMMENTS:

54. K-1070-G Burial Ground

UNIT NUMBER 055

UNIT NAME K-1031 Waste Paint Accumulation Area

REGULATORY STATUS 3004(u)

LOCATION - shown on map See ORGDP topographic map #55 and photograph #55

APPROXIMATE DIMENSIONS 50 feet by 50 feet

CAPACITY NA

FUNCTION Temporary storage of paint wastes

DATES OPERATED 1960s through 1985

DESCRIPTION OF WASTE (or list attached references):

Various paint waste solutions.

DESCRIPTION OF RELEASES (or list attached references):

Unknown

DOCUMENTATION OF NO RELEASE (or list attached references):

NA

ADDITIONAL INFORMATION NEEDED TO DETERMINE PRESENCE OR ABSENCE OF RELEASES?

Samples will be collected from the storage area to determine if materials have been spilled or released to the environment from this unit.

REMEDIAL INVESTIGATION PLANNED?

To be determined.

MEDIA TO BE ADDRESSED:

Soil

COMMENTS:

55. K-1031 Waste Paint Accumulation Area