

Analytical Data Package Prepared For

Bechtel Hanford

Chemical Analysis By

Quanterra Environmental Services  
St. Louis Laboratory

Sample Delivery Group Number: WO233



WHC IDENTIFICATION NUMBER

BODOH6  
BODOH7  
BODOH8

QUANTERRA ID NUMBER

6280-001  
6280-002  
6280-003

RECORD COPY



Quanterra Incorporated  
13715 Rider Trail North  
Earth City, Missouri 63045

314 298-8566 Telephone  
314 298-8757 Fax

## CERTIFICATE OF ANALYSIS

Westinghouse Hanford Company  
P.O. Box 1970  
Richland, Washington 99352

November 2, 1994

Attention: Joan Kessner

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Project number	:	550.21
Date Received by Lab :	:	September 28, 1994
Number of Samples	:	Three (3)
Sample Type	:	Water
SDG Number	:	W0233
Data Deliverable	:	Summary

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### I. Introduction

On September 28, 1994, three (3) water samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. Upon receipt, the samples were given the following laboratory ID numbers to correspond with the specific client ID's:

<u>St. Louis ID</u>	<u>WHC ID</u>	<u>Richland ID</u>	<u>Matrix Date of Receipt</u>	
6280-001	B0D0H6	40964901	Water	09/28/94
6280-002	B0D0H7	40964902	Water	09/28/94
6280-003	B0D0H8	40964903	Water	09/28/94

### II. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: Herbicides by EPA method 8150. Organophosphorous Pesticides by EPA method 8140. Pesticides/PCB's by EPA method 8080.

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Westinghouse Hanford Company  
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### III. Quality Control

A Laboratory Control Sample and Method Blank were analyzed with each preparation batch. Matrix Spike and Matrix Spike Duplicate analysis were performed for each analyte in this SDG.

### IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank  
QCLCS- Quality Control Laboratory Control Sample, Blank Spike

### V. Comments

In the Herbicide analysis, the blank and spike (batch 47689) showed 2,4-D contamination. However, due to the large contaminant concentration in samples 6280-001 and 6280-002 (> 20X the blank contamination) the data was accepted from the initial analysis. Sample 6280-003 was re-extracted due to the blank contamination.

The Matrix Spike and Matrix Spike Duplicate gave recoveries of several target compounds out of specifications due to the matrix interference. Compound 2,4,5-TP gave extremely large recovery due to a peak that was located just inside the defined retention time window for the MS and MSD chromatograms but was located outside the window in the sample. There was no retention time shift for this compound in both continuing calibrations before and after the runs in question. Also there was no shift in the LCS, therefore it was judged that the contamination peak was not 2,4,5-TP.

For sample 6280-002 the detection limit of Dicamba, 2,4,5-T, 2,4,5-TP are elevated because the second column could not be used to quantitate because the compounds were not within the required 15% deviation in order to quantitate.

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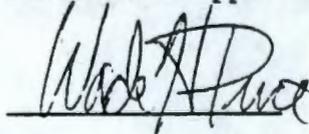
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Regarding the Pesticide/PCB analysis, the b-BHC in the first continuing calibration recovered below the specification. However, since there were no positive hits for this compound in the affected runs, the data was reported. It is possible to detect this contaminant at a level much lower than the required detection limit and, as a result, if the results were biased low as reflected by the b-BHC recovery, the level of contamination in the samples would still be below the required DL.

For the second continuing calibration, Heptachlor, Aldrin, Heptachlor Epoxide, Dieldrin, Endosulfan II, Endrin Aldehyde, and Methoxychlor all recovered above the specified 15% deviation. However, no contaminant peaks were detected in the samples which in this case would have been biased high as reflected by the recoveries of the compounds in the continuing calibration.

I certify that this Certificate of Analysis is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:



Wade H. Price  
Project Manager  
z:\abbydave\hanw0233.nar

00003A

Project Manager: W. Price

Draft: Final Entered and Reviewed by: M. Feehony

PM Review: D. J. Jones

Sample Header Template:

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date Site	(Container Numbers:% Filled)	
6280-001	B000H6 QES, RICHLAND ID=40964901	Water	26-SEP-94 11:10	28-SEP-94 10:35	12-OCT-94	FED-EX	1	Screening not Required
1	VI - Vial-40ml	HOLD//Q4	S	COLD	11- <del>###</del> -**	11- <del>###</del> -** R4AB	(102237:100)	
2	AM - Amber Glass-1L	HERB/8150/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102235:96 102236:95)	
2		OPEST/8140/Q4	S	COLD	10-OCT-94	03-OCT-94 R4AB	(102233:98 102234:97)	
2		PEST-PCB/8080/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102231:100 102232:99)	
6280-001MS	B000H6 QES, RICHLAND ID=40964901	Water	26-SEP-94 11:10	28-SEP-94 10:35	12-OCT-94	FED-EX	1	Screening not Required
2	AM - Amber Glass-1L	HERB/8150/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102235:96 102236:95)	
2		OPEST/8140/Q4	S	COLD	10-OCT-94	03-OCT-94 R4AB	(102233:98 102234:97)	
2		PEST-PCB/8080/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102231:100 102232:99)	
6280-001MSD	B000H6 QES, RICHLAND ID=40964901	Water	26-SEP-94 11:10	28-SEP-94 10:35	12-OCT-94	FED-EX	1	Screening not Required
2	AM - Amber Glass-1L	HERB/8150/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102235:96 102236:95)	
2		OPEST/8140/Q4	S	COLD	10-OCT-94	03-OCT-94 R4AB	(102233:98 102234:97)	
2		PEST-PCB/8080/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102231:100 102232:99)	
6280-002	B000H7 QES, RICHLAND ID=40964902	Water	26-SEP-94 11:15	28-SEP-94 10:35	12-OCT-94	FED-EX	1	Screening not Required
1	VI - Vial-40ml	HOLD//Q4	S	COLD	11- <del>###</del> -**	11- <del>###</del> -** R4AB	(102244:100)	
2	AM - Amber Glass-1L	HERB/8150/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102242:96 102243:95)	
2		OPEST/8140/Q4	S	COLD	10-OCT-94	03-OCT-94 R4AB	(102240:98 102241:97)	
2		PEST-PCB/8080/Q4	S	COLD	10-OCT-94	10-OCT-94 R4AB	(102238:100 102239:99)	
6280-003	B000H8 QES, RICHLAND ID=40964902	Water	27-SEP-94 08:35	28-SEP-94 10:35	12-OCT-94	FED-EX	1	Screening not Required
2	AM - Amber Glass-1L	HERB/8150/Q4	S	COLD	10-OCT-94	11-OCT-94 R4AB	(102249:96 102250:95)	
2		OPEST/8140/Q4	S	COLD	10-OCT-94	04-OCT-94 R4AB	(102247:98 102248:97)	
2		PEST-PCB/8080/Q4	S	COLD	10-OCT-94	11-OCT-94 R4AB	(102245:100 102246:99)	
1	AV - Amber Glass-2oz	HOLD//Q4	S	COLD	11- <del>###</del> -**	11- <del>###</del> -** R4AB	(102252:100)	

3\*Sample has not been rad screened.

00004



QVA-1842

Reference Document No. 481912  
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# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD \*

Project Name/No. 1 B94-053  
Sample Team Members 2  
Profit Center No. 3 4632  
Project Manager 4 V Pelley  
Purchase Order No. 6  
Required Report Date 11 10/12/94

Samples Shipment Date 7 9/28/94  
Lab Destination 8 St Louis  
Lab Contact 9  
Project Contact/Phone 12  
Carrier/Waybill No. 13

Bill to: 5 Quintera Richmond  
Report to: 10

## ONE CONTAINER PER LINE

Sample Number <sup>14</sup>	Sample Description/Type <sup>15</sup>	Date/Time Collected <sup>16</sup>	Container Type <sup>17</sup>	Sample Volume <sup>18</sup>	Pre-servative <sup>19</sup>	Requested Testing Program <sup>20</sup>	Condition on Receipt <sup>21</sup>	Disposal Record No. <sup>22</sup>
40964901A	BODOH6 /H2O	092694 1110 See WHC	Amber 60C/SAR	1L	4°C	Pest PCB See WHC 60C/SAR	10070 4	
B		"	"	"		Pest PCB	10070 4	
C		"	"	"		organo Pest	10070 4	
D		"	"	"		organo Pest	10070 4	
E		"	"	"		Herb	10070 4	
F		"	"	"		Herb	10070 4	
G		"	"	40		Screen	100 4	
2A	BODOH7	092694 1115-	"	1L		Pest/PCB	100 4	

**FOR LAB USE ONLY**  
**FOR LAB USE ONLY**

Special Instructions: <sup>23</sup>

Possible Hazard Identification: <sup>24</sup>  
Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal: <sup>25</sup>  
Return to Client  Disposal by Lab  Archive \_\_\_\_\_ (mos.)

Turnaround Time Required: <sup>26</sup>  
Normal  Rush  10/12/94

QC Level: <sup>27</sup>  
 I  II  III  
Project Specific (specify): SDG W0233 closed

1. Relinquished by <sup>28</sup>  
(Signature/Affiliation) [Signature] Date: 9/28/94  
Time: 1600

1. Received by <sup>28</sup>  
(Signature/Affiliation) [Signature] Date: 092994  
Time: 0855

2. Relinquished by  
(Signature/Affiliation) Date: \_\_\_\_\_  
Time: \_\_\_\_\_

2. Received by  
(Signature/Affiliation) Date: \_\_\_\_\_  
Time: \_\_\_\_\_

3. Relinquished by  
(Signature/Affiliation) Date: \_\_\_\_\_  
Time: \_\_\_\_\_

3. Received by  
(Signature/Affiliation) Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Comments: <sup>29</sup>

White: To accompany samples  
Yellow: Field copy  
\* See back of form for special instructions.



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

**ANALYSIS REQUEST AND  
CHAIN OF CUSTODY RECORD (cont.)\***

Reference Document No.<sup>30</sup> 481912  
Page 2 of 2

Project Name W0233

Project No. B94-053

Samples Shipment Date 9/28/94

**ONE CONTAINER PER LINE**

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
40964902B	BODOH7 /H <sub>2</sub> O	092694 1115 See WHC	Herbar COL/SAR	1L	4°C	Plant / PCB See WHC COL/SAR	10070	4
C		"	"	"		organo Plant	10070	4
D		"	"	"		organo Plant	100	4
E		"	"	"		Herb	100	4
F		"	"	"		Herb	100	4
G		"	"	40		Green	80	4
03A	BODOH8	092794 0835	"	1L	-	Plant / PCB	100	4
B		"	"	"		Plant / PCB	100	4
C		"	"	"		organo Plant	100	4
D		"	"	"		organo Plant	100	4
E		"	"	"		Herb	100	4
F		"	"	"		Herb	100	4
G		"	Herbar "	2 oz glass		Green	100	4
<del>9/28/94</del>								
							100	4
							100	4
							100	4
							100	4

Write: To accompany samples  
Yellow: Field copy  
\*See back of form for special instructions.

"Data Deliverable - Summary" "Priority Turnaround"

CH2M Hill  
Hanford

CHAIN OF CUSTODY

Custody Form Initiator C.E. Heiden

Company Contact C.E. Heiden

Project Designation/Sampling Locations Riverland ERA  
Ice Chest No. → #2 Suspect Waste Site

Bill of Lading/Airbill No. —

Method of Shipment Hand Delivery / DOE Vehicle

Shipped to Quanterra Richland, WA

Possible Sample Hazards/Remarks Potential 2,4-D Amine Contamination

Telephone 376-2640

Collection Date 9/26/94 & 9/27/94

Field Logbook No. EFL-1042-3

Offsite Property No. —

SDG W0232 409648	Sample Identification
BODDF1	01
BODDF2	2
BODDF3	3
BODDF4	4
BODDF5	5
BODDF6	6
BODDF7	7
BODDF8	8
BODDF9	9
BODDG0	10
BODDG1	11
BODDG2	12
BODDG3	13 (3) 120 ml a/g jars, (1) 60 or 40 ml jar (Activity Scan)
BODDG4	14 ml jar
BODDG5	15 ml vial
BODDG6	16
BODDG7	17
BODDG8	18
BODDG9	19
BODOH0	20
BODOH1	21

894-052  
CH 9/27/94

SDG 833 409649	Sample Identification
BODOH6	01 (6) 1000 ml a/g jar, (1) 40 ml vial
BODOH7	2 LIQUIDS (6) 1000 ml a/g jar, (1) 40 ml vial
BODOH8	3 (9) 1000 ml a/g jar, (1) 60 ml a/g jar

894-053  
CH 9/27/94

Field Transfer of Custody		Chain of Possession		(Sign and Print Names)	
Relinquished By	Date	Time	Received By	Date	Time
C.E. Heiden	9/28/94	10:35	Karen Stettinburg	9-28-94	10:35

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

CH2M Hill  
Hanford

SAMPLE ANALYSIS REQUEST

Date 9/27/94 376-2640

Company Contact C.E. Heiden 409648

Telephone (509) [REDACTED]

Sample Number	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Required
BODOF1	9/26/94	0950	01
BODOF2	9/26/94	1030	2
BODOF3	9/26/94	1135	3
BODOF4	9/26/94	1150	4
BODOF5	9/26/94	1200	5
BODOF6	9/26/94	1235	6
BODOF7	9/26/94	1245	7
BODOF8	9/26/94	1300	8
BODOF9	9/26/94	1305	9
BODOG0	9/26/94	1309	10
BODOG2	9/26/94	1320	11
BODOG3	9/26/94	1340	12
BODOG4	9/26/94	1350	13
BODOG5	9/26/94	1355	14
BODOG6	9/26/94	1406	15
BODOG7	9/26/94	1415	16
BODOG8	9/26/94	1425	17
BODOG9	9/26/94	1410	18
BODOH0	9/26/94	1433	19
BODOH1	9/27/94	0815	20
		409649	
BODOH6	9/26/94	1110	01 (6) 1000 ml aG jars, (1) 40 ml vial
BODOH7	9/26/94	1115	02 (6) 1000 ml aG jars, (1) 40 ml vial
BODOH8	9/27/94	0835	03 (9) 1000 ml aG jars, (1) 60 ml aG jar

Each sample set consists of the following:  
(3) 120 ml aG jars and (1) 40 ml vial  
or 60 ml jar for Activity Scan

Analysis:  
A 120 ml → Pesticides/PCB Method 8080  
B 120 ml → Organo. Pesticides Method 8140  
C 120 ml → Herbicides Method 8150  
40 ml vial or 60 ml jar → Activity Scan

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

Field Information

Special Handling and/or Storage Keep Samples Cool, 4°C

Possible Sample Hazards Potential 2,4-D Amine Contamination

Analysis For Liquids:  
Pesticides/PCB Method 8080 AB  
Organo. Pesticides Method 8140 CD  
Herbicides Method 8150 EF  
Activity Scan G



**SAMPLE CHECK-IN LIST**

(1 Per Shipping Container)

Date/Time Received 9-28-94 10:35 Client Name WHC

Project/Client # B94-052,53 Batch or Case # \_\_\_\_\_

Cooler ID (if noted on the outside of cooler) # 2

1. Condition of shipping container? OK.

2. Custody Seals on cooler intact? Yes  No

3. Custody Seals dated and signed? Yes  No

4. Chain of Custody record is taped on inside of cooler lid? Yes  No

5. Vermiculite/packing material is: Wet  Dry

6. Each sample is in a plastic bag? Yes  No

7. Number of sample containers in cooler: 102

8. Samples have:  tape \_\_\_\_\_ hazard labels

custody seals \_\_\_\_\_ appropriate sample labels

9. Samples are:  in good condition \_\_\_\_\_ leaking

\_\_\_\_\_ broken \_\_\_\_\_ have air bubbles

\_\_\_\_\_ other

10. Coolant present? Yes  No

Sample temperature 4°C

11. The following paperwork should be accounted for (N/A if not applicable):

Chain of Custody #(s) N/A

Request for analysis #(s) N/A

Airbill # N/A Carrier N/A

12. Have any anomalies been identified above? Yes  No

13. Memos have been initiated for all anomalies identified above? Yes

Printed Name/Signature Kenn F. Hurling Date/Time 9-28-94 10:35

FORM NO. LS-042, Rev.0, 2/94

Contractor <b>WESTINGHOUSE HANFORD</b>	<b>OFF-SITE PROPERTY CONTROL</b>	CONTROL NO. <i>(To be obtained from PROPERTY MANAGEMENT)</i> <b>W94-0-0944-17</b>
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**PART I - TO BE COMPLETED BY ORIGINATOR**

<b>Hanford Technical Services</b>	Section <b>Analytical Services</b>	Unit <b>Sampling &amp; Mobile Labs</b>
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The following items are to be shipped from  Contractor  Vendor

Routing **GOVERNMENT VEHICLE**  Prepaid  Collect

Shipped to <b>IT ANALYTICAL</b> Company <b>2800 George Washington Way</b> Address <b>Richland, WA 99352</b> City _____ State _____ Zip Code _____ Country _____	Off-site Custodian <b>Tami Heidelberg</b>
	On-site Custodian _____ Payroll No. _____

Qty.	Property No.	Description (Include Manufacture Name, Model, Serial No.)	Acquisition Cost
1		<del>Polycooler. Samples packed in plastic bags and stored on wet ice.</del> Weight <u>33lbs</u> Cooler # <u>5016-001</u>	

Classified  Unclassified  Shipped Under DOE Contract  Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

Required for Project Work. List Project No. **OCS # BO1996, SAMPLE BOCYF8**

Business Trip **COG # BO1978, SAMPLE BOCYD7, BOCYD8**

Off-site Assignment

Shipment to Subcontractor. List Subcontract No. \_\_\_\_\_

Other (Please specify) \_\_\_\_\_

**CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.**

RM Clearance for Public Release <b>C. Stecker</b>	RM Survey No. <b>168406</b>	Date <b>7-25-94</b>
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Location of and Contact for Property (Name, Phone No./Bldg./Area)  
**200W/202S E. G. HARRIS 375-7074, 6269 / 600**

Date Ready for Shipment <b>09/28/94</b>	Cost Code to be Charged <b>XE14308/Orig Code: 8H120</b>	Approximate Date This Property will be Returned <b>N/A</b>
Relinquished by: <b>T. BLUM</b>	Date <b>9/26/94</b>	Authorized By <b>D. L. EDWARDS</b>
Property Representative Signature <b>T. BLUM</b>	Date <b>9/26/94</b>	Property Management Approval <b>[Signature]</b>

**PART II - TO BE COMPLETED BY SHIPPING**

Authorized Shipping Signature <b>[Signature]</b>	Date <b>9-26-94</b>
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**DISTRIBUTION (AFTER FINAL SIGNATURES)**

White - Property Management    Yellow - Shipping    Green - Accounts Payable    Pink - Originator    Goldenrod - Property Management

THESE PAGES LEFT BLANK INTENTIONALLY

0012 - 0018

SAMPLE STATUS REPORT FOR N 2863. RAD SCREEN BODOH6 TIME: 9/27/94 22: 5  
 PATCHED: 9/22/94 14:11 SAMPLE HAS NOT BEEN SLURPED  
 RECEIVED: 9/27/94 10:40

1. DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
* *****	*****	***	***	*****
1 TOT-ACT	< 5.00000E 01 pCi/G	N	Y	J12UP

SAMPLE STATUS REPORT FOR N 2864. RAD SCREEN BODOH7 TIME: 9/27/94 22: 5  
 PATCHED: 9/22/94 14:11 SAMPLE HAS NOT BEEN SLURPED  
 RECEIVED: 9/27/94 10:40

1. DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
* *****	*****	***	***	*****
1 TOT-ACT	< 5.00000E 01 pCi/G	N	Y	J12UP

END OF REPORT

SAMPLE STATUS REPORT FOR N 2865. RAD SCREEN BODOH8 TIME: 9/27/94 22: 5  
 PATCHED: 9/22/94 14:11 SAMPLE HAS NOT BEEN SLURPED  
 RECEIVED: 9/27/94 10:40

1. DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
* *****	*****	***	***	*****
1 TOT-ACT	< 5.00000E 01 pCi/G	N	Y	J12UP

END OF REPORT

C.U.R. and C.O.C.

COPIED TO: OK + WP  
DATE: 09 29 94  
TIME: 1245  
BY: Bob Cusack

Work Order No.: 6280

**Condition Upon Receipt Variance Report**  
**St. Louis Laboratory**

Client: Richland  
Project No: 550.21  
Analysis Requested: Refer to RFA/COC  
Client Sample Numbers Affected: Entire Login

Date: 09 29 94 0855  
Initiated by: Bob Cusack  
RFA/COC Numbers: 481912

Condition/Variance (Check all that apply): Circle Number to Denote that Item was Evaluated. "NA" = "Not Applicable".

<input checked="" type="checkbox"/> 1 NA	Not enough sample received for proper analysis. Received approximately: _____	<input checked="" type="checkbox"/> 8	<input type="checkbox"/>	Custody tape disturbed/broken/missing.
<input checked="" type="checkbox"/> 2	<input type="checkbox"/> Sample received broken/leaking.	9.	NA	Sample splits performed by lab.
<input checked="" type="checkbox"/> 3	<input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within 4°C ± 2°C Record temperature: <u>4°C</u> <u>No H<sub>2</sub>O</u> <u>Temp Blank</u>	10.	<input checked="" type="checkbox"/> NA	Volatile sample received with approximately _____ mm headspace.
	<input type="checkbox"/> pH _____		<input type="checkbox"/>	Sample ID on container does not match sample ID on paperwork. Explain: _____
	<input type="checkbox"/> other: _____			
<input checked="" type="checkbox"/> 4	<input type="checkbox"/> Sample received in improper container.	<input checked="" type="checkbox"/> 12	<input type="checkbox"/>	All coolers on airbill not received with shipment.
<input checked="" type="checkbox"/> 5	<input type="checkbox"/> Sample received without proper paperwork. Explain: _____	<input checked="" type="checkbox"/> 13	<input type="checkbox"/>	Other (explain below): <u>Shipping containers not red surveyed.</u>
<input checked="" type="checkbox"/> 6	<input type="checkbox"/> Paperwork received without sample.			_____
<input checked="" type="checkbox"/> 7	<input type="checkbox"/> No sample ID on sample container.			_____

Notes: \_\_\_\_\_  
\_\_\_\_\_

**Corrective Action:**

- Client's Name: \_\_\_\_\_ Informed verbally on: \_\_\_\_\_ By: \_\_\_\_\_
- Client's Name: \_\_\_\_\_ Informed in writing on: \_\_\_\_\_ By: \_\_\_\_\_
- Sample(s) processed "as is". Comments: \_\_\_\_\_
- Sample(s) on hold until: \_\_\_\_\_ If released, notify: \_\_\_\_\_

Sample Control Supervisor Review: (or designate) \_\_\_\_\_ Date: \_\_\_\_\_

Project Management Review: \_\_\_\_\_ Date: \_\_\_\_\_

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

00020

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352



Project: 550.21

Category: PCB/Pest  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
alpha-BHC	319-84-6	QCBLK47596-1	10/07/94	10/17/94	0.03 UG/L	U	0.03	1
beta-BHC	319-85-7	QCBLK47596-1	10/07/94	10/17/94	0.06 UG/L	U	0.06	1
delta-BHC	319-86-8	QCBLK47596-1	10/07/94	10/21/94	260 UG/L		72	800
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/17/94	0.03 UG/L	U	0.03	1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Heptachlor Epoxide	1024-57-3	QCBLK47596-1	10/07/94	10/17/94	0.83 UG/L	U	0.83	1
Endosulfan I	959-98-8	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/17/94	0.10 UG/L	U	0.02	1
4,4'-DDE	72-55-9	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/17/94	0.06 UG/L	U	0.06	1
Endosulfan II	33213-65-9	QCBLK47596-1	10/07/94	10/17/94	0.29 UG/L		0.04	1
4,4'-DDD	72-54-8	QCBLK47596-1	10/07/94	10/17/94	0.11 UG/L	U	0.11	1
Endosulfan Sulfate	1031-07-8	QCBLK47596-1	10/07/94	10/17/94	0.66 UG/L	U	0.66	1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/17/94	0.12 UG/L	U	0.12	1
Methoxychlor	72-43-5	QCBLK47596-1	10/07/94	10/17/94	1.8 UG/L	U	1.8	1
Endrin Aldehyde	7421-93-4	QCBLK47596-1	10/07/94	10/17/94	0.23 UG/L	U	0.23	1
Chlordane	57-74-9	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Toxaphene	8001-35-2	QCBLK47596-1	10/07/94	10/17/94	2.4 UG/L	U	2.4	1
Aroclor-1016	12674-11-2	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1221	11104-28-2	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1232	11141-16-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1242	53469-21-9	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1248	12672-29-6	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1254	11097-69-1	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1260	11096-82-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/17/94	27 XREC			1



Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: PCB/Pest  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/17/94	86 XREC			1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/17/94	66 XREC			1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/17/94	28 XREC			1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/17/94	23 XREC			1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/17/94	55 XREC			1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/17/94	46 XREC			1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/17/94	16 XREC			1



Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: PCB/Pest  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: 8000H6

Quanterra ID : 6280-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/17/94	48 XREC			1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/17/94	26 XREC			1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/17/94	32 XREC			1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/17/94	26 XREC			1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/17/94	81 XREC			1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/17/94	60 XREC			1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/17/94	13 XREC			1

00024

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: PCB/Pest  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H7

Quanterra ID : 6280-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
alpha-BHC	319-84-6	QCBLK47596-1	10/07/94	10/17/94	0.25 UG/L		0.03	1
beta-BHC	319-85-7	QCBLK47596-1	10/07/94	10/17/94	0.11 UG/L	U	0.11	1
delta-BHC	319-86-8	QCBLK47596-1	10/07/94	10/21/94	350 UG/L		90	1000
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/17/94	0.03 UG/L	U	0.03	1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Heptachlor Epoxide	1024-57-3	QCBLK47596-1	10/07/94	10/17/94	0.83 UG/L	U	0.83	1
Endosulfan I	959-98-8	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/17/94	0.18 UG/L		0.02	1
4,4'-DDE	72-55-9	QCBLK47596-1	10/07/94	10/17/94	0.10 UG/L		0.04	1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/17/94	0.61 UG/L		0.06	1
Endosulfan II	33213-65-9	QCBLK47596-1	10/07/94	10/17/94	0.10 UG/L		0.04	1
4,4'-DDD	72-54-8	QCBLK47596-1	10/07/94	10/17/94	0.11 UG/L	U	0.11	1
Endosulfan Sulfate	1031-07-8	QCBLK47596-1	10/07/94	10/17/94	0.66 UG/L	U	0.66	1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/17/94	0.12 UG/L	U	0.12	1
Methoxychlor	72-43-5	QCBLK47596-1	10/07/94	10/17/94	1.8 UG/L	U	1.8	1
Endrin Aldehyde	7421-93-4	QCBLK47596-1	10/07/94	10/17/94	0.23 UG/L	U	0.23	1
Chlordane	57-74-9	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Toxaphene	8001-35-2	QCBLK47596-1	10/07/94	10/17/94	2.4 UG/L	U	2.4	1
Aroclor-1016	12674-11-2	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1221	11104-28-2	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1232	11141-16-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1242	53469-21-9	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1248	12672-29-6	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1254	11097-69-1	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1260	11096-82-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/17/94	66 XREC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: PCB/Pest  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : 09/27/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H8

Quanterra ID : 6280-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
alpha-BHC	319-84-6	QCBLK47596-1	10/07/94	10/17/94	0.03 UG/L	U	0.03	1
beta-BHC	319-85-7	QCBLK47596-1	10/07/94	10/17/94	0.26 UG/L	U	0.26	1
delta-BHC	319-86-8	QCBLK47596-1	10/07/94	10/17/94	0.09 UG/L	U	0.09	1
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/17/94	0.06 UG/L	U	0.04	1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/17/94	0.03 UG/L	U	0.03	1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Heptachlor Epoxide	1024-57-3	QCBLK47596-1	10/07/94	10/17/94	0.83 UG/L	U	0.83	1
Endosulfan I	959-98-8	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/17/94	0.02 UG/L	U	0.02	1
4,4'-DOE	72-55-9	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/17/94	0.06 UG/L	U	0.06	1
Endosulfan II	33213-65-9	QCBLK47596-1	10/07/94	10/17/94	0.04 UG/L	U	0.04	1
4,4'-DDD	72-54-8	QCBLK47596-1	10/07/94	10/17/94	0.11 UG/L	U	0.11	1
Endosulfan Sulfate	1031-07-8	QCBLK47596-1	10/07/94	10/17/94	0.66 UG/L	U	0.66	1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/17/94	0.12 UG/L	U	0.12	1
Methoxychlor	72-43-5	QCBLK47596-1	10/07/94	10/17/94	1.8 UG/L	U	1.8	1
Endrin Aldehyde	7421-93-4	QCBLK47596-1	10/07/94	10/17/94	0.23 UG/L	U	0.23	1
Chlordane	57-74-9	QCBLK47596-1	10/07/94	10/17/94	0.14 UG/L	U	0.14	1
Toxaphene	8001-35-2	QCBLK47596-1	10/07/94	10/17/94	2.4 UG/L	U	2.4	1
Aroclor-1016	12674-11-2	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1221	11104-28-2	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1232	11141-16-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1242	53469-21-9	QCBLK47596-1	10/07/94	10/17/94	0.65 UG/L	U	0.65	1
Aroclor-1248	12672-29-6	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1254	11097-69-1	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
Aroclor-1260	11096-82-5	QCBLK47596-1	10/07/94	10/17/94	1.0 UG/L	U	1.0	1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/17/94	51 XREC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Pesticides and PCBs  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCBLK47596-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
alpha-BHC	319-84-6	QCBLK47596-1	10/07/94	10/20/94	0.03	UG/L	U	0.03	1
beta-BHC	319-85-7	QCBLK47596-1	10/07/94	10/20/94	0.06	UG/L	U	0.06	1
delta-BHC	319-86-8	QCBLK47596-1	10/07/94	10/20/94	0.09	UG/L	U	0.09	1
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/20/94	0.04	UG/L	U	0.04	1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/20/94	0.03	UG/L	U	0.03	1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/20/94	0.04	UG/L	U	0.04	1
Heptachlor Epoxide	1024-57-3	QCBLK47596-1	10/07/94	10/20/94	0.83	UG/L	U	0.83	1
Endosulfan I	959-98-8	QCBLK47596-1	10/07/94	10/20/94	0.14	UG/L	U	0.14	1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/20/94	0.02	UG/L	U	0.02	1
4,4'-DDE	72-55-9	QCBLK47596-1	10/07/94	10/20/94	0.04	UG/L	U	0.04	1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/20/94	0.06	UG/L	U	0.06	1
Endosulfan II	33213-65-9	QCBLK47596-1	10/07/94	10/20/94	0.04	UG/L	U	0.04	1
4,4'-DDD	72-54-8	QCBLK47596-1	10/07/94	10/20/94	0.11	UG/L	U	0.11	1
Endosulfan Sulfate	1031-07-8	QCBLK47596-1	10/07/94	10/20/94	0.66	UG/L	U	0.66	1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/20/94	0.12	UG/L	U	0.12	1
Methoxychlor	72-43-5	QCBLK47596-1	10/07/94	10/20/94	1.8	UG/L	U	1.8	1
Endrin Aldehyde	7421-93-4	QCBLK47596-1	10/07/94	10/20/94	0.23	UG/L	U	0.23	1
Chlordane	57-74-9	QCBLK47596-1	10/07/94	10/20/94	0.14	UG/L	U	0.14	1
Toxaphene	8001-35-2	QCBLK47596-1	10/07/94	10/20/94	2.4	UG/L	U	2.4	1
Aroclor-1016	12674-11-2	QCBLK47596-1	10/07/94	10/20/94	0.65	UG/L	U	0.65	1
Aroclor-1221	11104-28-2	QCBLK47596-1	10/07/94	10/20/94	1.0	UG/L	U	1.0	1
Aroclor-1232	11141-16-5	QCBLK47596-1	10/07/94	10/20/94	1.0	UG/L	U	1.0	1
Aroclor-1242	53469-21-9	QCBLK47596-1	10/07/94	10/20/94	0.65	UG/L	U	0.65	1
Aroclor-1248	12672-29-6	QCBLK47596-1	10/07/94	10/20/94	1.0	UG/L	U	1.0	1
Aroclor-1254	11097-69-1	QCBLK47596-1	10/07/94	10/20/94	1.0	UG/L	U	1.0	1
Aroclor-1260	11096-82-5	QCBLK47596-1	10/07/94	10/20/94	1.0	UG/L	U	1.0	1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/20/94	82	XREC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Pesticides and PCBs  
Method: EPA 8080  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCSPK47596-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
gamma-BHC (Lindane)	58-89-9	QCBLK47596-1	10/07/94	10/20/94	113 XREC			1
Heptachlor	76-44-8	QCBLK47596-1	10/07/94	10/20/94	105 XREC			1
Aldrin	309-00-2	QCBLK47596-1	10/07/94	10/20/94	87 XREC			1
Dieldrin	60-57-1	QCBLK47596-1	10/07/94	10/20/94	98 XREC			1
Endrin	72-20-8	QCBLK47596-1	10/07/94	10/20/94	98 XREC			1
4,4'-DDT	50-29-3	QCBLK47596-1	10/07/94	10/20/94	94 XREC			1
DBC	96-12-8	QCBLK47596-1	10/07/94	10/20/94	89 XREC			1

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H6

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-07-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-17-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1

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

CAS NO.                      Compound                      Q

319-84-6	alpha-BHC	0.03	U
319-85-7	beta-BHC	0.06	U
319-86-8	delta-BHC		SD
58-89-9	gamma-BHC (Lindane)	0.04	U
76-44-8	Heptachlor	0.03	U
309-00-2	Aldrin	0.04	U
1024-57-3	Heptachlor epoxide	0.83	U
959-98-8	Endosulfan I	0.14	U
60-57-1	Dieldrin	0.10	
72-55-9	4,4'-DDE	0.04	U
72-20-8	Endrin	0.21	
33213-65-9	Endosulfan II	0.29	
72-54-8	4,4'-DDD	0.11	U
1031-07-8	Endosulfan sulfate	0.66	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	1.8	U
53494-70-5	Endrin Aldehyde	0.23	U
57-74-9	Tech. Chlordane	0.14	U
8001-35-2	Toxaphene	2.4	U
11104-28-2	Aroclor-1221	1.0	U
11141-28-2	Aroclor-1232	1.0	U
53469-21-9/12674-11-2	Aroclor-1242/1016	0.65	U
12672-29-6	Aroclor-1248	1.0	U
11097-57-4	Aroclor1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

SD: See 1:800 dilution.

U: Concentration of analyte is less than the value given.

FORM I PEST

1/87 Rev.

00029

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H6DL

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001DL

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-07-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-21-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 800

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

CAS NO.	Compound	Q
319-84-6	alpha-BHC	SS
319-85-7	beta-BHC	SS
319-86-8	delta-BHC	260
58-89-9	gamma-BHC (Lindane)	SS
76-44-8	Heptachlor	SS
309-00-2	Aldrin	SS
1024-57-3	Heptachlor epoxide	SS
959-98-8	Endosulfan I	SS
60-57-1	Dieldrin	SS
72-55-9	4,4'-DDE	SS
72-20-8	Endrin	SS
33213-65-9	Endosulfan II	SS
72-54-8	4,4'-DDD	SS
1031-07-8	Endosulfan sulfate	SS
50-29-3	4,4'-DDT	SS
72-43-5	Methoxychlor	SS
53494-70-5	Endrin Aldehyde	SS
57-74-9	Tech. Chlordane	SS
8001-35-2	Toxaphene	SS
11104-28-2	Aroclor-1221	SS
11141-28-2	Aroclor-1232	SS
53469-21-9/12674-11-2	Aroclor-1242/1016	SS
12672-29-6	Aroclor-1248	SS
11097-57-4	Aroclor1254	SS
11096-82-5	Aroclor-1260	SS

SS: See undiluted run.  
U: Concentration of analyte is less than the value given.

FORM I PEST

1/87 Rev.

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOD0H7

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-07-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-17-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1

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

CAS NO. Compound Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6	alpha-BHC	0.25	
319-85-7	beta-BHC	0.11	U
319-86-8	delta-BHC		SD1
58-89-9	gamma-BHC (Lindane)	0.04	U
76-44-8	Heptachlor	0.03	U
309-00-2	Aldrin	0.04	U
1024-57-3	Heptachlor epoxide	0.83	U
959-98-8	Endosulfan I	0.14	U
60-57-1	Dieldrin	0.18	
72-55-9	4,4'-DDE	0.10	
72-20-8	Endrin	0.61	
33213-65-9	Endosulfan II	0.10	
72-54-8	4,4'-DDD	0.11	U
1031-07-8	Endosulfan sulfate	0.66	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	1.8	U
53494-70-5	Endrin Aldehyde	0.23	U
57-74-9	Tech. Chlordane	0.14	U
8001-35-2	Toxaphene	2.4	U
11104-28-2	Aroclor-1221	1.0	U
11141-28-2	Aroclor-1232	1.0	U
53469-21-9/12674-11-2	Aroclor-1242/1016	0.65	U
12672-29-6	Aroclor-1248	1.0	U
11097-57-4	Aroclor1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

SD1: See 1:1000 dilution.

U: Concentration of analyte is less than the value given.

FORM I PEST

1/87 Rev.

00031







Environmental  
Services

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	58 UG/L	U	58	1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	2.7 UG/L	U	2.7	1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	2500 UG/L	U	2500	1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	1900 UG/L	U	1900	1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	6.5 UG/L	U	6.5	1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/19/94	41000 UG/L		12000	1000
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	1.7 UG/L	U	1.7	1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	7.4 UG/L		2.0	1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	4.9 UG/L		0.7	1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	14 UG/L		9.1	1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	87 %REC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	50	XREC			1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	468	XREC	*		1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	130	XREC			1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	96	XREC			1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	26	XREC	*		1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/12/94	0	XREC			1
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	2859	XREC	*		1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	151	XREC			1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	49	XREC			1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	53	XREC			1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	64	XREC			1

\* Recovery outside acceptance limits.  
D Diluted out.

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection	
								Limit	Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	114	XREC	*		1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	804	XREC	*		1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	29	XREC	*		1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	192	XREC	*		1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	31	XREC	*		1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/12/94	0	XREC	*		1
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	3356	XREC	*		1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	694	XREC	*		1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	50	XREC	*		1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	260	XREC	*		1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	92	XREC	*		1

\* Recovery outside acceptance limits.

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H7

Quanterra ID : 6280-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	58 UG/L	U	58	1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	* UG/L	U	6.4	1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	2500 UG/L	U	2500	1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	1900 UG/L	U	1900	1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	6.5 UG/L	U	6.5	1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/19/94	69000 UG/L	U	6000	500
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	* UG/L	U	20	1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	* UG/L	U	7.5	1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	0.7 UG/L	U	0.7	1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	9.1 UG/L	U	9.1	1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	* XREC			1

\* Elevated detection limit because could not quantitate from second column.

\*\* Recovery outside of acceptance limits.

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : 09/27/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: 80008

Quanterra ID : 6280-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK48055-1	10/13/94	10/19/94	58 UG/L	U	58	1
Dicamba	1918-00-9	QCBLK48055-1	10/13/94	10/19/94	2.7 UG/L	U	2.7	1
MCPA	94-74-6	QCBLK48055-1	10/13/94	10/19/94	2500 UG/L	U	2500	1
MCPP	93-65-2	QCBLK48055-1	10/13/94	10/19/94	1900 UG/L	U	1900	1
2,2-Dichloropropionic acid	120-36-5	QCBLK48055-1	10/13/94	10/19/94	6.5 UG/L	U	6.5	1
2,4-D	94-75-7	QCBLK48055-1	10/13/94	10/19/94	12 UG/L	U	12	1
2,4,5-TP (Silvex)	93-72-1	QCBLK48055-1	10/13/94	10/19/94	1.7 UG/L	U	1.7	1
2,4,5-T	93-76-5	QCBLK48055-1	10/13/94	10/19/94	2.0 UG/L	U	2.0	1
Dinoseb	88-85-7	QCBLK48055-1	10/13/94	10/19/94	0.7 UG/L	U	0.7	1
2,4-DB	94-82-6	QCBLK48055-1	10/13/94	10/19/94	9.1 UG/L	U	9.1	1
2,4-DCPA	19719-28-9	QCBLK48055-1	10/13/94	10/19/94	106 %REC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCBLK47689-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	58 UG/L	U	58	1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	2.7 UG/L	U	2.7	1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	2500 UG/L	U	2500	1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	1900 UG/L	U	1900	1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	6.5 UG/L	U	6.5	1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/12/94	120 UG/L	U	12	1
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	1.7 UG/L	U	1.7	1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	2.0 UG/L	U	2.0	1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	0.7 UG/L	U	0.7	1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	9.1 UG/L	U	9.1	1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	101 XREC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCBLK48055-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK48055-1	10/13/94	10/19/94	58 UG/L	U	58	1
Dicamba	1918-00-9	QCBLK48055-1	10/13/94	10/19/94	2.7 UG/L	U	2.7	1
MCPA	94-74-6	QCBLK48055-1	10/13/94	10/19/94	2500 UG/L	U	2500	1
MCPP	93-65-2	QCBLK48055-1	10/13/94	10/19/94	1900 UG/L	U	1900	1
2,2-Dichloropropionic acid	120-36-5	QCBLK48055-1	10/13/94	10/19/94	6.5 UG/L	U	6.5	1
2,4-D	94-75-7	QCBLK48055-1	10/13/94	10/19/94	12 UG/L	U	12	1
2,4,5-TP (Silvex)	93-72-1	QCBLK48055-1	10/13/94	10/19/94	1.7 UG/L	U	1.7	1
2,4,5-T	93-76-5	QCBLK48055-1	10/13/94	10/19/94	2.0 UG/L	U	2.0	1
Dinoseb	88-85-7	QCBLK48055-1	10/13/94	10/19/94	0.7 UG/L	U	0.7	1
2,4-DB	94-82-6	QCBLK48055-1	10/13/94	10/19/94	9.1 UG/L	U	9.1	1
2,4-DCPA	19719-28-9	QCBLK48055-1	10/13/94	10/19/94	98 %REC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCSPK48055-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Dalapon	75-99-0	QCBLK48055-1	10/13/94	10/19/94	51	XREC		1
Dicamba	1918-00-9	QCBLK48055-1	10/13/94	10/19/94	106	XREC		1
MCPA	94-74-6	QCBLK48055-1	10/13/94	10/19/94	115	XREC		1
MCPP	93-65-2	QCBLK48055-1	10/13/94	10/19/94	113	XREC		1
2,2-Dichloropropionic acid	120-36-5	QCBLK48055-1	10/13/94	10/19/94	138	XREC		1
2,4-D	94-75-7	QCBLK48055-1	10/13/94	10/19/94	140	XREC		1
2,4,5-TP (Silvex)	93-72-1	QCBLK48055-1	10/13/94	10/19/94	97	XREC		1
2,4,5-T	93-76-5	QCBLK48055-1	10/13/94	10/19/94	84	XREC		1
Dinoseb	88-85-7	QCBLK48055-1	10/13/94	10/19/94	78	XREC		1
2,4-DB	94-82-6	QCBLK48055-1	10/13/94	10/19/94	86	XREC		1
2,4-DCPA	19719-28-9	QCBLK48055-1	10/13/94	10/19/94	111	XREC		1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Herbicides  
Method: SW8150  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCSPK47689-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Detection	
						Qual.	Limit Dilution
Dalapon	75-99-0	QCBLK47689-1	10/10/94	10/12/94	80 XREC		1
Dicamba	1918-00-9	QCBLK47689-1	10/10/94	10/12/94	122 XREC		1
MCPA	94-74-6	QCBLK47689-1	10/10/94	10/12/94	131 XREC		1
MCPP	93-65-2	QCBLK47689-1	10/10/94	10/12/94	119 XREC		1
2,2-Dichloropropionic acid	120-36-5	QCBLK47689-1	10/10/94	10/12/94	127 XREC		1
2,4-D	94-75-7	QCBLK47689-1	10/10/94	10/12/94	206 XREC	*	1
2,4,5-TP (Silvex)	93-72-1	QCBLK47689-1	10/10/94	10/12/94	95 XREC		1
2,4,5-T	93-76-5	QCBLK47689-1	10/10/94	10/12/94	92 XREC		1
Dinoseb	88-85-7	QCBLK47689-1	10/10/94	10/12/94	71 XREC		1
2,4-DB	94-82-6	QCBLK47689-1	10/10/94	10/12/94	94 XREC		1
2,4-DCPA	19719-28-9	QCBLK47689-1	10/10/94	10/12/94	109 XREC		1

\* Recovery outside acceptance limits.

1D  
HERBICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BODOH6

Lab Name: ITAS-St. Louis Contract: 550.21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-10-94

Extraction: (SepF/Cont/Sonc/Shak) SEPF Date Analyzed: 10-12-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1

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

CAS NO.	Compound	Q
75-99-0-----	Dalapon	U
1918-00-9-----	Dicamba	U
94-74-6-----	MCPA	U
93-65-2-----	MCPP	U
120-36-5-----	Dichloroprop	U
94-75-7-----	2,4-D	SD
93-72-1-----	2,4,5-TP	U
93-76-5-----	2,4,5-T	
88-85-7-----	Dinoseb	
94-82-6-----	2,4-DB	

U: Concentration of analyte is less than the value given.  
SD: See dilution.

1D  
HERBICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOD0H6DL

Lab Name: ITAS-St. Louis Contract: 550.21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001DL

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-10-94

Extraction: (SepF/Cont/Sonc/Shak) SEPF Date Analyzed: 10-19-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1000

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

CAS NO. Compound Q

CAS NO.	Compound	Q
75-99-0	Dalapon	SS
1918-00-9	Dicamba	SS
94-74-6	MCPA	SS
93-65-2	MCPP	SS
120-36-5	Dichloroprop	SS
94-75-7	2,4-D	41000
93-72-1	2,4,5-TP	SS
93-76-5	2,4,5-T	SS
88-85-7	Dinoseb	SS
94-82-6	2,4-DB	SS

U: Concentration of analyte is less than the value given.  
SS: See undiluted run.

1D  
HERBICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H7

Lab Name: ITAS-St. Louis Contract: 550.21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-002

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-07-94

Extraction: (SepF/Cont/Sonc/Shak) SEPF Date Analyzed: 10-12-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NO.

Compound

Q

75-99-0-----Dalapon	58	U
1918-00-9-----Dicamba	6.4	U
94-74-6-----MCPA	2500	U
93-65-2-----MCPP	1900	U
120-36-5-----Dichloroprop	6.5	U
94-75-7-----2,4-D		SD
93-72-1-----2,4,5-TP	20	U
93-76-5-----2,4,5-T	7.5	U
88-85-7-----Dinoseb	0.7	U
94-82-6-----2,4-DB	9.1	U

U: Concentration of analyte is less than the value given.

SD: See dilution.

1D  
HERBICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.  
B0D0H7DL

Lab Name: ITAS-St. Louis Contract: 550.21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-002DL

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-07-94

Extraction: (SepF/Cont/Sonc/Shak) SEPF Date Analyzed: 10-19-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 500

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

Q

CAS NO.	Compound		
75-99-0	Dalapon		SS
1918-00-9	Dicamba		SS
94-74-6	MCPA		SS
93-65-2	MCPP		SS
120-36-5	Dichloroprop		SS
94-75-7	2,4-D	69000	
93-72-1	2,4,5-TP		SS
93-76-5	2,4,5-T		SS
88-85-7	Dinoseb		SS
94-82-6	2,4-DB		SS

U: Concentration of analyte is less than the value given.  
SS: See undiluted run.

1D  
HERBICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H8

Lab Name: ITAS-St. Louis Contract: 550.21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-003

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled : \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-13-94

Extraction: (SepF/Cont/Sonc/Shak) SEPF Date Analyzed: 10-19-94

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Dilution Factor: 1

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

Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
75-99-0	Dalapon	58	U
1918-00-9	Dicamba	2.7	U
94-74-6	MCPA	2500	U
93-65-2	MCPP	1900	U
120-36-5	Dichloroprop	6.5	U
94-75-7	2,4-D	12	U
93-72-1	2,4,5-TP	1.7	U
93-76-5	2,4,5-T	2.0	U
88-85-7	Dinoseb	0.7	U
94-82-6	2,4-DB	9.1	U

U: Concentration of analyte is less than the value given.

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	1.2 UG/L	U	1.2	1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	13.0 UG/L	U	1.2	1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	2.0 UG/L	U	2.0	1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	0.70 UG/L	U	0.70	1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	1.2 UG/L	U	1.2	1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	1.1 UG/L	U	1.1	1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	0.60 UG/L	U	0.60	1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	0.60 UG/L	U	0.60	1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	1.0 UG/L	U	1.0	1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	123 %REC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	104 XREC			1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	0 XREC			1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	120 XREC			1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	125 XREC			1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	117 XREC			1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	124 XREC			1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	132 XREC			1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	115 XREC			1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	71 XREC			1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	121 XREC			1

Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H6

Quanterra ID : 6280-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	84	XREC		1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	70	XREC		1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	98	XREC		1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	104	XREC		1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	92	XREC		1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	100	XREC		1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	105	XREC		1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	96	XREC		1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	60	XREC		1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	98	XREC		1

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Richland, WA 99352

Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : 09/26/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H7

Quanterra ID : 6280-002

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	1.2 UG/L	U	1.2	1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	1.2 UG/L	U	1.2	1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	2.0 UG/L	U	2.0	1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	0.70 UG/L	U	0.70	1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	1.2 UG/L	U	1.2	1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	1.1 UG/L	U	1.1	1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	0.60 UG/L	U	0.60	1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	0.60 UG/L	U	0.60	1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	1.0 UG/L	U	1.0	1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	107	XREC		1



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Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : 09/27/94  
Receipt Date : 09/28/94  
Report Date : 10/21/94

Client ID: B000H8

Quanterra ID : 6280-003

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/12/94	1.2 UG/L	U	1.2	1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/12/94	1.2 UG/L	U	1.2	1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/12/94	2.0 UG/L	U	2.0	1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/12/94	0.70 UG/L	U	0.70	1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/12/94	1.2 UG/L	U	1.2	1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/12/94	1.1 UG/L	U	1.1	1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/12/94	0.60 UG/L	U	0.60	1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/12/94	0.60 UG/L	U	0.60	1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/12/94	1.0 UG/L	U	1.0	1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/12/94	105 XREC			1

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Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCBLK47182-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	1.2	UG/L	U	1.2	1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	1.2	UG/L	U	1.2	1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	2.0	UG/L	U	2.0	1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	0.70	UG/L	U	0.70	1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	1.2	UG/L	U	1.2	1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	1.1	UG/L	U	1.1	1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	0.60	UG/L	U	0.60	1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	0.60	UG/L	U	0.60	1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	1.0	UG/L	U	1.0	1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	109	XREC			1

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Quanterra-Richland  
P.O. Box 1970  
Richland, WA 99352

Project: 550.21

Category: Organophosphorous Pesticides  
Method: EPA 8140  
Matrix: LIQUID

Sample Date : NA  
Receipt Date : NA  
Report Date : 10/21/94

Client ID: NA

Quanterra ID : QCSPK47182-1

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result Unit	Qual.	Detection Limit	Dilution
Demeton #1	298-03-3A	QCBLK47182-1	10/03/94	10/18/94	71	XREC		1
Demeton #2	298-03-3B	QCBLK47182-1	10/03/94	10/18/94	12	XREC		1
Disulfoton	298-04-4	QCBLK47182-1	10/03/94	10/18/94	105	XREC		1
Diazinon	333-41-5	QCBLK47182-1	10/03/94	10/18/94	96	XREC		1
Methyl Parathion	298-00-0	QCBLK47182-1	10/03/94	10/18/94	112	XREC		1
Malathion	121-75-5	QCBLK47182-1	10/03/94	10/18/94	94	XREC		1
Parathion	56-38-2	QCBLK47182-1	10/03/94	10/18/94	122	XREC		1
Ethion	563-12-2	QCBLK47182-1	10/03/94	10/18/94	107	XREC		1
Azinphos-methyl	86-50-0	QCBLK47182-1	10/03/94	10/18/94	40	XREC		1
EPN	2104-64-5	QCBLK47182-1	10/03/94	10/18/94	112	XREC		1

1D  
ORGANOPHOSPHATE PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H6

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

† Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-03-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-18-94

GPC Cleanup: (Y/N) N Dilution Factor: 1

CAS NO. Compound CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/l Q

298-03-3-----	Demeton #1	1.2	U
298-03-3-----	Demeton #2	13	U
333-41-5-----	Diazinon	2.0	U
298-04-4-----	Disulfoton	0.7	U
298-00-0-----	Methyl Parathion	1.2	U
121-75-5-----	Malathion	1.1	U
56-38-2-----	Ethyl Parathion	0.6	U
563-12-2-----	Ethion	0.6	U
86-50-0-----	Azinphos-methyl	1.0	U

U: Concentration of analyte is less than the value given.

FORM I PEST

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1D  
ORGANOPHOSPHATE PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H7

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-002

Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-03-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-18-94

GPC Cleanup: (Y/N) N Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/l

Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/l</u>	Q
298-03-3-----	Demeton #1	1.2	U
298-03-3-----	Demeton #2	1.2	U
333-41-5-----	Diazinon	2.0	U
298-04-4-----	Disulfoton	0.7	U
298-00-0-----	Methyl Parathion	1.2	U
121-75-5-----	Malathion	1.1	U
56-38-2-----	Ethyl Parathion	0.6	U
563-12-2-----	Ethion	0.6	U
86-50-0-----	Azinphos-methyl	1.0	U

U: Concentration of analyte is less than the value given.

FORM I PEST

1/87 Rev.

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1D  
ORGANOPHOSPHATE PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H8

Lab Name: ITAS-St. Louis Contract: 550-21  
 Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233  
 Matrix: (soil/water) WATER Lab Sample ID: 6280-003  
 Sample wt/vol: 1000 (g/ml) ML Lab File ID: \_\_\_\_\_  
 Level: (low/med) LOW Date Sampled: 09-27-94  
 % Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-03-94  
 Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-12-94  
 GPC Cleanup: (Y/N) N Dilution Factor: 1

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

CAS NO. Compound Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/l</u>	Q
298-03-3	Demeton #1	1.2	U
298-03-3	Demeton #2	1.2	U
333-41-5	Diazinon	2.0	U
298-04-4	Disulfoton	0.7	U
298-00-0	Methyl Parathion	1.2	U
121-75-5	Malathion	1.1	U
56-38-2	Ethyl Parathion	0.6	U
563-12-2	Ethion	0.6	U
86-50-0	Azinphos-methyl	1.0	U

U: Concentration of analyte is less than the value given.

FORM I PEST

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2E  
 WATER ORGANOPHOSPHATE PESTICIDE SURROGATE RECOVERY

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (EPN) #	S2 (OTHER)
01	OPBLK01	109	
02	OPSPK01	112	
03	BODOH6	123	
04	BODOH6MS	121	
05	BODOH6MSD	98	
06	BODOH7	107	
07	BODOH8	105	
08			
09			
10			
11			
12			
13			
14			

ADVISORY  
 QC LIMITS  
 EPN -->NOT DETERMINED

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogates diluted out

3E

WATER ORGANOPHOSPHATE PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ITAS-St. Louis Contract: 550-21  
 Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233  
 Matrix Spike - EPA Sample No.: B0D0H6

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATION (ug/l)	MS % REC #	QC LIMITS REC.
Demeton #1	10	0	10	104	nd
Demeton #2	10	13	12	0	nd
Disulfoton	5.0	0	6.0	120	nd
Diazinon	5.0	0	6.3	125	nd
Methyl Parathion	5.0	0	5.9	117	nd
Malathion	5.0	0	6.2	124	nd
Ethyl Parathion	5.0	0	6.6	132	nd
Ethion	5.0	0	5.7	115	nd
Azinphos-methyl	10	0	7.1	71	nd

COMPOUND	SPIKE ADDED (ug/l)	MSD CONCENTRATION (ug/l)	MSD % REC #	% RPD	QC LIMITS RPD	REC.
Demeton #1	10	8.4	84	21	nd	nd
Demeton #2	10	20	70	200	nd	nd
Disulfoton	5.0	4.9	98	20	nd	nd
Diazinon	5.0	5.2	104	18	nd	nd
Methyl Parathion	5.0	4.6	92	24	nd	nd
Malathion	5.0	5.0	100	21	nd	nd
Ethyl Parathion	5.0	5.2	105	23	nd	nd
Ethion	5.0	4.8	96	18	nd	nd
Azinphos-methyl	10	6.0	60	2	nd	nd

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: \_\_\_\_\_ out of \_\_\_\_\_ outside limits  
 Spike Recovery: \_\_\_\_\_ out of \_\_\_\_\_ outside limits

COMMENTS: nd: not determined.

1D  
ORGANOPHOSPHATE PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D0H6MS

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001MS

Sample wt/vol: 500 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-03-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-18-94

GPC Cleanup: (Y/N) N Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/l

Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/l</u>	Q
298-03-3	Demeton #1	10	
298-03-3	Demeton #2	12	
333-41-5	Diazinon	6.0	
298-04-4	Disulfoton	6.3	
298-00-0	Methyl Parathion	5.9	
121-75-5	Malathion	6.2	
56-38-2	Ethyl Parathion	6.6	
563-12-2	Ethion	5.7	
86-50-0	Azinphos-methyl	7.1	

U: Concentration of analyte is less than the value given.

FORM I PEST

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1D  
ORGANOPHOSPHATE PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOD0H6MSD

Lab Name: ITAS-St. Louis Contract: 550-21

Lab Code: ITSL Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: W0233

Matrix: (soil/water) WATER Lab Sample ID: 6280-001MSD

Sample wt/vol: 500 (g/ml) ML Lab File ID: \_\_\_\_\_

Level: (low/med) LOW Date Sampled: 09-26-94

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_ Date Extracted: 10-03-94

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10-18-94

GPC Cleanup: (Y/N) N Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/l

Q

CAS NO.	Compound	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/l</u>	Q
298-03-3-----	Demeton #1	8.4	
298-03-3-----	Demeton #2	20	
333-41-5-----	Diazinon	4.9	
298-04-4-----	Disulfoton	5.2	
298-00-0-----	Methyl Demethion	4.6	
121-75-5-----	Malathion	5.0	
56-38-2-----	Ethyl Parathion	5.2	
563-12-2-----	Ethion	4.8	
86-50-0-----	Azinphos-methyl	6.0	

U: Concentration of analyte is less than the value given.

FORM I PEST

1/87 Rev.