# Chemical Analysis Report

**NE-DIST-2023-05-05-01**

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **ICW Boat 2023**
Request ID: **RQ-2023-05-01-27**
Customer: **NE-DIST**
Project ID: **SMP**

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8800 Baymeadows Way West
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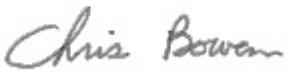
Certified by: Chris Bowen, Environmental Administrator

Date Certified: 30-MAY-2023 13:44



## Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to $1.3 \times 10^3$ or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

**Sample Location: ICW AT CM 15 DUVAL CO** **Collection Date/Time: 05/04/2023 09:40**

**Field ID: 27010114** Matrix: W-SURF-SLT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2406146 | EPA 8270E | Oxybenzone** | 10 | U | ng/L | P429507 | |
| | | Acetochlor | 0.21 | U | ng/L | P429507 | |
| | | Octinoxate** | 73 | V | ng/L | P429507 | MS |
| | | Alachlor | 0.41 | U | ng/L | P429507 | |
| | | Avobenzone** | 100 | U | ng/L | P429507 | |
| | | Ametryn | 1.1 | U | ng/L | P429507 | |
| | | Atrazine | 12 | | ng/L | P429507 | |
| | | PBDE-47** | 4.1 | U | ng/L | P429507 | |
| | | Atrazine Desethyl | 3.0 | I | ng/L | P429507 | |
| | | PBDE-99** | 5.1 | U | ng/L | P429507 | |
| | | Azinphos Methyl | 3.1 | U | ng/L | P429507 | |
| | | Tri-o-cresyl Phosphate** | 6.2 | U | ng/L | P429507 | |
| | | Azoxystrobin | 0.41 | U | ng/L | P429507 | |
| | | Bromacil | 0.62 | U | ng/L | P429507 | |
| | | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)** | 12 | U | ng/L | P429507 | |
| | | Butylate | 0.21 | U | ng/L | P429507 | |
| | | Dechlorane Plus** | 31 | U | ng/L | P429507 | |
| | | Caffeine** | 13 | I | ng/L | P429507 | |
| | | Dechlorane 602** | 5.1 | U | ng/L | P429507 | |
| | | Carbophenothion | 0.51 | U | ng/L | P429507 | |
| | | Dechlorane 603** | 4.1 | U | ng/L | P429507 | |
| | | Carfentrazone Ethyl | 0.15 | U | ng/L | P429507 | |
| | | Hexabromobenzene** | 6.2 | U | ng/L | P429507 | |
| | | Chlorfenapyr | 0.31 | U | ng/L | P429507 | |
| | | PBB-153** | 8.2 | U | ng/L | P429507 | |
| | | Chlorpyrifos Ethyl | 0.31 | U | ng/L | P429507 | |
| | | Pentabromotoluene** | 3.1 | U | ng/L | P429507 | |
| | | Chlorpyrifos Methyl | 0.10 | U | ng/L | P429507 | |
| | | Tris(2-chloroethyl) phosphate (TCEP)** | 72 | U | ng/L | P429507 | |
| | | Coumaphos | 1.1 | U | ng/L | P429507 | |
| | | Tris(1-chloro-2-propyl) phosphate (TCPP)** | 33 | I | ng/L | P429507 | |
| | | Cyanazine | 5.1 | U | ng/L | P429507 | |
| | | Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)** | 4.9 | I | ng/L | P429507 | |
| | | Cyprodinil | 0.21 | U | ng/L | P429507 | |
| | | Tetradecachloro-m-terphenyl** | 7.7 | UJ | ng/L | P429507 | LCS, MS |
| | | Demeton | 3.6 | U | ng/L | P429507 | |
| | | Diazinon | 0.13 | U | ng/L | P429507 | |
| | | Difenoconazole | 0.62 | U | ng/L | P429507 | |
| | | Dimethenamid | 0.10 | U | ng/L | P429507 | |
| | | Dimethomorph | 0.31 | U | ng/L | P429507 | |
| | | Disulfoton | 0.62 | U | ng/L | P429507 | |
| | | Dithiopyr | 1.0 | U | ng/L | P429507 | |

**Field ID: 27010114** Matrix: W-SURF-SLT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2406146 | EPA 8270E | EPTC | 0.51 | U | ng/L | P429507 | |
| | | Ethion | 0.31 | U | ng/L | P429507 | |
| | | Ethoprop | 0.13 | U | ng/L | P429507 | |
| | | Etridiazole | 0.10 | U | ng/L | P429507 | |
| | | Fenamiphos | 0.46 | U | ng/L | P429507 | |
| | | Fenbuconazole | 0.51 | U | ng/L | P429507 | |
| | | Fipronil | 0.25 | I | ng/L | P429507 | |
| | | Fipronil Desulfinyl** | 0.26 | I | ng/L | P429507 | |
| | | Fipronil Sulfide | 0.17 | I | ng/L | P429507 | |
| | | Fipronil Sulfone | 0.24 | I | ng/L | P429507 | |
| | | Fluazifop-P-butyl | 0.10 | U | ng/L | P429507 | |
| | | Fludioxonil | 0.10 | U | ng/L | P429507 | |
| | | Flumioxazin | 3.1 | U | ng/L | P429507 | |
| | | Flutolanil | 0.10 | U | ng/L | P429507 | |
| | | Fluxapyroxad | 0.26 | U | ng/L | P429507 | |
| | | Fonofos | 0.15 | U | ng/L | P429507 | |
| | | Hexazinone | 0.51 | U | ng/L | P429507 | |
| | | Imazalil | 0.67 | U | ng/L | P429507 | |
| | | Iprodione | 0.51 | UJ | ng/L | P429507 | LCS, MS |
| | | Loratadine** | 0.31 | U | ng/L | P429507 | |
| | | Malathion | 0.36 | U | ng/L | P429507 | |
| | | Metalaxyl | 0.51 | U | ng/L | P429507 | |
| | | Metolachlor | 80 | | ng/L | P429507 | |
| | | Metribuzin | 12 | J | ng/L | P429507 | |
| | | Mevinphos | 1.0 | U | ng/L | P429507 | |
| | | Molinate | 0.26 | U | ng/L | P429507 | |
| | | Myclobutanil | 0.36 | U | ng/L | P429507 | |
| | | Naled | 2.6 | U | ng/L | P429507 | |
| | | Napropamide | 0.72 | U | ng/L | P429507 | |
| | | Norflurazon | 1.0 | U | ng/L | P429507 | |
| | | Oxadiazon | 2.9 | | ng/L | P429507 | |
| | | Oxyfluorfen | 0.21 | U | ng/L | P429507 | |
| | | Parathion Ethyl | 0.15 | U | ng/L | P429507 | |
| | | Parathion Methyl | 0.21 | U | ng/L | P429507 | |
| | | Pendimethalin | 0.77 | U | ng/L | P429507 | |
| | | Phenytoin** | 5.5 | U | ng/L | P429507 | MS |
| | | Phorate | 0.26 | U | ng/L | P429507 | |
| | | Prodiamine | 0.54 | I | ng/L | P429507 | |
| | | Prometon | 24 | | ng/L | P429507 | |
| | | Prometryn | 0.36 | U | ng/L | P429507 | |
| | | Pronamide | 0.10 | U | ng/L | P429507 | |
| | | Propanil | 0.10 | U | ng/L | P429507 | |
| | | Propargite | 0.82 | U | ng/L | P429507 | |
| | | Propiconazole | 4.0 | | ng/L | P429507 | |
| | | Pyraflufen Ethyl | 0.31 | U | ng/L | P429507 | |

**Field ID: 27010114** Matrix: W-SURF-SLT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2406146 | EPA 8270E | Pyridaben | 1.4 | U | ng/L | P429507 | |
| | | Pyriproxyfen | 0.26 | UJ | ng/L | P429507 | LCS |
| | | Simazine | 3.4 | | ng/L | P429507 | |
| | | Stirophos | 0.41 | U | ng/L | P429507 | |
| | | Sulfentrazone | 1.5 | I | ng/L | P429507 | |
| | | Tebuconazole | 7.5 | | ng/L | P429507 | |
| | | Terbufos | 0.21 | U | ng/L | P429507 | |
| | | Terbuthylazine | 0.21 | U | ng/L | P429507 | |
| | | Thiobencarb | 0.51 | U | ng/L | P429507 | |
| | | Triadimefon | 0.15 | U | ng/L | P429507 | |

Ref. Method and Comment:
EPA 8270E: V - Due to the presence of octinoxate in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for bromacil and norflurazon not assessed due to high content of these parameters in the sample spiked. Estimation for metribuzin due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | Result | Code | Units |
|---|---|---|---|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 12 | U | ng/L |
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 12 | U | ng/L |
| Acetochlor | 0.20 | U | ng/L |
| Acetochlor | 0.20 | U | ng/L |
| Alachlor | 0.40 | U | ng/L |
| Alachlor | 0.40 | U | ng/L |
| Ametryn | 1.1 | U | ng/L |
| Ametryn | 1.1 | U | ng/L |
| Atrazine | 0.20 | U | ng/L |
| Atrazine | 0.20 | U | ng/L |
| Atrazine Desethyl | 1.3 | U | ng/L |
| Atrazine Desethyl | 1.3 | U | ng/L |
| Avobenzone | 100 | U | ng/L |
| Avobenzone | 100 | U | ng/L |
| Azinphos Methyl | 3.0 | U | ng/L |
| Azinphos Methyl | 3.0 | U | ng/L |
| Azoxystrobin | 0.40 | U | ng/L |
| Azoxystrobin | 0.40 | U | ng/L |
| Bromacil | 0.60 | U | ng/L |
| Bromacil | 0.60 | U | ng/L |
| Butylate | 0.20 | U | ng/L |
| Butylate | 0.20 | U | ng/L |
| Caffeine | 7.5 | U | ng/L |
| Caffeine | 7.5 | U | ng/L |
| Carbophenothion | 0.50 | U | ng/L |
| Carbophenothion | 0.50 | U | ng/L |
| Carfentrazone Ethyl | 0.15 | U | ng/L |
| Carfentrazone Ethyl | 0.15 | U | ng/L |
| Chlorfenapyr | 0.30 | U | ng/L |
| Chlorfenapyr | 0.30 | U | ng/L |
| Chlorpyrifos Ethyl | 0.30 | U | ng/L |
| Chlorpyrifos Ethyl | 0.30 | U | ng/L |
| Chlorpyrifos Methyl | 0.10 | U | ng/L |
| Chlorpyrifos Methyl | 0.10 | U | ng/L |
| Coumaphos | 1.0 | U | ng/L |
| Coumaphos | 1.0 | U | ng/L |
| Cyanazine | 5.0 | U | ng/L |
| Cyanazine | 5.0 | U | ng/L |
| Cyprodinil | 0.20 | U | ng/L |
| Cyprodinil | 0.20 | U | ng/L |
| Dechlorane 602 | 5.0 | U | ng/L |
| Dechlorane 602 | 5.0 | U | ng/L |
| Dechlorane 603 | 4.0 | U | ng/L |
| Dechlorane 603 | 4.0 | U | ng/L |
| Dechlorane Plus | 30 | U | ng/L |
| Dechlorane Plus | 30 | U | ng/L |
| Demeton | 3.5 | U | ng/L |
| Demeton | 3.5 | U | ng/L |
| Diazinon | 0.12 | U | ng/L |
| Diazinon | 0.12 | U | ng/L |
| Difenoconazole | 0.60 | U | ng/L |
| Difenoconazole | 0.60 | U | ng/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | Result | Code | Units |
|---|---|---|---|
| Dimethenamid | 0.10 | U | ng/L |
| Dimethenamid | 0.10 | U | ng/L |
| Dimethomorph | 0.30 | U | ng/L |
| Dimethomorph | 0.30 | U | ng/L |
| Disulfoton | 0.60 | U | ng/L |
| Disulfoton | 0.60 | U | ng/L |
| Dithiopyr | 1.0 | U | ng/L |
| Dithiopyr | 1.0 | U | ng/L |
| EPTC | 0.50 | U | ng/L |
| EPTC | 0.50 | U | ng/L |
| Ethion | 0.30 | U | ng/L |
| Ethion | 0.30 | U | ng/L |
| Ethoprop | 0.12 | U | ng/L |
| Ethoprop | 0.12 | U | ng/L |
| Etridiazole | 0.10 | U | ng/L |
| Etridiazole | 0.10 | U | ng/L |
| Fenamiphos | 0.45 | U | ng/L |
| Fenamiphos | 0.45 | U | ng/L |
| Fenbuconazole | 0.50 | U | ng/L |
| Fenbuconazole | 0.50 | U | ng/L |
| Fipronil | 0.20 | U | ng/L |
| Fipronil | 0.20 | U | ng/L |
| Fipronil Desulfinyl | 0.10 | U | ng/L |
| Fipronil Desulfinyl | 0.10 | U | ng/L |
| Fipronil Sulfide | 0.10 | U | ng/L |
| Fipronil Sulfide | 0.10 | U | ng/L |
| Fipronil Sulfone | 0.10 | U | ng/L |
| Fipronil Sulfone | 0.10 | U | ng/L |
| Fluazifop-P-butyl | 0.10 | U | ng/L |
| Fluazifop-P-butyl | 0.10 | U | ng/L |
| Fludioxonil | 0.10 | U | ng/L |
| Fludioxonil | 0.10 | U | ng/L |
| Flumioxazin | 3.0 | U | ng/L |
| Flumioxazin | 3.0 | U | ng/L |
| Flutolanil | 0.10 | U | ng/L |
| Flutolanil | 0.10 | U | ng/L |
| Fluxapyroxad | 0.25 | U | ng/L |
| Fluxapyroxad | 0.25 | U | ng/L |
| Fonofos | 0.15 | U | ng/L |
| Fonofos | 0.15 | U | ng/L |
| Hexabromobenzene | 6.0 | U | ng/L |
| Hexabromobenzene | 6.0 | U | ng/L |
| Hexazinone | 0.50 | U | ng/L |
| Hexazinone | 0.50 | U | ng/L |
| Imazalil | 0.65 | U | ng/L |
| Imazalil | 0.65 | U | ng/L |
| Iprodione | 0.50 | U | ng/L |
| Iprodione | 0.50 | U | ng/L |
| Loratadine | 0.30 | U | ng/L |
| Loratadine | 0.30 | U | ng/L |
| Malathion | 0.35 | U | ng/L |
| Malathion | 0.35 | U | ng/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | Result | Code | Units |
|---|---|---|---|
| Metalaxyl | 0.50 | U | ng/L |
| Metalaxyl | 0.50 | U | ng/L |
| Metolachlor | 0.75 | U | ng/L |
| Metolachlor | 0.75 | U | ng/L |
| Metribuzin | 0.40 | U | ng/L |
| Metribuzin | 0.40 | U | ng/L |
| Mevinphos | 1.0 | U | ng/L |
| Mevinphos | 1.0 | U | ng/L |
| Molinate | 0.25 | U | ng/L |
| Molinate | 0.25 | U | ng/L |
| Myclobutanil | 0.35 | U | ng/L |
| Myclobutanil | 0.35 | U | ng/L |
| Naled | 2.5 | U | ng/L |
| Naled | 2.5 | U | ng/L |
| Napropamide | 0.70 | U | ng/L |
| Napropamide | 0.70 | U | ng/L |
| Norflurazon | 1.0 | U | ng/L |
| Norflurazon | 1.0 | U | ng/L |
| Octinoxate | 92 | | ng/L |
| Octinoxate | 42 | I | ng/L |
| Oxadiazon | 0.35 | U | ng/L |
| Oxadiazon | 0.35 | U | ng/L |
| Oxybenzone | 10 | U | ng/L |
| Oxybenzone | 10 | U | ng/L |
| Oxyfluorfen | 0.20 | U | ng/L |
| Oxyfluorfen | 0.20 | U | ng/L |
| Parathion Ethyl | 0.15 | U | ng/L |
| Parathion Ethyl | 0.15 | U | ng/L |
| Parathion Methyl | 0.20 | U | ng/L |
| Parathion Methyl | 0.20 | U | ng/L |
| PBB-153 | 8.0 | U | ng/L |
| PBB-153 | 8.0 | U | ng/L |
| PBDE-47 | 4.0 | U | ng/L |
| PBDE-47 | 4.0 | U | ng/L |
| PBDE-99 | 5.0 | U | ng/L |
| PBDE-99 | 5.0 | U | ng/L |
| Pendimethalin | 0.75 | U | ng/L |
| Pendimethalin | 0.75 | U | ng/L |
| Pentabromotoluene | 3.0 | U | ng/L |
| Pentabromotoluene | 3.0 | U | ng/L |
| Phenytoin | 5.3 | U | ng/L |
| Phenytoin | 5.3 | U | ng/L |
| Phorate | 0.25 | U | ng/L |
| Phorate | 0.25 | U | ng/L |
| Prodiamine | 0.20 | U | ng/L |
| Prodiamine | 0.20 | U | ng/L |
| Prometon | 3.0 | U | ng/L |
| Prometon | 3.0 | U | ng/L |
| Prometryn | 0.35 | U | ng/L |
| Prometryn | 0.35 | U | ng/L |
| Pronamide | 0.10 | U | ng/L |
| Pronamide | 0.10 | U | ng/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | Result | Code | Units |
|---|---|---|---|
| Propanil | 0.10 | U | ng/L |
| Propanil | 0.10 | U | ng/L |
| Propargite | 0.80 | U | ng/L |
| Propargite | 0.80 | U | ng/L |
| Propiconazole | 0.60 | U | ng/L |
| Propiconazole | 0.60 | U | ng/L |
| Pyraflufen Ethyl | 0.30 | U | ng/L |
| Pyraflufen Ethyl | 0.30 | U | ng/L |
| Pyridaben | 1.4 | U | ng/L |
| Pyridaben | 1.4 | U | ng/L |
| Pyriproxyfen | 0.25 | U | ng/L |
| Pyriproxyfen | 0.25 | U | ng/L |
| Simazine | 0.25 | U | ng/L |
| Simazine | 0.25 | U | ng/L |
| Stirophos | 0.40 | U | ng/L |
| Stirophos | 0.40 | U | ng/L |
| Sulfentrazone | 1.4 | U | ng/L |
| Sulfentrazone | 1.4 | U | ng/L |
| Tebuconazole | 1.4 | U | ng/L |
| Tebuconazole | 1.4 | U | ng/L |
| Terbufos | 0.20 | U | ng/L |
| Terbufos | 0.20 | U | ng/L |
| Terbuthylazine | 0.20 | U | ng/L |
| Terbuthylazine | 0.20 | U | ng/L |
| Tetradecachloro-m-terphenyl | 7.5 | U | ng/L |
| Tetradecachloro-m-terphenyl | 7.5 | U | ng/L |
| Thiobencarb | 0.50 | U | ng/L |
| Thiobencarb | 0.50 | U | ng/L |
| Tri-o-cresyl Phosphate | 6.0 | U | ng/L |
| Tri-o-cresyl Phosphate | 6.0 | U | ng/L |
| Triadimefon | 0.15 | U | ng/L |
| Triadimefon | 0.15 | U | ng/L |
| Tris(1-chloro-2-propyl) phosphate (TCPP) | 15 | U | ng/L |
| Tris(1-chloro-2-propyl) phosphate (TCPP) | 15 | U | ng/L |
| Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 2.5 | U | ng/L |
| Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 2.5 | U | ng/L |
| Tris(2-chloroethyl) phosphate (TCEP) | 70 | U | ng/L |
| Tris(2-chloroethyl) phosphate (TCEP) | 70 | U | ng/L |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 123 | | P | 42 - 162 |
| Acetochlor | 71.8 | | P | 69 - 123 |
| Alachlor | 100 | | P | 65 - 118 |
| Ametryn | 135 | | P | 58 - 141 |
| Atrazine | 94.6 | | P | 73 - 118 |
| Atrazine Desethyl | 109 | | P | 32 - 125 |
| Avobenzone | 170 | | P | 40 - 203 |
| Azinphos Methyl | 193 | | P | 36 - 197 |
| Azoxystrobin | 98.7 | | P | 58 - 226 |
| Bromacil | 94.8 | | P | 48 - 120 |
| Butylate | 57.6 | | P | 27 - 85.0 |
| Caffeine | 104 | | P | 40 - 137 |
| Carbophenothion | 110 | | P | 54 - 132 |
| Carfentrazone Ethyl | 103 | | P | 60 - 142 |
| Chlorfenapyr | 71.6 | | P | 53 - 117 |
| Chlorpyrifos Ethyl | 73.2 | | P | 59 - 116 |
| Chlorpyrifos Methyl | 82.0 | | P | 66 - 119 |
| Coumaphos | 99.4 | | P | 11 - 234 |
| Cyanazine | 210 | | P | 61 - 248 |
| Cyprodinil | 101 | | P | 50 - 147 |
| Dechlorane 602 | 94.0 | | P | 50 - 150 |
| Dechlorane 603 | 138 | | P | 50 - 150 |
| Dechlorane Plus | 95.2 | | P | 47 - 182 |
| Demeton | 81.6 | | P | 30 - 138 |
| Diazinon | 111 | | P | 67 - 126 |
| Difenoconazole | 86.3 | | P | 38 - 205 |
| Dimethenamid | 103 | | P | 57 - 111 |
| Dimethomorph | 152 | | P | 16 - 212 |
| Disulfoton | 98.2 | | P | 46 - 126 |
| Dithiopyr | 106 | | P | 62 - 115 |
| EPTC | 46.5 | | P | 28 - 80.0 |
| Ethion | 81.4 | | P | 24 - 122 |
| Ethoprop | 82.2 | | P | 62 - 113 |
| Etridiazole | 60.6 | | P | 28 - 92.0 |
| Fenamiphos | 68.3 | | P | 57 - 128 |
| Fenbuconazole | 67.7 | | P | 52 - 155 |
| Fipronil | 76.6 | | P | 63 - 130 |
| Fipronil Desulfinyl | 87.3 | | P | 61 - 130 |
| Fipronil Sulfide | 91.0 | | P | 56 - 117 |
| Fipronil Sulfone | 82.4 | | P | 52 - 118 |
| Fluazifop-P-butyl | 104 | | P | 61 - 128 |
| Fludioxonil | 82.5 | | P | 59 - 129 |
| Flumioxazin | 137 | | P | 30 - 250 |
| Flutolanil | 102 | | P | 53 - 127 |
| Fluxapyroxad | 81.5 | | P | 42 - 132 |
| Fonofos | 109 | | P | 61 - 110 |
| Hexabromobenzene | 128 | | P | 50 - 150 |
| Hexazinone | 87.3 | | P | 46 - 139 |
| Imazalil | 86.0 | | P | 40 - 139 |
| Iprodione | 31.2 | | F | 40 - 146 |
| Loratadine | 168 | | P | 10 - 224 |
| Malathion | 80.7 | | P | 61 - 135 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Metalaxyl | 91.3 | | P | 58 - 121 |
| Metolachlor | 77.2 | | P | 64 - 118 |
| Metribuzin | 109 | | P | 45 - 245 |
| Mevinphos | 63.1 | | P | 49 - 118 |
| Molinate | 58.1 | | P | 42 - 92.0 |
| Myclobutanil | 99.8 | | P | 55 - 127 |
| Naled | 35.0 | | P | 10 - 114 |
| Napropamide | 82.8 | | P | 39 - 121 |
| Norflurazon | 96.9 | | P | 55 - 129 |
| Octinoxate | 166 | | P | 26 - 166 |
| Oxadiazon | 88.9 | | P | 54 - 115 |
| Oxybenzone | 118 | | P | 49 - 135 |
| Oxyfluorfen | 79.7 | | P | 64 - 139 |
| Parathion Ethyl | 90.3 | | P | 70 - 111 |
| Parathion Methyl | 89.5 | | P | 76 - 136 |
| PBB-153 | 145 | | P | 50 - 150 |
| PBDE-47 | 116 | | P | 41 - 148 |
| PBDE-99 | 114 | | P | 38 - 147 |
| Pendimethalin | 85.9 | | P | 52 - 118 |
| Pentabromotoluene | 126 | | P | 50 - 150 |
| Phenytoin | 136 | | P | 10 - 162 |
| Phorate | 99.9 | | P | 40 - 122 |
| Prodiamine | 55.9 | | P | 26 - 141 |
| Prometon | 105 | | P | 54 - 122 |
| Prometryn | 124 | | P | 61 - 128 |
| Pronamide | 110 | | P | 72 - 121 |
| Propanil | 106 | | P | 45 - 144 |
| Propargite | 66.0 | | P | 10 - 199 |
| Propiconazole | 75.9 | | P | 56 - 127 |
| Pyraflufen Ethyl | 98.0 | | P | 56 - 140 |
| Pyridaben | 77.6 | | P | 26 - 211 |
| Pyriproxyfen | 221 | | F | 33 - 194 |
| Simazine | 82.6 | | P | 67 - 121 |
| Stirophos | 58.9 | | P | 20 - 142 |
| Sulfentrazone | 62.2 | | P | 21 - 144 |
| Tebuconazole | 68.2 | | P | 10 - 122 |
| Terbufos | 119 | | P | 60 - 129 |
| Terbuthylazine | 85.3 | | P | 69 - 113 |
| Tetradecachloro-m-terphenyl | 233 | | F | 70 - 200 |
| Thiobencarb | 105 | | P | 51 - 120 |
| Tri-o-cresyl Phosphate | 118 | | P | 49 - 150 |
| Triadimefon | 94.9 | | P | 56 - 114 |
| Tris(1-chloro-2-propyl) phosphate (TCPP) | 98.5 | | P | 50 - 150 |
| Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 113 | | P | 50 - 150 |
| Tris(2-chloroethyl) phosphate (TCEP) | 119 | | P | 70 - 180 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2405052 | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 110 | 119 | P/P | 26 - 165 |
| 2405052 | Acetochlor | 70.2 | 72.8 | P/P | 67 - 124 |
| 2405052 | Alachlor | 82.7 | 81.1 | P/P | 60 - 120 |
| 2405052 | Ametryn | 136 | 137 | P/P | 54 - 216 |
| 2405052 | Atrazine | 86.2 | 103 | P/P | 66 - 128 |
| 2405052 | Atrazine Desethyl | 109 | 99.7 | P/P | 15 - 122 |
| 2405052 | Avobenzone | 149 | 163 | P/P | 37 - 178 |
| 2405052 | Azinphos Methyl | 162 | 163 | P/P | 40 - 292 |
| 2405052 | Azoxystrobin | 106 | 122 | P/P | 35 - 220 |
| 2405052 | Butylate | 57.3 | 59.0 | P/P | 20 - 83.0 |
| 2405052 | Caffeine | 99.5 | 95.8 | P/P | 10 - 194 |
| 2405052 | Carbophenothion | 92.7 | 98.7 | P/P | 57 - 127 |
| 2405052 | Carfentrazone Ethyl | 92.7 | 94.9 | P/P | 51 - 141 |
| 2405052 | Chlorfenapyr | 62.5 | 67.9 | P/P | 46 - 111 |
| 2405052 | Chlorpyrifos Ethyl | 61.8 | 60.7 | P/P | 52 - 120 |
| 2405052 | Chlorpyrifos Methyl | 81.9 | 89.1 | P/P | 63 - 119 |
| 2405052 | Coumaphos | 80.9 | 84.9 | P/P | 10 - 228 |
| 2405052 | Cyanazine | 234 | 235 | P/P | 59 - 241 |
| 2405052 | Cyprodinil | 97.6 | 107 | P/P | 47 - 146 |
| 2405052 | Dechlorane 602 | 79.1 | 82.3 | P/P | 50 - 150 |
| 2405052 | Dechlorane 603 | 118 | 128 | P/P | 50 - 150 |
| 2405052 | Dechlorane Plus | 82.0 | 81.2 | P/P | 50 - 150 |
| 2405052 | Demeton | 83.4 | 86.4 | P/P | 40 - 136 |
| 2405052 | Diazinon | 112 | 113 | P/P | 69 - 132 |
| 2405052 | Difenoconazole | 68.4 | 75.9 | P/P | 57 - 258 |
| 2405052 | Dimethenamid | 91.6 | 95.9 | P/P | 54 - 110 |
| 2405052 | Dimethomorph | 166 | 171 | P/P | 28 - 210 |
| 2405052 | Disulfoton | 96.7 | 93.9 | P/P | 43 - 133 |
| 2405052 | Dithiopyr | 85.4 | 90.2 | P/P | 39 - 116 |
| 2405052 | EPTC | 44.9 | 46.4 | P/P | 20 - 78.0 |
| 2405052 | Ethion | 92.1 | 102 | P/P | 17 - 119 |
| 2405052 | Ethoprop | 89.9 | 96.6 | P/P | 66 - 120 |
| 2405052 | Etridiazole | 56.8 | 57.2 | P/P | 28 - 96.0 |
| 2405052 | Fenamiphos | 69.8 | 69.4 | P/P | 41 - 126 |
| 2405052 | Fenbuconazole | 54.4 | 57.0 | P/P | 42 - 169 |
| 2405052 | Fipronil | 65.7 | 68.9 | P/P | 61 - 132 |
| 2405052 | Fipronil Desulfinyl | 78.4 | 77.4 | P/P | 56 - 132 |
| 2405052 | Fipronil Sulfide | 71.8 | 69.9 | P/P | 48 - 119 |
| 2405052 | Fipronil Sulfone | 72.8 | 76.4 | P/P | 42 - 131 |
| 2405052 | Fluazifop-P-butyl | 103 | 105 | P/P | 53 - 131 |
| 2405052 | Fludioxonil | 80.7 | 79.2 | P/P | 56 - 127 |
| 2405052 | Flumioxazin | 116 | 127 | P/P | 19 - 300 |
| 2405052 | Flutolanil | 93.8 | 102 | P/P | 41 - 127 |
| 2405052 | Fluxapyroxad | 71.0 | 74.8 | P/P | 42 - 172 |
| 2405052 | Fonofos | 110 | 110 | P/P | 59 - 113 |
| 2405052 | Hexabromobenzene | 120 | 121 | P/P | 50 - 150 |
| 2405052 | Hexazinone | 94.9 | 92.6 | P/P | 66 - 122 |
| 2405052 | Imazalil | 59.5 | 58.2 | P/P | 21 - 283 |
| 2405052 | Iprodione | 34.0 | 42.2 | F/F | 43 - 150 |
| 2405052 | Loratadine | 148 | 146 | P/P | 23 - 201 |
| 2405052 | Malathion | 75.2 | 77.7 | P/P | 58 - 136 |
| 2405052 | Metalaxyl | 80.0 | 73.5 | P/P | 55 - 120 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2405052 | Metolachlor | 76.8 | 76.4 | P/P | 57 - 121 |
| 2405052 | Metribuzin | 107 | 108 | P/P | 58 - 294 |
| 2405052 | Mevinphos | 67.3 | 71.4 | P/P | 50 - 126 |
| 2405052 | Molinate | 59.9 | 61.6 | P/P | 42 - 93.0 |
| 2405052 | Myclobutanil | 96.0 | 95.7 | P/P | 55 - 125 |
| 2405052 | Naled | 41.0 | 50.6 | P/P | 18 - 200 |
| 2405052 | Napropamide | 72.7 | 79.1 | P/P | 39 - 110 |
| 2405052 | Octinoxate | 161 | 177 | F/F | 21 - 159 |
| 2405052 | Oxadiazon | 83.4 | 82.8 | P/P | 43 - 112 |
| 2405052 | Oxybenzone | 107 | 111 | P/P | 41 - 142 |
| 2405052 | Oxyfluorfen | 89.0 | 84.4 | P/P | 64 - 153 |
| 2405052 | Parathion Ethyl | 93.6 | 90.8 | P/P | 69 - 114 |
| 2405052 | Parathion Methyl | 90.8 | 101 | P/P | 79 - 139 |
| 2405052 | PBB-153 | 126 | 140 | P/P | 50 - 150 |
| 2405052 | PBDE-47 | 103 | 110 | P/P | 27 - 144 |
| 2405052 | PBDE-99 | 95.1 | 101 | P/P | 18 - 150 |
| 2405052 | Pendimethalin | 85.9 | 95.6 | P/P | 50 - 139 |
| 2405052 | Pentabromotoluene | 116 | 124 | P/P | 50 - 150 |
| 2405052 | Phenytoin | 156 | 162 | F/F | 10 - 146 |
| 2405052 | Phorate | 107 | 121 | P/P | 54 - 161 |
| 2405052 | Prodiamine | 61.2 | 61.7 | P/P | 30 - 161 |
| 2405052 | Prometon | 94.9 | 96.1 | P/P | 45 - 134 |
| 2405052 | Prometryn | 112 | 110 | P/P | 45 - 137 |
| 2405052 | Pronamide | 101 | 107 | P/P | 65 - 133 |
| 2405052 | Propanil | 114 | 112 | P/P | 49 - 142 |
| 2405052 | Propargite | 59.8 | 60.3 | P/P | 10 - 203 |
| 2405052 | Propiconazole | 70.7 | 73.3 | P/P | 38 - 146 |
| 2405052 | Pyraflufen Ethyl | 83.6 | 77.2 | P/P | 34 - 153 |
| 2405052 | Pyridaben | 47.7 | 55.5 | P/P | 12 - 192 |
| 2405052 | Pyriproxyfen | 128 | 171 | P/P | 33 - 180 |
| 2405052 | Simazine | 56.6 | 66.9 | P/P | 51 - 157 |
| 2405052 | Stirophos | 40.1 | 42.0 | P/P | 10 - 128 |
| 2405052 | Sulfentrazone | 73.4 | 59.3 | P/P | 53 - 186 |
| 2405052 | Tebuconazole | 63.7 | 63.2 | P/P | 10 - 133 |
| 2405052 | Terbufos | 115 | 120 | P/P | 65 - 139 |
| 2405052 | Terbuthylazine | 81.3 | 85.4 | P/P | 66 - 117 |
| 2405052 | Tetradecachloro-m-terphenyl | 227 | 251 | F/F | 70 - 200 |
| 2405052 | Thiobencarb | 92.0 | 95.8 | P/P | 51 - 119 |
| 2405052 | Tri-o-cresyl Phosphate | 102 | 109 | P/P | 31 - 144 |
| 2405052 | Triadimefon | 86.2 | 90.0 | P/P | 48 - 119 |
| 2405052 | Tris(1-chloro-2-propyl) phosphate (TCPP) | 100 | 102 | P/P | 50 - 150 |
| 2405052 | Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 103 | 109 | P/P | 50 - 150 |
| 2405052 | Tris(2-chloroethyl) phosphate (TCEP) | 106 | 108 | P/P | 70 - 180 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2405052 | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 7.35 | Spike | P | 0 - 37 |
| 2405052 | Acetochlor | 3.60 | Spike | P | 0 - 28 |
| 2405052 | Alachlor | 1.98 | Spike | P | 0 - 30 |
| 2405052 | Ametryn | 0.661 | Spike | P | 0 - 32 |
| 2405052 | Atrazine | 8.90 | Spike | P | 0 - 41 |
| 2405052 | Atrazine Desethyl | 7.87 | Spike | P | 0 - 36 |
| 2405052 | Avobenzone | 9.11 | Spike | P | 0 - 36 |
| 2405052 | Azinphos Methyl | 0.0844 | Spike | P | 0 - 75 |
| 2405052 | Azoxystrobin | 13.2 | Spike | P | 0 - 39 |
| 2405052 | Bromacil | 0.648 | Spike | P | 0 - 33 |
| 2405052 | Butylate | 2.81 | Spike | P | 0 - 44 |
| 2405052 | Caffeine | 3.26 | Spike | P | 0 - 74 |
| 2405052 | Carbophenothion | 6.29 | Spike | P | 0 - 25 |
| 2405052 | Carfentrazone Ethyl | 2.31 | Spike | P | 0 - 27 |
| 2405052 | Chlorfenapyr | 8.39 | Spike | P | 0 - 24 |
| 2405052 | Chlorpyrifos Ethyl | 1.69 | Spike | P | 0 - 26 |
| 2405052 | Chlorpyrifos Methyl | 8.35 | Spike | P | 0 - 26 |
| 2405052 | Coumaphos | 4.82 | Spike | P | 0 - 28 |
| 2405052 | Cyanazine | 0.632 | Spike | P | 0 - 48 |
| 2405052 | Cyprodinil | 9.56 | Spike | P | 0 - 29 |
| 2405052 | Dechlorane 602 | 4.00 | Spike | P | 0 - 30 |
| 2405052 | Dechlorane 603 | 8.10 | Spike | P | 0 - 30 |
| 2405052 | Dechlorane Plus | 0.976 | Spike | P | 0 - 30 |
| 2405052 | Demeton | 3.54 | Spike | P | 0 - 33 |
| 2405052 | Diazinon | 0.719 | Spike | P | 0 - 29 |
| 2405052 | Difenoconazole | 10.4 | Spike | P | 0 - 34 |
| 2405052 | Dimethenamid | 4.57 | Spike | P | 0 - 39 |
| 2405052 | Dimethomorph | 2.72 | Spike | P | 0 - 51 |
| 2405052 | Disulfoton | 2.96 | Spike | P | 0 - 30 |
| 2405052 | Dithiopyr | 5.39 | Spike | P | 0 - 26 |
| 2405052 | EPTC | 3.37 | Spike | P | 0 - 43 |
| 2405052 | Ethion | 10.7 | Spike | P | 0 - 79 |
| 2405052 | Ethoprop | 7.12 | Spike | P | 0 - 29 |
| 2405052 | Etridiazole | 0.606 | Spike | P | 0 - 33 |
| 2405052 | Fenamiphos | 0.499 | Spike | P | 0 - 40 |
| 2405052 | Fenbuconazole | 4.16 | Spike | P | 0 - 74 |
| 2405052 | Fipronil | 4.82 | Spike | P | 0 - 29 |
| 2405052 | Fipronil Desulfinyl | 1.15 | Spike | P | 0 - 32 |
| 2405052 | Fipronil Sulfide | 2.73 | Spike | P | 0 - 30 |
| 2405052 | Fipronil Sulfone | 4.79 | Spike | P | 0 - 33 |
| 2405052 | Fluazifop-P-butyl | 2.08 | Spike | P | 0 - 38 |
| 2405052 | Fludioxonil | 1.84 | Spike | P | 0 - 29 |
| 2405052 | Flumioxazin | 9.05 | Spike | P | 0 - 51 |
| 2405052 | Flutolanil | 8.36 | Spike | P | 0 - 25 |
| 2405052 | Fluxapyroxad | 5.17 | Spike | P | 0 - 45 |
| 2405052 | Fonofos | 0.467 | Spike | P | 0 - 27 |
| 2405052 | Hexabromobenzene | 0.424 | Spike | P | 0 - 30 |
| 2405052 | Hexazinone | 1.67 | Spike | P | 0 - 30 |
| 2405052 | Imazalil | 2.21 | Spike | P | 0 - 100 |
| 2405052 | Iprodione | 21.6 | Spike | P | 0 - 33 |
| 2405052 | Loratadine | 1.03 | Spike | P | 0 - 56 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8270E**
**Batch ID: P429507**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2405052 | Malathion | 3.26 | Spike | P | 0 - 37 |
| 2405052 | Metalaxyl | 1.94 | Spike | P | 0 - 40 |
| 2405052 | Metolachlor | 0.492 | Spike | P | 0 - 29 |
| 2405052 | Metribuzin | 0.842 | Spike | P | 0 - 45 |
| 2405052 | Mevinphos | 5.89 | Spike | P | 0 - 29 |
| 2405052 | Molinate | 2.79 | Spike | P | 0 - 33 |
| 2405052 | Myclobutanil | 0.312 | Spike | P | 0 - 26 |
| 2405052 | Naled | 21.0 | Spike | P | 0 - 37 |
| 2405052 | Napropamide | 8.36 | Spike | P | 0 - 44 |
| 2405052 | Norflurazon | 0.371 | Spike | P | 0 - 30 |
| 2405052 | Octinoxate | 9.10 | Spike | P | 0 - 45 |
| 2405052 | Oxadiazon | 0.712 | Spike | P | 0 - 28 |
| 2405052 | Oxybenzone | 3.89 | Spike | P | 0 - 46 |
| 2405052 | Oxyfluorfen | 5.35 | Spike | P | 0 - 28 |
| 2405052 | Parathion Ethyl | 3.04 | Spike | P | 0 - 31 |
| 2405052 | Parathion Methyl | 10.4 | Spike | P | 0 - 29 |
| 2405052 | PBB-153 | 10.1 | Spike | P | 0 - 30 |
| 2405052 | PBDE-47 | 6.55 | Spike | P | 0 - 36 |
| 2405052 | PBDE-99 | 6.06 | Spike | P | 0 - 40 |
| 2405052 | Pendimethalin | 10.7 | Spike | P | 0 - 33 |
| 2405052 | Pentabromotoluene | 7.15 | Spike | P | 0 - 30 |
| 2405052 | Phenytoin | 3.48 | Spike | P | 0 - 100 |
| 2405052 | Phorate | 11.7 | Spike | P | 0 - 36 |
| 2405052 | Prodiamine | 0.880 | Spike | P | 0 - 71 |
| 2405052 | Prometon | 1.35 | Spike | P | 0 - 36 |
| 2405052 | Prometryn | 1.38 | Spike | P | 0 - 28 |
| 2405052 | Pronamide | 5.59 | Spike | P | 0 - 24 |
| 2405052 | Propanil | 2.46 | Spike | P | 0 - 28 |
| 2405052 | Propargite | 0.974 | Spike | P | 0 - 43 |
| 2405052 | Propiconazole | 3.50 | Spike | P | 0 - 33 |
| 2405052 | Pyraflufen Ethyl | 7.95 | Spike | P | 0 - 29 |
| 2405052 | Pyridaben | 8.96 | Spike | P | 0 - 30 |
| 2405052 | Pyriproxyfen | 29.1 | Spike | P | 0 - 79 |
| 2405052 | Simazine | 5.80 | Spike | P | 0 - 29 |
| 2405052 | Stirophos | 4.53 | Spike | P | 0 - 61 |
| 2405052 | Sulfentrazone | 21.3 | Spike | P | 0 - 33 |
| 2405052 | Tebuconazole | 0.696 | Spike | P | 0 - 69 |
| 2405052 | Terbufos | 4.50 | Spike | P | 0 - 29 |
| 2405052 | Terbuthylazine | 4.89 | Spike | P | 0 - 32 |
| 2405052 | Tetradecachloro-m-terphenyl | 10.0 | Spike | P | 0 - 30 |
| 2405052 | Thiobencarb | 4.02 | Spike | P | 0 - 26 |
| 2405052 | Tri-o-cresyl Phosphate | 7.00 | Spike | P | 0 - 33 |
| 2405052 | Triadimefon | 4.30 | Spike | P | 0 - 28 |
| 2405052 | Tris(1-chloro-2-propyl) phosphate (TCPP) | 1.59 | Spike | P | 0 - 30 |
| 2405052 | Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 6.05 | Spike | P | 0 - 30 |
| 2405052 | Tris(2-chloroethyl) phosphate (TCEP) | 2.22 | Spike | P | 0 - 30 |

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2406146**
**Field Sample ID: 27010114**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8270E | Caffeine-d9 | 128 | P | 20 - 200 |
| EPA 8270E | Simazine-d10 | 114 | P | 62 - 142 |
| EPA 8270E | Terbufos-d10 | 102 | P | 58 - 132 |
| EPA 8270E | Terphenyl-d14 | 98.6 | P | 52 - 137 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A119083**
**Included Lab Sample IDs: 2406146**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 101 | | P | 80 - 120 |
| Avobenzone | 105 | | P | 80 - 120 |
| Dechlorane 602 | 103 | | P | 80 - 120 |
| Dechlorane 603 | 105 | | P | 80 - 120 |
| Dechlorane Plus | 89.6 | | P | 80 - 120 |
| Hexabromobenzene | 102 | | P | 80 - 120 |
| Octinoxate | 97.5 | | P | 80 - 120 |
| Oxybenzone | 95.5 | | P | 80 - 120 |
| PBB-153 | 103 | | P | 80 - 120 |
| PBDE-47 | 96.9 | | P | 80 - 120 |
| PBDE-99 | 104 | | P | 80 - 120 |
| Pentabromotoluene | 102 | | P | 80 - 120 |
| Tetradecachloro-m-terphenyl | 105 | | P | 80 - 120 |
| Tri-o-cresyl Phosphate | 97.6 | | P | 80 - 120 |
| Tris(1-chloro-2-propyl) phosphate (TCPP) | 81.1 | | P | 80 - 120 |
| Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 96.9 | | P | 80 - 120 |
| Tris(2-chloroethyl) phosphate (TCEP) | 97.9 | | P | 80 - 120 |

**Reference Method: EPA 8270E**
**Run ID: A119206**
**Included Lab Sample IDs: 2406146**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Acetochlor | 87.5 | | P | 80 - 120 |
| Alachlor | 85.5 | | P | 80 - 120 |
| Ametryn | 96.1 | | P | 80 - 120 |
| Atrazine | 90.9 | | P | 80 - 120 |
| Atrazine Desethyl | 87.0 | | P | 80 - 120 |
| Azinphos Methyl | 111 | | P | 80 - 120 |
| Azoxystrobin | 101 | | P | 80 - 120 |
| Bromacil | 92.7 | | P | 80 - 120 |
| Butylate | 98.2 | | P | 80 - 120 |
| Caffeine | 102 | | P | 80 - 120 |
| Carbophenothion | 98.5 | | P | 80 - 120 |
| Carfentrazone Ethyl | 95.2 | | P | 80 - 120 |
| Chlorfenapyr | 84.5 | | P | 80 - 120 |
| Chlorpyrifos Ethyl | 86.1 | | P | 80 - 120 |
| Chlorpyrifos Methyl | 102 | | P | 80 - 120 |
| Coumaphos | 98.8 | | P | 80 - 120 |
| Cyanazine | 103 | | P | 80 - 120 |
| Cyprodinil | 99.7 | | P | 80 - 120 |
| Demeton | 102 | | P | 80 - 120 |
| Diazinon | 90.4 | | P | 80 - 120 |
| Difenoconazole | 104 | | P | 80 - 120 |
| Dimethenamid | 97.4 | | P | 80 - 120 |
| Dimethomorph | 94.2 | | P | 80 - 120 |
| Disulfoton | 94.2 | | P | 80 - 120 |
| Dithiopyr | 97.2 | | P | 80 - 120 |
| EPTC | 97.1 | | P | 80 - 120 |
| Ethion | 91.9 | | P | 80 - 120 |
| Ethoprop | 101 | | P | 80 - 120 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A119206**
**Included Lab Sample IDs: 2406146**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Etridiazole | 94.2 | | P | 80 - 120 |
| Fenamiphos | 90.2 | | P | 80 - 120 |
| Fenbuconazole | 88.6 | | P | 80 - 120 |
| Fipronil | 86.7 | | P | 80 - 120 |
| Fipronil Desulfinyl | 102 | | P | 80 - 120 |
| Fipronil Sulfide | 98.9 | | P | 80 - 120 |
| Fipronil Sulfone | 99.9 | | P | 80 - 120 |
| Fluazifop-P-butyl | 99.8 | | P | 80 - 120 |
| Fludioxonil | 103 | | P | 80 - 120 |
| Flumioxazin | 103 | | P | 80 - 120 |
| Flutolanil | 105 | | P | 80 - 120 |
| Fluxapyroxad | 98.5 | | P | 80 - 120 |
| Fonofos | 94.7 | | P | 80 - 120 |
| Hexazinone | 102 | | P | 80 - 120 |
| Imazalil | 96.5 | | P | 80 - 120 |
| Iprodione | 89.3 | | P | 80 - 120 |
| Loratadine | 87.7 | | P | 80 - 120 |
| Malathion | 89.0 | | P | 80 - 120 |
| Metalaxyl | 86.3 | | P | 80 - 120 |
| Metolachlor | 102 | | P | 80 - 120 |
| Metribuzin | 98.6 | | P | 80 - 120 |
| Mevinphos | 103 | | P | 80 - 120 |
| Molinate | 88.5 | | P | 80 - 120 |
| Myclobutanil | 90.5 | | P | 80 - 120 |
| Naled | 95.2 | | P | 80 - 120 |
| Napropamide | 100 | | P | 80 - 120 |
| Norflurazon | 95.7 | | P | 80 - 120 |
| Oxadiazon | 97.0 | | P | 80 - 120 |
| Oxyfluorfen | 103 | | P | 80 - 120 |
| Parathion Ethyl | 98.0 | | P | 80 - 120 |
| Parathion Methyl | 88.4 | | P | 80 - 120 |
| Pendimethalin | 112 | | P | 80 - 120 |
| Phenytoin | 98.4 | | P | 80 - 120 |
| Phorate | 98.8 | | P | 80 - 120 |
| Prodiamine | 105 | | P | 80 - 120 |
| Prometon | 99.9 | | P | 80 - 120 |
| Prometryn | 101 | | P | 80 - 120 |
| Pronamide | 97.3 | | P | 80 - 120 |
| Propanil | 99.9 | | P | 80 - 120 |
| Propargite | 98.6 | | P | 80 - 120 |
| Propiconazole | 87.3 | | P | 80 - 120 |
| Pyraflufen Ethyl | 90.3 | | P | 80 - 120 |
| Pyridaben | 95.3 | | P | 80 - 120 |
| Pyriproxyfen | 98.3 | | P | 80 - 120 |
| Simazine | 80.9 | | P | 80 - 120 |
| Stirophos | 88.1 | | P | 80 - 120 |
| Sulfentrazone | 97.1 | | P | 80 - 120 |
| Tebuconazole | 97.6 | | P | 80 - 120 |
| Terbufos | 96.2 | | P | 80 - 120 |
| Terbuthylazine | 87.7 | | P | 80 - 120 |
| Thiobencarb | 96.1 | | P | 80 - 120 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A119206**
**Included Lab Sample IDs: 2406146**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Triadimefon | 99.9 | | P | 80 - 120 |

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8270E | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 123 | 110 | 119 | | | 7.35 |
| | Acetochlor | 71.8 | 70.2 | 72.8 | | | 3.60 |
| | Alachlor | 100 | 82.7 | 81.1 | | | 1.98 |
| | Ametryn | 135 | 136 | 137 | | | 0.661 |
| | Atrazine | 94.6 | 86.2 | 103 | | | 8.90 |
| | Atrazine Desethyl | 109 | 109 | 99.7 | | | 7.87 |
| | Avobenzone | 170 | 149 | 163 | | | 9.11 |
| | Azinphos Methyl | 193 | 162 | 163 | | | 0.0844 |
| | Azoxystrobin | 98.7 | 106 | 122 | | | 13.2 |
| | Bromacil | 94.8 | | | | | 0.648 |
| | Butylate | 57.6 | 57.3 | 59.0 | | | 2.81 |
| | Caffeine | 104 | 99.5 | 95.8 | | | 3.26 |
| | Carbophenothion | 110 | 92.7 | 98.7 | | | 6.29 |
| | Carfentrazone Ethyl | 103 | 92.7 | 94.9 | | | 2.31 |
| | Chlorfenapyr | 71.6 | 62.5 | 67.9 | | | 8.39 |
| | Chlorpyrifos Ethyl | 73.2 | 61.8 | 60.7 | | | 1.69 |
| | Chlorpyrifos Methyl | 82.0 | 81.9 | 89.1 | | | 8.35 |
| | Coumaphos | 99.4 | 80.9 | 84.9 | | | 4.82 |
| | Cyanazine | 210 | 234 | 235 | | | 0.632 |
| | Cyprodinil | 101 | 97.6 | 107 | | | 9.56 |
| | Dechlorane 602 | 94.0 | 79.1 | 82.3 | | | 4.00 |
| | Dechlorane 603 | 138 | 118 | 128 | | | 8.10 |
| | Dechlorane Plus | 95.2 | 82.0 | 81.2 | | | 0.976 |
| | Demeton | 81.6 | 83.4 | 86.4 | | | 3.54 |
| | Diazinon | 111 | 112 | 113 | | | 0.719 |
| | Difenoconazole | 86.3 | 68.4 | 75.9 | | | 10.4 |
| | Dimethenamid | 103 | 91.6 | 95.9 | | | 4.57 |
| | Dimethomorph | 152 | 166 | 171 | | | 2.72 |
| | Disulfoton | 98.2 | 96.7 | 93.9 | | | 2.96 |
| | Dithiopyr | 106 | 85.4 | 90.2 | | | 5.39 |
| | EPTC | 46.5 | 44.9 | 46.4 | | | 3.37 |
| | Ethion | 81.4 | 92.1 | 102 | | | 10.7 |
| | Ethoprop | 82.2 | 89.9 | 96.6 | | | 7.12 |
| | Etridiazole | 60.6 | 56.8 | 57.2 | | | 0.606 |
| | Fenamiphos | 68.3 | 69.8 | 69.4 | | | 0.499 |
| | Fenbuconazole | 67.7 | 54.4 | 57.0 | | | 4.16 |
| | Fipronil | 76.6 | 65.7 | 68.9 | | | 4.82 |
| | Fipronil Desulfinyl | 87.3 | 78.4 | 77.4 | | | 1.15 |
| | Fipronil Sulfide | 91.0 | 71.8 | 69.9 | | | 2.73 |
| | Fipronil Sulfone | 82.4 | 72.8 | 76.4 | | | 4.79 |
| | Fluazifop-P-butyl | 104 | 103 | 105 | | | 2.08 |
| | Fludioxonil | 82.5 | 80.7 | 79.2 | | | 1.84 |
| | Flumioxazin | 137 | 116 | 127 | | | 9.05 |
| | Flutolanil | 102 | 93.8 | 102 | | | 8.36 |
| | Fluxapyroxad | 81.5 | 71.0 | 74.8 | | | 5.17 |
| | Fonofos | 109 | 110 | 110 | | | 0.467 |
| | Hexabromobenzene | 128 | 120 | 121 | | | 0.424 |
| | Hexazinone | 87.3 | 94.9 | 92.6 | | | 1.67 |
| | Imazalil | 86.0 | 59.5 | 58.2 | | | 2.21 |
| | Iprodione | 31.2 | 34.0 | 42.2 | | | 21.6 |
| | Loratadine | 168 | 148 | 146 | | | 1.03 |
| | Malathion | 80.7 | 75.2 | 77.7 | | | 3.26 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8270E | Metalaxyl | 91.3 | 80.0 | 73.5 | | | 1.94 |
| | Metolachlor | 77.2 | 76.8 | 76.4 | | | 0.492 |
| | Metribuzin | 109 | 107 | 108 | | | 0.842 |
| | Mevinphos | 63.1 | 67.3 | 71.4 | | | 5.89 |
| | Molinate | 58.1 | 59.9 | 61.6 | | | 2.79 |
| | Myclobutanil | 99.8 | 96.0 | 95.7 | | | 0.312 |
| | Naled | 35.0 | 41.0 | 50.6 | | | 21.0 |
| | Napropamide | 82.8 | 72.7 | 79.1 | | | 8.36 |
| | Norflurazon | 96.9 | | | | | 0.371 |
| | Octinoxate | 166 | 161 | 177 | | | 9.10 |
| | Oxadiazon | 88.9 | 83.4 | 82.8 | | | 0.712 |
| | Oxybenzone | 118 | 107 | 111 | | | 3.89 |
| | Oxyfluorfen | 79.7 | 89.0 | 84.4 | | | 5.35 |
| | Parathion Ethyl | 90.3 | 93.6 | 90.8 | | | 3.04 |
| | Parathion Methyl | 89.5 | 90.8 | 101 | | | 10.4 |
| | PBB-153 | 145 | 126 | 140 | | | 10.1 |
| | PBDE-47 | 116 | 103 | 110 | | | 6.55 |
| | PBDE-99 | 114 | 95.1 | 101 | | | 6.06 |
| | Pendimethalin | 85.9 | 85.9 | 95.6 | | | 10.7 |
| | Pentabromotoluene | 126 | 116 | 124 | | | 7.15 |
| | Phenytoin | 136 | 156 | 162 | | | 3.48 |
| | Phorate | 99.9 | 107 | 121 | | | 11.7 |
| | Prodiamine | 55.9 | 61.2 | 61.7 | | | 0.880 |
| | Prometon | 105 | 94.9 | 96.1 | | | 1.35 |
| | Prometryn | 124 | 112 | 110 | | | 1.38 |
| | Pronamide | 110 | 101 | 107 | | | 5.59 |
| | Propanil | 106 | 114 | 112 | | | 2.46 |
| | Propargite | 66.0 | 59.8 | 60.3 | | | 0.974 |
| | Propiconazole | 75.9 | 70.7 | 73.3 | | | 3.50 |
| | Pyraflufen Ethyl | 98.0 | 83.6 | 77.2 | | | 7.95 |
| | Pyridaben | 77.6 | 47.7 | 55.5 | | | 8.96 |
| | Pyriproxyfen | 221 | 128 | 171 | | | 29.1 |
| | Simazine | 82.6 | 56.6 | 66.9 | | | 5.80 |
| | Stirophos | 58.9 | 40.1 | 42.0 | | | 4.53 |
| | Sulfentrazone | 62.2 | 73.4 | 59.3 | | | 21.3 |
| | Tebuconazole | 68.2 | 63.7 | 63.2 | | | 0.696 |
| | Terbufos | 119 | 115 | 120 | | | 4.50 |
| | Terbuthylazine | 85.3 | 81.3 | 85.4 | | | 4.89 |
| | Tetradecachloro-m-terphenyl | 233 | 227 | 251 | | | 10.0 |
| | Thiobencarb | 105 | 92.0 | 95.8 | | | 4.02 |
| | Tri-o-cresyl Phosphate | 118 | 102 | 109 | | | 7.00 |
| | Triadimefon | 94.9 | 86.2 | 90.0 | | | 4.30 |
| | Tris(1-chloro-2-propyl) phosphate (TCPP) | 98.5 | 100 | 102 | | | 1.59 |
| | Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) | 113 | 103 | 109 | | | 6.05 |
| | Tris(2-chloroethyl) phosphate (TCEP) | 119 | 106 | 108 | | | 2.22 |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| EPA 8270E | Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM | 2406146 |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| EPA 8270E | Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS | 2406146 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 8270E | 05/05/2023 | 05/08/2023 08:00 | Rasheda Ghaffari | 05/10/2023 20:16 | Arthur Maknenko | 2406146 |
| | 05/05/2023 | 05/08/2023 08:00 | Rasheda Ghaffari | 05/12/2023 19:36 | Vandana T. Nagar | 2406146 |