



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

REPLY TO
ATTENTION OF:

October 25, 2002

Formerly Utilized Sites Remedial Action Program

Subject: Transmittal of Third Quarter (July 1 – September 30) of Calendar Year 2002 Discharge Report for NPDES Permit MO-0111252 and Applicable or Relevant and Appropriate Requirements (ARARs) for Discharges to the Waters of the State at the St. Louis Airport Site (SLAPS), St. Louis, MO

Mr. Kurt Riebeling
Chief, Water Unit
Missouri Department of Natural Resources
10805 Sunset Office Dr., Suite 100
St. Louis, MO 63127-1038

Dear Mr. Riebeling:

This letter transmits the storm-water discharge monitoring report for the third quarter (July 1 – September 30) of 2002, 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. Attachment A of this report contains the available analytical results for the third quarter of 2002 for storm-water Outfalls 001, 002, and 003 at HISS. Attachment B contains the analytical results for storm-water Outfalls 001a, 001b, 002, and 003 at SLAPS.

Hazelwood Interim Storage Site (HISS)

Permit-specified parameters were measured in July, August, and September during the third quarter of 2002. Data results indicate that total organic halogen (TOX) values were positive for outfalls 001 and 002; therefore, volatile (VOC) and semi-volatile (SVOC) organic compounds were taken to identify the specific constituent as specified in the permit and the results are included. Di-n-butyl phthalate and methylene chloride were present at estimated quantities below the practical quantitation limit (PQL). These constituents are often associated with laboratory contamination. No other parameters were identified in the remaining samples.

The sensor for the flow meter at outfall HN01 was adjusted and recalibrated to compensate the problems that caused last quarter's error readings.

St. Louis Airport Site (SLAPS)

There were three rainfall events during the third quarter of 2002. There were no exceedences to report per the monitoring requirements of the permit. Outfall 003 was plugged through September 16, 2002, due to construction activities, as per our letter to Mr. Phillip Schroeder of the Missouri Department of Natural Resources (MDNR) dated February 7, 2002, subject: "Removal of Outfall 003 and Reduced Sampling on Outfall 002 from the Applicable or Relevant and Appropriate Requirements (ARARs) for Discharges to Waters of the State by the United State Army Corps of Engineers (USACE) at the St. Louis Airport Site (SLAPS), St. Louis, Missouri;" and the subsequent response provided by Mr. Matthew Sikes of MDNR in a letter dated February 19, 2002. Outfall 003 was reopened on September 17, 2002. Sampling at Outfall 002 has been reduced to once a year and sampling at Outfall 003 will cease, as referenced by the letter from Mr. Sikes above. SLAPS Outfall 003 has been listed for this quarter, but will not be sampled nor listed in the future NPDES submissions.

If you have any questions concerning this report, please contact Mr. Ron Frerker, (314) 260-3936, or Dr. Greg Hempen, (314) 260-3939.

Sincerely,



Sharon R. Cotner
FUSRAP Program Manager

Enclosures

ATTACHMENT A

**THIRD QUARTER CY 2002 RESULTS FOR THE
HAZELWOOD INTERIM STORAGE SITE**

**Third Quarter 2002 – Storm-water Discharge Monitoring Report
Hazelwood Interim Storage Site, St. Louis, MO**

FACILITY NAME	PERMIT NUMBER	COUNTY	OWNER	FACILITY CONTACT				
Hazelwood Interim Storage Site (HISS) ¹	MO-0111252	St. Louis	Jarboe Realty Investment	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 ¹					
REQUIRED FREQUENCY OF MONITORING						THIS REPORT COVERS		
Flow and rainfall – daily; Settlicable solids – monthly; Other parameters ² – quarterly						3 rd Quarter- July 2002 – September 2002		
SAMPLES COLLECTED BY								
David Lee, Lon Hoover and Denise Turnell								
ANALYSIS PERFORMED BY								
Severn-Trent (chemical analyses) and FUSRAP Laboratory (radiological analyses)								
SAMPLE LOCATION	MONTH and TIME		MONTH and TIME		MONTH and TIME			
Outfall 1	7/18/02@0000		8/6/02@0701		9/19/02@1354			
Outfall 2	7/18/02@1325		8/6/02@0705		9/19/02@1423			
Outfall 3	7/18/02@0000		8/6/02@0720		9/19/02@1315			
MONITORING PARAMETER	LIMITS³	UNITS⁴	ANALYTICAL RESULTS AND DATA QUALIFIERS			SAMPLE TYPE	REMARKS and COMMENTS	
			OUTFALL 1	OUTFALL 2	OUTFALL 3			
Settleable solids ⁵ :	July	Daily max=1.5 Monthly avg=1.0	mL/L/hr	ND	0.2	ND	Grab	
	August		mL/L/hr	<0	<0	<0	Grab	
	September		mL/L/hr	<0.1	<0	<0	Composite	
pH	6.0-9.0	SIU	8.50	8.18	8.03		Composite	
Specific conductance	Monitor Only	µmhos/cm	0.231	0.370	0.277		Composite	
Total organic carbon ⁶	Monitor Only	mg/L	12.1	12.2	8		Composite	
Total organic halogen ⁶	Monitor Only	mg/L	11.4	10.1	5		Composite	
Gross alpha	Monitor Only	pCi/L	29.1	33.8	<8.1 ⁷		Composite	
Gross beta	Monitor Only	pCi/L	31	<24.2 ⁷	<24.1 ⁷		Composite	
Lead 210	Monitor Only	pCi/L	<2.14 ⁷	<2.13 ⁷	<2.29 ⁷		Composite	Assumes secular equilibrium with Ra-226
Radium 226	Monitor Only	pCi/L	<2.14 ⁷	<2.13 ⁷	<2.29 ⁷		Composite	
Radium 228	Monitor Only	pCi/L	0.52 ⁷	1.51	0.6		Composite	Assumes secular equilibrium with Th-232
Uranium, total	Monitor Only	pCi/L	<3.69 ⁷	12.97	<3.84 ⁷		Composite	Calculated Value: addition of iso-analysis
Thorium 230	Monitor Only	pCi/L	20.1	4.12	5.52		Composite	
Thorium 232	Monitor Only	pCi/L	<1.15 ⁷	<0.51 ⁷	<1.18 ⁷		Composite	
Rainfall	Monitor Only	inches	See Table 1	See Table 1	See Table 1		24-hr total	Continuous recorder
Flow	Monitor Only	MGD	See Table 1	See Table 1	See Table 1		24-hr total	Continuous recorder
REPORT APPROVED BY OWNER						DATE 10/25/02		

Sharon Ostner

NOTES:

- ¹ HISS is a CERCLA NPL.
 - ² Collect quarterly samples in the months of March, June, September, and December for: pH, specific conductance, total organic carbon (TOC), total organic halogen (TOX), gross alpha, gross beta, Pb-210, Ra-226, Ra-228, Uranium (total), Th-230, and Th-232.
 - ³ Final limits as specified in the permit for settleable solids and pH.
 - ⁴ Results are reported in required units per permit.
 - ⁵ Settleable Solids Sample Method = EPA 160.5. See Table 2 for Data Qualifiers.
 - ⁶ See Table 2 for VOC and SVOC data.
 - ⁷ Reporting MDA as the result was reported below the MDA for the analysis.
- ND Insufficient flow to collect compliance samples.

**Third Quarter 2002 - 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-Jul-02			**	
02-Jul-02			**	
03-Jul-02	0.02		**	
04-Jul-02			**	
05-Jul-02			**	
06-Jul-02			**	
07-Jul-02			**	
08-Jul-02			**	
09-Jul-02	0.07		**	
10-Jul-02	0.02		**	
11-Jul-02			**	
12-Jul-02	0.26		**	
13-Jul-02			**	
14-Jul-02			**	
15-Jul-02			**	
16-Jul-02	0.04		**	
17-Jul-02			**	
18-Jul-02 ^b	0.40	*	0.01	*
19-Jul-02				
20-Jul-02				
21-Jul-02				
22-Jul-02	0.07			
23-Jul-02	0.11			
24-Jul-02				
25-Jul-02	0.02			
26-Jul-02	0.14			
27-Jul-02				
28-Jul-02				
29-Jul-02				
30-Jul-02		0.01 ^d	0.02 ^d	0.01 ^d
31-Jul-02				
Monthly Average ^c			0.01	

Date	Rainfall (inches)	Maximum Daily Flow (MGD) ^a		
		Outfall 001	Outfall 002	Outfall 003
1-Aug-02				
2-Aug-02				
3-Aug-02				
4-Aug-02				
5-Aug-02				
6-Aug-02 ^b	1.57	1.09	0.79	0.48
7-Aug-02				
8-Aug-02				
9-Aug-02				
10-Aug-02				
11-Aug-02				
12-Aug-02	0.13			
13-Aug-02	0.08			
14-Aug-02	0.17			
15-Aug-02				
16-Aug-02				
17-Aug-02				
18-Aug-02	0.75	0.03	0.08	
19-Aug-02	0.06			
20-Aug-02	0.06			
21-Aug-02				
22-Aug-02				
23-Aug-02	0.18			
24-Aug-02				
25-Aug-02				
26-Aug-02				
27-Aug-02			2.67 ^d	
28-Aug-02				
29-Aug-02		0.05 ^d		0.12 ^d
30-Aug-02				
31-Aug-02				
Monthly Average ^c		0.56	0.44	0.48

Date	Rainfall (inches)	Maximum Daily Flow (MGD) ^a		
		Outfall 001	Outfall 002	Outfall 003
1-Sep-02				
2-Sep-02				
3-Sep-02		2.49 ^d	2.25 ^d	2.39 ^d
4-Sep-02				
5-Sep-02				
6-Sep-02				
7-Sep-02				
8-Sep-02				
9-Sep-02				
10-Sep-02				
11-Sep-02				
12-Sep-02				
13-Sep-02				
14-Sep-02	0.05			
15-Sep-02	0.01			
16-Sep-02				
17-Sep-02	0.37			
18-Sep-02	0.01			
19-Sep-02 ^b	1.34	0.52	0.27	0.11
20-Sep-02	0.34	0.05	0.04	
21-Sep-02				
22-Sep-02				
23-Sep-02				
24-Sep-02				
25-Sep-02				
26-Sep-02				
27-Sep-02				
28-Sep-02				
29-Sep-02				
30-Sep-02				
Monthly Average ^c		0.29	0.16	0.11

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

^bCompliance samples collected on this day for the month indicated.

^cMonthly average does not include readings associated with calibration.

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

*Insufficient flow to collect storm-water samples.

**According to the manufacturer, these flow meter readings resulted from the sensor detecting a foreign object and erroneously recording a level.
Flow was measured continuously using ISCO Model 4210 Ultrasonic flow meters installed at each outfall.

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation Qualifier
HN01	HIS66631	09/19/02	1,1,1-Trichloroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,1,2,2-Tetrachloroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,1,2-Trichloro-1,2,2-trifluoroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,1,2-Trichloroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,1-Dichloroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,1-Dichloroethene	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,2-Dichloroethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	1,2-Dichloroethene (Total)	10	10	ug/L	U
HN01	HIS66631	09/19/02	1,2-Dichloropropane	5	5	ug/L	U
HN01	HIS66631	09/19/02	2-Butanone	20	20	ug/L	U
HN01	HIS66631	09/19/02	2-Hexanone	20	20	ug/L	U
HN01	HIS66631	09/19/02	4-Methyl-2-pentanone	20	20	ug/L	U
HN01	HIS66631	09/19/02	Acetone	11	20	ug/L	UJ
HN01	HIS66631	09/19/02	Benzene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Bromodichloromethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	Bromoform	5	5	ug/L	U
HN01	HIS66631	09/19/02	Bromomethane	10	10	ug/L	U
HN01	HIS66631	09/19/02	Carbon disulfide	5	5	ug/L	U
HN01	HIS66631	09/19/02	Carbon tetrachloride	5	5	ug/L	U
HN01	HIS66631	09/19/02	Chlorobenzene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Chlorodibromomethane	5	5	ug/L	U
HN01	HIS66631	09/19/02	Chloroethane	10	10	ug/L	U
HN01	HIS66631	09/19/02	Chloroform	5	5	ug/L	U
HN01	HIS66631	09/19/02	Chloromethane	10	10	ug/L	U
HN01	HIS66631	09/19/02	cis-1,3-Dichloropropene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Ethylbenzene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Methylene chloride	2.0999999	5	ug/L	J
HN01	HIS66631	09/19/02	Styrene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Tetrachloroethene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Toluene	5	5	ug/L	U
HN01	HIS66631	09/19/02	trans-1,3-Dichloropropene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Trichloroethene	5	5	ug/L	U
HN01	HIS66631	09/19/02	Vinyl chloride	5	5	ug/L	U
HN01	HIS66631	09/19/02	Xylenes, total	10	10	ug/L	U
HN01	HIS66631	09/19/02	1,2,4-Trichlorobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	1,2-Dichlorobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	1,3-Dichlorobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	1,4-Dichlorobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,4,5-Trichlorophenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,4,6-Trichlorophenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,4-Dichlorophenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,4-Dimethylphenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,4-Dinitrophenol	50	50	ug/L	UJ
HN01	HIS66631	09/19/02	2,4-Dinitrotoluene	10	10	ug/L	U
HN01	HIS66631	09/19/02	2,6-Dinitrotoluene	10	10	ug/L	U
HN01	HIS66631	09/19/02	2-Chloronaphthalene	10	10	ug/L	U
HN01	HIS66631	09/19/02	2-Chlorophenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2-Methylnaphthalene	10	10	ug/L	U
HN01	HIS66631	09/19/02	2-Methylphenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	2-Nitroaniline	50	50	ug/L	U

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation Qualifier
HN01	HIS66631	09/19/02	2-Nitrophenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	3,3'-Dichlorobenzidine	50	50	ug/L	U
HN01	HIS66631	09/19/02	3-Nitroaniline	50	50	ug/L	U
HN01	HIS66631	09/19/02	4,6-Dinitro-2-methylphenol	50	50	ug/L	U
HN01	HIS66631	09/19/02	4-Bromophenyl phenyl ether	10	10	ug/L	U
HN01	HIS66631	09/19/02	4-Chloro-3-methylphenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	4-Chloroaniline	10	10	ug/L	U
HN01	HIS66631	09/19/02	4-Chlorophenyl phenyl ether	10	10	ug/L	U
HN01	HIS66631	09/19/02	4-Methylphenol	20	20	ug/L	U
HN01	HIS66631	09/19/02	4-Nitroaniline	50	50	ug/L	U
HN01	HIS66631	09/19/02	4-Nitrophenol	50	50	ug/L	U
HN01	HIS66631	09/19/02	Acenaphthene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Acenaphthylene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Anthracene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Benzo(a)anthracene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Benzo(a)pyrene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Benzo(b)fluoranthene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Benzo(g,h,i)perylene	10	10	ug/L	UJ
HN01	HIS66631	09/19/02	Benzo(k)fluoranthene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Bis(2-chloroethoxy) methane	10	10	ug/L	U
HN01	HIS66631	09/19/02	Bis(2-chloroethyl) ether	10	10	ug/L	U
HN01	HIS66631	09/19/02	Bis(2-chloroisopropyl) ether	10	10	ug/L	U
HN01	HIS66631	09/19/02	Bis(2-ethylhexyl) phthalate	10	10	ug/L	U
HN01	HIS66631	09/19/02	Butyl benzyl phthalate	10	10	ug/L	U
HN01	HIS66631	09/19/02	Carbazole	10	10	ug/L	U
HN01	HIS66631	09/19/02	Chrysene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Di-n-butyl phthalate	3.7	10	ug/L	J
HN01	HIS66631	09/19/02	Di-n-octyl phthalate	10	10	ug/L	U
HN01	HIS66631	09/19/02	Dibenzo(a,h)anthracene	10	10	ug/L	UJ
HN01	HIS66631	09/19/02	Dibenzofuran	10	10	ug/L	U
HN01	HIS66631	09/19/02	Diethyl phthalate	10	10	ug/L	U
HN01	HIS66631	09/19/02	Dimethyl phthalate	10	10	ug/L	U
HN01	HIS66631	09/19/02	Fluoranthene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Fluorene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Hexachlorobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Hexachlorobutadiene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Hexachlorocyclopentadiene	50	50	ug/L	U
HN01	HIS66631	09/19/02	Hexachloroethane	10	10	ug/L	U
HN01	HIS66631	09/19/02	Indeno(1,2,3-cd)pyrene	10	10	ug/L	UJ
HN01	HIS66631	09/19/02	Isophorone	10	10	ug/L	U
HN01	HIS66631	09/19/02	N-Nitroso-di-n-propylamine	10	10	ug/L	U
HN01	HIS66631	09/19/02	N-Nitrosodiphenylamine	10	10	ug/L	U
HN01	HIS66631	09/19/02	Naphthalene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Nitrobenzene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Pentachlorophenol	50	50	ug/L	U
HN01	HIS66631	09/19/02	Phenanthrene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Phenol	10	10	ug/L	U
HN01	HIS66631	09/19/02	Pyrene	10	10	ug/L	U
HN01	HIS66631	09/19/02	Total Organic Halogens (TOX)	11.4	5	ug/L	=
HN01	HIS66631	09/19/02	Total Organic Carbon (TOC)	12.1	2	mg/L	=

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation Qualifier
HN01	HIS66631	09/19/02	Gross Alpha	29.129999	8.1800003	pCi/L	=
HN01	HIS66631	09/19/02	Gross Beta	31.059999	24.17	pCi/L	J
HN01	HIS66631	09/19/02	Radium-226	0.75	2.1400001	pCi/L	UJ
HN01	HIS66628	08/06/02	Settleable Solids (SS)	0	0.2	mL/L/hr	U
HN01	HIS66631	09/19/02	Settleable Solids (SS)	0.1	0.2	mL/L/hr	UJ
HN01	HIS66631	09/19/02	Thorium-228	0.38999999	0.51999998	pCi/L	UJ
HN01	HIS66631	09/19/02	Thorium-230	20.12000	0.51999998	pCi/L	=
HN01	HIS66631	09/19/02	Thorium-232	0.1	1.15	pCi/L	UJ
HN01	HIS66631	09/19/02	Uranium-234	1.4299999	0.97000003	pCi/L	J
HN01	HIS66631	09/19/02	Uranium-235	0.88	1.2	pCi/L	UJ
HN01	HIS66631	09/19/02	Uranium-238	1.070000	0.97000003	pCi/L	J
HN02	HIS66632	09/19/02	1,1,1-Trichloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,1,2,2-Tetrachloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,1,2-Trichloro-1,2,2-trifluoroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,1,2-Trichloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,1-Dichloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,1-Dichloroethene	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,2-Dichloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	1,2-Dichloroethene (Total)	10	10	ug/L	U
HN02	HIS66632	09/19/02	1,2-Dichloropropane	5	5	ug/L	U
HN02	HIS66632	09/19/02	2-Butanone	20	20	ug/L	U
HN02	HIS66632	09/19/02	2-Hexanone	20	20	ug/L	U
HN02	HIS66632	09/19/02	4-Methyl-2-pentanone	20	20	ug/L	U
HN02	HIS66632	09/19/02	Acetone	8.6999998	20	ug/L	UJ
HN02	HIS66632	09/19/02	Benzene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Bromodichloromethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	Bromoform	5	5	ug/L	U
HN02	HIS66632	09/19/02	Bromomethane	10	10	ug/L	U
HN02	HIS66632	09/19/02	Carbon disulfide	5	5	ug/L	U
HN02	HIS66632	09/19/02	Carbon tetrachloride	5	5	ug/L	U
HN02	HIS66632	09/19/02	Chlorobenzene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Chlorodibromomethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	Chloroethane	10	10	ug/L	U
HN02	HIS66632	09/19/02	Chloroform	5	5	ug/L	U
HN02	HIS66632	09/19/02	Chloromethane	10	10	ug/L	U
HN02	HIS66632	09/19/02	cis-1,3-Dichloropropene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Ethylbenzene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Methylene chloride	5	5	ug/L	U
HN02	HIS66632	09/19/02	Styrene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Tetrachloroethene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Toluene	5	5	ug/L	U
HN02	HIS66632	09/19/02	trans-1,3-Dichloropropene	5	5	ug/L	U
HN02	HIS66632	09/19/02	Trichloroethane	5	5	ug/L	U
HN02	HIS66632	09/19/02	Vinyl chloride	5	5	ug/L	U
HN02	HIS66632	09/19/02	Xylenes, total	10	10	ug/L	U
HN02	HIS66632	09/19/02	1,2,4-Trichlorobenzene	10	10	ug/L	U
HN02	HIS66632	09/19/02	1,2-Dichlorobenzene	10	10	ug/L	U
HN02	HIS66632	09/19/02	1,3-Dichlorobenzene	10	10	ug/L	U
HN02	HIS66632	09/19/02	1,4-Dichlorobenzene	10	10	ug/L	U
HN02	HIS66632	09/19/02	2,4,5-Trichlorophenol	10	10	ug/L	U

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation	Qualifier
HN02	HIS66632	09/19/02	2,4,6-Trichlorophenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	2,4-Dichlorophenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	2,4-Dimethylphenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	2,4-Dinitrophenol	50	50	ug/L		UJ
HN02	HIS66632	09/19/02	2,4-Dinitrotoluene	10	10	ug/L		U
HN02	HIS66632	09/19/02	2,6-Dinitrotoluene	10	10	ug/L		U
HN02	HIS66632	09/19/02	2-Chloronaphthalene	10	10	ug/L		U
HN02	HIS66632	09/19/02	2-Chlorophenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	2-Methylnaphthalene	10	10	ug/L		U
HN02	HIS66632	09/19/02	2-Methylphenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	2-Nitroaniline	50	50	ug/L		U
HN02	HIS66632	09/19/02	2-Nitrophenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	3,3'-Dichlorobenzidine	50	50	ug/L		U
HN02	HIS66632	09/19/02	3-Nitroaniline	50	50	ug/L		U
HN02	HIS66632	09/19/02	4,6-Dinitro-2-methylphenol	50	50	ug/L		U
HN02	HIS66632	09/19/02	4-Bromophenyl phenyl ether	10	10	ug/L		U
HN02	HIS66632	09/19/02	4-Chloro-3-methylphenol	10	10	ug/L		U
HN02	HIS66632	09/19/02	4-Chloroaniline	10	10	ug/L		U
HN02	HIS66632	09/19/02	4-Chlorophenyl phenyl ether	10	10	ug/L		U
HN02	HIS66632	09/19/02	4-Methylphenol	20	20	ug/L		U
HN02	HIS66632	09/19/02	4-Nitroaniline	50	50	ug/L		U
HN02	HIS66632	09/19/02	4-Nitrophenol	50	50	ug/L		U
HN02	HIS66632	09/19/02	Acenaphthene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Acenaphthylene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Anthracene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Benzo(a)anthracene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Benzo(a)pyrene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Benzo(b)fluoranthene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Benzo(g,h,i)perylene	10	10	ug/L		UJ
HN02	HIS66632	09/19/02	Benzo(k)fluoranthene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Bis(2-chloroethoxy) methane	10	10	ug/L		U
HN02	HIS66632	09/19/02	Bis(2-chloroethyl) ether	10	10	ug/L		U
HN02	HIS66632	09/19/02	Bis(2-chloroisopropyl) ether	10	10	ug/L		U
HN02	HIS66632	09/19/02	Bis(2-ethylhexyl) phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Butyl benzyl phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Carbazole	10	10	ug/L		U
HN02	HIS66632	09/19/02	Chrysene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Di-n-butyl phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Di-n-octyl phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Dibenzo(a,h)anthracene	10	10	ug/L		UJ
HN02	HIS66632	09/19/02	Dibenzofuran	10	10	ug/L		U
HN02	HIS66632	09/19/02	Diethyl phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Dimethyl phthalate	10	10	ug/L		U
HN02	HIS66632	09/19/02	Fluoranthene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Fluorene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Hexachlorobenzene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Hexachlorobutadiene	10	10	ug/L		U
HN02	HIS66632	09/19/02	Hexachlorocyclopentadiene	50	50	ug/L		U
HN02	HIS66632	09/19/02	Hexachloroethane	10	10	ug/L		U
HN02	HIS66632	09/19/02	Indeno(1,2,3-cd)pyrene	10	10	ug/L		UJ

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation Qualifier
HN02	HIS66632	09/19/02	Isophorone	10	10	ug/L	U
HN02	HIS66632	09/19/02	N-Nitroso-di-n-propylamine	10	10	ug/L	U
HN02	HIS66632	09/19/02	N-Nitrosodiphenylamine	10	10	ug/L	U
HN02	HIS66632	09/19/02	Naphthalene	10	10	ug/L	U
HN02	HIS66632	09/19/02	Nitrobenzene	10	10	ug/L	U
HN02	HIS66632	09/19/02	Pentachlorophenol	50	50	ug/L	U
HN02	HIS66632	09/19/02	Phenanthrene	10	10	ug/L	U
HN02	HIS66632	09/19/02	Phenol	10	10	ug/L	U
HN02	HIS66632	09/19/02	Pyrene	10	10	ug/L	U
HN02	HIS66632	09/19/02	Total Organic Halogens (TOX)	10.1	5	ug/L	=
HN02	HIS66632	09/19/02	Total Organic Carbon (TOC)	12.2	2	mg/L	=
HN02	HIS66632	09/19/02	Gross Alpha	33.849998	8.1999998	pCi/L	=
HN02	HIS66632	09/19/02	Gross Beta	16.379999	24.190001	pCi/L	UJ
HN02	HIS66632	09/19/02	Radium-226	0.74000001	2.1300001	pCi/L	UJ
HN02	HIS66629	08/06/02	Settleable Solids (SS)	0	0.2	mL/L/hr	U
HN02	HIS66632	09/19/02	Settleable Solids (SS)	0	0.2	mL/L/hr	UJ
HN02	HIS66632	09/19/02	Thorium-228	1.51	1.38	pCi/L	J
HN02	HIS66632	09/19/02	Thorium-230	4.1199999	0.50999999	pCi/L	=
HN02	HIS66632	09/19/02	Thorium-232	0.37	0.50999999	pCi/L	UJ
HN02	HIS66632	09/19/02	Uranium-234	6.8099999	0.83999997	pCi/L	J
HN02	HIS66632	09/19/02	Uranium-235	1.91	1.04	pCi/L	R
HN02	HIS66632	09/19/02	Uranium-238	6.1700001	0.83999997	pCi/L	J
HN03	HIS66633	09/19/02	1,1,1-Trichloroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,1,2,2-Tetrachloroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,1,2-Trichloro-1,2,2-trifluoroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,1,2-Trichloroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,1-Dichloroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,1-Dichloroethene	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,2-Dichloroethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	1,2-Dichloroethene (Total)	10	10	ug/L	U
HN03	HIS66633	09/19/02	1,2-Dichloropropane	5	5	ug/L	U
HN03	HIS66633	09/19/02	2-Butanone	20	20	ug/L	U
HN03	HIS66633	09/19/02	2-Hexanone	20	20	ug/L	U
HN03	HIS66633	09/19/02	4-Methyl-2-pentanone	20	20	ug/L	U
HN03	HIS66633	09/19/02	Acetone	9.3999996	20	ug/L	UJ
HN03	HIS66633	09/19/02	Benzene	5	5	ug/L	U
HN03	HIS66633	09/19/02	Bromodichloromethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	Bromoform	5	5	ug/L	U
HN03	HIS66633	09/19/02	Bromomethane	10	10	ug/L	U
HN03	HIS66633	09/19/02	Carbon disulfide	5	5	ug/L	U
HN03	HIS66633	09/19/02	Carbon tetrachloride	5	5	ug/L	U
HN03	HIS66633	09/19/02	Chlorobenzene	5	5	ug/L	U
HN03	HIS66633	09/19/02	Chlorodibromomethane	5	5	ug/L	U
HN03	HIS66633	09/19/02	Chloroethane	10	10	ug/L	U
HN03	HIS66633	09/19/02	Chloroform	5	5	ug/L	U
HN03	HIS66633	09/19/02	Chloromethane	10	10	ug/L	U
HN03	HIS66633	09/19/02	cis-1,3-Dichloropropene	5	5	ug/L	U
HN03	HIS66633	09/19/02	Ethylbenzene	5	5	ug/L	U
HN03	HIS66633	09/19/02	Methylene chloride	5	5	ug/L	U
HN03	HIS66633	09/19/02	Styrene	5	5	ug/L	U

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation	Qualifier
HN03	HIS66633	09/19/02	Tetrachloroethene	5	5	ug/L		U
HN03	HIS66633	09/19/02	Toluene	5	5	ug/L		U
HN03	HIS66633	09/19/02	trans-1,3-Dichloropropene	5	5	ug/L		U
HN03	HIS66633	09/19/02	Trichloroethene	5	5	ug/L		U
HN03	HIS66633	09/19/02	Vinyl chloride	5	5	ug/L		U
HN03	HIS66633	09/19/02	Xylenes, total	10	10	ug/L		U
HN03	HIS66633	09/19/02	1,2,4-Trichlorobenzene	10	10	ug/L		U
HN03	HIS66633	09/19/02	1,2-Dichlorobenzene	10	10	ug/L		U
HN03	HIS66633	09/19/02	1,3-Dichlorobenzene	10	10	ug/L		U
HN03	HIS66633	09/19/02	1,4-Dichlorobenzene	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,4,5-Trichlorophenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,4,6-Trichlorophenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,4-Dichlorophenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,4-Dimethylphenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,4-Dinitrophenol	50	50	ug/L		U
HN03	HIS66633	09/19/02	2,4-Dinitrotoluene	10	10	ug/L		U
HN03	HIS66633	09/19/02	2,6-Dinitrotoluene	10	10	ug/L		U
HN03	HIS66633	09/19/02	2-Chloronaphthalene	10	10	ug/L		U
HN03	HIS66633	09/19/02	2-Chlorophenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2-Methylnaphthalene	10	10	ug/L		U
HN03	HIS66633	09/19/02	2-Methylphenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	2-Nitroaniline	50	50	ug/L		U
HN03	HIS66633	09/19/02	2-Nitrophenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	3,3'-Dichlorobenzidine	50	50	ug/L		U
HN03	HIS66633	09/19/02	3-Nitroaniline	50	50	ug/L		U
HN03	HIS66633	09/19/02	4,6-Dinitro-2-methylphenol	50	50	ug/L		U
HN03	HIS66633	09/19/02	4-Bromophenyl phenyl ether	10	10	ug/L		U
HN03	HIS66633	09/19/02	4-Chloro-3-methylphenol	10	10	ug/L		U
HN03	HIS66633	09/19/02	4-Chloroaniline	10	10	ug/L		U
HN03	HIS66633	09/19/02	4-Chlorophenyl phenyl ether	10	10	ug/L		U
HN03	HIS66633	09/19/02	4-Methylphenol	20	20	ug/L		U
HN03	HIS66633	09/19/02	4-Nitroaniline	50	50	ug/L		U
HN03	HIS66633	09/19/02	4-Nitrophenol	50	50	ug/L		U
HN03	HIS66633	09/19/02	Acenaphthene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Acenaphthylene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Anthracene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Benzo(a)anthracene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Benzo(a)pyrene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Benzo(b)fluoranthene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Benzo(g,h,i)perylene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Benzo(k)fluoranthene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Bis(2-chloroethoxy) methane	10	10	ug/L		U
HN03	HIS66633	09/19/02	Bis(2-chloroethyl) ether	10	10	ug/L		U
HN03	HIS66633	09/19/02	Bis(2-chloroisopropyl) ether	10	10	ug/L		U
HN03	HIS66633	09/19/02	Bis(2-ethylhexyl) phthalate	10	10	ug/L		U
HN03	HIS66633	09/19/02	Butyl benzyl phthalate	10	10	ug/L		U
HN03	HIS66633	09/19/02	Carbazole	10	10	ug/L		U
HN03	HIS66633	09/19/02	Chrysene	10	10	ug/L		U
HN03	HIS66633	09/19/02	Di-n-butyl phthalate	10	10	ug/L		U
HN03	HIS66633	09/19/02	Di-n-octyl phthalate	10	10	ug/L		U

Third Quarter 2002 - Hazelwood Interim Storage Site - Table 2 - Analytical Data Results

StationName	Sample Name	Collection Date	Analyte Name	Result	Detection Limit	Units	Validation Qualifier
HN03	HIS66633	09/19/02	Dibenzo(a,h)anthracene	10	10	ug/L	UJ
HN03	HIS66633	09/19/02	Dibenzofuran	10	10	ug/L	U
HN03	HIS66633	09/19/02	Diethyl phthalate	10	10	ug/L	U
HN03	HIS66633	09/19/02	Dimethyl phthalate	10	10	ug/L	U
HN03	HIS66633	09/19/02	Fluoranthene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Fluorene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Hexachlorobenzene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Hexachlorobutadiene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Hexachlorocyclopentadiene	50	50	ug/L	U
HN03	HIS66633	09/19/02	Hexachloroethane	10	10	ug/L	U
HN03	HIS66633	09/19/02	Indeno(1,2,3-cd)pyrene	10	10	ug/L	UJ
HN03	HIS66633	09/19/02	Isophorone	10	10	ug/L	U
HN03	HIS66633	09/19/02	N-Nitroso-di-n-propylamine	10	10	ug/L	U
HN03	HIS66633	09/19/02	N-Nitrosodiphenylamine	10	10	ug/L	U
HN03	HIS66633	09/19/02	Naphthalene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Nitrobenzene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Pentachlorophenol	50	50	ug/L	U
HN03	HIS66633	09/19/02	Phenanthrene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Phenol	10	10	ug/L	U
HN03	HIS66633	09/19/02	Pyrene	10	10	ug/L	U
HN03	HIS66633	09/19/02	Total Organic Halogens (TOX)	5	5	ug/L	U
HN03	HIS66633	09/19/02	Total Organic Carbon (TOC)	8	1	mg/L	=
HN03	HIS66633	09/19/02	Gross Alpha	7.6399999	8.0900002	pCi/L	U
HN03	HIS66633	09/19/02	Gross Beta	17.950001	24.08	pCi/L	U
HN03	HIS66633	09/19/02	Radium-226	0.790000C2	2.29	pCi/L	UJ
HN03	HIS66630	08/06/02	Settleable Solids (SS)	0	0.2	mL/L/hr	U
HN03	HIS66633	09/19/02	Settleable Solids (SS)	0	0.2	mL/L/hr	UJ
HN03	HIS66633	09/19/02	Thorium-228	0.600000C2	0.52999997	pCi/L	J
HN03	HIS66633	09/19/02	Thorium-230	5.52	0.52999997	pCi/L	=
HN03	HIS66633	09/19/02	Thorium-232	0.30000001	1.1799999	pCi/L	UJ
HN03	HIS66633	09/19/02	Uranium-234	1.34	0.73000002	pCi/L	J
HN03	HIS66633	09/19/02	Uranium-235	0	0.89999998	pCi/L	UJ
HN03	HIS66633	09/19/02	Uranium-238	1.47	1.6	pCi/L	UJ

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

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

UJ indicates the analyte was not detected above the minimum detectable activity, MDA. 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 radionuclide has been positively identified and the associated concentration value is accurate.

ATTACHMENT B

**THIRD QUARTER CY 2002 RESULTS FOR THE
ST. LOUIS AIRPORT SITE**

**Third Quarter 2002 - 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				3rd Quarter- July 1 through September 30, 2002	
SAMPLES COLLECTED BY					
Environmental Dimensions, Inc. and Pangea personnel					
ANALYSIS PERFORMED BY					
AIDL 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		
Outfall 001a	08/06/02 - 08/07/02	08/18/02 - 08/20/02	09/19/02 - 09/20/02, 09/23/02		
Outfall 002 ⁴	4	4	4		
Outfall 003	5	5	09/19/02 - 09/20/02		
SAMPLE LOCATION					
Outfall 001a					
Outfall 002 ⁴					
Outfall 003					
REPORT APPROVED BY OWNER			<i>Sharon Cotner</i>		DATE 10/25/02

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 Waiting on data results from the laboratory

Table 3 - Third Quarter 2002 - St. Louis Airport Site Daily Rainfall and Flow

Date 2002	(inches) 24-hour total	Outfall 001a*	Outfall 002**	Outfall 003***
1-Jul	0			
2-Jul	0			
3-Jul	0.47			
4-Jul	0			
5-Jul	0			
6-Jul	0			
7-Jul	0			
8-Jul	0			
9-Jul	Trace			
10-Jul	0.02			
11-Jul	0			
12-Jul	0.02			
13-Jul	0			
14-Jul	0			
15-Jul	0			
16-Jul	0.26			
17-Jul	Trace			
18-Jul	0.14			
19-Jul	0			
20-Jul	0			
21-Jul	0			
22-Jul	0.09			
23-Jul	0.25			
24-Jul	0			
25-Jul	0			
26-Jul	0			
27-Jul	0			
28-Jul	0			
29-Jul	Trace			
30-Jul	0			
31-Jul	0			
Monthly Average		0	0	0

Date 2002	(inches) 24-hour total	Outfall 001a*	Outfall 002**	Outfall 003***
1-Aug	0			
2-Aug	0			
3-Aug	0			
4-Aug	0			
5-Aug	Trace	0.96		
6-Aug	2.68	0.09		
7-Aug	0			
8-Aug	0			
9-Aug	0			
10-Aug	0			
11-Aug	Trace			
12-Aug	Trace			
13-Aug	0.11			
14-Aug	0.21			
15-Aug	0			
16-Aug	0			
17-Aug	0			
18-Aug	0.85	0.02		
19-Aug	0.02	0.04		
20-Aug	0.02	0.02		
21-Aug	0			
22-Aug	0			
23-Aug	0.20			
24-Aug	0			
25-Aug	0			
26-Aug	0			
27-Aug	0			
28-Aug	0			
29-Aug	0			
30-Aug	0			
31-Aug	0			
Monthly Average		0.23	0	0

Date 2002	(inches) 24-hour total	Outfall 001a*	Outfall 002**	Outfall 003***
1-Sep	0			
2-Sep	0			
3-Sep	0			
4-Sep	0			
5-Sep	0			
6-Sep	0			
7-Sep	0			
8-Sep	0			
9-Sep	0			
10-Sep	0			
11-Sep	0			
12-Sep	0			
13-Sep	0			
14-Sep	0.05			
15-Sep	Trace			
16-Sep	0			
17-Sep	0.41			
18-Sep	0			
19-Sep	1.64	0.06		0.08
20-Sep	0.34	0.05		0.01
21-Sep	0			
22-Sep	0			
23-Sep	0	0.08		
24-Sep	0			
25-Sep	0			
26-Sep	0			
27-Sep	0			
28-Sep	0			
29-Sep	0			
30-Sep	0			
Monthly Average		0.06	0.00	0.05

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

*** Outfall 003 was plugged through 09/16/02 due to construction activities. It was reopened on 09/17/02.

Third Quarter 2002 - Stormwater Discharge Monitoring Report - Outfall 001a
St. Louis Airport Site (SLAPS), St. Louis, MO

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS ¹	ANALYTICAL RESULTS						SAMPLE TYPE	REMARKS and COMMENTS
	Daily Maximum	Monthly Average		Outfall 001a							
				Chemical Parameters							
				July	August	September					
Flow	Monitor only	Monitor only	MGD	²	0.96	0.06				24-hr estimate	
Oil and Grease	15	10	mg/L	²	non-detect	³				Grab	
Total Petroleum Hydrocarbons	10	10	mg/L	²	non-detect	³				Grab	
pH-Units	6.0-9.0	NA	SU	²	7.7	³				Grab	
Chemical Oxygen Demand	120	90	mg/L	²	26.6	³				Grab	
Settleable Solids	1.5	1	mL/L/hr	²	0	³				Grab	DL ⁴ = 0.1 mL/L/hr
Arsenic, Total Recoverable	100	100	µg/L	²	non-detect	³				Grab	
Lead, Total Recoverable	190	190	µg/L	²	non-detect	³				Grab	
Chromium, Total Recoverable	280	280	µg/L	²	non-detect	³				Grab	
Copper, Total Recoverable	84	84	µg/L	²	non-detect	³				Grab	
Cadmium, Total Recoverable	94	94	µg/L	²	non-detect	³				Grab	
Polychlorinated Biphenyls	No release	No release	µg/L	²	non-detect	³				Grab	DL ⁴ = 1 µg/L
				Radiological Parameters ^{5,6}							
				Event 1	Event 2	Event 3					
Uranium, Total ^{7,8}	Monitor only	Monitor only	µg/L	4.6E+01	2.47E+02	1.35E+02				Grab	Calculated estimates
Radium, Total ^{7,8}	Monitor only	Monitor only	µg/L	2.E-06	3.E-06	2.E-06				Grab	Calculated estimates
Thorium, Total ^{7,8}	Monitor only	Monitor only	µg/L	2.E+00	9.E+00	3.E+00				Grab	Calculated estimates
Gross Alpha ⁷	Monitor only	Monitor only	pCi/L	5.E+01	1.8E+02	6.E+01				Grab	
Gross Beta ⁷	Monitor only	Monitor only	pCi/L	2.E+01	4.E+01	3.E+01				Grab	
Protactinium-231 ⁷	Monitor only	Monitor only	pCi/L	4.E-01	1.E-01	5.E-02				Grab	
Actinium-227 ⁷	Monitor only	Monitor only	pCi/L	4.E-01	1.E-01	5.E-02				Grab	
Radon	Monitor only	Monitor only	pCi/L							Grab	
Uranium, Total ^{7,8}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Radium, Total ^{7,8}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Thorium, Total ^{7,8}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Gross Alpha ⁷	Monitor only	Monitor only	pCi/L							Grab	
Gross Beta ⁷	Monitor only	Monitor only	pCi/L							Grab	
Protactinium-231 ⁷	Monitor only	Monitor only	pCi/L							Grab	
Actinium-227 ⁷	Monitor only	Monitor only	pCi/L							Grab	

¹ Results are reported in required units.

² ND = No Discharge

³ Waiting on data results from the laboratory.

⁴ DL= Detection Limit

⁵ 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.

⁶ 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.

⁷ As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

⁸ 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

**Third Quarter 2002 -Stormwater Discharge Monitoring Report - Outfall 002
St. Louis Airport Site (SLAPS), St. Louis, MO**

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS ¹	ANALYTICAL RESULTS						SAMPLE TYPE	REMARKS and COMMENTS
	Daily Maximum	Monthly Average		Outfall 002							
				Chemical Parameters							
				July	August	September					
Flow	Monitor only	Monitor only	MGD	2	2	2				estimate	
Oil and Grease	15	10	mg/L	2	2	2				Grab	
Total Petroleum Hydrocarbons	10	10	mg/L	2	2	2				Grab	
pH-Units	6.0-9.0	NA	SU	2	2	2				Grab	
Chemical Oxygen Demand	120	90	mg/L	2	2	2				Grab	
Settleable Solids	1.5	1	mL/L/hr	2	2	2				Grab	DL ³ = 0.1 mL/L/hr
Arsenic, Total Recoverable	100	100	µg/L	2	2	2				Grab	
Lead, Total Recoverable	190	190	µg/L	2	2	2				Grab	
Chromium, Total Recoverable	280	280	µg/L	2	2	2				Grab	
Copper, Total Recoverable	84	84	µg/L	2	2	2				Grab	
Cadmium, Total Recoverable	94	94	µg/L	2	2	2				Grab	
Polychlorinated Biphenyls	No release	No release	µg/L	2	2	2				Grab	DL ³ = 1 µg/L
				Radiological Parameters ^{4,5}							
				Event 1	Event 2	Event 3					
Uranium, Total ^{6,7}	Monitor only	Monitor only	µg/L	2	2	2				Grab	Calculated estimates
Radium, Total ^{6,7}	Monitor only	Monitor only	µg/L	2	2	2				Grab	Calculated estimates
Thorium, Total ^{6,7}	Monitor only	Monitor only	µg/L	2	2	2				Grab	Calculated estimates
Gross Alpha ⁶	Monitor only	Monitor only	pCi/L	2	2	2				Grab	
Gross Beta ⁶	Monitor only	Monitor only	pCi/L	2	2	2				Grab	
Protactinium-231 ⁶	Monitor only	Monitor only	pCi/L	2	2	2				Grab	
Actinium-227 ⁶	Monitor only	Monitor only	pCi/L	2	2	2				Grab	
Radon	Monitor only	Monitor only	pCi/L							Grab	
Uranium, Total ^{6,7}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Radium, Total ^{6,7}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Thorium, Total ^{6,7}	Monitor only	Monitor only	µg/L							Grab	Calculated estimates
Gross Alpha ⁶	Monitor only	Monitor only	pCi/L							Grab	
Gross Beta ⁶	Monitor only	Monitor only	pCi/L							Grab	
Protactinium-231 ⁶	Monitor only	Monitor only	pCi/L							Grab	
Actinium-227 ⁶	Monitor only	Monitor only	pCi/L							Grab	

¹ Results are reported in required units.

² 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.

³ DL= Detection Limit

⁴ 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.

⁵ 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.

⁶ As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

⁷ Total nuclide values in µg/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

Third Quarter 2002 -Stormwater Discharge Monitoring Report - Outfall 003
St. Louis Airport Site (SLAPS), St. Louis, MO

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS ¹	ANALYTICAL RESULTS			SAMPLE TYPE	REMARKS and COMMENTS	
	Daily Maximum	Monthly Average		Outfall 003					
				Chemical Parameters					
				July	August	September			
Flow	Monitor only	Monitor only	MGD	2	2	0.08	estimate		
Oil and Grease	15	10	mg/L	2	2	3	Grab		
Total Petroleum Hydrocarbons	10	10	mg/L	2	2	3	Grab		
pH-Units	6.0-9.0	NA	SU	2	2	3	Grab		
Chemical Oxygen Demand	120	90	mg/L	2	2	3	Grab		
Settleable Solids	1.5	1	mL/L/hr	2	2	3	Grab	DL ⁴ = 0.1 mL/L/hr	
Arsenic, Total Recoverable	100	100	µg/L	2	2	3	Grab		
Lead, Total Recoverable	190	190	µg/L	2	2	3	Grab		
Chromium, Total Recoverable	280	280	µg/L	2	2	3	Grab		
Copper, Total Recoverable	84	84	µg/L	2	2	3	Grab		
Cadmium, Total Recoverable	94	94	µg/L	2	2	3	Grab		
Polychlorinated Biphenyls	No release	No release	µg/L	2	2	3	Grab	DL ⁴ = 1 µg/L	
				Radiological Parameters ^{5,6}					
				Event 1	Event 2	Event 3			
Uranium, Total ^{7,8}	Monitor only	Monitor only	µg/L	2	2	1.2E+00		Grab	Calculated estimates
Radium, Total ^{7,8}	Monitor only	Monitor only	µg/L	2	2	6.E-08		Grab	Calculated estimates
Thorium, Total ^{7,8}	Monitor only	Monitor only	µg/L	2	2	1.E-01		Grab	Calculated estimates
Gross Alpha ⁷	Monitor only	Monitor only	pCi/L	2	2	5.E+00		Grab	
Gross Beta ⁷	Monitor only	Monitor only	pCi/L	2	2	1.E+01		Grab	
Protactinium-231 ⁷	Monitor only	Monitor only	pCi/L	2	2	2.E-02		Grab	
Actinium-227 ⁷	Monitor only	Monitor only	pCi/L	2	2	3.E-02		Grab	
Radon	Monitor only	Monitor only	pCi/L			non-detect		Grab	
Uranium, Total ^{7,8}	Monitor only	Monitor only	µg/L					Grab	Calculated estimates
Radium, Total ^{7,8}	Monitor only	Monitor only	µg/L					Grab	Calculated estimates
Thorium, Total ^{7,8}	Monitor only	Monitor only	µg/L					Grab	Calculated estimates
Gross Alpha ⁷	Monitor only	Monitor only	pCi/L					Grab	
Gross Beta ⁷	Monitor only	Monitor only	pCi/L					Grab	
Protactinium-231 ⁷	Monitor only	Monitor only	pCi/L					Grab	
Actinium-227 ⁷	Monitor only	Monitor only	pCi/L					Grab	

¹ Results are reported in required units.

² Outfall was plugged through 9/16/02 due to construction activities. It was reopened on 9/17/02.

³ Waiting on data results from the laboratory.

⁴ DL= Detection Limit

⁵ 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.

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