UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

Site: Chem Comm - Shawnee
ID #: KSD980632962
Break: 2.3
Other: EPA
10-20-89

Date: 10/20/89

MEMORANDUM

SUBJECT: Data Transmittal for Activity #: ROX03,
Site Description: Chemical Commodities

FROM: Andrea Jirka
Chief, Laboratory Branch, ENSV

TO: John R. Helvig
Acting Chief, Emergency Planning and Response Branch, ENSV

ATTN: M. Roberts

Attached is the data transmittal for the above referenced site. These data have met all quality assurance requirements unless indicated otherwise in the data package. 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

40201404
SUPERFUND RECORDS

DATA REPORTING / QUALIFICATION CODES

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

J - The associated numerical value is an estimated quantity (explanation attached).

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

N - Sample not analyzed.

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: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1100 Leader: ROBERTS

Sample Number: ROX03001 SMO #: _____

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

Sample Split (circle one): YES NO

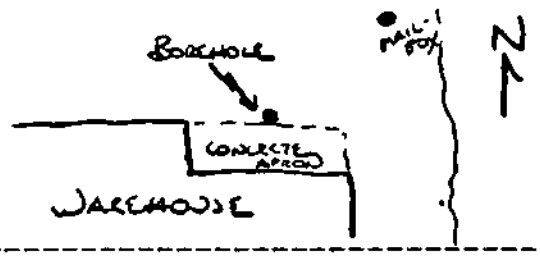
Sample Container	Tag Color	Preservative	Analysis Requested
2-40 ml. ~~8 OZ.~~ GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 3.0-4.5' Pan #: _____ Aliquots: _____

Samplers: Ron Shannon
Joan Bunine

COMMENTS OF FIELD PERSONNEL

Site Description: (N2) BOREHOLE A AT NORTH EDGE OF CONCRETE APRON AT NORTHEAST CORNER OF MAIN WAREHOUSE.



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1110 Leader: ROBERTS

Sample Number: ROX03002 SMO #: _____

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

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
2-40ml ~~4 OZ.~~ GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 4.5-6.0' Pan #: _____ Aliquots: _____

Samplers: RON SHANNON
JOHN DOWNING

COMMENTS OF FIELD PERSONNEL

Site Description: BOREHOLE # N1 AT NORTH EDGE OF CONCRETE APRON AT NORTHEAST CORNER OF MAIN WAREHOUSE.

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1120 Leader: ROBERTS

Sample Number: ROX03003 SMO #: _____

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

Sample Split (circle one): YES NO

Sample Container	Tag Color	Preservative	Analysis Requested
~~2 OZ.~~ 2-40 ml. GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 4.5-6.0' Pan #: _____ Aliquots: _____

Samplers: Ron Swanson
Lou Downing

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # N1 at north edge of concrete apron at northeast corner of main warehouse

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1220 Leader: ROBERTS

Sample Number: ROX03004 SMO #: _____

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

Sample Split (circle one): YES NO

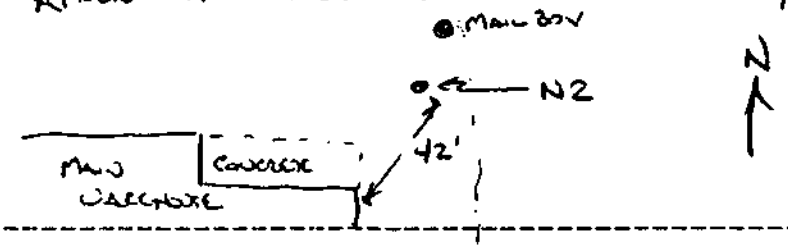
Sample Container	Tag Color	Preservative	Analysis Requested
~~8 OZ.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 4.0-5.5' Pan #: _____ Aliquots: _____

Samplers: Ron Shannon
John Downing

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole #N2 NORTHEAST OF CONCRETE APRON AT NORTHEAST CORNER OF MAIN WAREHOUSE.



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1410 Leader: ROBERTS

Sample Number: ROX03005 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.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

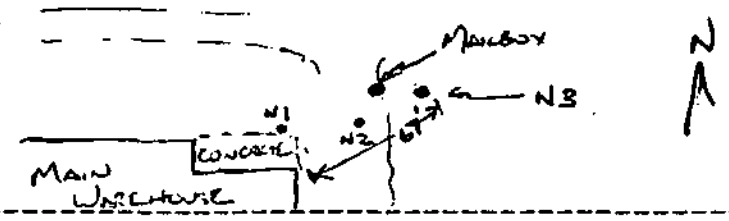
Depth: 3.0 - 4.5' Pan #: _____ Aliquots: 1

Samplers: Ron Shannon
John Downing

COMMENTS OF FIELD PERSONNEL

Site Description: BOREHOLE #N3 - 5' EAST OF MAILBOX AT ENTRANCE TO FACILITY

SOIL IS LIGHT GREY IN COLOR. OVA READING OF 20 PPM AS SAMPLE IS EXTRUDED



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1420 Leader: ROBERTS

Sample Number: ROX03006 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.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 oz. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 4.5-6.0' Pan #: _____ Aliquots: _____

Samplers: Ron Swanson
John Downing

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole #N3 - second depth interval

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 06 Time: 1430 Leader: ROBERTS

Sample Number: ROX03007 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.~~ 2-40ml. GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 6.0-7.5' Pan #: _____ Aliquots: _____

Samplers: Ron Swanson
John Downing

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # N3 Third Depth Interval
Grey clay & gravel

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 0910 Leader: ROBERTS

Sample Number: ROX03008 SMO #: _____

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

Sample Split (circle one): YES NO

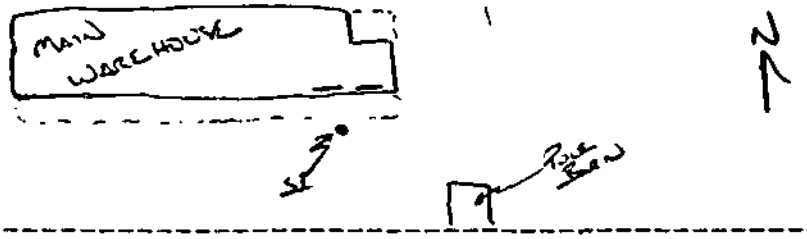
Sample Container	Tag Color	Preservative	Analysis Requested
~~8 OZ.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 1.5 - 3.0' Pan #: _____ Aliquots: _____

Samplers: RON SHANNON
BOB WIGGINS

COMMENTS OF FIELD PERSONNEL

Site Description: BOREHOLE # S1 AT SOUTH EDGE OF CONCRETE PAD AT SOUTHWEST CORNER OF MAIN WAREHOUSE.



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 0920 Leader: ROBERTS

Sample Number: ROX03009 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.~~ 2-4oz. GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 3.0-4.5' Pan #: _____ Aliquots: _____

Samplers: Ron Shannon
Bob Wiggins

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # S1 - second depth interval

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 0940 Leader: ROBERTS

Sample Number: ROX03010 SMO #: _____

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

Sample Split (circle one): YES NO

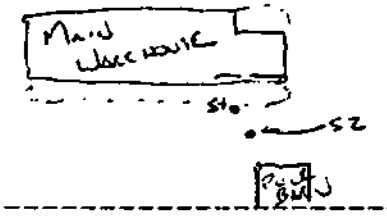
Sample Container	Tag Color	Preservative	Analysis Requested
~~8 OZ.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 2.5-4.0' Pan #: _____ Aliquots: _____

Samplers: Ron Swanson
Bob Wiggins

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # S2 - Approximately midway between main warehouse and pole barn



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 0940 Leader: ROBERTS

Sample Number: ROX0301D 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.~~ 2-40mL GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 2.5-4.0' Pan #: _____ Aliquots: _____

Samplers: Ron Shannon
Bob Wiggins

COMMENTS OF FIELD PERSONNEL

Site Description: Duplicate of ROX0301D
Borehole # 52

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1000 Leader: ROBERTS

Sample Number: ROX03011 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.~~ 2-40ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 40-55' Pan #: _____ Aliquots: _____

Samplers: RON SHANNON
BOB WIGGINS

COMMENTS OF FIELD PERSONNEL

Site Description: BOREHOLE # S2 - SECOND DEPTH INTERVAL

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1030 Leader: ROBERTS

Sample Number: ROX03012 SMO #: _____

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

Sample Split (circle one): YES NO

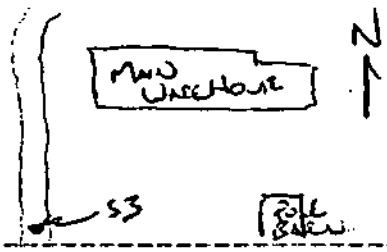
Sample Container	Tag Color	Preservative	Analysis Requested
~~8 oz.~~ 2-40 ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 oz. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 1.5-3.0' Pan #: _____ Aliquots: _____

Samplers: Bob Wiggans
Ray Shannon

COMMENTS OF FIELD PERSONNEL

Site Description: Background sample - Borehole S3 on dirt road SW of main warehouse and directly west of pole barn



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1040 Leader: ROBERTS

Sample Number: ROX03013 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.~~ 2-4 oz. GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 oz. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 3.0 - 4.5' Pan #: _____ Aliquots: _____

Samplers: Bob Wiggins
Ron Shannon

COMMENTS OF FIELD PERSONNEL

Site Description: Background - Borehole # S3
Second sample interval

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1050 Leader: ROBERTS

Sample Number: ROX03014 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.~~ 2-40 ml GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 ~~OZ.~~ GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 4.5-6.0' Pan #: _____ Aliquots: _____

Samplers: Bob Wiggins
Ron Shannon

COMMENTS OF FIELD PERSONNEL

Site Description: Background - Borehole # S3
THIRD DEPTH INTERVAL

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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1115 Leader: ROBERTS

Sample Number: ROX03015 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.~~ 2-40ml. GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 oz. Glass	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

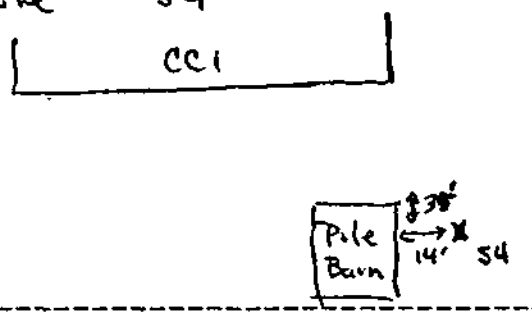
Depth: 1.5'-3.0' Pan #: _____ Aliquots: _____

Samplers: Bob Wiggans
Ron Shannon

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # S4

First Depth Interval



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Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1130 Leader: ROBERTS

Sample Number: ROX03016 SMO #: _____

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

Sample Split (circle one): YES NO

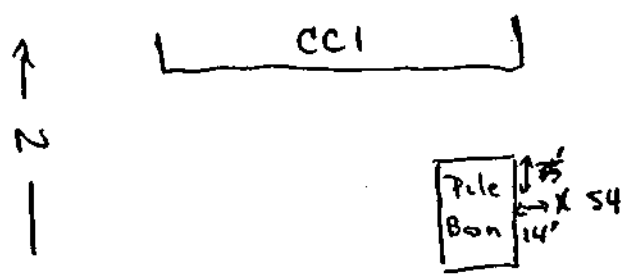
Sample Container	Tag Color	Preservative	Analysis Requested
2-40ml. ~~8 OZ.~~ GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 3.0'-4.5' Pan #: _____ Aliquots: _____

Samplers: BOB WIGGINS
RON SHANNON

COMMENTS OF FIELD PERSONNEL

Site Description: Borehole # 54, Second Depth Interval



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

Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1200 Leader: ROBERTS

Sample Number: ROX03017 SMO #: _____

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

Sample Split (circle one): YES ~~NO~~

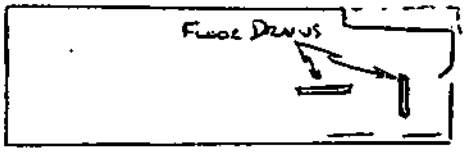
Sample Container	Tag Color	Preservative	Analysis Requested
~~8 OZ. GLASS~~	~~LIME~~	~~ICE @ 4C~~	~~VOC~~
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: _____ Pan #: _____ Aliquots: _____

Samplers: Jon Dawson

COMMENTS OF FIELD PERSONNEL

Site Description: FLOOR DRAIN DUST/SEDIMENT FROM MAIN WAREHOUSE



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

Site Name: CHEMICAL COMMODITIES INC. Site Number:
Location: SHAWNEE KANSAS Site Code:

Collected: YR: 89 MO: 07 Day: 07 Time: 1215 Leader: ROBERTS

Sample Number: ROX03018 SMO #: _____

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

Sample Split (circle one): YES NO

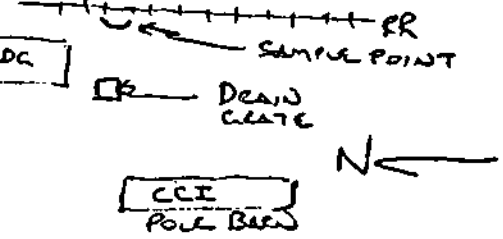
Sample Container	Tag Color	Preservative	Analysis Requested
2-40ml ~~8 OZ.~~ GLASS	LIME	ICE @ 4C	VOC
8 OZ. GLASS	PURPLE	ICE @ 4C	BNA
8 OZ. GLASS	BLUE	ICE @ 4C	PESTICIDES
8 OZ. GLASS	WHITE	ICE @ 4C	METALS + HG

Depth: 0-2" Pan #: _____ Aliquots: _____

Samplers: John Downing

COMMENTS OF FIELD PERSONNEL

Site Description: PARKING LOT DRAIN OUTLET AT DITCH PARALLEL TO RR TRACKS EAST OF CCI



IBM-PC

ANALYSIS TYPE: METALS, TOTAL

TITLE: Chemical Commodities
LAB: Weston/PA
SAMPLE PREP: _____ ANALYST/ENTRY: DJH
REVIEW LEVEL: 2

MATRIX: SEDIMENT
METHOD: 9001MO9
REVIEWER: _____
DATA FILE : X32

UNITS: MG/KG
CASE: 12316
DATE: 10/17/89

SAMPLES	ROX03001	ROX03002	ROX03003	ROX03004
ALUMINUM	10000	9000	10000	6100
ANTIMONY	14 U	14 U	14 U	13 U
ARSENIC	11 J	7.8 J	9.8 J	9.5 J
BARIUM	100 J	160 J	160 J	440 J
BERYLLIUM	1.2 U	1.2 U	1.2 U	1.0
CADMIUM	1.2 U	1.2 U	1.2 U	1.1 U
CALCIUM	170000 J	32000 J	20000 J	80000 J
CHROMIUM	9.7	23	10	16
COBALT	6.1	8.5 J	7.7 J	16
COPPER	17	17	18	19
IRON	16000 J	19000 J	15000 J	22000 J
LEAD	17 J	16 J	22 J	14 J
MAGNESIUM	3800 J	2700 J	2100 J	2200 J
MANGANESE	1100 J	740 J	480 J	2700 J
MERCURY	0.12 U	0.12 U	0.12 U	0.11 U
NICKEL	16 U	17	24	29
POTASSIUM	1200 U	1200 U	1200 U	1100 U
SELENIUM	0.28 J	0.34 J	0.28 J	1.1 U
SILVER	7.1	3.8	2.8	4.4
SODIUM	1200 U	1200 U	1200 U	1100 U
THALLIUM	2.3 U	2.3 U	2.3 U	2.2 U
VANADIUM	24 J	36 J	29 J	34 J
ZINC	71 J	180 J	110 J	200 J
CYANIDE	N	N	N	N

ANALYSIS TYPE: METALS, TOTAL

TITLE: Chemical Commodities
LAB: Weston/PA
SAMPLE PREP: _____ ANALYST/ENTRY: DJH
REVIEW LEVEL: 2

MATRIX: SEDIMENT
METHOD: 9001MO9
REVIEWER: _____
DATA FILE : X32

UNITS: MG/KG
CASE: 12316
DATE: 10/17/89

SAMPLES	ROX03005	ROX03006	ROX03007	ROX03008
ALUMINUM	8800	7900	16000	12000
ANTIMONY	15 U	14 U	15 U	15 U
ARSENIC	5.4 J	7.5 J	8.6 J	6.3 J
BARIUM	200 J	320 J	170 J	190 J
BERYLLIUM	1.2 U	1.0	1.3	1.1
CADMIUM	1.2 U	0.83	1.3 U	1.2 U
CALCIUM	7800 J	62000 J	4700 J	8400 J
CHROMIUM	10	17	23	19
COBALT	9.3	11	8.4 J	11
COPPER	20 U	19 U	19	14 U
IRON	12000 J	21000 J	24000 J	20000 J
LEAD	14 J	14 J	16 J	16 J
MAGNESIUM	1800 J	2500 J	4400 J	2700 J
MANGANESE	910 J	1600 J	590 J	790 J
MERCURY	0.12 U	0.12 U	0.13 U	0.12 U
NICKEL	13	20	23	21
POTASSIUM	1200 U	1200 U	1800 U	1200 U
SELENIUM	0.42 J	0.30 J	0.30 J	0.34 J
SILVER	2.4	4.0	4.8	4.2
SODIUM	1200 U	1200 U	1300 U	1200 U
THALLIUM	2.5 U	2.3 U	2.5 U	2.4 U
VANADIUM	28 J	35 J	45 J	35 J
ZINC	55 J	84 J	80 J	84 J
CYANIDE	N	N	N	N

ANALYSIS TYPE: METALS, TOTAL

TITLE: Chemical Commodities
LAB: Weston/PA
SAMPLE PREP: _____ ANALYST/ENTRY: DJH
REVIEW LEVEL: 2

MATRIX: SEDIMENT
METHOD: 9001MO9
REVIEWER: _____
DATA FILE : X32

UNITS: MG/KG
CASE: 12316
DATE: 10/17/89

SAMPLES	ROX03009	ROX03010	ROX03010D	ROX03011
ALUMINUM	21000	13000	16000	17000
ANTIMONY	14 U	15 U	15 U	15 U
ARSENIC	7.2 J	7.4 J	7.8 J	8.0 J
BARIUM	180 J	380 J	230 J	240 J
BERYLLIUM	1.2 U	1.2 U	1.3 U	1.5
CADMIUM	1.2 U	1.2 U	1.3 U	1.3 U
CALCIUM	39000 J	39000 J	4000 J	3700 J
CHROMIUM	18	16	19	26
COBALT	9.7	11	13	11
COPPER	18	18	16 U	21
IRON	18000 J	19000 J	19000 J	28000 J
LEAD	30 J	23 J	22 J	15 J
MAGNESIUM	3000 J	2600 J	3000 J	4900 J
MANGANESE	680 J	1800 J	690 J	730 J
MERCURY	0.12 U	0.12 U	0.13 U	0.13 U
NICKEL	18	20	21	24
POTASSIUM	1300 U	1200 U	1500 U	2200 U
SELENIUM	0.30 J	0.40 J	0.51 J	0.24 J
SILVER	3.6	3.5	3.8	5.6
SODIUM	1200 U	1200 U	1300 U	1300 U
THALLIUM	2.4 U	2.5 U	0.40 J	2.5 U
VANADIUM	36 J	34 J	41 J	57 J
ZINC	130 J	96 J	84 J	93 J
CYANIDE	N	N	N	N

ANALYSIS TYPE: METALS, TOTAL

TITLE: Chemical Commodities
LAB: Weston/PA
SAMPLE PREP: _____ ANALYST/ENTRY: DJH
REVIEW LEVEL: 2

MATRIX: SEDIMENT
METHOD: 9001M09
REVIEWER: _____
DATA FILE : X32

UNITS: MG/KG
CASE: 12316
DATE: 10/17/89

SAMPLES	ROX03012	ROX03013	ROX03014	ROX03015
ALUMINUM	11000	7600	8500	17000
ANTIMONY	14 U	14 U	14 U	15 U
ARSENIC	13 J	15 J	16 J	6.6 J
BARIUM	160 J	110 J	600 J	210 J
BERYLLIUM	1.3	1.2	1.2	1.3
CADMIUM	1.1 U	0.83 J	1.6 J	1.3 U
CALCIUM	1600 J	1600 J	1400 J	8200 J
CHROMIUM	15	19	18	20
COBALT	11	11	15	7.3 J
COPPER	21	20	30	20
IRON	42000 J	40000 J	44000 J	20000 J
LEAD	28 J	23 J	23 J	16 J
MAGNESIUM	2100 J	2000 J	1900 J	3700 J
MANGANESE	1500 J	1100 J	3900 J	320 J
MERCURY	0.11 U	0.12 U	0.12 U	0.13 U
NICKEL	24	26	45	24
POTASSIUM	1100 U	1200 U	1200 U	1400 U
SELENIUM	1.1 U	1.2 U	1.2 U	1.3 U
SILVER	8.4	8.0	9.1	3.9
SODIUM	1100 U	1200 U	1200 U	1300 U
THALLIUM	2.3 U	2.3 U	0.88 J	2.6 U
VANADIUM	47 J	46 J	59 J	41 J
ZINC	230 J	350 J	280 J	80 J
CYANIDE	N	N	N	N

ANALYSIS TYPE: METALS, TOTAL

TITLE: Chemical Commodities
LAB: Weston/PA
SAMPLE PREP: _____ ANALYST/ENTRY: DJH
REVIEW LEVEL: 2

MATRIX: SEDIMENT
METHOD: 9001M09
REVIEWER: _____
DATA FILE : X32

UNITS: MG/KG
CASE: 12316
DATE: 10/17/89

SAMPLES	ROX03016	ROX03017	ROX03018
ALUMINUM	16000	3700	46000
ANTIMONY	15 U	13 U	17 U
ARSENIC	5.3 J	22 J	4.4 J
BARIUM	210 J	210 J	730 J
BERYLLIUM	1.2	1.1 U	1.4 U
CADMIUM	1.3 U	5.7	8.4
CALCIUM	4000 J	39000 J	190000 J
CHROMIUM	21	170	150
COBALT	7.5 J	17	33 J
COPPER	18	230	370
IRON	17000 J	60000 J	94000 J
LEAD	14 J	440 J	24 J
MAGNESIUM	3800 J	2800 J	11000 J
MANGANESE	210 J	680 J	3000 J
MERCURY	0.13 U	1.7	0.14 U
NICKEL	25	88	170
POTASSIUM	1500 U	2000 U	3900 J
SELENIUM	1.3 U	0.61 J	1.5
SILVER	3.4	13	16
SODIUM	1300 U	6200	1400 U
THALLIUM	2.5 U	2.1 U	0.49 J
VANADIUM	41 J	37 J	140 J
ZINC	82 J	2000 J	1100 J
CYANIDE	N	N	N

ANALYSIS TYPE: VOLATILES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KF
DATA FILE : K72

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03001	R0X03002	R0X03003	R0X03004
CHLOROMETHANE	11 U	12 U	12 U	11 U
BROMOMETHANE	11 U	12 U	12 U	11 U
VINYL CHLORIDE	11 U	12 U	12 U	11 U
CHLOROETHANE	11 U	12 U	12 U	11 U
METHYLENE CHLORIDE	9.0 U	8.0 U	10 U	7.0 U
ACETONE	2.0 J	2.0 J	2.0 J	11 U
CARBON DISULFIDE	5.7 U	5.9 U	5.9 U	5.6 U
1,1 DICHLOROETHENE	5.7 U	5.9 U	5.9 U	5.6 U
1,1 DICHLOROETHANE	5.7 U	5.9 U	5.9 U	5.6 U
1,2,-DICHLOROETHENE (TOTAL)	5.7 U	5.9 U	5.9 U	5.6 U
CHLOROFORM	5.7 U	5.9 U	5.9 U	5.6 U
1,2,DICHLOROETHANE	5.7 U	5.9 U	5.9 U	5.6 U
2-BUTANONE	11 U	12 U	12 U	11 U
1,1,1 TRICHLOROETHANE	5.7 U	5.9 U	5.9 U	5.6 U
CARBON TETRACHLORIDE	5.7 U	5.9 U	5.9 U	5.6 U
VINYL ACETATE	11 U	12 U	12 U	11 U
BROMODICHLOROMETHANE	5.7 U	5.9 U	5.9 U	5.6 U
1,1,2,2,-TETRACHLOROETHANE	5.7 U	5.9 U	5.9 U	5.6 U
1,2-DICHLOROPROPANE	5.7 U	5.9 U	5.9 U	5.6 U
TRANS-1,3-DICHLOROPROPENE	5.7 U	5.9 U	5.9 U	5.6 U
TRICHLOROETHENE	5.7 U	5.9 U	5.9 U	5.6 U
DIBROMOCHLOROMETHANE	5.7 U	5.9 U	5.9 U	5.6 U
1,1,2-TRICHLOROETHANE	5.7 U	5.9 U	5.9 U	5.6 U
BENZENE	5.7 U	5.9 U	5.9 U	5.6 U
CIS-1,3-DICHLOROPROPENE	5.7 U	5.9 U	5.9 U	5.6 U
BROMOFORM	5.7 U	5.9 U	5.9 U	5.6 U
2-HEXANONE	11 U	12 U	12 U	11 U
4-METHYL-2-PENTANONE	11 U	12 U	12 U	11 U
TETRACHLOROETHENE	5.7 U	5.9 U	5.9 U	5.6 U
TOLUENE	5.7 U	5.9 U	5.9 U	5.6 U
CHLOROBENZENE	5.7 U	5.9 U	5.9 U	5.6 U
ETHYL BENZENE	5.7 U	5.9 U	5.9 U	5.6 U
STYRENE	5.7 U	5.9 U	5.9 U	5.6 U
TOTAL XYLENES	5.7 U	5.9 U	5.9 U	5.6 U

ANALYSIS TYPE: VOLATILES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KF
DATA FILE : K72

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03005	R0X03006	R0X03007	R0X03008
CHLOROMETHANE	13 U	12 U	13 U	12 U
BROMOMETHANE	13 U	12 U	13 U	12 U
VINYL CHLORIDE	13 U	12 U	13 U	12 U
CHLOROETHANE	13 U	12 U	13 U	12 U
METHYLENE CHLORIDE	9.0 U	8.0 U	12 U	10 U
ACETONE	2.0 J	4.0 J	2.0 J	2.0 J
CARBON DISULFIDE	6.3 U	5.8 U	6.3 U	6.1 U
1,1 DICHLOROETHENE	6.3 U	5.8 U	6.3 U	6.1 U
1,1 DICHLOROETHANE	6.3 U	5.8 U	6.3 U	6.1 U
1,2,-DICHLOROETHENE (TOTAL)	6.3 U	5.8 U	6.3 U	6.1 U
CHLOROFORM	6.3 U	5.8 U	6.3 U	6.1 U
1,2,DICHLOROETHANE	6.3 U	5.8 U	6.3 U	6.1 U
2-BUTANONE	13 U	12 U	13 U	12 U
1,1,1 TRICHLOROETHANE	6.3 U	5.8 U	6.3 U	6.1 U
CARBON TETRACHLORIDE	6.3 U	5.8 U	6.3 U	6.1 U
VINYL ACETATE	13 U	12 U	13 U	12 U
BROMODICHLOROMETHANE	6.3 U	5.8 U	6.3 U	6.1 U
1,1,2,2,-TETRACHLOROETHANE	6.3 U	5.8 U	6.3 U	6.1 U
1,2-DICHLOROPROPANE	6.3 U	5.8 U	6.3 U	6.1 U
TRANS-1,3-DICHLOROPROPENE	6.3 U	5.8 U	6.3 U	6.1 U
TRICHLOROETHENE	6.3 U	5.8 U	6.3 U	6.1 U
DIBROMOCHLOROMETHANE	6.3 U	5.8 U	6.3 U	6.1 U
1,1,2-TRICHLOROETHANE	6.3 U	5.8 U	6.3 U	6.1 U
BENZENE	6.3 U	5.8 U	6.3 U	6.1 U
CIS-1,3-DICHLOROPROPENE	6.3 U	5.8 U	6.3 U	6.1 U
BROMOFORM	6.3 U	5.8 U	6.3 U	6.1 U
2-HEXANONE	13 U	12 U	13 U	12 U
4-METHYL-2-PENTANONE	13 U	12 U	13 U	12 U
TETRACHLOROETHENE	6.3 U	5.8 U	6.3 U	6.1 U
TOLUENE	6.3 U	5.8 U	6.3 U	6.1 U
CHLOROBENZENE	6.3 U	5.8 U	6.3 U	6.1 U
ETHYL BENZENE	6.3 U	5.8 U	6.3 U	6.1 U
STYRENE	6.3 U	5.8 U	6.3 U	6.1 U
TOTAL XYLENES	6.3 U	5.8 U	6.3 U	6.1 U

ANALYSIS TYPE: VOLATILES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VF
DATA FILE : K72

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03009	R0X03010	R0X03010D	R0X03011
CHLOROMETHANE	12 U	13 U	13 U	13 U
BROMOMETHANE	12 U	13 U	13 U	13 U
VINYL CHLORIDE	12 U	13 U	13 U	13 U
CHLOROETHANE	12 U	13 U	13 U	13 U
METHYLENE CHLORIDE	11 U	8.0 U	8.0 U	10 U
ACETONE	2.0 J	14	26	26
CARBON DISULFIDE	5.9 U	6.3 U	6.3 U	6.3 U
1,1 DICHLOROETHENE	5.9 U	6.3 U	6.3 U	6.3 U
1,1 DICHLOROETHANE	5.9 U	6.3 U	6.3 U	6.3 U
1,2,-DICHLOROETHENE (TOTAL)	5.9 U	6.3 U	6.3 U	6.3 U
CHLOROFORM	5.9 U	6.3 U	6.3 U	6.3 U
1,2,DICHLOROETHANE	5.9 U	6.3 U	6.3 U	6.3 U
2-BUTANONE	12 U	13 U	13 U	13 U
1,1,1 TRICHLOROETHANE	5.9 U	6.3 U	6.3 U	6.3 U
CARBON TETRACHLORIDE	5.9 U	6.3 U	6.3 U	6.3 U
VINYL ACETATE	12 U	13 U	13 U	13 U
BROMODICHLOROMETHANE	5.9 U	6.3 U	6.3 U	6.3 U
1,1,2,2,-TETRACHLOROETHANE	5.9 U	6.3 U	6.3 U	6.3 U
1,2-DICHLOROPROPANE	5.9 U	6.3 U	6.3 U	6.3 U
TRANS-1,3-DICHLOROPROPENE	5.9 U	6.3 U	6.3 U	6.3 U
TRICHLOROETHENE	5.9 U	6.3 U	6.3 U	6.3 U
DIBROMOCHLOROMETHANE	5.9 U	6.3 U	6.3 U	6.3 U
1,1,2-TRICHLOROETHANE	5.9 U	6.3 U	6.3 U	6.3 U
BENZENE	5.9 U	6.3 U	6.3 U	6.3 U
CIS-1,3-DICHLOROPROPENE	5.9 U	6.3 U	6.3 U	6.3 U
BROMOFORM	5.9 U	6.3 U	6.3 U	6.3 U
2-HEXANONE	12 U	13 U	13 U	13 U
4-METHYL-2-PENTANONE	12 U	13 U	13 U	13 U
TETRACHLOROETHENE	5.9 U	6.3 U	6.3 U	6.3 U
TOLUENE	5.9 U	6.3 U	6.3 U	6.3 U
CHLOROBENZENE	5.9 U	6.3 U	6.3 U	6.3 U
ETHYL BENZENE	5.9 U	6.3 U	6.3 U	6.3 U
STYRENE	5.9 U	6.3 U	6.3 U	6.3 U
TOTAL XYLENES	5.9 U	6.3 U	6.3 U	6.3 U

ANALYSIS TYPE: VOLATILES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K72

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03012	R0X03013	R0X03014	R0X03015
CHLOROMETHANE	12 U	11 U	12 U	13 U
BROMOMETHANE	12 U	11 U	12 U	13 U
VINYL CHLORIDE	12 U	11 U	12 U	13 U
CHLOROETHANE	12 U	11 U	12 U	13 U
METHYLENE CHLORIDE	8.0 U	9.0 U	10 U	10 U
ACETONE	12 U	11 U	12 U	140 J
CARBON DISULFIDE	5.8 U	5.7 U	5.9 U	6.6 U
1,1 DICHLOROETHENE	5.8 U	5.7 U	5.9 U	6.6 U
1,1 DICHLOROETHANE	5.8 U	5.7 U	5.9 U	6.6 U
1,2,-DICHLOROETHENE (TOTAL)	5.8 U	5.7 U	5.9 U	6.6 U
CHLOROFORM	5.8 U	5.7 U	5.9 U	8.0
1,2,DICHLOROETHANE	5.8 U	5.7 U	5.9 U	4.0 J
2-BUTANONE	12 U	11 U	12 U	13 U
1,1,1 TRICHLOROETHANE	5.8 U	5.7 U	5.9 U	6.6 U
CARBON TETRACHLORIDE	5.8 U	5.7 U	5.9 U	6.6 U
VINYL ACETATE	12 U	11 U	12 U	13 U
BROMODICHLOROMETHANE	5.8 U	5.7 U	5.9 U	6.6 U
1,1,2,2,-TETRACHLOROETHANE	5.8 U	5.7 U	5.9 U	6.6 U
1,2-DICHLOROPROPANE	5.8 U	5.7 U	5.9 U	6.6 U
TRANS-1,3-DICHLOROPROPENE	5.8 U	5.7 U	5.9 U	6.6 U
TRICHLOROETHENE	5.8 U	5.7 U	5.9 U	3.0 J
DIBROMOCHLOROMETHANE	5.8 U	5.7 U	5.9 U	6.6 U
1,1,2-TRICHLOROETHANE	5.8 U	5.7 U	5.9 U	6.6 U
BENZENE	5.8 U	5.7 U	5.9 U	1.0 J
CIS-1,3-DICHLOROPROPENE	5.8 U	5.7 U	5.9 U	6.6 U
BROMOFORM	5.8 U	5.7 U	5.9 U	6.6 U
2-HEXANONE	12 U	11 U	12 U	13 U
4-METHYL-2-PENTANONE	12 U	11 U	12 U	13 U
TETRACHLOROETHENE	5.8 U	5.7 U	5.9 U	4.0 J
TOLUENE	5.8 U	5.7 U	5.9 U	6.6 U
CHLOROBENZENE	5.8 U	5.7 U	5.9 U	6.6 U
ETHYL BENZENE	5.8 U	5.7 U	5.9 U	6.6 U
STYRENE	5.8 U	5.7 U	5.9 U	6.6 U
TOTAL XYLENES	5.8 U	5.7 U	5.9 U	6.6 U

ANALYSIS TYPE: VOLATILES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K72

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03016	R0X03018
CHLOROMETHANE	13 U	19 U
BROMOMETHANE	13 U	19 U
VINYL CHLORIDE	13 U	19 U
CHLOROETHANE	13 U	19 U
METHYLENE CHLORIDE	8.0 U	27 U
ACETONE	13 U	150 J
CARBON DISULFIDE	6.3 U	9.6 U
1,1 DICHLOROETHENE	6.3 U	9.6 U
1,1 DICHLOROETHANE	6.3 U	9.6 U
1,2,-DICHLOROETHENE (TOTAL)	6.3 U	9.6 U
CHLOROFORM	6.3 U	9.6 U
1,2,DICHLOROETHANE	6.3 U	9.6 U
2-BUTANONE	13 U	19 U
1,1,1 TRICHLOROETHANE	6.3 U	9.6 U
CARBON TETRACHLORIDE	6.3 U	9.6 U
VINYL ACETATE	13 U	19 U
BROMODICHLOROMETHANE	6.3 U	9.6 U
1,1,2,2,-TETRACHLOROETHANE	6.3 U	9.6 U
1,2-DICHLOROPROPANE	6.3 U	9.6 U
TRANS-1,3-DICHLOROPROPENE	6.3 U	9.6 U
TRICHLOROETHENE	1.0 J	2.0 J
DIBROMOCHLOROMETHANE	6.3 U	9.6 U
1,1,2-TRICHLOROETHANE	6.3 U	9.6 U
BENZENE	9.0	9.6 U
CIS-1,3-DICHLOROPROPENE	6.3 U	9.6 U
BROMOFORM	6.3 U	9.6 U
2-HEXANONE	13 U	19 U
4-METHYL-2-PENTANONE	13 U	19 U
TETRACHLOROETHENE	1.0 J	4.0 J
TOLUENE	6.3 U	7.0 J
CHLOROBENZENE	6.3 U	8.0 J
ETHYL BENZENE	6.3 U	9.6 U
STYRENE	6.3 U	9.6 U
TOTAL XYLENES	6.3 U	9.6 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 1

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K73

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03001	R0X03002	R0X03003	R0X03004
PHENOL	760 U	780 U	780 U	740 U
BIS(2-CHLOROETHYL) ETHER	760 U	780 U	780 U	740 U
2-CHLOROPHENOL	760 U	780 U	780 U	740 U
1,3 DICHLOROBENZENE	760 U	780 U	780 U	740 U
1,4 DICHLOROBENZENE	760 U	780 U	780 U	740 U
BENZYL ALCOHOL	760 U	780 U	780 U	740 U
1,2 DICHLOROBENZENE	760 U	780 U	780 U	740 U
2-METHYLPHENOL	760 U	780 U	780 U	740 U
BIS(2-CHLOROISOPROPYL)ETHER	760 U	780 U	780 U	740 U
4-METHYLPHENOL	760 U	780 U	780 U	740 U
N-NITROSO-DIPROPYLAMINE	760 U	780 U	780 U	740 U
HEXACHLOROETHANE	760 U	780 U	780 U	740 U
NITROBENZENE	760 U	780 U	780 U	740 U
ISOPHORONE	760 U	780 U	780 U	740 U
2-NITROPHENOL	760 U	780 U	780 U	740 U
2,4-DIMETHYLPHENOL	760 U	780 U	780 U	740 U
BENZOIC ACID	3700 U	3800 U	3800 U	3600 U
BIS(2-CHLOROETHOXY) METHANE	760 U	780 U	780 U	740 U
2,4 DICHLOROPHENOL	760 U	780 U	780 U	740 U
1,2,4-TRICHLOROBENZENE	760 U	780 U	780 U	740 U
NAPHTHALENE	760 U	780 U	780 U	740 U
4-CHLOROANILINE	760 U	780 U	780 U	740 U
HEXACHLOROBUTADIENE	760 U	780 U	780 U	740 U
4-CHLORO-3-METHYLPHENOL	760 U	780 U	780 U	740 U
2-METHYLNAPHTHALENE	760 U	780 U	780 U	740 U
HEXACHLOROCYCLOPENTADIENE	760 U	780 U	780 U	740 U
2,4,6-TRICHLOROPHENOL	760 U	780 U	780 U	740 U
2,4,5-TRICHLOROPHENOL	3700 U	3800 U	3800 U	3600 U
2-CHLORONAPHTHALENE	760 U	780 U	780 U	740 U
2-NITROANILINE	3700 U	3800 U	3800 U	3600 U
DIMETHYLPHTHALATE	760 U	780 U	780 U	740 U
ACENAPHTHYLENE	760 U	780 U	780 U	740 U
3-NITROANILINE	3700 U	3800 U	3800 U	3600 U
ACENAPHTHENE	760 U	780 U	780 U	740 U
2,4-DINITROPHENOL	3700 U	3800 U	3800 U	3600 U
4-NITROPHENOL	3700 U	3800 U	3800 U	3600 U
DIBENZOFURAN	760 U	780 U	780 U	740 U
2,4-DINITROTOLUENE	760 U	780 U	780 U	740 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 2

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VF
DATA FILE : K74

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03001	R0X03002	R0X03003	R0X03004
2,6-DINITROTOLUENE	760 U	780 U	780 U	740 U
DIETHYLPHTHALATE	760 U	780 U	780 U	740 U
4-CHLOROPHENYL PHENYL ETHER	760 U	780 U	780 U	740 U
FLUORENE	760 U	780 U	780 U	740 U
4-NITROANILINE	3700 U	3800 U	3800 U	3600 U
4,6-DINITRO-2-METHYLPHENOL	3700 U	3800 U	3800 U	3600 U
N-NITROSODIPHENYLAMINE	760 U	780 U	780 U	740 U
4-BROMOPHENYL PHENYL ETHER	760 U	780 U	780 U	740 U
HEXACHLOROBENZENE	760 U	780 U	780 U	740 U
PENTACHLOROPHENOL	3700 U	3800 U	3800 U	3600 U
PHENANTHRENE	760 U	780 U	780 U	740 U
ANTHRACENE	760 U	780 U	780 U	740 U
DI-N-BUTYLPHTHALATE	760 U	780 U	780 U	740 U
FLUORANTHENE	760 U	780 U	780 U	740 U
PYRENE	760 U	780 U	780 U	740 U
BUTYL BENZYL PHTHALATE	760 U	780 U	780 U	740 U
3,3' DICHLOROBENZIDINE	1500 U	1600 U	1600 U	1500 U
BENZO(A)ANTHRACENE	760 U	780 U	780 U	740 U
BIS(2-ETHYLHEXYL)PHTHALATE	3000	2800	3500	1800
CHRYSENE	760 U	780 U	780 U	740 U
DI-N-OCTYL PHTHALATE	760 U	780 U	780 U	740 U
BENZO(B)FLUORANTHENE	760 U	780 U	780 U	740 U
BENZO(K)FLUORANTHENE	760 U	780 U	780 U	740 U
BENZO(A)PYRENE	760 U	780 U	780 U	740 U
INDENO(1,2,3-CD)PYRENE	760 U	780 U	780 U	740 U
DIBENZO(A,H)ANTHRACENE	760 U	780 U	780 U	740 U
BENZO(G,H,I)PERYLENE	760 U	780 U	780 U	740 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 1

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K73

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03005	R0X03006	R0X03007	R0X03008
PHENOL	830 U	770 U	830 U	810 U
BIS(2-CHLOROETHYL) ETHER	830 U	770 U	830 U	810 U
2-CHLOROPHENOL	830 U	770 U	830 U	810 U
1,3 DICHLOROBENZENE	830 U	770 U	830 U	810 U
1,4 DICHLOROBENZENE	830 U	770 U	830 U	810 U
BENZYL ALCOHOL	830 U	770 U	830 U	810 U
1,2 DICHLOROBENZENE	830 U	770 U	830 U	810 U
2-METHYLPHENOL	830 U	770 U	830 U	810 U
BIS(2-CHLOROISOPROPYL)ETHER	830 U	770 U	830 U	810 U
4-METHYLPHENOL	830 U	770 U	830 U	810 U
N-NITROSO-DIPROPYLAMINE	830 U	770 U	830 U	810 U
HEXACHLOROETHANE	830 U	770 U	830 U	810 U
NITROBENZENE	830 U	770 U	830 U	810 U
ISOPHORONE	830 U	770 U	830 U	810 U
2-NITROPHENOL	830 U	770 U	830 U	810 U
2,4-DIMETHYLPHENOL	830 U	770 U	830 U	810 U
BENZOIC ACID	4000 U	3700 U	4000 U	3900 U
BIS(2-CHLOROETHOXY) METHANE	830 U	770 U	830 U	810 U
2,4 DICHLOROPHENOL	830 U	770 U	830 U	810 U
1,2,4-TRICHLOROBENZENE	830 U	770 U	830 U	810 U
NAPHTHALENE	830 U	770 U	830 U	810 U
4-CHLOROANILINE	830 U	770 U	830 U	810 U
HEXACHLOROBUTADIENE	830 U	770 U	830 U	810 U
4-CHLORO-3-METHYLPHENOL	830 U	770 U	830 U	810 U
2-METHYLNAPHTHALENE	830 U	770 U	830 U	810 U
HEXACHLOROCYCLOPENTADIENE	830 U	770 U	830 U	810 U
2,4,6-TRICHLOROPHENOL	830 U	770 U	830 U	810 U
2,4,5-TRICHLOROPHENOL	4000 U	3700 U	4000 U	3900 U
2-CHLORONAPHTHALENE	830 U	770 U	830 U	810 U
2-NITROANILINE	4000 U	3700 U	4000 U	3900 U
DIMETHYLPHTHALATE	830 U	770 U	830 U	810 U
ACENAPHTHYLENE	830 U	770 U	830 U	810 U
3-NITROANILINE	4000 U	3700 U	4000 U	3900 U
ACENAPHTHENE	830 U	770 U	830 U	810 U
2,4-DINITROPHENOL	4000 U	3700 U	4000 U	3900 U
4-NITROPHENOL	4000 U	3700 U	4000 U	3900 U
DIBENZOFURAN	830 U	770 U	830 U	810 U
2,4-DINITROTOLUENE	830 U	770 U	830 U	810 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 2

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K74

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03005	R0X03006	R0X03007	R0X03008
2,6-DINITROTOLUENE	830 U	770 U	830 U	810 U
DIETHYLPHTHALATE	830 U	770 U	830 U	810 U
4-CHLOROPHENYL PHENYL ETHER	830 U	770 U	830 U	810 U
FLUORENE	830 U	770 U	830 U	810 U
4-NITROANILINE	4000 U	3700 U	4000 U	3900 U
4,6-DINITRO-2-METHYLPHENOL	4000 U	3700 U	4000 U	3900 U
N-NITROSODIPHENYLAMINE	830 U	770 U	830 U	810 U
4-BROMOPHENYL PHENYL ETHER	830 U	770 U	830 U	810 U
HEXACHLOROBENZENE	830 U	770 U	830 U	810 U
PENTACHLOROPHENOL	4000 U	3700 U	4000 U	3900 U
PHENANTHRENE	830 U	770 U	830 U	810 U
ANTHRACENE	830 U	770 U	830 U	810 U
DI-N-BUTYLPHTHALATE	830 U	770 U	830 U	810 U
FLUORANTHENE	830 U	770 U	830 U	810 U
PYRENE	830 U	770 U	830 U	810 U
BUTYL BENZYL PHTHALATE	830 U	770 U	830 U	810 U
3,3' DICHLOROBENZIDINE	1700 U	1500 U	1700 U	1600 U
BENZO(A)ANTHRACENE	830 U	770 U	830 U	810 U
BIS(2-ETHYLHEXYL)PHTHALATE	2200	1500	2100	2700
CHRYSENE	830 U	770 U	830 U	810 U
DI-N-OCTYL PHTHALATE	830 U	770 U	830 U	810 U
BENZO(B)FLUORANTHENE	830 U	770 U	830 U	810 U
BENZO(K)FLUORANTHENE	830 U	770 U	830 U	810 U
BENZO(A)PYRENE	830 U	770 U	830 U	810 U
INDENO(1,2,3-CD)PYRENE	830 U	770 U	830 U	810 U
DIBENZO(A,H)ANTHRACENE	830 U	770 U	830 U	810 U
BENZO(G,H,I)PERYLENE	830 U	770 U	830 U	810 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 1

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K73

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03009	R0X03010	R0X03010D	R0X03011
PHENOL	780 U	830 U	830 U	830 U
BIS(2-CHLOROETHYL) ETHER	780 U	830 U	830 U	830 U
2-CHLOROPHENOL	780 U	830 U	830 U	830 U
1,3 DICHLOROBENZENE	780 U	830 U	830 U	830 U
1,4 DICHLOROBENZENE	780 U	830 U	830 U	830 U
BENZYL ALCOHOL	780 U	830 U	830 U	830 U
1,2 DICHLOROBENZENE	780 U	830 U	830 U	830 U
2-METHYLPHENOL	780 U	830 U	830 U	830 U
BIS(2-CHLOROISOPROPYL)ETHER	780 U	830 U	830 U	830 U
4-METHYLPHENOL	780 U	830 U	830 U	830 U
N-NITROSO-DIPROPYLAMINE	780 U	830 U	830 U	830 U
HEXACHLOROETHANE	780 U	830 U	830 U	830 U
NITROBENZENE	780 U	830 U	830 U	830 U
ISOPHORONE	780 U	830 U	830 U	830 U
2-NITROPHENOL	780 U	830 U	830 U	830 U
2,4-DIMETHYLPHENOL	780 U	830 U	830 U	830 U
BENZOIC ACID	3800 U	4000 U	4000 U	4000 U
BIS(2-CHLOROETHOXY) METHANE	780 U	830 U	830 U	830 U
2,4 DICHLOROPHENOL	780 U	830 U	830 U	830 U
1,2,4-TRICHLOROBENZENE	780 U	830 U	830 U	830 U
NAPHTHALENE	780 U	830 U	830 U	830 U
4-CHLOROANILINE	780 U	830 U	830 U	830 U
HEXACHLOROBUTADIENE	780 U	830 U	830 U	830 U
4-CHLORO-3-METHYLPHENOL	780 U	830 U	830 U	830 U
2-METHYLNAPHTHALENE	780 U	830 U	830 U	830 U
HEXACHLOROCYCLOPENTADIENE	780 U	830 U	830 U	830 U
2,4,6-TRICHLOROPHENOL	780 U	830 U	830 U	830 U
2,4,5-TRICHLOROPHENOL	3800 U	4000 U	4000 U	4000 U
2-CHLORONAPHTHALENE	780 U	830 U	830 U	830 U
2-NITROANILINE	3800 U	4000 U	4000 U	4000 U
DIMETHYLPHTHALATE	780 U	830 U	240 J	830 U
ACENAPHTHYLENE	780 U	830 U	830 U	830 U
3-NITROANILINE	3800 U	I	I	I
ACENAPHTHENE	780 U	830 U	830 U	830 U
2,4-DINITROPHENOL	3800 U	4000 U	4000 U	4000 U
4-NITROPHENOL	3800 U	4000 U	4000 U	4000 U
DIBENZOFURAN	780 U	830 U	830 U	830 U
2,4-DINITROTOLUENE	780 U	830 U	830 U	830 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 2

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: WF
DATA FILE : K74

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03009	R0X03010	R0X03010D	R0X03011
2,6-DINITROTOLUENE	780 U	830 U	830 U	830 U
DIETHYLPHTHALATE	780 U	830 U	830 U	830 U
4-CHLOROPHENYL PHENYL ETHER	780 U	830 U	830 U	830 U
FLUORENE	780 U	830 U	830 U	830 U
4-NITROANILINE	3800 U	4000 U	4000 U	4000 U
4,6-DINITRO-2-METHYLPHENOL	3800 U	4000 U	4000 U	4000 U
N-NITROSODIPHENYLAMINE	780 U	830 U	830 U	830 U
4-BROMOPHENYL PHENYL ETHER	780 U	830 U	830 U	830 U
HEXACHLOROBENZENE	780 U	830 U	830 U	830 U
PENTACHLOROPHENOL	3800 U	4000 U	4000 U	4000 U
PHENANTHRENE	780 U	830 U	830 U	830 U
ANTHRACENE	780 U	830 U	830 U	830 U
DI-N-BUTYLPHTHALATE	780 U	830 U	830 U	830 U
FLUORANTHENE	780 U	830 U	830 U	830 U
PYRENE	780 U	830 U	830 U	830 U
BUTYL BENZYL PHTHALATE	780 U	830 U	830 U	830 U
3,3' DICHLOROBENZIDINE	1600 U	1700 U	1700 U	1700 U
BENZO(A)ANTHRACENE	780 U	830 U	830 U	830 U
BIS(2-ETHYLHEXYL)PHTHALATE	3700	2400	3400	5500
CHRYSENE	780 U	830 U	830 U	830 U
DI-N-OCTYL PHTHALATE	780 U	830 U	830 U	830 U
BENZO(B)FLUORANTHENE	780 U	830 U	830 U	830 U
BENZO(K)FLUORANTHENE	780 U	830 U	830 U	830 U
BENZO(A)PYRENE	780 U	830 U	830 U	830 U
INDENO(1,2,3-CD)PYRENE	780 U	830 U	830 U	830 U
DIBENZO(A,H)ANTHRACENE	780 U	830 U	830 U	830 U
BENZO(G,H,I)PERYLENE	780 U	830 U	830 U	830 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 1

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K73

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03012	R0X03013	R0X03014	R0X03015
PHENOL	770 U	750 U	780 U	870 U
BIS(2-CHLOROETHYL) ETHER	770 U	750 U	780 U	870 U
2-CHLOROPHENOL	770 U	750 U	780 U	870 U
1,3 DICHLOROBENZENE	770 U	750 U	780 U	870 U
1,4 DICHLOROBENZENE	770 U	750 U	780 U	870 U
BENZYL ALCOHOL	770 U	750 U	780 U	870 U
1,2 DICHLOROBENZENE	770 U	750 U	780 U	870 U
2-METHYLPHENOL	770 U	750 U	780 U	870 U
BIS(2-CHLOROISOPROPYL)ETHER	770 U	750 U	780 U	870 U
4-METHYLPHENOL	770 U	750 U	780 U	870 U
N-NITROSO-DIPROPYLAMINE	770 U	750 U	780 U	870 U
HEXACHLOROETHANE	770 U	750 U	780 U	870 U
NITROBENZENE	770 U	750 U	780 U	870 U
ISOPHORONE	770 U	750 U	780 U	870 U
2-NITROPHENOL	770 U	750 U	780 U	870 U
2,4-DIMETHYLPHENOL	770 U	750 U	780 U	870 U
BENZOIC ACID	3700 U	3600 U	3800 U	4200 U
BIS(2-CHLOROETHOXY) METHANE	770 U	750 U	780 U	870 U
2,4 DICHLOROPHENOL	770 U	750 U	780 U	870 U
1,2,4-TRICHLOROBENZENE	770 U	750 U	780 U	870 U
NAPHTHALENE	770 U	750 U	780 U	870 U
4-CHLOROANILINE	770 U	750 U	780 U	870 U
HEXACHLOROBUTADIENE	770 U	750 U	780 U	870 U
4-CHLORO-3-METHYLPHENOL	770 U	750 U	780 U	870 U
2-METHYLNAPHTHALENE	770 U	750 U	780 U	870 U
HEXACHLOROCYCLOPENTADIENE	770 U	750 U	780 U	870 U
2,4,6-TRICHLOROPHENOL	770 U	750 U	780 U	870 U
2,4,5-TRICHLOROPHENOL	3700 U	3600 U	3800 U	4200 U
2-CHLORONAPHTHALENE	770 U	750 U	780 U	870 U
2-NITROANILINE	3700 U	3600 U	3800 U	4200 U
DIMETHYLPHTHALATE	770 U	750 U	780 U	870 U
ACENAPHTHYLENE	770 U	750 U	780 U	870 U
3-NITROANILINE	I	I	3800 U	4200 U
ACENAPHTHENE	770 U	750 U	780 U	870 U
2,4-DINITROPHENOL	3700 U	3600 U	3800 U	4200 U
4-NITROPHENOL	3700 U	3600 U	3800 U	4200 U
DIBENZOFURAN	770 U	750 U	780 U	870 U
2,4-DINITROTOLUENE	770 U	750 U	780 U	870 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 2

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K74

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03012	R0X03013	R0X03014	R0X03015
2,6-DINITROTOLUENE	770 U	750 U	780 U	870 U
DIETHYLPHTHALATE	770 U	750 U	780 U	870 U
4-CHLOROPHENYL PHENYL ETHER	770 U	750 U	780 U	870 U
FLUORENE	770 U	750 U	780 U	870 U
4-NITROANILINE	3700 U	3600 U	3800 U	4200 U
4,6-DINITRO-2-METHYLPHENOL	3700 U	3600 U	3800 U	4200 U
N-NITROSODIPHENYLAMINE	770 U	750 U	780 U	870 U
4-BROMOPHENYL PHENYL ETHER	770 U	750 U	780 U	870 U
HEXACHLOROBENZENE	770 U	750 U	780 U	870 U
PENTACHLOROPHENOL	3700 U	3600 U	3800 U	4200 U
PHENANTHRENE	770 U	750 U	780 U	870 U
ANTHRACENE	770 U	750 U	780 U	870 U
DI-N-BUTYLPHTHALATE	770 U	750 U	780 U	870 U
FLUORANTHENE	770 U	750 U	780 U	870 U
PYRENE	770 U	750 U	780 U	870 U
BUTYL BENZYL PHTHALATE	770 U	750 U	780 U	870 U
3,3' DICHLOROBENZIDINE	1500 U	1500 U	1600 U	1700 U
BENZO(A)ANTHRACENE	770 U	750 U	780 U	870 U
BIS(2-ETHYLHEXYL)PHTHALATE	4900	4100	2700	10000
CHRYSENE	770 U	750 U	780 U	870 U
DI-N-OCTYL PHTHALATE	770 U	750 U	780 U	870 U
BENZO(B)FLUORANTHENE	770 U	750 U	780 U	870 U
BENZO(K)FLUORANTHENE	770 U	750 U	780 U	870 U
BENZO(A)PYRENE	770 U	750 U	780 U	870 U
INDENO(1,2,3-CD)PYRENE	770 U	750 U	780 U	870 U
DIBENZO(A,H)ANTHRACENE	770 U	750 U	780 U	870 U
BENZO(G,H,I)PERYLENE	770 U	750 U	780 U	870 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 1

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K73

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03016	R0X03017	R0X03018
PHENOL	830 U	47000 U	6100 U
BIS(2-CHLOROETHYL) ETHER	830 U	47000 U	6100 U
2-CHLOROPHENOL	830 U	47000 U	6100 U
1,3 DICHLOROBENZENE	830 U	47000 U	6100 U
1,4 DICHLOROBENZENE	830 U	47000 U	6100 U
BENZYL ALCOHOL	830 U	47000 U	6100 U
1,2 DICHLOROBENZENE	830 U	47000 U	6100 U
2-METHYLPHENOL	830 U	47000 U	6100 U
BIS(2-CHLOROISOPROPYL)ETHER	830 U	47000 U	6100 U
4-METHYLPHENOL	830 U	47000 U	6100 U
N-NITROSO-DIPROPYLAMINE	830 U	47000 U	6100 U
HEXACHLOROETHANE	830 U	47000 U	6100 U
NITROBENZENE	830 U	47000 U	6100 U
ISOPHORONE	830 U	47000 U	6100 U
2-NITROPHENOL	830 U	47000 U	6100 U
2,4-DIMETHYLPHENOL	830 U	47000 U	6100 U
BENZOIC ACID	4000 U	230000 U	30000 U
BIS(2-CHLOROETHOXY) METHANE	830 U	47000 U	6100 U
2,4 DICHLOROPHENOL	830 U	47000 U	6100 U
1,2,4-TRICHLOROBENZENE	830 U	47000 U	6100 U
NAPHTHALENE	830 U	47000 U	6100 U
4-CHLOROANILINE	830 U	47000 U	6100 U
HEXACHLOROBUTADIENE	830 U	47000 U	6100 U
4-CHLORO-3-METHYLPHENOL	830 U	47000 U	6100 U
2-METHYLNAPHTHALENE	830 U	47000 U	6100 U
HEXACHLOROCYCLOPENTADIENE	830 U	47000 U	6100 U
2,4,6-TRICHLOROPHENOL	830 U	47000 U	6100 U
2,4,5-TRICHLOROPHENOL	4000 U	230000 U	30000 U
2-CHLORONAPHTHALENE	830 U	47000 U	6100 U
2-NITROANILINE	4000 U	230000 U	30000 U
DIMETHYLPHTHALATE	830 U	47000 U	6100 U
ACENAPHTHYLENE	830 U	47000 U	6100 U
3-NITROANILINE	4000 U	I	I
ACENAPHTHENE	830 U	47000 U	6100 U
2,4-DINITROPHENOL	4000 U	230000 U	30000 U
4-NITROPHENOL	4000 U	230000 U	30000 U
DIBENZOFURAN	830 U	47000 U	6100 U
2,4-DINITROTOLUENE	830 U	47000 U	6100 U

ANALYSIS TYPE: SEMIVOLATILES-PAGE 2

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: _____
DATA FILE : K74

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03016	R0X03017	R0X03018
2,6-DINITROTOLUENE	830 U	47000 U	6100 U
DIETHYLPHTHALATE	830 U	47000 U	6100 U
4-CHLOROPHENYL PHENYL ETHER	830 U	47000 U	6100 U
FLUORENE	830 U	47000 U	6100 U
4-NITROANILINE	4000 U	230000 U	30000 U
4,6-DINITRO-2-METHYLPHENOL	4000 U	230000 U	30000 U
N-NITROSODIPHENYLAMINE	830 U	47000 U	6100 U
4-BROMOPHENYL PHENYL ETHER	830 U	47000 U	6100 U
HEXACHLOROBENZENE	830 U	47000 U	6100 U
PENTACHLOROPHENOL	4000 U	230000 U	30000 U
PHENANTHRENE	830 U	14000 J	6100 U
ANTHRACENE	830 U	47000 U	6100 U
DI-N-BUTYLPHTHALATE	830 U	47000 U	6100 U
FLUORANTHENE	830 U	8400 J	6100 U
PYRENE	830 U	5900 J	6100 U
BUTYL BENZYL PHTHALATE	830 U	63000	6100 U
3,3' DICHLOROBENZIDINE	1700 U	94000 U	12000 U
BENZO(A)ANTHRACENE	830 U	47000 U	6100 U
BIS(2-ETHYLHEXYL)PHTHALATE	2000	270000	6100 U
CHRYSENE	830 U	47000 U	6100 U
DI-N-OCTYL PHTHALATE	830 U	47000 U	6100 U
BENZO(B)FLUORANTHENE	830 U	47000 U	6100 U
BENZO(K)FLUORANTHENE	830 U	47000 U	6100 U
BENZO(A)PYRENE	830 U	47000 U	6100 U
INDENO(1,2,3-CD)PYRENE	830 U	47000 U	6100 U
DIBENZO(A,H)ANTHRACENE	830 U	47000 U	6100 U
BENZO(G,H,I)PERYLENE	830 U	47000 U	6100 U

ANALYSIS TYPE: PESTICIDES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KG
DATA FILE : K75

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03001	R0X03002	R0X03003	R0X03004
ALPHA-BHC	9.2 U	9.4 U	9.4 U	9.0 U
BETA-BHC	9.2 U	9.4 U	9.4 U	9.0 U
DELTA-BHC	9.2 U	9.4 U	9.4 U	9.0 U
GAMMA-BHC	9.2 U	9.4 U	9.4 U	9.0 U
HEPTACHLOR	9.2 U	9.4 U	9.4 U	9.0 U
ALDRIN	9.2 U	9.4 U	9.4 U	9.0 U
HEPTACHLOR EPOXIDE	9.2 U	9.4 U	9.4 U	9.0 U
ENDOSULFAN I	9.2 U	9.4 U	9.4 U	9.0 U
DIELDRIN	18 U	19 U	19 U	18 U
4,4'-DDE	18 U	19 U	19 U	18 U
ENDRIN	18 U	19 U	19 U	18 U
ENDOSULFAN II	18 U	19 U	19 U	18 U
4,4'-DDD	18 U	19 U	19 U	18 U
ENDRIN ALDEHYDE	18 U	19 U	19 U	18 U
ENDOSULFAN SULFATE	18 U	19 U	19 U	18 U
4,4'-DDT	18 U	19 U	19 U	18 U
ENDRIN KETONE	18 U	19 U	19 U	18 U
METHOXYCHLOR	92 U	94 U	94 U	90 U
ALPHA-CHLORDANE	92 U	94 U	94 U	90 U
GAMMA-CHLORDANE	92 U	94 U	94 U	90 U
TOXAPHENE	180 U	190 U	190 U	180 U
AROCLOR-1016	92 U	94 U	94 U	90 U
AROCLOR-1221	92 U	94 U	94 U	90 U
AROCLOR-1232	92 U	94 U	94 U	90 U
AROCLOR-1242	92 U	94 U	94 U	90 U
AROCLOR-1248	92 U	94 U	94 U	90 U
AROCLOR-1254	180 U	190 U	190 U	180 U
AROCLOR-1260	180 U	190 U	190 U	180 U

ANALYSIS TYPE: PESTICIDES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VS
DATA FILE : K75

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03005	R0X03006	R0X03007	R0X03008
ALPHA-BHC	10 U	9.3 U	10 U	9.8 U
BETA-BHC	10 U	9.3 U	10 U	9.8 U
DELTA-BHC	10 U	9.3 U	10 U	9.8 U
GAMMA-BHC	10 U	9.3 U	10 U	9.8 U
HEPTACHLOR	10 U	9.3 U	10 U	9.8 U
ALDRIN	10 U	9.3 U	10 U	9.8 U
HEPTACHLOR EPOXIDE	10 U	9.3 U	10 U	9.8 U
ENDOSULFAN I	10 U	9.3 U	10 U	9.8 U
DIELDRIN	20 U	19 U	20 U	20 U
4,4'-DDE	20 U	19 U	20 U	20 U
ENDRIN	20 U	19 U	20 U	20 U
ENDOSULFAN II	20 U	19 U	20 U	20 U
4,4'-DDD	20 U	19 U	20 U	20 U
ENDRIN ALDEHYDE	20 U	19 U	20 U	20 U
ENDOSULFAN SULFATE	20 U	19 U	20 U	20 U
4,4'-DDT	20 U	19 U	20 U	20 U
ENDRIN KETONE	20 U	19 U	20 U	20 U
METHOXYCHLOR	100 U	93 U	100 U	98 U
ALPHA-CHLORDANE	100 U	93 U	100 U	98 U
GAMMA-CHLORDANE	100 U	93 U	100 U	98 U
TOXAPHENE	200 U	190 U	200 U	200 U
AROCLOR-1016	100 U	93 U	100 U	98 U
AROCLOR-1221	100 U	93 U	100 U	98 U
AROCLOR-1232	100 U	93 U	100 U	98 U
AROCLOR-1242	100 U	93 U	100 U	98 U
AROCLOR-1248	100 U	93 U	100 U	98 U
AROCLOR-1254	200 U	190 U	200 U	200 U
AROCLOR-1260	200 U	190 U	200 U	200 U

ANALYSIS TYPE: PESTICIDES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VP
DATA FILE : K75

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03009	R0X03010	R0X03010D	R0X03011
ALPHA-BHC	9.4 U	10 U	10 U	10 U
BETA-BHC	9.4 U	10 U	10 U	10 U
DELTA-BHC	9.4 U	10 U	10 U	10 U
GAMMA-BHC	9.4 U	10 U	10 U	10 U
HEPTACHLOR	9.4 U	10 U	10 U	10 U
ALDRIN	9.4 U	10 U	10 U	10 U
HEPTACHLOR EPOXIDE	9.4 U	10 U	10 U	10 U
ENDOSULFAN I	9.4 U	10 U	10 U	10 U
DIELDRIN	19 U	20 U	20 U	20 U
4,4'-DDE	19 U	20 U	20 U	20 U
ENDRIN	19 U	20 U	20 U	20 U
ENDOSULFAN II	19 U	20 U	20 U	20 U
4,4'-DDD	19 U	20 U	20 U	20 U
ENDRIN ALDEHYDE	19 U	20 U	20 U	20 U
ENDOSULFAN SULFATE	19 U	20 U	20 U	20 U
4,4'-DDT	19 U	20 U	20 U	20 U
ENDRIN KETONE	19 U	20 U	20 U	20 U
METHOXYCHLOR	94 U	100 U	100 U	100 U
ALPHA-CHLORDANE	94 U	100 U	100 U	100 U
GAMMA-CHLORDANE	94 U	100 U	100 U	100 U
TOXAPHENE	190 U	200 U	200 U	200 U
AROCLOR-1016	94 U	100 U	100 U	100 U
AROCLOR-1221	94 U	100 U	100 U	100 U
AROCLOR-1232	94 U	100 U	100 U	100 U
AROCLOR-1242	94 U	100 U	100 U	100 U
AROCLOR-1248	94 U	100 U	100 U	100 U
AROCLOR-1254	190 U	200 U	200 U	200 U
AROCLOR-1260	190 U	200 U	200 U	200 U

ANALYSIS TYPE: PESTICIDES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VG
DATA FILE : K75

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03012	R0X03013	R0X03014	R0X03015
ALPHA-BHC	9.3 U	9.1 U	9.4 U	11 U
BETA-BHC	9.3 U	9.1 U	9.4 U	11 U
DELTA-BHC	9.3 U	9.1 U	9.4 U	11 U
GAMMA-BHC	9.3 U	9.1 U	9.4 U	11 U
HEPTACHLOR	9.3 U	9.1 U	9.4 U	11 U
ALDRIN	9.3 U	9.1 U	9.4 U	11 U
HEPTACHLOR EPOXIDE	9.3 U	9.1 U	9.4 U	11 U
ENDOSULFAN I	9.3 U	9.1 U	9.4 U	11 U
DIELDRIN	19 U	18 U	19 U	21 U
4,4'-DDE	19 U	18 U	19 U	21 U
ENDRIN	19 U	18 U	19 U	21 U
ENDOSULFAN II	19 U	18 U	19 U	21 U
4,4'-DDD	19 U	18 U	19 U	21 U
ENDRIN ALDEHYDE	19 U	18 U	19 U	21 U
ENDOSULFAN SULFATE	19 U	18 U	19 U	21 U
4,4'-DDT	19 U	18 U	19 U	21 U
ENDRIN KETONE	19 U	18 U	19 U	21 U
METHOXYCHLOR	93 U	91 U	94 U	110 U
ALPHA-CHLORDANE	93 U	91 U	94 U	110 U
GAMMA-CHLORDANE	93 U	91 U	94 U	110 U
TOXAPHENE	190 U	180 U	190 U	210 U
AROCLOR-1016	93 U	91 U	94 U	110 U
AROCLOR-1221	93 U	91 U	94 U	110 U
AROCLOR-1232	93 U	91 U	94 U	110 U
AROCLOR-1242	93 U	91 U	94 U	110 U
AROCLOR-1248	93 U	91 U	94 U	110 U
AROCLOR-1254	190 U	180 U	190 U	210 U
AROCLOR-1260	190 U	180 U	190 U	210 U

ANALYSIS TYPE: PESTICIDES

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
SAMPLE PREP: _____ ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VG
DATA FILE : K75

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLES	R0X03016	R0X03017	R0X03018
ALPHA-BHC	10 U	650 U	44 U
BETA-BHC	10 U	650 U	44 U
DELTA-BHC	10 U	650 U	44 U
GAMMA-BHC	10 U	650 U	44 U
HEPTACHLOR	10 U	650 U	44 U
ALDRIN	10 U	650 U	44 U
HEPTACHLOR EPOXIDE	10 U	650 U	44 U
ENDOSULFAN I	10 U	650 U	44 U
DIELDRIN	20 U	1300 U	89 U
4,4'-DDE	20 U	1300 U	89 U
ENDRIN	20 U	1300 U	89 U
ENDOSULFAN II	20 U	1300 U	89 U
4,4'-DDD	20 U	1300 U	89 U
ENDRIN ALDEHYDE	20 U	1300 U	89 U
ENDOSULFAN SULFATE	20 U	1300 U	89 U
4,4'-DDT	20 U	1300 U	89 U
ENDRIN KETONE	20 U	1300 U	89 U
METHOXYCHLOR	100 U	6500 U	440 U
ALPHA-CHLORDANE	100 U	6500 U	440 U
GAMMA-CHLORDANE	100 U	6500 U	440 U
TOXAPHENE	200 U	13000 U	890 U
AROCLOR-1016	100 U	6500 U	440 U
AROCLOR-1221	100 U	6500 U	440 U
AROCLOR-1232	100 U	6500 U	440 U
AROCLOR-1242	100 U	6500 U	440 U
AROCLOR-1248	100 U	6500 U	440 U
AROCLOR-1254	200 U	13000 U	890 U
AROCLOR-1260	200 U	13000 U	890 U

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KF
DATA FILE : K76

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
R0X03001			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03002			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03003			
	2,6-DIMETHYL-3-OCTENE	VOA	6 J
	CYCLOHEXANE, (1-METHYLETHYL)-	VOA	12 J
	TRANS-1,4-DIMETHYL CYCLOOCTANE	VOA	35 J
	TRIMETHYL CYCLOHEXANE ISOMER	VOA	6 J
R0X03004			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03005			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03006			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03007			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03008			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03009			
	NOTHING SIGNIFICANT FOUND	VOA	

* THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.

** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KF
DATA FILE : K76

UNITS: UG/KG
CASE: 12316
DATE: 08/17/89

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
R0X03010			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03010D			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03011			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03012			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03013			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03014			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03015			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03016			
	NOTHING SIGNIFICANT FOUND	VOA	
R0X03018			
	NOTHING SIGNIFICANT FOUND	VOA	

* THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.

** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KE
DATA FILE : K77

UNITS: UG/KG
CASE: 12316
DATE: 08/18/89

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
R0X03001			
	3 UNKNOWNS	BNA	310 - 770 J
R0X03002			
	UNKNOWN	BNA	940 J
R0X03003			
	18 UNKNOWN HYDROCARBONS	BNA	390 - 1100 J
	2 UNKNOWNS	BNA	710 J
R0X03004			
	UNKNOWN	BNA	520 J
R0X03005			
	UNKNOWN	BNA	750 J
R0X03006			
	2 UNKNOWNS	BNA	540 - 780 J
R0X03007			
	2 UNKNOWNS	BNA	500 - 580 J
R0X03008			
	UNKNOWN ALCOHOL	BNA	330 J
	2 UNKNOWNS	BNA	730 - 1100 J
R0X03009			
	2,7-DIMETHYL OCTANE	BNA	390 J
	10 UNKNOWN HYDROCARBONS	BNA	310 - 710 J
	2 UNKNOWNS	BNA	940 J

* THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.

** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: KF
DATA FILE : K77

UNITS: UG/KG
CASE: 12316
DATE: 08/18/89

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
R0X03010			
	3 UNKNOWNS	BNA	330 - 1700 J
R0X03010D			
	MONO (2-ETHYLHEXYL) ESTER	BNA	580 J
	3 UNKNOWNS	BNA	420 - 1700 J
R0X03011			
	MONO (2-ETHYLHEXYL) ESTER	BNA	1400 J
	3 UNKNOWNS	BNA	510 - 2700 J
R0X03012			
	DIOCTYL ESTER HEXANEDIOIC	BNA	780 J
	UNKNOWN	BNA	470 J
R0X03013			
	MONO (2-ETHYLHEXYL) ESTER	BNA	760 J
	UNKNOWN	BNA	450 J
R0X03014			
	MONO (2-ETHYLHEXYL) ESTER	BNA	390 J
	UNKNOWN	BNA	390 J
R0X03015			
	MONO (2-ETHYLHEXYL) ESTER	BNA	1800 J
	UNKNOWN HYDROCARBON	BNA	350 J
	UNKNOWN	BNA	440 J

* THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.

** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: CHEMICAL COMMODITIES
LAB: IT-C
ANALYST/ENTRY: KDF
REVIEW LEVEL: 1

MATRIX: SEDIMENT
METHOD: 9303M02
REVIEWER: VS
DATA FILE : K77

UNITS: UG/KG
CASE: 12316
DATE: 08/18/89

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
R0X03016			
	MONO (2-ETHYLHEXYL) ESTER	BNA	330 J
	UNKNOWN	BNA	750 J
R0X03017			
	TERTRADECANAL	BNA	150000 J
	UNKNOWN ALKENE	BNA	120000 J
	UNKNOWN HYDROCARBON	BNA	570000 J
	17 UNKNOWNS	BNA	110000-160000 J
R0X03018			
	PHENOL, 2,6-BIS (1,1-DIMETHYLETHYL)	BNA	3700 J
	12 UNKNOWN HYDROCARBONS	BNA	4900 - 12000 J
	5 UNKNOWNS	BNA	3700 - 12000 J

* THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.

** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

ecology and environment, inc.
CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961
International Specialists in the Environment

MEMORANDUM

TO: Debra Morey, Chemist, CLQA

FROM: Kathleen Fisher, TAT KF
THRU: Joseph Chandler, TATL HGV for J.C.

DATE: 18. August. 1989

SUBJECT: Review of data for Chemical Commodities
TDD NO: T07-8904-013
PAN NO: T07-Z054-QSH

These data were reviewed according to the "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses," February 1, 1988 revision and the "Laboratory Data Validation Functional Guidelines for Evaluating Pesticides and PCBs."

The following comments and attached data sheets are a result of Ecology & Environment, Inc.'s review of the above mentioned data from the contract laboratory.

CASE NO.: 12316
CONTRACT NO.:68W80068
SITE: Chemical Commodities
REVIEWER: K. Fisher

LABORATORY: IT-C
METHOD NO.: 9303M02
EPA ACTIVITY: R0X03
MATRIX: Soil

SMO NOS.	EPA SAMPLE NOS.	SMO NOS.	EPA NOS.
GJ139	R0X03001	GJ150	R0X03011
GJ140	R0X03002	GJ151	R0X03012
GJ141	R0X03003	GJ152	R0X03013
GJ142	R0X03004	GJ153	R0X03014
GJ143	R0X03005	GJ154	R0X03015
GJ144	R0X03006	GJ155	R0X03016
GJ145	R0X03007	GJ156	R0X03017
GJ146	R0X03008	GJ157	R0X03018
GJ147	R0X03009		
GJ148	R0X03010		
GJ149	R0X03010D		

recycled paper

GENERAL

Case 12316 contained 19 soil samples. 18 of these were analyzed for volatiles, base/neutrals and acids, and pesticides. One sample, R0X03017, was analyzed for BNA's and pesticides. These data were reviewed at level 1.

HOLDING TIMES and PRESERVATION

No preservation or holding times are observed for soils.

GC/MS TUNING

All GC/MS tuning and mass calibrations were within quality control limits for associated data.

INITIAL and CONTINUING CALIBRATION

VOA: In the intial calibration, chloromethane and trans-1,3-dichloropropene were above the quality control limit for %RSD. Acetone and several other compounds exceeded the %D in the continuing calibration.

BNA: Several compounds were outside of quality limits for %RSD in the initial calibration and for the %D in the continuing calibration. Because 3-nitroaniline was below the minimum RRF50 in the continuing calibration, several samples were qualified for this compound.

PESTICIDE CALIBRATION

Endrin exceeded the %D limits on the confirmation column. No data were qualified by this.

INTERNAL STANDARD RESPONSE

All internal standard response areas were within the quality limits.

PESTICDE INSTRUMENT PERFORMANCE

Only individual standard mix B was above the retention time shift limits for DBC. Because it was the last sample of the run, no data were qualified.

BLANKS

VOA: The method blanks contained methylene chloride, acetone, and toluene.

BNA: The three method blanks contained no positive hits for target compounds.

PESTICIDES: None of the three method blanks contained positve hits for target compounds.

SURROGATE RECOVERY

VOA: All requirements were met.

BNA: Samples R0X03017 and R0X03018 were below the quality control limits for for all surrogates. Both samples were diluted.

PESTICIDES: Two samples, R0X03015 and R0X03018, exceeded the recovery limits for DBC. No qualification is done based on the recovery of the pesticide surrogate.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All sample results were within quality control limits.

PERFORMANCE EVALUATION SAMPLE

No performance evaluation sample was present.

COMPOUND IDENTIFICATION and QUANTITATION

All samples were correctly identified by mass spectra submitted for each positive response. The contract compliance screen was reviewed and resulted in no changes to the data.

U.S. ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL SERVICES ASSISTANCE TEAM -- Zone II

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THRU: Ronald A. Ross
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DATE: October 16, 1989
SUBJECT: Review of RAS Metals data for Chemical Commodities.

TID# 07-8909-308 ICF ACCT# 302-26-308-02
ASSIGNMENT# 232 NSI S.O.# 4633-3082

These data were reviewed using the "Laboratory Data Validation Functional Guidelines for Evaluation of Inorganic Analyses," July 1988 revision, and the Region VII Inorganic Data Review Training Manual" as guidance.

The following comments and attached data sheets are a result of the ESAT review of the above mentioned data. **A Data Coding Summary is presented on the final page of this report.**

CASE NO.: 12316
SITE: Chemical Commodities
REVIEWERS: AAI

LABORATORY: Weston/PA
METHOD NO.: 9001M09
EPA ACTIVITY NO.: ROX03
MATRIX: Soil

SMO Sample No.	EPA Sample No.	SMO Sample No.	EPA Sample No.
MGE497	ROX03001	MGE506	ROX03010
MGE498	ROX03002	MGE507	ROX03010D
MGE499	ROX03003	MGE508	ROX03011
MGE500	ROX03004	MGE509	ROX03012
MGE501	ROX03005	MGE510	ROX03013
MGE502	ROX03006	MGE511	ROX03014
MGE503	ROX03007	MGE512	ROX03015
MGE504	ROX03008	MGE513	ROX03016
MGE505	ROX03009	MGE514	ROX03017
		MGE515	ROX03018

GENERAL

This data review assignment covers eighteen (18) soil samples and one dust (ROX03017) from case 12316 (Chemical Commodities) analyzed for RAS metals. One set of field duplicates was included in this data review assignment. Lab duplicate analyses and other QA/QC were performed in conformance with the CLP SOW.

1. Technical Holding Times / Sample Preservation

A. Holding time criteria are not applicable for soils or dusts.

2. Initial and Continuing Calibration

A. The criteria for number and source of standards, frequency of calibration, and % recovery were met for all analyses.

3. Method Blanks

A. Metals were detected in some blanks, but not above the CRDL in any case. Blank contamination between the IDL and CRDL resulted in qualification of data for the following metals: Al, Sb, Be, Ca, Cu, Fe, Mg, Mn, K, Na, and Zn.

4. ICP Interference Check Sample

A. Percent recovery criteria were met for all parameters. Interferent concentrations are such that no false positive or negative results appear to be present. A high bias / false positives might have been possible for Sb, but since all Sb data was nondetect, no data were affected.

5. Laboratory Control Sample

A. Percent recoveries met all required control limits.

6. Laboratory Duplicate Sample Analyses

A. Laboratory Duplicate RPDs met control criteria except for Fe, Pb, Mn, and V; all associated hit data for these metals was "J" coded due to this occurrence.

7. Matrix Spike / Matrix Spike Duplicate

A. MS/MSD samples met all requirements with the exception of Sb, As, and Zn. No J-codes resulted for Sb, as in all cases the data were nondetect. As and Zn data were J-coded where appropriate.

8. Furnace AA Analysis

A. All criteria for furnace work were successfully met; MSA was utilized for analysis of Pb.

9. ICP Serial Dilution

A. All serial dilution results met acceptance criteria with the exception of Ca, Ba, Fe, Mg, Mn, and Zn. Detected values of these metals were "J" coded due to this occurrence. Note: many of these metals were previously "J" coded for other QC outliers also.

10. Performance Evaluation Sample

A. A PE sample was not included with this assignment.

11. Sample Result Verification

A. CLP requirements were met with respect to calculations for % recoveries, correlation coefficients, analyte concentrations, CRDLs, %Ds, and RPDs. Compound quantitiation appears to have been acceptably accomplished for all samples in this data set.

12. Field Duplicate Results

A. One set of field duplicates were analyzed as part of this assignment. Generally, good agreement was found between the field duplicates with the exceptions of Al, Ca, and K. No additional data coding resulted from this occurrence, however.

13. Summary

This data package generally meets the requirements for precision, accuracy, and completeness as described in SOP 9561M00.

Data Coding Summary

Some data were "J" coded as analyte concentrations were below the CRDL and thus less accurate, being near the detection limit; other data were qualified due to blank contamination. Other than for these reasons, specific matals were coded for reasons below:

Analyte	Data Qualifications	Analyte	Data Qualifications
Aluminum		Magnesium	ICP Ser. Dil.
Antimony	Matrix Spike	Manganese	Lab.Dup./ICP Ser.Dil.
Arsenic	Matrix Spike	Mercury	
Barium	ICP Ser. Dil.	Nickel	
Beryllium		Potassium	
Cadmium		Selenium	
Calcium	ICP Ser. Dil.	Silver	
Chromium		Sodium	
Cobalt		Thallium	
Copper		Vanadium	Lab. Duplicate
Iron	ICP Ser.Dil. / Lab.Dup.	Zinc	Mat.Spk. / ICP Ser.Dil.
Lead	Lab. Duplicate		