



2045 Mills Road West

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SGS AXYS Client No.: 4066

Client Address: Tetra Tech, Inc. - Pacific Guardian Ctr.  
737 Bishop St., Suite 2340, Mauka Tower  
Honolulu, HI, US, 96813-3201

The SGS AXYS contact for these data is Dale Robinson.

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# BATCH SUMMARY

|   |   |
|---|---|
| <b>Batch ID:</b> WG89360  | <b>Date:</b> 16-May-2024  |
| <b>Analysis Type:</b> Total Fluoride  | <b>Matrix Type:</b><br>Biosolids human  |
| <b>BATCH MAKEUP</b>   |   |
| <b>Contract:</b> 4066<br><b>Samples:</b><br><br>L40547-1 SIWWTP-BIOS_MIS (FC10214-1)<br>L40547-2 HUWWTP-BIOS_MIS (FC10214-2)<br>L40547-3 LAWWTP-BIOS_MIS (FC10214-3)<br>L40547-4 LAWWTP-COMP_MIS (FC10214-4)  | <b>Blank:</b><br>WG89360-101<br>WG89360-102<br><br><b>Reference or Spike:</b><br>WG89360-103<br><br><b>Duplicate:</b><br>WG89360-104<br>WG89360-107 |
| <b>Comments:</b> <ol style="list-style-type: none"> <li>1. Data are considered final.</li> <li>2. The sample sizes were reduced from 10g weight as received to 5g weight to facilitate complete loading of sample extract and maintain the ability for washes to pass through the SPE cartridge. Even with the reduced sample size, L40547-1 could not load fully onto the SPE cartridge. The incomplete loading of sample was considered as a factor when calculating the concentration of analyte detected in that sample.</li> <li>3. Sample and OPR data are blank corrected using WG89360-101.</li> <li>4. The opening and second calibration verification specifications are met for the method; the OPR method specifications are also met.</li> <li>5. While L40547-3, DUP and DUP2 results are outside of method sample duplication specifications, results are not greater than 10X the MDL and are on par with the QDL. This should be accounted for when performing any data analysis.</li> </ol> |   |

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February 2017

FQA-006 Rev. 4. 20-Sep-2013

**CHAIN OF CUSTODY**

2045 Mills Road West TEL: (250) 655-5800 TOLL FREE 1-888-373-0881  
 Sidney, British Columbia, Canada V8L 5X2 FAX: (250) 655-5811

SGS AXYS CLIENT #: **4066**

|  |  |           |   |                     |  |                                       |         |                       |                                      |                                   |             |
|--|--|-----------|---|---------------------|--|---------------------------------------|---------|-----------------------|--------------------------------------|-----------------------------------|-------------|
| <b>REPORT TO:</b>  |  |           | <b>INVOICE TO:</b>                      |                     |  | <b>ANALYSIS REQUESTED</b>             |         |                       |                                      |                                   |             |
| Company <u>Hawaii Doh-HEER Office</u>  |  |           | Company <u>TetraTech</u>                |                     |  | MLA-110                               | MLA-111 | MLA 1119              | SPLP (MLA-110<br>MLA-111<br>MLA-119) | method 1314 - mla-110 - 111 - 119 |             |
| Address <u>2385 Waimano Home Rd #100</u>   |  |           | Address <u>737 Bishop St Ste 2340</u>   |                     |  |                                       |         |                       |                                      |                                   |             |
| Pearl City, HI 96782   |  |           | Honolulu, HI 96813                      |                     |  |                                       |         |                       |                                      |                                   |             |
| Contact <u>Roger Brewer</u>  |  |           | Contact <u>Eric Jensen</u>              |                     |  |                                       |         |                       |                                      |                                   |             |
| Phone <u>808-586-4249</u>  |  |           | Phone <u>808-225-7084</u>               |                     |  |                                       |         |                       |                                      |                                   |             |
| FAX  |  |           | FAX                                     |                     |  |                                       |         |                       |                                      |                                   |             |
| E-mail <u>roger.brewer@doh.hawaii.gov</u>  |  |           | E-mail <u>eric.jensen@tetratech.com</u> |                     |  |                                       |         |                       |                                      |                                   |             |
| Project Name/Number:   |  |           | Sampler's Name:                         |                     |  |                                       |         |                       |                                      |                                   |             |
| Signature:   |  |           | Signature:                              |                     |  |                                       |         |                       |                                      |                                   |             |
| Client Sample Identification   |  | Matrix    | Sampling Date                           | Sampling Time       | Container Type/No.                         | SGS AXYS Lab Sample ID (Lab use only) |         |                       |                                      |                                   |             |
| <del>LAWWTP-BIOS</del>   |  |           |   |                     |  |                                       |         |                       |                                      |                                   |             |
| SI WWTP-BIOS 1   |  | biosolids | 9/27/23                                 | 8:00 am             | Freezer bag                                | L40547 - 1                            | X       | X                     | X                                    | X                                 |             |
| HU WWTP-BIOS 2   |  | "         | 9/28/23                                 | 11:00 am            | "  | - 2                                   | X       | X                     | X                                    | X                                 |             |
| LAWWTP-BIOS 3  |  | "         | 9/20/23                                 | 12:00 pm            | "  | - 3                                   | X       | X                     | X                                    | X                                 |             |
| LAWWTP-COMP 4  |  | compost   | 9/20/23                                 | 12:00 pm            | "  | - 4                                   | X       | X                     | X                                    | X                                 |             |
|  |  |           |   |                     |  |                                       |         |                       |                                      | INITIAL ASSESSMENT <u>JD</u>      |             |
|  |  |           |   |                     |  |                                       |         |                       |                                      | LABEL VERIFICATION <u>SP</u>      |             |
| Relinquished by (Signature) <u>[Signature]</u>   |  |           | Date <u>10/3/23</u>                     | Time <u>9:00 am</u> | Received by (Signature) <u>ASS</u>         |                                       |         | Date <u>15-NOV-23</u> |                                      | Courier                           | Waybill No. |
| Relinquished by (Signature) <u>FX</u>  |  |           | Date                                    | Time                | Received by (Signature) <u>[Signature]</u> |                                       |         | Date <u>10/05/23</u>  |                                      | Sample Receipt                    |             |
| Remarks  |  |           |   |                     |  |                                       |         |                       |                                      |                                   |             |
| <ul style="list-style-type: none"> <li>- Process using multi-increment sampling procedures (sieve to 2mm)</li> <li>- Test minimum 5g subsample <sup>sieved material</sup></li> <li>- Recombine compost sample and send to Rob Caldwell at the Lakeview, Ontario lab for a soil column test. (two leachate samples generated)</li> <li>- Test leachate samples using MLA-110 and MLA-111 and MLA 119</li> <li>- send subsamples of leachate to Eurofins, Sacramento, for PEAS MTA analysis (TOPS + AUF) ← Eurofins bottles + CDC included with compost sample</li> <li>- SGS-Axys should also test the leachate for TOPS + TOF (filter before testing)</li> </ul> |  |           |   |                     |  |                                       |         |                       |                                      |                                   |             |

SGS AXYS METHOD MLA-119 Rev 01

Form 1A  
ANALYSIS REPORT

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
Sample Collection:  
27-Sep-2023 08:00

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. WWTP BIOS AND COMP

Contract No.: 4066

Lab Sample I.D.: L40547-1 i

Matrix: BIOSOLIDS HUMAN

Sample Size: 4.54 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date: 03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID: CIC

Analysis Date: 11-Apr-2024 Time: 18:21:52

Column ID: METROSEP

Extract Volume (uL): 7000

Sample Data Filename: TF4I\_033 S: 7

Injection Volume (uL): 1000

Blank Data Filename: TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename: TF4I\_033 S: 4

Concentration Units: ug/g (dry weight basis)

% Moisture: 8.29

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This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.509       | 0.209 (M)                         | 5:21           |

(1) Where applicable, custom lab flags have been used on this report; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_

SGS AXYS METHOD MLA-119 Rev 01

CLIENT SAMPLE NO.  
 HUWWTP-BIOS\_MIS (FC10214-2)  
 Sample Collection:  
 28-Sep-2023 11:00

Form 1A  
 ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

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Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-2 i

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.40 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID:

CIC

Analysis Date: 11-Apr-2024 Time: 18:57:14

Column ID:

METROSEP

Extract Volume (uL): 7000

Sample Data Filename:

TF4I\_033 S: 8

Injection Volume (uL): 1000

Blank Data Filename:

TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename:

TF4I\_033 S: 4

Concentration Units: ug/g (dry weight basis)

% Moisture:

14.6

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|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.532       | 0.120 (M)                         | 5:21           |

(1) Where applicable, custom lab flags have been used on this report; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank.

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SGS AXYS METHOD MLA-119 Rev 01

CLIENT SAMPLE NO.  
LAWWTP-BIOS\_MIS (FC10214-3)  
Sample Collection:  
20-Sep-2023 12:00

Form 1A  
ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

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Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-3 i (A)

Matrix: BIOSOLIDS HUMAN

Sample Size:

2.28 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID:

CIC

Analysis Date: 11-Apr-2024 Time: 19:32:35

Column ID:

METROSEP

Extract Volume (uL): 7000

Sample Data Filename:

TF4I\_033 S: 9

Injection Volume (uL): 1000

Blank Data Filename:

TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename:

TF4I\_033 S: 4

Concentration Units: ug/g (dry weight basis)

% Moisture:

55.4

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| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.842       | 0.233 (M)                         | 5:21           |

(1) Where applicable, custom lab flags have been used on this report; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank.

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Signed: \_\_\_\_\_

SGS AXYS METHOD MLA-119 Rev 01

CLIENT SAMPLE NO.  
LAWWTP-BIOS\_MIS (FC10214-3) (Duplicate)  
Sample Collection:  
20-Sep-2023 12:00

Form 1A  
ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

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Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89360-104 i (DUP L40547-3)

Matrix: BIOSOLIDS HUMAN

Sample Size:

2.26 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID:

CIC

Analysis Date: 12-Apr-2024 Time: 02:01:17

Column ID:

METROSEP

Extract Volume (uL): 7000

Sample Data Filename:

TF4I\_033 S: 20

Injection Volume (uL): 1000

Blank Data Filename:

TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename:

TF4I\_033 S: 17

Concentration Units: ug/g (dry weight basis)

% Moisture:

0

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| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.370       | 0.235 (M)                         | 5:20           |

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Signed: \_\_\_\_\_ R THERON \_\_\_\_\_

**SGS AXYS METHOD MLA-119 Rev 01**

**ANALYSIS REPORT  
RELATIVE PERCENT DIFFERENCE**

**SGS AXYS ANALYTICAL SERVICES**

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.**

WWTP BIOS AND COMP

**Contract No.:** 4066

**Client ID:** LAWWTP-BIOS\_MIS (FC10214-3)

**Concentration Units:** ug/g (dry weight basis)

| COMPOUND | L40547-3 (A)          |             | WG89360-104           |             | MEAN  | RELATIVE PERCENT DIFFERENCE |
|----------|-----------------------|-------------|-----------------------|-------------|-------|-----------------------------|
|          | LAB FLAG <sup>1</sup> | CONC. FOUND | LAB FLAG <sup>1</sup> | CONC. FOUND |       |                             |
| EOF      |                       | 0.842       |                       | 0.370       | 0.606 | 78.0                        |

(1) Where applicable, custom lab flags have been used on this report.

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Report Filename: RPD\_FL\_IC\_FLUORIDE\_EOF-RPD\_WG89360-104\_L40547-3\_.html; Workgroup: WG89360; Design ID: 5437 ]

## SGS AXYS METHOD MLA-119 Rev 01

CLIENT SAMPLE NO.  
LAWWTP-BIOS\_MIS (FC10214-3) (Duplicate2)  
Sample Collection:  
20-Sep-2023 12:00

Form 1A  
ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89360-107 i (DUP L40547-3)

Matrix: BIOSOLIDS HUMAN

Sample Size:

2.23 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID:

CIC

Analysis Date: 12-Apr-2024 Time: 02:36:36

Column ID:

METROSEP

Extract Volume (uL): 7000

Sample Data Filename:

TF4I\_033 S: 21

Injection Volume (uL): 1000

Blank Data Filename:

TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename:

TF4I\_033 S: 17

Concentration Units: ug/g (dry weight basis)

% Moisture:

0

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| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.461       | 0.238 (M)                         | 5:21           |

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Signed: \_\_\_\_\_ R THERON \_\_\_\_\_

**SGS AXYS METHOD MLA-119 Rev 01**

**ANALYSIS REPORT  
RELATIVE PERCENT DIFFERENCE**

**SGS AXYS ANALYTICAL SERVICES**

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.**

WWTP BIOS AND COMP

**Contract No.:** 4066

**Client ID:** LAWWTP-BIOS\_MIS (FC10214-3)

**Concentration Units:** ug/g (dry weight basis)

| COMPOUND | L40547-3 (A)          |             | WG89360-107           |             | MEAN  | RELATIVE PERCENT DIFFERENCE |
|----------|-----------------------|-------------|-----------------------|-------------|-------|-----------------------------|
|          | LAB FLAG <sup>1</sup> | CONC. FOUND | LAB FLAG <sup>1</sup> | CONC. FOUND |       |                             |
| EOF      |                       | 0.842       |                       | 0.461       | 0.652 | 58.4                        |

(1) Where applicable, custom lab flags have been used on this report.

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SGS AXYS METHOD MLA-119 Rev 01

CLIENT SAMPLE NO.  
LAWWTP-COMP\_MIS (FC10214-4)  
Sample Collection:  
20-Sep-2023 12:00

Form 1A  
ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-4 i

Matrix: COMPOST

Sample Size:

4.41 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID:

CIC

Analysis Date: 11-Apr-2024 Time: 20:07:54

Column ID:

METROSEP

Extract Volume (uL): 7000

Sample Data Filename:

TF4I\_033 S: 10

Injection Volume (uL): 1000

Blank Data Filename:

TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename:

TF4I\_033 S: 4

Concentration Units: ug/g (dry weight basis)

% Moisture:

12.3

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| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      | B                     | 0.271       | 0.120 (M)                         | 5:22           |

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Signed: \_\_\_\_\_

SGS AXYS METHOD MLA-119 Rev 01

Form 1A  
ANALYSIS REPORT

CLIENT SAMPLE NO.  
Lab Blank  
Sample Collection:  
N/A

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No. N/A

Lab Sample I.D.: WG89360-101 i

Matrix: SOLID

Sample Size: 10.0 g

Sample Receipt Date: N/A

Initial Calibration Date: 03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID: CIC

Analysis Date: 11-Apr-2024 Time: 17:11:23

Column ID: METROSEP

Extract Volume (uL): 7000

Sample Data Filename: TF4I\_033 S: 5

Injection Volume (uL): 1000

Blank Data Filename: TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename: TF4I\_033 S: 4

Concentration Units: ug/g

This page is part of a total report that contains information necessary for accreditation compliance.  
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      |                       | 0.086       | 0.0530 (M)                        | 5:21           |

(1) Where applicable, custom lab flags have been used on this report.

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SGS AXYS METHOD MLA-119 Rev 01

Form 1A  
ANALYSIS REPORT

CLIENT SAMPLE NO.  
Lab Blank  
Sample Collection:  
N/A

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No. N/A

Lab Sample I.D.: WG89360-102 i

Matrix: SOLID

Sample Size: 10.0 g

Sample Receipt Date: N/A

Initial Calibration Date: 03-Aug-2023

Extraction Date: 01-Apr-2024

Instrument ID: CIC

Analysis Date: 12-Apr-2024 Time: 01:25:57

Column ID: METROSEP

Extract Volume (uL): 7000

Sample Data Filename: TF4I\_033 S: 19

Injection Volume (uL): 1000

Blank Data Filename: TF4I\_033 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename: TF4I\_033 S: 17

Concentration Units: ug/g

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This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RETENTION TIME |
|----------|-----------------------|-------------|-----------------------------------|----------------|
| EOF      |                       | 0.190       | 0.0530 (M)                        | 5:21           |

(1) Where applicable, custom lab flags have been used on this report.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ R THERON \_\_\_\_\_

## SGS AXYS METHOD MLA-119 Rev 01

## Form 8A

## ONGOING PRECISION AND RECOVERY (OPR)

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                               |                            |                                  |               |
|-------------------------------|----------------------------|----------------------------------|---------------|
| <b>Contract No.:</b>          | 4066                       | <b>Lab Sample I.D.:</b>          | WG89360-103 i |
| <b>Matrix:</b>                | SOLID                      | <b>Initial Calibration Date:</b> | 03-Aug-2023   |
| <b>Extraction Date:</b>       | 01-Apr-2024                | <b>Instrument ID:</b>            | CIC           |
| <b>Analysis Date:</b>         | 11-Apr-2024 Time: 17:46:38 | <b>Column ID:</b>                | METROSEP      |
| <b>Extract Volume (uL):</b>   | 7000                       | <b>OPR Data Filename:</b>        | TF4I_033 S: 6 |
| <b>Injection Volume (uL):</b> | 1000                       | <b>Blank Data Filename:</b>      | TF4I_033 S: 5 |
| <b>Dilution Factor:</b>       | N/A                        | <b>Cal. Ver. Data Filename:</b>  | TF4I_033 S: 4 |

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.

| COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|----------|-----------------------|---------------------|---------------------|------------|----------------|
| EOF      |                       | 10000               | 10700               | 107        | 5:23           |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ R THERON \_\_\_\_\_

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

**Form 3A**  
**FLUORIDE INITIAL CALIBRATION PERCENT RECOVERIES**

**SGS AXYS ANALYTICAL SERVICES**

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 03-Aug-2023

**Instrument ID:** CIC

**Column ID:** METROSEP

**CS0 Data Filename:** N/A  
**CS1 Data Filename:** TF3I\_083 S: 7  
**CS2 Data Filename:** TF3I\_083 S: 6  
**CS3 Data Filename:** TF3I\_083 S: 5  
**CS4 Data Filename:** TF3I\_083 S: 4  
**CS5 Data Filename:** TF3I\_083 S: 3  
**CS6 Data Filename:** TF3I\_083 S: 2  
**CS7 Data Filename:** N/A  
**CS8 Data Filename:** N/A

| COMPOUND | LAB<br>FLAG <sup>1</sup> | PERCENT RECOVERY (%) |      |     |     |     |      |     |     |     |
|----------|--------------------------|----------------------|------|-----|-----|-----|------|-----|-----|-----|
|          |                          | CS0                  | CS1  | CS2 | CS3 | CS4 | CS5  | CS6 | CS7 | CS8 |
| EOF      |                          |                      | 95.3 | 100 | 100 | 101 | 99.8 | 100 |     |     |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ EKLAASSEN \_\_\_\_\_

Form 3C  
**FLUORIDE INITIAL CALIBRATION RETENTION TIMES**

**SGS AXYS ANALYTICAL SERVICES**

2045 MILLS RD., SIDNEY, B.C., CANADA  
 V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 03-Aug-2023

**Instrument ID:** CIC

**Column ID:** METROSEP

**CS0 Data Filename:** N/A  
**CS1 Data Filename:** TF3I\_083 S: 7  
**CS2 Data Filename:** TF3I\_083 S: 6  
**CS3 Data Filename:** TF3I\_083 S: 5  
**CS4 Data Filename:** TF3I\_083 S: 4  
**CS5 Data Filename:** TF3I\_083 S: 3  
**CS6 Data Filename:** TF3I\_083 S: 2  
**CS7 Data Filename:** N/A  
**CS8 Data Filename:** N/A

| COMPOUND | LAB<br>FLAG <sup>1</sup> | RETENTION TIMES |      |      |      |      |      |      |     | MEAN<br>RT |
|----------|--------------------------|-----------------|------|------|------|------|------|------|-----|------------|
|          |                          | CS0             | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7 |            |
| EOF      |                          |                 | 5:24 | 5:25 | 5:25 | 5:26 | 5:29 | 5:31 |     | 5:27       |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ EKLAASSEN \_\_\_\_\_

SGS AXYS METHOD MLA-119 Rev 01

Form 4A  
FLUORIDE CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                                  |             |                           |               |
|----------------------------------|-------------|---------------------------|---------------|
| <b>Initial Calibration Date:</b> | 03-Aug-2023 | <b>VER Data Filename:</b> | TF4I_033 S: 4 |
| <b>Instrument ID:</b>            | CIC         | <b>Analysis Date:</b>     | 11-Apr-2024   |
| <b>Column ID:</b>                | METROSEP    | <b>Analysis Time:</b>     | 16:36:05      |

| COMPOUND | LAB FLAG <sup>1</sup> | RETENTION TIME | EXPECTED CONC. (ug/g) | CONC. FOUND (ug/g) | RECOVERY (%) |
|----------|-----------------------|----------------|-----------------------|--------------------|--------------|
| EOF      |                       | 5:22           | 2.00                  | 2.05               | 103          |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_RTHERON\_\_\_\_\_

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SGS AXYS METHOD MLA-119 Rev 01

Form 4A  
FLUORIDE CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 03-Aug-2023 VER Data Filename: TF4I\_033 S: 17

Instrument ID: CIC Analysis Date: 12-Apr-2024

Column ID: METROSEP Analysis Time: 00:15:19

| COMPOUND | LAB FLAG <sup>1</sup> | RETENTION TIME | EXPECTED CONC. (ug/L) | CONC. FOUND (ug/L) | RECOVERY (%) |
|----------|-----------------------|----------------|-----------------------|--------------------|--------------|
| EOF      |                       | 5:23           | 10.0                  | 10.7               | 107          |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_

For Axys Internal Use Only [ XSL Template: FC-Form4A.xsl; Created: 13-May-2024 13:01:53; Application: XMLTransformer-1.18.49; Report Filename: PFOA\_FL\_IC\_TF4I\_033S17\_Form4A\_SJ3431723.html; Workgroup: WG89360; Design ID: 5437 ]







































































