ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANFORD
RFW #: 9308L509

W.O. #: 06168-002-001-9999-00
Date Received: 08-06-93

PESTICIDE/PCB

One (1) soil sample was collected on 08-04-93.

The sample and its associated QC samples were extracted on 08-13-93 and analyzed according to criteria set forth in the Contract Laboratory Program 03/90 SOW for Pesticide and PCB target compounds on 08-21-93.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. Linearity and breakdown criteria were met for each of the analytical columns.

2. Retention time criteria were met for all compounds on both analytical columns.

3. Resolution of all pesticides in the Resolution Check Standard were within EPA QC limits.

4. The RPDs of the pesticides in the Individual Mixes analyzed for calibration verification were within 25% for both analytical columns.

5. The RPDs of the pesticides in the Performance Evaluation Mixes analyzed for calibration verification were within 25% for both analytical columns.

6. Five (5) of twenty (20) surrogate recoveries were outside EPA QC limits. The following surrogate recoveries were outside the EPA QC limits of 60%-150%:

	% Recoveries			
Sample ID	TCX1	TCX2	DCB1	DCB2
B08NQ8	58	-	-	-
B08NQ8 MS	48	52	-	-
93LE1420-MB1 BS	5	18	-	-

All DCB surrogate recoveries were within EPA QC limits.

7. Two (2) of twelve (12) blank spike recoveries were outside EPA QC limits. The following blank spike recoveries were outside EPA QC limits:

Compound ID	% Recovery	QC Limit
Gamma-BHC	44	46%
Aldrin	28	34%

8. All matrix spike recoveries were within EPA QC limits.

9. Recoveries of pesticides for the Florisil Cartridge Check were within EPA QC limits.

10. Recoveries of pesticides for the GPC Calibration Check were within EPA QC limits.

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

08.25.93
Date

sma/pcb/08-509pp.cn

WESTON

ADDENDUM

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [illegible] Name: JAN N. BASUTHAKUR

Date: 08.25.93 Title: UNIT LEADER

pas\4-92\addendum

DON'T SAY IT — *Write It!*

DATE: April 22, 1993 93-33530-052

TO: J. E. Lindsey SO-05

FROM: K. A. Smith NI-06

Telephone: 6-3323

cc: R. H. Griffin S4-67
R. E. Heineman R3-12
J. W. Schmidt H6-30
P. J. Valcich H6-04
C. D. Wade NI-06
KAS: File/LB

SUBJECT: **FACILITIES/AREAS EXEMPT FROM RADIOLOGICAL RELEASE SURVEY**

Add the following areas/ facilities to the approved exempt facility/area list:

FACILITY/ AREA

NAMES AND LOCATIONS: The 100-IU-1 Operable Unit and all waste sites contained within. Includes; Riverland Rail Yard Homestead Sites, Munition Cache, anti-aircraft artillery sites, and Military Exercise Sites. The Operable Unit is located south of the Vernita Bridge and west of Highway 240.

BASIS: With the exception of the Riverland Rail Site, the area has no history of work with radioactive materials within it's boundaries. The Rail Site was remediated in the 1960s and follow-up surveys with conventional instrumentation and USRADS show no areas containing elevated radiological levels. Core samples taken at the wash pad area were analyzed and found to contain less than 20 pCi/gram of total radioactive material. The site is located up-stream of the prevailing winds from the direction of Hanford operations and wind-blown contamination is not likely to be present.

REFERENCES: Radiation Survey Report numbers 127760, 127663, 128144, 145977.

CONTACT: If there are any questions concerning this exemption please contact C. D. Wade (6-3770) or K. A. Smith at 6-3323.

APPROVED:

54-3000-101 (12/92) GEF014

Roy F. Weston, Inc. - Lionville Laboratory
Pesticide/PCBs by GC, CLP List

RFW Batch Number: 9308L509 Client: WESTINGHOUSE HANFORD Work Order: 06168-002-001-9999-00 Report Date: 08/24/93 13:47 Page: 1

	Cust ID:	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8
Sample Information	RFW#:	001	001	001 MS	001 MS	001 MSD	001 MSD
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
			CONFIRM		CONFIRM		CONFIRM
Surrogate:	Tetrachloro-m-xylene	58 * %	62 %	48 * %	52 * %	60 %	68 %
Surrogate:	Decachlorobiphenyl	100 %	108 %	90 %	98 %	98 %	108 %
		fl	fl	fl	fl	fl	fl
Alpha-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Beta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Delta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
gamma-BHC (Lindane)		1.7 U	NA	56 %	58 %	68 %	70 %
Heptachlor		1.7 U	NA	56 %	56 %	66 %	66 %
Aldrin		1.7 U	NA	42 %	56 %	46 %	70 %
Heptachlor epoxide		1.7 U	NA	1.7 U	NA	1.7 U	NA
Endosulfan I		1.7 U	NA	1.7 U	NA	1.7 U	NA
Dieldrin		3.6	4.0	75 %	73 %	90 %	86 %
4,4'-DDE		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin		3.3 U	NA	83 %	82 %	98 %	90 %
Endosulfan II		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDD		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endosulfan sulfate		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDT		2.0 JB	3.3 U	79 %	98 %	92 %	114 %
Methoxychlor		17 U	NA	17 U	NA	17 U	NA
Endrin ketone		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin aldehyde		3.3 U	NA	3.3 U	NA	3.3 U	NA
alpha-Chlordane		1.7 U	NA	1.7 U	NA	1.7 U	NA
gamma-Chlordane		1.7 U	NA	1.7 U	NA	1.7 U	NA
Toxaphene		170 U	NA	170 U	NA	170 U	NA
Aroclor-1016		33 U	NA	33 U	NA	33 U	NA
Aroclor-1221		66 U	NA	67 U	NA	66 U	NA
Aroclor-1232		33 U	NA	33 U	NA	33 U	NA
Aroclor-1242		33 U	NA	33 U	NA	33 U	NA
Aroclor-1248		33 U	NA	33 U	NA	33 U	NA
Aroclor-1254		33 U	NA	33 U	NA	33 U	NA
Aroclor-1260		33 U	NA	33 U	NA	33 U	NA

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. Z= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

DR 8/24/93

0000

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9308L509-001

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: 08209307.18

% Moisture: .43 decanted: (Y/N)

Date Received: 08/06/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/13/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 08/21/93

Injection Volume: .5 u (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.8

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.6	
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DB 8-24-93

FORM 1 PEST 03/90

ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANDFORD
RFW #: 9308L509

W.O. #: 06168-002-001-9999-00
Date Received: 08-06-93

HERBICIDE

1. One (1) soil sample was collected on 08-04-93.

2. The sample and its QC samples were analyzed based on SW-846, 3rd Edition, procedures. The extraction procedure used was based on Method 3500.1 and the extracts were analyzed based on Method 8150.

3. All required holding times for extraction and analysis were met.

4. The method blank was below the reporting limits for all target compounds.

5. All blank spike recoveries were within acceptance criteria.

6. All surrogate recoveries were within acceptance criteria.

7. All matrix spike recoveries were within acceptance criteria.

8. All initial and continuing standard calibrations associated with this data set were within acceptance criteria on both the primary and confirmation columns.

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

08-23-93
Date

sb/sma/her/08-509ch.cn

WESTON

ADDENDUM

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Soumyath Basuthakur Name: SOUMYA N. BASUTHAKUR

Date: 08.23.93 Title: UNIT - LEADER

pas\4-92\addendum

WESTON Analytics Use Only
93CRL509

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

0002

Client: Westinghouse - Hanford
Est. Final Proj. Sampling Date:
Work Order #: 06168-002-001-9999-00
Project Contact/Phone #:
AD Project Manager: Josie Edwards
QC: CLP Del: CLP TAT: 10 DAY
Date Rec'd: 8/6/93 Date Due: 8/16/93
Account #: WS-Hanford

Refrigerator #				6	6														
# Type Container	Liquid																		
	Solid			1196	1														
Volume	Liquid																		
	Solid			500ml	1														
Preservatives					1														
ANALYSES REQUESTED →		ORGANIC								INORG									
		VOA	BNA	Pest/PCB	Herb					Metal	CN								

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected			0008H	0H66P										
001	308NQ8			S	8/4/93	94⁵			X	X										

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

SAF # 93-181
Temp = Ambient

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped X or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Airborne	B Shaffer	8/6/93	4:45pm				
	BES	8/6/93		BES	8/6/93		

RFW 21-21-001/A-7/91 L372 L373 L375 L377 L378 Ref# Cooler# 381-596a

9308L509

Westinghouse Hanford Company	CHAIN OF CUSTODY	004927

Custody Form Initiator L.GUERRA

Company Contact C.E. HEIDEN — Telephone (509)376-2640

Project Designation/Sampling Locations RIVERLAND — Collection Date 08-04-93

OPERABLE UNIT -100-IU-1 — Collection Date 08-04-93

Ice Chest No. SMC 178 — Field Logbook No. WHC-N-205-2

Bill of Lading/Airbill No. 970-892-484 — Offsite Property No.

Method of Shipment AIR OVERNIGHT.

Shipped to ROY F. WESTON INC. LIONVILLE, PA19341-1313

Possible Sample Hazards/Remarks NONE DETECTED.

Sample Identification

B08NQ8
LG 8-4-93
~~B08NQ8~~ (1-AG500ml)
LG 8-4-93

8-4-93

8-4-93

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Name)

Relinquished By	Date	Time	Received By	Date	Time
L.GUERRA	8-4-93	13:40			
M. Boine	8/6/93	4:00 pm	Brian E	8/6/93	4:00 pm

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

0003

A-6000-407 (12/92)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

COC #4927

Collector L.GUERRA Date 08-04-93

Company Contact C.E. HEIDEN Telephone (509) 376-2640

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B08N08 LG 8-4-93	S	08-4-93	9:45	(1) AG 500ml HERBICIDES 8150/ PESTICIDES CLP

8-4-93

8-4-93

8-4-93

*Type of Sample

A = Air
DL = Drum Liquids
DS = Drum Solids
L = Liquid
O = Oil
S = Soil
SE = Sediment
SL = Sludge
SO = Solid
T = Tissue
W = Water
WI = Wipe
X = Other

Field Information SAF #93-181 RIVERLAND ERA.
OPERABLE UNIT-100-IU-1

Special Handling and/or Storage SHIPPED ON WET ICE. KEEP AT 4 DEGREES C°.

Possible Sample Hazards NONE DETECTED.

0004

A-6000-406 (06/91)

001 001

BURLINGTON AIR EXPRESS

CORPORATE SUPPORT GROUP
18200 VON KARMAN AVE
IRVINE, CA 92715

9308L509

970 892 506

AIRBILL NUMBER

DATE	ORIGIN	DEST. SORT CODE
08-05-93	PSC	

1 SHIPPER'S REFERENCE NO.: 81353 PLB3A W93-0-0667#13 — SHIPPER'S ACCOUNT NO.: 81134104

COMPANY: WESTINGHOUSE HAND [illegible] #13 — DEPT./FLOOR:

FROM (YOUR NAME): WESTINGHOUSE SHIPPING DEPT. — PHONE NO.: (509) 376-6665

STREET ADDRESS: 2355 STEVENS DR

CITY: RICHLAND — STATE: WA — ZIP (REQUIRED): 99352

2 CONSIGNEE'S REFERENCE NO. — CONSIGNEE'S ACCOUNT NO.

COMPANY: RF WESTON INC PEG BEATY — DEPT./FLOOR:

TO (CONSIGNEE NAME): RF WESTON INC — PHONE NO.:

ACCURATE STREET ADDRESS (BURLINGTON CANNOT DELIVER TO A P.O. BOX): 208 WELSH POOL ROAD

CITY: LIONVILLE — STATE: PA — ZIP (REQUIRED): [illegible]

3 COD

$

CONSIGNEE'S CHECK OK MARK IF [illegible]

DECLARED VALUE

$

LIMIT OF LIABILITY

LIABILITY IS AGREED AND UNDERSTOOD TO BE $50.00 OR $.50 PER POUND, WHICHEVER IS GREATER UNLESS A HIGHER VALUE IS DECLARED AND APPLICABLE CHARGES PAID. SEE REVERSE SIDE OF AIRBILL PARAGRAPH 8 FOR DECLARED VALUE LIMITATIONS.

1-800-CALL-BAX
FOR INFORMATION OR THE BAX OFFICE NEAREST YOU

4 BILLING INFORMATION

- [XX] PREPAID (SHIPPER) $ _____ CASH RECEIVED (PAID IN ADVANCE)
- [ ] COLLECT (CONSIGNEE)
- [ ] 3RD PARTY (ACCT. NO. OR BILLING ADDRESS REQ'D.)

ACCOUNT NO.:

COMPANY/NAME:

STREET ADDRESS:

CITY: — STATE: — ZIP:

5 SERVICE REQUESTED

- [XX] OVERNIGHT (NEXT BUSINESS DAY)
- [ ] SECOND DAY
- [ ] NEXT FLIGHT OUT
- [ ] _____

CHECK BELOW IF PACKAGE IS

- [ ] LETTER
- [ ] G.O.H. (GARMENT ON HANGER)

6 HANDLING INFORMATION (*SPECIAL RATE MAY APPLY)

- [ ] HOLD AT BAX
- [ ] *DANGEROUS GOODS
- [ ] *SATURDAY DELIVERY
- [ ] *SPECIAL DELIVERY

SPECIAL INSTRUCTIONS / ADDITIONAL REFERENCE INFORMATION

NO. OF PCS	WEIGHT	LENGTH	WIDTH	HEIGHT	
1	71				COOLER [illegible]
2	17				F/B BOX SAMPLES
TOTAL PCS	TOTAL WT				
3	88				

SKID(S) SAID TO CONTAIN

RATE QUOTE NUMBER

RECEIVED BY BAX AT: [X] SHIPPER'S DOOR [ ] BAX TERMINAL

TIME/DATE OF PICK UP: [illegible] 8 [illegible]

DRIVER NO.

CHARGES ADVANCED

$

7 SIGNATURE OF SHIPPER: X

RELEASE SIGNATURE (SENDER AUTHORIZES BAX TO DELIVER SHIPMENT WITHOUT A DELIVERY SIGNATURE AS PER CONDITIONS ON REVERSE OF THIS PAGE.): X

SIGNED FOR BAX: X

970 892 506

AIRBILL NUMBER

OP 100 (11-92)

NON NEGOTIABLE AIRBILL SUBJECT TO TERMS AND CONDITIONS OF CONTRACT ON REVERSE SIDE

0005

Roy F. Weston, Inc. - Lionville Laboratory

Herbicides by GC

Report Date: 08/19/93 10:57

RFW Batch Number: 9308L509 Client: WESTINGHOUSE HANFORD Work Order: 06168002001 Page: 1

0007

	Cust ID:	B08NQ8	B08NQ8	B08NQ8	PBLK	PBLK BS
Sample Information	RFW#:	001	001 MS	001 MSD	93LE1402-MB1	93LE1402-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate:	DCAA	102 %	98 %	112 %	114 %	102 %
2,4-D		20 U	131 %	124 %	20 U	76 %
2,4,5-TP (Silvex)		10 U	96 %	85 %	10 U	80 %
2,4,5-T		10 U	92 %	94 %	10 U	88 %

TR 8/20/93

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9308L509-001

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 08179328.09

Level: (low/med) LOW

Date Received: 08/06/93

% Moisture: not dec. 0 dec.

Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.8

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
94-75-7	2,4-D	20	U
93-72-1	2,4,5-TP (Silvex)	10	U
93-76-5	2,4,5-T	10	U

JR 8/20/93

FORM 1 PEST 12/88 Rev.

ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANFORD
RFW #: 9311L704

W.O. #: 06168-002-001-9999-00
Date Received: 11-18-93

PESTICIDE/PCB

One (1) soil sample was collected on 08-04-93.

The sample and its associated QC samples were extracted on 11-18-93 and analyzed according to criteria set forth in the Contract Laboratory Program 03/90 SOW for Pesticide and PCB target compounds on 11-22,23-93.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Linearity and breakdown criteria were met for each of the analytical columns.

2. Retention time criteria were met for all compounds on both analytical columns.

3. Resolution of all pesticides in the Resolution Check Standard were within EPA QC limits.

4. The RPDs of the pesticides in the Performance Evaluation Mixes analyzed for calibration verification were within 25% for both analytical columns.

5. All surrogate recoveries were within the advisory EPA QC limits.

6. All blank spike recoveries were within EPA QC limits

7. All matrix spike recoveries were within EPA QC limits.

8. Recoveries of pesticides for the Florisil Cartridge Check were within EPA QC limits.

9. Continuing calibration criteria were exceeded for the target compound 4,4'-DDD on the DB608 column on 11-24-93 at 2336. 4,4'-DDD was not present on the RTX1701 column, so the data was not impacted.

Low levels of Alpha-Chlordane and Gamma-Chlordane were found in the laboratory blank and sample B08NQ8 and its associated matrix spike samples. All sample extracts and the laboratory blank and blank spike were reanalyzed prior to the GPC cleanup and Alpha-Chlordane and Gamma-Chlordane were not identified. Both sets of data were reported.

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

01-03-94
Date

sma/pcb/11-704pp.cn

WESTON

ADDENDUM

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Sean N. Basuthanne Name: SEAN N. BASUTHANNE

Date: 01-03-94 Title: UNIT - LEADER

pas\4-92\addendum

WESTON Analytics Use Only

9311L704

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 06168-002-001-9999-00
Project Contact/Phone #:
AD Project Manager: Josie Edwards
QC: CLP Del: CLP TAT: 10 Days
Date Rec'd: 11/18/93 Date Due: 11/28/93
Account #: WS-HANFORD

Refrigerator #				5														
#/Type Container	Liquid																	
	Solid			1AG														
Volume	Liquid																	
	Solid			500ml														
Preservatives																		
ANALYSES REQUESTED →		ORGANIC							INORG									
		VOA	BNA	Pest/PCB	Herb				Metal	CN								

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only													
									06084											
001	B08NQ8			S	8/4/93	943			X								Relog of 9308L509-001			

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Original Rewritten

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
RELOG				RELOG			

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# ___ 381-596a

93IL704

Item/Reason	Relinquished by	Received by	Date	Time
Pest 001	B. Burnett	Dina O.	11-18-93	7:15pm
Pest 001	Dina O	B. Burnett	11/22/93	2pm
% solids	B. Burnett	[illegible]	11/22/93	1430
Pest 005 (w) (c)	[illegible]	B. Burnett	11/23/93	1600
% T.O.C	[illegible]	B. Burnett	11/24	900

11A

93GC259

SAMPLE DISCREPANCY REPORT (SDR)

SDR IN-PROGRESS ROUTING: (see other side)

Initiator: G. SADDIC
Date: 11/24/93
Client: Westinghouse
RFW Lot #: 93IL704
Samples: ALL

Parameter: 0608H
Matrix: SOIL
Prep Batch: 93LE2061
Urgency:
✓ Immediate ___ Other

Category for Discrepancy:
___ Log-In
___ LIMS
✓ Analysis/Sample
___ Project Revision
___ Other:

A. Reason for SDR:

A1a.
Requires Verification By (circle): Log-in or Prep Group

___ Missing Sample/Extract
___ Wrong Sample Pulled
___ Improper Bottle Type
___ Container Broken
___ Preservation Wrong
___ Received Past Hold
___ Insufficient Sample
___ Label ID's Illegible

A2.
Verified By (circle): Log-in or Prep Group
(signature) (date)

A1b.

___ Re-Log: Tech Profile Error..Client Changed Request.. Sampler Error on C-O-C..Transcription Error.. Wrong Test Code, Re-Log As _____
___ Re-Leach: Metals/Inorg/VOA/BNA/Pest/Herb/____
___ Re-Digest: AA/ICP/HG/_____
___ Re-Extract: BNA/PEST/_____
___ QC Out: SURR/MS...High/Low/<10%/Missing/2X
___ QC Out: B/BS/BSD/LCS/LCS-D...High/Low
___ Hold Time Exceeded: Prep/Analysis/Report
___ Not Amenable to Analysis
✓ Other (describe)
CCV SLIGHTLY EXCEEDED CRITERIA FOR DDD ON ONE COLUMN. DDD IS NOT PRESENT SO THE DATA IS NOT IMPACTED

B. PM Instructions For Disposition (signature/date): Jerie Edwards 11/29/93

___ Cancel ___ Add ___ Subout Analysis
___ Place On Hold ___ Take Off Hold
___ Change W.O. # to: _____
___ MS/MSD on Sample ____, if enough sample: ORG/INORG
___ MS/DUP on Sample ____, if enough sample: ORG/INORG
___ Change Client name to: _____
___ Wrong Test Code, Re-Log As _____
✓ Include in Narrative

___ Other, explain:

C. FINAL ACTION:

a clear description of what was done for resolution, when it was done, and by whom it was done

Action Taken:
___ Revision To Chain-of-Custody Completed
___ LIMS Corrections Completed
___ Other, explain

INCLUDED IN NARRATIVE

Action By (name/date): G. Saddic
Forward to Pat Feldman, QA for distribution ---

D. Distribution of Completed SDR (include name):

X Initiator: G. SADDIC
X Lab Manager: J.Peter Hershey
X Project Mgr: J. EDWARDS
X Unit Leader: D. SKRZAT
X QA (original): D.S. Therry
___ Log-In: _____
___ Data Reporting: _____
___ Billing: Karen Olsen
X K. CREMER
___ _____

Distributed By:
(signature/date)

RFW 21-21-006/E-10/90 (SDR Revision 5.0)

JD 1-3-94
HA
11/3

Roy F. Weston, Inc. - Lionville Laboratory

Pesticide/PCBs by GC, CLP List

Report Date: 12/01/93 10:15

RFW Batch Number: 9311L704 Client: **WESTINGHOUSE HANFORD** Work Order: 06168-002-001-9999-00 Page: 1

	Cust ID:	B08NQ8		B08NQ8		B08NQ8		B08NQ8		B08NQ8		B08NQ8	
Sample Information	RFW#:	001		001		001 RE		001 RE		001 MS		001 MS	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
				CONFIRM				REANCONF				CONFIRM	
Surrogate: Tetrachloro-m-xylene		90	%	72	%	95	%	88	%	92	%	75	%
Surrogate: Decachlorobiphenyl		95	%	95	%	92	%	100	%	100	%	100	%
Alpha-BHC		1.7	U	NA		1.7	U	NA		1.7	U	NA	
Beta-BHC		1.7	U	NA		1.7	U	NA		1.7	U	NA	
Delta-BHC		1.7	U	NA		1.7	U	NA		1.7	U	NA	
gamma-BHC (Lindane)		1.7	U	NA		1.7	U	NA		94	%	70	%
Heptachlor		1.7	U	NA		1.7	U	NA		82	%	70	%
Aldrin		1.7	U	NA		1.7	U	NA		96	%	78	%
Heptachlor epoxide		1.7	U	NA		1.7	U	NA		1.7	U	NA	
Endosulfan I		1.7	U	NA		1.7	U	NA		1.7	U	NA	
Dieldrin		2.7	J	2.3	J	2.7	J	3.0	J	109	%	85	%
4,4'-DDE		3.3	U	NA		3.3	U	NA		3.3	U	NA	
Endrin		3.3	U	NA		3.3	U	NA		112	%	91	%
Endosulfan II		3.3	U	NA		3.3	U	NA		3.3	U	NA	
4,4'-DDD		3.3	U	NA		3.3	U	NA		3.3	U	NA	
Endosulfan sulfate		3.3	U	NA		3.3	U	NA		3.3	U	NA	
4,4'-DDT		3.3	U	NA		3.3	U	NA		97	%	86	%
Methoxychlor		17	U	NA		17	U	NA		17	U	NA	
Endrin ketone		3.3	U	NA		3.3	U	NA		3.3	U	NA	
Endrin aldehyde		3.3	U	NA		3.3	U	NA		3.3	U	NA	
alpha-Chlordane		1.3	JB	1.3	JB	1.7	U	NA		1.0	JBP	1.3	JBP
gamma-Chlordane		2.0	B	1.7	B	1.7	U	NA		1.7	BP	1.3	JBP
Toxaphene		170	U	NA		170	U	NA		170	U	NA	
Aroclor-1016		33	U	NA		33	U	NA		33	U	NA	
Aroclor-1221		67	U	NA		67	U	NA		67	U	NA	
Aroclor-1232		33	U	NA		33	U	NA		33	U	NA	
Aroclor-1242		33	U	NA		33	U	NA		33	U	NA	
Aroclor-1248		33	U	NA		33	U	NA		33	U	NA	
Aroclor-1254		33	U	NA		33	U	NA		33	U	NA	
Aroclor-1260		33	U	NA		33	U	NA		33	U	NA	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. Z= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

DR 12-1-93

0013

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9311L704-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11199335.81

% Moisture: .43 decanted: (Y/N)

Date Received: 11/18/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 11/18/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/22/93

Injection Volume: .5ul (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	2.3	J
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.3	JB
5103-74-2	gamma-Chlordane	1.7	B
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DR 12-1-93

FORM 1 PEST 03/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B08NQ8RE

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9311L704-001 RE

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11239335.07

% Moisture: .43 decanted: (Y/N)

Date Received: 11/18/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/23/93

Injection Volume: .5ul (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	2.7	J
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DR 11-30-93

FORM 1 PEST 03/90

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9311L704-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11199335.81

% Moisture: .43 decanted: (Y/N)

Date Received: 11/18/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 11/18/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/22/93

Injection Volume: .5ul (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	2.3	J
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.3	JB
5103-74-2	gamma-Chlordane	1.7	B
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DR 12-1-93

FORM 1 PEST 03/90

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B08N2RE

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-001

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9311L704-001 RE

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11239335.07

% Moisture: .43 decanted: (Y/N) _

Date Received: 11/18/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: _____

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/23/93

Injection Volume: .5ul (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	2.7	J
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DR 11-30-93

FORM 1 PEST 03/90

4D

HERBICIDE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc.

Contract: 06168-002-001-9

Case No.: WESTINGHOUSE HANFORD

Lab Sample ID: 93LE1402-MB1

Lab File ID: 08179328.06

Matrix:(Soil/Water) SOIL

Level:(low/med) LOW

Date Extracted: 08/12/93

Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 08/17/93

Time Analyzed (1): 1824

Instrument ID (1): 28

GC Column ID (1): DB608

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1
01	B08NQ8	9308L509-001	08/17/93
02	B08NQ8MS	9308L509-001S	08/17/93
03	B08NQ8MSD	9308L509-001T	08/17/93
04	PBLKLE1402-MB1 BS	93LE1402-MB1S	08/17/93

COMMENTS:

FORM IV

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9308L509-001

Sample wt/vol: 50.0 (g/mL) G Lab File ID: 08179328.09

Level: (low/med) LOW Date Received: 08/06/93

% Moisture: not dec. 0 dec. Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

PMS 1/13/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
94-75-7	2,4-D	20	R
93-72-1	2,4,5-TP (Silvex)	10	U
93-76-5	2,4,5-T	10	U

The "J" was due to extraction holding time IR exceedance 8/20/93

FORM 1 PEST 12/88 Rev.

PMS 2/9/94

However, the "J" has been superceded by an "R" because of overall non-compliance to analytical SOW and DQOs based on unacceptable reporting of [illegible] surrogate and on data. MS/MSD

0015

8H

HERBICIDE ANALYSIS SEQUENCE

Lab Name: Roy F. Weston, Inc. Contract: 06168-002-001-9

Client: WESTINGHOUSE HANFORD GC Sample ID: 08179328

Instrument ID: 28 GC Column ID: DB608

Dates of Analyses: 08/17/93 to 08/18/93

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	STD36017705E		08/17/93	1437
02	STD36017704D		08/17/93	1523
03	STD36017703C		08/17/93	1608
04	STD36017702B		08/17/93	1653
05	STD36017701A		08/17/93	1739
06	PBLKLE1402	93LE1402-MB1	08/17/93	1824
07	PBLKLE1402 MS	93LE1402-MB1S	08/17/93	1915
08	B08NQ8	9308L509-001	08/17/93	2005
09	B08NQ8MS	9308L509-001S	08/17/93	2058
10	B08NQ8MSD	9308L509-001T	08/17/93	2151
11	ZZZZZ	93LE1387-MB1	08/17/93	2244
12	ZZZZZ	93LE0004-LB1	08/17/93	2335
13	ZZZZZ	93LE1387-MB1S	08/18/93	0025
14	ZZZZZ	9307L399-012	08/18/93	0115
15	ZZZZZ	9307L399-012S	08/18/93	0204
16	ZZZZZ	HEX	08/18/93	0254
17	STD36017703C		08/18/93	0339

DR 8/20/93

2/9/94

FORM VIII HERB

8H

HERBICIDE ANALYSIS SEQUENCE

Lab Name: Roy F. Weston, Inc. Contract: 06168-002-001-9

Client: WESTINGHOUSE HANFORD GC Sample ID: 08179327

Instrument ID: 27 GC Column ID: RTX200

Dates of Analyses: 08/17/93 to 08/18/93

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	STD36017705E		08/17/93	1437
02	STD36017704D		08/17/93	1523
03	STD36017703C		08/17/93	1608
04	STD36017702B		08/17/93	1653
05	STD36017701A		08/17/93	1739
06	PBLKLE1402	93LE1402-MB1	08/17/93	1824
07	PBLKLE1402 MS	93LE1402-MB1S	08/17/93	1915
08	B08NQ8	9308L509-001	08/17/93	2005
09	B08NQ8MS	9308L509-001S	08/17/93	2058
10	B08NQ8MSD	9308L509-001T	08/17/93	2151
11	ZZZZZ	93LE1387-MB1	08/17/93	2244
12	ZZZZZ	93LE0004-LB1	08/17/93	2335
13	ZZZZZ	93LE1387-MB1S	08/18/93	0025
14	ZZZZZ	9307L399-012	08/18/93	0115
15	ZZZZZ	9307L399-012S	08/18/93	0204
16	ZZZZZ	HEX	08/18/93	0254
17	STD36017703C		08/18/93	0339

DR 8/20/93

PWD 2/9/94

FORM VIII HERB

CALIBRATION VERIFICATION SUMMARY

Lab Name: Roy F. Weston, Inc.

Contract: MT 8/19/93 ~~NONE~~ 06168-002-001-995

Client: WESTINGHOUSE-HANFORD

GC Sample ID: 08179328.18

MT 8/19/93 RFW Lot No.: 93081509

Method: H28A

Instrument ID: 28

GC Column ID: DB608, 0.53m

DATE(S) OF ANALYSIS FROM: 08/17/93
TO: 08/17/93
TIME(S) OF ANALYSIS FROM: 1351
TO: 1739

DATE OF ANALYSIS 08/18/93
TIME OF ANALYSIS 0339
STANDARD ID: STD36017703C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CURVE CALIBRATION FACTOR	RT	CONTINUING CALIBRATION FACTOR	FL	%D
2,4-D	17.12	16.99	17.25	136022	17.11	132107		- 2.9
2,4,5-TP (Silvex)	18.19	18.05	18.33	574452	18.18	557794		- 2.9
2,4,5-T	19.01	18.86	19.16	520618	19.00	508669		- 2.3
2,4-DB	19.68	19.52	19.84	57106	19.67	55188		- 3.4
Dalapon	3.14	3.09	3.19	158110	3.13	155151		- 1.9
Dicamba	15.36	15.25	15.47	315247	15.35	309225		- 1.9
Dichloroprop	16.38	16.27	16.49	79228	16.37	77356		- 2.4
Dinoseb	19.18	19.02	19.34	403214	19.17	395108		- 2.0

%D should not exceed 15% for quantitation, and 20% for confirmation.
+ = %D exceeds 15%
* = %D exceeds 20%

MT 8/18/93
DB 8/20/93

PWP 2/9/94

5/93 Rev A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Roy F. Weston, Inc.

Contract: ~~NONE~~ 06168-002-041-9550

Client: WESTINGHOUSE-HANFORD

GC Sample ID: 08179327.18

RFW Lot No.: 9308L509

Method: H27A

Instrument ID: 27

GC Column ID: RTX200, 0.53

MJ 8/19/93

DATE(S) OF FROM: 08/17/93	DATE OF ANALYSIS 08/18/93
ANALYSIS TO: 08/17/93	TIME OF ANALYSIS 0339
TIME(S) OF FROM: 1351	
ANALYSIS TO: 1739	STANDARD ID: STD36017703C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CURVE CALIBRATION FACTOR	RT	CONTINUING CALIBRATION FACTOR	FL	%D
2,4-D	12.92	12.78	13.06	53722	12.91	51477		- 4.2
2,4,5-TP (Silvex)	13.94	13.80	14.08	230502	13.93	220659		- 4.3
2,4,5-T	14.54	14.40	14.68	221224	14.53	213371		- 3.5
2,4-DB	15.33	15.18	15.48	25294	15.32	24125		- 4.6
Dalapon	1.95	1.90	2.00	45433	1.95	46564		2.5
Dicamba	11.07	10.97	11.17	129535	11.06	124781		- 3.7
Dichloroprop	12.34	12.22	12.46	35226	12.34	34209		- 2.9
Dinoseb	17.60	17.45	17.75	176680	17.59	171666		- 2.8

%D should not exceed 15% for quantitation, and 20% for confirmation.
+ = %D exceeds 15%
* = %D exceeds 20%

MY 8/18/93
JR 8/20/93

PMS 2/9/94

5/93 Rev A

0028

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLK

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 93LE1402-MB1

Sample wt/vol: 50.0 (g/mL) G Lab File ID: 08179328.07

Level: (low/med) LOW Date Received: 08/12/93

% Moisture: not dec. 0 dec. Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
94-75-7	2,4-D	20	U
93-72-1	2,4,5-TP (Silvex)	10	U
93-76-5	2,4,5-T	10	U

DR 8/20/93

FORM 1 PEST 12/88 Rev.

RWP 7/1/94

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 93LE1402-MB1 BS

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 08179328.08

Level: (low/med) LOW

Date Received: 08/12/93

% Moisture: not dec. 0 dec.

Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
94-75-7	2,4-D		SP
93-72-1	2,4,5-TP (Silvex)		SP
93-76-5	2,4,5-T		SP

DS 8/20/93

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

PMP 2/9/94

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B08NQ8MS

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9308L509-001 MS

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 08179328.10

Level: (low/med) LOW

Date Received: 08/06/93

% Moisture: not dec. 0 dec.

Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.8

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
94-75-7	2,4-D		SP
93-72-1	2,4,5-TP (Silvex)		SP
93-76-5	2,4,5-T		SP

DS 8/20/93

SP: SPIKE COMPOUND FORM 1 PEST 12/88 Rev.

OLB 2/9/94

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

B08NQ8MSD

Lab Name: Roy F. Weston, Inc. Work Order: 06168002001

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9308L509-001 MSD

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 08179328.11

Level: (low/med) LOW

Date Received: 08/06/93

% Moisture: not dec. 0 dec.

Date Extracted: 08/12/93

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 08/17/93

GPC Cleanup: (Y/N) N pH: 7.8

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
94-75-7	2,4-D	SP	
93-72-1	2,4,5-TP (Silvex)	SP	
93-76-5	2,4,5-T	SP	

JR 8/24/93

SP: SPIKE COMPOUND FORM 1 PEST 12/88 Rev.

RMP 7/19/94

Roy F. Weston, Inc. Lionville, Lab.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

0600

Extract. Date: 08/12/93 Extraction Batch No: 93LE1402 Analyst: PM Method: SEPF

Test: OHBG Cleanup Date: Analyst: Client: WESTINGHOUSE HANFORD

LIMS Report Date: 08/20/93 Solvent: ETHER,ACE,HEX Adsorbent:

Sample No:	Client Name / Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9308L509-	WESTINGHOUSE HANFORD										
001 P	B08NQ8	7.85	50.0	1.0		10		1.0	N	99.57	200.9
001 PS	B08NQ8	7.85	50.0	1.0	1.0	10		1.0	N	99.57	200.9
001 PT	B08NQ8	7.85	50.0	1.0	1.0	10		1.0	N	99.57	200.9
93LE1402-MB1 P		7.00	50.0	1.0		10		1.0	N	100.00	200.0
93LE1402-MB1 PS		7.00	50.0	1.0	1.0	10		1.0	N	100.00	200.0

Comments: RE-EXTRACTED WITHIN HOLD TIME
Surrogate: 100 UL HERB SURR ES1-17-10
Spike: 100 UL HERB SPIKE ES1-46

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

DWA 1/5/92

Package ID: 9311L704

PESTICIDE/PCB DATA VERIFICATION CHECKLIST - FORM A-3

Review the data package for completeness and check off the items below. If any data review elements are missing, contact the laboratory for re-submittal.

Data Package Item	Present?: Yes	No	N/A
Quality Control (QC) Summary			
Surrogate Summary Report	✓		
MS/MSD Summary Report	✓		
Blank Summary Report	✓		
Sample Data			
Sample reports	✓		
Chromatograms	✓		
GC integration reports	✓		
UV traces from GPC	✓		
Standards Data (2/88) ☐ N/A			
Pesticides Evaluation Standards Summary	✓		
Pesticides/PCB Standards Summary	✓		
Pesticides/PCB identification	✓		
Pesticides standard chromatograms	✓		
Standards Data (3/90) ☐ N/A			
Pesticide Initial Calibration of Single Component Analytes(Retention Time Windows)	✓		
Pesticide Initial Calibration of Single Component Analytes(Calibration Factors)	✓		
Pesticide Initial Calibration of Multicomponent Analytes(PCB)	✓		
Pesticide Analyte Resolution Summary	✓		
PEM Pesticide Calibration Verification Summary	✓		
IND A and IND B Pesticide Calibration Verification Summary	✓		
Pesticide Analytical Sequence	✓		
Pesticide Florisil Cartridge Check	✓		
Pesticide GPC Calibration	✓		
Pesticide Identification Summary for Single Component Analytes	✓		
Pesticide Identification Summary for Multicomponent Analytes	✓		
Pesticides standard chromatograms	✓		
Raw QC Data			
Blank analysis reports, chromatograms, and GC integration reports	✓		
MS/MSD report forms and chromatograms	✓		
Additional Data			
Moisture/% solids data sheets			
Sample preparation sheets	✓		
GC/MS confirmation spectra			✓

Comments:

Blanc J. Cooney