UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

Site: Big River Mine
ID #: MOD981126899
Break: 1.3
Other: EPA
5-20-88
07CR

Date: 5/20/88

MEMORANDUM

SUBJECT: Data Transmittal for Activity #: TK981,
Site Description: Big River Mine Tailings

FROM: Robert D. Kleopfer, Ph.D. RDK
Chief, Laboratory Branch, ENSV

TO: Charles P. Hensley
Chief, Emergency Planning and Response Branch, ENSV

ATTN: P. Doherty

Attached is the data transmittal for the above referenced site. This should be considered a ___ Partial or X Complete data transmittal (completes transmittal of _____). If you have any questions or comments, please contact Dee Simmons at 236-3881.

Attachments

cc: Data File
✓SPFD
✓Jeff Weatherford
✓Dee + Ed

40108294

SUPERFUND RECORDS

Sent 5-24-88

EPA Region VII

Data Qualification Codes

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

M - Compound was qualitatively identified; however, quantitative value is less than contract required quantitation limits (CLP data); or value is less than limit of quantitation (EPA data) and is, therefore, an estimated value.

J - The associated numerical value is an estimated quantity.

I - The data are invalid (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.

O - Sample lost or not analyzed.

L - Value known to be higher than value reported.

N - Presumptive evidence of presence of material.

NA - Sample was not analyzed for this compound.

NJ - Presumptive evidence of the presence of the material at an estimated quantity.

UJ - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

Codes for Flash Point Data

L - The sample did not ignite or "flash." This is the highest temperature at which the sample was tested. It is possible that the material may be ignitable at higher temperatures.

K - The sample did ignite or "flash" at the lowest temperature tested. This is usually the ambient temperature at the time of the test. It is possible that the material may be ignitable at even lower temperatures.

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: BIG RIVER MINE TAILINGS — Site Number:
Location: DESLOGE MO — Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1600 Leader: B.OVERFELT

Sample Number: TK981001 — SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER:

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Per #: Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: Southeast
#1 See field Map

1986-MO

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1610 Leader: B.OVERFELT

Sample Number: TK98100[illegible] SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #: _____ Aliquots: 5

Samplers: Ted Faile

COMMENTS OF FIELD PERSONNEL

Site Description: Southeast bend of Big River near monitoring well #2 see field map

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FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1620 Leader: B.OVERFELT

Sample Number: TK981003 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Pan #: _____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: See field Map
~~#5~~ #3

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FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1630 Leader: B.OVERFELT

Sample Number: TK981004 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER:_____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #:_____ Aliquots: 5

Samplers: Ted Faile

COMMENTS OF FIELD PERSONNEL

Site Description: #4 See field map

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FIELD SHEET
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1640 Leader: B.OVERFELT

Sample Number: TK981005 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Pan #: _____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: #5 See field Map

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FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1645 Leader: B.OVERFELT

Sample Number: TK981006 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER:_____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Pan #:_____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: #6 See field Map

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FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1650 Leader: B.OVERFELT

Sample Number: TK981007 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Pan #: _____ Aliquots: 5

Samplers: Ted Faile

COMMENTS OF FIELD PERSONNEL

Site Description: #7 See field Map

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FIELD SHEET
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1655 Leader: B.OVERFELT

Sample Number: TK98100.8 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6 Pan #: _____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: # 8
See field Map

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FIELD SHEET
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 165 Day: 16 Time: 1700 Leader: B.OVERFELT

Sample Number: TK981009 D SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER:_____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #:_____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: # 8 See field Map

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FIELD SHEET
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1705 Leader: B.OVERFELT

Sample Number: TK981010 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #: _____ Aliquots: 5

Samplers: Ted Faile

COMMENTS OF FIELD PERSONNEL

Site Description: # 9 See field Map

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FIELD SHEET
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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1755 Leader: B.OVERFELT

Sample Number: TK98101I SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER:_____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0~6" Pan #:_____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: Location #1 off site background

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FIELD SHEET
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Site Name: BIG RIVER MINE TAILINGS Site Number:
Location: DESLOGE MO Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1800 Leader: B.OVERFELT

Sample Number: TK981012 SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, (SEDIMENT) WATER, OTHER:_____

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #:_____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: Location # 2 off site Background

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FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: BIG RIVER MINE TAILINGS — Site Number:
Location: DESLOGE MO — Site Code:

Collected: YR: 88 MO: 5 Day: 16 Time: 1805 Leader: B.OVERFELT

Sample Number: TK98105 — SMO #:

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
8 OZ JAR	WHITE		TOTAL METALS

Depth: 0-6" Pan #: _____ Aliquots: 5

Samplers: Sharon Martin

COMMENTS OF FIELD PERSONNEL

Site Description: Location # 3 off site Background

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ANALYSIS TYPE: TOTAL METALS

TITLE: BIG RIVER MINE
LAB: EPA REGION VII
SAMPLE PREP: 2Ud ANALYST/ENTRY: GRS
YRS

MATRIX: SEDIMENT
METHOD: 2001577
REVIEWER:
DATA FILE: GS1

UNITS: MG/KG
CASE:
DATE: 05/19/88

		TK981001	TK981002	TK981003	TK981004
SILVER	MG/KG	1.3	1.7	1.2	1.5
ALUMINUM	MG/KG	690.0	620.0	650.0	790.0
ARSENIC	MG/KG	10.0U	10.0U	10.0U	12.0U
BARIUM	MG/KG	2.3	1.9	2.1	2.5
BERYLLIUM	MG/KG	.71	.57	.62	.77
CADMIUM	MG/KG	15.0	17.0	12.0	16.0
COBALT	MG/KG	14.0	9.8	12.0	15.0
CHROMIUM	MG/KG	1.4	1.2	1.4	1.7
COPPER	MG/KG	64.0	35.0	47.0	56.0
IRON	MG/KG	35000.0	22000.0	31000.0	33000.0
MANGANESE	MG/KG	4100.0	3900.0	3900.0	4200.0
MOLYBDENUM	MG/KG	4.6	3.7	4.3	4.9
NICKEL	MG/KG	12.0	6.9	9.7	13.0
LEAD	MG/KG	1200.0	1300.0	1100.0	880.0
ANTIMONY	MG/KG	10.0U	1.0U	10.0U	12.0U
SELENIUM	MG/KG	100.0U	100.0U	100.0U	120.0U
TITANIUM	MG/KG	N/A	N/A	N/A	N/A
THALLIUM	MG/KG	530.0U	500.0U	500.0U	720.0U
VANADIUM	MG/KG	5.2	1.5	4.6	5.6
ZINC	MG/KG	830.0	1000.0	680.0	900.0
CALCIUM	MG/KG	200000.0	190000.0	200000.0	190000.0
MAGNESIUM	MG/KG	96000.0	97000.0	98000.0	96000.0
SODIUM	MG/KG	5800.0	5400.0	5500.0	6900.0
POTASSIUM	MG/KG	170.0	120.0	140.0	260.0

ANALYSIS TYPE: TOTAL METALS

TITLE: BIG RIVER MINE
LAB: EPA REGION VII
SAMPLE PREP: VRS ANALYST/ENTRY: GRS VRS

MATRIX: SEDIMENT
METHOD: 2001S77
REVIEWER: NSB
DATA FILE: GS1

UNITS: MG/KG
CASE:
DATE: 05/19/88

		TK981005	TK981006	TK981007	TK981008
SILVER	MG/KG	1.7	1.4	.85	1.1
ALUMINUM	MG/KG	730.0	780.0	670.0	590.0
ARSENIC	MG/KG	10.0U	11.0U	10.0U	10.0U
BARIUM	MG/KG	2.2	2.4	2.0	1.8
BERYLLIUM	MG/KG	.70	.76	.70	.61
CADMIUM	MG/KG	19.0	16.0	8.4	11.0
COBALT	MG/KG	14.0	17.0	18.0	14.0
CHROMIUM	MG/KG	1.6	1.4	1.4	1.3
COPPER	MG/KG	70.0	100.0	87.0	64.0
IRON	MG/KG	32000.0	35000.0	33000.0	31000.0
MANGANESE	MG/KG	4000.0	4200.0	4000.0	3900.0
MOLYBDENUM	MG/KG	4.8	4.9	4.5	4.2
NICKEL	MG/KG	12.0	14.0	17.0	12.0
LEAD	MG/KG	1000.0	1300.0	970.0	1200.0
ANTIMONY	MG/KG	10.0U	11.0U	10.0U	10.0U
SELENIUM	MG/KG	100.0U	110.0U	100.0U	100.0U
TITANIUM	MG/KG	N/A	N/A	N/A	N/A
THALLIUM	MG/KG	610.0U	650.0U	550.0U	500.0U
VANADIUM	MG/KG	5.0	5.5	5.1	4.0
ZINC	MG/KG	1100.0	810.0	370.0	610.0
CALCIUM	MG/KG	200000.0	190000.0	180000.0	190000.0
MAGNESIUM	MG/KG	97000.0	92000.0	90000.0	92000.0
SODIUM	MG/KG	6400.0	6500.0	5900.0	5400.0
POTASSIUM	MG/KG	190.0	270.0	180.0	130.0

ANALYSIS TYPE: TOTAL METALS

TITLE: BIG RIVER MINE
LAB: EPA REGION VII
SAMPLE PREP: ANALYST/ENTRY: GRS
MATRIX: SEDIMENT
METHOD: 2001S77
REVIEWER:
DATA FILE: GS1
UNITS: MG/KG
CASE:
DATE: 05/19/88

		TK981009D	TK981010	TK981011	TK981012
SILVER	MG/KG	1.2	1.5	.50U	.20U
ALUMINUM	MG/KG	620.0	670.0	9000.0	5100.0
ARSENIC	MG/KG	10.0U	10.0U	13.0U	10.0U
BARIUM	MG/KG	1.9	2.2	270.0	300.0
BERYLLIUM	MG/KG	.65	.71	.81	.52
CADMIUM	MG/KG	13.0	17.0	2.0U	10.0U
COBALT	MG/KG	15.0	16.0	15.0	18.0
CHROMIUM	MG/KG	1.3	1.4	10.0	11.0
COPPER	MG/KG	78.0	92.0	26.0	26.0
IRON	MG/KG	32000.0	35000.0	20000.0	24000.0
MANGANESE	MG/KG	3800.0	4100.0	1400.0	1500.0
MOLYBDENUM	MG/KG	4.4	4.6	6.9	4.7
NICKEL	MG/KG	13.0	14.0	21.0	18.0
LEAD	MG/KG	1300.0	1400.0	410.0	560.0
ANTIMONY	MG/KG	10.0U	10.0U	2.0U	1.0U
SELENIUM	MG/KG	100.0U	100.0U	20.0U	10.0U
TITANIUM	MG/KG	N/A	N/A	N/A	N/A
THALLIUM	MG/KG	500.0U	520.0U	100.0U	50.0U
VANADIUM	MG/KG	4.7	5.2	31.0	22.0
ZINC	MG/KG	700.0	870.0	99.0	99.0
CALCIUM	MG/KG	190000.0	190000.0	30000.0	45000.0
MAGNESIUM	MG/KG	92000.0	92000.0	16000.0	21000.0
SODIUM	MG/KG	5500.0	5800.0	2200.0	2600.0
POTASSIUM	MG/KG	140.0	140.0	1500.0	1100.0

ANALYSIS TYPE: TOTAL METALS

TITLE: BIG RIVER MINE
LAB: EPA REGION VII
SAMPLE PREP: GRS ANALYST/ENTRY: GRS GRS

MATRIX: SEDIMENT
METHOD: 2001S77
REVIEWER: HSB
DATA FILE: GS1

UNITS: MG/KG
CASE:
DATE: 05/19/88

		TK981013
SILVER	MG/KG	.50U
ALUMINUM	MG/KG	6600.0
ARSENIC	MG/KG	12.0U
BARIUM	MG/KG	140.0
BERYLLIUM	MG/KG	.42
CADMIUM	MG/KG	2.0U
COBALT	MG/KG	11.0
CHROMIUM	MG/KG	6.3
COPPER	MG/KG	29.0
IRON	MG/KG	15000.0
MANGANESE	MG/KG	1100.0
MOLYBDENUM	MG/KG	5.2
NICKEL	MG/KG	10.0
LEAD	MG/KG	570.0
ANTIMONY	MG/KG	2.0U
SELENIUM	MG/KG	20.0U
TITANIUM	MG/KG	N/A
THALLIUM	MG/KG	100.0U
VANADIUM	MG/KG	19.0
ZINC	MG/KG	97.0
CALCIUM	MG/KG	44000.0
MAGNESIUM	MG/KG	23000.0
SODIUM	MG/KG	2800.0
POTASSIUM	MG/KG	1200.0