21

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

OU#5

Alice F

Date: 2/24/87

MEMORANDUM

SUBJECT: Data Transmittal for Activity #: J19B4,
Site Description: Cherokee County

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

TO: Robert L. Morby
Chief, Superfund Branch, WSTM

ATTN: _____

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

Attachments

cc: Data File

OUS

SUPERFUND BRANCH

S00021755
SUPERFUND RECORDS
229189

EPA REGION VII
DATA QUALIFICATION CODES

U - Compound was not detected.

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

J - Compound was qualitatively identified; however, compound failed to meet all QA criteria and therefore is only an estimated value.

I - Analysis attempted, but no results can be reported.

O - Sample lost or not analyzed.

L - Value known to be higher than value reported.

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

Site Name: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 14 Time: 1600 Leader: R MOOS

Sample Number: J1989001 SMO #: _____

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

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSITE MID Fan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M
Lee M., Jane M., Randy K.

COMMENTS OF FIELD PERSONNEL

Site Description: MAP Location #11 Spring River at Waco at USGS Gaging Station

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 14 Time: 1800 Leader: R MOOS

Sample Number: J1989002 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM.
			ACIDITY, ALKALINITY,
			TDS, TSS, HARDNESS,
			SULFATE

Depth: GRAB SURFACE Pan #: NA Aliquots: NA

Samplers: DICK MOOS - CHJM Hill
Lee M., Jane M., Randy K.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #12 Cow Creek
Straight west of Lawton
Fast flows

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 15 Time: 1600 Leader: R MOOS

Sample Number: J1989003 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSIT Pan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M
Lee M., Jane M., Randy K.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #23. Spring River above Short Cr. at Boat Ramp.

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 15 Time: 1000 Leader: R MOOS

Sample Number: J1989004 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSIT Pan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M
Lee M., Jane M., Randy K.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #4 SHORT CR. West of Galena

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 16 Time: 1530 Leader: R MOOS

Sample Number: J19B9005 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM.
			ACIDITY, ALKALINITY,
			TDS, TSS, HARDNESS,
			SULFATE

Depth: COMPOSIT Fan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M
Lee M., Jane M., Randy K

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #25
Spring River below Empire Lake
Just below ~~[illegible]~~ location where
two creek channels come together.

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 16 Time: 1000 Leader: R MOOS

Sample Number: J1989006 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSITE SURFACE Pan #: NA Aliquots: NA

Samplers: DKK MOOS-CH2M
Lee M., Jane M., Randy K

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #27
Spring River at Boffer Springs
Samples taken from top of dam, 30 ft from each shore

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 15 Time: 1530 Leader: R MOOS

Sample Number: J1989007 SMO #: _____

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

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSIT Pan #: NA Aliquots: NA

Samplers: DICK MOOS, CH2M HILL
LEE M, JANE M, RANDY K.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #15
Shawnee Cr.

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 15 Time: 1730 Leader: R MOOS

Sample Number: J1989008 SMO #: _____

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

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSIT Pan #: NA Aliquots: NA

Samplers: DICK MOOS, CH2M HILL
LEE M., JANE M., RANDY K.

COMMENTS OF FIELD PERSONNEL

Site Description: ~~STAT~~
Map Location #16 Brush Creek

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 16 Time: 1130 Leader: R MOOS

Sample Number: J1989009 SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: Composit Pan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M HILL
JANE M., LEE M., RANDY K.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #17 Wallow Creek at Bridge on old Highway north of Baxter Springs

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 15 Time: 1150 Leader: R MOOS

Sample Number: J19B9010D SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: COMPOSIT MID Pan #: NA Aliquots: NA

Samplers: DICK MOOR - CH2M HILL
LEE M., & RANDY K., JANE M.

COMMENTS OF FIELD PERSONNEL

Site Description: Map Location #4 Short Creek West of Galena

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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: CHEROKEE COUNTY Site Number: B9
Location: GALENA KS Site Code:

Collected: YR: 87 MO: 1 Day: 16 Time: 1600 Leader: R MOOS

Sample Number: J1989011F SMO #: _____

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

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1 L POLY.	WHITE	HNO3	METALS (TOTAL)
1 L POLY	GRAY	HNO3	METALS (DISS)
1 L CUBIT.	BROWN	HNO3	WATER CHEM. ACIDITY, ALKALINITY, TDS, TSS, HARDNESS, SULFATE

Depth: FIELD BLANK Pan #: NA Aliquots: NA

Samplers: DICK MOOS - CH2M HILL, JANE M., LEE M., RANDY K.

COMMENTS OF FIELD PERSONNEL

Site Description: Field Blank

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2/5/87 ds

Dee

Sample number J19B9011F never did arrive in the lab even though it was logged into the HP System. There was an 11F for metals, but not for minerals.

Jim Robinson

includes:
Acidity
ALK
TDS
TSS
Sulfate

Blank - T$Diss
Metals only

HARDNESS BY CALCULATION
EPA REGION VII DATA

TITLE: CHEROKEE CO.
DATE: 02/20/87
MATRIX: WATER

PARAMETER: HARDNESS BY CALCULATION
METHOD: 1301W05
ANALYST: GLM GLM / HBP

SAMPLE NO.	RESULT MG/L	REFERENCE	%REC
J19B9001	172		
J19B9002	474		
J19B9003	304		
J19B9004	205		
J19B9005	242		
J19B9006	215		
J19B9007	160		
J19B9008	108		
J19B9009	162		
J19B9010D	205		
J19B9011F	10.4		

NUTRIENTS
EPA REGION VII INORGANIC DATA

TITLE: SO4 BY ION CHROMATOGRAPHY
DATE: 01/23/07
MATRIX: WATER

PARAMETER: SULFATE AS SO4
METHOD: 375.2/07
ANALYST: KLC/HBB

STD. CURVE		READING
1	STD 5	5
2	STD 50	50
3	STD 100	100
4	STD 200	100

SAMPLE NO.	SULFATE MG/L	READING	DILUTION FACTOR	Q	
J1910001	71.6	71.6	1		
J1910002	440	8[illegible]	5		
J1910003	278	278	1		
J1910004	156	156	1		
J1910[illegible]	[illegible]	[illegible]	1		
J1910[illegible]	156	156	1		
J1910[illegible]	[illegible]	7.217	1		
J1910[illegible]				[illegible]	[illegible]
J1910[illegible]	207	207.65	1		
J1910[illegible]				[illegible]	[illegible]
J1910[illegible]	[illegible]	[illegible]	1		
J1910[illegible]	[illegible]	[illegible]	1		
J1910[illegible]	[illegible]	[illegible]	1		
J1910[illegible]	[illegible]	[illegible]	1		

NON-FILTERABLE SOLIDS
EPA REGION VII INORGANIC DATA

TITLE: ERF05,J1989
DATE: 01/20/87
MATRIX: WATER

PARAMETER: NON-FILTERABLE SOLIDS
METHOD: 160.1WQ
ANALYST: JR2 JR/HSB

SAMPLE NO.	RESULTS MG/L	105 WT. GRAMS	180 WT. GRAMS	550 WT. GRAMS	TARE WT.	MLS	DISH	% REC
ERF05501	8.330	21.7855			21.783	300	241	
ERF05502	6.500	21.0194			21.0181	200	111	
ERF05503	3.000 U	21.7645			21.7644	300	1001	
ERF05504	3.000 U	21.8573			21.8574	300	131	
ERF05505	9.990	21.4809			21.4779	300	201	
ERF05506	3.000 U	21.8876			21.8871	300	221	
ERF05507	3.000 U	21.6453			21.645	300	701	
[redacted]	5.340	21.4868			21.4852	300	1721	
[redacted]	25.00	21.3066			21.3016	200	651	
[redacted]	65.50	21.9644			21.9513	200	311	
[redacted]	5.330	21.618			21.6164	300	141	
[redacted]	3.660	21.7889			21.7878	300	211	
[redacted]	9.990	21.9194			21.9164	300	711	
[redacted]	14.00	21.9416			21.9374	300	201	
[redacted]	8.000	21.8444			21.842	300	251	
[redacted]	17.70	21.7123			21.707	300	27[illegible]	
[redacted]	6.660	21.612			21.61	300	931	
[redacted]	2.000 U	21.7905			21.7902	500	151	
[redacted]	107.	21.8798			21.8691	100	101	94.7
[redacted]	113.				21.46	400	341	92
[redacted]	32.00	21.4728						
[redacted]	28.30							

TOTAL DISSOLVED SOLIDS
EPA REGION VII INORGANIC DATA

TITLE: ERF05,J1989
DATE: 01/25/87
MATRIX: WATER

PARAMETER: TOTAL DISSOLVED SOLIDS
METHOD: 160.1W
ANALYST: JRI JR HBB

SAMPLE NO.	RESULTS MG/L	105 WT. GRAMS	180 WT. GRAMS	550 WT. GRAMS	TARE WT.	MLS	DISH	% REC
ERF05501	290.		65.3818		65.3673	50	112	
ERF05502	280.		59.4891		59.4751	50	37	
ERF05503	222.		61.781		61.7699	50	142	
ERF05504	142.		64.4547		64.4476	50	013	
ERF05505	330.		68.1392		68.1227	50	72	
ERF05506	260.		65.0916		65.0786	50	5	
ERF05507	268.		65.0374		65.024	50	811	
[redacted]	266.		63.2718		63.2585	50	884	
[redacted]	816.		61.0313		60.9905	50	214	
[redacted]	482.		69.1914		69.1673	50	13	
[redacted]	24.10		66.6819		66.6807	50	70	
[redacted]	44.20							54.5
[redacted]	276.		66.3725		66.3587	50	816	
[redacted]	342.		61.9073		61.8922	50	22	
[redacted]	306.		62.5045		62.4892	50	46	
[redacted]	272.		66.7622		66.7486	50	35	
[redacted]	166.		64.8078		64.7925	50	101	
[redacted]	258.		62.2736		62.2607	50	45	
[redacted]	318.		62.564		62.5481	50	820	
[redacted]	1	U	60.4456		60.4461	50	170	
[redacted]	30.20		67.5471		67.5456	50	6	
[redacted]	44.20							68.4

ALKALINITY
EPA REGION VII INORGANIC DATA

TITLE: J19B9 & ERF05
DATE: 02/02/87
MATRIX: WATER

PARAMETER: ALKALINITY
METHOD: 3101W01
ANALYST: JR1 JR / 2/6/B

STANDARD	MG NA2CO3	MLS H2SO4	NORMALITY
STANDARD 1	19	17.98	.019938
STANDARD 2	19.7	18.02	.020627

SAMPLE NO.	RESULTS MG/L	MLS TITRANT	MLS SAMPLE	QC % REC
[redacted]	116	11.4	100	
[redacted]	87.4	8.62	100	
[redacted]	110	10.8	100	
[redacted]	47.7	4.7	100	
[redacted]	112	11.05	100	
[redacted]	114	11.21	100	
[redacted]	34.5	3.4	100	
[redacted]	35.1	3.46	100	
[redacted]	50.4	4.97	100	
[redacted]	46.6	4.6	100	
ERF05501	52.2	5.15	100	
ERF05502	64.9	6.4	100	
ERF05503	1.52	.15	100	
ERF05504	119	11.7	100	
ERF05505	63.9	6.3	100	
ERF05506	90.3	8.9	100	
ERF05507	97.4	9.6	100	
ERF05900C	18.8	1.85	100	
ERF05900A	17.5			107.2

ACIDITY
EPA REGION VII INORGANIC DATA

TITLE: J19B9
DATE: 02/04/87
MATRIX: WATER

PARAMETER: ACIDITY
METHOD: 305.1W01
ANALYST: JR2 JR / JBB

NORMALITY OF H2SO4 = .0203

STANDARD	MLS TITRANT	MLS STANDARD	NORMALITY
STANDARD 1	10	8.86	1.79858E-02
STANDARD 2	10	8.83	1.79249E-02
STANDARD 3	10	9.07	1.84121E-02

SAMPLE NO.	RESULTS MG/L	MLS TITRANT	MLS SAMPLE	QC % REC
J19B9001	8.60	.95	100	
J19B9002	14.4	1.59	100	
J19B9003	10.1	1.12	100	
J19B9004	24.9	2.75	100	
J19B9005	7.88	.87	100	
J19B9006	9.05	1	100	
J19B9007	11.1	1.23	100	
J19B9008	8.15	.9	100	
J19B9009	13.3	1.47	100	
J19B9010D	25.0	2.76	100	

ALYSIS TYPE: TOTAL METALS

TLE: CHEROKEE COUNTY
B: EPA REGION VII
MPLE PREP: DRS ANALYST/ENTRY: GS1 DRS

MATRIX: WATER
METHOD: 2001W77
REVIEWER: HSB DATE: 01/30/87

SAMPLE NUMBERS

ELEMENT	UNITS	J19B9001	J19B9002	J19B9003	J19B9004
SILVER	UG/L	10. U	10. U	10. U	10. U
ALUMINUM	UG/L	180	550	2500	100
ARSENIC	UG/L	50 U	50 U	50 U	50 U
BARIUM	UG/L	61	42	75	23
BERYLLIUM	UG/L	2. U	2. U	2. U	2. U
CADMIUM	UG/L	5. U	5. U	5. U	68
COBALT	UG/L	10. U	16	10. U	10. U
CHROMIUM	UG/L	10. U	10. U	10. U	10. U
COPPER	UG/L	10. U	10. U	10. U	10. U
IRON	UG/L	490	1200	3100	88
MANGANESE	UG/L	290	2500	1000	180
MOLYBDENUM	UG/L	10. U	10. U	10. U	10. U
NICKEL	UG/L	20 U	30	20 U	32
LEAD	UG/L	50 U	50 U	50 U	50 U
ANTIMONY	UG/L	50 U	50 U	50 U	50 U
SELENIUM	UG/L	50 U	50 U	50 U	50 U
TITANIUM	UG/L	50 U	50 U	50 U	50 U
THALLIUM	UG/L	300 U	300 U	300 U	300 U
VANADIUM	UG/L	10. U	10. U	10. U	10. U
ZINC	UG/L	21	110	290	12000
CALCIUM	MG/L	57	110	79	65
MAGNESIUM	MG/L	6.8	47	21	5.6
SODIUM	MG/L	17	49	28	12
POTASSIUM	MG/L	2. U	3.9	2.3	2. U

ANALYSIS TYPE: TOTAL METALS

ITLE: CHEROKEE COUNTY
AB: EPA REGION VII
AMPLE PREP: DRS ANALYST/ENTRY: GS1 DRS

MATRIX: WATER
METHOD: 2001W77
REVIEWER: HSB DATE: 01/30/87

SAMPLE NUMBERS

LEMENT	UNITS	J19B9005		J19B9006		J19B9007		J19B9008	
SILVER	UG/L	10.	U	10.	U	10.	U	10.	U
ALUMINUM	UG/L	390		290		770		600	
ARSENIC	UG/L	50	U	50	U	50	U	50	U
BARIUM	UG/L	53		53		60		46	
BERYLLIUM	UG/L	2.	U	2.	U	2.	U	2.	U
CADMIUM	UG/L	5.	U	5.	U	5.	U	5.	U
COBALT	UG/L	10.	U	10.	U	10.	U	10.	U
CHROMIUM	UG/L	10.	U	10.	U	10.	U	10.	U
COPPER	UG/L	10.	U	10.	U	10.	U	10.	U
IRON	UG/L	610		470		1100		910	
MANGANESE	UG/L	710		460		720		160	
MOLYBDENUM	UG/L	10.	U	10.	U	10.	U	10.	U
NICKEL	UG/L	20	U	20	U	20	U	20	U
LEAD	UG/L	50	U	50	U	50	U	50	U
ANTIMONY	UG/L	50	U	50	U	50	U	50	U
SELENIUM	UG/L	50	U	50	U	50	U	50	U
TITANIUM	UG/L	50	U	50	U	50	U	50	U
THALLIUM	UG/L	300	U	300	U	300	U	300	U
VANADIUM	UG/L	10.	U	10.	U	10.	U	10.	U
ZINC	UG/L	190		210		94		41	
CALCIUM	MG/L	69		65		40		25	
MAGNESIUM	MG/L	16		12		13		9.9	
SODIUM	MG/L	23		19		21		17	
POTASSIUM	MG/L	3.9		3.9		3.9		3.9	

ANALYSIS TYPE: TOTAL METALS

:TLE: CHEROKEE COUNTY
\B: EPA REGION VII
\MPLE PREP: 200 ANALYST/ENTRY: GS1 GRS

MATRIX: WATER
METHOD: 2001W79
REVIEWER: HSB DATE: 01/30/87

SAMPLE NUMBERS

ELEMENT	UNITS	J19B9009		J19B9010D		J19B9011F	
SILVER	UG/L	10.	U	10.	U	10.	U
ALUMINUM	UG/L	1100		92		50	U
ARSENIC	UG/L	50	U	50	U	50	U
BARIUM	UG/L	60		22		2.	U
BERYLLIUM	UG/L	2.	U	2.	U	2.	U
CADMIUM	UG/L	5.	U	66		5.	U
COBALT	UG/L	10.	U	10.	U	10.	U
CHROMIUM	UG/L	10.	U	10.	U	10.	U
COPPER	UG/L	10.	U	10.		10.	U
IRON	UG/L	1800		76		50	U
MANGANESE	UG/L	230		170		2.	U
MOLYBDENUM	UG/L	10.	U	10.	U	10.	U
NICKEL	UG/L	20	U	39		20	U
LEAD	UG/L	50	U	50	U	50	U
ANTIMONY	UG/L	50	U	50	U	50	U
SELENIUM	UG/L	50	U	50	U	50	U
TITANIUM	UG/L	50	U	50	U	50	U
THALLIUM	UG/L	300	U	300	U	300	U
VANADIUM	UG/L	10.	U	10.	U	10.	U
ZINC	UG/L	660		12000		20	U
CALCIUM	MG/L	48		63		2.	U
MAGNESIUM	MG/L	7.6		5.5		2.	U
SODIUM	MG/L	12		12		2.	U
POTASSIUM	MG/L	3.9		3.9		2.	U

ANALYSIS TYPE: DISSOLVED METALS

TITLE: CHEROKEE CO.
LAB: EPA REGION VII
SAMPLE PREP: NA ANALYST/ENTRY: GS3 yns

MATRIX: WATER
METHOD: 2001W77
REVIEWER: _____ DATE: 02/04/87

SAMPLE NUMBERS

ELEMENT	UNITS	J19B9001		J19B9002		J19B9003		J19B9004	
SILVER	UG/L	10.	U	10.	U	10.	U	10.	U
ALUMINUM	UG/L	50	U	50	U	50	U	50	U
ARSENIC	UG/L	50	U	50	U	50	U	50	U
BARIUM	UG/L	62		36		60		18	
BERYLLIUM	UG/L	2.	U	2.	U	2.	U	2.	U
CADMIUM	UG/L	5.	U	5.	U	5.	U	58	
COBALT	UG/L	10.	U	15		10.	U	10.	U
CHROMIUM	UG/L	10.	U	10.	U	10.	U	10.	U
COPPER	UG/L	10.	U	10.	U	10.	U	10.	U
IRON	UG/L	50	U	50	U	50	U	50	U
MANGANESE	UG/L	290		2500		920		180	
MOLYBDENUM	UG/L	10.	U	10.	U	10.	U	10.	U
NICKEL	UG/L	20	U	24		20	U	33	
LEAD	UG/L	50	U	50	U	50	U	50	U
ANTIMONY	UG/L	50	U	50	U	50	U	50	U
SELENIUM	UG/L	50	U	50	U	50	U	50	U
TITANIUM	UG/L	50	U	50	U	50	U	50	U
THALLIUM	UG/L	300	U	300	U	300	U	300	U
VANADIUM	UG/L	10.	U	10.	U	10.	U	10.	U
ZINC	UG/L	20	U	74		62		11000	
CALCIUM	MG/L	60		110		81		66	
MAGNESIUM	MG/L	7.1		48		21		5.9	
SODIUM	MG/L	17		49		29		12	
POTASSIUM	MG/L	N/A	I	N/A	I	N/A	I	N/A	I

ANALYSIS TYPE: DISSOLVED METALS

TLE: CHEROKEE CO.
B: EPA REGION VII
MPLE PREP: N/A ANALYST/ENTRY: GS3 MRS

MATRIX: WATER
METHOD: 2001W77
REVIEWER: HSB DATE: 02/04/87

SAMPLE NUMBERS

ELEMENT	UNITS	J19B9005		J19B9006		J19B9007		J19B9008	
SILVER	UG/L	10.	U	10.	U	10.	U	10.	U
ALUMINUM	UG/L	50	U	50	U	50	U	50	U
ARSENIC	UG/L	50	U	50	U	50	U	50	U
BARIUM	UG/L	53		53		58		46	
BERYLLIUM	UG/L	2.	U	2.	U	2.	U	2.	U
CADMIUM	UG/L	5.	U	5.	U	5.	U	5.	U
COBALT	UG/L	10.	U	10.	U	10.	U	10.	U
CHROMIUM	UG/L	10.	U	10.	U	10.	U	10.	U
COPPER	UG/L	10.	U	10.	U	10.	U	10.	U
IRON	UG/L	50	U	50	U	80		87	
MANGANESE	UG/L	720		460		730		170	
MOLYBDENUM	UG/L	10.	U	10.	U	10.	U	10.	U
NICKEL	UG/L	20	U	20	U	20	U	20	U
LEAD	UG/L	50	U	50	U	50	U	50	U
ANTIMONY	UG/L	50	U	50	U	50	U	50	U
SELENIUM	UG/L	50	U	50	U	50	U	50	U
TITANIUM	UG/L	50	U	50	U	50	U	50	U
THALLIUM	UG/L	300	U	300	U	300	U	300	U
VANADIUM	UG/L	10.	U	10.	U	10.	U	10.	U
ZINC	UG/L	150		170		130		54	
CALCIUM	MG/L	72		66		40		26	
MAGNESIUM	MG/L	16		12		13		10.	
SODIUM	MG/L	23		20		21		18	
POTASSIUM	MG/L	N/A	I	N/A	I	N/A	I	N/A	I

ANALYSIS TYPE: DISSOLVED METALS

:TLE: CHEROKEE CO.
IB: EPA REGION VII
IMPLE PREP: NA ANALYST/ENTRY: GS3 MS

MATRIX: WATER
METHOD: 2001W77
REVIEWER: HGB DATE: 02/04/87

SAMPLE NUMBERS

LEMENT	UNITS	J19B9009		J19B9010D		J19B9011F	
SILVER	UG/L	10.	U	10.	U	10.	U
ALUMINUM	UG/L	81		50	U	50	U
ARSENIC	UG/L	50	U	50	U	50	U
BARIUM	UG/L	56		17		2.	U
BERYLLIUM	UG/L	2.	U	2.	U	2.	U
CADMIUM	UG/L	5.	U	57		5.	U
COBALT	UG/L	10.	U	10.	U	10.	U
CHROMIUM	UG/L	10.	U	10.	U	10.	U
COPPER	UG/L	10.	U	10.	U	10.	U
IRON	UG/L	380		50	U	50	U
MANGANESE	UG/L	230		170		2.	U
MOLYBDENUM	UG/L	10.	U	10.	U	10.	U
NICKEL	UG/L	20	U	38		20	U
LEAD	UG/L	50	U	50	U	50	U
ANTIMONY	UG/L	50	U	50	U	50	U
SELENIUM	UG/L	50	U	50	U	50	U
TITANIUM	UG/L	50	U	50	U	50	U
THALLIUM	UG/L	300	U	300	U	300	U
VANADIUM	UG/L	10.	U	10.	U	10.	U
ZINC	UG/L	630		10000		20	U
CALCIUM	MG/L	48		65		2.	U
MAGNESIUM	MG/L	7.7		5.8		2.	U
SODIUM	MG/L	12		12		2.	U
POTASSIUM	MG/L	N/A	I	N/A	I	N/A	I