



11/2/03/17
DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

April 28, 2003

Formerly Utilized Sites Remedial Action Program

SUBJECT: Transmittal of First Quarter (January 1, 2003 – March 31, 2003) Calendar Year 2003 Federal Facility Agreement (FFA) Progress Report for the FUSRAP St. Louis Sites

Mr. Dan Wall
U. S. Environmental Protection Agency
Region VII, Superfund Branch
901 North 5th Street
Kansas City, Kansas 66101

Dear Mr. Wall:

Please find enclosed the First Quarter (January 1, 2003 – March 31, 2003) Calendar Year 2003 Federal Facility Agreement (FFA) Progress Report for the Formerly Utilized Sites Remedial Action Program (FUSRAP) St. Louis Sites. This report summarizes activities accomplished during the quarter. Also identified are planned but not accomplished activities for the first quarter and activities planned for the second quarter of 2003. A compact disk (CD) of Environmental Data Results is also included.

Copies of this report have been forwarded to Mr. Robert Geller (without the Data Results CD) and Mr. Eric Gilstrap of the Missouri Department of Natural Resources. If you have any questions concerning this report, please contact Dr. Greg Hempen at (314) 260-3939.

Sincerely,

Sharon R. Cotner
FUSRAP Program Manager

Enclosures

**FIRST QUARTER CY03 FEDERAL FACILITY AGREEMENT
PROGRESS REPORT**

1. ACTIVITIES ACCOMPLISHED IN THE FIRST QUARTER 2003 (January 1, 2003 – March 31, 2003)

Community Outreach

- Conducted three St. Louis Oversight Committee Meetings this quarter (January 10, February 14, and March 14).
- Updated the FUSRAP web pages by providing monthly updates for project schedules and documents and including monthly meeting minutes and presentations for the St. Louis Oversight Committee web page.
- Presented project information for AmerenUE workers on January 23.
- Conducted Biannual Utility Meeting January 10.
- Attended and presented project information to the North Broadway Business Association on March 12.

Documents issued during the quarter are provided in Table 1.

Table 1. Documents Issued During the First Quarter of 2003

Document Title	Review Status	Document Date
Integrated Survey Plan for Consolidated Materials, Crushate, Overburden, Equipment and Materials	Revision C	February 2003
Final Status Survey Plan Addendum – Evaluation of Difficult to Access Soils	Final	March 2003

St. Louis Airport Sites (SLAPS)

- Continued limited excavation activity in Phase 1, as precipitation allowed. Weather has impacted efforts to complete this area as planned. Started removal actions in Phase 2, Phase 3 in conjunction with construction of lined temporary water storage basins. A total of 58,050 cyd of contaminated material has been shipped to U.S. Ecology in Idaho this fiscal year 2003 (October 1, 2002 through March 31, 2003).
- Initiated McDonnell Boulevard South Ditch (SU-14, SU-15 and SU-16). Conducted excavation in each SU. Conducted limited verification and backfilling. Completed SU-14.

St. Louis Downtown Site (SLDS)

- Completed backfilling Survey Unit 5 at DT-7; completed removal activities for DT-7. Excavated 1,613 cubic yards of soil from Survey Units 5, 7, and 8 in Plant 6EH, Phase 3. Backfilled Survey Unit 7 Phase I and II in Plant 6EH.
- Shipped 2,017 cubic yards of soil from Plant 6EH to U.S. Ecology in Idaho.
- Treated 155,110 gallons of water for release in accordance with MSD permit in the first quarter. Released 136,800 gallons of water during the first quarter. Since the beginning of the project, a total of 6,625,169 gallons of water has been released.

2. ACTIVITIES PLANNED FOR THE FIRST QUARTER 2003 BUT NOT ACCOMPLISHED

North County Site (HISS, SLAPS, and SLAPS VPs)

- Phase 1 completion has been delayed due to weather, excavation-water issues, and excavation depths deeper than predicted.

St. Louis Downtown Site (SLDS)

- Discovered additional contamination for removal in Plant 6EH.

3. ACTIVITIES PLANNED FOR SECOND QUARTER 2003 (April 1, 2003 – June 30, 2003)

St. Louis Downtown Site (SLDS)

- Initiate remedial activities at Plant 7 East and DT-6 (Heintz Steel).
- Initiate Five-Year Review Report interviews and conduct site visits.

North County Site (HISS, SLAPS, and SLAPS VPs)

- Initiate Five-Year Review Report interviews and conduct site visits.

4. DATA OBTAINED IN FIRST QUARTER CY 2003 (January 1, 2003 – March 31, 2003)

Table 2 summarizes the samples obtained from each site and their respective purposes. All data is available in electronic form. Any request for actual data, in part or total, will be provided to the requestor as the entire electronic quarterly data file.

The Quarterly Discharge Monitoring Report for the North County Sites is included (See Attachment A).

The Quarterly MSD Self-Monitoring Reports for the St. Louis Downtown Site are included (See Attachment B).

Table 2. First Quarter 2003 Sample Summary

FUSRAP Site	Event Description	Medium	Number	Sample Type	Purpose
HISS	Environmental Alpha Tracks	Alpha track	20	Grab	Environmental
	Environmental TLDs	Dosimeters	20	Grab	Environmental
	Groundwater	Groundwater	1	Grab	Environmental
	Groundwater	Groundwater	8	Grab	Environmental
	Groundwater	Groundwater	7	Grab	Environmental
	HISS Air (Particulate Air)	Cellulose Filter	90	Grab	Environmental
	HISS NPDES	Stormwater	14	Composite	Environmental
HISS VP	VP 01L-PDI	Soil	4	Grab	Characterization
	VP 02L Roof Removal	Insulation	3	Grab	Characterization
	VP 02L Roof Removal - Perimeter Monitoring	Cellulose Filter	34	Grab	Characterization
	VP 04L-Characterization	Soil	2	Grab	Characterization
SLAPS	Pershall Road ROW (Hazelwood - Polson Rd)- Characterization	Soil	1	Grab	Characterization
	SLAPS Air (Particulate Air)-Environmental Monitoring	Cellulose Filter	168	Grab	Environmental
	SLAPS MSD	Process Water	1	Grab	Environmental
	SLAPS NPDES	Stormwater	41	Grab	Environmental
	SLAPS Phase 1 (SU #21)-Verification-Class 1	Soil	25	Grab	Verification
	SLAPS Phase 1 (SU #24)-Verification-Class 1	Soil	1	Grab	Verification
	SLAPS Phase 1 (SU #26)-Verification-Class 1	Soil	34	Grab	Verification
	SLAPS Phase 1/Phase 6-PDI (Redefine)	Soil	16	Grab	Characterization
SLAPS VP	1475 Carla-Verification-Class 3	Soil	3	Grab	Verification
	Coldwater Creek	Sediment	6	Grab	Environmental
	Coldwater Creek	Surface Water	6	Grab	Environmental
	Pershall Road ROW (Hazelwood - Polson Rd)- Characterization	Soil	1	Grab	Characterization
	VP 02-Verification-Class 3	Soil	7	Grab	Verification
	VP 04C-Verification-Class 2	Soil	28	Grab	Verification
	VP 04C-Verification-Class 3	Soil	6	Grab	Verification
	VP 05C-Verification-Class 2	Soil	4	Grab	Verification
	VP 05C-Verification-Class 3	Soil	8	Grab	Verification
	VP 06C-Verification-Class 2	Soil	2	Grab	Verification

Table 2. First Quarter 2003 Sample Summary (Cont'd)

FUSRAP Site	Event Description	Medium	Number	Sample Type	Purpose
SLAPS VP	VP 06L-Characterization	Soil	4	Grab	Characterization
	VP 06-Verification-Class 2	Soil	5	Grab	Verification
	VP 07C-Verification-Class 2	Soil	6	Grab	Verification
	VP 07-Verification-Class 2	Soil	2	Grab	Verification
	VP 08C-Characterization	Soil	61	Grab	Characterization
	VP 14A-Characterization	Soil	27	Grab	Characterization
	VP 14-Verification-Class 3	Soil	11	Grab	Verification
	VP 17-Verification-Class 3	Soil	4	Grab	Verification
	VP 18-Verification-Class 3	Soil	1	Grab	Verification
	VP 22-Verification-Class 2	Soil	1	Grab	Verification
	VP 24-Characterization	Soil	4	Grab	Characterization
	VP 25-Verification-Class 2	Soil	21	Grab	Verification
	VP 33-Characterization	Soil	1	Grab	Characterization
	VP 34-Characterization	Soil	5	Grab	Characterization
	VP 35A-Verification-Class 2	Soil	6	Grab	Verification
	VP 35-Characterization	Soil	12	Grab	Characterization
	VP 35-Verification-Class 2	Soil	2	Grab	Verification
	VP 35-Verification-Class 3	Soil	9	Grab	Verification
	VP 37-Characterization	Soil	30	Grab	Characterization
	VP 38-FDI	Soil	113	Grab	Characterization
	VP 39-Characterization	Soil	14	Grab	Characterization
	VP 40A-Characterization	Soil	116	Grab	Characterization
	VP 48A-Characterization	Soil	1	Grab	Characterization
SLDS	Baker Tank (MSD)	Wastewater	8	Grab	Characterization
	BNSF Railroad (DT-12)-Characterization	Soil	3	Grab	Characterization
	Midwest Waste (DT-7) Area 3 & 13-Preferential Pathway Investigation	Soil	13	Grab	Characterization
	Midwest Waste (DT-7) SU# 5-Preferential Pathway Investigation	Soil	2	Grab	Characterization
	Midwest Waste (DT-7) SU# 5-Verification-Class 1	Soil	47	Grab	Verification

Table 2. First Quarter 2003 Sample Summary (Cont'd)

FUSRAP Site	Event Description	Medium	Number	Sample Type	Purpose
SLDS	Plant 1 (T V & W Building Sump Pad)-Verification	Soil	5	Grab	Verification
	Plant 1-Verification	Soil	2	Grab	Verification
	Plant 1-Verification-Class 1	Soil	8	Grab	Verification
	Plant 1-Verification-Class 2	Soil	10	Grab	Verification
	Plant 2-Verification	Crushate	7	Grab	Verification
	Plant 6EH (Crushate)-Cover Material	Crushate	12	Grab	Verification
	Plant 6EH (EA #5)-Verification	Soil	2	Grab	Verification
	Plant 6EH (SU #4), Phase 3-Preferential Pathway Investigation	Asphalt	10	Grab	Characterization
	Plant 6EH (SU #4), Phase 3-Preferential Pathway Investigation	Soil	5	Grab	Characterization
	Plant 6EH (SU #4)-Verification-Class 1	Soil	8	Grab	Verification
	Plant 6EH (SU #5)-Preferential Pathway Investigation	Soil	5	Grab	Characterization
	Plant 6EH (SU #7 - Mercury Drums)-Investigation	Waste Solid	1	Grab	Characterization
	Plant 6EH (SU #7)-Preferential Pathway Investigation	Soil	15	Grab	Characterization
	Plant 6EH (SU #8)-Preferential Pathway Investigation	Soil	18	Grab	Characterization
	Plant 6EH-Inaccessible Soils Evaluation	Soil	42	Grab	Characterization
	Plant 6-Verification	Soil	4	Grab	Verification
	Plant 7E-Delineation	Soil	1	Grab	Verification
	Plant 7-Verification	Soil	16	Grab	Verification
	PSC Metals (DT-8)-Characterization	Soil	2	Grab	Characterization
	Well Decommissioning	Groundwater	3	Grab	Environmental
	Westerheide Smokeshop (DT-32)-Verification-Class 3	Soil	3	Grab	Verification
SLDS VP	City of Venice-PDI	Soil	46	Grab	Characterization
	City of Venice-Verification-Class 2	Soil	61	Grab	Verification
	Midwest Waste (DT-7) SU# 3-Verification-Class 1	Soil	42	Grab	Verification
	Midwest Waste (DT-7) SU# 4-Verification-Class 1	Soil	2	Grab	Verification
	Midwest Waste (DT-7)-Verification-Class 1	Soil	11	Grab	Verification
	PSC Metals (DT-8)-Characterization	Soil	2	Grab	Characterization
	PSC Metals (DT-8)-PDI	Soil	44	Grab	Characterization
	PSC Metals (DT-8)-Verification-Class 2	Soil	119	Grab	Characterization
	Utility Works	Soil	6	Grab	Characterization

ATTACHMENT A

**NPDES QUARTERLY DISCHARGE MONITORING REPORT
FOR THE NORTH COUNTY SITES**



DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

April 25, 2003

Formerly Utilized Sites Remedial Action Program Project Office

SUBJECT: Transmittal of First Quarter of 2003 Discharge Report for NPDES Permit MO-0111252 and Applicable or Relevant and Appropriate Requirements (ARARs) for Discharges to the Waters of the State in North St. Louis County, MO

Mr. Kurt Riebeling
Chief, Water Unit
Missouri Department of Natural Resources
9200 Watson Road, Suite 201
St. Louis, MO 63127-1038

Dear Mr. Riebeling:

In accordance with NPDES Permit MO-0111252 for the Hazelwood Interim Storage Site (HISS), and the substantive requirements for storm-water discharge to the waters of the state at the St. Louis Airport Site (SLAPS), St. Louis, MO, this letter transmits the storm-water discharge monitoring report for the first quarter of 2003. Attachment A of this report contains the available analytical results for the first quarter of 2003 for storm-water Outfalls 001, 002, and 003 at HISS. Attachment B contains the analytical results for storm-water Outfalls 001a, 001b, and 002 at SLAPS.

- Hazelwood Interim Storage Site (HISS)

During the first quarter of 2003, permit-specified parameters were measured in January, February, and March. All of the total organic halogen (TOX) were qualified as unreliable, R, as a result of breakthrough. The analytical criterion, that all second-column measurements for a properly operating system should not exceed 10% of the two-column total measurement, was not met. It appeared that a high random bias occurred. The samples were rerun, and the re-analyses coincided with the original analyses. Although, the TOX data for this sampling effort were unreliable, historically the TOX results have been positive thereby requiring the volatile (VOC) and semi-volatile (SVOC) organic compounds analyses to identify the specific constituent as specified in the permit. Acetone was present at an estimated quantity below the practical quantitation limit (PQL) for Outfalls 001, 002 and 003. Carbon disulfide was present below PQL for Outfalls 001 and 002; and styrene was present below PQL for 001. Acetone is often associated with laboratory contamination. Outfall 002 experienced a power outage from March 11 to March 13 and therefore was unable to record flow. Outfall 003 did not receive a settleable solid sample for January due to insufficient flow.

ATTACHMENT A

**QUARTERLY DISCHARGE MONITORING REPORT FOR THE
HAZELWOOD INTERIM STORAGE SITE**

**First Quarter 2003 Hazelwood Interim Storage Site
Daily Rainfall and Daily Maximum Flow**

Table 1 - NPDES Daily Flow and Rainfall Data

Date	Rainfall (inches)	Maximum Daily Flow (Mgd) ^a		
		Outfall 001	Outfall 002	Outfall 003
01-Jan-03				
02-Jan-03		0.16 ^c		0.080 ^c
03-Jan-03 ^b	0.10	^d	0.010 ^c	0.020 ^c
04-Jan-03	0.11		0.900	
05-Jan-03	0.08		0.050	
06-Jan-03			0.010	
07-Jan-03				
08-Jan-03				
09-Jan-03	0.05			
10-Jan-03				
11-Jan-03				
12-Jan-03				
13-Jan-03				
14-Jan-03	0.02			
15-Jan-03				
16-Jan-03				
17-Jan-03				
18-Jan-03				
19-Jan-03				
20-Jan-03				
21-Jan-03				
22-Jan-03			0.010 ^c	
23-Jan-03				0.13 ^c
24-Jan-03				0.050 ^c
25-Jan-03				
26-Jan-03	0.01			
27-Jan-03				
28-Jan-03				
29-Jan-03				
30-Jan-03 ^b				
31-Jan-03	0.21			
Monthly Average		0.00	0.032	0.010

Date	Rainfall (inches)	Maximum Daily Flow (Mgd) ^a		
		Outfall 001	Outfall 002	Outfall 003
1-Feb-03 ^b				
2-Feb-03				
3-Feb-03				
4-Feb-03				
5-Feb-03				
6-Feb-03	0.04	0.82 ^c		
7-Feb-03		1.6		
8-Feb-03		1.1		
9-Feb-03				
10-Feb-03	0.04			
11-Feb-03		0.21 ^f		
12-Feb-03				
13-Feb-03				
14-Feb-02 ^b	0.51	0.020	0.030	
15-Feb-03	0.20	0.040	0.020	
16-Feb-03		1.1 ^c	0.080 ^c	0.080 ^c
17-Feb-03		0.64 ^c	0.030 ^c	0.11 ^c
18-Feb-03	0.18	0.020	0.060	0.13
19-Feb-03	0.18	0.040	0.030	
20-Feb-03				
21-Feb-03		0.020 ^f		
22-Feb-03	0.09	0.020 ^c		
23-Feb-03		0.13 ^c		
24-Feb-03		0.070		
25-Feb-03				0.080
26-Feb-03				
27-Feb-03		0.010 ^c		
28-Feb-03	0.08	0.16 ^c		
Monthly Average		0.22	0.010	0.010

Date	Rainfall (inches)	Maximum Daily Flow (Mgd) ^a		
		Outfall 001	Outfall 002	Outfall 003
1-Mar-03	0.04	0.020	0.010	
2-Mar-03			0.010	
3-Mar-03				
4-Mar-03				
5-Mar-03				
6-Mar-03	0.01			
7-Mar-03				
8-Mar-03				
9-Mar-03				
10-Mar-03				
11-Mar-03	0.28		^g	
12-Mar-03	0.05	0.010	^g	
13-Mar-03 ^b	0.63	0.20	0.010 ^g	0.020
14-Mar-03				
15-Mar-03				
16-Mar-03				
17-Mar-03				
18-Mar-03	0.02			
19-Mar-03	0.80	0.11	0.080	
20-Mar-03	0.19	0.10	0.060	
21-Mar-03				
22-Mar-03				
23-Mar-03				
24-Mar-03				
25-Mar-03	0.03			
26-Mar-03				
27-Mar-03				
28-Mar-03	0.23			
29-Mar-03				
30-Mar-03				
31-Mar-03				
Monthly Average		0.010	0.00	0.00

NOTES:

^a Daily maximum flow values are based on 24-hour flow and recorded as million gallons per day. All blank spaces represent zero flow.

^b Compliance samples collected on this day for the month indicated.

^c Data results may be due to snow on flume.

^d Operator recalibrated logger while snow was present on primary measuring device, causing logger to not record snow melt runoff.

^e Monthly average includes daily values except readings associated with calibration, equipment/operator error and power failure. Used the maximum daily flow for computation.

^f Data results are due to calibrated flowmeter/sensor. Therefore, the activity was interpreted as a level reading by the sensor and converted to flow reading by the meter.

^g Power failure to logger at Outfall 002 occurred from 3/11/03 at 1100 to 3/13/03 at 0800.

All data taken to two significant digits; however, this may be limited based on the accuracy of instrumentation (i.e., rainfall).

Flow was measured continuously using ISCO Model 4210 Ultrasonic flow meters installed at each outfall.

StationName	SampleName	SampleCollectionDate	AnalyteName	AnalyticalResult	DetectionLimit	AnalyticalResultsUnits	ValidationQualifier
HN01	HIS74509	03/13/03	Anthracene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Benzene	5	5	ug/L	U
HN01	HIS74509	03/13/03	Benzo(a)anthracene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Benzo(a)pyrene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Benzo(b)fluoranthene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Benzo(g,h,i)perylene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Benzo(k)fluoranthene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Bis(2-chloroethoxy) methane	10	10	ug/L	U
HN01	HIS74509	03/13/03	Bis(2-chloroethyl) ether	10	10	ug/L	U
HN01	HIS74509	03/13/03	Bis(2-chloroisopropyl) ether	10	10	ug/L	U
HN01	HIS74509	03/13/03	Bis(2-ethylhexyl) phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Bromodichloromethane	5	5	ug/L	U
HN01	HIS74509	03/13/03	Bromoform	5	5	ug/L	U
HN01	HIS74509	03/13/03	Bromomethane	10	10	ug/L	U
HN01	HIS74509	03/13/03	Butyl benzyl phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Carbazole	10	10	ug/L	U
HN01	HIS74509	03/13/03	Carbon disulfide	1	5	ug/L	J
HN01	HIS74509	03/13/03	Carbon tetrachloride	5	5	ug/L	U
HN01	HIS74509	03/13/03	Chlorobenzene	5	5	ug/L	U
HN01	HIS74509	03/13/03	Chlorodibromomethane	5	5	ug/L	U
HN01	HIS74509	03/13/03	Chloroethane	10	10	ug/L	U
HN01	HIS74509	03/13/03	Chloroform	5	5	ug/L	U
HN01	HIS74509	03/13/03	Chloromethane	10	10	ug/L	U
HN01	HIS74509	03/13/03	Chrysene	10	10	ug/L	U
HN01	HIS74509	03/13/03	cis-1,3-Dichloropropene	5	5	ug/L	U
HN01	HIS74509	03/13/03	Dibenzo(a,h)anthracene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Dibenzofuran	10	10	ug/L	U
HN01	HIS74509	03/13/03	Diethyl phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Dimethyl phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Di-n-butyl phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Di-n-octyl phthalate	10	10	ug/L	U
HN01	HIS74509	03/13/03	Ethylbenzene	5	5	ug/L	U
HN01	HIS74509	03/13/03	Fluoranthene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Fluorene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Hexachlorobenzene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Hexachlorobutadiene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Hexachlorocyclopentadiene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Hexachloroethane	10	10	ug/L	U
HN01	HIS74509	03/13/03	Indeno(1,2,3-cd)pyrene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Isophorone	10	10	ug/L	U
HN01	HIS74509	03/13/03	Methylene chloride	2.0999999	5	ug/L	UJ
HN01	HIS74509	03/13/03	Naphthalene	10	10	ug/L	U
HN01	HIS74509	03/13/03	Nitrobenzene	10	10	ug/L	U
HN01	HIS74509	03/13/03	N-Nitroso-di-n-propylamine	10	10	ug/L	U

StationName	SampleName	SampleCollectionDate	AnalyteName	AnalyticalResult	DetectionLimit	AnalyticalResultsUnits	ValidationQualifier
HN02	HIS74510	03/13/03	2-Butanone	20	20	ug/L	U
HN02	HIS74510	03/13/03	2-Chloronaphthalene	10	10	ug/L	U
HN02	HIS74510	03/13/03	2-Chlorophenol	10	10	ug/L	U
HN02	HIS74510	03/13/03	2-Hexanone	20	20	ug/L	U
HN02	HIS74510	03/13/03	2-Methylnaphthalene	10	10	ug/L	U
HN02	HIS74510	03/13/03	2-Methylphenol	10	10	ug/L	U
HN02	HIS74510	03/13/03	2-Nitroaniline	25	25	ug/L	U
HN02	HIS74510	03/13/03	2-Nitrophenol	10	10	ug/L	U
HN02	HIS74510	03/13/03	3,3'-Dichlorobenzidine	10	10	ug/L	U
HN02	HIS74510	03/13/03	3-Nitroaniline	25	25	ug/L	U
HN02	HIS74510	03/13/03	4,6-Dinitro-2-methylphenol	25	25	ug/L	U
HN02	HIS74510	03/13/03	4-Bromophenyl phenyl ether	10	10	ug/L	U
HN02	HIS74510	03/13/03	4-Chloro-3-methylphenol	10	10	ug/L	U
HN02	HIS74510	03/13/03	4-Chloroaniline	10	10	ug/L	U
HN02	HIS74510	03/13/03	4-Chlorophenyl phenyl ether	10	10	ug/L	U
HN02	HIS74510	03/13/03	4-Methyl-2-pentanone	20	20	ug/L	U
HN02	HIS74510	03/13/03	4-Methylphenol	20	20	ug/L	U
HN02	HIS74510	03/13/03	4-Nitroaniline	25	25	ug/L	U
HN02	HIS74510	03/13/03	4-Nitrophenol	25	25	ug/L	U
HN02	HIS74510	03/13/03	Acenaphthene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Acenaphthylene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Acetone	3.9000001	20	ug/L	J
HN02	HIS74510	03/13/03	Anthracene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Benzene	5	5	ug/L	U
HN02	HIS74510	03/13/03	Benzo(a)anthracene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Benzo(a)pyrene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Benzo(b)fluoranthene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Benzo(g,h,i)perylene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Benzo(k)fluoranthene	10	10	ug/L	U
HN02	HIS74510	03/13/03	Bis(2-chloroethoxy) methane	10	10	ug/L	U
HN02	HIS74510	03/13/03	Bis(2-chloroethyl) ether	10	10	ug/L	U
HN02	HIS74510	03/13/03	Bis(2-chloroisopropyl) ether	10	10	ug/L	U
HN02	HIS74510	03/13/03	Bis(2-ethylhexyl) phthalate	10	10	ug/L	U
HN02	HIS74510	03/13/03	Bromodichloromethane	5	5	ug/L	U
HN02	HIS74510	03/13/03	Bromoform	5	5	ug/L	U
HN02	HIS74510	03/13/03	Bromomethane	10	10	ug/L	U
HN02	HIS74510	03/13/03	Butyl benzyl phthalate	10	10	ug/L	U
HN02	HIS74510	03/13/03	Carbazole	10	10	ug/L	U
HN02	HIS74510	03/13/03	Carbon disulfide	0.57999998	5	ug/L	J
HN02	HIS74510	03/13/03	Carbon tetrachloride	5	5	ug/L	U
HN02	HIS74510	03/13/03	Chlorobenzene	5	5	ug/L	U
HN02	HIS74510	03/13/03	Chlorodibromomethane	5	5	ug/L	U
HN02	HIS74510	03/13/03	Chloroethane	10	10	ug/L	U
HN02	HIS74510	03/13/03	Chloroform	5	5	ug/L	U

StationName	SampleName	SampleCollectionDate	AnalyteName	AnalyticalResult	DetectionLimit	AnalyticalResultsUnits	ValidationQualifier
HN03	HIS74508	02/14/03	Settleable Solids (SS)	0	0.2	mL/L/hr	U
HN03	HIS74511	03/13/03	1,1,1-Trichloroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,1,2,2-Tetrachloroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,1,2-Trichloro-1,2,2-trifluoroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,1,2-Trichloroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,1-Dichloroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,1-Dichloroethene	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,2,4-Trichlorobenzene	10	10	ug/L	U
HN03	HIS74511	03/13/03	1,2-Dichlorobenzene	10	10	ug/L	U
HN03	HIS74511	03/13/03	1,2-Dichloroethane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,2-Dichloroethene (Total)	10	10	ug/L	U
HN03	HIS74511	03/13/03	1,2-Dichloropropane	5	5	ug/L	U
HN03	HIS74511	03/13/03	1,3-Dichlorobenzene	10	10	ug/L	U
HN03	HIS74511	03/13/03	1,4-Dichlorobenzene	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,4,5-Trichlorophenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,4,6-Trichlorophenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,4-Dichlorophenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,4-Dimethylphenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,4-Dinitrophenol	25	25	ug/L	U
HN03	HIS74511	03/13/03	2,4-Dinitrotoluene	10	10	ug/L	U
HN03	HIS74511	03/13/03	2,6-Dinitrotoluene	10	10	ug/L	U
HN03	HIS74511	03/13/03	2-Butanone	20	20	ug/L	U
HN03	HIS74511	03/13/03	2-Chloronaphthalene	10	10	ug/L	U
HN03	HIS74511	03/13/03	2-Chlorophenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2-Hexanone	20	20	ug/L	U
HN03	HIS74511	03/13/03	2-Methylnaphthalene	10	10	ug/L	U
HN03	HIS74511	03/13/03	2-Methylphenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	2-Nitroaniline	25	25	ug/L	U
HN03	HIS74511	03/13/03	2-Nitrophenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	3,3'-Dichlorobenzidine	10	10	ug/L	U
HN03	HIS74511	03/13/03	3-Nitroaniline	25	25	ug/L	U
HN03	HIS74511	03/13/03	4,6-Dinitro-2-methylphenol	25	25	ug/L	U
HN03	HIS74511	03/13/03	4-Bromophenyl phenyl ether	10	10	ug/L	U
HN03	HIS74511	03/13/03	4-Chloro-3-methylphenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	4-Chloroaniline	10	10	ug/L	U
HN03	HIS74511	03/13/03	4-Chlorophenyl phenyl ether	10	10	ug/L	U
HN03	HIS74511	03/13/03	4-Methyl-2-pentanone	20	20	ug/L	U
HN03	HIS74511	03/13/03	4-Methylphenol	20	20	ug/L	U
HN03	HIS74511	03/13/03	4-Nitroaniline	25	25	ug/L	U
HN03	HIS74511	03/13/03	4-Nitrophenol	25	25	ug/L	U
HN03	HIS74511	03/13/03	Acenaphthene	10	10	ug/L	U
HN03	HIS74511	03/13/03	Acenaphthylene	10	10	ug/L	U
HN03	HIS74511	03/13/03	Acetone	5	20	ug/L	J
HN03	HIS74511	03/13/03	Anthracene	10	10	ug/L	U

StationName	SampleName	SampleCollectionDate	AnalyteName	AnalyticalResult	DetectionLimit	AnalyticalResultsUnits	ValidationQualifier
HN03	HIS74511	03/13/03	Pentachlorophenol	25	25	ug/L	U
HN03	HIS74511	03/13/03	Phenanthrene	10	10	ug/L	U
HN03	HIS74511	03/13/03	Phenol	10	10	ug/L	U
HN03	HIS74511	03/13/03	Pyrene	10	10	ug/L	U
HN03	HIS74511	03/13/03	Radium-226	1.45	1.9299999	pCi/L	UJ
HN03	HIS74511	03/13/03	Settleable Solids (SS)	0	0.2	mL/L/hr	U
HN03	HIS74511	03/13/03	Styrene	5	5	ug/L	U
HN03	HIS74511	03/13/03	Tetrachloroethene	5	5	ug/L	U
HN03	HIS74511	03/13/03	Thorium-228	1.87	1.37	pCi/L	J
HN03	HIS74511	03/13/03	Thorium-230	11.24	1.12	pCi/L	J
HN03	HIS74511	03/13/03	Thorium-232	0.56	0.5	pCi/L	U
HN03	HIS74511	03/13/03	Toluene	5	5	ug/L	U
HN03	HIS74511	03/13/03	Total Organic Carbon (TOC)	5.9000001	1	mg/L	=
HN03	HIS74511	03/13/03	Total Organic Halogens (TOX)	5.0999999	5	ug/L	R
HN03	HIS74511	03/13/03	trans-1,3-Dichloropropene	5	5	ug/L	U
HN03	HIS74511	03/13/03	Trichloroethene	5	5	ug/L	U
HN03	HIS74511	03/13/03	Uranium-234	2.5999999	0.69999999	pCi/L	J
HN03	HIS74511	03/13/03	Uranium-235	0	0.87	pCi/L	U
HN03	HIS74511	03/13/03	Uranium-238	0.64999998	1.55	pCi/L	UJ
HN03	HIS74511	03/13/03	Vinyl chloride	5	5	ug/L	U
HN03	HIS74511	03/13/03	Xylenes, total	10	10	ug/L	U

U indicates that the analyte was analyzed for but was not detected above the reported sample quantitation limit.

J indicates that the analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ indicates the analyte was not detected above the minimum detectable value (limit). However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

= indicates that the analyte has been positively identified and the associated concentration value is accurate.

R indicates that the data are unusable or analyte may or may not be present.

2003

**First Quarter Stormwater Discharge Monitoring Report
St. Louis Airport Site (SLAPS), St. Louis, MO**

FACILITY NAME	PERMIT NUMBER	COUNTY	OWNER	FACILITY CONTACT	
St. Louis Airport Site (SLAPS)	No permit exists, currently working to the ARAR provided 10/02/98	St. Louis	U.S. Army Corps of Engineers, St. Louis District	S.R. Cotner, Program Manager, USACE	
OPERATOR OF FACILITY			TYPE OF FACILITY		
United States Army Corps of Engineers (USACE)			Standard Industrial Classification-9999, non-classifiable		
REQUIRED FREQUENCY OF MONITORING				THIS REPORT COVERS	
Flow-monthly, 24 hour estimate; Effluent Parameters- <i>Chemical and radiological</i> ¹ : monthly during rainfall that results in a discharge; <i>Radiological</i> ² : per rainfall event that results in a discharge; <i>Radon</i> -semi-annually during rainfall that results in a discharge; Monitoring Report-quarterly				1st Quarter- January 1, 2003 - March 31, 2003	
SAMPLES COLLECTED BY					
Baywest and Pangea personnel					
ANALYSIS PERFORMED BY					
ARDL for chemical analysis; HISS on-site laboratory for radiological analysis; Radon in water analysis performed by General Engineering Laboratories.					
SAMPLE LOCATION	EVENT³ 1	EVENT 2	EVENT 3	EVENT 4	EVENT 5
Outfall 001a	01/06/03 - 01/08/03	02/14/03 - 02/15/03	02/19/03 - 02/21/03	03/13/03 - 03/14/03	03/19/03 - 03/21/03
Outfall 002	4	4	4	4	4
Outfall 003	12	12	12	12	12
SAMPLE LOCATION					
Outfall 001a					
Outfall 002					
Outfall 003					
REPORT APPROVED BY OWNER <i>Sharon Cotner for US Army Corps of Engineers</i> DATE <i>7-24-03</i>					

NOTES: (NUMBERING SYSTEM HAS BEEN KEPT CONSISTENT ON EACH PAGE TO REDUCE CONFUSION)

¹ Collect monthly grab samples for the following parameters: oil and grease, total petroleum hydrocarbons, pH, chemical oxygen demand, settleable solids, total recoverable arsenic, total recoverable lead, total recoverable chromium, total recoverable copper, total recoverable cadmium, polychlorinated biphenyls, total uranium, total radium, total thorium, gross alpha, gross beta, protactinium-231, and actinium-227.

² Collect grab samples per rainfall event for the following parameters: total uranium, total radium, total thorium, gross alpha, gross beta, protactinium-231, and actinium-227.

³ An event is defined as a measurable increase in discharge rate from precipitation producing 0.1 inch or more of liquid in a 24 hour period, or from pumping operation (such as following treatment). An event may exceed duration of 24 hours, and two events experienced within 48 hours may be reported together.

⁴ As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 002 has been reduced to once a year.

⁵ ND = No Discharge

⁶ Results are reported in required units.

⁷ DL= Detection Limit

⁸ Value reported is based on a volume weighted average of analyte activity concentrations for samples collected during the defined event. Corresponding radiological samples were collected on the same date as chemical samples, however, the radiological results are incorporated into the volume weighted average for the specified event.

⁹ As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

¹⁰ Total nuclide values in ug/L units were calculated using the activity concentration values reported by the laboratory and values for specific activity listed in Table 8.4.1 of The Health Physics and Radiological Health Handbook, 1992 Edition

¹¹ It is assumed that Ra-228 and Th-228 are in secular equilibrium with Th-232, therefore, Th-232 results are used to estimate Ra-228 and Th-228 values.

¹² As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

¹³ Waiting on data results from the laboratory

¹⁴ Auto sampler did not collect sufficient volume for the Chemical Parameters.

RA DATA FOR SLAPS

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Jan	0.9 ^S			
2-Jan	4.0 ^S			
3-Jan	0			
4-Jan	0			
5-Jan	Trace			
6-Jan	0	0.024		
7-Jan	0			
8-Jan	0	0.0079		
9-Jan	0			
10-Jan	0			
11-Jan	0			
12-Jan	0			
13-Jan	0			
14-Jan	0			
15-Jan	0			
16-Jan	0.03			
17-Jan	0			
18-Jan	0			
19-Jan	0			
20-Jan	0			
21-Jan	0			
22-Jan	1.3 ^S			
23-Jan	0			
24-Jan	Trace			
25-Jan	0			
26-Jan	Trace			
27-Jan	0			
28-Jan	0			
29-Jan	0.01			
30-Jan	0			
31-Jan	Trace			
Monthly Average		0.001		

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Feb	0			
2-Feb	0			
3-Feb	0.01			
4-Feb	0.01			
5-Feb	0			
6-Feb	0.11			
7-Feb	0			
8-Feb	0			
9-Feb	0.04			
10-Feb	Trace			
11-Feb	0			
12-Feb	0			
13-Feb	0			
14-Feb	0.51	0.017		
15-Feb	0.41	0.023		
16-Feb	0.16			
17-Feb	0			
18-Feb	0			
19-Feb	0.18	0.091		
20-Feb	0	0.079		
21-Feb	0	0.027		
22-Feb	0.15			
23-Feb	0.20			
24-Feb	Trace			
25-Feb	0			
26-Feb	Trace			
27-Feb	0.14			
28-Feb	0.06			
Monthly Average		0.008		

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Mar	0.01			
2-Mar	0			
3-Mar	0			
4-Mar	Trace			
5-Mar	0.05			
6-Mar	Trace			
7-Mar	0			
8-Mar	0			
9-Mar	0			
10-Mar	0			
11-Mar	0			
12-Mar	0.07			
13-Mar	0.69	0.056		
14-Mar	0	0.019		
15-Mar	0			
16-Mar	Trace			
17-Mar	0			
18-Mar	0.05			
19-Mar	0.99	0.078		
20-Mar	0.19	0.081		
21-Mar	0.01	0.062		
22-Mar	0			
23-Mar	Trace			
24-Mar	0			
25-Mar	0.03			
26-Mar	0			
27-Mar	0			
28-Mar	0.30			
29-Mar	Trace			
30-Mar	0			
31-Mar	0			
Monthly Average		0.010		

Notes:

Flow measurements for the three outfalls are reported in million gallons per day (MGD) and reported to two significant digits. All blank spaces represent zero flow.

*A flow meter and automatic sampler are currently installed at Outfall 001a. Outfall 001b is an emergency spillway only.

** Outfall 002 is sampled annually per MDNR letter dated 2/19/02, as a result flow is not measured until a sample is collected.

*** As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

^S denotes snow

FUSRAP Laboratory
8945 Latty Ave.
Berkeley, MO 63134
(314) 260-3900

February 25, 2003

SAIC
500 NW Plaza, Ste. 1000
St. Ann, MO 63074

Case Narrative
File # 03ML006

Sample Receipt

This data package contains 2 samples received from the Hazelwood Interim Storage Site on January 3, 2003.

Analytical Methods

Settleable solids analysis was performed in accordance with procedure ML-020.

Data Qualifiers

Data qualifier flags appear in the Results Summary if a sample's reported results are questionable. A "U" qualifier denotes that the activity reported is below the minimum detectable activity or that the isotope is not positively identified. A "N" qualifier denotes that the spike recovery is not within 80% to 120% for a Liquid or 70% to 130% for a solid. A "*" qualifier denotes poor duplicate results. A "J" qualifier denotes that the isotope was positively identified, however the reported values are estimated due to problems or unusual circumstances noted in this case narrative.

Initial calibrations, quality control samples, and daily quality control checks are within specified criteria or have been assigned the appropriate qualifier as required.

Problems or Unusual Occurrences

Samples in this batch were received as having 0.9 liters of water. This is below the 1 liter

FUSRAP Laboratory
8945 Latty Ave.
Berkeley, MO 63134
(314) 260-3900

March 25, 2003

SAIC
500 NW Plaza, Ste. 1000
St. Ann, MO 63074

Case Narrative

File # 03ML044

Sample Receipt

This data package contains 13 samples received from the Hazelwood Interim Storage Site on January 28, February 26 and 28, and March 3, 4, and 13, 2003.

Analytical Methods

Alpha spectroscopy with the Claude Sill method of fluoride fusion was used to analyze ^{228}Th , ^{230}Th , and ^{232}Th . This analysis was performed in accordance with procedure ML-005. The method blank for ^{230}Th is often greater than 2 times the respective MDA. This is because of the close proximity of the ^{229}Th tracer causes attenuated counts to overlap into the ^{230}Th region of interest.

Alpha spectroscopy with the Claude Sill method of fluoride fusion was used to analyze ^{234}U , ^{235}U , and ^{238}U . The analysis was performed in accordance with procedure ML-015.

Alpha spectroscopy with the Claude Sill method of fluoride fusion was used to analyze isotopic ^{226}Ra . The analysis was performed in accordance with procedure ML-006.

Settleable solids analysis was performed in accordance with procedure ML-020.

Data Qualifiers

Data qualifier flags appear in the Results Summary if a sample's reported results are questionable. A "U" qualifier denotes that the activity reported is below the minimum detectable activity or that the isotope is not positively identified. A "N" qualifier denotes

Case Narrative
LOT NUMBER: F3C140185

This report contains the analytical results for the three samples received under chain of custody by STL St. Louis on March 13, 2003. These samples are associated with your FUSRAP project.

All applicable quality control procedures met method-specified acceptance criteria except as noted below.

This report is incomplete without the case narrative. All results are based upon sample as received, wet weight, unless noted otherwise.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Affected Samples:

F3C140185 (1): HIS74509

Affected Methods:

450.1

Case Narrative:

The sample exhibited breakthrough due to sample matrix. Original results are reported.

Affected Samples:

F3C140185 (1): HIS74509

F3C140185 (3): HIS74511

F3C140185 (2): HIS74510

Affected Methods:

8260B

Case Narrative:

The LCS recoveries are outside QC limits for less than 10% of the compounds spiked. Laboratory QC practices, based on federal guidance documents, allow for up to 10% of the spike compounds to be outside QC criteria without necessitating re-preparation/re-analysis. Sample purge efficiency and compliance is demonstrated by the remaining acceptable LCS recoveries.

SAMPLE SUMMARY

F3C140185

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FJ6GF	001	HIS74509	03/13/03	11:10
FJ6G1	002	HIS74510	03/13/03	11:25
FJ6G5	003	HIS74511	03/13/03	10:20

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ATTACHMENT B

MSD QUARTERLY SELF-MONITORING REPORT FOR SLS



DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

April 25, 2003

Formerly Utilized Sites Remedial Action Program Project Office

Subject: Quarterly Metropolitan Sewer District (MSD) Self-Monitoring Report for January 2003 Through March 2003, St. Louis Site (SLS)

Mr. Roland Biehl
St. Louis Metropolitan Sewer District
Office of Environmental Compliance
10 East Grand Avenue
St. Louis, Missouri 63147-2913

Dear Mr. Biehl:

The USACE is submitting the January through March 2003 quarterly self-monitoring report for the St. Louis Downtown Site (SLDS). During this period, eight batches of wastewater from SLDS were discharged to the Metropolitan Sewer District (MSD). There was no release to MSD during the quarter at the St. Louis Airport Site (SLAPS); thus, there will be no submission for SLAPS.

For the calendar quarter a total of 137,160 gallons of wastewater from Plant 6EH operations was discharged with a total activity of $1.6E-06$ curies for Thorium; $1.1E-05$ curies for Uranium (isotopic); and $7.6E-07$ curies for Radium. Data for each batch are presented on the attached pages for your review.

Also included in this report are the results of analysis for uranium (KPA method) and total suspended solids for each discharge.

Should you have any comments or questions regarding this letter, please feel free to contact either Dr. Greg Hempen at (314) 260-3939 or Mr. Ron Frerker at (314) 260-3936.

Sincerely,

Sharon R. Cotner
FUSRAP Program Manager

Enclosure

SLDS FUSRAP
Self Monitoring Report for 1st Quarter for Inlet 17D3-022C

Parameter	Batch Number	Date of Discharge	Batch Results (pCi/L)	Amount Discharged (gal)	Total Activity per Discharge (Ci)	MSD Limits	Sum of the Ratios
Gross Alpha	BK-366	3/03/2003	0.7	12,540	3.5E-08	3,000	0.0
Gross Beta			25.9		1.2E-06	N/A	
TH-228			1.0		4.9E-08	2,000	
TH-230			2.9		1.4E-07	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			0.5		2.3E-08	3,000	
RA-226			0.0		0.0E+00	600	
RA-228*			1.0		4.9E-08	2,000	
Uranium (KPA)			0.0			3,000	
Total Suspended Solids			0.0 mg/l			30	
Gross Alpha	BK-367	3/12/2003	1.5	11,740	6.5E-08	3,000	0.0
Gross Beta			11.9		5.3E-07	N/A	
TH-228			0.7		3.2E-08	2,000	
TH-230			2.4		1.1E-07	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			1.7		7.5E-08	3,000	
RA-226			0.0		0.0E+00	600	
RA-228*			0.7		3.2E-08	2,000	
Uranium (KPA)			0.0			3,000	
Total Suspended Solids			0.2 mg/l			30	
Gross Alpha	BK-368	3/24/2003	78.6	20,660	6.1E-06	3,000	0.0
Gross Beta			14.8		1.2E-06	N/A	
TH-228			0.7		5.4E-08	2,000	
TH-230			0.6		4.5E-08	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			66.8		5.2E-06	3,000	
RA-226			0.9		7.3E-08	600	
RA-228*			0.7		5.4E-08	2,000	
Uranium (KPA)			65.6			3,000	
Total Suspended Solids			0.6 mg/l			30	
Gross Alpha	BK-369	3/26/2003	50.9	25,550	4.9E-06	3,000	0.0
Gross Beta			17.9		1.7E-06	N/A	
TH-228			1.1		1.0E-07	2,000	
TH-230			1.0		9.4E-08	1,000	
TH-232			0.2		1.8E-08	300	
Uranium (Nat)			58.0		5.6E-06	3,000	
RA-226			0.8		7.6E-08	600	
RA-228*			1.1		1.0E-07	2,000	
Uranium (KPA)			40.5			3,000	
Total Suspended Solids			0.4 mg/l			30	

ATTACHMENT C

COMPACT DISK OF FUSRAP, VALIDATED ENVIRONMENTAL DATA RESULTS

FUSRAP Document Management System

Year ID

00 4581

Further Info?

☐

Operating Unit

St. Louis Sites

Site

Area

MARKS Number

FN:1110-1-8100g

Primary Document Type

Site Management

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(January 1, 2003 - March 31, 2003)

Author/Originator

Cotner, Sharon

Company

FUSRAP

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