

ANGUS FIRE LIMITED

Station Road
Bentham
Lancaster
United Kingdom
LA2 7NA



Attention : [REDACTED]

Date : 25th November, 2025

Your reference : -

Our reference : Test Report 25/15301 Batch 1

Location : Angus Fire Bentham

Date samples received : 17th September, 2025

Status : Final report

Issue : 202511251655

Six samples were received for analysis on 17th September, 2025 of which six were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon – Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 7.964 kg of CO2

Scope 1&2&3 emissions - 18.821 kg of CO2

Authorised By:**Bruce Leslie**

Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **16 Sep 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **M-B12-160925**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **3**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<0.020	<0.020		-	<0.020	<0.020
757124-72-4	4:2 FTS		<0.020	<0.020	0.000		<0.020	<0.020
27619-97-2	6:2 FTS		<0.005	<0.005	0.000		<0.005	<0.005
39108-34-4	8:2 FTS		<0.020	<0.020	0.000		<0.020	<0.020
2355-31-9	N-MeFOSAA		<0.020	<0.020	0.000		<0.020	<0.020
2991-50-6	N-EtFOSAA		<0.020	<0.020	0.000		<0.020	<0.020
754-91-6	FOSA		<0.020	<0.020	0.000		<0.020	<0.020
375-22-4	PFBA		0.150	0.098	-0.052		<0.005	<0.005
2706-90-3	PFPeA		0.084	0.087	0.003		<0.005	<0.005
307-24-4	PFHxA		0.018	0.032	0.014		<0.005	<0.005
375-85-9	PFHpA		<0.005	<0.005	0.000		<0.005	<0.005
335-67-1	PFOA		<0.00325	<0.00325	0.00000		<0.00325	<0.00325
375-95-1	PFNA		<0.005	<0.005	0.000		<0.005	<0.005
335-76-2	PFDA		<0.005	<0.005	0.000		<0.005	<0.005
2058-94-8	PFUnA		<0.005	<0.005	0.000		<0.005	<0.005
307-55-1	PFDaA		<0.005	<0.005	0.000		<0.005	<0.005
72629-94-8	PFTrDA		<0.030	<0.030	0.000		<0.030	<0.030
376-06-7	PFTeDA		<0.005	<0.005	0.000		<0.005	<0.005
67905-19-5	PFHxDA		<0.05	<0.05	0.00		<0.05	<0.05
16517-11-6	PFODA		<0.05	<0.05	0.000		<0.05	<0.05
375-73-5	PFBS		<0.005	<0.005	0.000		<0.005	<0.005
2706-91-4	PFPeS		<0.005	<0.005	0.000		<0.005	<0.005
355-46-4	PFHxS		<0.005	<0.005	0.000		<0.005	<0.005
375-92-8	PFHpS		<0.005	<0.005	0.000		<0.005	<0.005
1763-23-1	PFOS (Linear)		<0.00325	<0.00325	0.00000		<0.00325	<0.00325
	PFOS (Branched)		<0.00325	<0.00325	0.00000		<0.00325	<0.00325
	PFOS (Total)		<0.00325	<0.00325	0.00000		<0.00325	<0.00325
68259-12-1	PFNS		<0.005	<0.005	0.000		<0.005	<0.005
335-77-3	PFDS		<0.005	<0.005	0.000		<0.005	<0.005
749786-16-1	PFUnDS		<0.005	<0.005	0.000		<0.005	<0.005
79780-39-5	PFDoDS		<0.005	<0.005	0.000		<0.005	<0.005
791563-89-8	PFTrDS		<0.005	<0.005	0.000		<0.005	<0.005
13252-13-6	HFPO-DA (Gen X)		<0.005	<0.005	0.000		<0.005	<0.005
13252-14-7	HFPO-TA		<0.05	<0.05	0.00		<0.05	<0.05
919005-14-4	DONA		<0.005	<0.005	0.000		<0.005	<0.005
377-73-1	PFMOPrA		<0.005	<0.005	0.000		<0.005	<0.005
151772-58-6	NFDHA		<0.005	<0.005	0.000		<0.005	<0.005
863090-89-5	PFMOBA		<0.005	<0.005	0.000		<0.005	<0.005

Element Materials Technology

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CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
646-83-3	PFECHS		<0.005	<0.005	0.000		<0.005	<0.005
356-02-5	3:3 FTCA		<0.05	<0.05	0.00		<0.05	<0.05
914637-49-3	5:3 FTCA		<0.05	<0.05	0.00		<0.05	<0.05
812-70-4	7:3 FTCA		<0.05	<0.05	0.00		<0.05	<0.05
113507-82-7	PFEESA		<0.005	<0.005	0.000		<0.005	<0.005
756426-58-1	9Cl-PF3ONS		<0.005	<0.005	0.000		<0.005	<0.005
763051-92-9	11Cl-PF3OUdS		<0.005	<0.005	0.000		<0.005	<0.005
30334-69-1	FBSA		<0.05	<0.05	0.00		<0.05	<0.05
41997-13-1	FHxSA		<0.05	<0.05	0.00		<0.05	<0.05
31506-32-8	N-MeFOSA		<0.025	<0.025	0.000		<0.025	<0.025
4151-50-2	N-EtFOSA		<0.025	<0.025	0.000		<0.025	<0.025
24448-09-7	Me-FOSE		<0.05	<0.05	0.00		<0.05	<0.05
1691-99-2	Et-FOSE		<0.05	<0.05	0.00		<0.05	<0.05
678-41-1	8:2diPAP		<0.025	<0.025	0.000		<0.025	<0.025
70887-84-2	FOUEA		<0.025	<0.025	0.000		<0.025	<0.025
34455-29-3	6:2 FTAB (Capstone B)		<0.025	<0.025	0.00		<0.025	<0.025

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 Reference: -
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Sample Date: **16 Sep 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **M-B15-160925**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **6**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<0.080	<0.080		-	<0.080	<0.080
757124-72-4	4:2 FTS		<0.080	<0.080	0.000		<0.080	<0.080
27619-97-2	6:2 FTS		<0.020	<0.020	0.000		<0.020	<0.020
39108-34-4	8:2 FTS		<0.080	<0.080	0.000		<0.080	<0.080
2355-31-9	N-MeFOSAA		<0.080	<0.080	0.000		<0.080	<0.080
2991-50-6	N-EtFOSAA		<0.080	<0.080	0.000		<0.080	<0.080
754-91-6	FOSA		<0.080	<0.080	0.000		<0.080	<0.080
375-22-4	PFBA		0.366	0.261	-0.105		<0.020	<0.020
2706-90-3	PFPeA		0.474	0.550	0.076		<0.020	<0.020
307-24-4	PFHxA		0.271	0.356	0.085		<0.020	<0.020
375-85-9	PFHpA		<0.020	<0.020	0.000		<0.020	<0.020
335-67-1	PFOA		<0.01300	<0.01300	0.00000		<0.01300	<0.01300
375-95-1	PFNA		<0.020	<0.020	0.000		<0.020	<0.020
335-76-2	PFDA		<0.020	<0.020	0.000		<0.020	<0.020
2058-94-8	PFUnA		<0.020	<0.020	0.000		<0.020	<0.020
307-55-1	PFDaA		<0.020	<0.020	0.000		<0.020	<0.020
72629-94-8	PFTTrDA		<0.120	<0.120	0.000		<0.120	<0.120
376-06-7	PFTeDA		<0.020	<0.020	0.000		<0.020	<0.020
67905-19-5	PFHxDA		<0.20	<0.20	0.00		<0.20	<0.20
16517-11-6	PFODA		<0.20	<0.20	0.000		<0.20	<0.20
375-73-5	PFBS		<0.020	<0.020	0.000		<0.020	<0.020
2706-91-4	PFPeS		<0.020	<0.020	0.000		<0.020	<0.020
355-46-4	PFHxS		<0.020	<0.020	0.000		<0.020	<0.020
375-92-8	PFHpS		<0.020	<0.020	0.000		<0.020	<0.020
1763-23-1	PFOS (Linear)		<0.01300	<0.01300	0.00000		<0.01300	<0.01300
	PFOS (Branched)		<0.01300	<0.01300	0.00000		<0.01300	<0.01300
	PFOS (Total)		<0.01300	<0.01300	0.00000		<0.01300	<0.01300
68259-12-1	PFNS		<0.020	<0.020	0.000		<0.020	<0.020
335-77-3	PFDS		<0.020	<0.020	0.000		<0.020	<0.020
749786-16-1	PFUnDS		<0.020	<0.020	0.000		<0.020	<0.020
79780-39-5	PFDaDS		<0.020	<0.020	0.000		<0.020	<0.020
791563-89-8	PFTTrDS		<0.020	<0.020	0.000		<0.020	<0.020
13252-13-6	HFPO-DA (Gen X)		<0.020	<0.020	0.000		<0.020	<0.020
13252-14-7	HFPO-TA		<0.20	<0.20	0.00		<0.20	<0.20
919005-14-4	DONA		<0.020	<0.020	0.000		<0.020	<0.020
377-73-1	PFMOPrA		<0.020	0.021	0.021		<0.020	<0.020
151772-58-6	NFDHA		<0.020	<0.020	0.000		<0.020	<0.020
863090-89-5	PFMOBA		<0.020	<0.020	0.000		<0.020	<0.020

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Sample ID: **M-B15-160925**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **6**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
646-83-3	PFECHS		<0.020	<0.020	0.000		<0.020	<0.020
356-02-5	3:3 FTCA		<0.20	<0.20	0.00		<0.20	<0.20
914637-49-3	5:3 FTCA		<0.20	<0.20	0.00		<0.20	<0.20
812-70-4	7:3 FTCA		<0.20	<0.20	0.00		<0.20	<0.20
113507-82-7	PFEESA		<0.020	<0.020	0.000		<0.020	<0.020
756426-58-1	9Cl-PF3ONS		<0.020	<0.020	0.000		<0.020	<0.020
763051-92-9	11Cl-PF3OUdS		<0.020	<0.020	0.000		<0.020	<0.020
30334-69-1	FBSA		<0.20	<0.20	0.00		<0.20	<0.20
41997-13-1	FHxSA		<0.20	<0.20	0.00		<0.20	<0.20
31506-32-8	N-MeFOSA		<0.100	<0.100	0.000		<0.100	<0.100
4151-50-2	N-EtFOSA		<0.100	<0.100	0.000		<0.100	<0.100
24448-09-7	Me-FOSE		<0.20	<0.20	0.00		<0.20	<0.20
1691-99-2	Et-FOSE		<0.20	<0.20	0.00		<0.20	<0.20
678-41-1	8:2diPAP		<0.100	<0.100	0.000		<0.100	<0.100
70887-84-2	FOUEA		<0.100	<0.100	0.000		<0.100	<0.100
34455-29-3	6:2 FTAB (Capstone B)		<0.100	<0.100	0.00		<0.100	<0.100

Element Materials Technology

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Sample Date: **16 Sep 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **M-B18-160925**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **9**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<0.040	<0.040		-	<0.040	<0.040
757124-72-4	4:2 FTS		<0.040	<0.040	0.000		<0.040	<0.040
27619-97-2	6:2 FTS		<0.010	<0.010	0.000		<0.010	<0.010
39108-34-4	8:2 FTS		<0.040	<0.040	0.000		<0.040	<0.040
2355-31-9	N-MeFOSAA		<0.040	<0.040	0.000		<0.040	<0.040
2991-50-6	N-EtFOSAA		<0.040	<0.040	0.000		<0.040	<0.040
754-91-6	FOSA		<0.040	<0.040	0.000		<0.040	<0.040
375-22-4	PFBA		<0.010	<0.010	0.000		<0.010	<0.010
2706-90-3	PFPeA		<0.010	<0.010	0.000		<0.010	<0.010
307-24-4	PFHxA		<0.010	0.025	0.025		<0.010	<0.010
375-85-9	PFHpA		<0.010	<0.010	0.000		<0.010	<0.010
335-67-1	PFOA		<0.00650	<0.00650	0.00000		<0.00650	<0.00650
375-95-1	PFNA		<0.010	<0.010	0.000		<0.010	<0.010
335-76-2	PFDA		<0.010	<0.010	0.000		<0.010	<0.010
2058-94-8	PFUnA		<0.010	<0.010	0.000		<0.010	<0.010
307-55-1	PFDoA		<0.010	<0.010	0.000		<0.010	<0.010
72629-94-8	PFTTrDA		<0.060	<0.060	0.000		<0.060	<0.060
376-06-7	PFTeDA		<0.010	<0.010	0.000		<0.010	<0.010
67905-19-5	PFHxDA		<0.10	<0.10	0.00		<0.10	<0.10
16517-11-6	PFODA		<0.10	<0.10	0.000		<0.10	<0.10
375-73-5	PFBS		<0.010	<0.010	0.000		<0.010	<0.010
2706-91-4	PFPeS		<0.010	<0.010	0.000		<0.010	<0.010
355-46-4	PFHxS		<0.010	<0.010	0.000		<0.010	<0.010
375-92-8	PFHpS		<0.010	<0.010	0.000		<0.010	<0.010
1763-23-1	PFOS (Linear)		<0.00650	<0.00650	0.00000		<0.00650	<0.00650
	PFOS (Branched)		<0.00650	<0.00650	0.00000		<0.00650	<0.00650
	PFOS (Total)		<0.00650	<0.00650	0.00000		<0.00650	<0.00650
68259-12-1	PFNS		<0.010	<0.010	0.000		<0.010	<0.010
335-77-3	PFDS		<0.010	<0.010	0.000		<0.010	<0.010
749786-16-1	PFUnDS		<0.010	<0.010	0.000		<0.010	<0.010
79780-39-5	PFDoDS		<0.010	<0.010	0.000		<0.010	<0.010
791563-89-8	PFTTrDS		<0.010	<0.010	0.000		<0.010	<0.010
13252-13-6	HFPO-DA (Gen X)		<0.010	<0.010	0.000		<0.010	<0.010
13252-14-7	HFPO-TA		<0.10	<0.10	0.00		<0.10	<0.10
919005-14-4	DONA		<0.010	<0.010	0.000		<0.010	<0.010
377-73-1	PFMOPrA		<0.010	0.012	0.012		<0.010	<0.010
151772-58-6	NFDHA		<0.010	<0.010	0.000		<0.010	<0.010
863090-89-5	PFMOBA		<0.010	<0.010	0.000		<0.010	<0.010

Element Materials Technology

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Sample ID: **M-B18-160925**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **9**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

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646-83-3	PFECHS		<0.010	<0.010	0.000		<0.010	<0.010
356-02-5	3:3 FTCA		<0.10	<0.10	0.00		<0.10	<0.10
914637-49-3	5:3 FTCA		<0.10	<0.10	0.00		<0.10	<0.10
812-70-4	7:3 FTCA		<0.10	<0.10	0.00		<0.10	<0.10
113507-82-7	PFEESA		<0.010	<0.010	0.000		<0.010	<0.010
756426-58-1	9Cl-PF3ONS		<0.010	<0.010	0.000		<0.010	<0.010
763051-92-9	11Cl-PF3OUdS		<0.010	<0.010	0.000		<0.010	<0.010
30334-69-1	FBSA		<0.10	<0.10	0.00		<0.10	<0.10
41997-13-1	FHxSA		<0.10	<0.10	0.00		<0.10	<0.10
31506-32-8	N-MeFOSA		<0.050	<0.050	0.000		<0.050	<0.050
4151-50-2	N-EtFOSA		<0.050	<0.050	0.000		<0.050	<0.050
24448-09-7	Me-FOSE		<0.10	<0.10	0.00		<0.10	<0.10
1691-99-2	Et-FOSE		<0.10	<0.10	0.00		<0.10	<0.10
678-41-1	8:2diPAP		<0.050	<0.050	0.000		<0.050	<0.050
70887-84-2	FOUEA		<0.050	<0.050	0.000		<0.050	<0.050
34455-29-3	6:2 FTAB (Capstone B)		<0.050	<0.050	0.00		<0.050	<0.050

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **31 Jan 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **TANK A1**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **12**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<8.000	<8.000		-	<8.000	<8.000
757124-72-4	4:2 FTS		<8.000	<8.000	0.000		<8.000	<8.000
27619-97-2	6:2 FTS		50.683	<2.000	-50.683		<2.000	<2.000
39108-34-4	8:2 FTS		16.790	<8.000	-16.790		<8.000	<8.000
2355-31-9	N-MeFOSAA		<8.000	<8.000	0.000		<8.000	<8.000
2991-50-6	N-EtFOSAA		<8.000	<8.000	0.000		<8.000	<8.000
754-91-6	FOSA		<8.000	<8.000	0.000		<8.000	<8.000
375-22-4	PFBA		<2.000	14.675	14.675		<2.000	<2.000
2706-90-3	PFPeA		3.573	51.201	47.628		<2.000	<2.000
307-24-4	PFHxA		5.659	39.013	33.354		<2.000	<2.000
375-85-9	PFHpA		<2.000	11.826	11.826		<2.000	<2.000
335-67-1	PFOA		2.13890	7.79270	5.65380		<1.30000	<1.30000
375-95-1	PFNA		<2.000	<2.000	0.000		<2.000	<2.000
335-76-2	PFDA		<2.000	<2.000	0.000		<2.000	<2.000
2058-94-8	PFUnA		<2.000	<2.000	0.000		<2.000	<2.000
307-55-1	PFDaA		<2.000	<2.000	0.000		<2.000	<2.000
72629-94-8	PFTTrDA		<12.000	<12.000	0.000		<12.000	<12.000
376-06-7	PFTeDA		<2.000	<2.000	0.000		<2.000	<2.000
67905-19-5	PFHxDA		<20.00	<20.00	0.00		<20.00	<20.00
16517-11-6	PFODA		<20.00	<20.00	0.000		<20.00	<20.00
375-73-5	PFBS		<2.000	<2.000	0.000		<2.000	<2.000
2706-91-4	PFPeS		<2.000	<2.000	0.000		<2.000	<2.000
355-46-4	PFHxS		<2.000	<2.000	0.000		<2.000	<2.000
375-92-8	PFHpS		<2.000	<2.000	0.000		<2.000	<2.000
1763-23-1	PFOS (Linear)		4.35560	5.25600	0.90040		<1.30000	<1.30000
	PFOS (Branched)		<1.30000	1.43550	1.43550		<1.30000	<1.30000
	PFOS (Total)		5.38700	6.69150	1.30450		<1.30000	<1.30000
68259-12-1	PFNS		<2.000	<2.000	0.000		<2.000	<2.000
335-77-3	PFDS		<2.000	<2.000	0.000		<2.000	<2.000
749786-16-1	PFUnDS		<2.000	<2.000	0.000		<2.000	<2.000
79780-39-5	PFDoDS		<2.000	<2.000	0.000		<2.000	<2.000
791563-89-8	PFTTrDS		<2.000	<2.000	0.000		<2.000	<2.000
13252-13-6	HFPO-DA (Gen X)		<2.000	<2.000	0.000		<2.000	<2.000
13252-14-7	HFPO-TA		<20.00	<20.00	0.00		<20.00	<20.00
919005-14-4	DONA		<2.000	<2.000	0.000		<2.000	<2.000
377-73-1	PFMOPrA		<2.000	2.050	2.050		<2.000	<2.000
151772-58-6	NFDHA		<2.000	<2.000	0.000		<2.000	<2.000
863090-89-5	PFMOBA		<2.000	<2.000	0.000		<2.000	<2.000

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **31 Jan 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **TANK A1**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **12**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
646-83-3	PFECHS		<2.000	<2.000	0.000		<2.000	<2.000
356-02-5	3:3 FTCA		<20.00	<20.00	0.00		<20.00	<20.00
914637-49-3	5:3 FTCA		<20.00	<20.00	0.00		<20.00	<20.00
812-70-4	7:3 FTCA		<20.00	<20.00	0.00		<20.00	<20.00
113507-82-7	PFEESA		<2.000	<2.000	0.000		<2.000	<2.000
756426-58-1	9Cl-PF3ONS		<2.000	<2.000	0.000		<2.000	<2.000
763051-92-9	11Cl-PF3OUdS		<2.000	<2.000	0.000		<2.000	<2.000
30334-69-1	FBSA		<20.00	<20.00	0.00		<20.00	<20.00
41997-13-1	FHxSA		<20.00	<20.00	0.00		<20.00	<20.00
31506-32-8	N-MeFOSA		<10.000	<10.000	0.000		<10.000	<10.000
4151-50-2	N-EtFOSA		<10.000	<10.000	0.000		<10.000	<10.000
24448-09-7	Me-FOSE		<20.00	<20.00	0.00		<20.00	<20.00
1691-99-2	Et-FOSE		<20.00	<20.00	0.00		<20.00	<20.00
678-41-1	8:2diPAP		<10.000	<10.000	0.000		<10.000	<10.000
70887-84-2	FOUEA		<10.000	<10.000	0.000		<10.000	<10.000
34455-29-3	6:2 FTAB (Capstone B)		20.833	<10.000	-20.83		<10.000	<10.000

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **12 Jun 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **TANK A2**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **15**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<4.000	<4.000		-	<4.000	<4.000
757124-72-4	4:2 FTS		<4.000	<4.000	0.000		<4.000	<4.000
27619-97-2	6:2 FTS		31.502	<1.000	-31.502		<1.000	<1.000
39108-34-4	8:2 FTS		7.126	<4.000	-7.126		<4.000	<4.000
2355-31-9	N-MeFOSAA		<4.000	<4.000	0.000		<4.000	<4.000
2991-50-6	N-EtFOSAA		<4.000	<4.000	0.000		<4.000	<4.000
754-91-6	FOSA		<4.000	<4.000	0.000		<4.000	<4.000
375-22-4	PFBA		1.190	16.358	15.168		<1.000	<1.000
2706-90-3	PFPeA		3.575	43.675	40.100		<1.000	<1.000
307-24-4	PFHxA		4.733	31.744	27.011		<1.000	<1.000
375-85-9	PFHpA		1.546	9.643	8.097		<1.000	<1.000
335-67-1	PFOA		1.79400	6.01860	4.22460		<0.65000	<0.65000
375-95-1	PFNA		<1.000	<1.000	0.000		<1.000	<1.000
335-76-2	PFDA		<1.000	<1.000	0.000		<1.000	<1.000
2058-94-8	PFUnA		<1.000	<1.000	0.000		<1.000	<1.000
307-55-1	PFDoA		<1.000	<1.000	0.000		<1.000	<1.000
72629-94-8	PFTTrDA		<6.000	<6.000	0.000		<6.000	<6.000
376-06-7	PFTeDA		<1.000	<1.000	0.000		<1.000	<1.000
67905-19-5	PFHxDA		<10.00	<10.00	0.00		<10.00	<10.00
16517-11-6	PFODA		<10.00	<10.00	0.000		<10.00	<10.00
375-73-5	PFBS		<1.000	<1.000	0.000		<1.000	<1.000
2706-91-4	PFPeS		<1.000	<1.000	0.000		<1.000	<1.000
355-46-4	PFHxS		<1.000	<1.000	0.000		<1.000	<1.000
375-92-8	PFHpS		<1.000	<1.000	0.000		<1.000	<1.000
1763-23-1	PFOS (Linear)		4.27380	4.96670	0.69290		<0.65000	<0.65000
	PFOS (Branched)		0.86830	0.84230	-0.02600		<0.65000	<0.65000
	PFOS (Total)		5.14210	5.80900	0.66690		<0.65000	<0.65000
68259-12-1	PFNS		<1.000	<1.000	0.000		<1.000	<1.000
335-77-3	PFDS		<1.000	<1.000	0.000		<1.000	<1.000
749786-16-1	PFUnDS		<1.000	<1.000	0.000		<1.000	<1.000
79780-39-5	PFDoDS		<1.000	<1.000	0.000		<1.000	<1.000
791563-89-8	PFTTrDS		<1.000	<1.000	0.000		<1.000	<1.000
13252-13-6	HFPO-DA (Gen X)		<1.000	<1.000	0.000		<1.000	<1.000
13252-14-7	HFPO-TA		<10.00	<10.00	0.00		<10.00	<10.00
919005-14-4	DONA		<1.000	<1.000	0.000		<1.000	<1.000
377-73-1	PFMOPrA		<1.000	1.015	1.015		<1.000	<1.000
151772-58-6	NFDHA		<1.000	<1.000	0.000		<1.000	<1.000
863090-89-5	PFMOBA		<1.000	<1.000	0.000		<1.000	<1.000

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **12 Jun 2025**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **TANK A2**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **15**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
646-83-3	PFECHS		<1.000	<1.000	0.000		<1.000	<1.000
356-02-5	3:3 FTCA		<10.00	<10.00	0.00		<10.00	<10.00
914637-49-3	5:3 FTCA		<10.00	<10.00	0.00		<10.00	<10.00
812-70-4	7:3 FTCA		<10.00	<10.00	0.00		<10.00	<10.00
113507-82-7	PFEESA		<1.000	<1.000	0.000		<1.000	<1.000
756426-58-1	9Cl-PF3ONS		<1.000	<1.000	0.000		<1.000	<1.000
763051-92-9	11Cl-PF3OUdS		<1.000	<1.000	0.000		<1.000	<1.000
30334-69-1	FBSA		<10.00	<10.00	0.00		<10.00	<10.00
41997-13-1	FHxSA		<10.00	<10.00	0.00		<10.00	<10.00
31506-32-8	N-MeFOSA		<5.000	<5.000	0.000		<5.000	<5.000
4151-50-2	N-EtFOSA		<5.000	<5.000	0.000		<5.000	<5.000
24448-09-7	Me-FOSE		<10.00	<10.00	0.00		<10.00	<10.00
1691-99-2	Et-FOSE		<10.00	<10.00	0.00		<10.00	<10.00
678-41-1	8:2diPAP		<5.000	<5.000	0.000		<5.000	<5.000
70887-84-2	FOUEA		<5.000	<5.000	0.000		<5.000	<5.000
34455-29-3	6:2 FTAB (Capstone B)		30.387	<5.000	-30.39		<5.000	<5.000

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **19 Dec 2024**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **LINESIDE BUND**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **18**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
2708218-89-5	M2 6:2 FTS Surrogate		<10.000	<10.000		-	<10.000	<10.000
757124-72-4	4:2 FTS		<10.000	<10.000	0.000		<10.000	<10.000
27619-97-2	6:2 FTS		166.675	<2.500	-166.675		<2.500	<2.500
39108-34-4	8:2 FTS		41.124	<10.000	-41.124		<10.000	<10.000
2355-31-9	N-MeFOSAA		<10.000	<10.000	0.000		<10.000	<10.000
2991-50-6	N-EtFOSAA		<10.000	<10.000	0.000		<10.000	<10.000
754-91-6	FOSA		<10.000	<10.000	0.000		<10.000	<10.000
375-22-4	PFBA		3.062	81.682	78.620		<2.500	<2.500
2706-90-3	PFPeA		6.116	236.621	230.505		<2.500	<2.500
307-24-4	PFHxA		15.544	168.659	153.115		<2.500	<2.500
375-85-9	PFHpA		2.905	47.425	44.520		<2.500	<2.500
335-67-1	PFOA		4.26780	25.06290	20.79510		<1.62500	<1.62500
375-95-1	PFNA		<2.500	3.192	3.192		<2.500	<2.500
335-76-2	PFDA		<2.500	<2.500	0.000		<2.500	<2.500
2058-94-8	PFUnA		<2.500	<2.500	0.000		<2.500	<2.500
307-55-1	PFDaA		<2.500	<2.500	0.000		<2.500	<2.500
72629-94-8	PFTTrDA		<15.000	<15.000	0.000		<15.000	<15.000
376-06-7	PFTeDA		<2.500	<2.500	0.000		<2.500	<2.500
67905-19-5	PFHxDA		<25.00	<25.00	0.00		<25.00	<25.00
16517-11-6	PFODA		<25.00	<25.00	0.000		<25.00	<25.00
375-73-5	PFBS		<2.500	2.999	2.999		<2.500	<2.500
2706-91-4	PFPeS		<2.500	<2.500	0.000		<2.500	<2.500
355-46-4	PFHxS		<2.500	<2.500	0.000		<2.500	<2.500
375-92-8	PFHpS		<2.500	<2.500	0.000		<2.500	<2.500
1763-23-1	PFOS (Linear)		3.92370	3.52890	-0.39480		<1.62500	<1.62500
	PFOS (Branched)		<1.62500	<1.62500	0.00000		<1.62500	<1.62500
	PFOS (Total)		5.04790	4.18240	-0.86550		<1.62500	<1.62500
68259-12-1	PFNS		<2.500	<2.500	0.000		<2.500	<2.500
335-77-3	PFDS		<2.500	<2.500	0.000		<2.500	<2.500
749786-16-1	PFUnDS		<2.500	<2.500	0.000		<2.500	<2.500
79780-39-5	PFDoDS		<2.500	<2.500	0.000		<2.500	<2.500
791563-89-8	PFTTrDS		<2.500	<2.500	0.000		<2.500	<2.500
13252-13-6	HFPO-DA (Gen X)		<2.500	<2.500	0.000		<2.500	<2.500
13252-14-7	HFPO-TA		<25.00	<25.00	0.00		<25.00	<25.00
919005-14-4	DONA		<2.500	<2.500	0.000		<2.500	<2.500
377-73-1	PFMOPrA		<2.500	2.502	2.502		<2.500	<2.500
151772-58-6	NFDHA		<2.500	<2.500	0.000		<2.500	<2.500
863090-89-5	PFMOBA		<2.500	<2.500	0.000		<2.500	<2.500

Element Materials Technology

Client Name: **ANGUS FIRE LIMITED**
 Reference: -
 Location: **Angus Fire Bentham**
 Contact: XXXXXXXXXX

Sample Date: **19 Dec 2024**
 Date of Receipt: **17 Sep 2025**
 Date Analysed: **17 Oct 2025**

Sample ID: **LINESIDE BUND**
 Depth:
 EMT Job No: **25/15301**
 EMT Sample No: **18**
 Matrix: **Liquid**
 Method: **TM218/PM150 Top Assay - PFAS**

Q : Qualifiers

SV Indicates surrogate recovery outside performance criteria
 >> Indicates value exceeds calibration range

Key

MDL Method Detection Limit

CAS No	Compound	Q	Untreated Result (ug/l)	Treated Result (ug/l)	Oxidation Variation (ug/l)	Oxidation Variation (%)	Untreated MDL (ug/l)	Treated MDL (ug/l)
646-83-3	PFECHS		<2.500	<2.500	0.000		<2.500	<2.500
356-02-5	3:3 FTCA		<25.00	<25.00	0.00		<25.00	<25.00
914637-49-3	5:3 FTCA		<25.00	<25.00	0.00		<25.00	<25.00
812-70-4	7:3 FTCA		<25.00	<25.00	0.00		<25.00	<25.00
113507-82-7	PFEESA		<2.500	<2.500	0.000		<2.500	<2.500
756426-58-1	9Cl-PF3ONS		<2.500	<2.500	0.000		<2.500	<2.500
763051-92-9	11Cl-PF3OUdS		<2.500	<2.500	0.000		<2.500	<2.500
30334-69-1	FBSA		<25.00	<25.00	0.00		<25.00	<25.00
41997-13-1	FHxSA		<25.00	<25.00	0.00		<25.00	<25.00
31506-32-8	N-MeFOSA		<12.500	<12.500	0.000		<12.500	<12.500
4151-50-2	N-EtFOSA		<12.500	<12.500	0.000		<12.500	<12.500
24448-09-7	Me-FOSE		<25.00	<25.00	0.00		<25.00	<25.00
1691-99-2	Et-FOSE		<25.00	<25.00	0.00		<25.00	<25.00
678-41-1	8:2diPAP		<12.500	<12.500	0.000		<12.500	<12.500
70887-84-2	FOUEA		<12.500	<12.500	0.000		<12.500	<12.500
34455-29-3	6:2 FTAB (Capstone B)		154.755	<12.500	-154.76		<12.500	<12.500

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 25/15301

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitatively, with a matrix specific limit of detection.

Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution
AB	x10 Dilution
AC	x20 Dilution
AD	x1000 Dilution
AE	x2000 Dilution
AF	x2500 Dilution

