



**WOOD BUFFALO
ENVIRONMENTAL ASSOCIATION**

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Wood Buffalo Environmental Association

JUNE 2026

MONTHLY CALIBRATION REPORT

CONTINUOUS MONITORING

July 30, 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS01 BERTHA GANTER - FORT MCKAY JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay Station number: AMS 01
Calibration Date: June 26, 2026 Last Cal Date: May 19, 2026
Start time (MST): 9:27 End time (MST): 13:30
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.21 ppm Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #: CC418809
Removed Cal Gas Conc: 49.21 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3565
Zero Air Gen Model: Teledyne API T701 Serial Number: 146

Analyzer Information

Analyzer make: Thermo 43i Serial Number: JC1501301448
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001108	1.005420	Backgd or Offset:	22.8	22.6
Calibration intercept:	-0.633098	-0.793019	Coeff or Slope:	0.865	0.865

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4918	81.3	800.3	802.5	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	802.8	Previous response	800.5	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4918	81.3	800.3	804.4	0.995
Mid point	4959	40.7	400.6	400.8	0.999
Low point	4979	20.3	199.8	200.1	0.999
As left zero	5000	0.0	0.0	-0.2	----
As left span	4918	81.3	800.3	805.1	0.994
Average Correction Factor:					0.998

Notes: Changed the sample inlet filter after as founds. No adjustments made

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

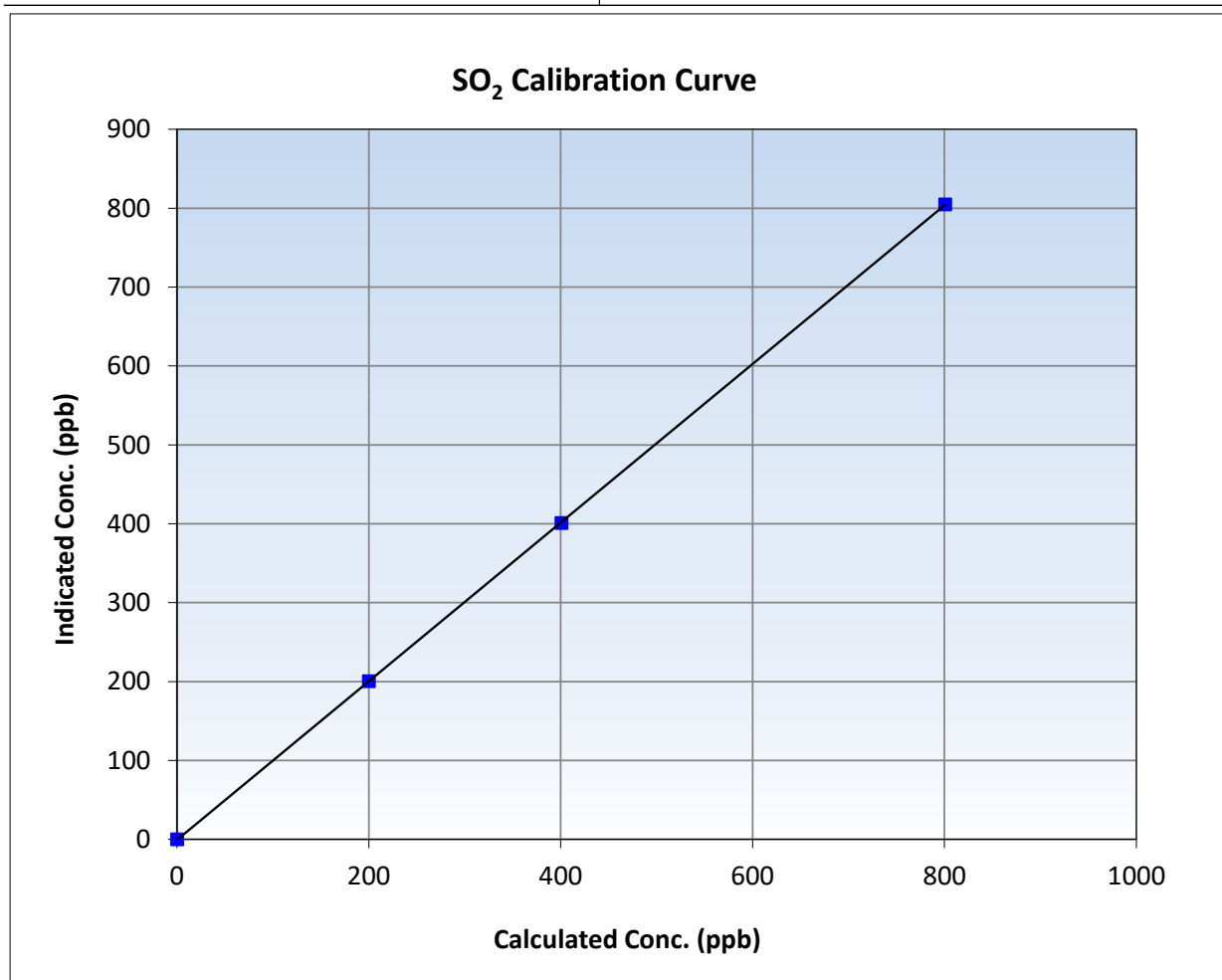
SO₂ Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	May 19, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:30
Analyzer make:	Thermo 43i	Analyzer serial #:	JC1501301448

Calibration Data

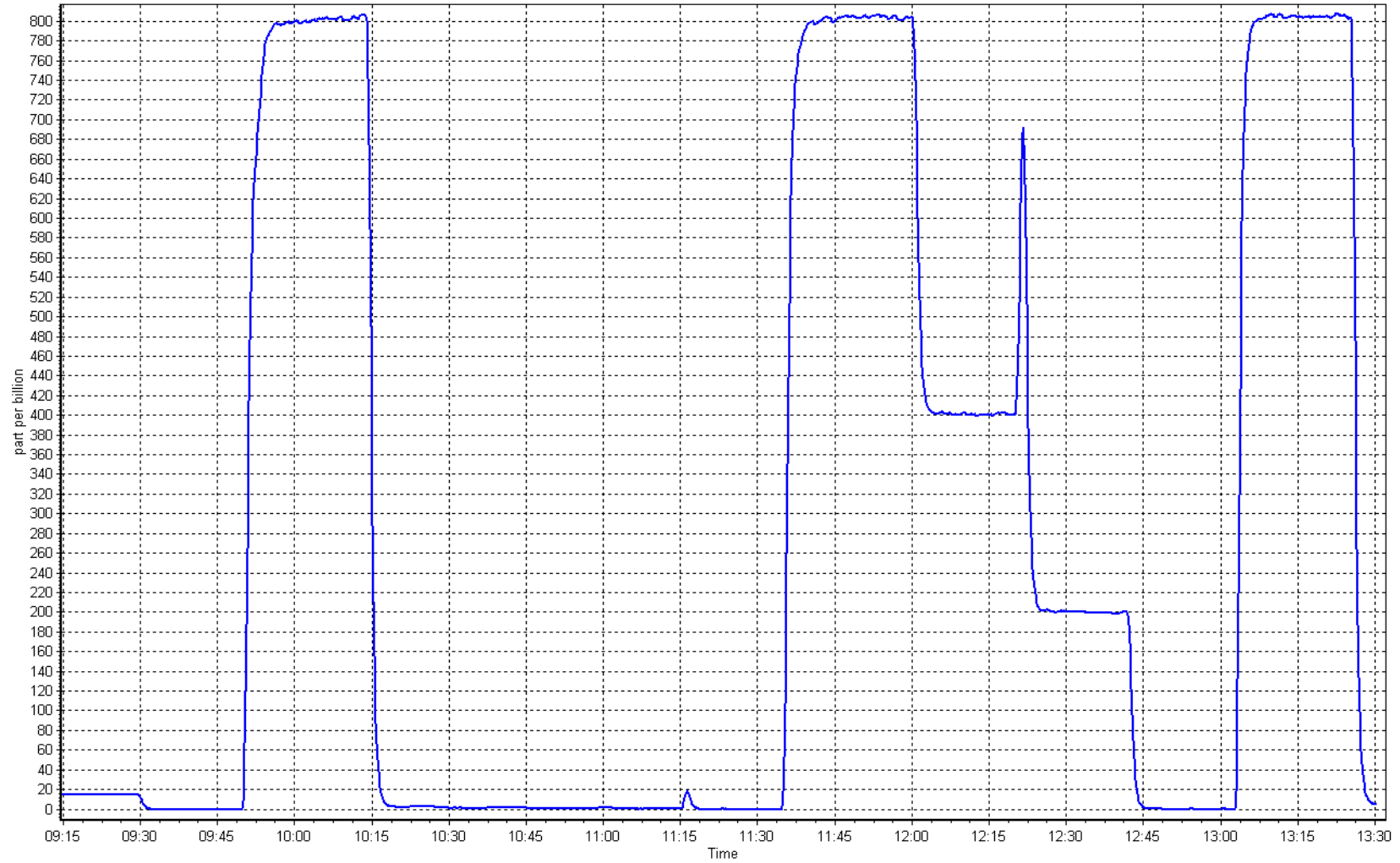
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999994	≥0.995
800.3	804.4	0.9949	Slope	1.005420	0.90 - 1.10
400.6	400.8	0.9995	Intercept	-0.793019	+/-30
199.8	200.1	0.9986			



SO2 Calibration Plot

Date: June 26, 2026

Location: Bertha Ganter-Fort McKay





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay Station number: AMS 01
Calibration Date: June 16, 2026 Last Cal Date: May 6, 2026
Start time (MST): 12:25 End time (MST): 17:10
Reason: Routine

Calibration Standards

Cal Gas Concentration: 4.84 ppm Cal Gas Exp Date: September 5, 2027
Cal Gas Cylinder #: CC738239
Removed Cal Gas Conc: 4.84 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 3565
ZAG Make/Model: Teledyne API T701 Serial Number: 146

Analyzer Information

Analyzer make: Thermo 43iQ-TL Analyzer serial #: 1200326167
Converter make: CD Nova Converter serial #: 2022-221
Analyzer Range: 0 - 100 ppb Converter Temp: 315 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004818	1.005249	Backgd or Offset:	2.16
Calibration intercept:	-0.138118	-0.078182	Coeff or Slope:	1.035

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4917	82.6	80.0	80.7	0.986
As found Mid point	4959	41.3	40.0	40.4	0.980
As found Low point	4979	20.7	20.0	20.1	0.978
New cylinder response					
Baseline Corr As found:	81.1	Prev response:	80.21	*% change:	1.1%
Baseline Corr 2nd AF pt:	40.8	AF Slope:	1.013827	AF Intercept:	-0.278353
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999986	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4917	82.6	80.0	80.2	0.997
Mid point	4959	41.3	40.0	40.3	0.992
Low point	4979	20.7	20.0	20.1	0.997
As left zero	5000	0.0	0.0	0.1	----
As left span	4917	82.6	80.0	79.6	1.005
SO ₂ Scrubber Check	4919	81.3	813.0	0.1	----
Date of last scrubber change:	January 25, 2024		Ave Corr Factor		0.995
Date of last converter efficiency test:	November 7, 2024		107.9% efficiency		

Notes: changed inlet filter after as founds. Scrubber check completed and passed. Adjusted zero only.

Calibration Performed By: Mohammed Kashif



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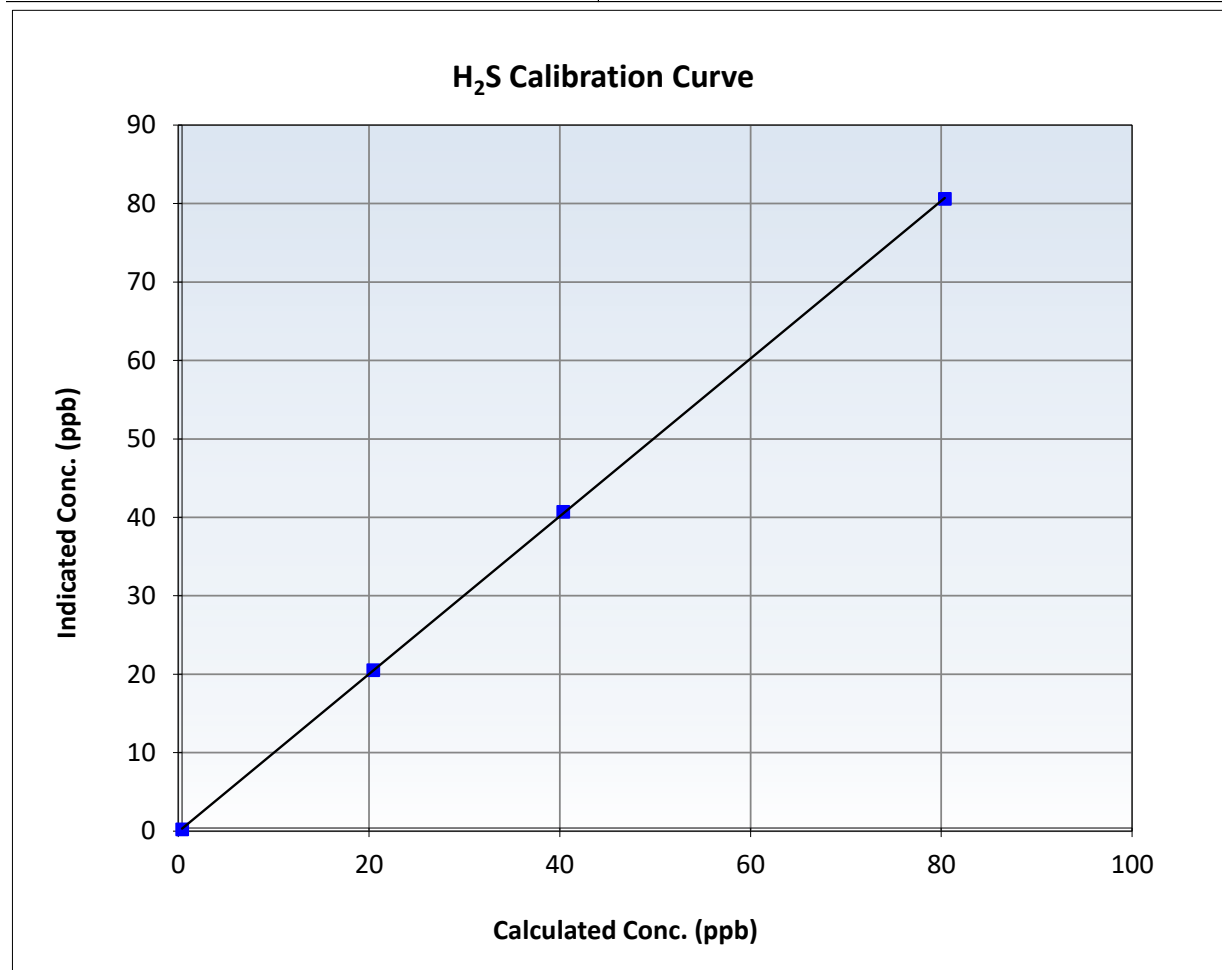
H₂S Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 6, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	12:25	End Time (MST):	17:10
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1200326167

Calibration Data

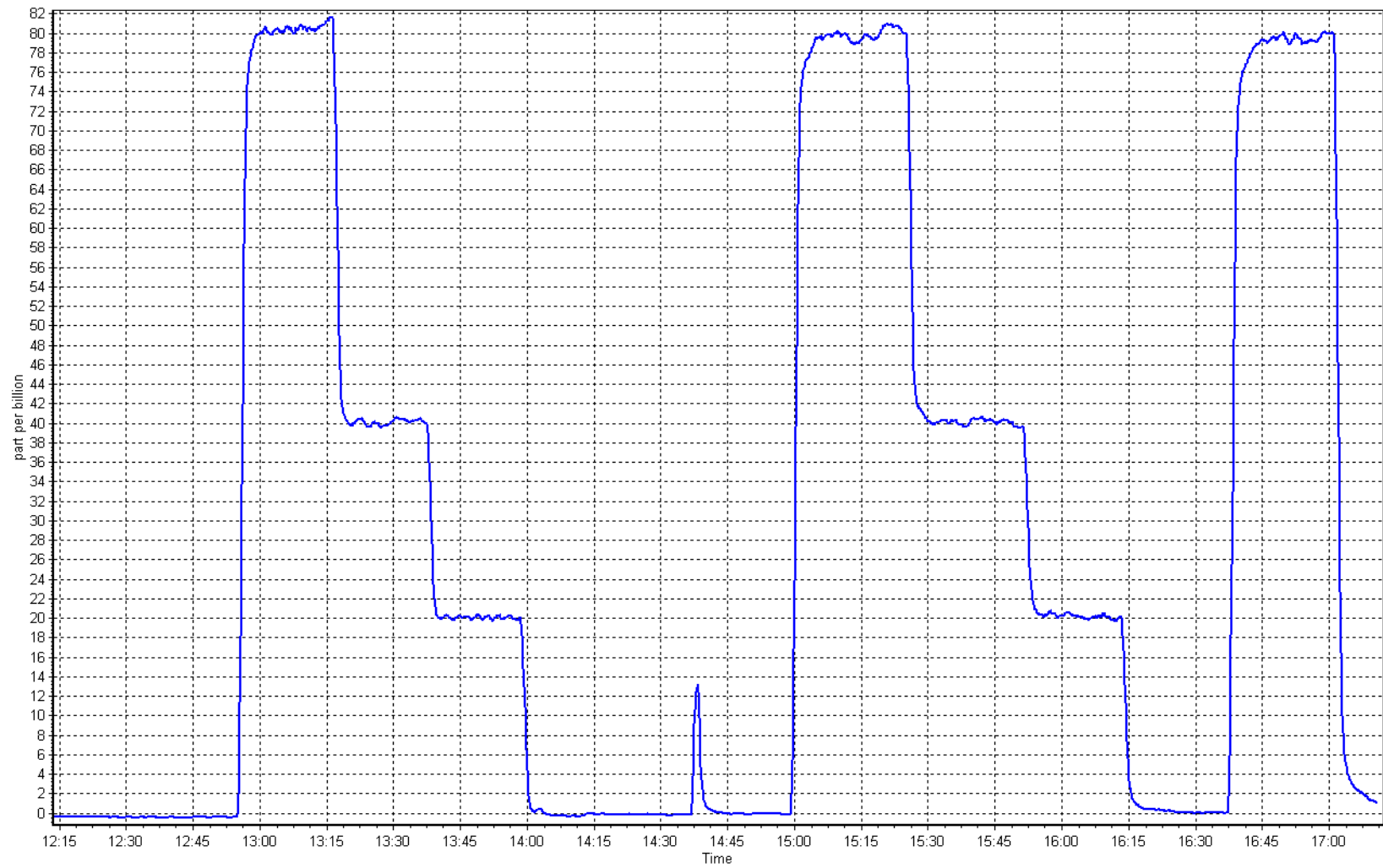
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999982		≥0.995
80.0	80.2	0.9970	Slope	1.005249		0.90 - 1.10
40.0	40.3	0.9920	Intercept	-0.078182		+/-3
20.0	20.1	0.9970				



H₂S Calibration Plot

Date: June 16, 2026

Location: Bertha Ganter-Fort McKay





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay Station number: AMS 01
Calibration Date: June 16, 2026 Last Cal Date: May 6, 2026
Start time (MST): 12:25 End time (MST): 17:10
Reason: Routine

Calibration Standards

Cal Gas Concentration: 4.84 ppm Cal Gas Exp Date: September 5, 2027
Cal Gas Cylinder #: CC738239
Removed Cal Gas Conc: 4.84 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 3565
ZAG Make/Model: Teledyne API T701 Serial Number: 146

Analyzer Information

Analyzer make: Thermo 43iQ-TLE Analyzer serial #: 12113311966
Converter make: CD Nova Converter serial #: 580
Analyzer Range: 0 - 100 ppb Converter Temp: 850 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.011536	0.996669	Backgd or Offset:	2.11
Calibration intercept:	-0.198204	-0.277921	Coeff or Slope:	1.112

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4917	82.6	80.0	79.2	1.007
As found Mid point	4959	41.3	40.0	39.8	0.999
As found Low point	4979	20.7	20.0	19.9	0.997
New cylinder response					
Baseline Corr As found:	79.4	Prev response:	80.69	*% change:	-1.6%
Baseline Corr 2nd AF pt:	40.0	AF Slope:	0.992527	AF Intercept:	-0.057970
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999980	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4917	82.6	80.0	79.4	1.007
Mid point	4959	41.3	40.0	39.7	1.007
Low point	4979	20.7	20.0	19.5	1.028
As left zero	5000	0.0	0.0	-0.1	----
As left span	4917	82.6	80.0	78.7	1.016
SO2 Scrubber Check	4919	81.3	813.0	0.1	----
Date of last scrubber change:	December 17, 2021			Ave Corr Factor	1.014
Date of last converter efficiency test:					

Notes: Inlet filter change completed after as founds. No adjustments made. Scrubber check passed.

Calibration Performed By: Mohammed Kashif



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TRS Calibration Summary

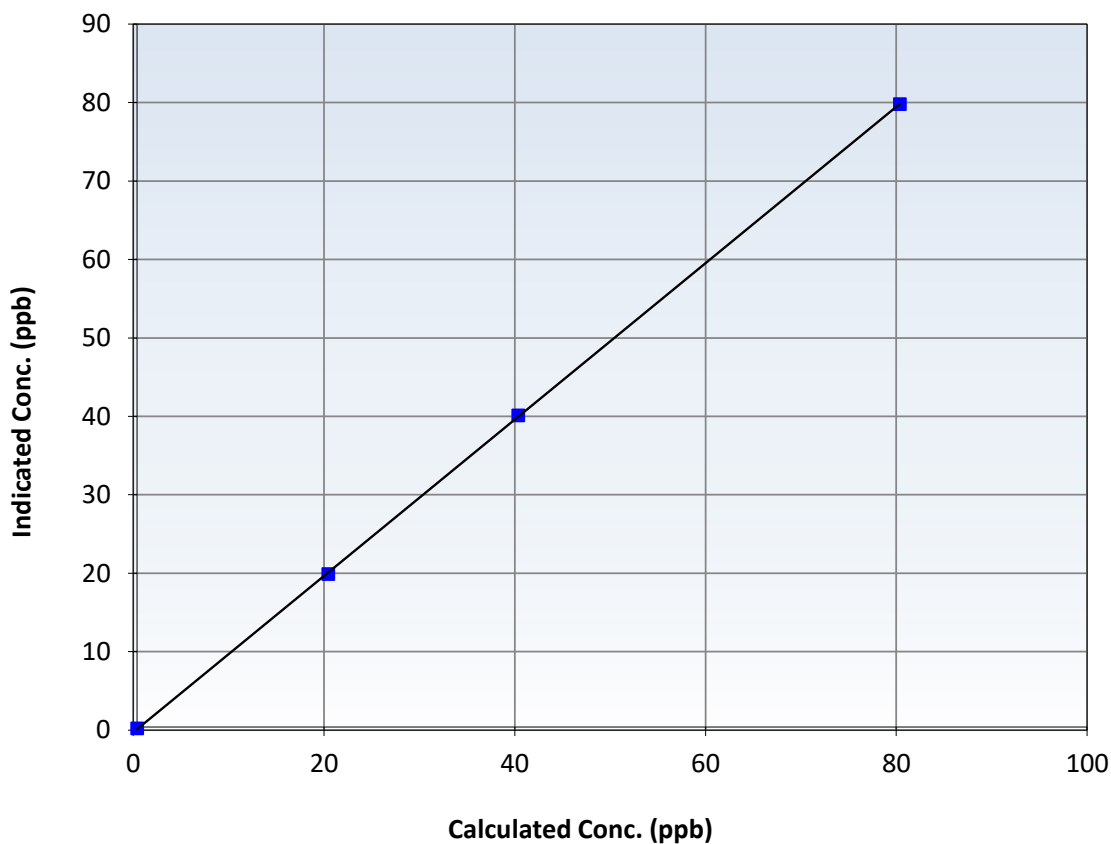
Station Information

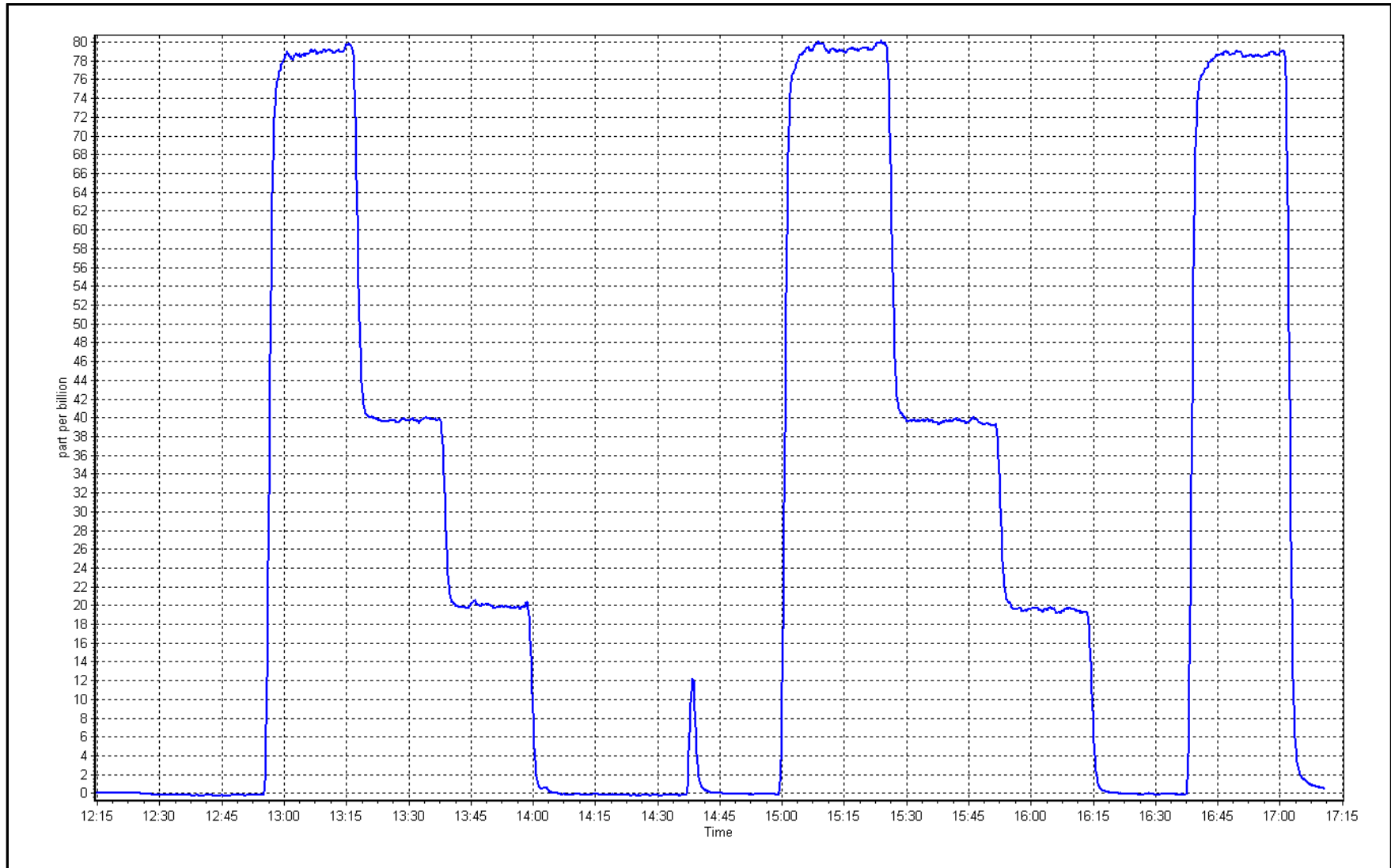
Calibration Date:	June 16, 2026	Previous Calibration:	May 6, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	12:25	End Time (MST):	17:10
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	12113311966

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999982	≥ 0.995
80.0	79.4	1.0071	Slope	0.996669	$0.90 - 1.10$
40.0	39.7	1.0070	Intercept	-0.277921	± 3
20.0	19.5	1.0276			

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay Station number: AMS 01
 Calibration Date: June 26, 2026 Last Cal Date: May 19, 2026
 Start time (MST): 9:27 End time (MST): 13:30
 Reason: Routine

Calibration Standards

Gas Cert Reference: CC418809 Cal Gas Expiry Date: March 10, 2031
 CH₄ Cal Gas Conc. 497.2 ppm CH₄ Equiv Conc. 1061.8 ppm
 C₃H₈ Cal Gas Conc. 205.3 ppm
 Removed Gas Cert: NA Removed Gas Expiry: NA
 Removed CH₄ Conc. 497.2 ppm CH₄ Equiv Conc. 1061.8 ppm
 Removed C₃H₈ Conc. 205.3 ppm Diff between cyl (THC):
 Diff between cyl (NMHC):
 Calibrator Model: Teledyne API T700 Serial Number: 3565
 Zero Air Gen model: Teledyne API T701 Serial Number: 146

Analyzer Information

Analyzer make: Thermo 55i Analyzer serial #: 1193585648
 THC Range: 0 - 20 ppm NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.43E-04	2.41E-04	NMHC SP Ratio:	4.74E-05
CH ₄ Retention time:	15.0	15.0	NMHC Peak Area:	193738
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	81.3	17.27	17.32	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.32	Prev response	17.16	*% change	0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	81.3	17.27	17.24	1.001
Mid point	4959	40.7	8.64	8.64	1.000
Low point	4979	20.3	4.31	4.36	0.990
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	17.27	17.36	0.995
Average Correction Factor					0.997

Notes: Sample inlet filter, N₂ and H₂ were changed after as founds. Adjusted span only.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	81.3	9.18	9.22	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.22	Prev response	9.08	*% change	1.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4918	81.3	9.18	9.15	1.003
Mid point	4959	40.7	4.60	4.61	0.997
Low point	4979	20.3	2.29	2.34	0.982
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	9.18	9.25	0.993
Average Correction Factor					0.994

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	81.3	8.09	8.10	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.10	Prev response	8.08	*% change	0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4918	81.3	8.09	8.09	0.999
Mid point	4959	40.7	4.05	4.04	1.002
Low point	4979	20.3	2.02	2.02	0.999
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	8.09	8.11	0.997
Average Correction Factor					1.000

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.993904	0.997696
THC Cal Offset:	0.002142	0.022747
CH ₄ Cal Slope:	1.000405	1.000336
CH ₄ Cal Offset:	-0.005926	-0.001930
NMHC Cal Slope:	0.988279	0.995396
NMHC Cal Offset:	0.007668	0.025076

Calibration Performed By: Mohammed Kashif



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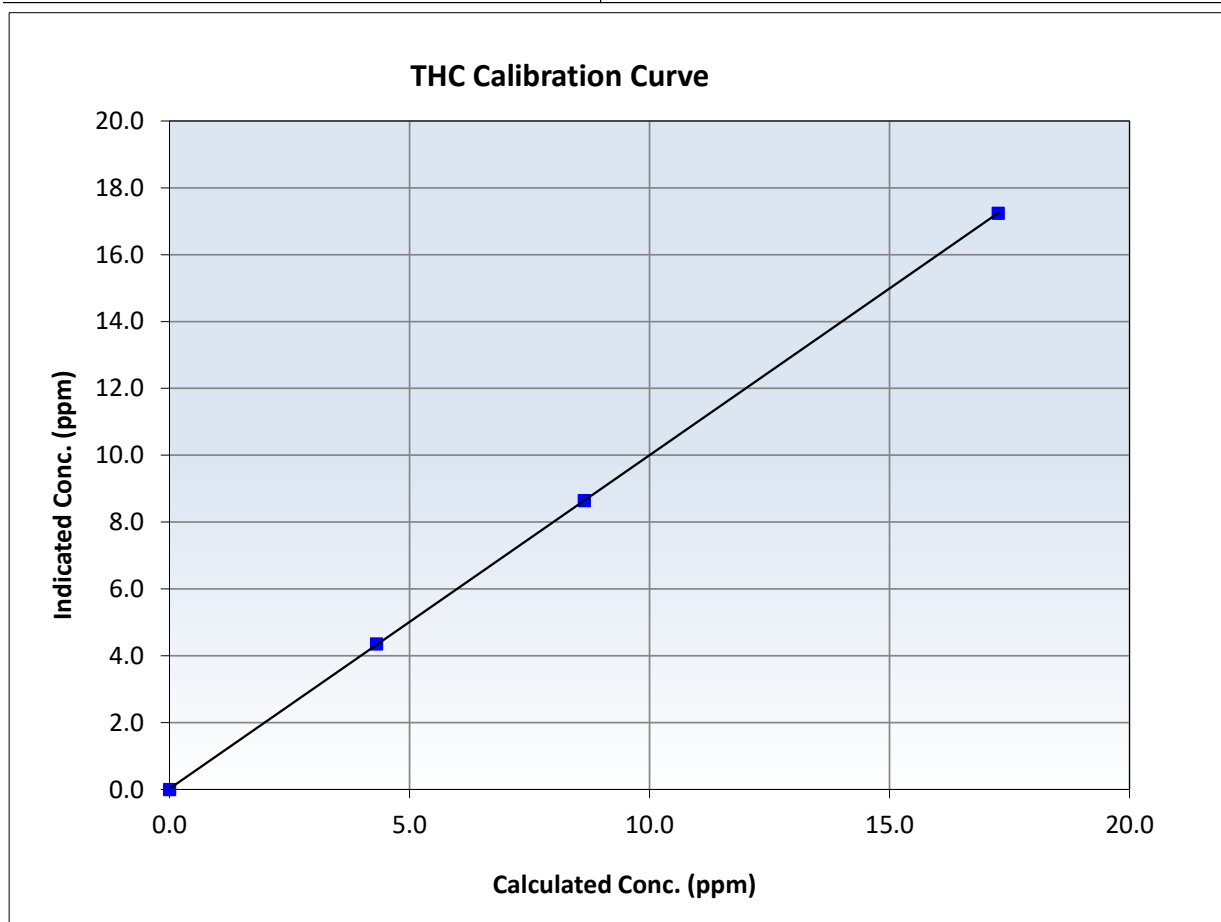
THC Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	May 19, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999990	≥ 0.995
17.27	17.24	1.0014	Slope	0.997696	$0.90 - 1.10$
8.64	8.64	0.9999	Intercept	0.022747	± 0.5
4.31	4.36	0.9898			





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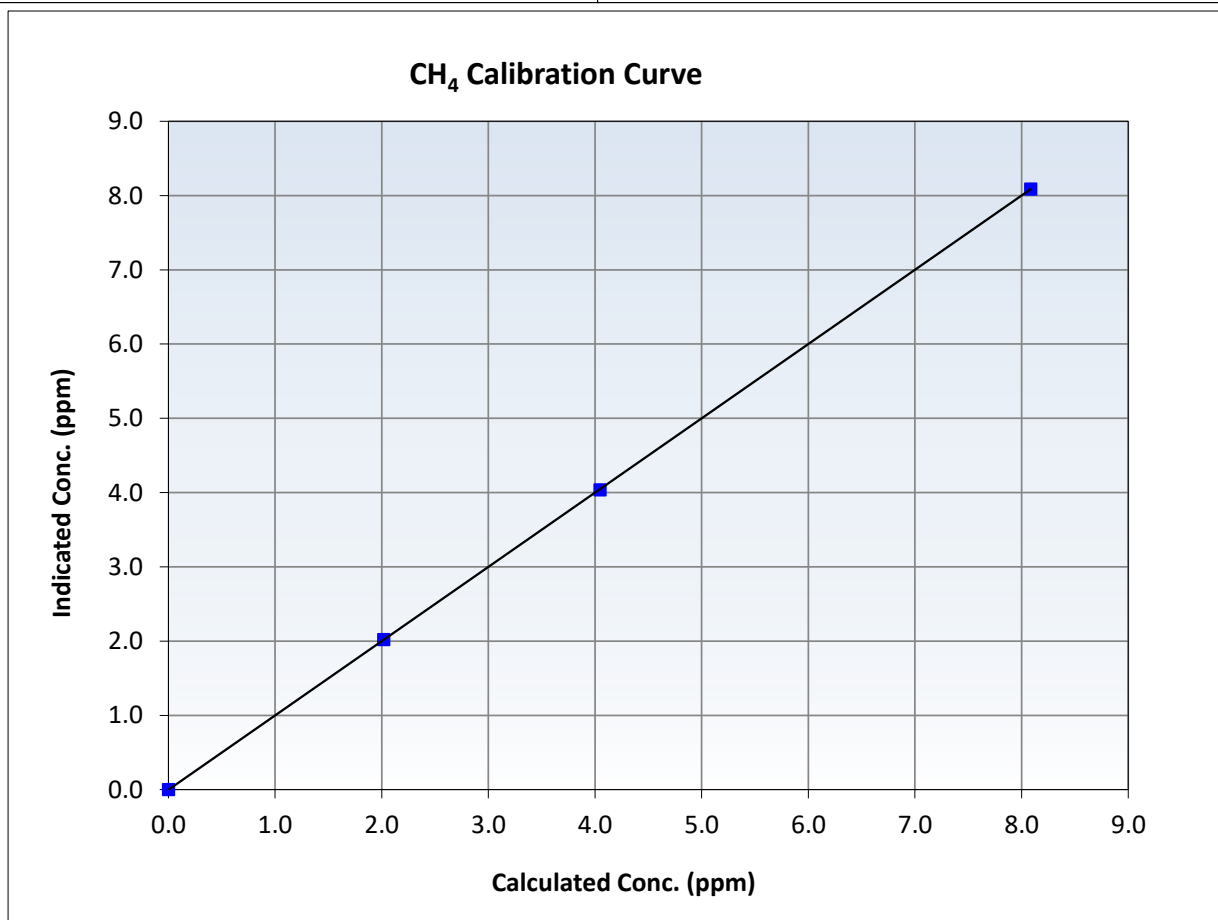
CH₄ Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	May 19, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999997	≥ 0.995
8.09	8.09	0.9995	Slope	1.000336	$0.90 - 1.10$
4.05	4.04	1.0023	Intercept	-0.001930	± 0.5
2.02	2.02	0.9990			





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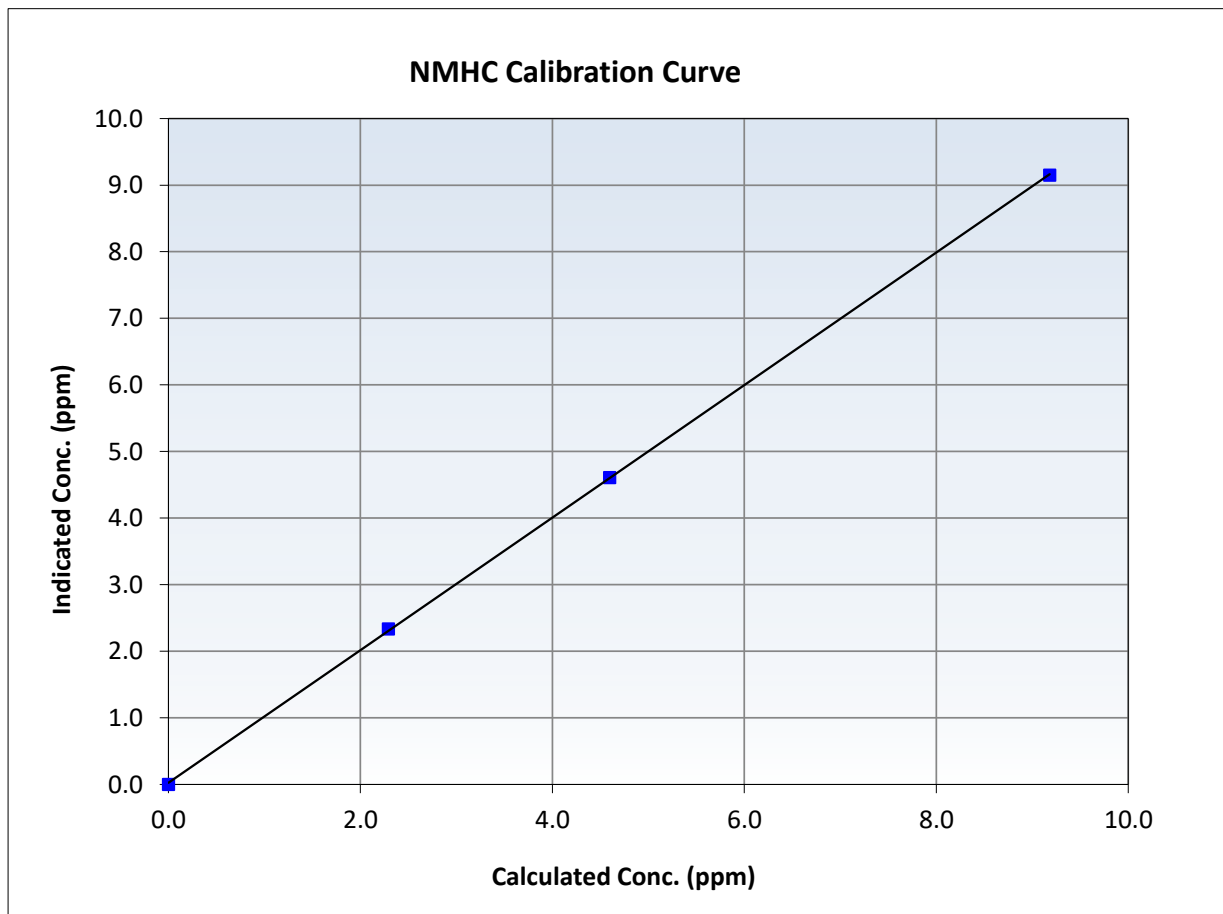
NMHC Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	May 19, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

Calibration Data

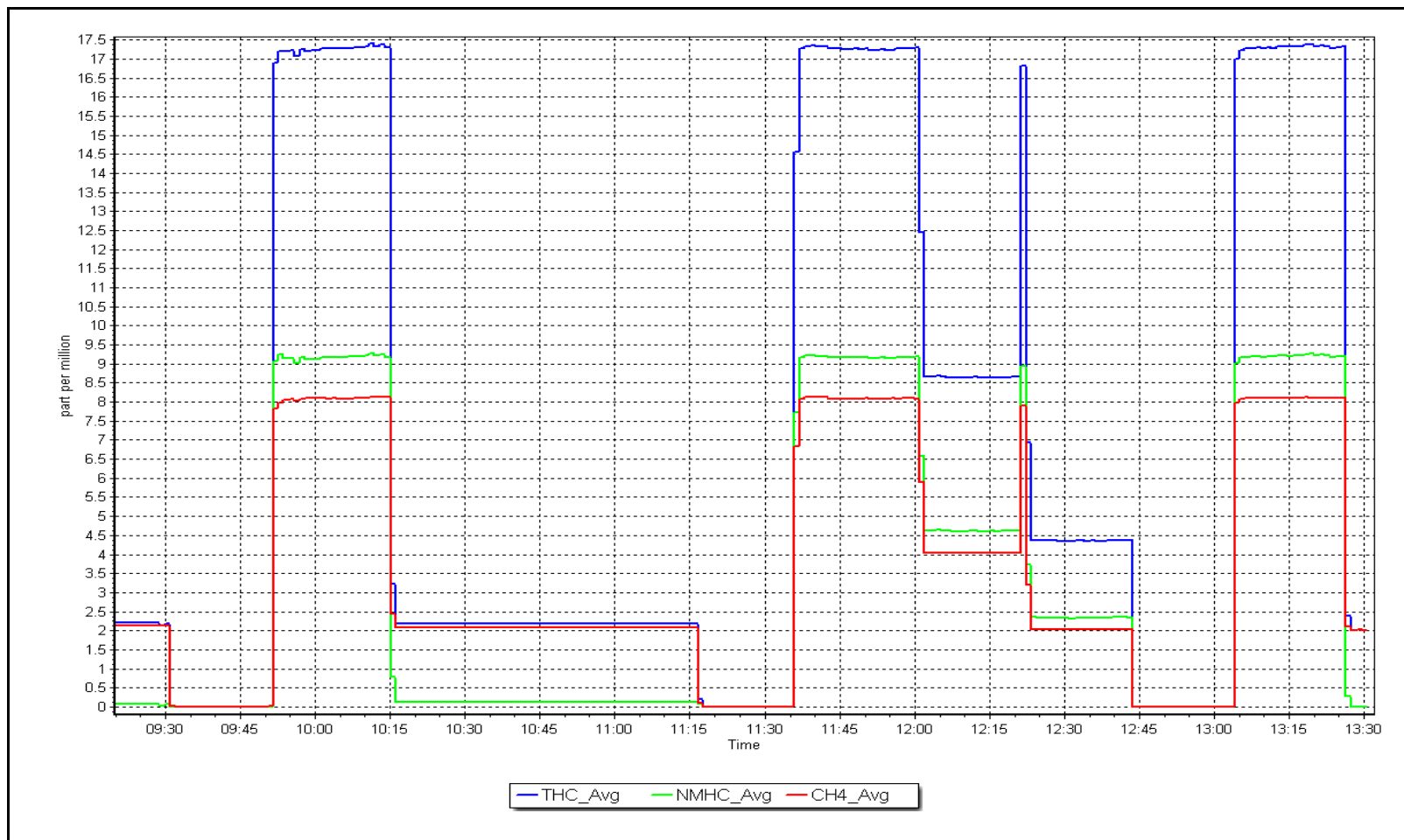
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999965	<i>≥0.995</i>
9.18	9.15	1.0031	Slope	0.995396	<i>0.90 - 1.10</i>
4.60	4.61	0.9974	Intercept	0.025076	<i>+/-0.5</i>
2.29	2.34	0.9818			



NMHC Calibration Plot

Date: June 26, 2026

Location: Bertha Ganter-Fort McKay





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay
Station number: AMS 01
Calibration Date: June 24, 2026
Last Cal Date: May 21, 2026
Start time (MST): 9:32
End time (MST): 13:57
Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC335700
NOX Cal Gas Conc: 59.40 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 59.40 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: September 1, 2032
NO Cal Gas Conc: 59.20 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 59.20 ppm
NO gas Diff:
Serial Number: 3565
Serial Number: 146

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	0.0	0.1	----	----
AF High point	4932	67.6	803.1	800.4	2.7	807.9	801.4	6.5	0.9943	0.9987
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 802.5 ppb	NO = 797.9 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = 0.6%
Baseline Corr 1st pt	NO _x = 807.7 ppb	NO = 801.4 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 0.4%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1336160088

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.753	0.753	NO bkgnd or offset:	2.2	2.2
NOX coeff or slope:	1.001	1.001	NOX bkgnd or offset:	2.3	2.3
NO2 coeff or slope:	0.999	0.999	Reaction cell Press:	162.6	161.2

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.998830	1.002502
NO _x Cal Offset:	0.360000	0.020000
NO Cal Slope:	0.998235	1.000534
NO Cal Offset:	-1.100000	-1.580000
NO ₂ Cal Slope:	0.997384	1.003841
NO ₂ Cal Offset:	0.979226	0.778452

Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.1	----	----
High point	4932	67.6	803.1	800.4	2.7	805.3	800.1	5.3	0.9973	1.0004
Mid point	4966	33.8	401.5	400.2	1.4	402.3	397.9	4.3	0.9981	1.0058
Low point	4983	16.9	200.8	200.1	0.7	201.1	197.0	4.1	0.9984	1.0157
As left zero	5000	0.0	0.0	0.0	0.0	0.5	0.1	0.4	----	----
As left span	4932	67.6	803.1	407.8	395.3	801.7	407.8	394.0	1.0017	1.0000
Average Correction Factor									0.9979	1.0073

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	796.5	407.2	392.0	393.9	0.9952	100.5%
Mid GPT point	796.5	595.6	203.6	205.6	0.9903	101.0%
Low GPT point	796.5	698.6	100.6	102.4	0.9825	101.8%
Average Correction Factor					0.9893	101.1%

Notes:

Changed the sample inlet filter after as founds. No adjustments made.

Calibration Performed By:

Mohammed Kashif



Wood Buffalo Environmental Association

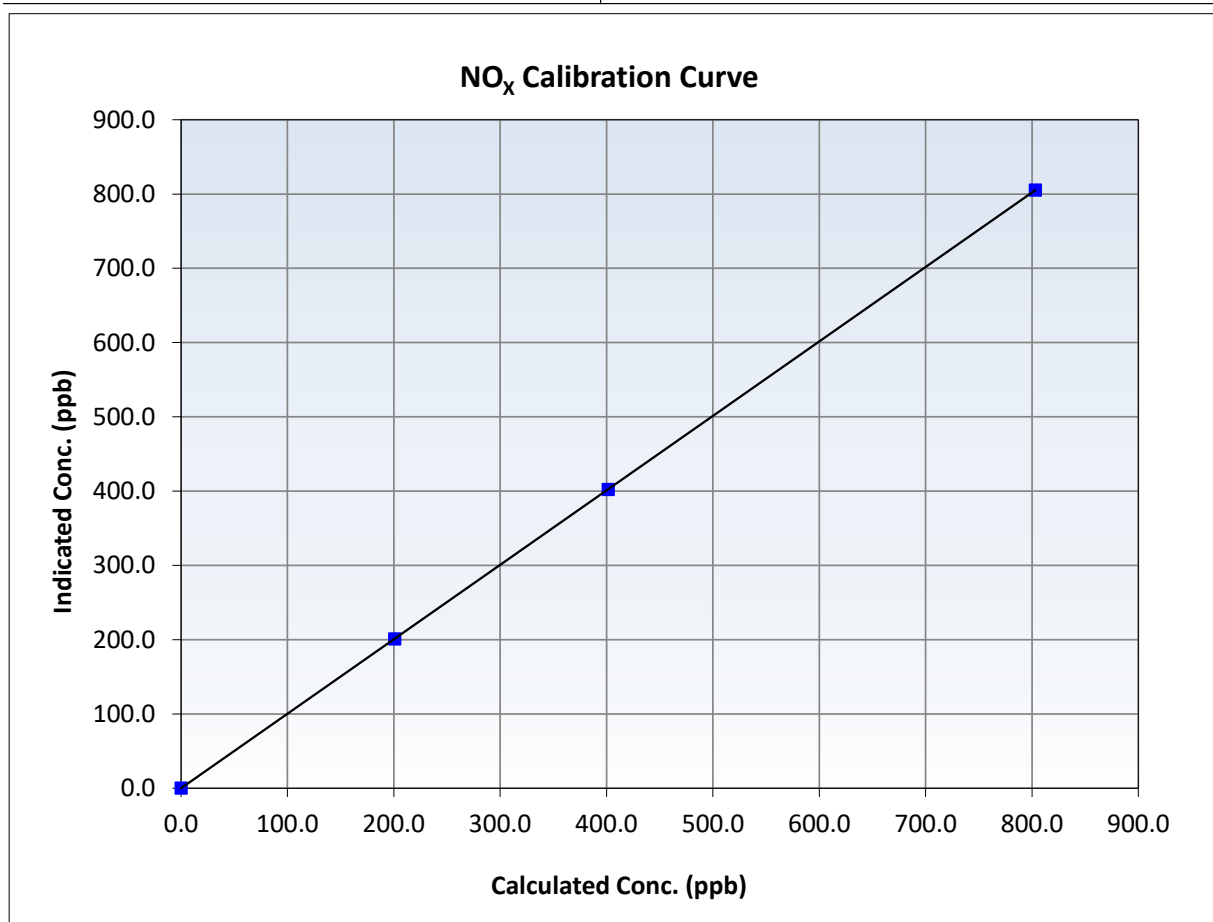
NO_x Calibration Summary

Station Information

Calibration Date:	June 24, 2026	Previous Calibration:	May 21, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:32	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.3	----	Correlation Coefficient	0.999999	≥0.995
803.1	805.3	0.9973	Slope	1.002502	0.90 - 1.10
401.5	402.3	0.9981	Intercept	0.020000	+/-20
200.8	201.1	0.9984			





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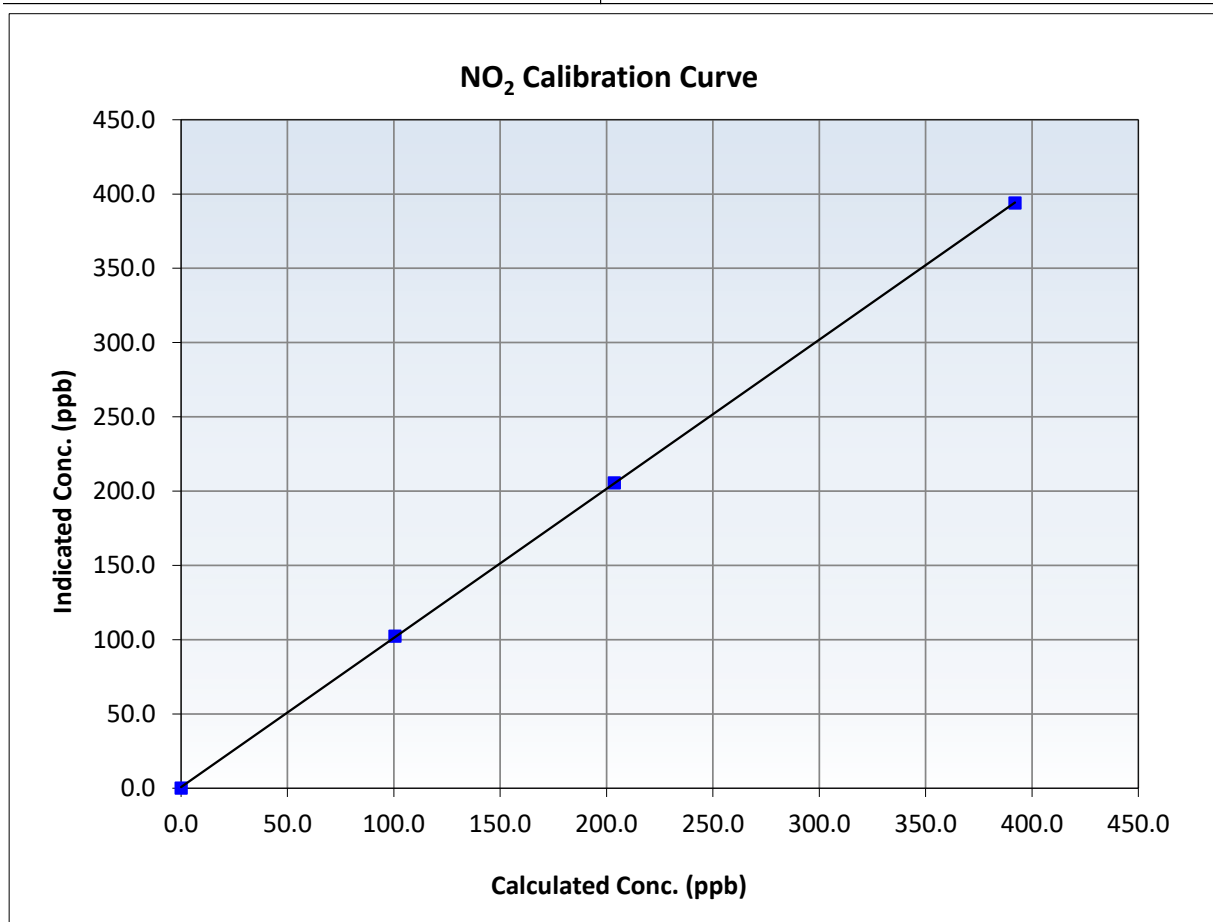
NO₂ Calibration Summary

Station Information

Calibration Date:	June 24, 2026	Previous Calibration:	May 21, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:32	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999986	≥0.995
392.0	393.9	0.9952	Slope	1.003841	0.90 - 1.10
203.6	205.6	0.9903	Intercept	0.778452	+/-20
100.6	102.4	0.9825			





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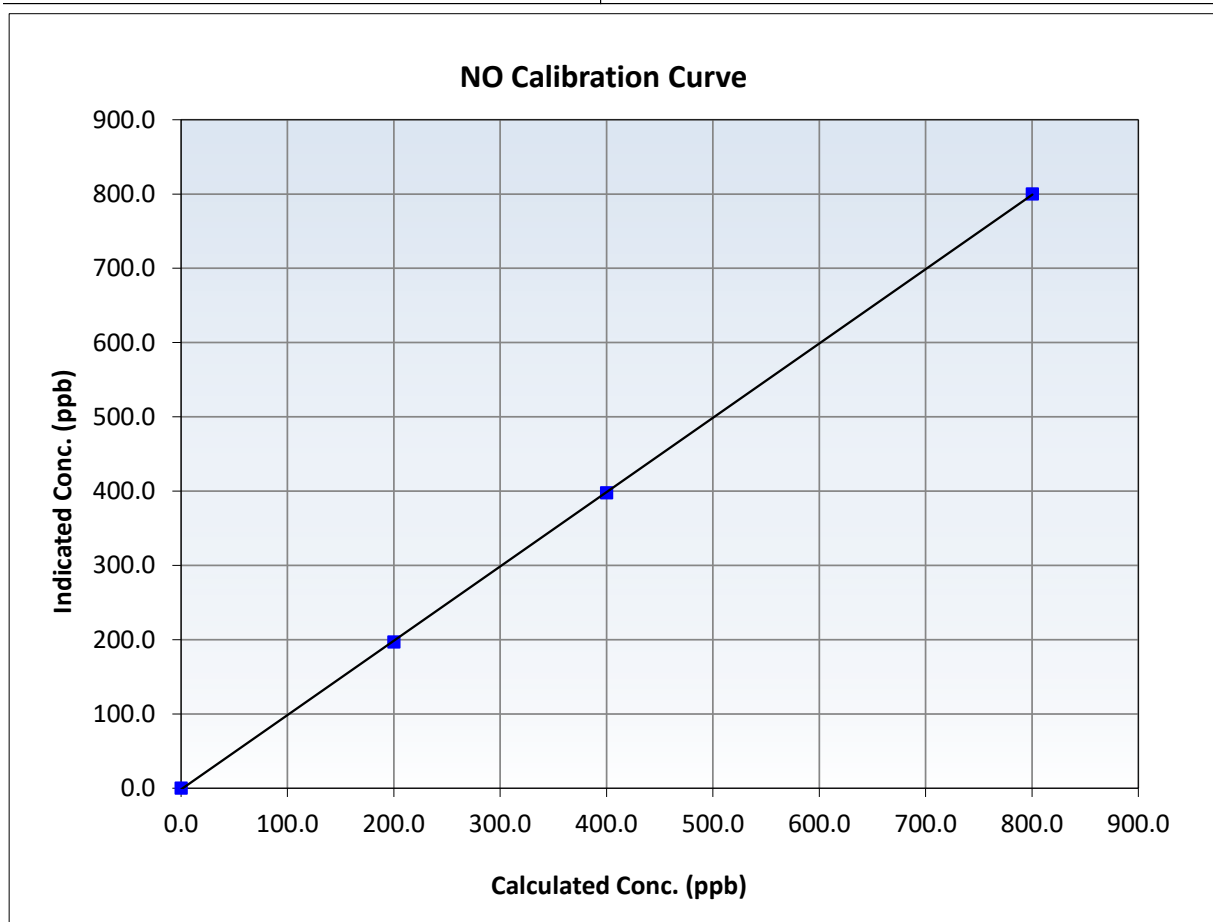
NO Calibration Summary

Station Information

Calibration Date:	June 24, 2026	Previous Calibration:	May 21, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:32	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

Calibration Data

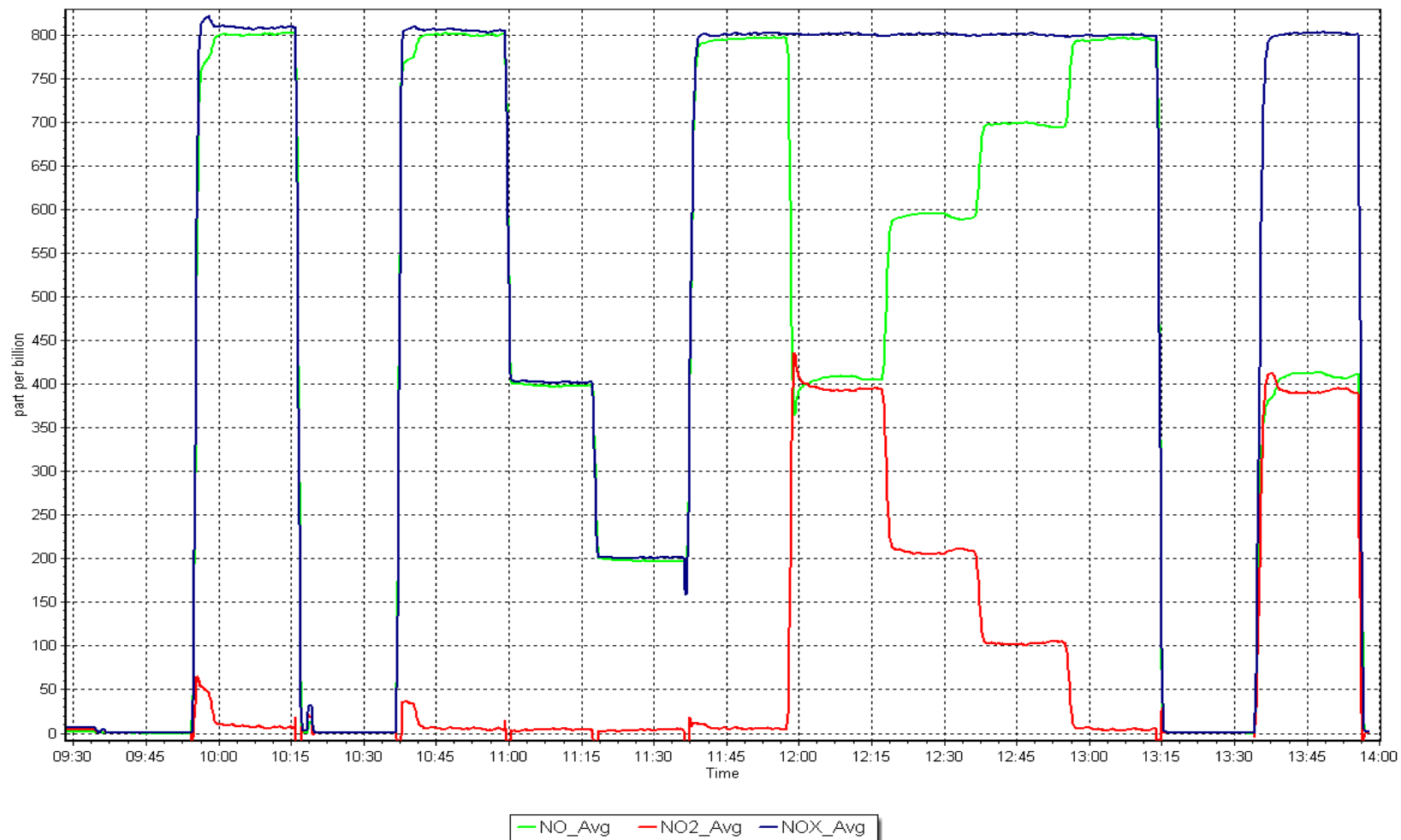
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999980	≥ 0.995
800.4	800.1	1.0004	Slope	1.000534	0.90 - 1.10
400.2	397.9	1.0058	Intercept	-1.580000	+/-20
200.1	197.0	1.0157			



NO_x Calibration Plot

Date: June 24, 2026

Location: Bertha Ganter-Fort McKay





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Bertha Ganter-Fort McKay Station number: AMS 01
Calibration Date: June 9, 2026 Last Cal Date: May 4, 2026
Start time (MST): 11:25 End time (MST): 15:52
Reason: Routine

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700 Serial Number: 3565
ZAG Make/Model: Teledyne API T701 Serial Number: 146

Analyzer Information

Analyzer make: Teledyne API T400 Analyzer serial #: 7045
Analyzer Range: 0 - 500 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.991086	1.007743	Backgd or Offset:	2.8	2.6
Calibration intercept:	1.760000	-0.380000	Coeff or Slope:	1.182	1.010

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.7	----
As found High point	5000	880.4	400.0	410.9	0.972
As found Mid point	5000	755.0	200.0	209.9	0.950
As found Low point	5000	661.2	100.0	106.3	0.935
Baseline Corr As found:	411.6	Previous response	398.2	*% change	3.3%
Baseline Corr 2nd AF pt:	210.6	AF Slope:	1.026857	AF Intercept:	1.900000
Baseline Corr 3rd AF pt:	107.0	AF Correlation:	0.999787	* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.7	----
High point	5000	880.4	400.0	402.6	0.994
Mid point	5000	755.0	200.0	201.2	0.994
Low point	5000	661.2	100.0	100.8	0.992
As left zero	5000	0.0	0.0	-0.6	----
As left span	5000	880.4	400.0	404.9	0.988
Average Correction Factor					0.993

Notes: Changed the inlet filter and analyzer's scrubber after multi point as founds. Adjusted both zero and span.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

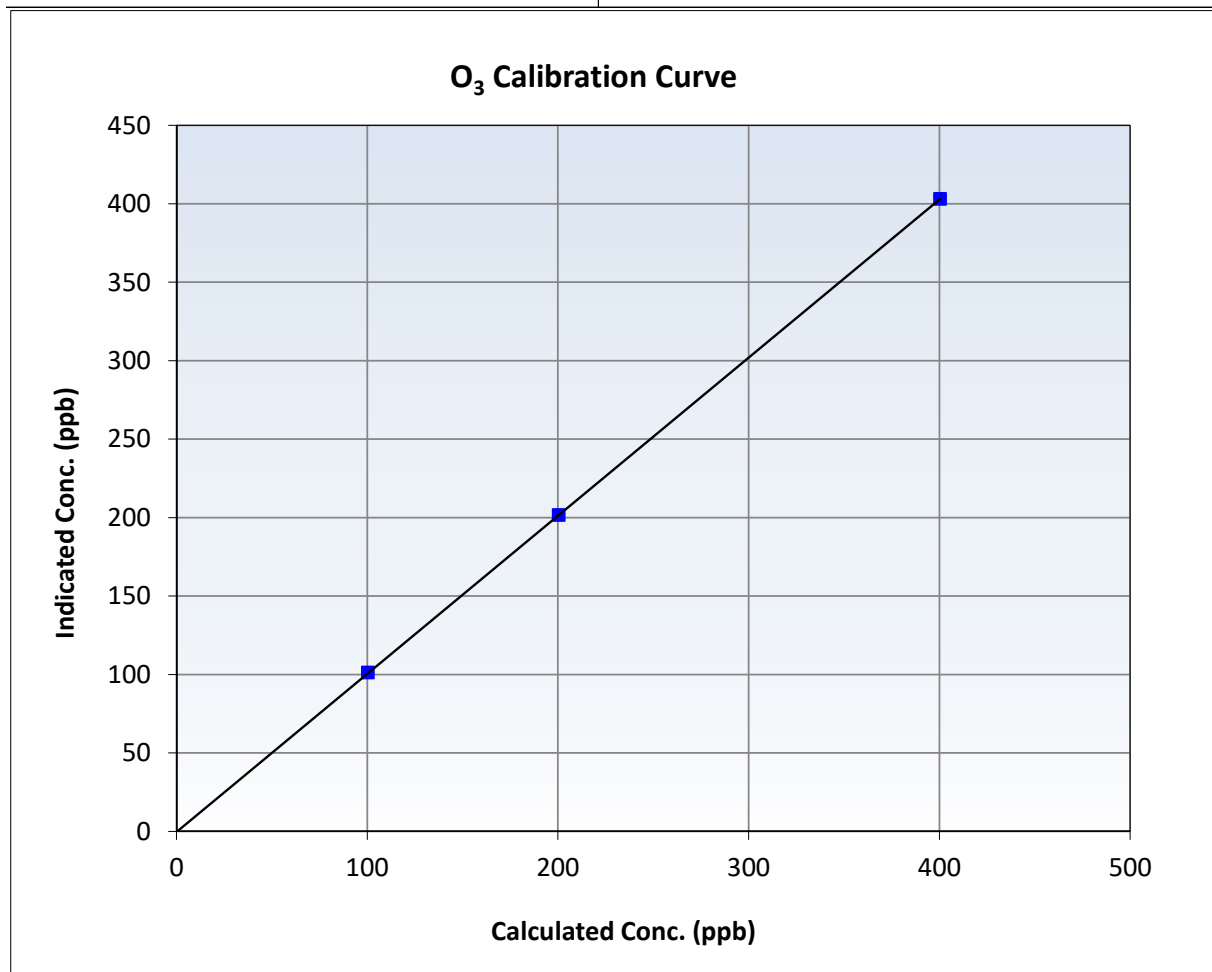
O₃ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 4, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	11:25	End Time (MST):	15:52
Analyzer make:	Teledyne API T400	Analyzer serial #:	7045

Calibration Data

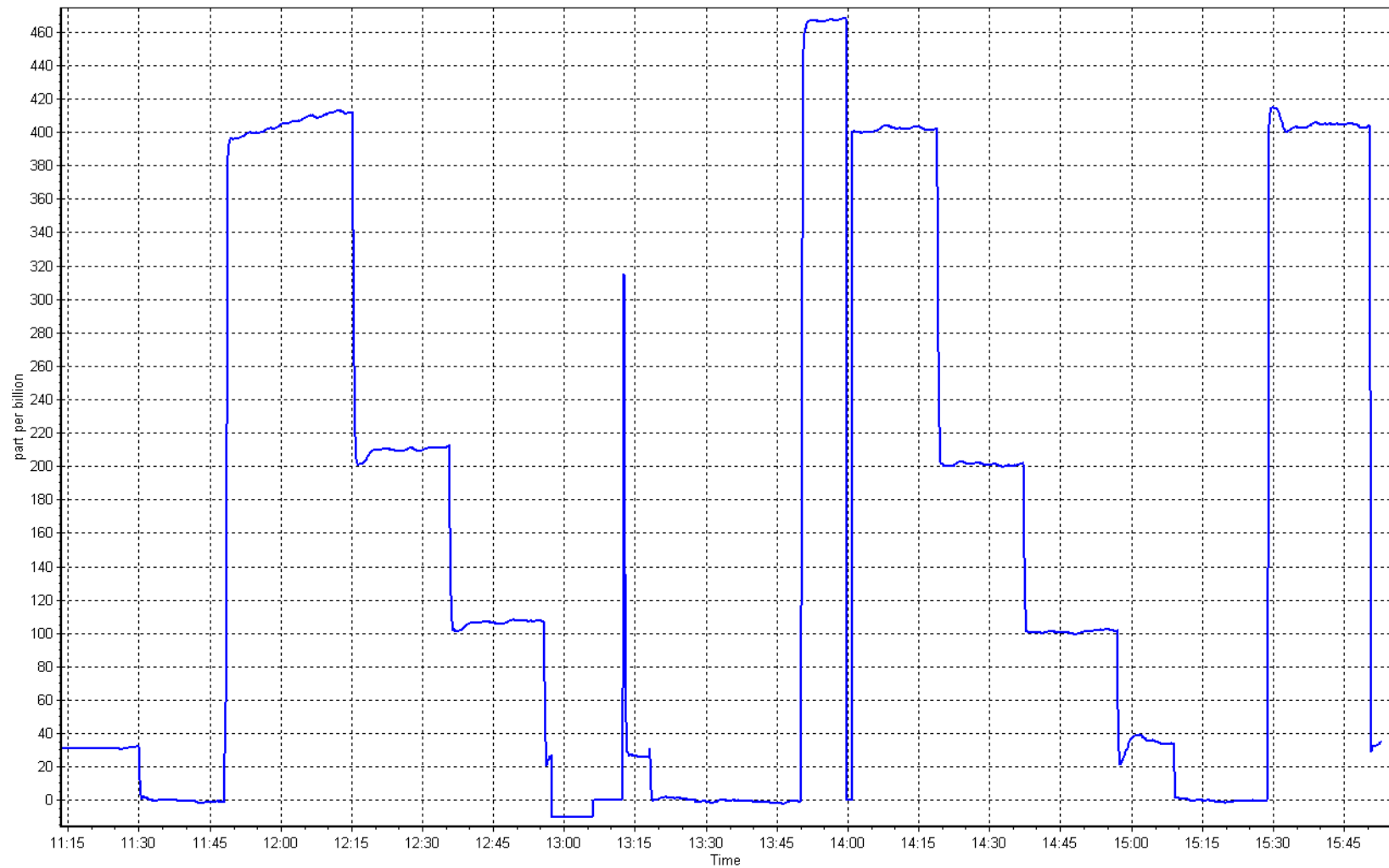
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.7	----	Correlation Coefficient	0.999997	≥0.995
400.0	402.6	0.9935	Slope	1.007743	0.90 - 1.10
200.0	201.2	0.9940	Intercept	-0.380000	+/- 5
100.0	100.8	0.9921			



O₃ Calibration Plot

Date: June 9, 2026

Location: Bertha Ganter-Fort McKay





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Fort McKay - Bertha Ganter Station number: AMS 01
Calibration Date: June 16, 2026 Last Cal Date: May 26, 2026
Start time (MST): 15:26 End time (MST): 15:41

Analyzer Make: Teledyne API T640 S/N: 323
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749
Temp/RH standard: Alicat FP-25BT S/N: 388749

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	23.10	22.7	23.10	☐	+/- 2 °C
P (mmHg)	726.50	725.64	726.50	☐	+/- 10 mmHg
Flow (LPM)	5.01	5.002	5.01	☐	+/- 0.25 LPM
PW% (pump)	30		30	☐	>80%
Zero Verification	PM w/o HEPA:	8.40	PM w/ HEPA:	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: Expiry Date:
Lot No.:

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	10.9 +/- 0.5

Date Optical Chamber Cleaned: May 26, 2026
Date Disposable Filter Changed: May 26, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: February 24, 2026
Date RH/T Sensor Cleaned: February 24, 2026

Notes: Flow, temperature, and pressure were verified. No adjustments made. Leak check passed. Inlet head cleaned.

Calibration by: Mohammed Kashif



Wood Buffalo Environmental Association

Nt - NOX - NH3 Calibration Report

Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number:	AMS 01
NOX Cal Date:	June 29, 2026	Last Cal Date:	May 25, 2026
Start time (MST):	9:28	End time (MST):	14:21
NH3 Cal Date:	June 30, 2026	Last Cal Date:	May 26, 2026
Start time (MST):	6:54	End time (MST):	11:30
Reason:	Routine		

Calibration Standards

NOX Cal Gas Conc:	59.40	ppm	NO Gas Cylinder #:	CC335700
NO Cal Gas Conc:	59.20	ppm	NO Cal Gas Expiry:	September 1, 2032
Removed NOX Conc:	59.40	ppm	Removed Cylinder #:	NA
Removed NO Conc:	59.20	ppm	Removed cyl Expiry:	NA
NOX gas Diff:			NO gas Diff:	
NH3 Cal Gas Conc:	76.58	ppm	NH3 Gas Cylinder #:	CC482625
			NH3 Cal Gas Expiry:	September 10, 2026
Removed NH3 Conc:	76.58	ppm	Removed Cylinder #:	NA
NH3 gas Diff:			Removed cyl Expiry:	NA
Calibrator Model:	API T700		Serial Number:	3565
ZAG make/model:	API T701		Serial Number:	146

Analyzer Information

Analyzer model:	API T201	Analyzer serial #:	152
Converter model:	API T501	Converter serial #:	484
NH3 Range (ppb):	0 - 2000 ppb	Reaction cell Press:	8.2
NOX Range (ppb):	0 - 1000 ppb	Sample Flow:	562

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coefficient:	0.999	0.999	Nt coefficient:	1.011	1.011
NOX coefficient:	1.010	1.010	NO bkgrnd:	0.0	0.0
NO2 coefficient:	1.000	1.000	NOX bkgrnd:	0.0	0.0
NH3 coefficient:	0.971	0.971	Nt bkgrnd:	0.0	0.0

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.995742	1.001064
NO _x Cal Offset:	-0.680000	-1.300000
NO Cal Slope:	0.991767	0.997678
NO Cal Offset:	-1.060000	-3.580000
NO ₂ Cal Slope:	0.996618	1.017447
NO ₂ Cal Offset:	1.617423	-0.603697
NH3 Cal Slope:	0.995183	0.998088
NH3 Cal Offset:	1.175347	7.302791
Nt Cal Slope:	0.997463	1.001150
Nt Cal Offset:	1.493497	7.176808



Wood Buffalo Environmental Association

NO_x - NO - NO₂ Calibration Report

NO_x / NO / Nt As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	Baseline corr NO _x Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>	Baseline corr NO Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	-0.1	0.5	----	----
As found span	4932	67.6	803.1	800.4	803.1	798.0	792.4	794.3	1.0064	1.0101
AF GPT span	4932	67.6	803.1	-----	803.1	792.5	-----	791.9	1.0134	-----
new NO cyl rp										

Baseline Corr As Fd Nt = 793.8 ppb NO_x = 797.8 ppb NO = 792.5 ppb

Previous Response Nt = 802.54 ppb NO_x = 799.0 ppb NO = 792.7 ppb

****NO_x Δ (NO to GPT response) = -1.3%**

*** = > +/-2% difference initiates investigation**

***Percent Change Nt(NO) = -1.1%**

***Percent Change NO_x = -0.1%**

***Percent Change NO = 0.0%**

*** = > +/-5% change initiates investigation**

NO_x / NO / Nt Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	0.0	-0.5	-0.6	----	----
High point	4932	67.6	803.1	800.4	803.1	803.3	797.0	796.2	0.9997	1.0042
Mid point	4966	33.8	401.5	400.2	401.5	400.0	392.6	396.6	1.0039	1.0193
Low point	4983	16.9	200.8	200.1	200.8	198.4	194.0	197.8	1.0120	1.0314
Average Correction Factor									1.0052	1.0183

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found zero	----	----	0.0	0.3	----	----
Calibration zero	----	----	0.0	0.5	----	----
High GPT point (400 ppb O3)	780.6	408.6	374.7	379.5	0.9874	101.3%
Mid GPT point (200 ppb O3)	780.6	595.2	188.1	195.4	0.9627	103.9%
Low GPT point (100 ppb O3)	780.6	686.8	96.5	93.0	1.0377	96.4%
Average Correction Factor					0.9959	100.5%



Wood Buffalo Environmental Association NH₃ - N_T Calibration Report

NH₃ As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH ₃ concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH ₃ concentration (ppb) (Ic)	Baseline corr Nt Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>	Baseline corr NH ₃ Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	0.5	-0.3	----	----
AF High point										
AF Mid point										
AF Low point										
new NH ₃ cyl rp										
Baseline Corr As Fd	Nt =	NA	ppb	NH ₃ =	NA	ppb			*Percent Change	Nt _(NH₃) = NA
Previous Response	Nt =	NA	ppb	NH ₃ =	NA	ppb	* = > +/-5% change initiates investigation		*Percent Change	NH ₃ = NA

NH₃ Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH ₃ concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH ₃ concentration (ppb) (Ic)	Nt Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NH ₃ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	-0.6	0.0	-0.6	----	----
High point	2930	70.5	1799.6	0.0	1799.6	1804.6	5.8	1799.0	0.997	1.000
Mid point	2961	39.2	1000.6	0.0	1000.6	1012.3	2.3	1009.8	0.988	0.991
Low point	2980	19.6	500.3	0.0	500.3	516.8	1.5	515.3	0.968	0.971
Average Correction Factor									0.9846	0.9874
NH ₃ Previous Converter Efficiency =			97.1 %							
NH ₃ Current Converter Efficiency =			97.1 %							

Notes:

Changed the sample inlet filter after as founds. No adjustments made.

Calibration Performed By:

Mohammed Kashif



Wood Buffalo Environmental Association

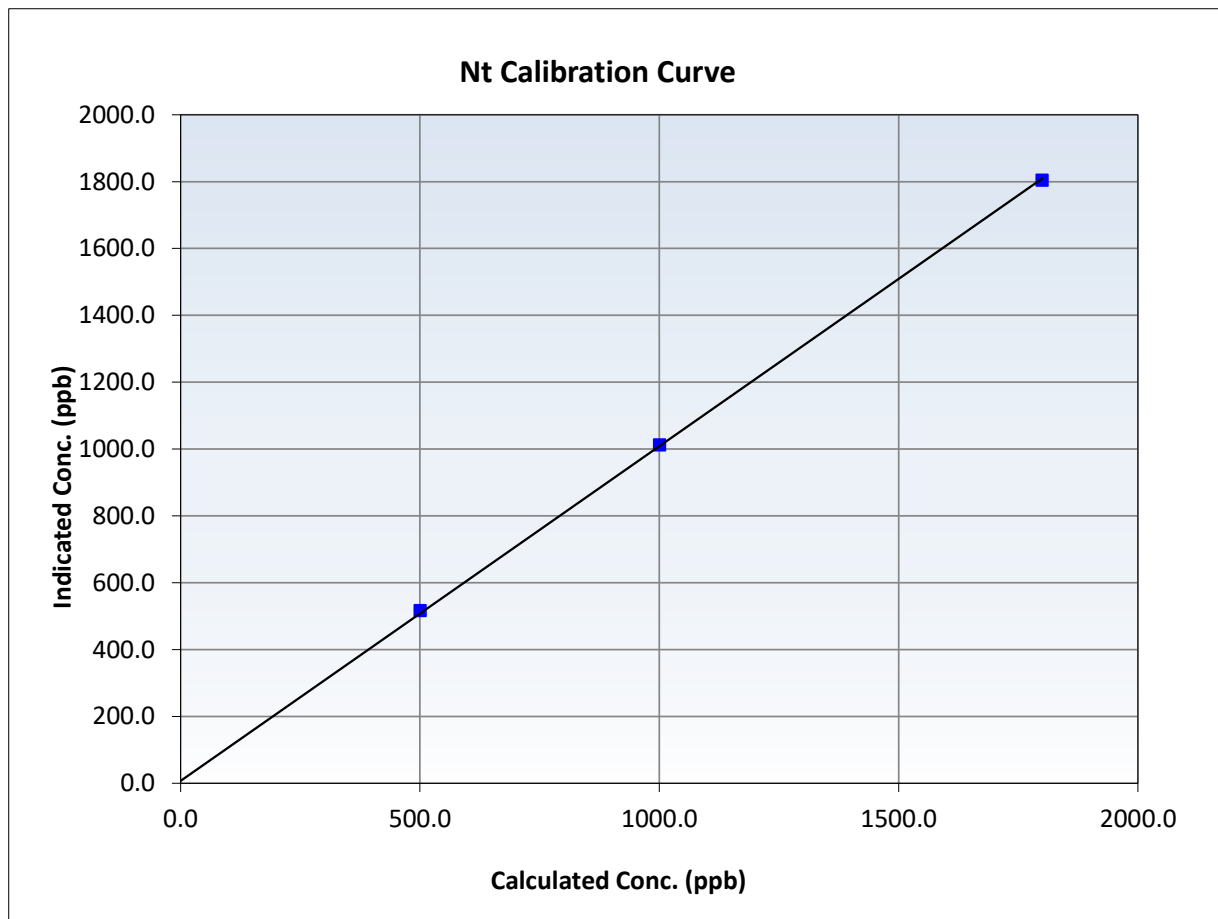
Nt Calibration Summary

Station Information

Calibration Date:	June 30, 2026	Previous Calibration:	May 25, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	6:54	End Time (MST):	11:30
Analyzer make:	API T201	Analyzer serial #:	152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.6	----	Correlation Coefficient	0.999906	≥ 0.995
1799.6	1804.6	0.9972	Slope	1.001150	0.90 - 1.10
1000.6	1012.3	0.9885	Intercept	7.176808	+/-20
500.3	516.8	0.9681			





Wood Buffalo Environmental Association

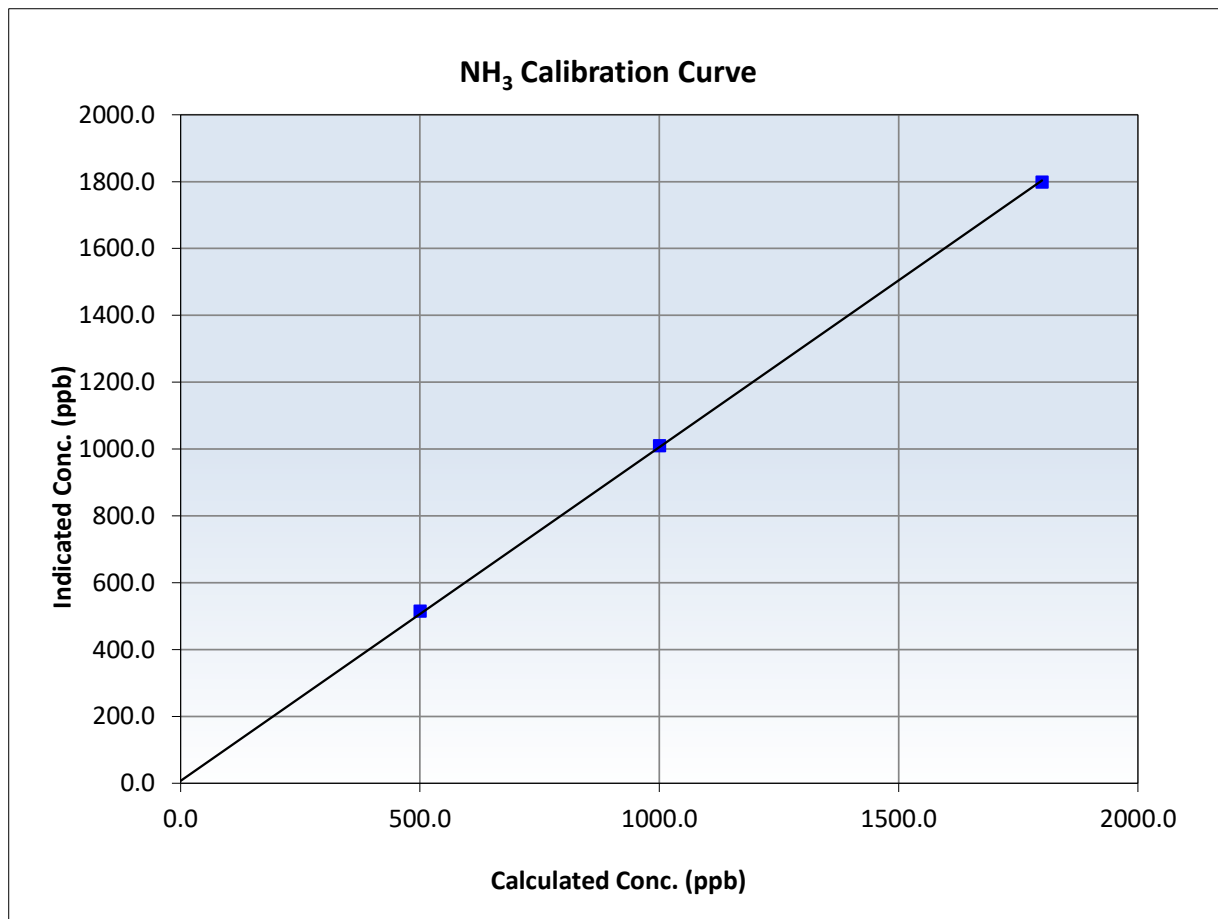
NH₃ Calibration Summary

Station Information

Calibration Date:	June 30, 2026	Previous Calibration:	May 25, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	6:54	End Time (MST):	11:30
Analyzer make:	API T201	Analyzer serial #:	152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.6	----	Correlation Coefficient	0.999903	<i>≥0.995</i>
1799.6	1799.0	1.0004	Slope	0.998088	<i>0.90 - 1.10</i>
1000.6	1009.8	0.9909	Intercept	7.302791	<i>+/-20</i>
500.3	515.3	0.9709			





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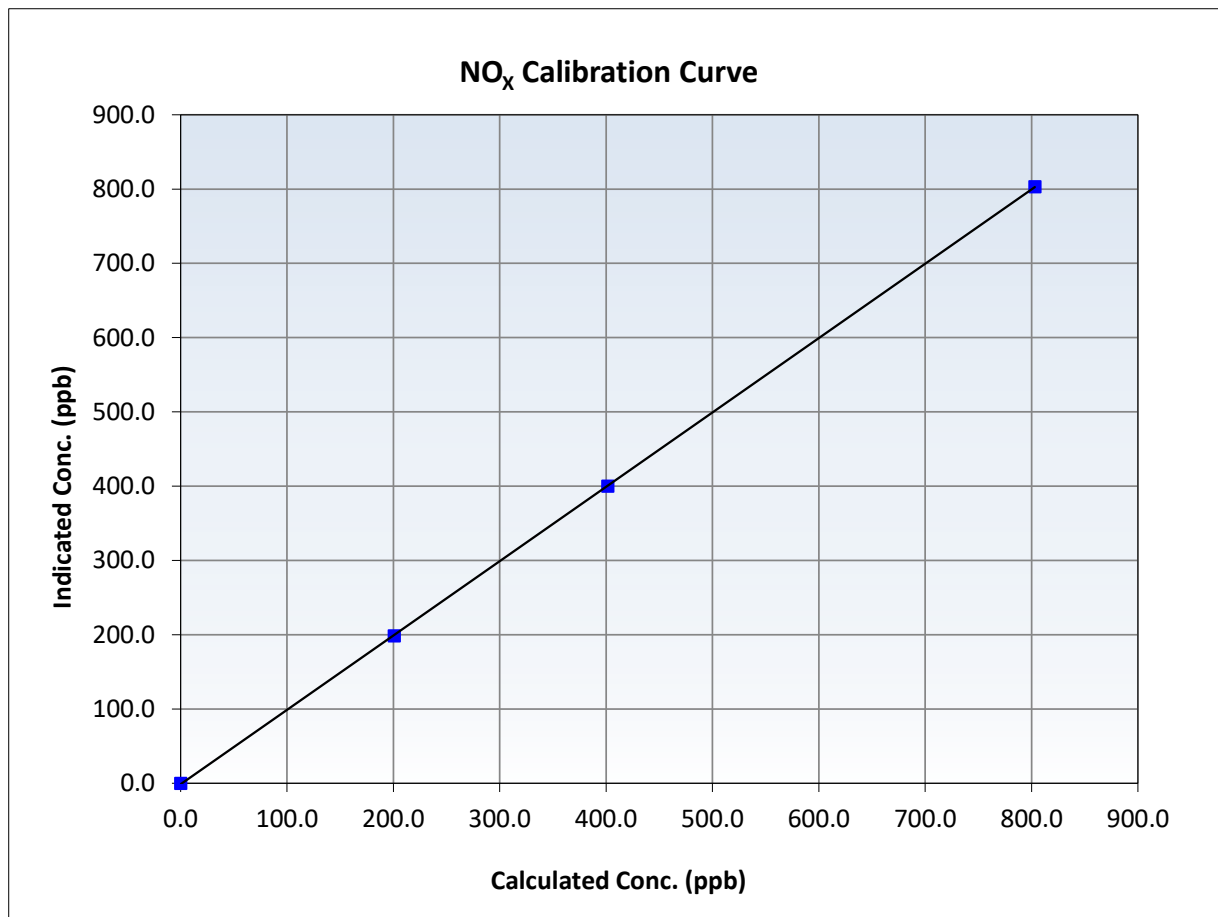
NO_x Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 25, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:28	End Time (MST):	14:21
Analyzer make:	API T201	Analyzer serial #:	152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999988	≥0.995
803.1	803.3	0.9997	Slope	1.001064	0.90 - 1.10
401.5	400.0	1.0039	Intercept	-1.300000	+/-20
200.8	198.4	1.0120			





Wood Buffalo Environmental Association

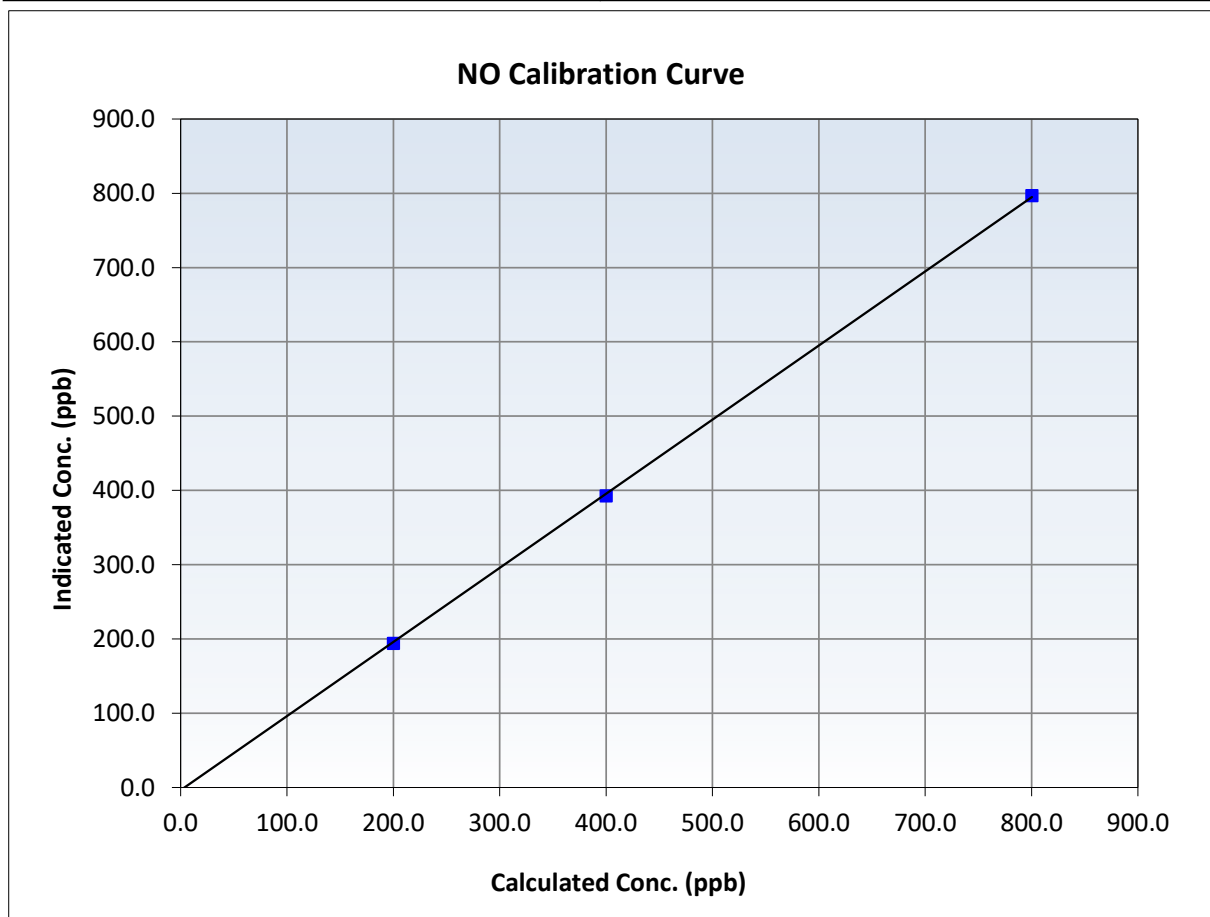
NO Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 25, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:28	End Time (MST):	14:21
Analyzer make:	API T201	Analyzer serial #:	152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.5	----	Correlation Coefficient	0.999921	≥ 0.995
800.4	797.0	1.0042	Slope	0.997678	0.90 - 1.10
400.2	392.6	1.0193	Intercept	-3.580000	+/-20
200.1	194.0	1.0314			





Wood Buffalo Environmental Association

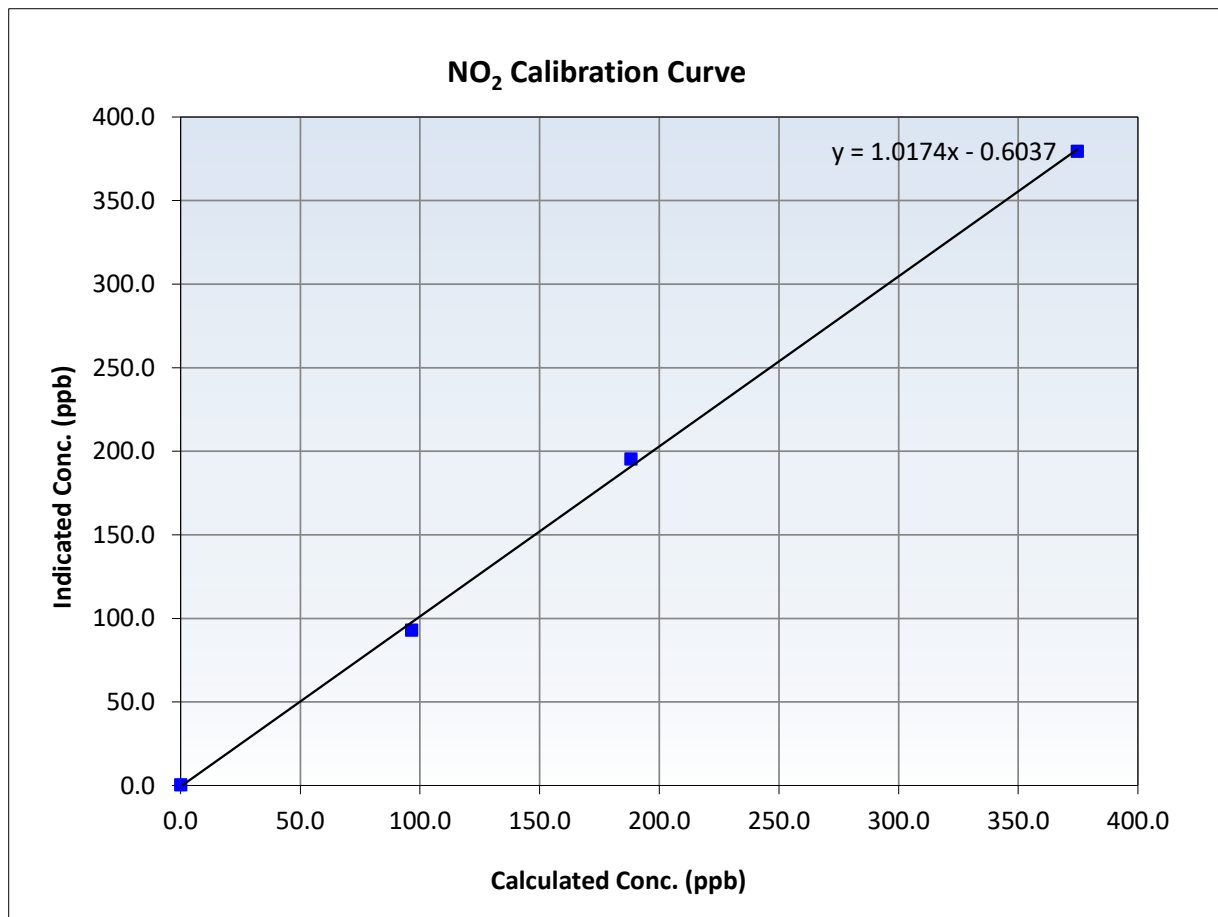
NO₂ Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 25, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:28	End Time (MST):	14:21
Analyzer make:	API T201	Analyzer serial #:	152

Calibration Data

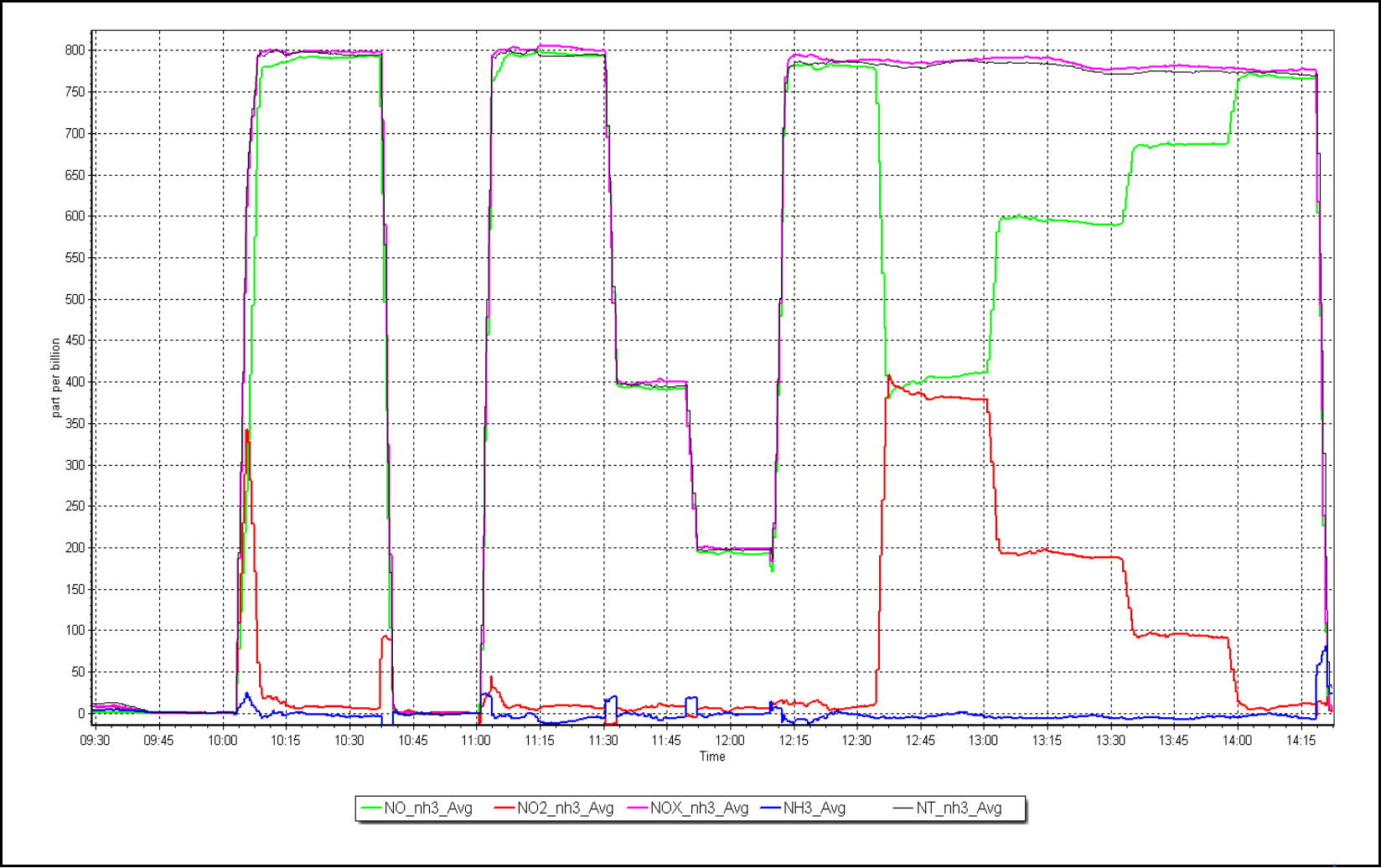
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.5	----	Correlation Coefficient	0.999433	≥ 0.995
374.7	379.5	0.9874	Slope	1.017447	0.90 - 1.10
188.1	195.4	0.9627	Intercept	-0.603697	+/-20
96.5	93.0	1.0377			



NO_x Calibration Plot

Date: June 29, 2026

Location: Bertha Ganter-Fort McKay







WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS04 BUFFALO VIEWPOINT JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Buffalo Viewpoint Station number: AMS 04
Calibration Date: June 2, 2026 Last Cal Date: May 5, 2026
Start time (MST): 10:38 End time (MST): 13:53
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.06 ppm Cal Gas Exp Date: January 5, 2029
Cal Gas Cylinder #: CC147416
Removed Cal Gas Conc: 50.06 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3808
Zero Air Gen Model: Teledyne API T701 Serial Number: 362

Analyzer Information

Analyzer make: Thermo 43i-LTE Serial Number: 1410661331
Analyzer Range: 0-1000ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003596	1.004295	Backgd or Offset:	1.6	1.6
Calibration intercept:	0.520000	1.100000	Coeff or Slope:	1.016	1.014

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4920	80.0	801.0	803.7	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	803.8	Previous response	804.4	*% change	-0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4920	80.0	801.0	805.0	0.995
Mid point	4960	40.0	400.5	404.0	0.991
Low point	4980	20.0	200.2	202.8	0.987
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	80.0	801.0	805.0	0.995
Average Correction Factor:					0.991

Notes: No adjustment needed.

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

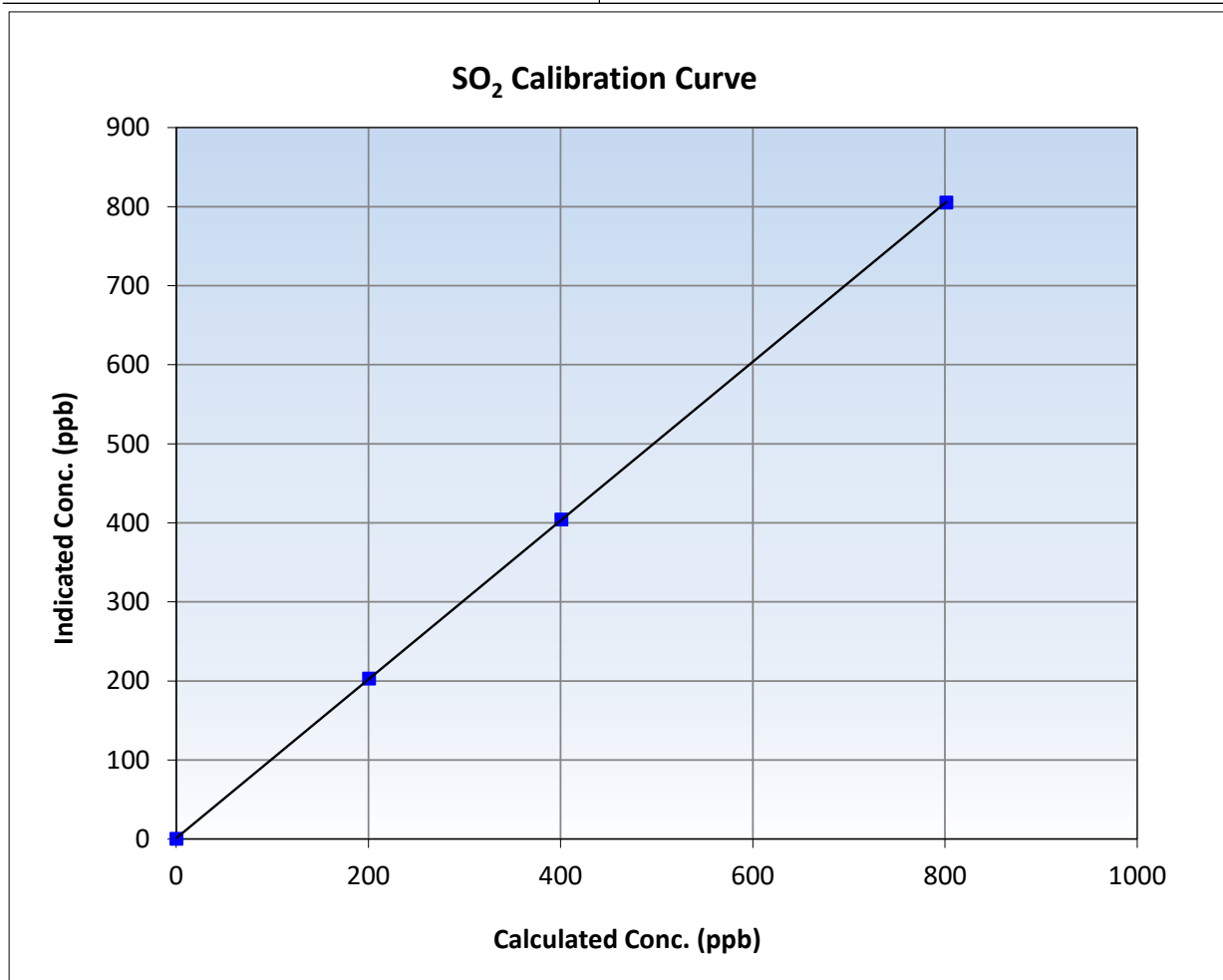
SO₂ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 5, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:38	End Time (MST):	13:53
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1410661331

Calibration Data

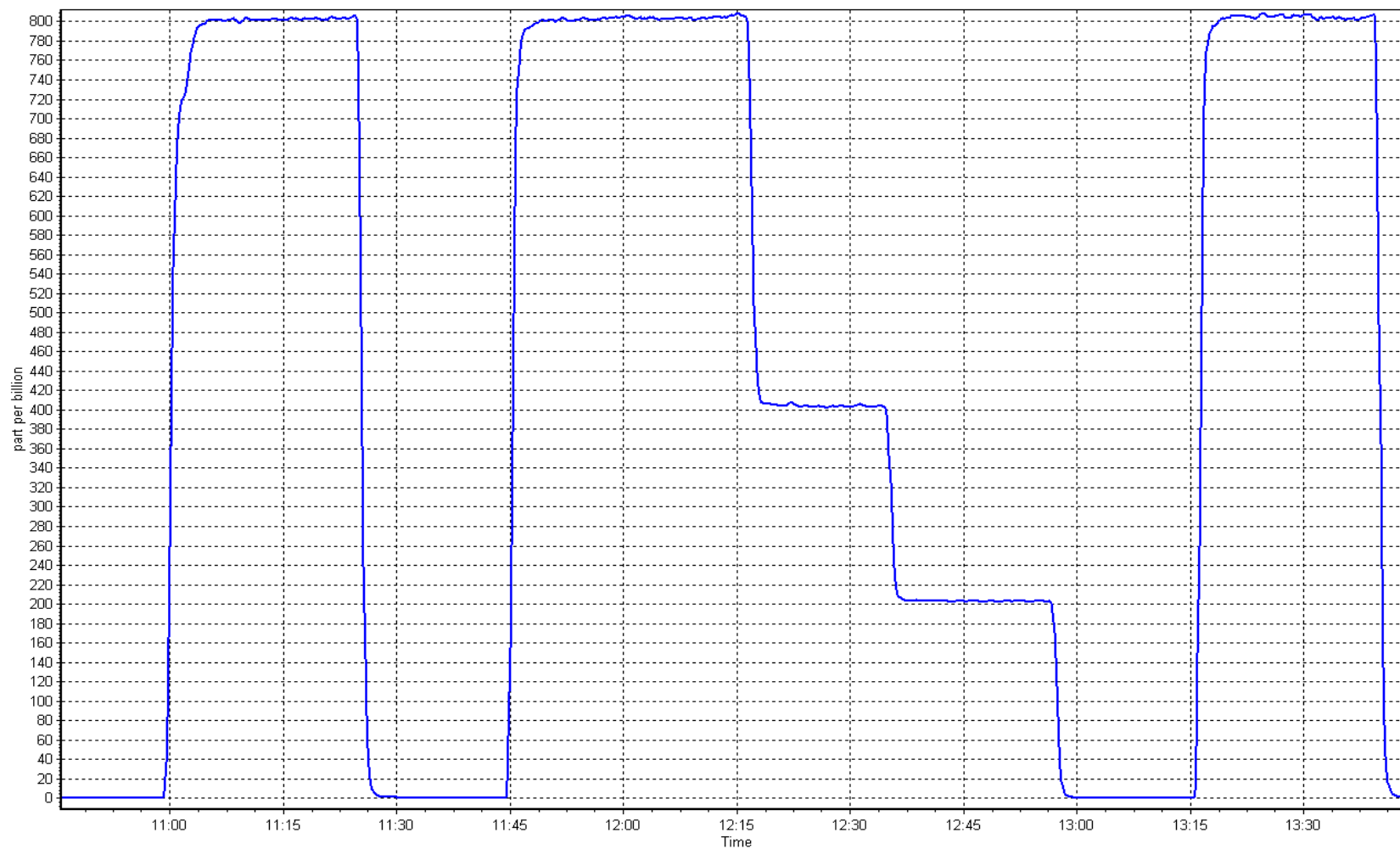
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999995	≥0.995
801.0	805.0	0.9950	Slope	1.004295	0.90 - 1.10
400.5	404.0	0.9913	Intercept	1.100000	+/-30
200.2	202.8	0.9874			



SO2 Calibration Plot

Date: June 2, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Buffalo Viewpoint
Calibration Date: June 22, 2026
Start time (MST): 10:32
Reason: Routine

Station number: AMS 04
Last Cal Date: May 7, 2026
End time (MST): 15:17

Calibration Standards

Cal Gas Concentration: 4.80 ppm
Cal Gas Cylinder #: DT0037528
Removed Cal Gas Conc: 4.80 ppm
Removed Gas Cyl #:
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 3808
Serial Number: 362

Analyzer Information

Analyzer make: Thermo 43i-LTE
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1008841400
Converter serial #: 2022-200
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.014293	1.006577	Backgd or Offset:	2.18
Calibration intercept:	-0.041753	-0.121726	Coeff or Slope:	1.126

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4917	83.3	80.0	82.6	0.968
As found Mid point	4958	41.7	40.0	41.2	0.972
As found Low point	4979	20.8	20.0	20.4	0.979
New cylinder response					
Baseline Corr As found:	82.6	Prev response:	81.06	*% change:	1.9%
Baseline Corr 2nd AF pt:	41.2	AF Slope:	1.033728	AF Intercept:	-0.121812
Baseline Corr 3rd AF pt:	20.4	AF Correlation:	0.999990	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4917	83.3	80.0	80.4	0.995
Mid point	4958	41.7	40.0	40.1	0.998
Low point	4979	20.8	20.0	20.0	0.998
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	83.3	80.0	80.0	1.000
SO2 Scrubber Check	4920	80.0	800.0	0.0	----
Date of last scrubber change:	12-Mar-26		Ave Corr Factor		0.997
Date of last converter efficiency test:					

Notes:

Span adjusted.

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

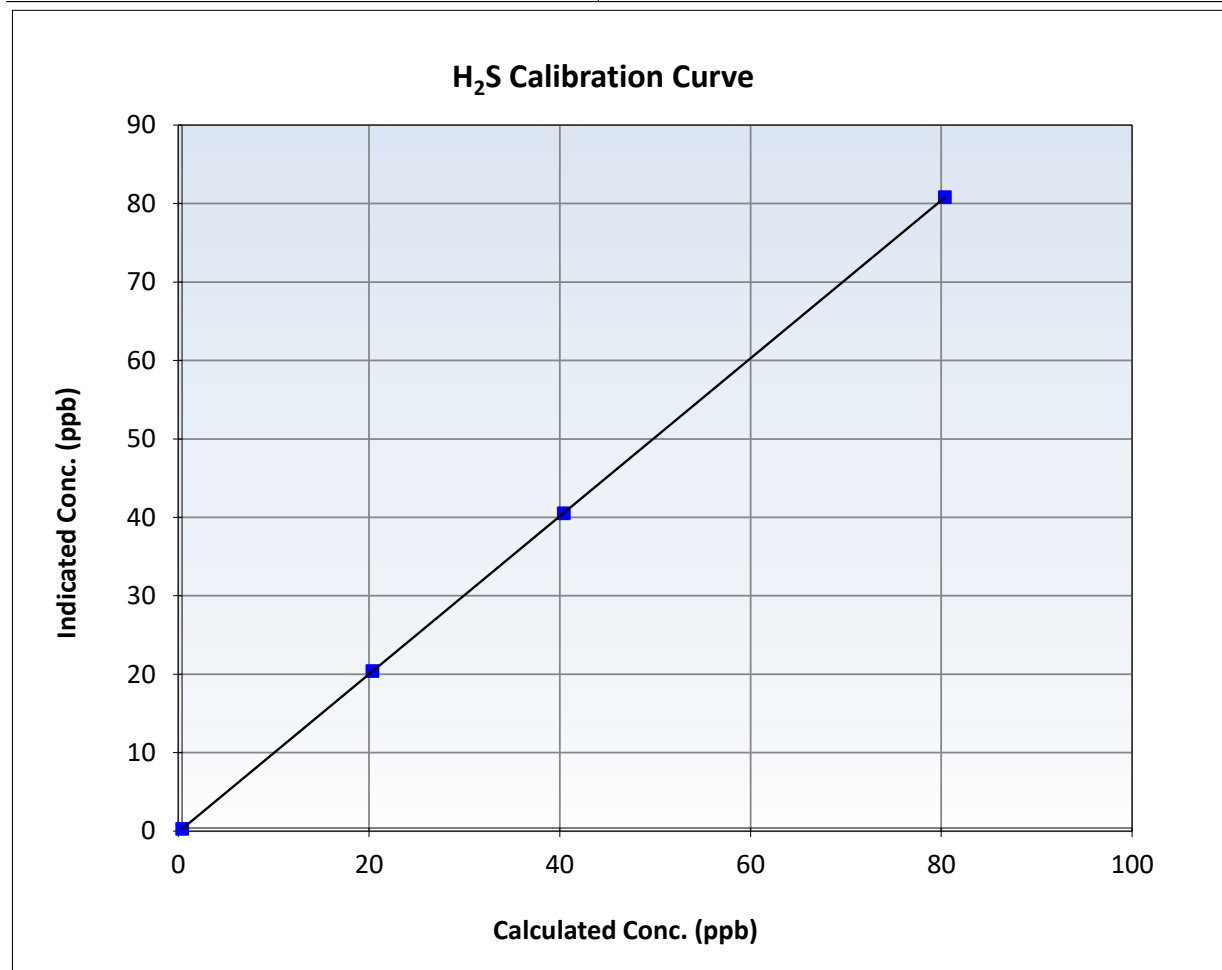
H₂S Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 7, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:32	End Time (MST):	15:17
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1008841400

Calibration Data

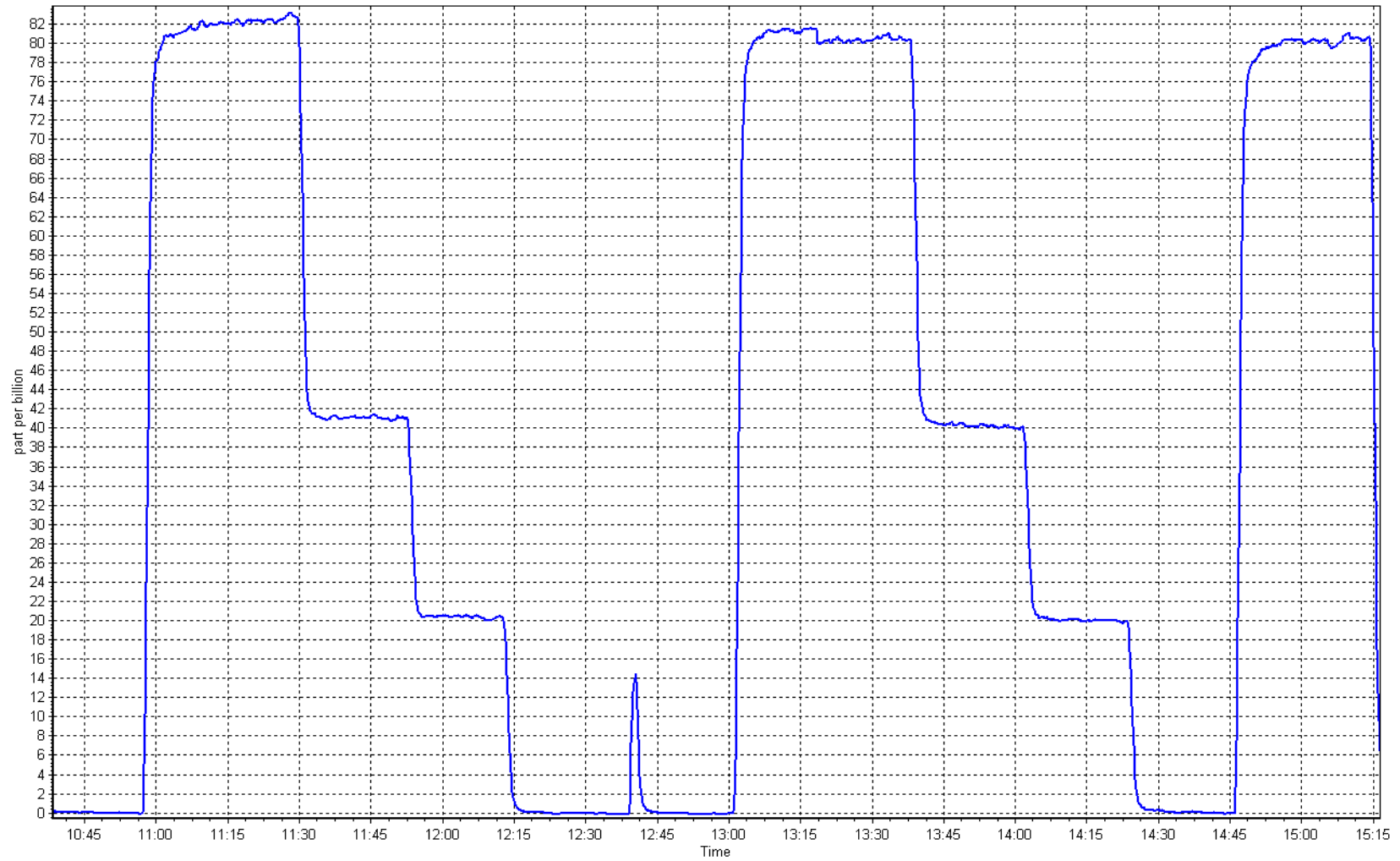
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999998	≥ 0.995
80.0	80.4	0.9946	Slope	1.006577	$0.90 - 1.10$
40.0	40.1	0.9984	Intercept	-0.121726	± 3
20.0	20.0	0.9984			



H₂S Calibration Plot

Date: June 22, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Buffalo Viewpoint
 Calibration Date: June 2, 2026
 Start time (MST): 10:38
 Reason: Routine

Station number: AMS 04
 Last Cal Date: May 5, 2026
 End time (MST): 13:50

Calibration Standards

Gas Cert Reference:	CC147416	Cal Gas Expiry Date:	January 5, 2029
CH ₄ Cal Gas Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
C ₃ H ₈ Cal Gas Conc.	208.0 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
Removed C ₃ H ₈ Conc.	208.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3808
Zero Air Gen model:	Teledyne API T701	Serial Number:	362

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1180320038
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.36E-04	2.35E-04	NMHC SP Ratio:	4.60E-05
CH ₄ Retention time:	11.4	11.4	NMHC Peak Area:	198789
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	17.13	17.27	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.27	Prev response	17.13	*% change	0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.0	17.13	17.10	1.002
Mid point	4960	40.0	8.57	8.58	0.999
Low point	4980	20.0	4.28	4.28	1.001
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	17.13	17.12	1.001
Average Correction Factor					1.001

Notes:

Span adjusted.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.0	9.15	9.22	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.22	Prev response	9.15	*% change	0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4920	80.0	9.15	9.13	1.003
Mid point	4960	40.0	4.58	4.59	0.998
Low point	4980	20.0	2.29	2.30	0.997
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	9.15	9.14	1.002
Average Correction Factor					0.999

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.0	7.98	8.05	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.05	Prev response	7.98	*% change	0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4920	80.0	7.98	7.97	1.001
Mid point	4960	40.0	3.99	3.99	1.001
Low point	4980	20.0	2.00	1.99	1.005
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	7.98	7.98	1.000
Average Correction Factor					1.002

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.999827	0.997819
THC Cal Offset:	0.001000	0.007800
CH ₄ Cal Slope:	1.000659	0.999084
CH ₄ Cal Offset:	-0.008600	-0.002600
NMHC Cal Slope:	0.999013	0.996941
NMHC Cal Offset:	0.010200	0.010000

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

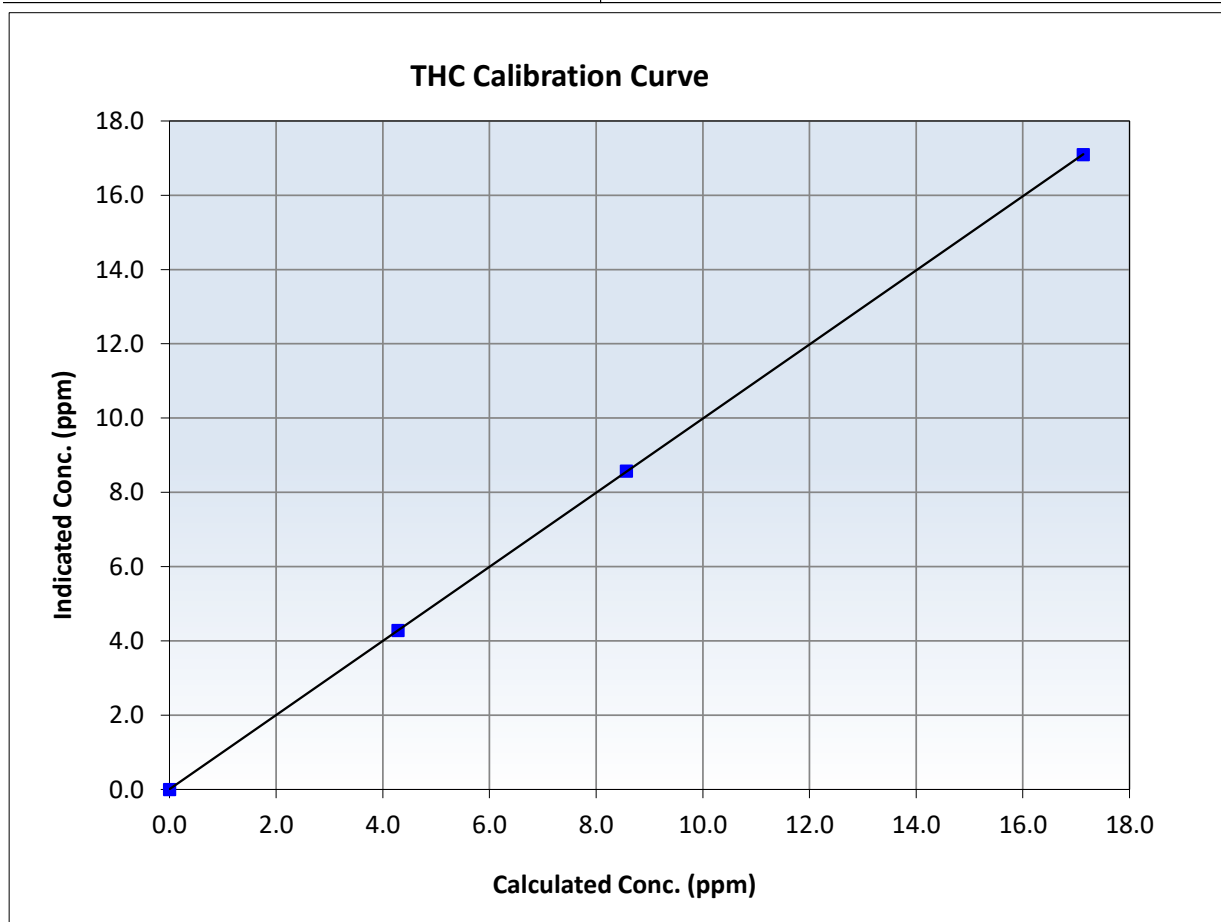
THC Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 5, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:38	End Time (MST):	13:50
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
17.13	17.10	1.0022	Slope	0.997819	<i>0.90 - 1.10</i>
8.57	8.58	0.9991	Intercept	0.007800	<i>+/-0.5</i>
4.28	4.28	1.0008			





Wood Buffalo Environmental Association

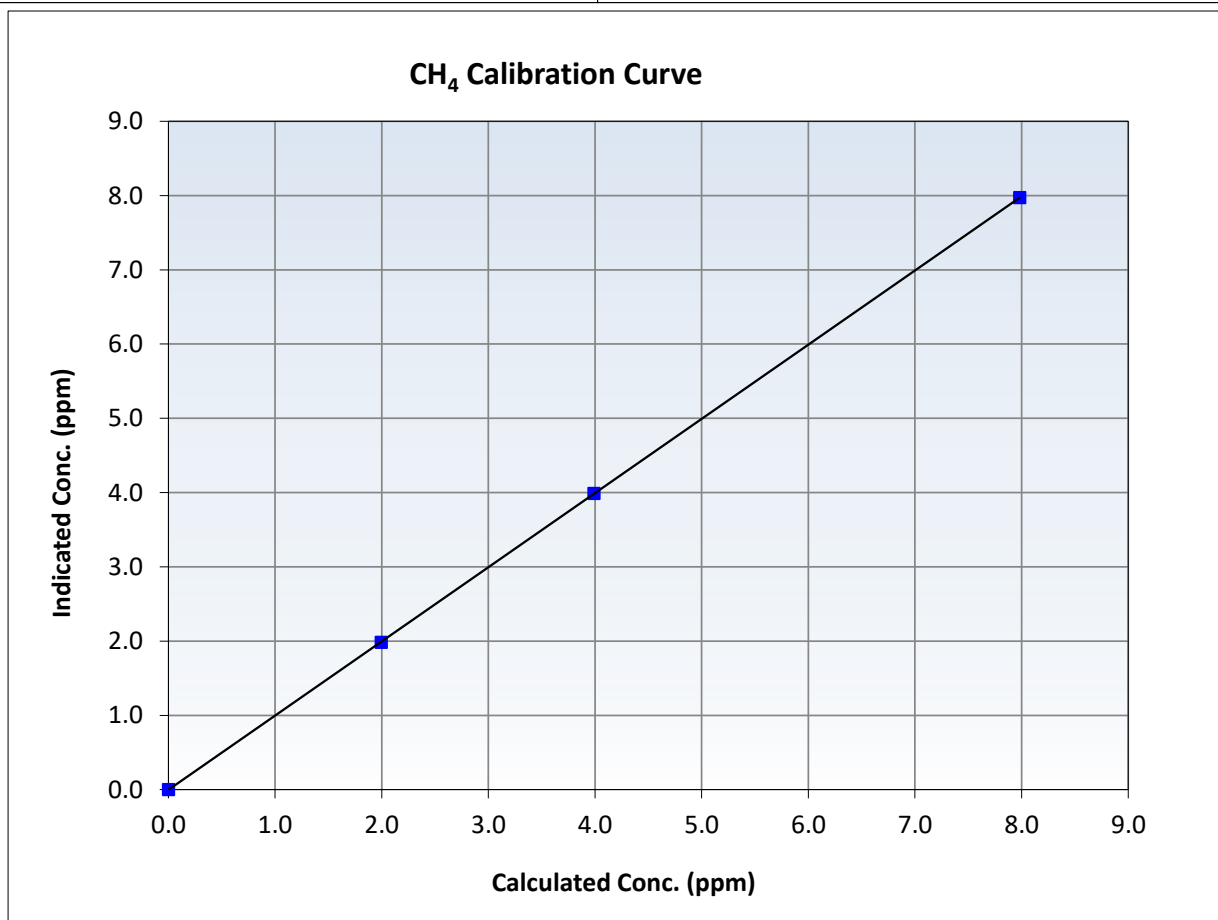
CH₄ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 5, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:38	End Time (MST):	13:50
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999998	<i>≥0.995</i>
7.98	7.97	1.0013	Slope	0.999084	<i>0.90 - 1.10</i>
3.99	3.99	1.0006	Intercept	-0.002600	<i>+/-0.5</i>
2.00	1.99	1.0053			





Wood Buffalo Environmental Association

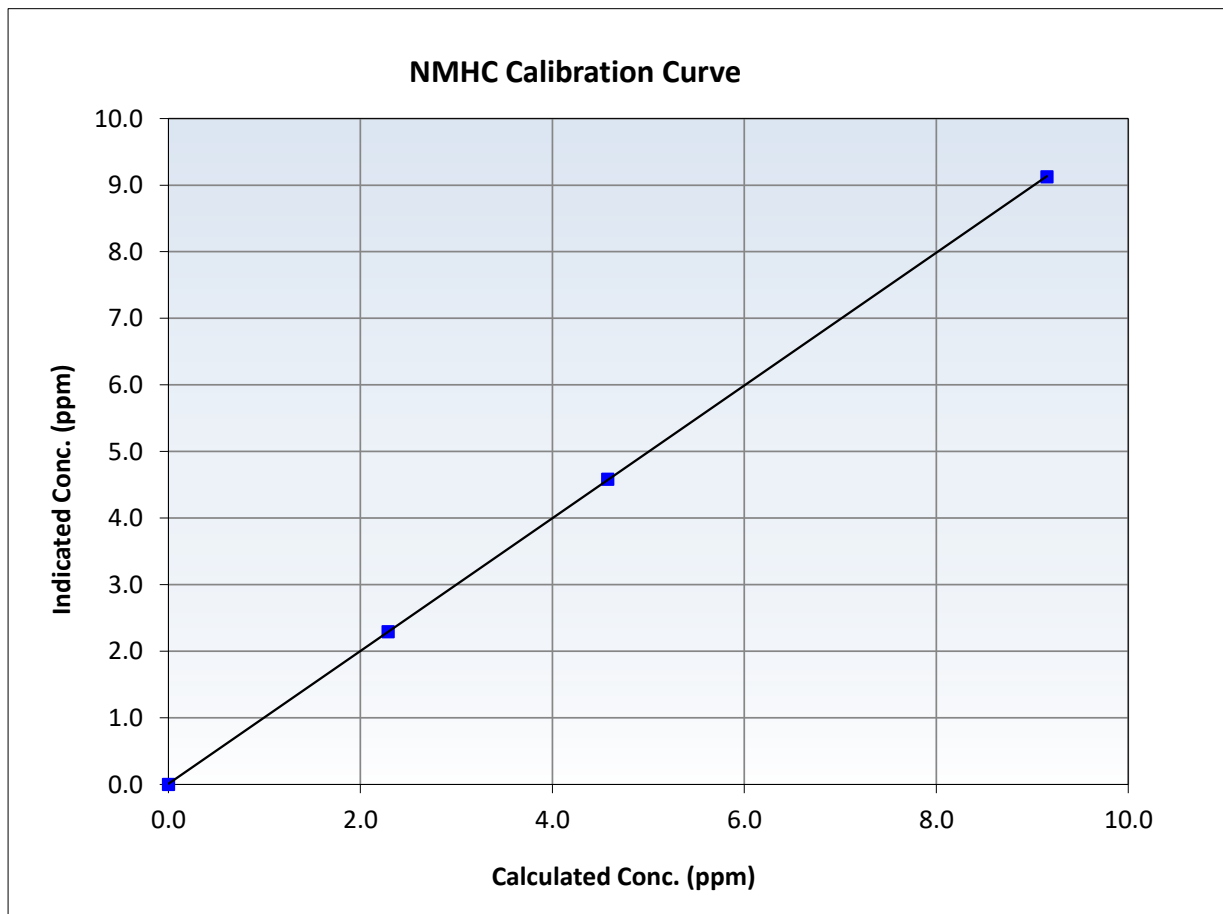
NMHC Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 5, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:38	End Time (MST):	13:50
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

Calibration Data

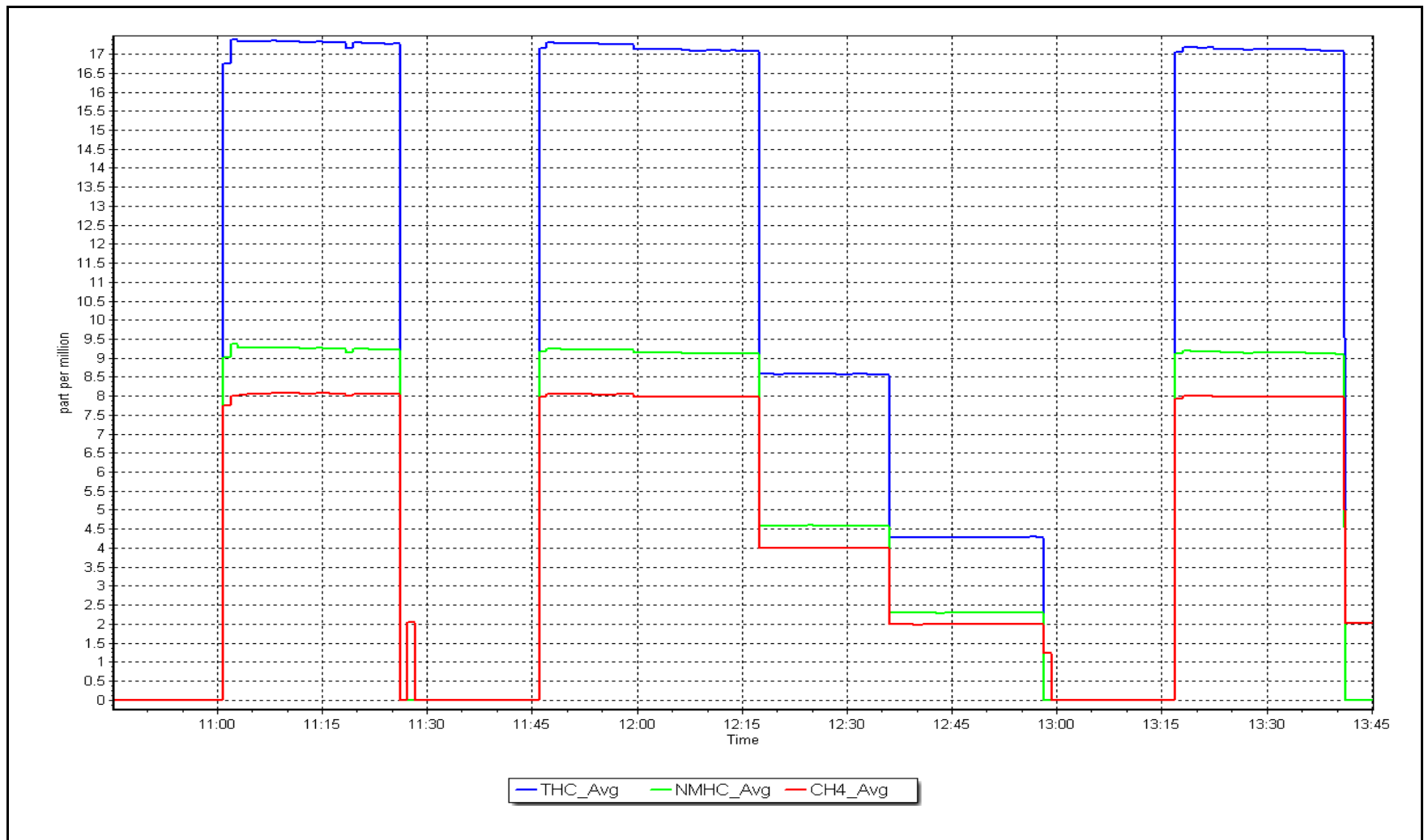
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999992	<i>≥0.995</i>
9.15	9.13	1.0028	Slope	0.996941	<i>0.90 - 1.10</i>
4.58	4.59	0.9978	Intercept	0.010000	<i>+/-0.5</i>
2.29	2.30	0.9969			



NMHC Calibration Plot

Date: June 2, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Buffalo Viewpoint
Calibration Date: June 17, 2026
Start time (MST): 14:17
Reason: Cylinder Change

Station number: AMS 04
Last Cal Date: June 2, 2026
End time (MST): 15:32

Calibration Standards

Gas Cert Reference:	CC147416	Cal Gas Expiry Date:	January 5, 2029
CH ₄ Cal Gas Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
C ₃ H ₈ Cal Gas Conc.	208.0 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
Removed C ₃ H ₈ Conc.	208.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3808
Zero Air Gen model:	Teledyne API T701	Serial Number:	362

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1180320038
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.35E-04	2.35E-04	NMHC SP Ratio:	4.57E-05
CH ₄ Retention time:	11.4	11.4	NMHC Peak Area:	200086
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	17.13	16.95	1.011
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.95	Prev response	17.10	*% change	-0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	17.13	16.92	1.013
Average Correction Factor					

Notes:

H2 cylinder changed.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	9.15	9.03	1.014
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.03	Prev response	9.13	*% change	-1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero					----
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	9.15	9.01	1.016
Average Correction Factor					

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	7.98	7.93	1.007
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.93	Prev response	7.97	*% change	-0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero					----
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	7.98	7.92	1.008
Average Correction Factor					

Calibration Statistics

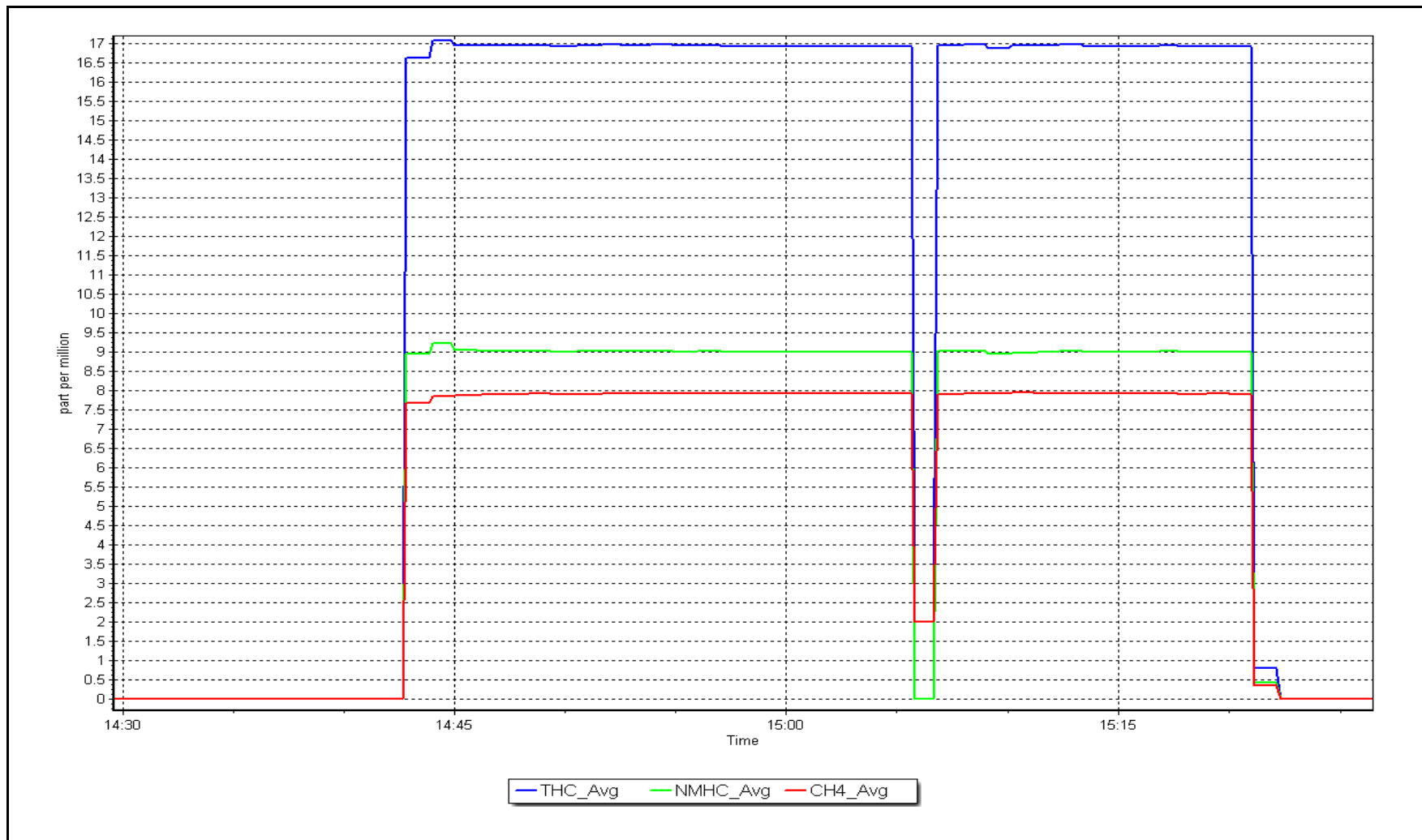
	Start	Finish
THC Cal Slope:	0.997819	
THC Cal Offset:	0.007800	
CH ₄ Cal Slope:	0.999084	
CH ₄ Cal Offset:	-0.002600	
NMHC Cal Slope:	0.996941	
NMHC Cal Offset:	0.010000	

Calibration Performed By: Aswin Sasi Kumar

NMHC Calibration Plot

Date: June 17, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Buffalo Viewpoint
 Calibration Date: June 26, 2026
 Start time (MST): 12:57
 Reason: Cylinder Change

Station number: AMS 04
 Last Cal Date: June 2, 2026
 End time (MST): 14:30

Calibration Standards

Gas Cert Reference:	CC147416	Cal Gas Expiry Date:	January 5, 2029
CH ₄ Cal Gas Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
C ₃ H ₈ Cal Gas Conc.	208.0 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	498.9 ppm	CH ₄ Equiv Conc.	1070.9 ppm
Removed C ₃ H ₈ Conc.	208.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3808
Zero Air Gen model:	Teledyne API T701	Serial Number:	362

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1180320038
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.36E-04	2.35E-04	NMHC SP Ratio:	4.60E-05
CH ₄ Retention time:	11.4	11.4	NMHC Peak Area:	198789
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	17.13	16.89	1.014
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.89	Prev response	17.10	*% change	-1.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	17.13	17.25	0.993
Average Correction Factor					

Notes:

N2 cylinder swapped.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	9.15	8.98	1.019
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.98	Prev response	9.13	*% change	-1.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero					----
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	9.15	9.21	0.993
Average Correction Factor					

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.0	7.98	7.91	1.009
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.91	Prev response	7.97	*% change	-0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero					----
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	7.98	8.03	0.994
Average Correction Factor					

Calibration Statistics

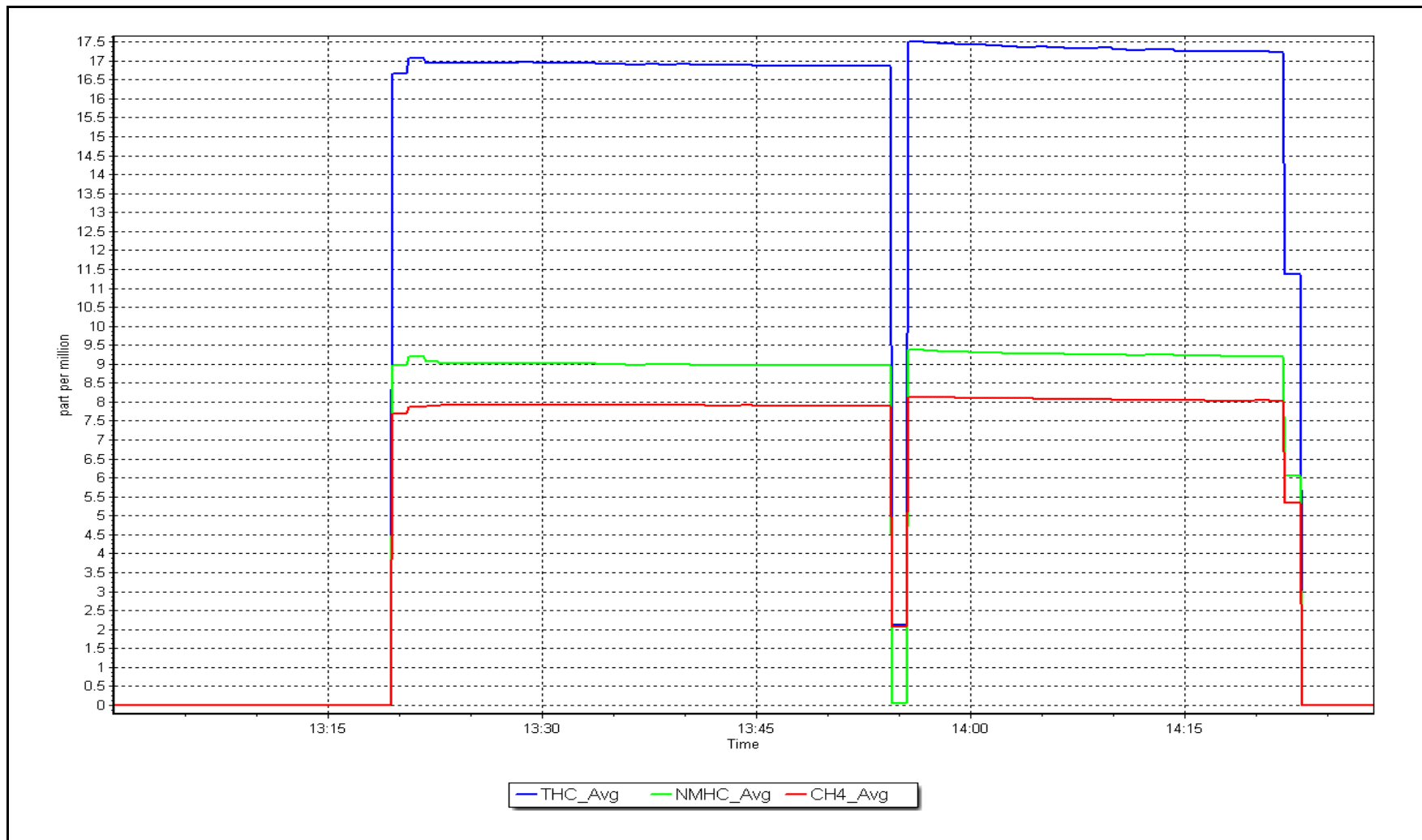
	Start	Finish
THC Cal Slope:	0.997819	
THC Cal Offset:	0.007800	
CH ₄ Cal Slope:	0.999084	
CH ₄ Cal Offset:	-0.002600	
NMHC Cal Slope:	0.996941	
NMHC Cal Offset:	0.010000	

Calibration Performed By: Aswin Sasi Kumar

NMHC Calibration Plot

Date: June 26, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Buffalo Viewpoint
Station number: AMS 04
Calibration Date: June 17, 2026
Last Cal Date: May 19, 2026
Start time (MST): 9:21
End time (MST): 14:23
Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC324979
NOX Cal Gas Conc: 48.90 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 48.90 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: November 3, 2032
NO Cal Gas Conc: 48.80 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 48.80 ppm
NO gas Diff:
Serial Number: 3808
Serial Number: 362

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.5	0.5	0.1	----	----
AF High point	4918	81.8	800.0	798.4	1.6	788.3	784.6	3.7	1.0155	1.0182
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 798.6 ppb	NO = 797.4 ppb	* = > +/-5% change initiates investigation	*Percent Change	NO _x = -1.4%
Baseline Corr 1st pt	NO _x = 787.8 ppb	NO = 784.1 ppb		*Percent Change	NO = -1.7%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb			
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb			

As Found Statistics

As found	NO _x r ² :	Nx SI:	Nx Int:
As found	NO r ² :	NO SI:	NO Int:
As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153357

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.940	0.961	NO bkgnd or offset:	6.4	6.5
NOX coeff or slope:	0.993	0.989	NOX bkgnd or offset:	6.5	6.6
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	233.3	233.9

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.997209	0.998708
NO _x Cal Offset:	0.766108	1.066622
NO Cal Slope:	0.999913	1.004621
NO Cal Offset:	-0.914509	-0.333389
NO ₂ Cal Slope:	1.005441	1.004681
NO ₂ Cal Offset:	0.159348	-0.158890

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.6	0.6	0.1	----	----
High point	4918	81.8	800.0	798.4	1.6	799.7	802.0	-2.4	1.0004	0.9955
Mid point	4959	40.9	400.0	399.2	0.8	401.2	400.9	0.3	0.9970	0.9957
Low point	4980	20.4	199.5	199.1	0.4	200.5	198.3	2.2	0.9950	1.0040
As left zero	5000	0.0	0.0	0.6	-0.6	0.7	0.6	0.1	----	----
As left span	4918	81.8	800.0	406.4	800.0	800.3	406.4	393.9	0.9997	1.0000
Average Correction Factor									0.9975	0.9984

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	796.2	404.8	393.0	394.5	0.9963	100.4%
Mid GPT point	796.2	599.7	198.1	199.8	0.9917	100.8%
Low GPT point	796.2	699.6	98.2	97.6	1.0065	99.4%
Average Correction Factor					0.9982	100.2%

Notes:

Span adjusted.

Calibration Performed By:

Aswin Sasi Kumar



Wood Buffalo Environmental Association

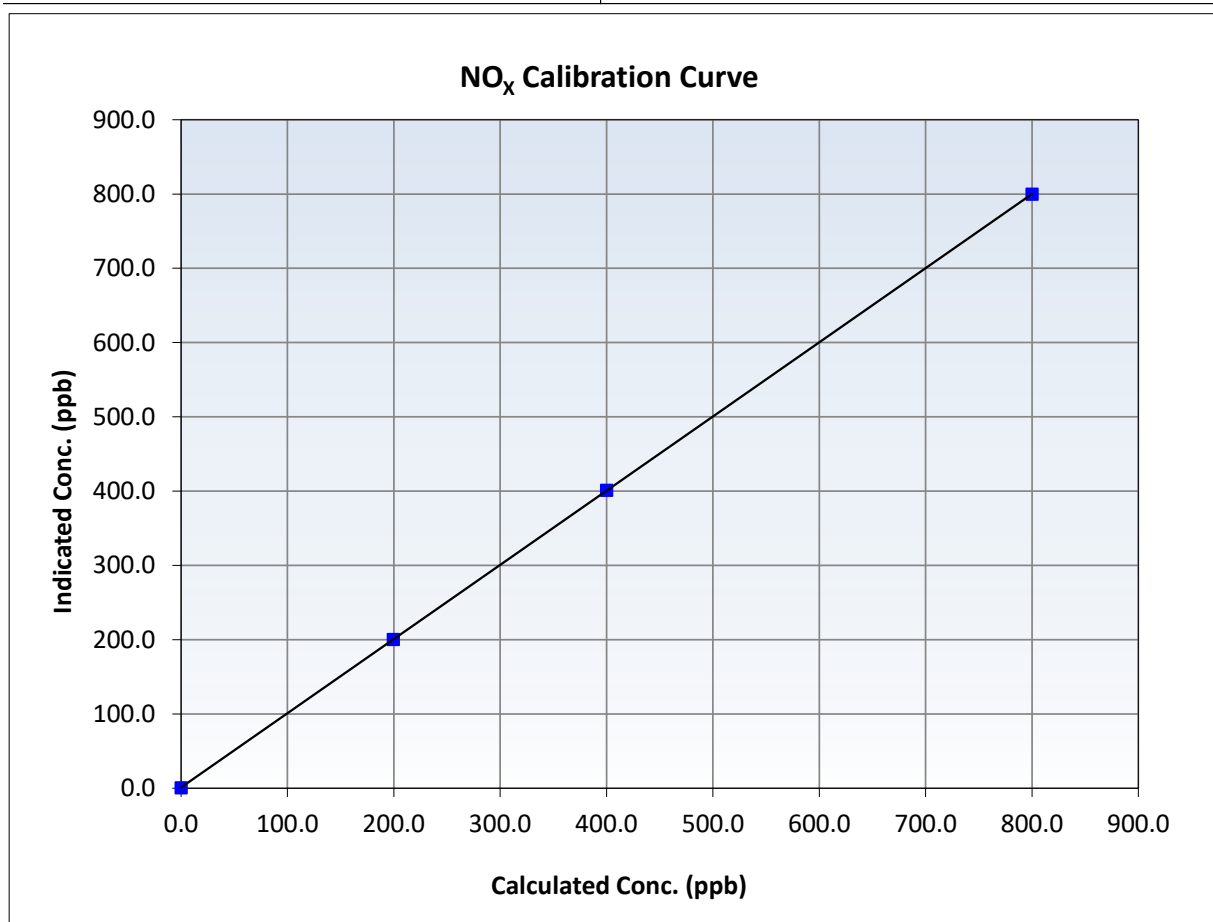
NO_x Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	May 19, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:21	End Time (MST):	14:23
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.6	----	Correlation Coefficient	0.999998	≥0.995
800.0	799.7	1.0004	Slope	0.998708	0.90 - 1.10
400.0	401.2	0.9970	Intercept	1.066622	+/-20
199.5	200.5	0.9950			





Wood Buffalo Environmental Association

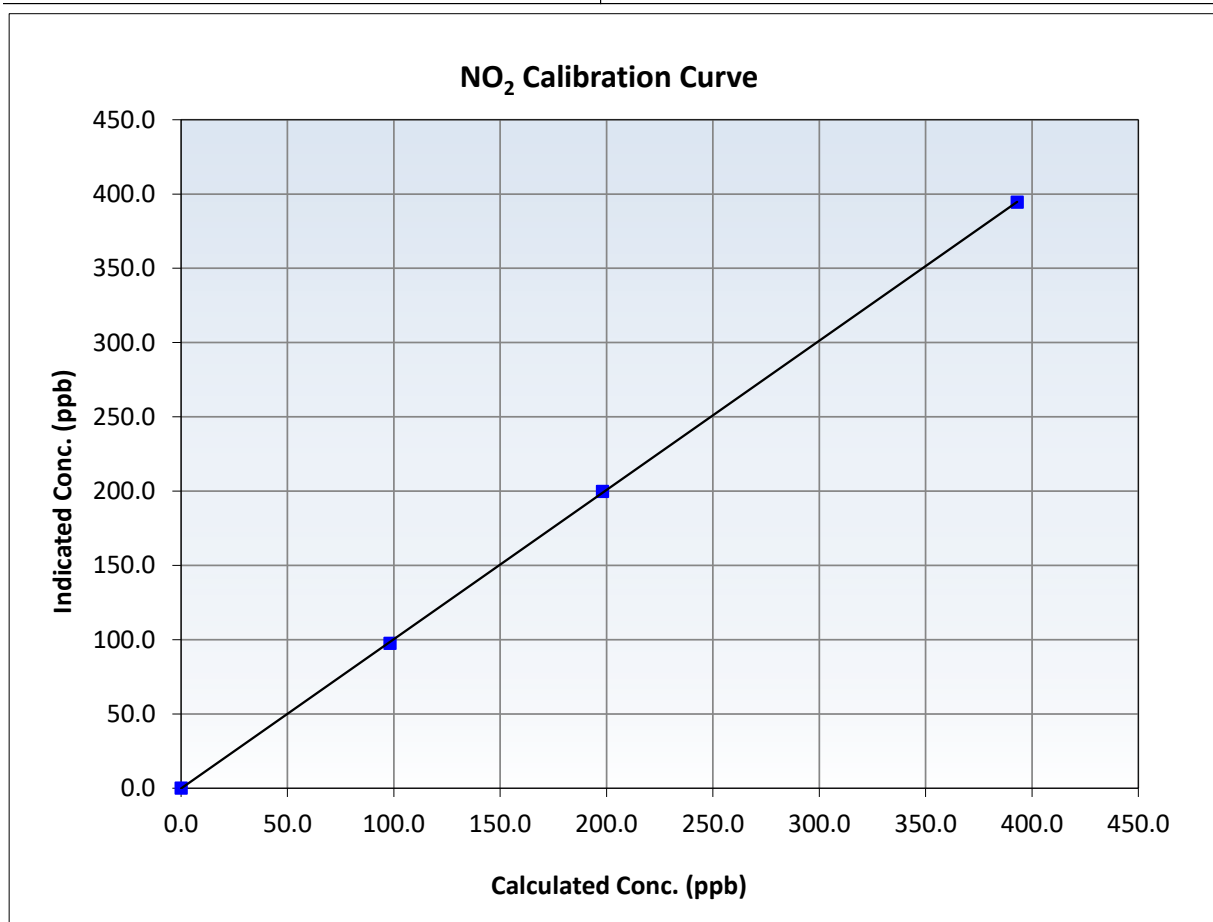
NO₂ Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	May 19, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:21	End Time (MST):	14:23
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999979	≥0.995
393.0	394.5	0.9963	Slope	1.004681	0.90 - 1.10
198.1	199.8	0.9917	Intercept	-0.158890	+/-20
98.2	97.6	1.0065			





Wood Buffalo Environmental Association

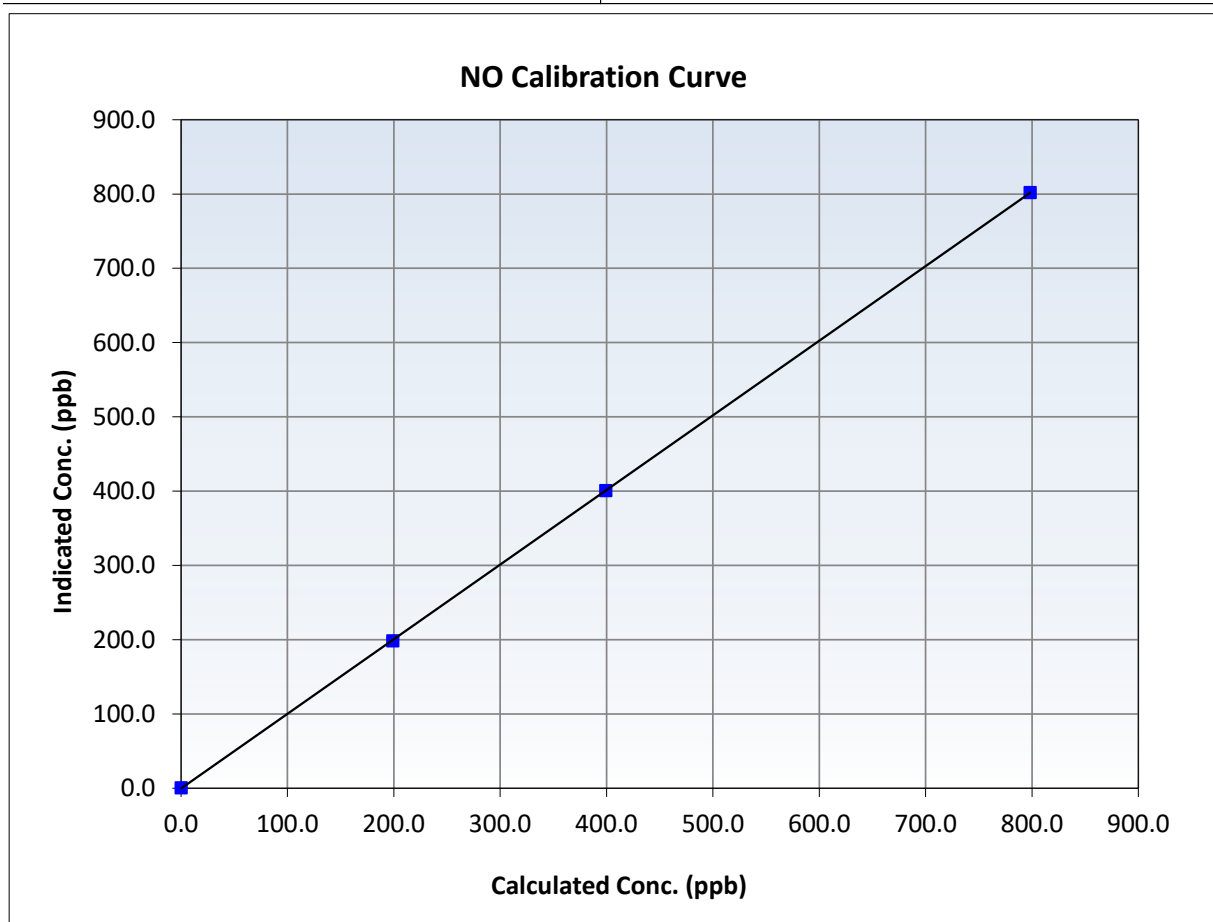
NO Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	May 19, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:21	End Time (MST):	14:23
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

Calibration Data

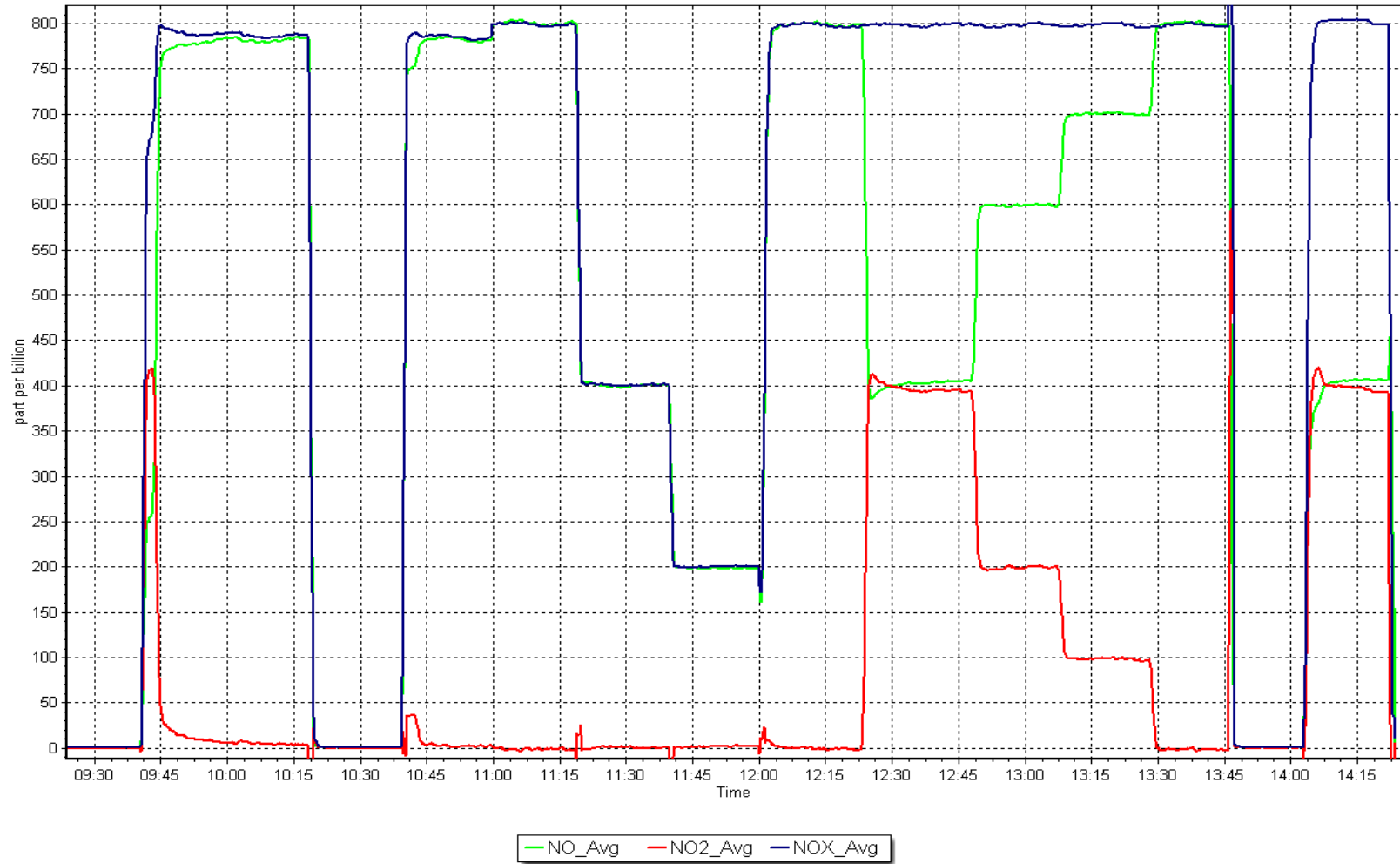
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.6	----	Correlation Coefficient	0.999992	≥ 0.995
798.4	802.0	0.9955	Slope	1.004621	0.90 - 1.10
399.2	400.9	0.9957	Intercept	-0.333389	+/-20
199.1	198.3	1.0040			



NO_x Calibration Plot

Date: June 17, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Buffalo Viewpoint
Calibration Date: June 1, 2026
Start time (MST): 10:35
Reason: Routine

Station number: AMS 04
Last Cal Date: May 4, 2026
End time (MST): 14:16

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H

Serial Number: 3808
Serial Number: 362

Analyzer Information

Analyzer make: Teledyne API T400
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 2961

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001886	0.997286	Backgd or Offset:	-0.1	-0.1
Calibration intercept:	-0.080000	-0.100000	Coeff or Slope:	1.020	1.020

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	5000	1071.2	400.0	397.6	1.006
As found Mid point					
As found Low point					
Baseline Corr As found:	397.7	Previous response	400.7	*% change	-0.7%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	5000	1072.6	400.0	398.7	1.003
Mid point	5000	864.1	200.0	199.6	1.002
Low point	5000	742.1	100.0	99.6	1.004
As left zero	5000	0.0	0.0	-0.7	----
As left span	5000	1072.4	400.0	401.7	0.996
Average Correction Factor					1.003

Notes: No adjustments made.

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

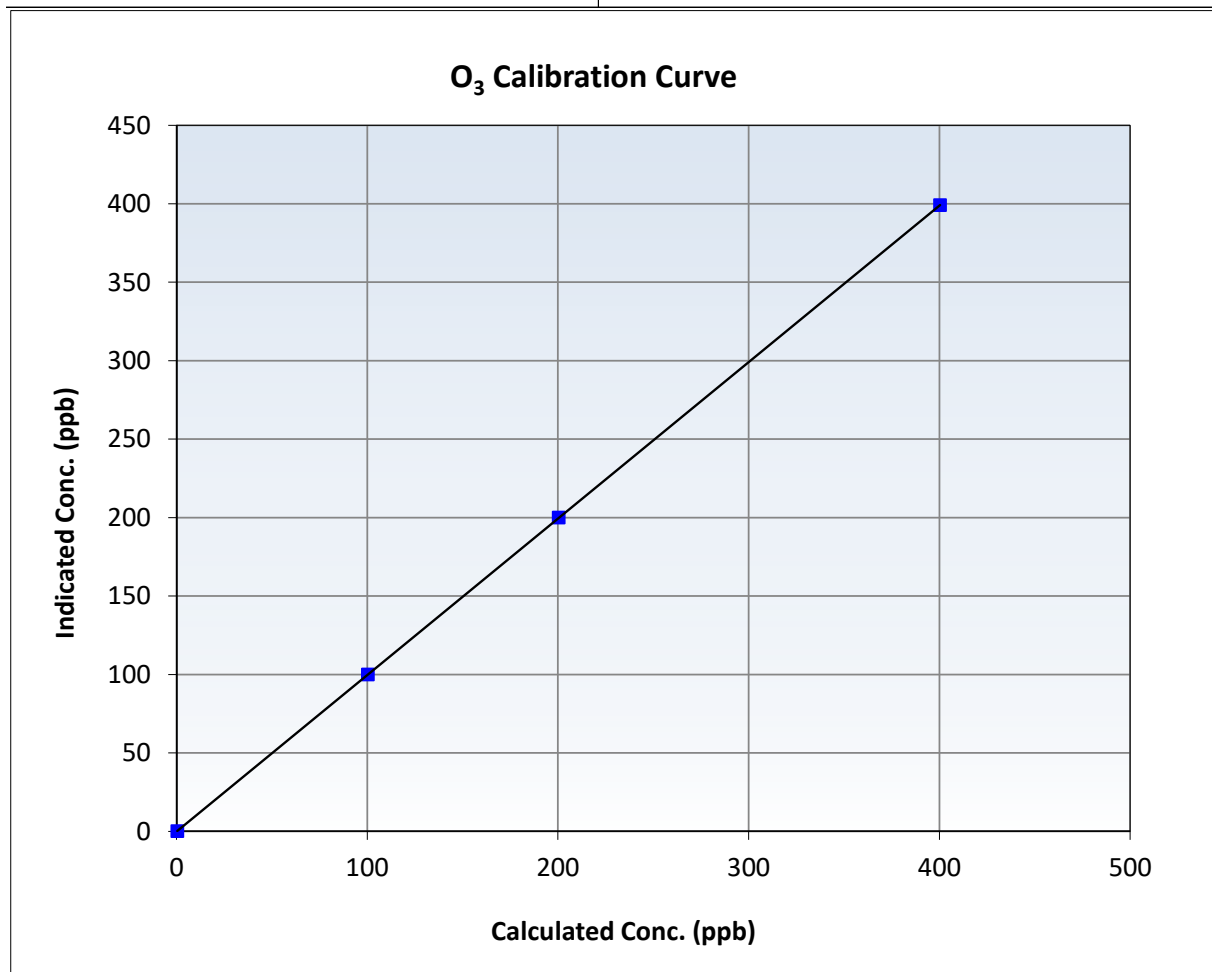
O₃ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 4, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	10:35	End Time (MST):	14:16
Analyzer make:	Teledyne API T400	Analyzer serial #:	2961

Calibration Data

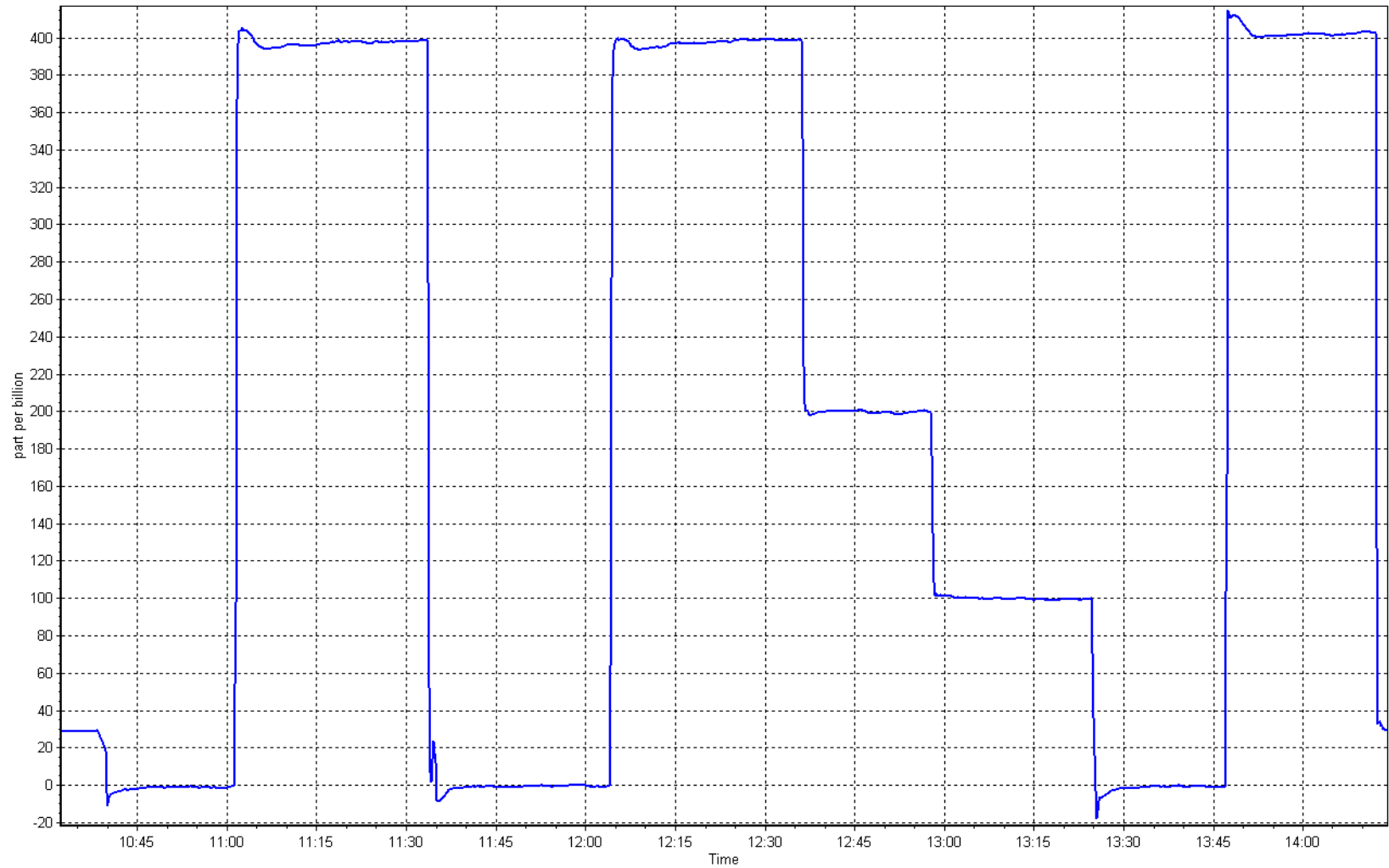
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999999	≥0.995
400.0	398.7	1.0033	Slope	0.997286	0.90 - 1.10
200.0	199.6	1.0020	Intercept	-0.100000	+/- 5
100.0	99.6	1.0040			



O₃ Calibration Plot

Date: June 1, 2026

Location: Buffalo Viewpoint





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Buffalo Viewpoint Station number: AMS 04
Calibration Date: June 26, 2026 Last Cal Date: May 22, 2026
Start time (MST): 12:59 End time (MST): 14:30

Analyzer Make: Teledyne API T640 S/N: 321
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388748
Temp/RH standard: Alicat FP-25BT S/N: 388748

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	28.7	28.4	28.7	☐	+/- 2 °C
P (mmHg)	722.7	725.6	722.7	☐	+/- 10 mmHg
Flow (LPM)	4.98	4.94	4.98	☐	+/- 0.25 LPM
PW% (pump)	35	----	35	☐	>80%
Zero Verification	PM w/o HEPA: 6.1		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 30-Jan-27
Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: March 12, 2026
Date Disposable Filter Changed: March 12, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: December 18, 2025
Date RH/T Sensor Cleaned: December 18, 2025

Monthly checks done.

Notes:

Calibration by: Aswin Sasi Kumar



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS05
MANNIX
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Mannix
Calibration Date: June 3, 2026
Start time (MST): 10:55
Reason: Routine

Station number: AMS 05
Last Cal Date: May 11, 2026
End time (MST): 14:14

Calibration Standards

Cal Gas Concentration: 50.06 ppm
Cal Gas Cylinder #: CC308040
Removed Cal Gas Conc: 50.06 ppm
Removed Gas Cyl #:
Calibrator Model: API T700
Zero Air Gen Model: API T701

Cal Gas Exp Date: October 22, 2032
Rem Gas Exp Date: October 22, 2032
Diff between cyl:
Serial Number: 5470
Serial Number: 361

Analyzer Information

Analyzer make: Thermo 43i
Analyzer Range: 1000 ppb

Serial Number: 1008841399

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998564	1.002821	Backgd or Offset:	11.5	11.4
Calibration intercept:	-1.796000	-1.436607	Coeff or Slope:	0.923	0.927

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4920	79.9	800.0	795.0	1.006
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	795.2	Previous response	797.0	*% change	-0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4920	79.9	800.0	801.8	0.998
Mid point	4960	40.0	400.5	398.8	1.004
Low point	4980	20.0	200.2	198.1	1.011
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	79.9	800.0	802.4	0.997
Average Correction Factor:					1.004

Notes: Sample inlet filter was changed after the as founds. Adjusted the span.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

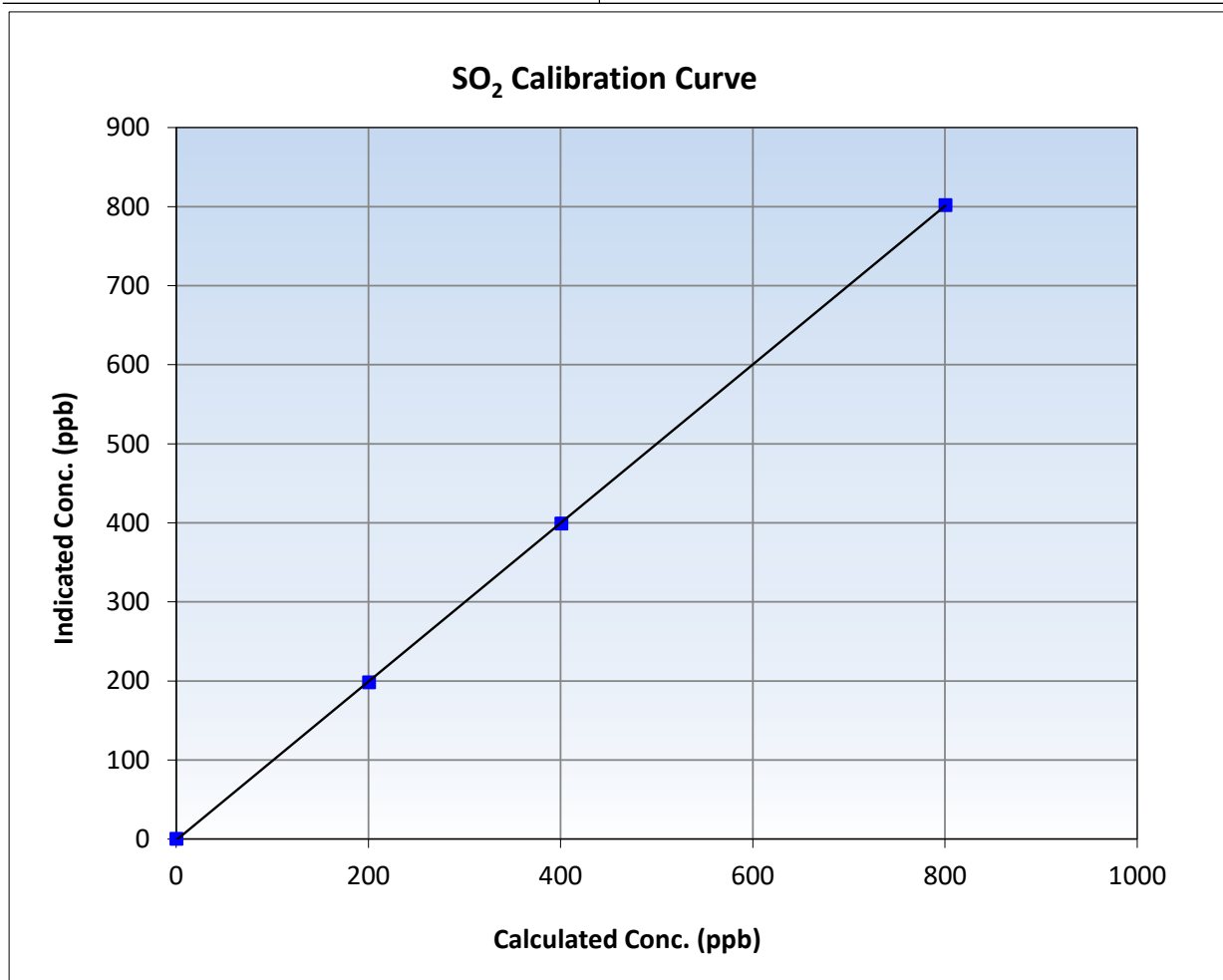
SO₂ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 11, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:55	End Time (MST):	14:14
Analyzer make:	Thermo 43i	Analyzer serial #:	1008841399

Calibration Data

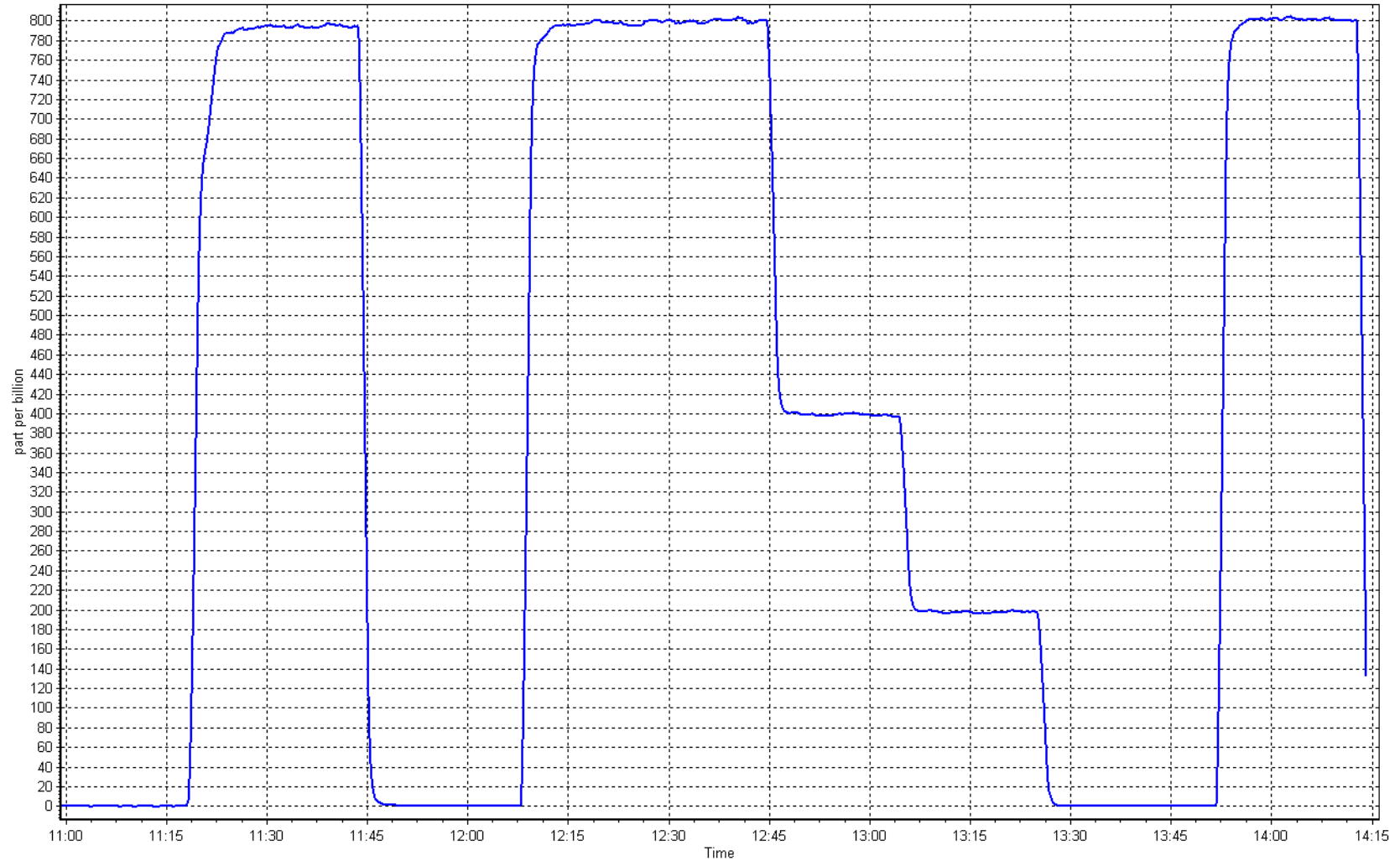
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999980	≥0.995
800.0	801.8	0.9977	Slope	1.002821	0.90 - 1.10
400.5	398.8	1.0042	Intercept	-1.436607	+/-30
200.2	198.1	1.0108			



SO2 Calibration Plot

Date: June 3, 2026

Location: Mannix





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Mannix
Calibration Date: June 5, 2026
Start time (MST): 10:58
Reason: Routine

Station number: AMS 05
Last Cal Date: May 21, 2026
End time (MST): 15:15

Calibration Standards

Cal Gas Concentration: 4.96 ppm
Cal Gas Cylinder #: DT0037363
Removed Cal Gas Conc: 4.96 ppm
Removed Gas Cyl #: N/A
Calibrator Make/Model: API T700
ZAG Make/Model: API T701

Cal Gas Exp Date: November 15, 2026
Rem Gas Exp Date: N/A
Diff between cyl:
Serial Number: 5470
Serial Number: 361

Analyzer Information

Analyzer make: Thermo 43iQ
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1200326169
Converter serial #: 2022-225
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.992540	0.991539	Backgd or Offset:	1.24	1.24
Calibration intercept:	0.042438	0.002474	Coeff or Slope:	1.020	1.020

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4919	80.6	80.0	80.1	1.000
As found Mid point	4960	40.3	40.0	40.0	1.002
As found Low point	4980	20.2	20.0	19.7	1.022
New cylinder response					
Baseline Corr As found:	80.0	Prev response:	79.41	*% change:	0.7%
Baseline Corr 2nd AF pt:	39.9	AF Slope:	1.002259	AF Intercept:	-0.097664
Baseline Corr 3rd AF pt:	19.6	AF Correlation:	0.999965	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4919	80.6	80.0	79.3	1.008
Mid point	4960	40.3	40.0	39.7	1.007
Low point	4980	20.2	20.0	19.7	1.017
As left zero	5000	0.0	0.0	0.3	----
As left span	4919	80.6	80.0	77.8	1.028
SO2 Scrubber Check	4920	80.3	803.0	0.1	----
Date of last scrubber change:				Ave Corr Factor	1.011
Date of last converter efficiency test:					

Notes: Changed the sample inlet filter after the multi point as founds. Scrubber check done after the calibrator zero. No adjustments made.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

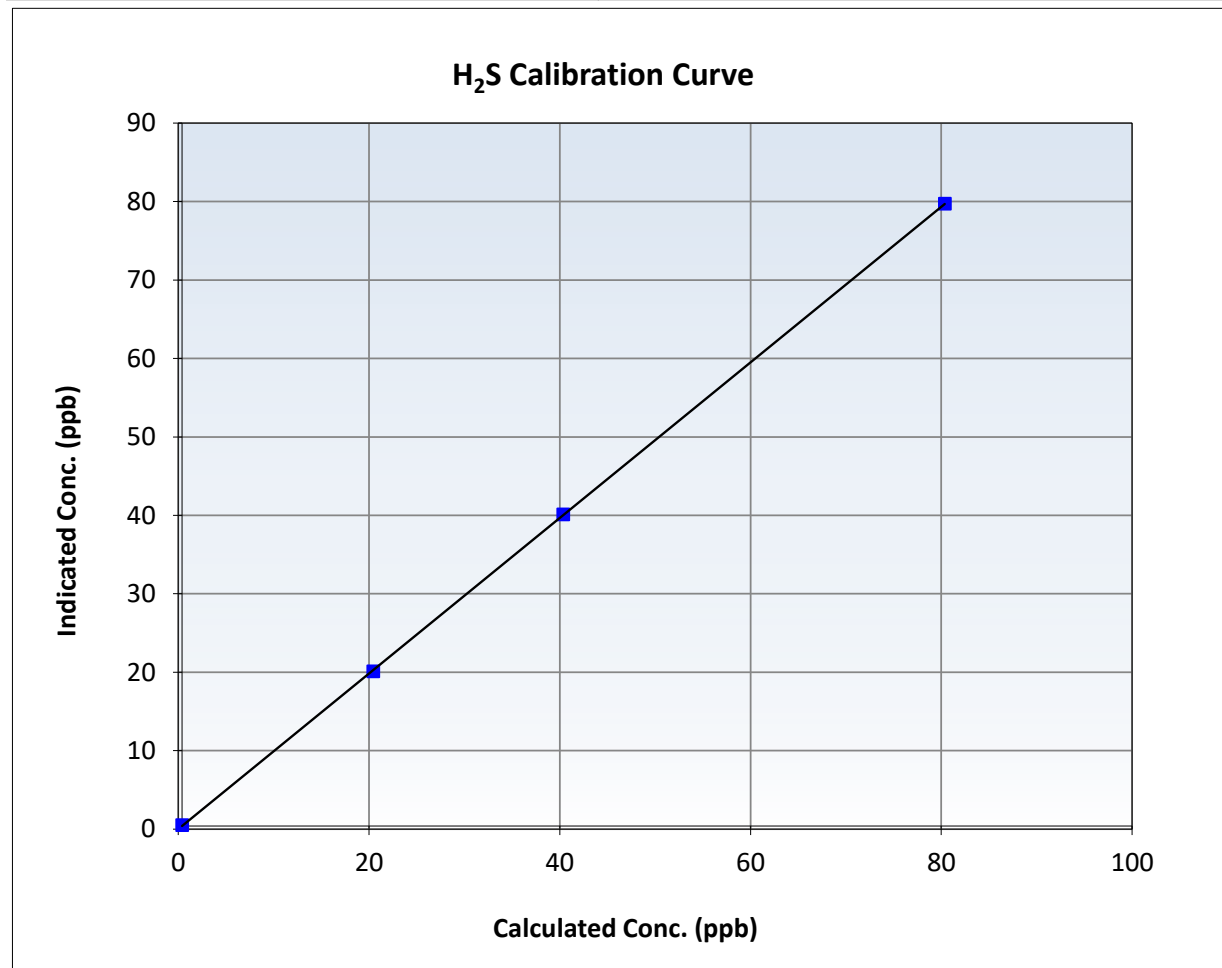
H₂S Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 21, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:58	End Time (MST):	15:15
Analyzer make:	Thermo 43iQ	Analyzer serial #:	1200326169

Calibration Data

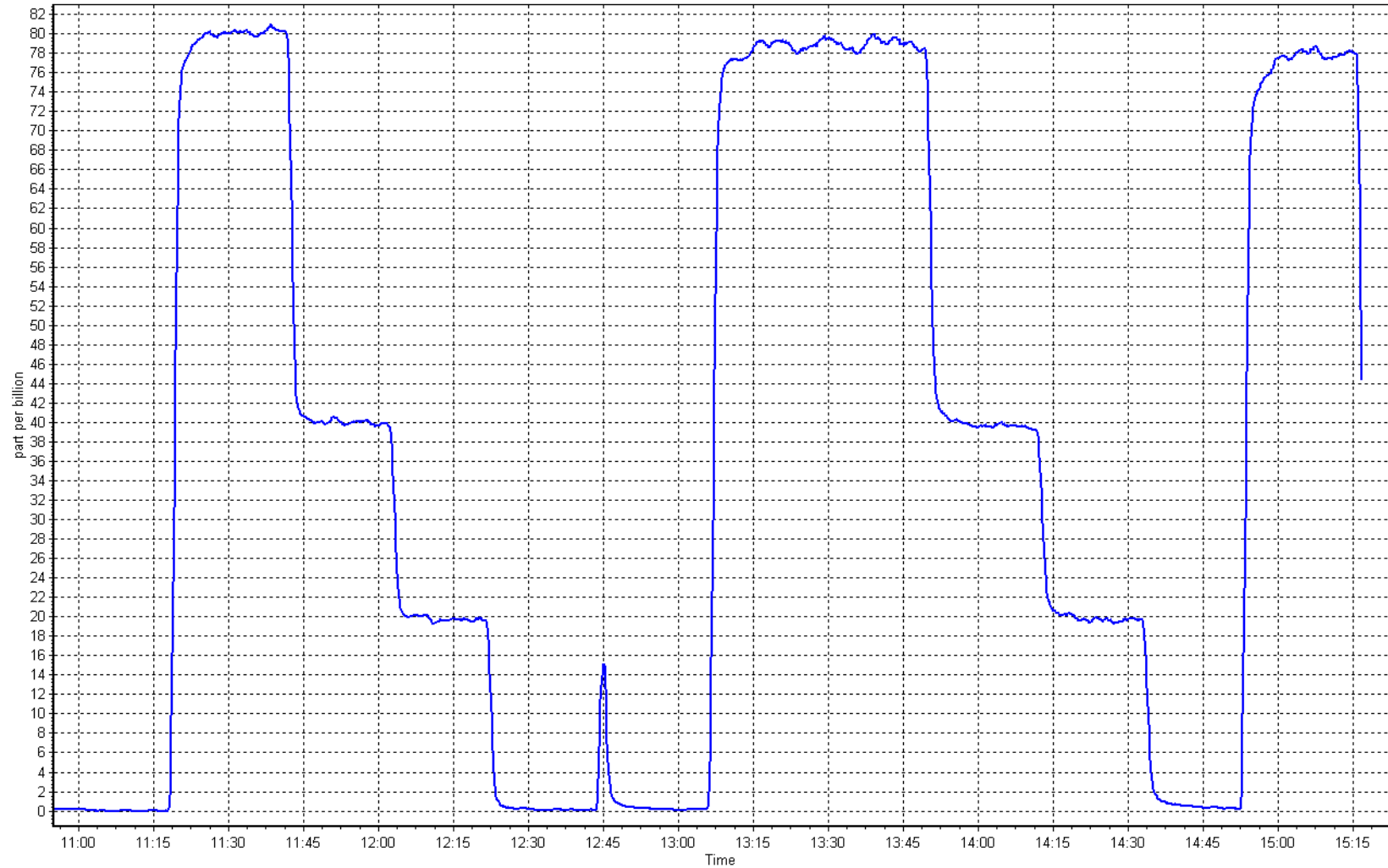
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999988		≥0.995
80.0	79.3	1.0083	Slope	0.991539		0.90 - 1.10
40.0	39.7	1.0069	Intercept	0.002474		+/-3
20.0	19.7	1.0171				



H₂S Calibration Plot

Date: June 5, 2026

Location: Mannix





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Mannix
 Calibration Date: June 3, 2026
 Start time (MST): 10:55
 Reason: Routine

Station number: AMS 05
 Last Cal Date: May 11, 2026
 End time (MST): 14:15

Calibration Standards

Gas Cert Reference: CC308040
 CH₄ Cal Gas Conc. 500.3 ppm
 C₃H₈ Cal Gas Conc. 199.0 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 500.3 ppm
 Removed C₃H₈ Conc. 199.0 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 22, 2032
 CH₄ Equiv Conc. 1047.6 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1047.6 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5470
 Serial Number: 361

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 15005164381
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.64E-04	2.65E-04	NMHC SP Ratio:	5.11E-05	5.12E-05
CH ₄ Retention time:	13.9	13.9	NMHC Peak Area:	171353	171016
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	16.74	16.67	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.67	Prev response	16.74	*% change	-0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	16.74	16.73	1.001
Mid point	4960	40.0	8.38	8.36	1.003
Low point	4980	20.0	4.19	4.16	1.008
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	16.74	16.83	0.995
Average Correction Factor					1.004

Notes: Sample inlet filter was changed after the as founds. Adjusted the span.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	8.75	8.79	0.995
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.79	Prev response	8.73	*% change	0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	8.75	8.77	0.998
Mid point	4960	40.0	4.38	4.38	1.000
Low point	4980	20.0	2.19	2.18	1.003
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	8.75	8.83	0.991
Average Correction Factor					1.000

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	7.99	7.88	1.015
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.88	Prev response	8.00	*% change	-1.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	7.99	7.96	1.004
Mid point	4960	40.0	4.00	3.98	1.006
Low point	4980	20.0	2.00	1.97	1.014
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	7.99	8.00	1.000
Average Correction Factor					1.008

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.001933	0.999593
THC Cal Offset:	-0.035112	-0.015714
CH ₄ Cal Slope:	1.003366	0.996605
CH ₄ Cal Offset:	-0.018167	-0.009759
NMHC Cal Slope:	1.000741	1.002599
NMHC Cal Offset:	-0.017145	-0.006756

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

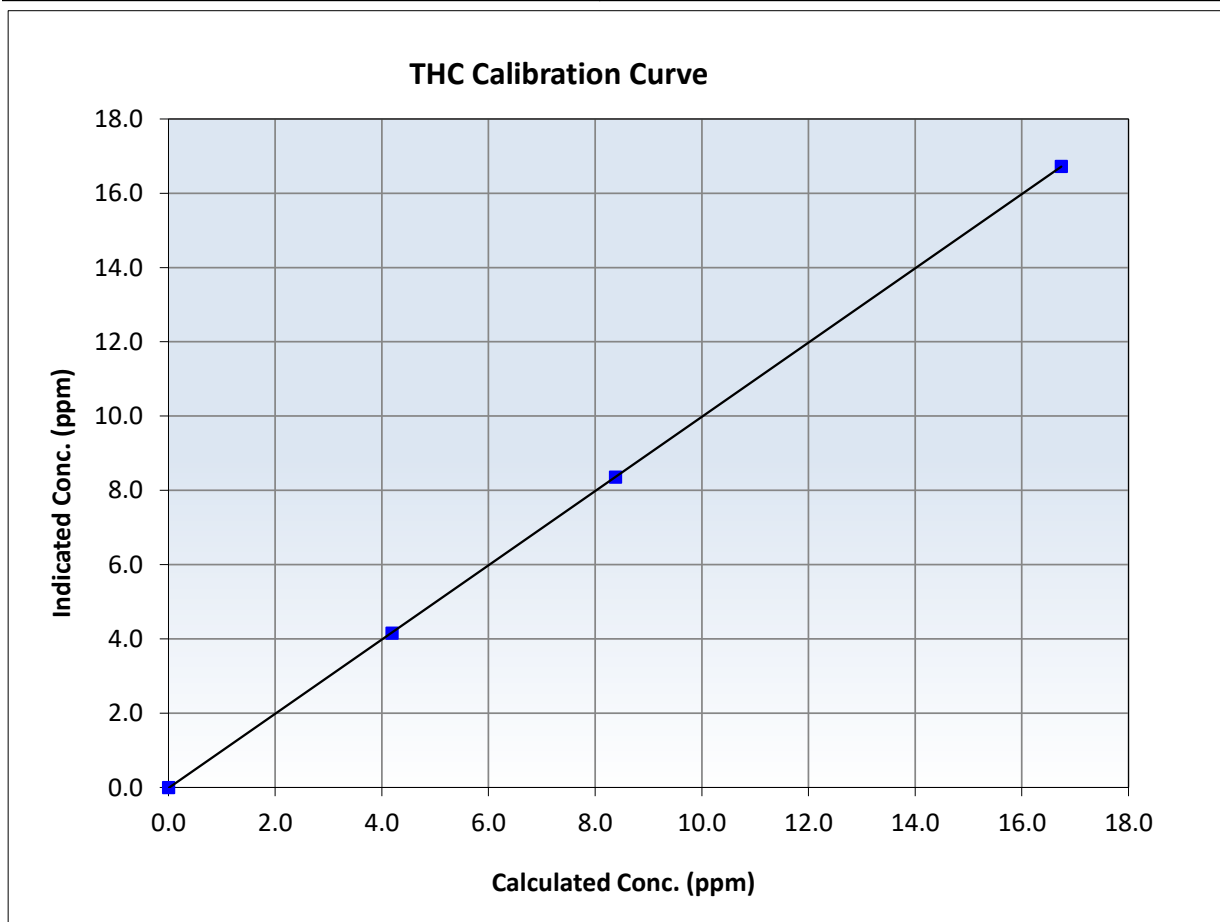
THC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 11, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:55	End Time (MST):	14:15
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999996	<i>≥0.995</i>
16.74	16.73	1.0009	Slope	0.999593	<i>0.90 - 1.10</i>
8.38	8.36	1.0030	Intercept	-0.015714	<i>+/-0.5</i>
4.19	4.16	1.0082			





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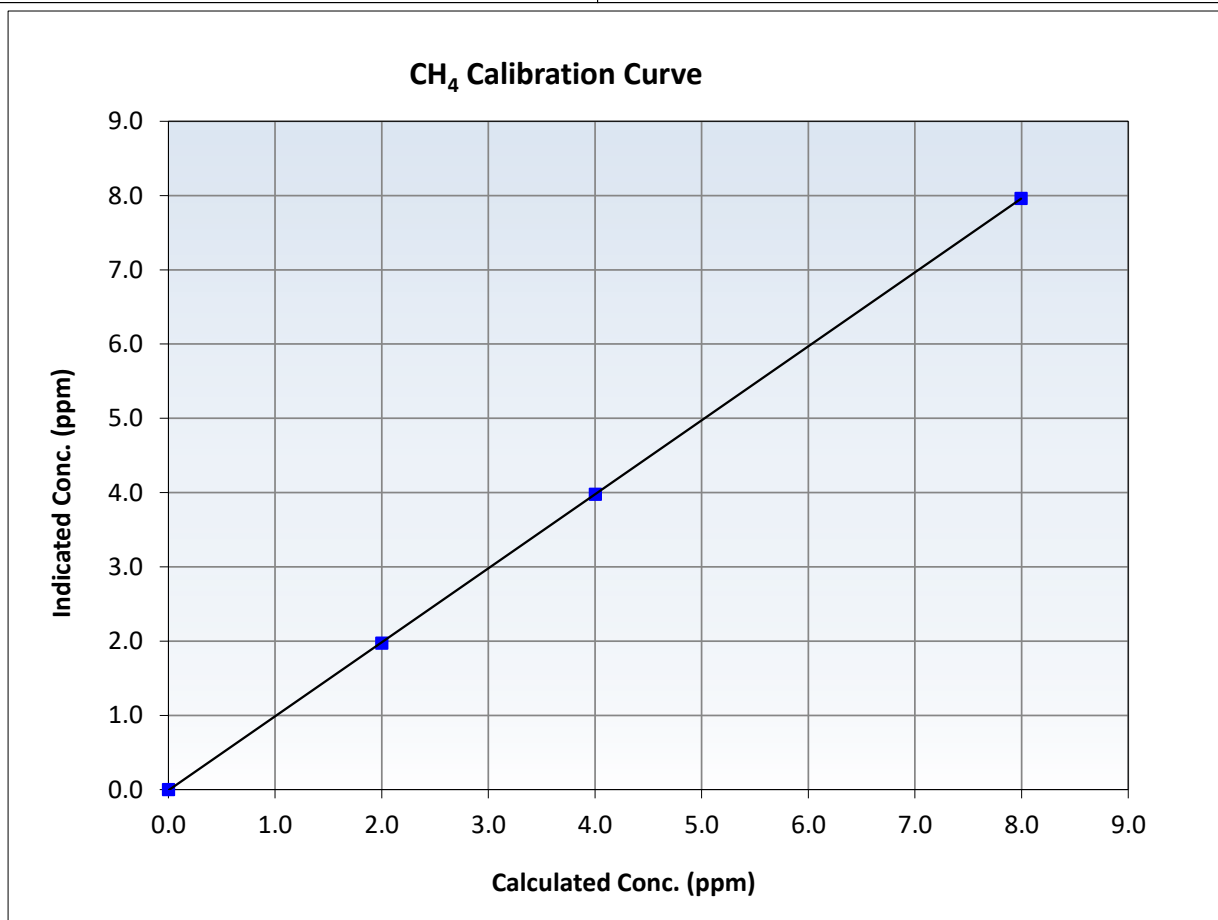
CH₄ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 11, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:55	End Time (MST):	14:15
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999993	≥ 0.995
7.99	7.96	1.0041	Slope	0.996605	$0.90 - 1.10$
4.00	3.98	1.0064	Intercept	-0.009759	± 0.5
2.00	1.97	1.0143			





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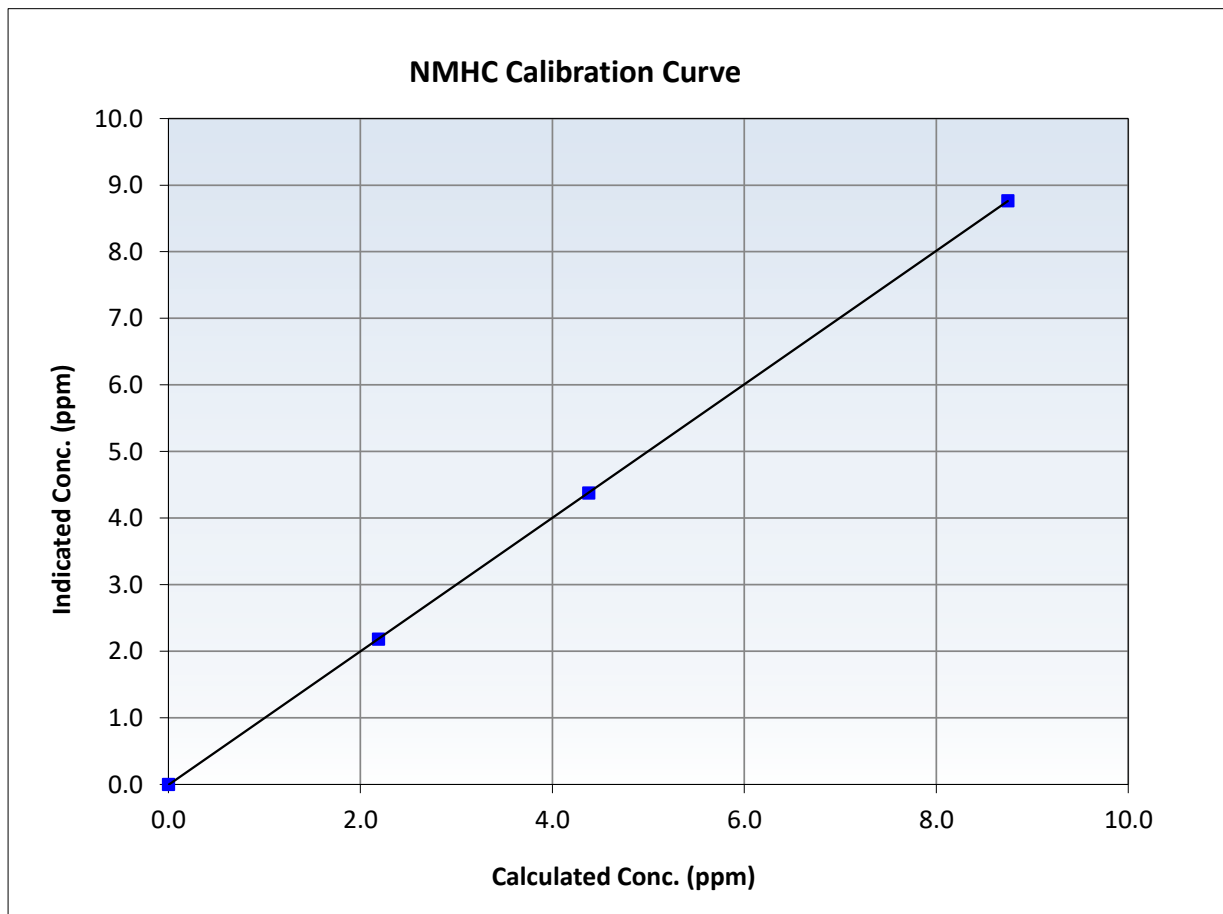
NMHC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 11, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:55	End Time (MST):	14:15
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

Calibration Data

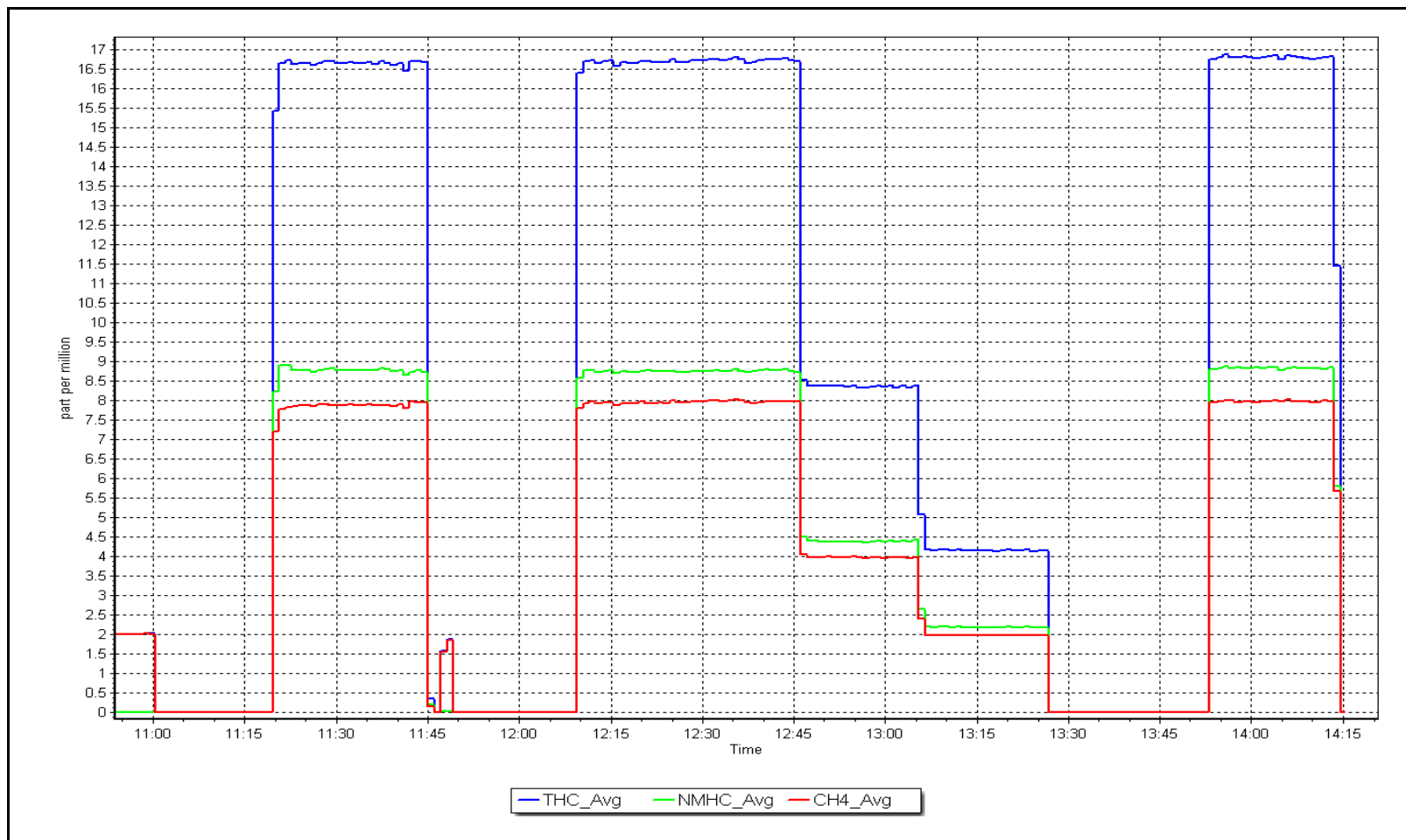
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
8.75	8.77	0.9977	Slope	1.002599	<i>0.90 - 1.10</i>
4.38	4.38	1.0000	Intercept	-0.006756	<i>+/-0.5</i>
2.19	2.18	1.0032			



NMHC Calibration Plot

Date: June 3, 2026

Location: Mannix





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS06
PATRICIA MCINNES
JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Patricia McInnes
Calibration Date: June 22, 2026
Start time (MST): 9:01
Reason: Routine

Station number: AMS 06
Last Cal Date: May 19, 2026
End time (MST): 13:18

Calibration Standards

Cal Gas Concentration: 50.08 ppm
Cal Gas Cylinder #: CC255448
Removed Cal Gas Conc: 50.08 ppm
Removed Gas Cyl #:
Calibrator Model: API T700
Zero Air Gen Model: API T701

Cal Gas Exp Date: October 22, 2032
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 5240
Serial Number: 4602

Analyzer Information

Analyzer make: Thermo 43i
Analyzer Range: 0 - 1000 ppb

Serial Number: 1160290013

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.993214	1.007236	Backgd or Offset:	28.2	28.2
Calibration intercept:	-0.734342	0.101688	Coeff or Slope:	1.016	1.016

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4920	79.9	800.3	804.0	0.995
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	804.2	Previous response	794.1	*% change	1.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4920	79.9	800.3	806.0	0.993
Mid point	4960	39.9	399.6	402.9	0.992
Low point	4980	20.0	200.3	202.1	0.991
As left zero	5000	0.0	0.0	-0.3	----
As left span	4920	79.9	800.3	806.0	0.993
Average Correction Factor:					0.992

Notes: Swapped sample inlet filter as founds. No adjustments made.

Calibration Performed By: Braiden Boutillier



Wood Buffalo Environmental Association

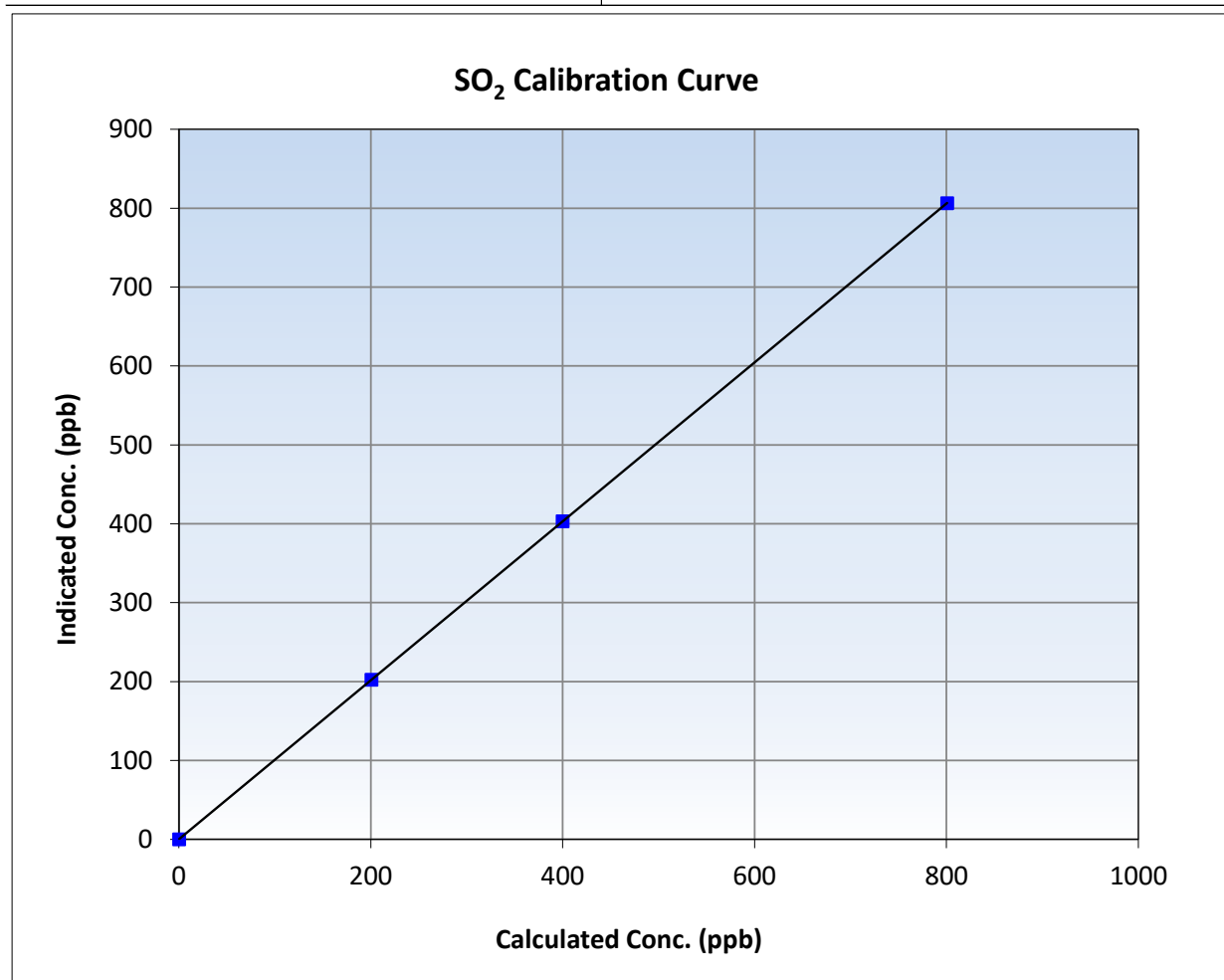
SO₂ Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 19, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:18
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290013

Calibration Data

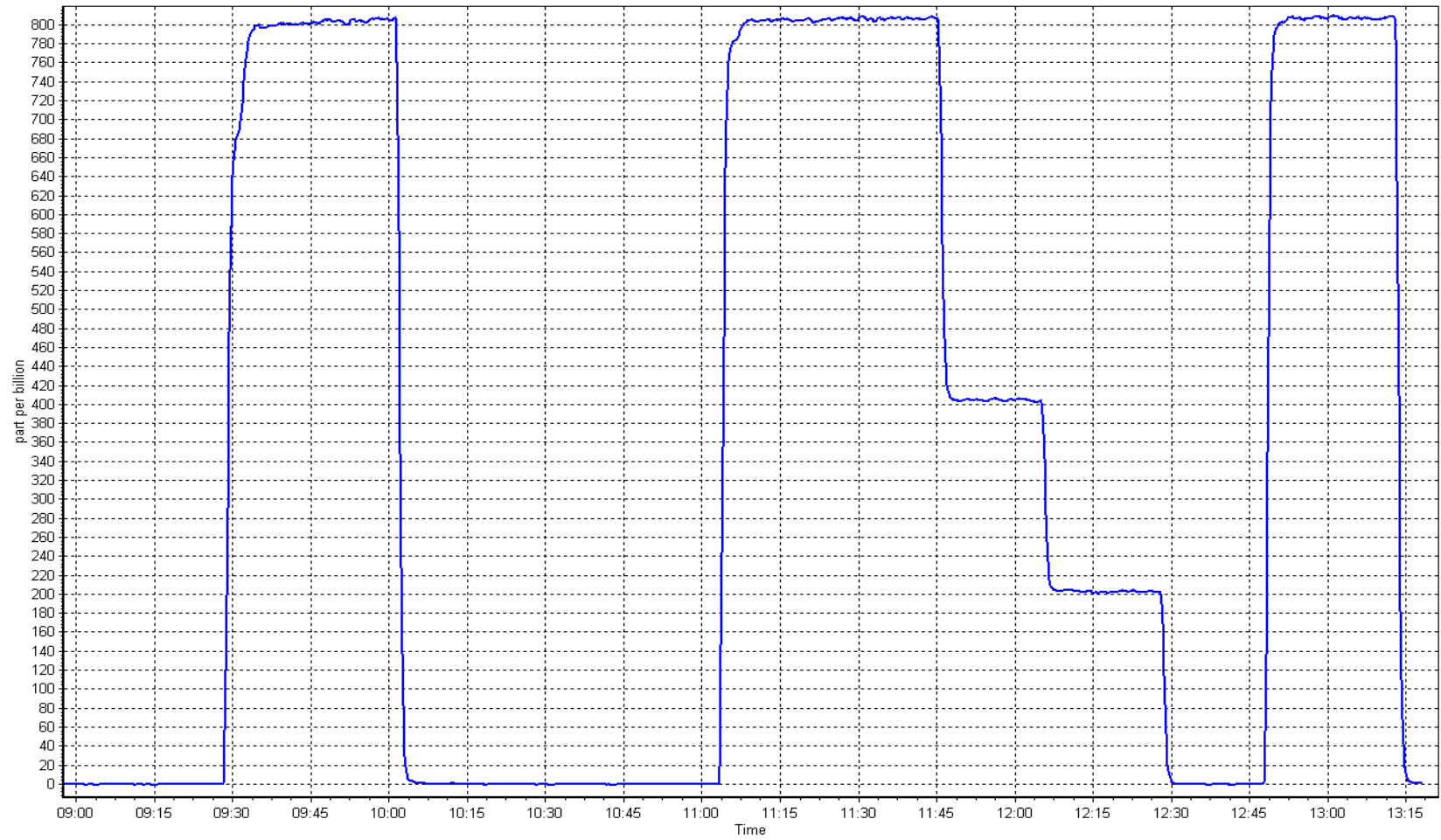
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999999	≥0.995
800.3	806.0	0.9929	Slope	1.007236	0.90 - 1.10
399.6	402.9	0.9919	Intercept	0.101688	+/-30
200.3	202.1	0.9912			



SO2 Calibration Plot

Date: June 22, 2026

Location: Patricia McInnes





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Patricia McInnes
Calibration Date: June 4, 2026
Start time (MST): 9:21
Reason: Routine

Station number: AMS 06
Last Cal Date: May 14, 2026
End time (MST): 14:20

Calibration Standards

Cal Gas Concentration: 4.760 ppm
Cal Gas Cylinder #: DT0014585
Removed Cal Gas Conc: 4.760 ppm
Removed Gas Cyl #:
Calibrator Make/Model: API T700
ZAG Make/Model: API T701

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 5240
Serial Number: 4602

Analyzer Information

Analyzer make: Thermo 43i TLE
Converter make: CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1236656116
Converter serial #: 621
Converter Temp: 850 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003116	1.007689	Backgd or Offset:	2.52	2.55
Calibration intercept:	0.180000	0.020000	Coeff or Slope:	1.258	1.276

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4916	84.0	80.0	76.1	1.049
As found Mid point	4958	42.0	40.0	37.7	1.058
As found Low point	4979	21.0	20.0	18.3	1.087
New cylinder response					
Baseline Corr As found:	76.2	Prev response:	80.40	*% change:	-5.5%
Baseline Corr 2nd AF pt:	37.8	AF Slope:	0.955239	AF Intercept:	-0.420000
Baseline Corr 3rd AF pt:	18.4	AF Correlation:	0.999916	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4916	84.0	80.0	80.5	0.993
Mid point	4958	42.0	40.0	40.5	0.987
Low point	4979	21.0	20.0	20.2	0.990
As left zero	5000	0.0	0.0	-0.1	----
As left span	4916	84.0	80.0	82.3	0.972
SO2 Scrubber Check				0.0	
Date of last scrubber change:		Wednesday, April 8, 2026		Ave Corr Factor	0.990
Date of last converter efficiency test:					

Notes: Changed the sample inlet filter after as founds. Adjusted span.

Calibration Performed By: Param Kaur



Wood Buffalo Environmental Association

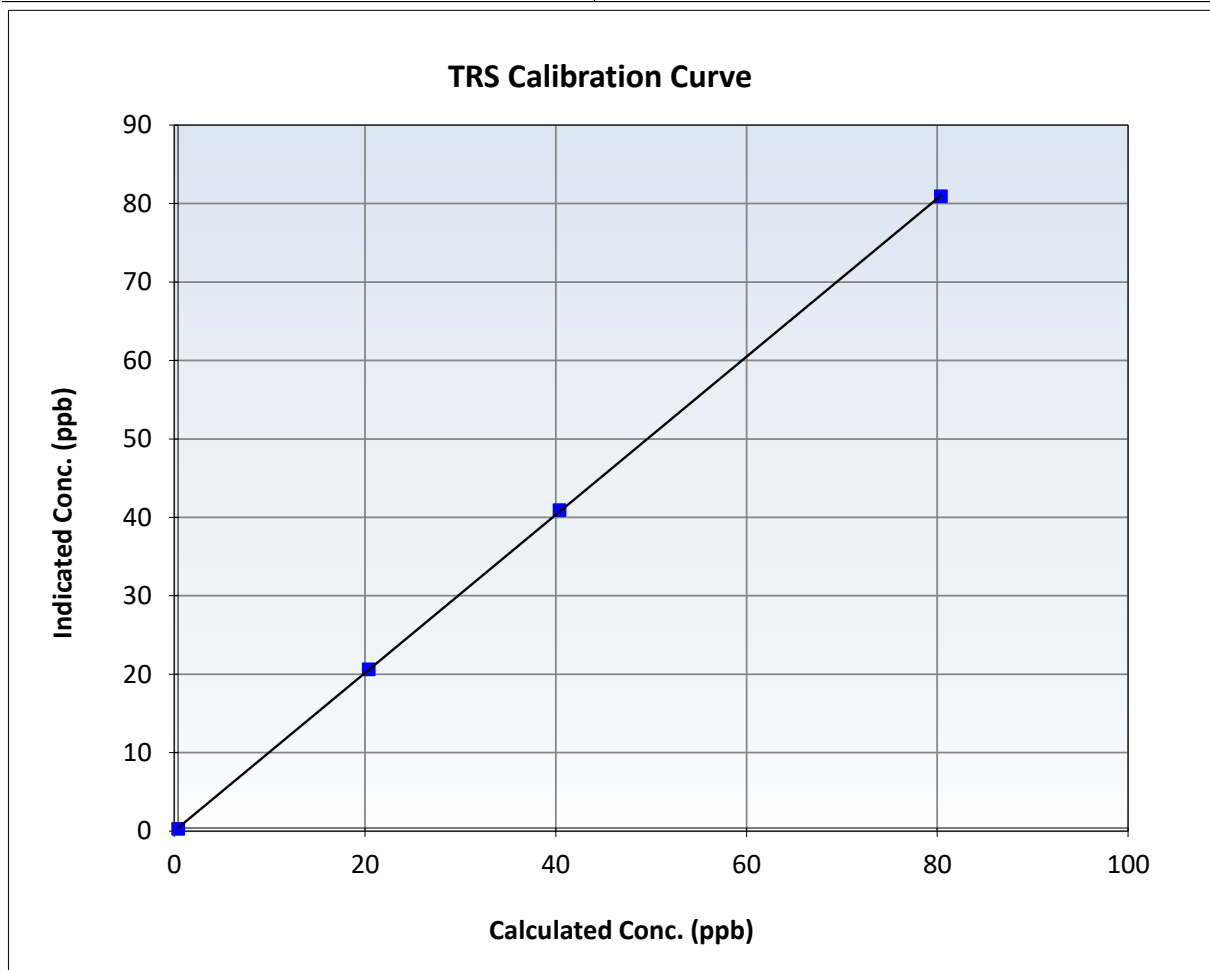
TRS Calibration Summary

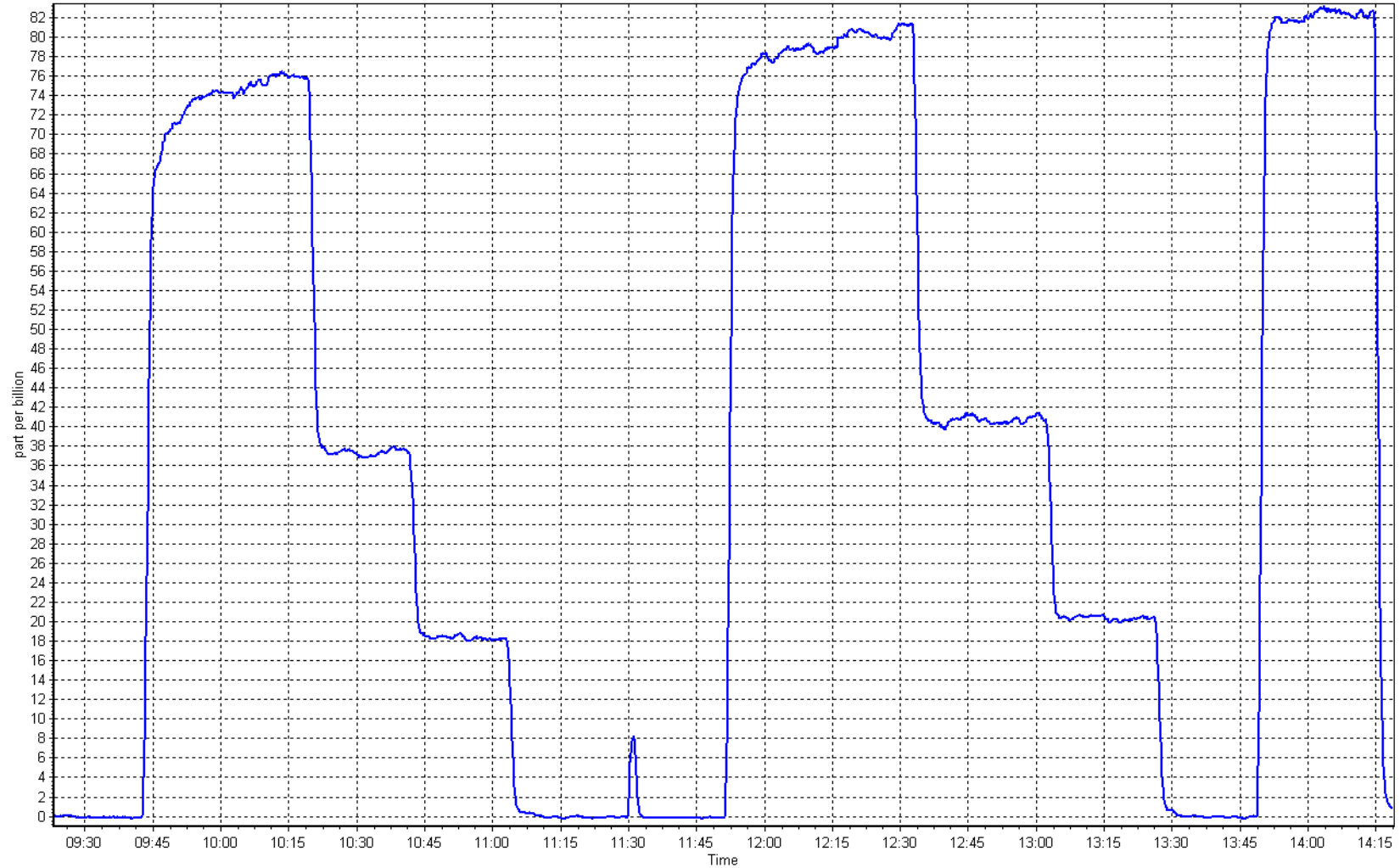
Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 14, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:21	End Time (MST):	14:20
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1236656116

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999983	≥ 0.995
80.0	80.5	0.9934	Slope	1.007689	$0.90 - 1.10$
40.0	40.5	0.9873	Intercept	0.020000	± 3
20.0	20.2	0.9897			







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Patricia McInnes
 Calibration Date: June 22, 2026
 Start time (MST): 9:01
 Reason: Routine

Station number: AMS 06
 Last Cal Date: May 19, 2026
 End time (MST): 13:24

Calibration Standards

Gas Cert Reference: CC255448
 CH₄ Cal Gas Conc. 501.4 ppm
 C₃H₈ Cal Gas Conc. 199.3 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 501.4 ppm
 Removed C₃H₈ Conc. 199.3 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 22, 2032
 CH₄ Equiv Conc. 1049.5 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1049.5 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5240
 Serial Number: 4602

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1118148494
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.18E-04	3.03E-04	NMHC SP Ratio:	5.36E-05
CH ₄ Retention time:	15.6	15.9	NMHC Peak Area:	163272
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF
				4.50E-05
				194272
				OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.2	16.83	16.24	1.036
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.24	Prev response	16.84	*% change	-3.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	16.83	16.76	1.004
Mid point	4960	40.2	8.44	8.42	1.002
Low point	4980	20.2	4.24	4.23	1.001
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	16.83	16.76	1.004
Average Correction Factor					1.003

Notes: Changed hydrogen cylinder and inlet filter after as founds. Adjusted span, window settings. Ran new zero chromatogram.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.2	8.79	8.86	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.86	Prev response	8.79	*% change	0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4920	80.2	8.79	8.76	1.004
Mid point	4960	40.2	4.41	4.40	1.002
Low point	4980	20.2	2.21	2.21	1.001
As left zero	5000	0.0	0.00	0.00	
As left span	4920	80.2	8.79	8.74	1.006
Average Correction Factor					1.002

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.2	8.04	7.38	1.090
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.38	Prev response	8.05	*% change	-9.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4920	80.2	8.04	8.00	1.005
Mid point	4960	40.2	4.03	4.02	1.003
Low point	4980	20.2	2.03	2.02	1.001
As left zero	5000	0.0	0.00	0.00	
As left span	4920	80.2	8.04	8.02	1.003
Average Correction Factor					1.003

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.003156	0.995543
THC Cal Offset:	-0.047549	0.008866
CH ₄ Cal Slope:	1.007414	0.994563
CH ₄ Cal Offset:	-0.048584	0.005211
NMHC Cal Slope:	1.000378	0.996400
NMHC Cal Offset:	-0.001769	0.003057

Calibration Performed By: Braiden Boutillier



Wood Buffalo Environmental Association

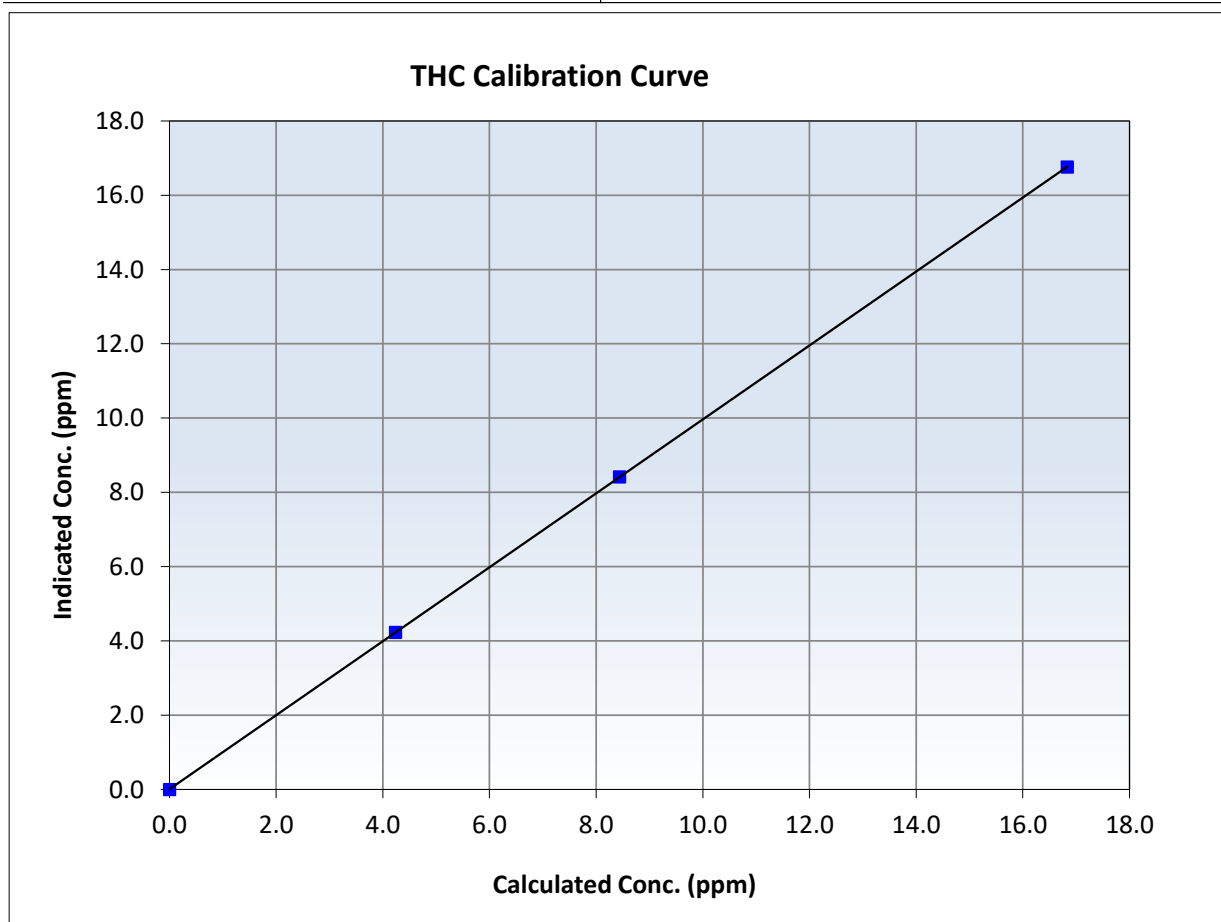
THC Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 19, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:24
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999998	≥ 0.995
16.83	16.76	1.0043	Slope	0.995543	$0.90 - 1.10$
8.44	8.42	1.0021	Intercept	0.008866	± 0.5
4.24	4.23	1.0013			





Wood Buffalo Environmental Association

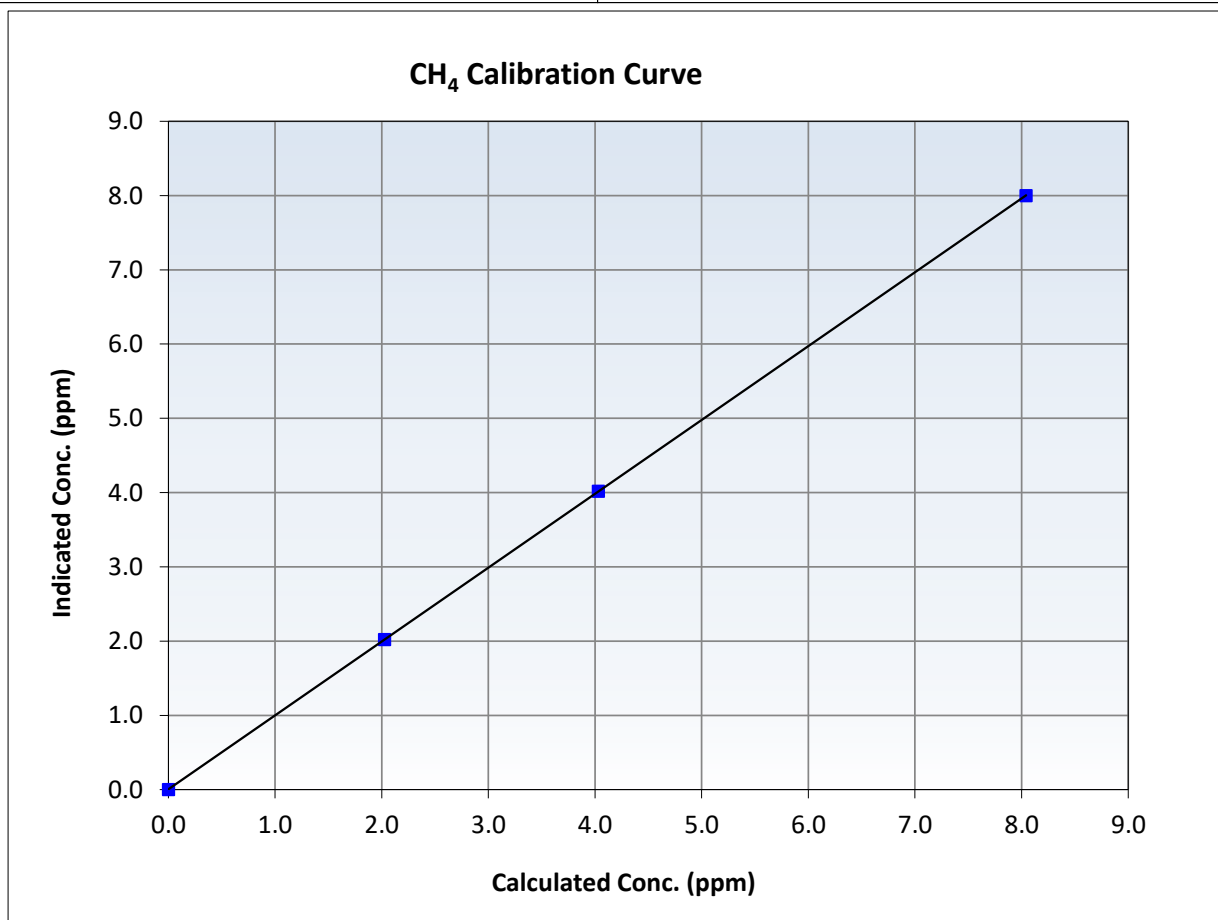
CH₄ Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 19, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:24
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999998	<i>≥0.995</i>
8.04	8.00	1.0053	Slope	0.994563	<i>0.90 - 1.10</i>
4.03	4.02	1.0028	Intercept	0.005211	<i>+/-0.5</i>
2.03	2.02	1.0013			





Wood Buffalo Environmental Association

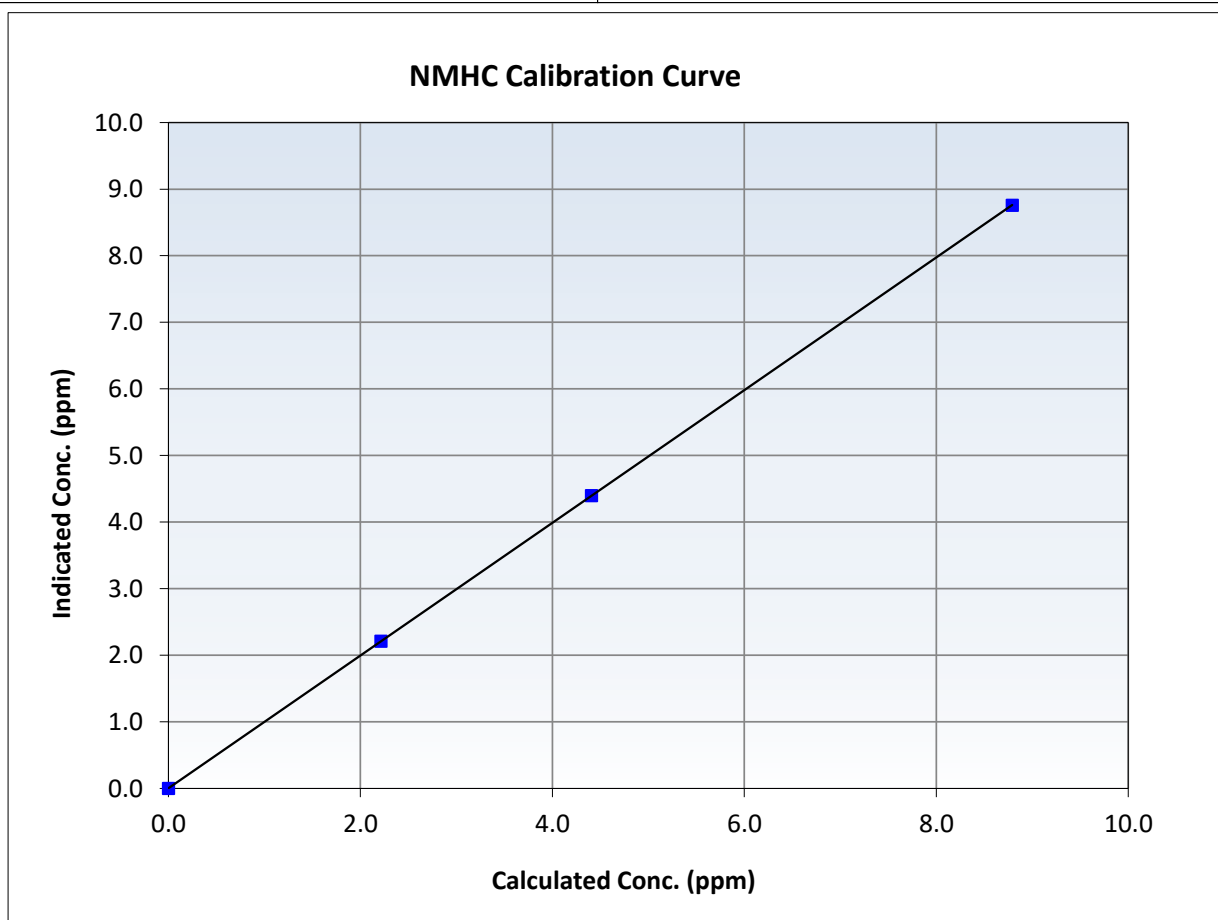
NMHC Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 19, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:24
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

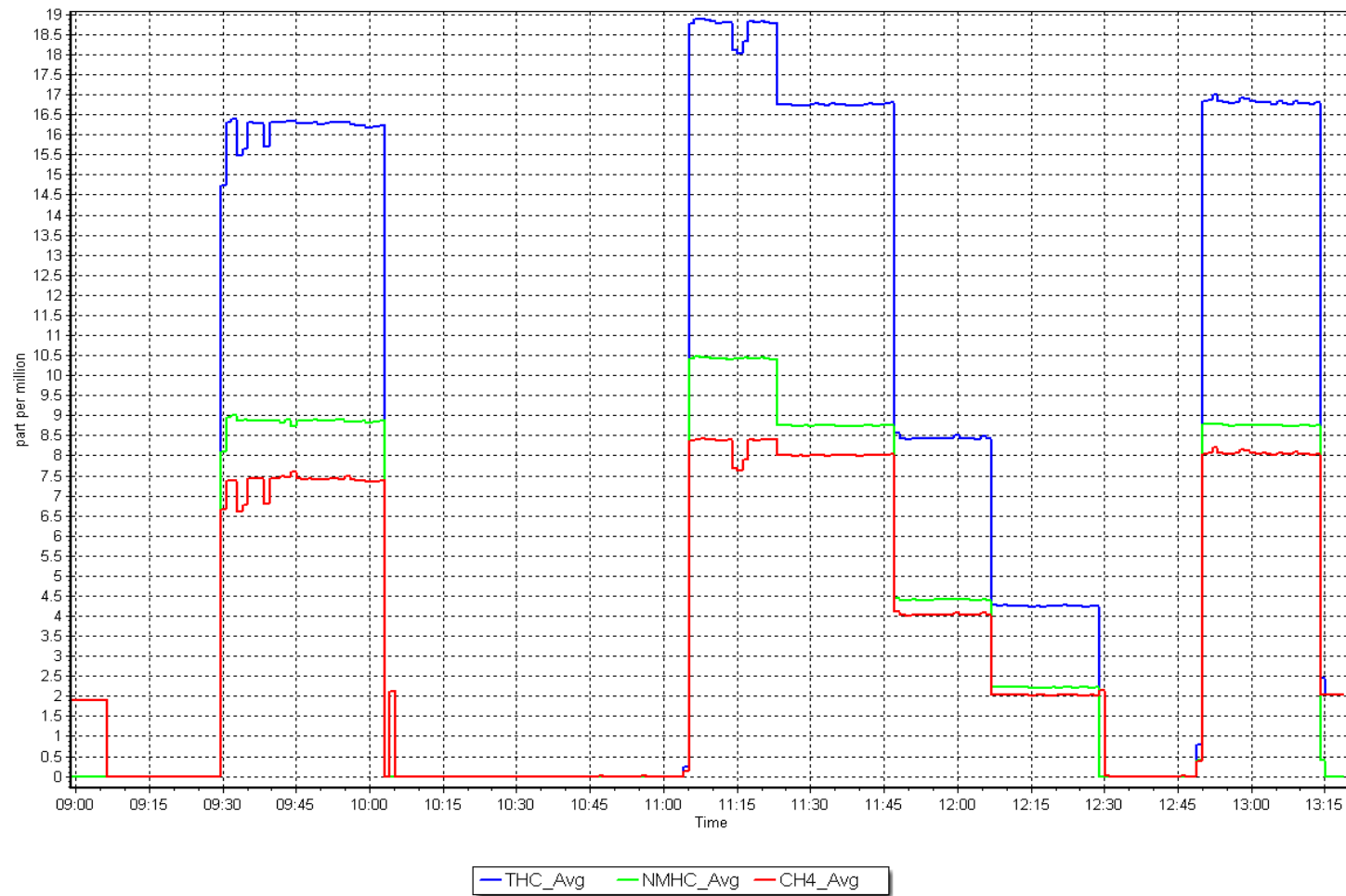
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999999	<i>≥0.995</i>
8.79	8.76	1.0035	Slope	0.996400	<i>0.90 - 1.10</i>
4.41	4.40	1.0021	Intercept	0.003057	<i>+/-0.5</i>
2.21	2.21	1.0014			



NMHC Calibration Plot

Date: June 22, 2026

Location: Patricia McInnes





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Patricia McInnes
 Calibration Date: June 23, 2026
 Start time (MST): 8:10
 Reason: Maintenance

Station number: AMS 06
 Last Cal Date: June 22, 2026
 End time (MST): 11:20

Calibration Standards

Gas Cert Reference: CC255448
 CH₄ Cal Gas Conc. 501.4 ppm
 C₃H₈ Cal Gas Conc. 199.3 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 501.4 ppm
 Removed C₃H₈ Conc. 199.3 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 22, 2032
 CH₄ Equiv Conc. 1049.5 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1049.5 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5240
 Serial Number: 4602

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1118148494
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.03E-04	3.03E-04	NMHC SP Ratio:	4.50E-05
CH ₄ Retention time:	15.9	15.9	NMHC Peak Area:	194272
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	16.83	16.65	1.011
Mid point	4960	40.2	8.44	8.35	1.010
Low point	4980	20.2	4.24	4.20	1.009
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	16.83	16.62	1.013
Average Correction Factor					1.010

Notes: Internal pump dead, swapped first and cal completed after. Points look good, no adjustment made.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	8.79	8.73	1.007
Mid point	4960	40.2	4.41	4.38	1.005
Low point	4980	20.2	2.21	2.21	1.001
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	8.79	8.71	1.009
Average Correction Factor					1.005

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	8.04	7.92	1.015
Mid point	4960	40.2	4.03	3.97	1.016
Low point	4980	20.2	2.03	1.99	1.019
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	8.04	7.91	1.016
Average Correction Factor					1.017

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.995543	0.989136
THC Cal Offset:	0.008866	0.003385
CH ₄ Cal Slope:	0.994563	0.985572
CH ₄ Cal Offset:	0.005211	-0.004098
NMHC Cal Slope:	0.996400	0.992201
NMHC Cal Offset:	0.003057	0.007485

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

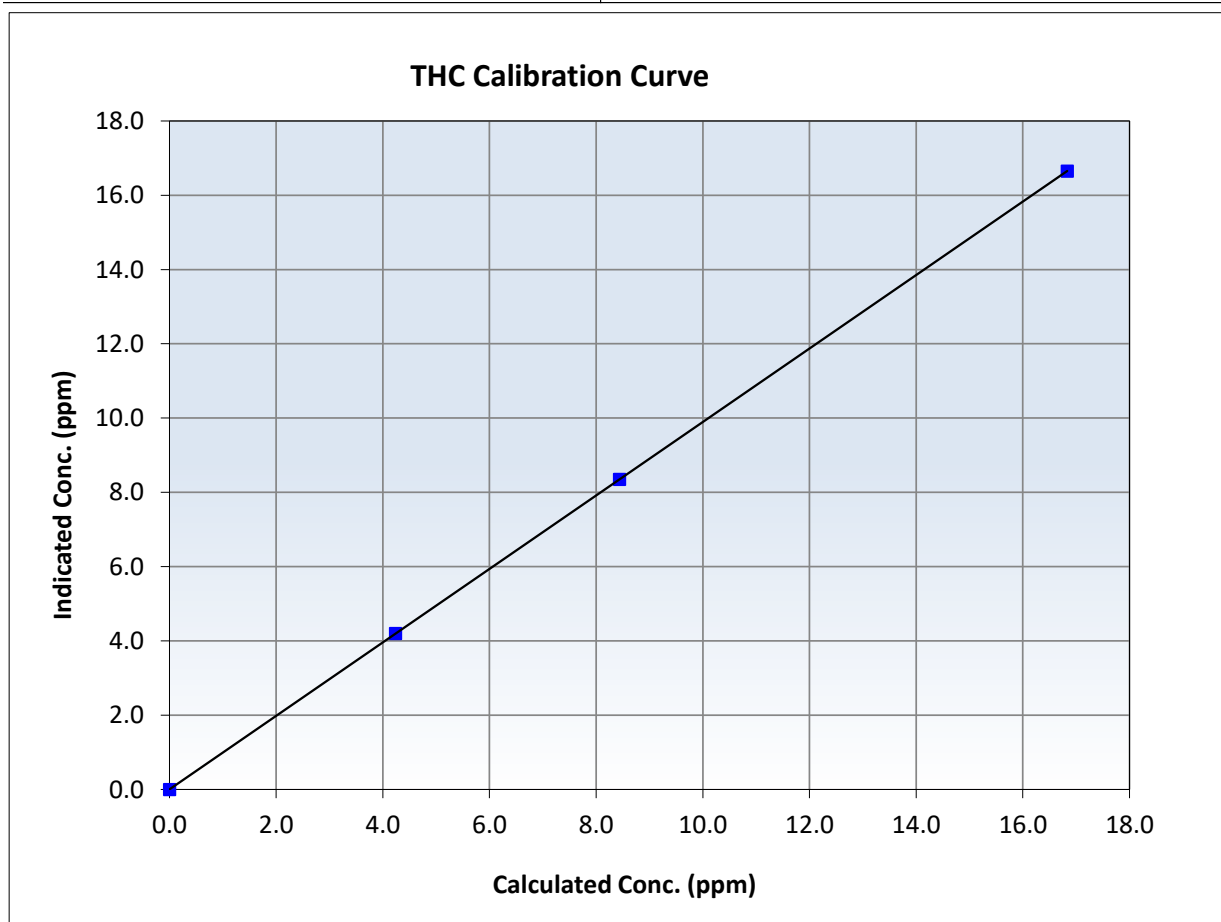
THC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 22, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:10	End Time (MST):	11:20
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	1.000000		≥ 0.995
16.83	16.65	1.0109	Slope	0.989136		0.90 - 1.10
8.44	8.35	1.0105	Intercept	0.003385		± 0.5
4.24	4.20	1.0092				





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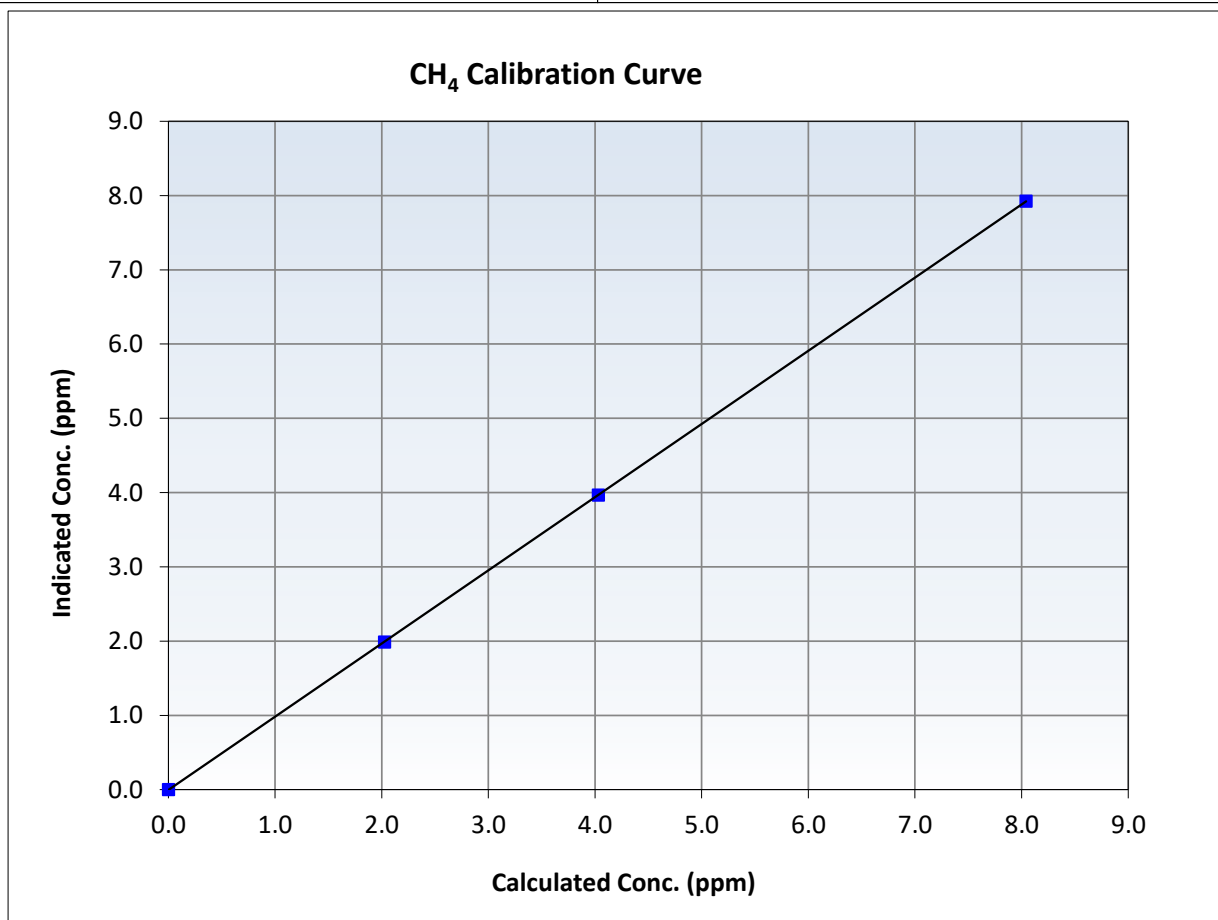
CH₄ Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 22, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:10	End Time (MST):	11:20
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999999	≥ 0.995
8.04	7.92	1.0149	Slope	0.985572	$0.90 - 1.10$
4.03	3.97	1.0162	Intercept	-0.004098	± 0.5
2.03	1.99	1.0189			





Wood Buffalo Environmental Association

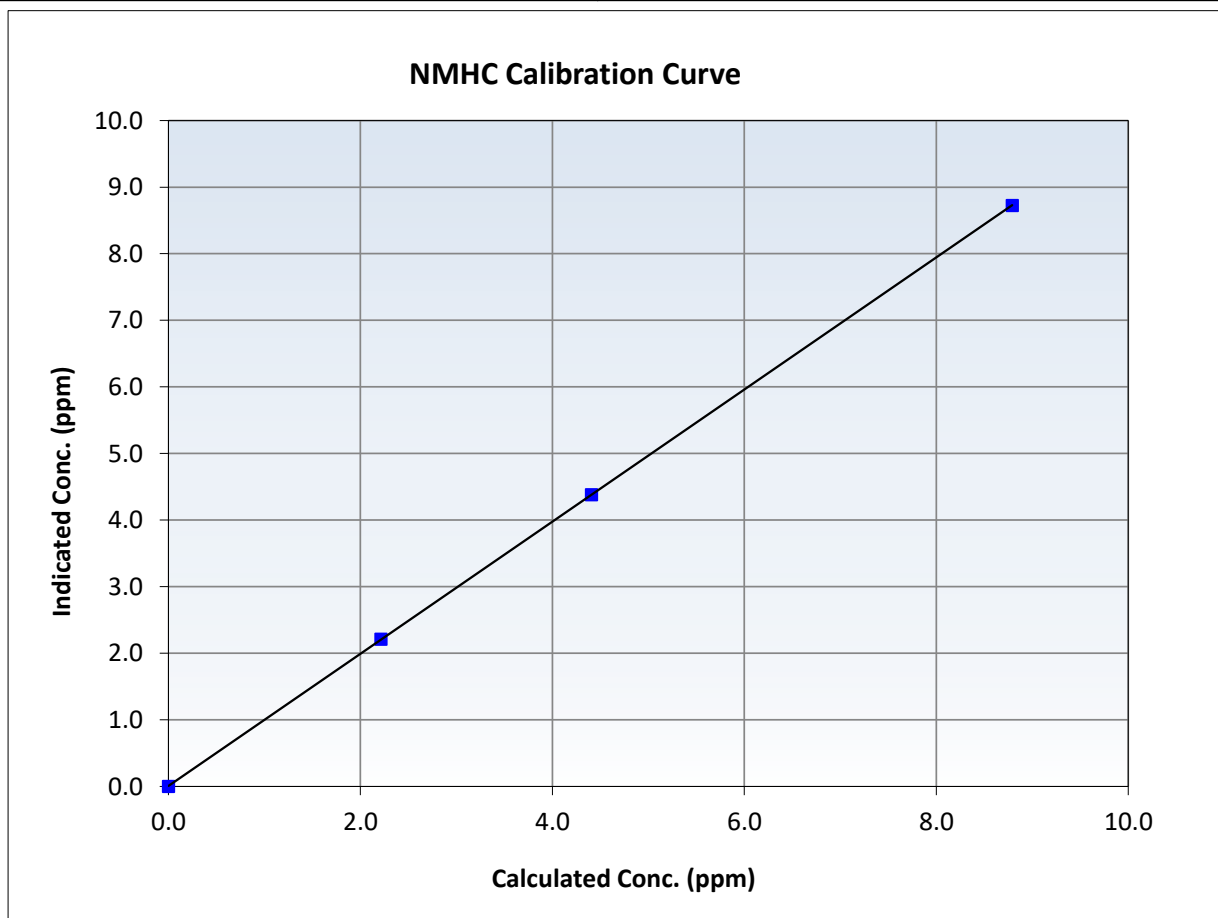
NMHC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 22, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:10	End Time (MST):	11:20
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

Calibration Data

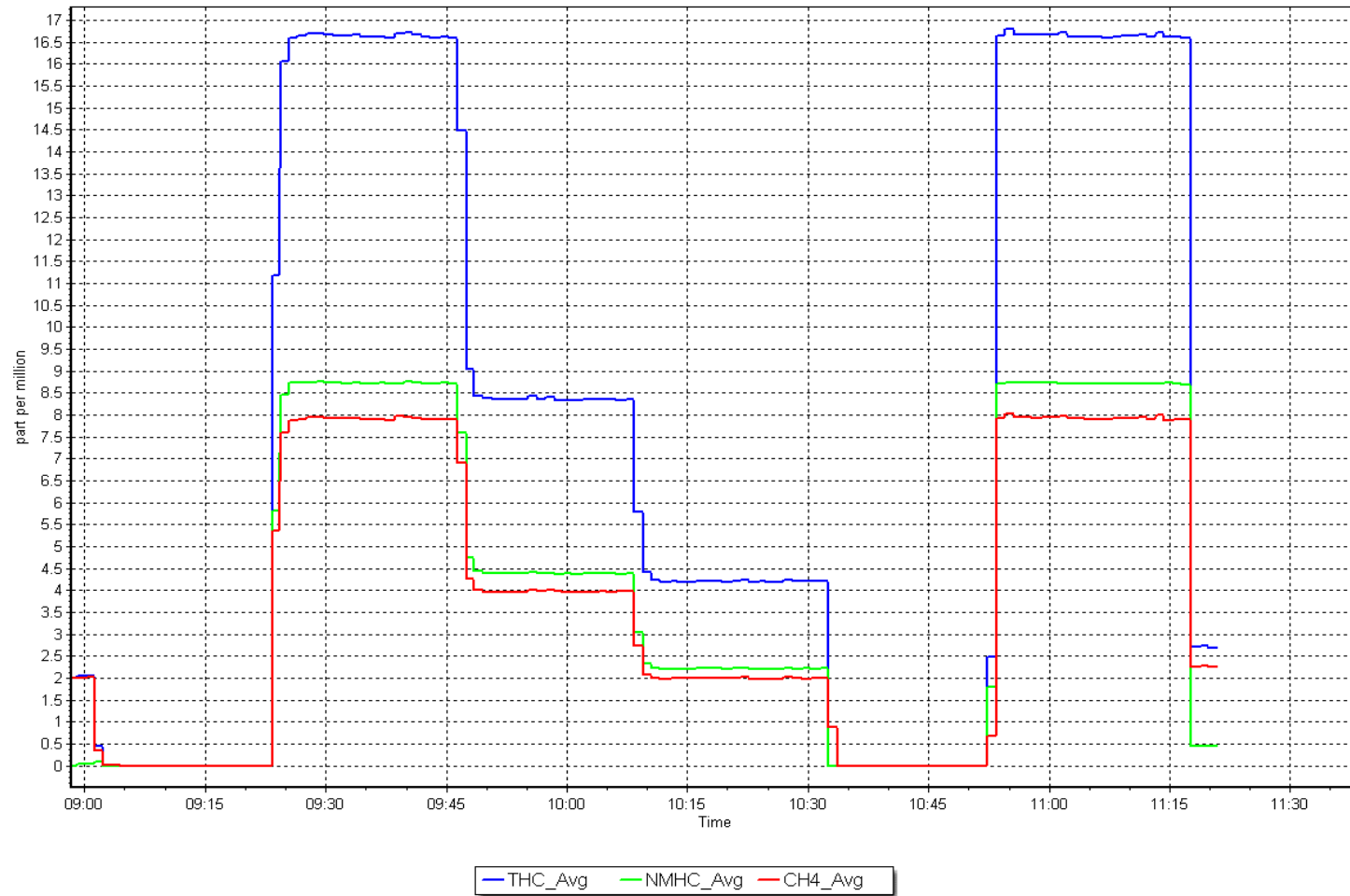
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
8.79	8.73	1.0074	Slope	0.992201	<i>0.90 - 1.10</i>
4.41	4.38	1.0053	Intercept	0.007485	<i>+/-0.5</i>
2.21	2.21	1.0010			



NMHC Calibration Plot

Date: June 23, 2026

Location: Patricia McInnes





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Patricia McInnes
Station number: AMS 06
Calibration Date: June 3, 2026
Last Cal Date: May 21, 2026
Start time (MST): 10:11
End time (MST): 15:28
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0036234
NOX Cal Gas Conc: 62.2 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 62.20 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: July 22, 2032
NO Cal Gas Conc: 61.90 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 61.90 ppm
NO gas Diff:
Serial Number: 5240
Serial Number: 4602

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.4	-0.1	-0.3	----	----
AF High point	4935	64.6	803.7	799.8	3.9	799.1	790.1	9.0	1.0052	1.0122
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 802.3 ppb	NO = 797.2 ppb				* = > +/-5% change initiates investigation		*Percent Change	NO _x = -0.4%	
Baseline Corr 1st pt	NO _x = 799.5 ppb	NO = 790.2 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.9%	
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found	NO _x r ² :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found	NO r ² :	NO SI:	NO Int:	
						As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1172750022

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.997493	0.998901
NO _x Cal Offset:	0.632858	1.412385
NO Cal Slope:	0.996937	1.001910
NO Cal Offset:	-0.205211	-0.646169
NO ₂ Cal Slope:	0.996540	1.000938
NO ₂ Cal Offset:	-0.427785	0.171260

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.879	0.887	NO bkgnd or offset:	3.8	3.9
NOX coeff or slope:	0.995	0.995	NOX bkgnd or offset:	4.4	4.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	161.2	162.4

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	----	----
High point	4935	64.6	803.7	799.8	3.9	802.9	800.6	2.3	1.0010	0.9990
Mid point	4968	32.3	401.8	399.9	1.9	405.3	401.0	4.3	0.9913	0.9971
Low point	4984	16.2	201.5	200.5	1.0	202.9	198.6	4.3	0.9932	1.0098
As left zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
As left span	4935	64.6	803.7	383.5	420.2	799.5	383.5	416.0	1.0052	1.0000
Average Correction Factor									0.9952	1.0020

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	795.5	381.1	418.3	418.6	0.9992	100.1%
Mid GPT point	795.5	592.5	206.9	207.7	0.9960	100.4%
Low GPT point	795.5	693.5	105.9	106.2	0.9970	100.3%
Average Correction Factor					0.9974	100.3%

Notes:

Changed the sample inlet filter after as founds. Span adjusted.

Calibration Performed By:

Param Kaur



Wood Buffalo Environmental Association

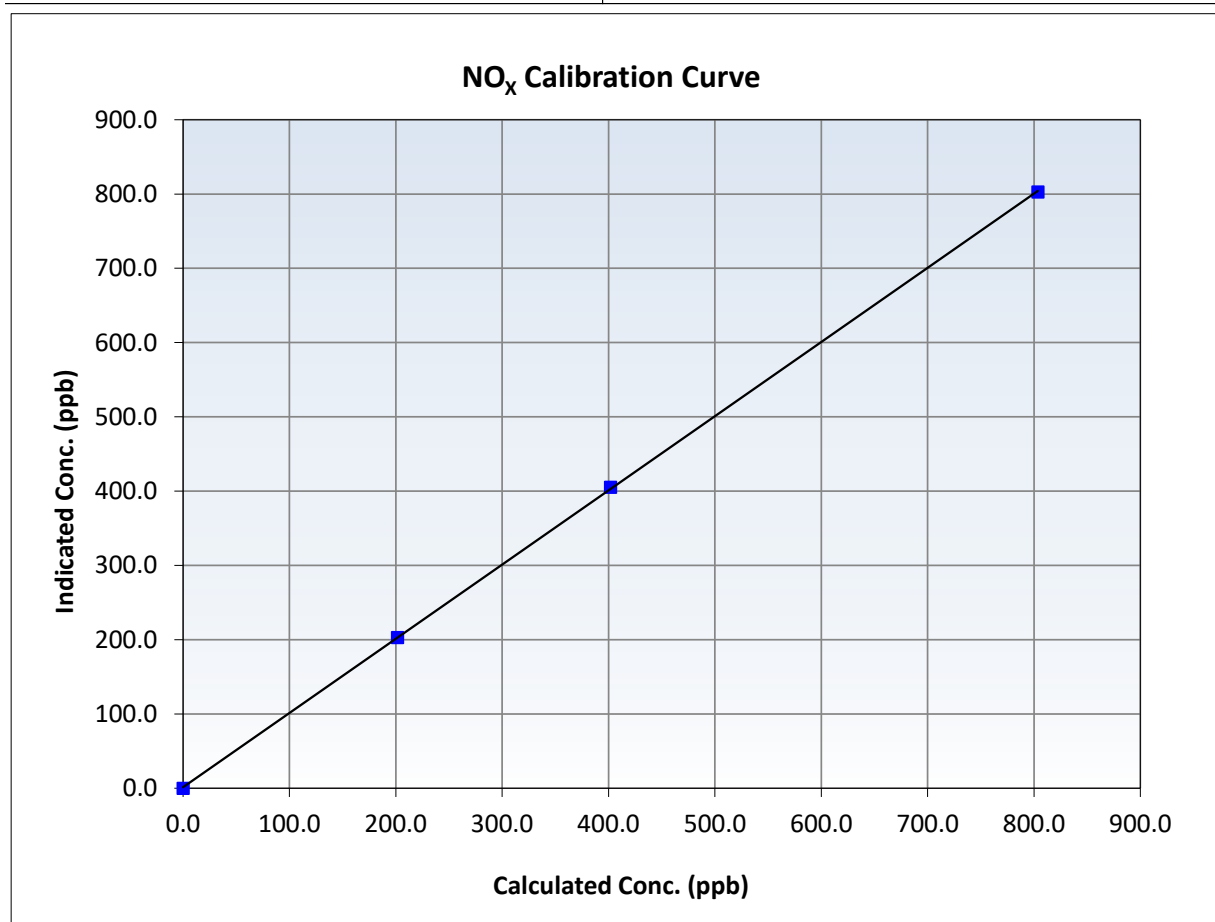
NO_x Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 21, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:11	End Time (MST):	15:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999971	≥0.995
803.7	802.9	1.0010	Slope	0.998901	0.90 - 1.10
401.8	405.3	0.9913	Intercept	1.412385	+/-20
201.5	202.9	0.9932			





Wood Buffalo Environmental Association

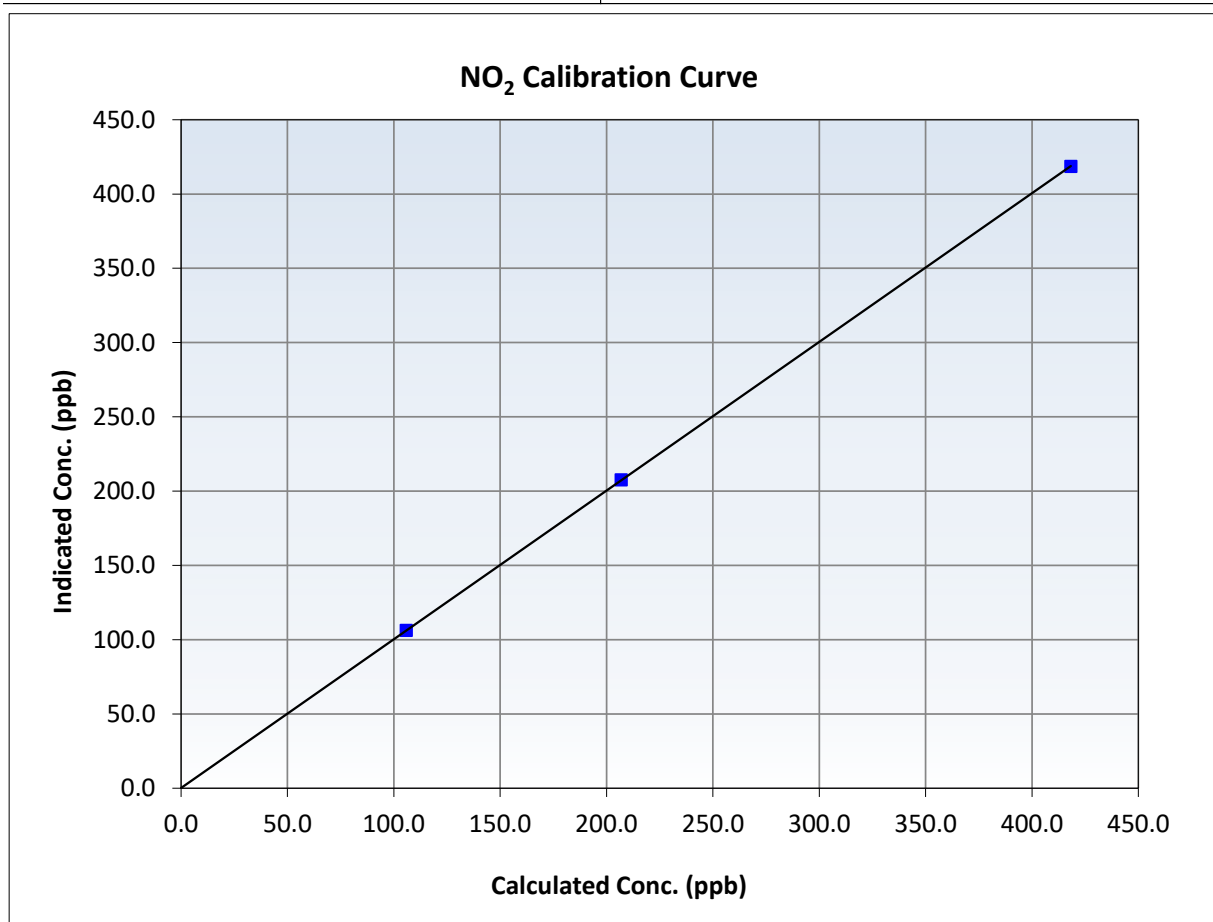
NO₂ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 21, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:11	End Time (MST):	15:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999996	≥0.995
418.3	418.6	0.9992	Slope	1.000938	0.90 - 1.10
206.9	207.7	0.9960	Intercept	0.171260	+/-20
105.9	106.2	0.9970			





Wood Buffalo Environmental Association

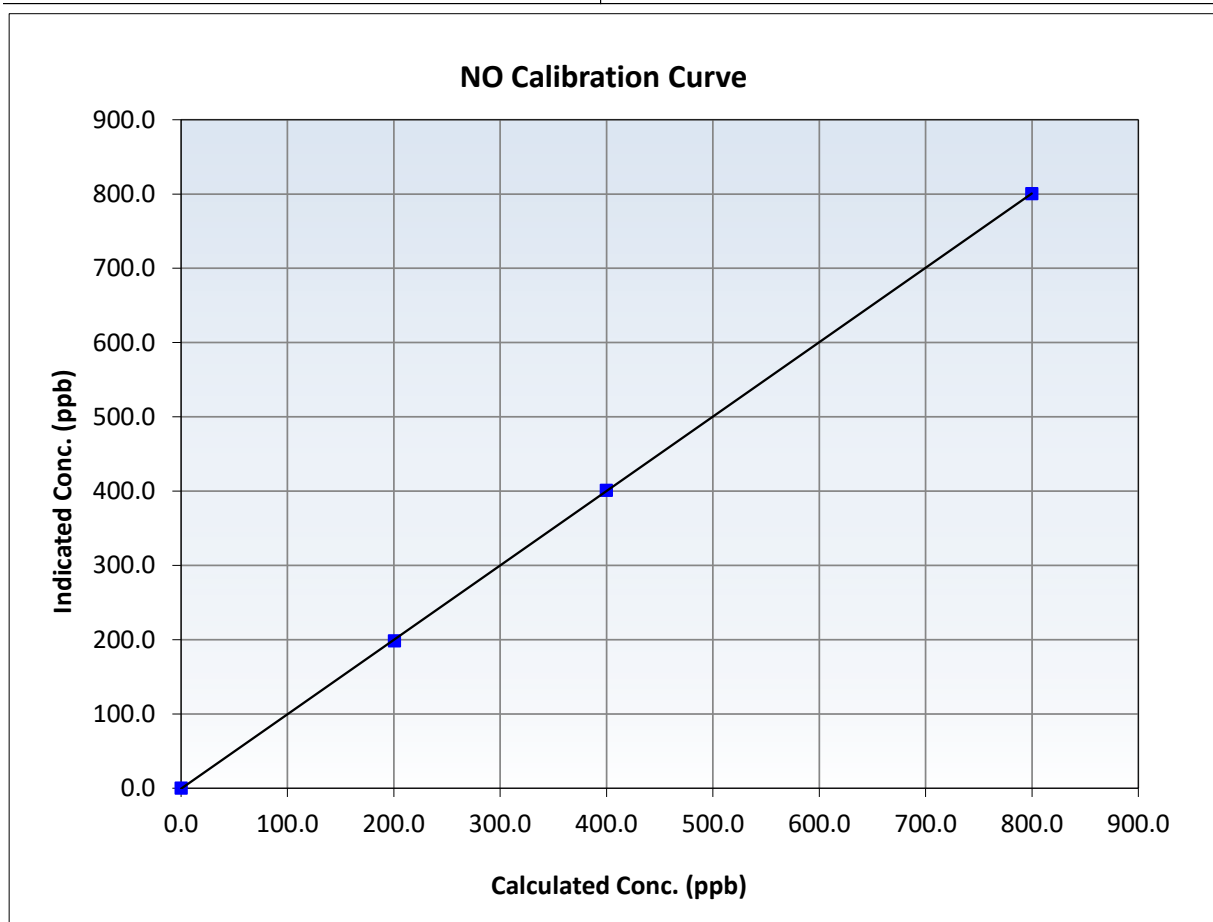
NO Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 21, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:11	End Time (MST):	15:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

Calibration Data

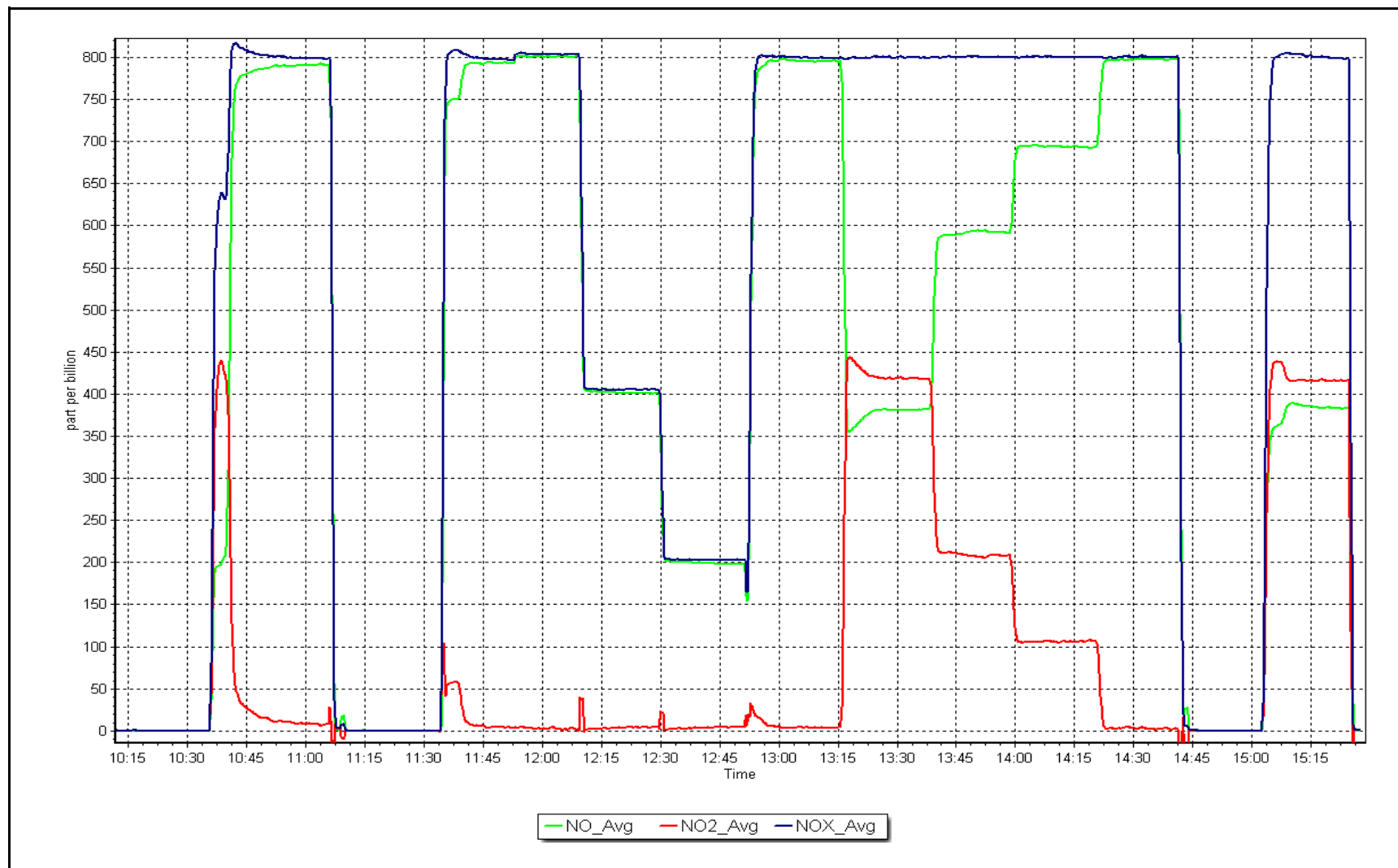
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999987	≥ 0.995
799.8	800.6	0.9990	Slope	1.001910	0.90 - 1.10
399.9	401.0	0.9971	Intercept	-0.646169	+/-20
200.5	198.6	1.0098			



NO_x Calibration Plot

Date: June 3, 2026

Location: Patricia McInnes





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Patricia McInnes
Calibration Date: June 5, 2026
Start time (MST): 9:16
Reason: Routine

Station number: AMS 06
Last Cal Date: May 7, 2026
End time (MST): 12:58

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: API T700
ZAG Make/Model: API T701

Serial Number: 5240
Serial Number: 4602

Analyzer Information

Analyzer make: Teledyne API T400
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 7046

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003457	1.001686	Backgd or Offset:	3.5	3.5
Calibration intercept:	0.420000	0.280000	Coeff or Slope:	1.025	1.026

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	-0.5	----
As found High point	5000	912.4	400.0	397.4	1.005
As found Mid point					
As found Low point					
Baseline Corr As found:	397.9	Previous response	401.8	*% change	-1.0%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	-0.3	----
High point	5000	910.8	400.0	400.6	0.999
Mid point	5000	792.4	200.0	201.1	0.995
Low point	5000	688.2	100.0	100.9	0.991
As left zero	5000	800.0	0.0	-0.7	----
As left span	5000	910.8	400.0	403.5	0.991
Average Correction Factor					0.995

Notes: Changed the sample inlet filter after as founds. Adjusted span.

Calibration Performed By: Param Kaur



Wood Buffalo Environmental Association

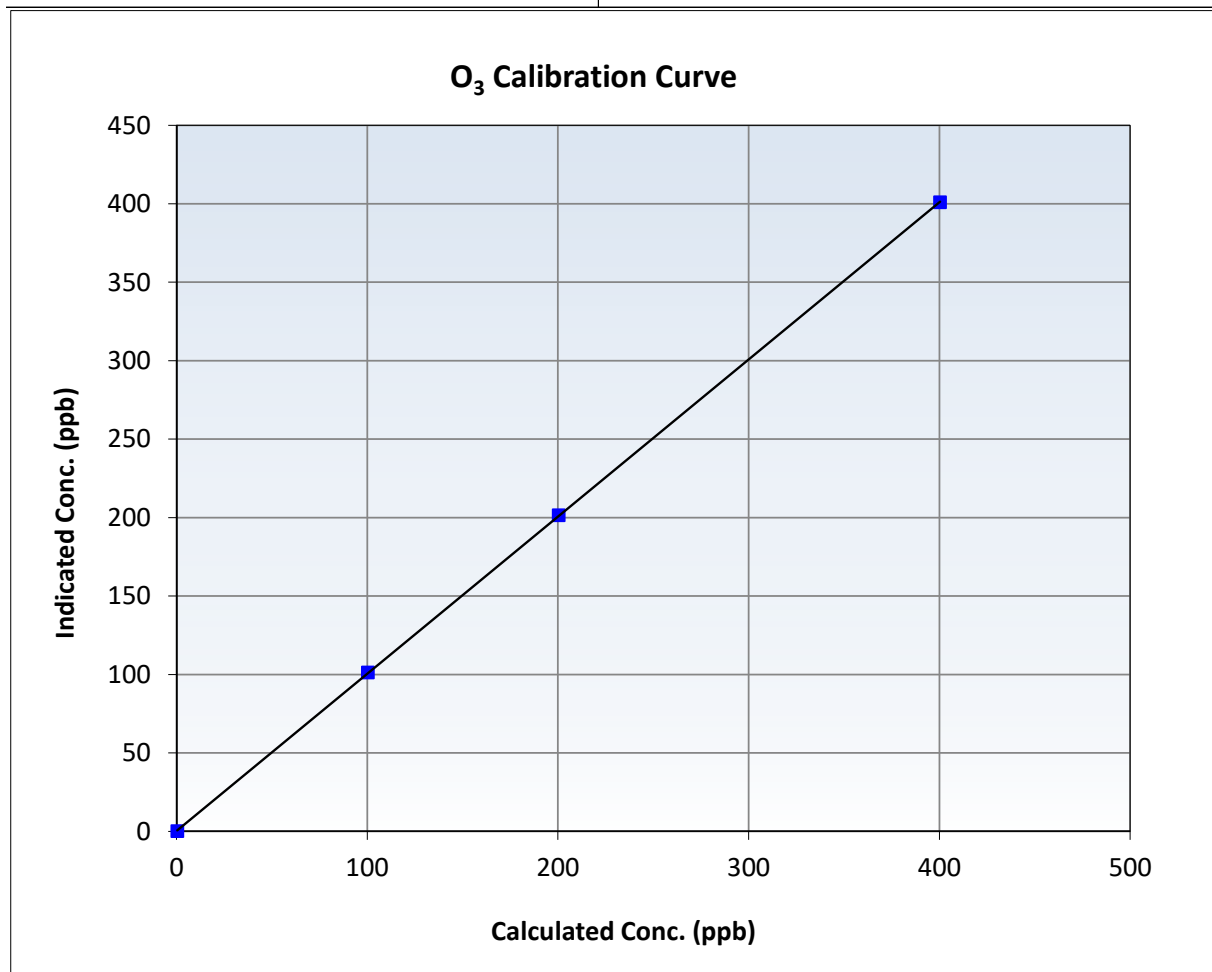
O₃ Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 7, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:16	End Time (MST):	12:58
Analyzer make:	Teledyne API T400	Analyzer serial #:	7046

Calibration Data

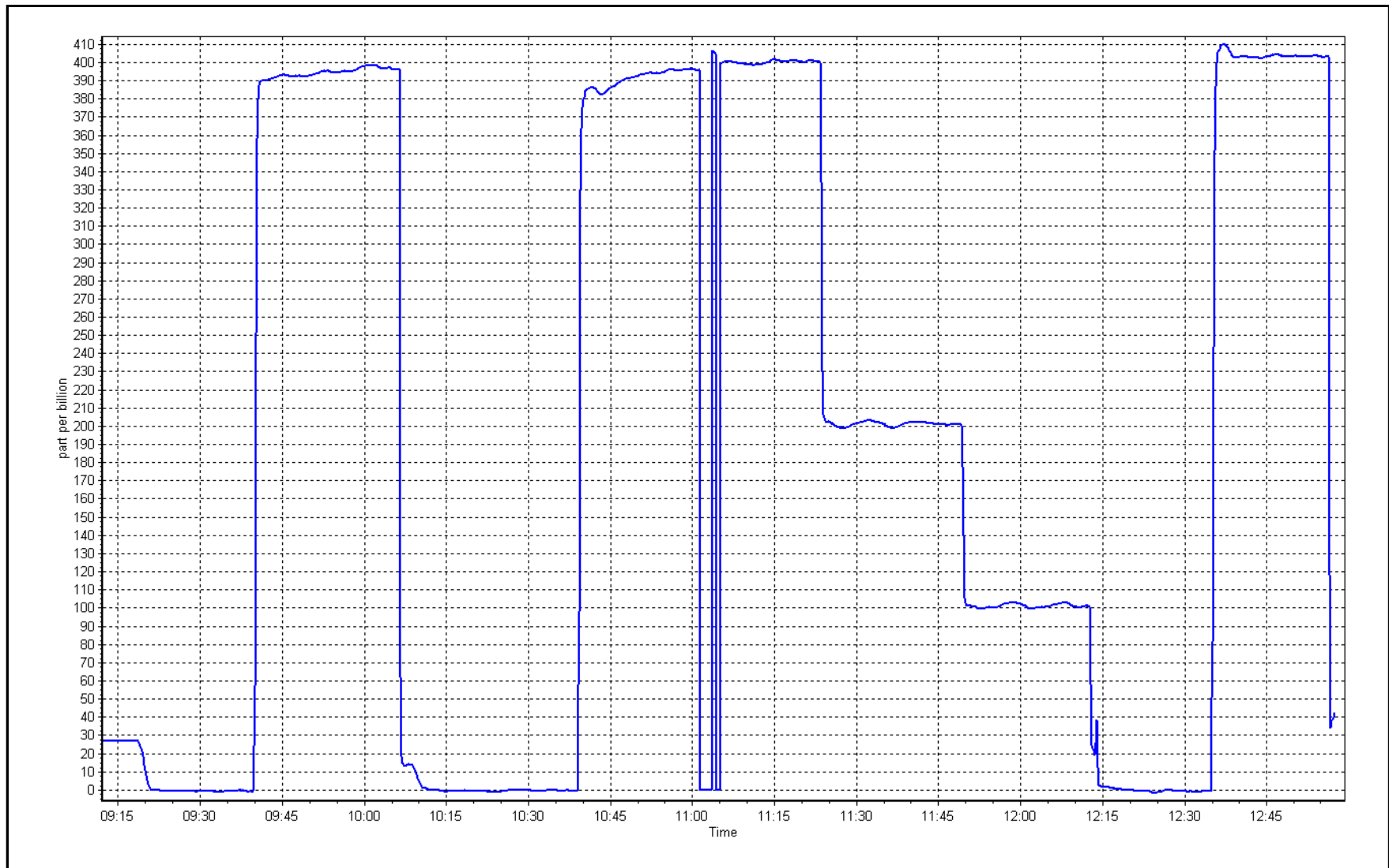
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999990	≥ 0.995
400.0	400.6	0.9985	Slope	1.001686	$0.90 - 1.10$
200.0	201.1	0.9945	Intercept	0.280000	± 5
100.0	100.9	0.9911			



O₃ Calibration Plot

Date: June 5, 2026

Location: Patricia McInnes





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Patricia McInnes Station number: AMS 06
Calibration Date: June 9, 2026 Last Cal Date: May 27, 2026
Start time (MST): 16:15 End time (MST): 16:51

Analyzer Make: API T640 S/N: 1547
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388750
Temp/RH standard: Alicat FP-25BT S/N: 388750

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	20.4	20.28	20.4	☐	+/- 2 °C
P (mmHg)	717.1	716.80	717.1	☐	+/- 10 mmHg
Flow (LPM)	5.02	4.963	5.02	☐	+/- 0.25 LPM
PW% (pump)	29	----	29	☐	>80%
Zero Verification	PM w/o HEPA: 2.1		PM w/ HEPA: 0.00		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 07-16-2026
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: April 14, 2026
Date Disposable Filter Changed: April 14, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: April 4, 2025
Date RH/T Sensor Cleaned: April 4, 2025

Verified temperature, pressure, flow and pump%. Leak check passed.

Notes:

Calibration by: Braiden Boutilier



Wood Buffalo Environmental Association

Nt - NOX - NH3 Calibration Report

Station Information

Station Name:	Patricia McInnes	Station number:	AMS 06
NOX Cal Date:	June 9, 2026	Last Cal Date:	May 27, 2026
Start time (MST):	8:55	End time (MST):	13:30
NH3 Cal Date:	June 9, 2026	Last Cal Date:	May 27, 2026
Start time (MST):	13:30	End time (MST):	14:56
Reason:	Routine		

Calibration Standards

NOX Cal Gas Conc:	62.20	ppm	NO Gas Cylinder #:	DT0036234
NO Cal Gas Conc:	61.90	ppm	NO Cal Gas Expiry:	July 22, 2032
Removed NOX Conc:	62.20	ppm	Removed Cylinder #:	N/A
Removed NO Conc:	61.90	ppm	Removed cyl Expiry:	N/A
NOX gas Diff:			NO gas Diff:	
NH3 Cal Gas Conc:	77.5	ppm	NH3 Gas Cylinder #:	CC15099
Removed NH3 Conc:	77.5	ppm	NH3 Cal Gas Expiry:	September 10, 2026
NH3 gas Diff:			Removed Cylinder #:	
Calibrator Model:	API T700		Removed cyl Expiry:	
ZAG make/model:	API T701		Serial Number:	5240
			Serial Number:	4602

Analyzer Information

Analyzer model:	API T201	Analyzer serial #:	215
Converter model:	API T501	Converter serial #:	147
NH3 Range (ppb):	0 - 2000 ppb	Reaction cell Press:	5.50
NOX Range (ppb):	0 - 1000 ppb	Sample Flow:	558

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coefficient:	1.032	1.032	Nt coefficient:	1.034	1.034
NOX coefficient:	1.031	1.031	NO bkgnd:	-0.2	-0.2
NO2 coefficient:	1.000	1.000	NOX bkgnd:	0.5	0.5
NH3 coefficient:	0.947	0.947	Nt bkgnd:	1.0	1.0

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.994520	0.999971
NO _x Cal Offset:	0.253383	-0.188866
NO Cal Slope:	0.997264	1.003581
NO Cal Offset:	0.255112	-1.805903
NO ₂ Cal Slope:	0.999536	0.994247
NO ₂ Cal Offset:	-1.423568	1.414677
NH3 Cal Slope:	0.999504	1.000182
NH3 Cal Offset:	1.747560	4.013449
Nt Cal Slope:	1.003258	1.003869
Nt Cal Offset:	1.799259	3.895072



Wood Buffalo Environmental Association

NO_x - NO - NO₂ Calibration Report

NO_x / NO / Nt As Found Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	Baseline corr NO _x Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>	Baseline corr NO Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.4	0.0	-0.4	----	----
As found span	4935	64.6	803.7	799.8	803.7	802.0	793.2	801.9	1.0021	1.0083
AF GPT span										
new NO cyl rp										

Baseline Corr As Fd Nt = 802.3 ppb NO_x = 802.4 ppb NO = 793.2 ppb
 Previous Response Nt = 808.11 ppb NO_x = 799.5 ppb NO = 797.9 ppb

*Percent Change Nt_(NO) = -0.7%
 *Percent Change NO_x = 0.4%
 *Percent Change NO = -0.6%

**NO_x Δ (NO to GPT response) =

* = > +/-2% difference initiates investigation

* = > +/-5% change initiates investigation

NO_x / NO / Nt Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	-0.4	-0.3	0.0	----	----
High point	4935	64.6	803.7	799.8	803.7	804.0	801.0	804.0	0.9996	0.9985
Mid point	4968	32.3	401.8	399.9	401.8	399.8	400.6	400.7	1.0050	0.9981
Low point	4984	16.2	201.5	200.5	201.5	202.8	196.7	201.9	0.9937	1.0196
Average Correction Factor									0.9994	1.0054

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found zero	----	----	0.0	-0.3	----	----
Calibration zero	----	----	0.0	-0.1	----	----
High GPT point (400 ppb O3)	792.4	383.9	412.4	411.0	1.0033	99.7%
Mid GPT point (200 ppb O3)	792.4	600.2	196.1	196.1	0.9999	100.0%
Low GPT point (100 ppb O3)	792.4	694.2	102.1	105.1	0.9712	103.0%
Average Correction Factor					0.9915	100.9%



Wood Buffalo Environmental Association NH₃ - N_T Calibration Report

NH₃ As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH ₃ concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH ₃ concentration (ppb) (Ic)	Baseline corr Nt Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>	Baseline corr NH ₃ Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.4	-0.4	0.0	----	----
AF High point	3419	81.3	1800.1	0.0	1800.1	1809.6	6.3	1803.2	0.995	0.998
AF Mid point										
AF Low point										
new NH ₃ cyl rp										
Baseline Corr As Fd	Nt = 1810.0 ppb	NH ₃ = 1803.2 ppb							*Percent Change	Nt _(NH₃) = 0.1%
Previous Response	Nt = 1807.7 ppb	NH ₃ = 1800.9 ppb							*Percent Change	NH ₃ = 0.1%

* = > +/-5% change initiates investigation

NH₃ Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH ₃ concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH ₃ concentration (ppb) (Ic)	Nt Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NH ₃ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	0.0	-0.4	0.4	----	----
High point	3419	81.3	1800.1	0.0	1800.1	1809.6	6.3	1803.2	0.995	0.998
Mid point	3455	45.2	1000.8	0.0	1000.8	1008.1	3.7	1004.5	0.993	0.996
Low point	3477	22.6	500.5	0.0	500.5	512.0	2.1	509.9	0.978	0.982
Average Correction Factor									0.9883	0.9920
NH ₃ Previous Converter Efficiency =	95.0 %									
NH ₃ Current Converter Efficiency =	94.7 %									

Notes:

Changed the inlet filter after as founds. No adjustments made.

Calibration Performed By:

Braiden Boutilier



Wood Buffalo Environmental Association

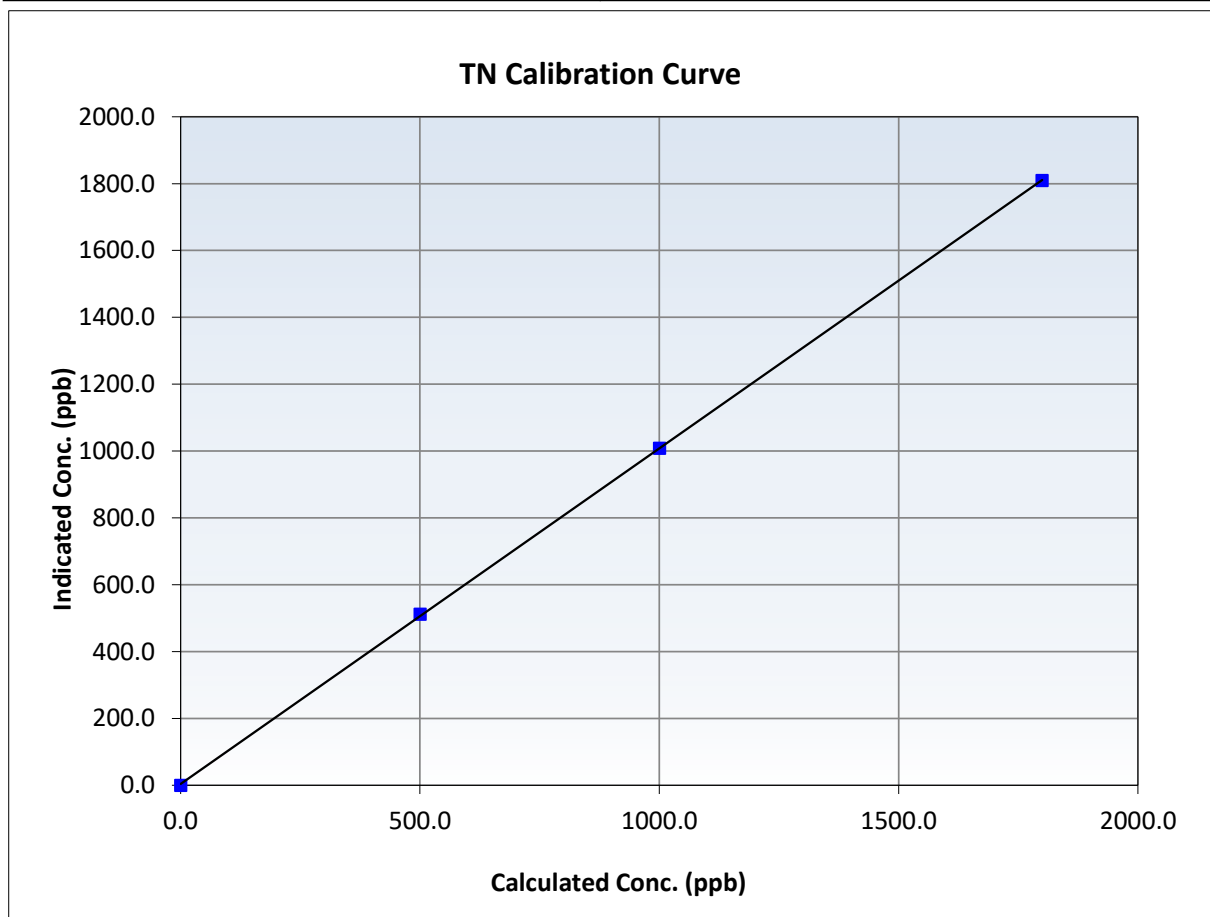
Nt Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	13:30	End Time (MST):	14:56
Analyzer make:	API T201	Analyzer serial #:	215

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999972	≥ 0.995
1800.1	1809.6	0.9947	Slope	1.003869	0.90 - 1.10
1000.8	1008.1	0.9928	Intercept	3.895072	+/-20
500.5	512.0	0.9775			





Wood Buffalo Environmental Association

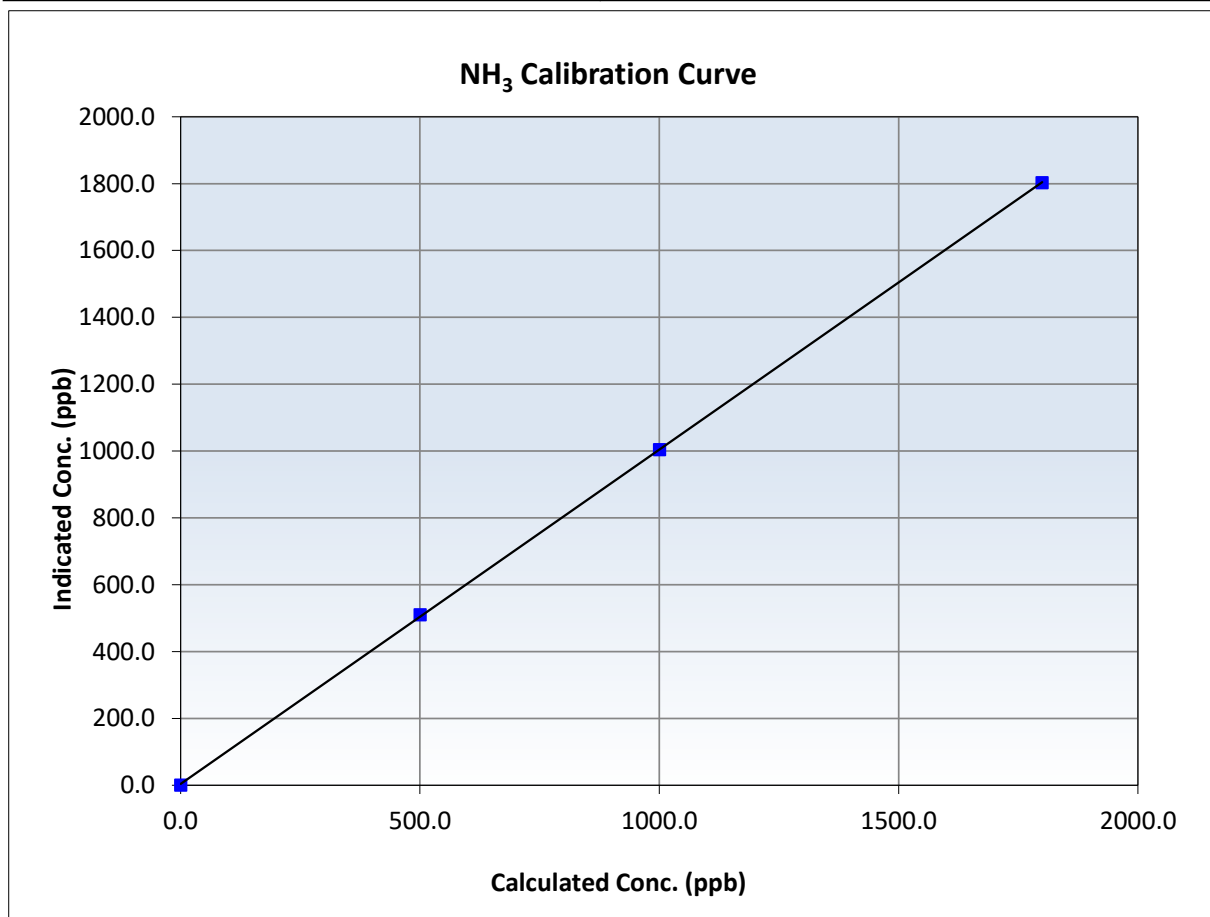
NH₃ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	13:30	End Time (MST):	14:56
Analyzer make:	API T201	Analyzer serial #:	215

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999976	≥ 0.995
1800.1	1803.2	0.9983	Slope	1.000182	$0.90 - 1.10$
1000.8	1004.5	0.9963	Intercept	4.013449	± 20
500.5	509.9	0.9815			





Wood Buffalo Environmental Association

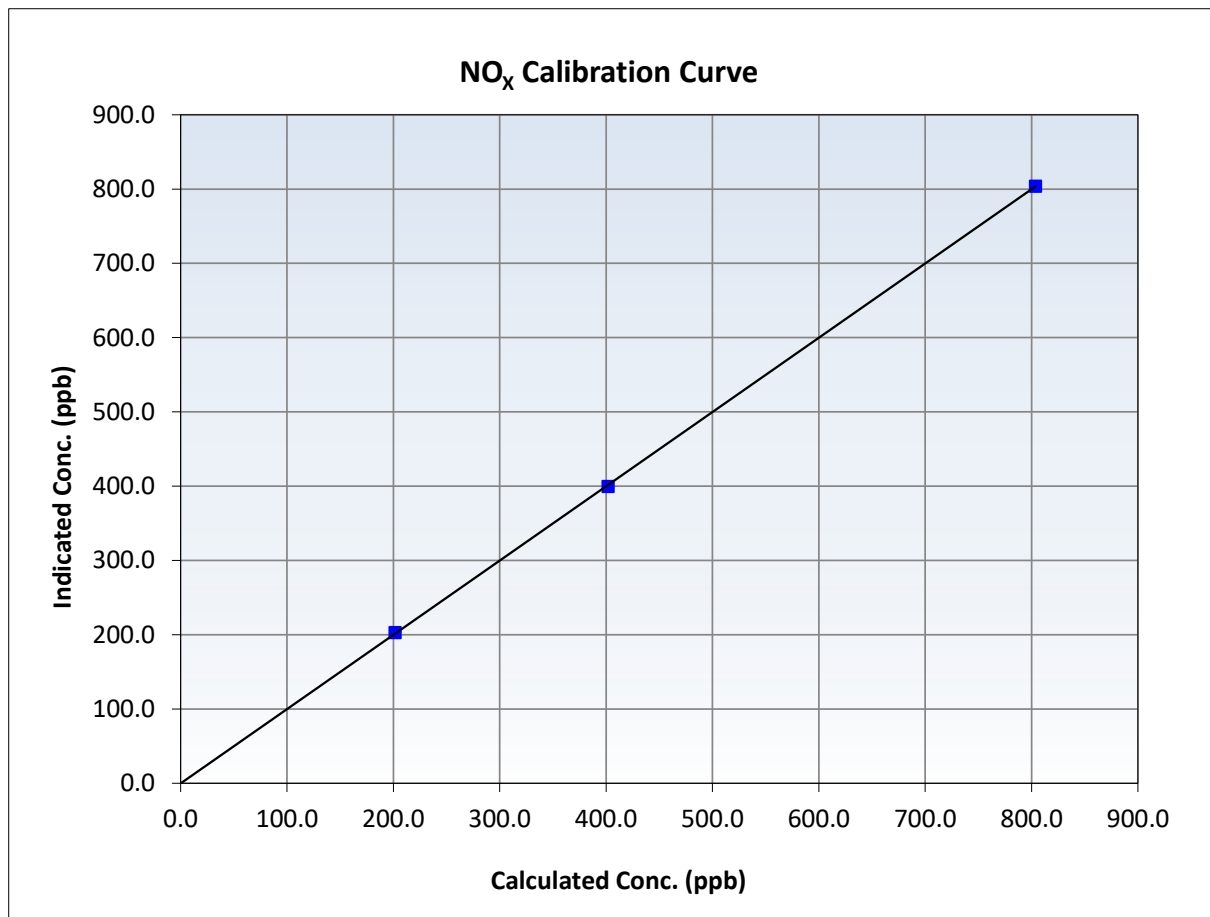
NO_x Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:55	End Time (MST):	13:30
Analyzer make:	API T201	Analyzer serial #:	215

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.4	----	Correlation Coefficient	0.999984	≥0.995
803.7	804.0	0.9996	Slope	0.999971	0.90 - 1.10
401.8	399.8	1.0050	Intercept	-0.188866	+/-20
201.5	202.8	0.9937			





Wood Buffalo Environmental Association

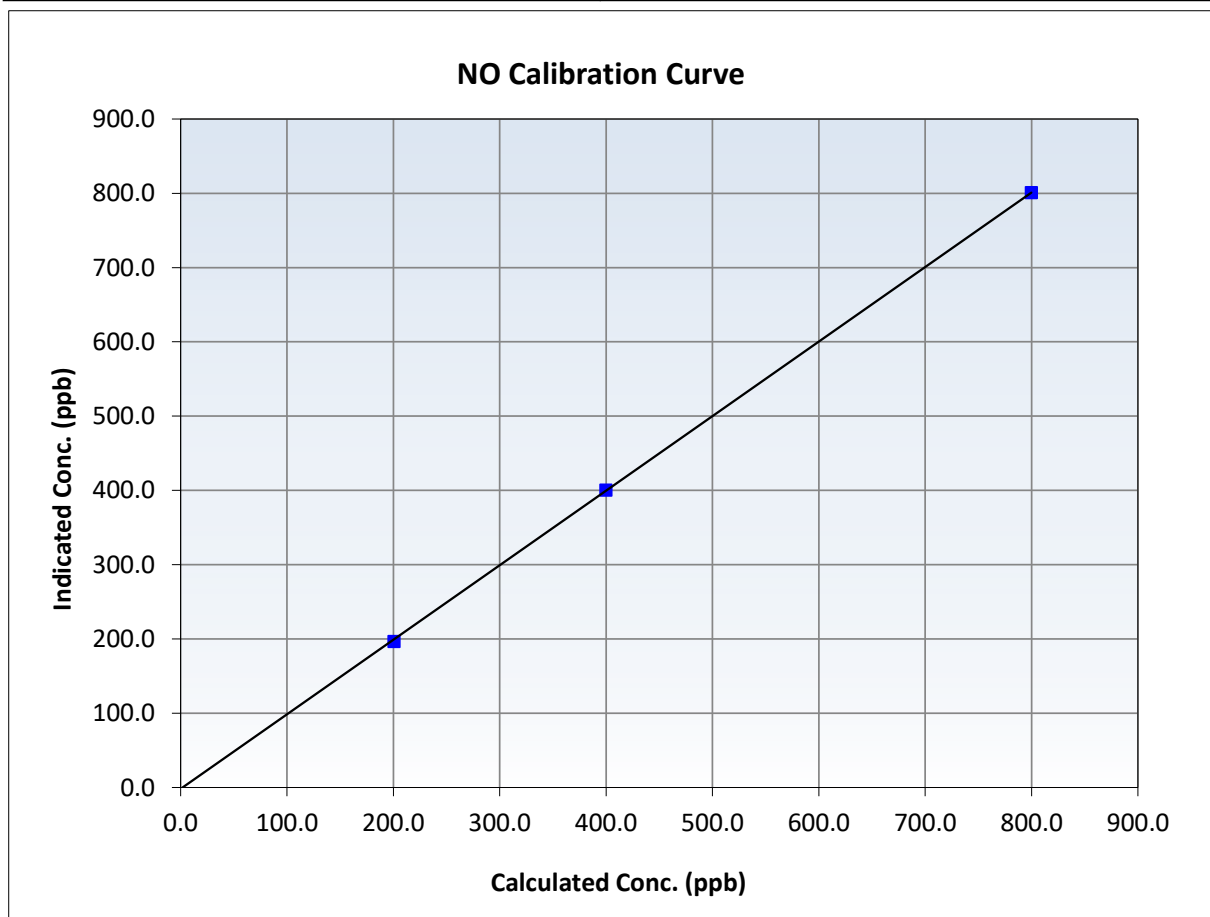
NO Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:55	End Time (MST):	13:30
Analyzer make:	API T201	Analyzer serial #:	215

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999968	≥ 0.995
799.8	801.0	0.9985	Slope	1.003581	0.90 - 1.10
399.9	400.6	0.9981	Intercept	-1.805903	+/-20
200.5	196.7	1.0196			





Wood Buffalo Environmental Association

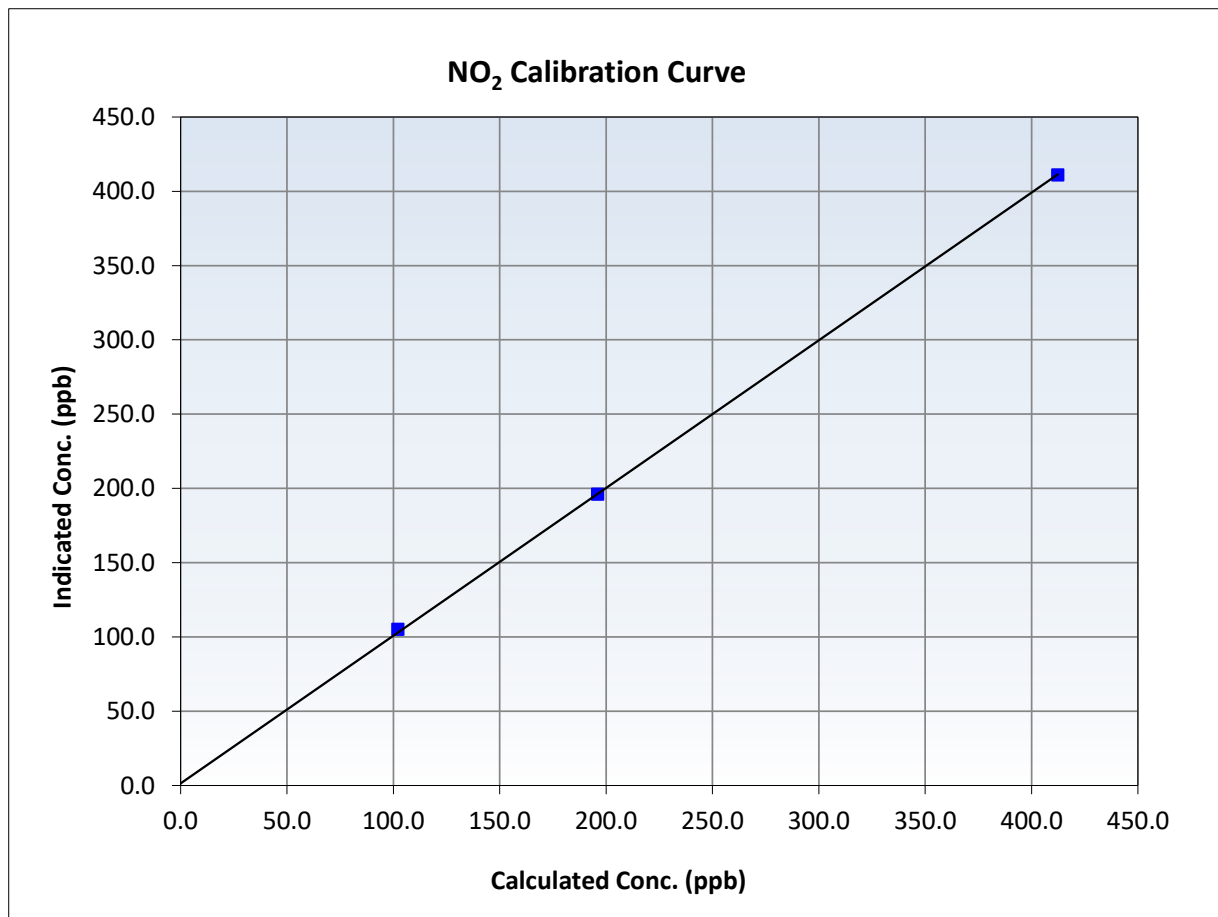
NO₂ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:55	End Time (MST):	13:30
Analyzer make:	API T201	Analyzer serial #:	215

Calibration Data

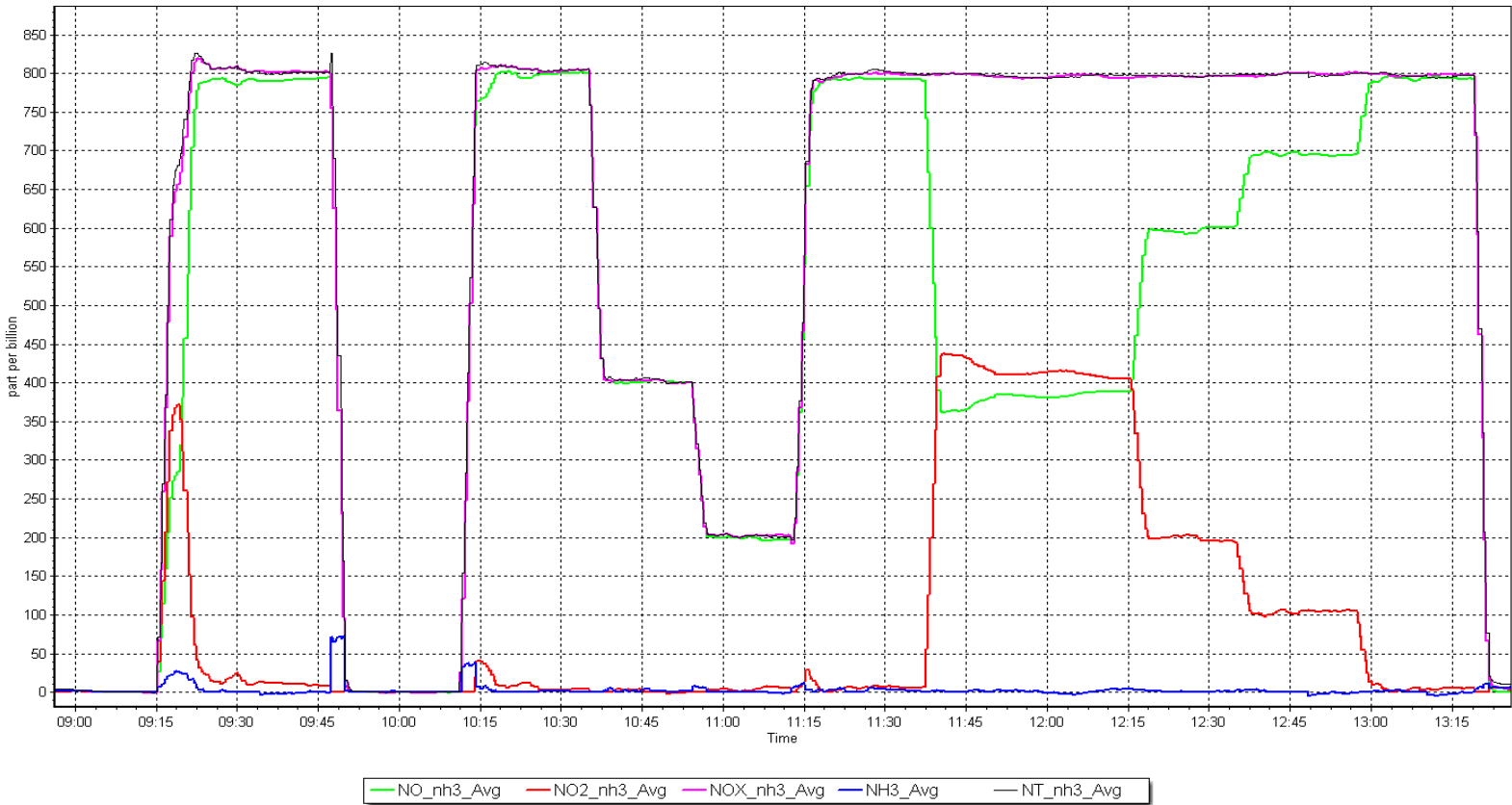
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999920	≥ 0.995
412.4	411.0	1.0033	Slope	0.994247	0.90 - 1.10
196.1	196.1	0.9999	Intercept	1.414677	+/-20
102.1	105.1	0.9712			

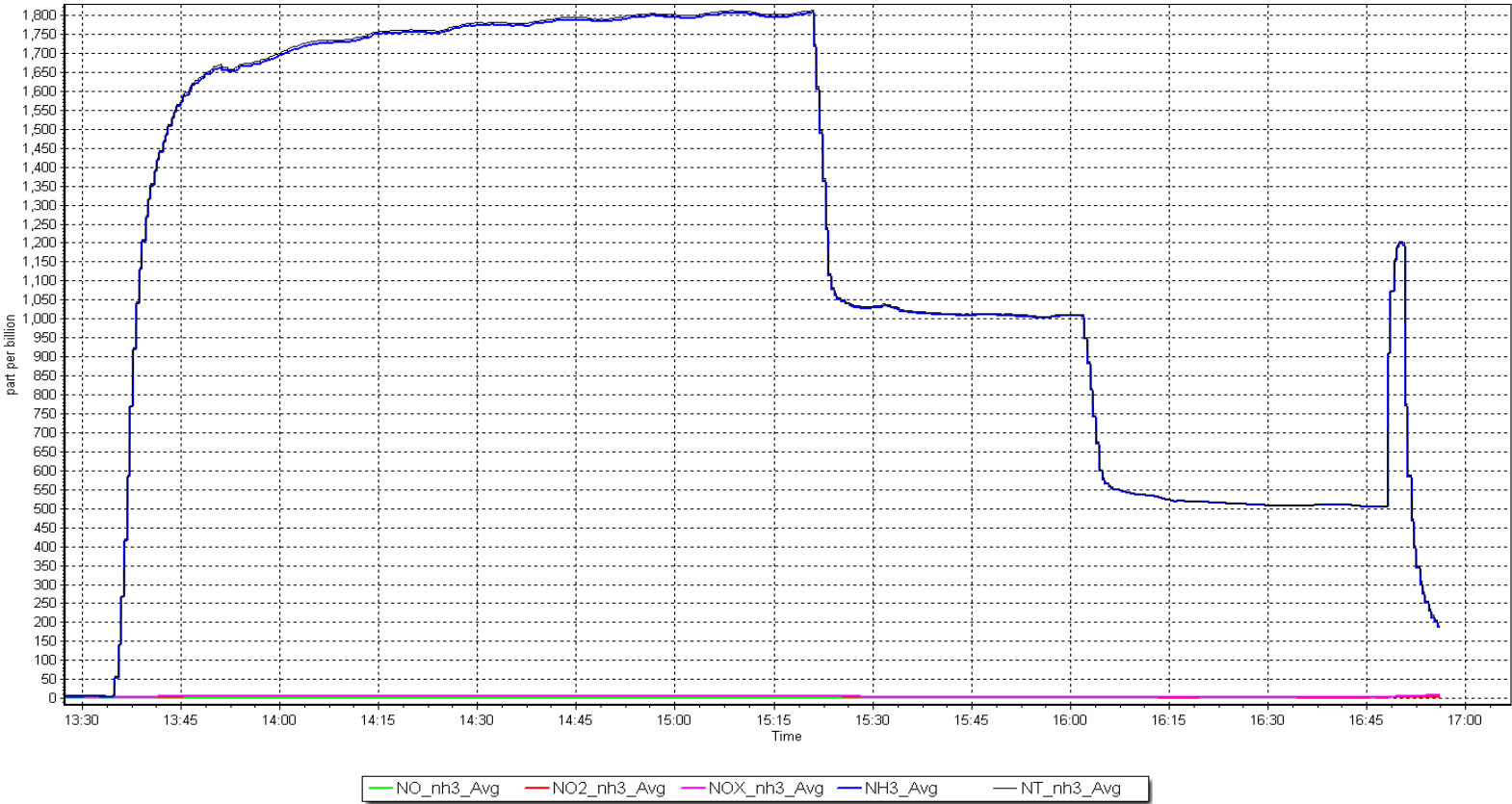


NO_x Calibration Plot

Date: June 9, 2026

Location: Patricia McInnes







WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS07 ATHABASCA VALLEY JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Athabasca Valley Station number: AMS07
Calibration Date: June 4, 2026 Last Cal Date: May 5, 2026
Start time (MST): 8:58 End time (MST): 12:33
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.06 ppm Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #: CC320556
Removed Cal Gas Conc: 50.06 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: API T700 Serial Number: 3805
Zero Air Gen Model: API 701H Serial Number: 198

Analyzer Information

Analyzer make: Thermo 43i-LTE Serial Number: 1507864683
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000291	1.002595	Backgd or Offset:	2.70	2.70
Calibration intercept:	2.544049	2.363536	Coeff or Slope:	0.861	0.861

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4920	79.8	799.0	800.0	0.999
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	799.9	Previous response	801.8	*% change	-0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4920	79.8	799.0	801.9	0.996
Mid point	4960	39.9	399.5	405.4	0.985
Low point	4980	20.0	200.2	204.2	0.981
As left zero	5000	0.0	0.0	0.3	----
As left span	4920	79.8	799.0	802.2	0.996
Average Correction Factor:					0.987

Notes: Sample inlet filter was changed after as founds. No adjustment.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

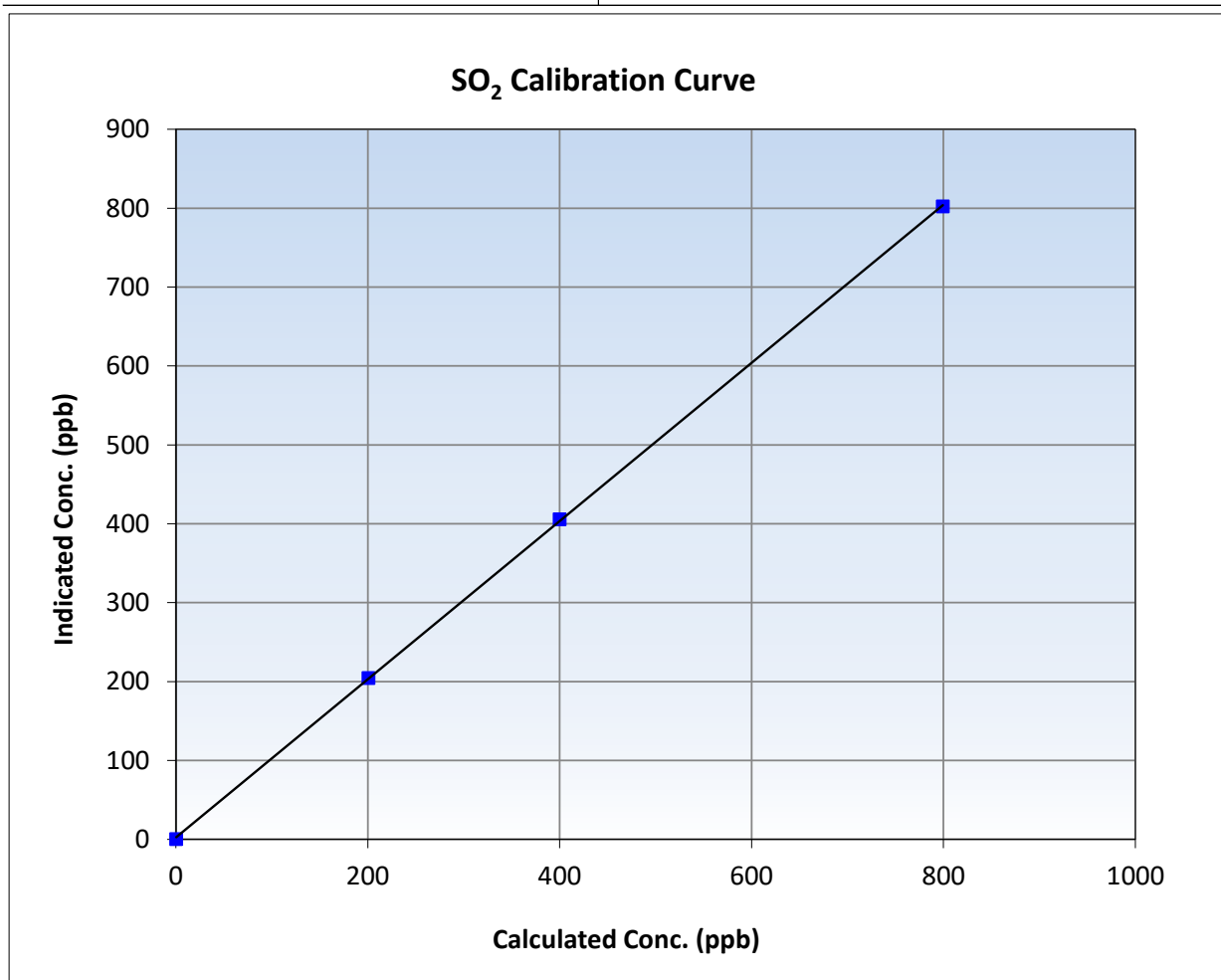
SO₂ Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 5, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	8:58	End Time (MST):	12:33
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1507864683

Calibration Data

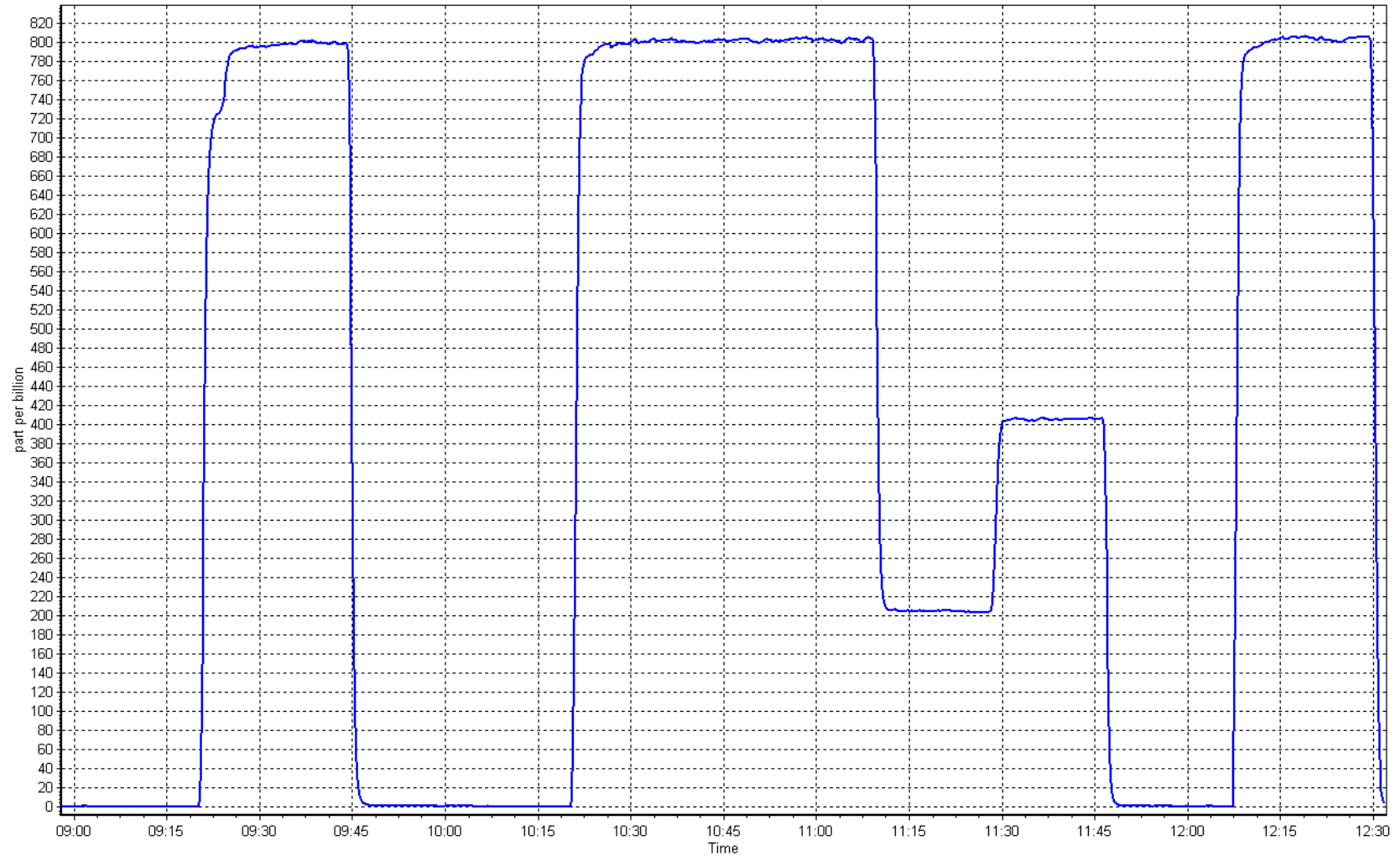
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999960	≥0.995
799.0	801.9	0.9964	Slope	1.002595	0.90 - 1.10
399.5	405.4	0.9854	Intercept	2.363536	+/-30
200.2	204.2	0.9806			



SO2 Calibration Plot

Date: June 4, 2026

Location: Athabasca Valley





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Athabasca Valley Station number: AMS07
Calibration Date: June 8, 2026 Last Cal Date: May 7, 2026
Start time (MST): 9:04 End time (MST): 13:13
Reason: Routine

Calibration Standards

Cal Gas Concentration: 5.25 ppm Cal Gas Exp Date: January 3, 2026
Cal Gas Cylinder #: CC504080
Removed Cal Gas Conc: 5.25 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: API T700 Serial Number: 3805
ZAG Make/Model: API T701H Serial Number: 198

Analyzer Information

Analyzer make: Thermo 43i LTE Analyzer serial #: 1180540018
Converter make: CDN-101 Converter serial #: 551
Analyzer Range: 0 - 100 ppb Converter Temp: 840 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003239	1.006986	Backgd or Offset:	2.7
Calibration intercept:	-0.082167	-0.162162	Coeff or Slope:	0.887

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4925	75.5	79.3	76.6	1.031
As found Mid point	4962	37.7	39.6	38.5	1.020
As found Low point	4981	18.9	19.8	18.9	1.034
New cylinder response					
Baseline Corr As found:	76.9	Prev response:	79.44	*% change:	-3.3%
Baseline Corr 2nd AF pt:	38.8	AF Slope:	0.970930	AF Intercept:	-0.241976
Baseline Corr 3rd AF pt:	19.2	AF Correlation:	0.999961	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4925	75.5	79.3	79.7	0.995
Mid point	4962	37.7	39.6	39.8	0.995
Low point	4981	18.9	19.9	19.7	1.008
As left zero	5000	0.0	0.0	0.0	----
As left span	4925	75.5	79.3	79.2	1.001
SO2 Scrubber Check	4920	79.2	792.1	-0.1	----
Date of last scrubber change:	8-Aug-25		Ave Corr Factor		0.999
Date of last converter efficiency test:	Friday, April 22, 2022				

Notes: Sample inlet filter was changed after multi point as founds. Scrubber check done and passed.
Adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

TRS Calibration Summary

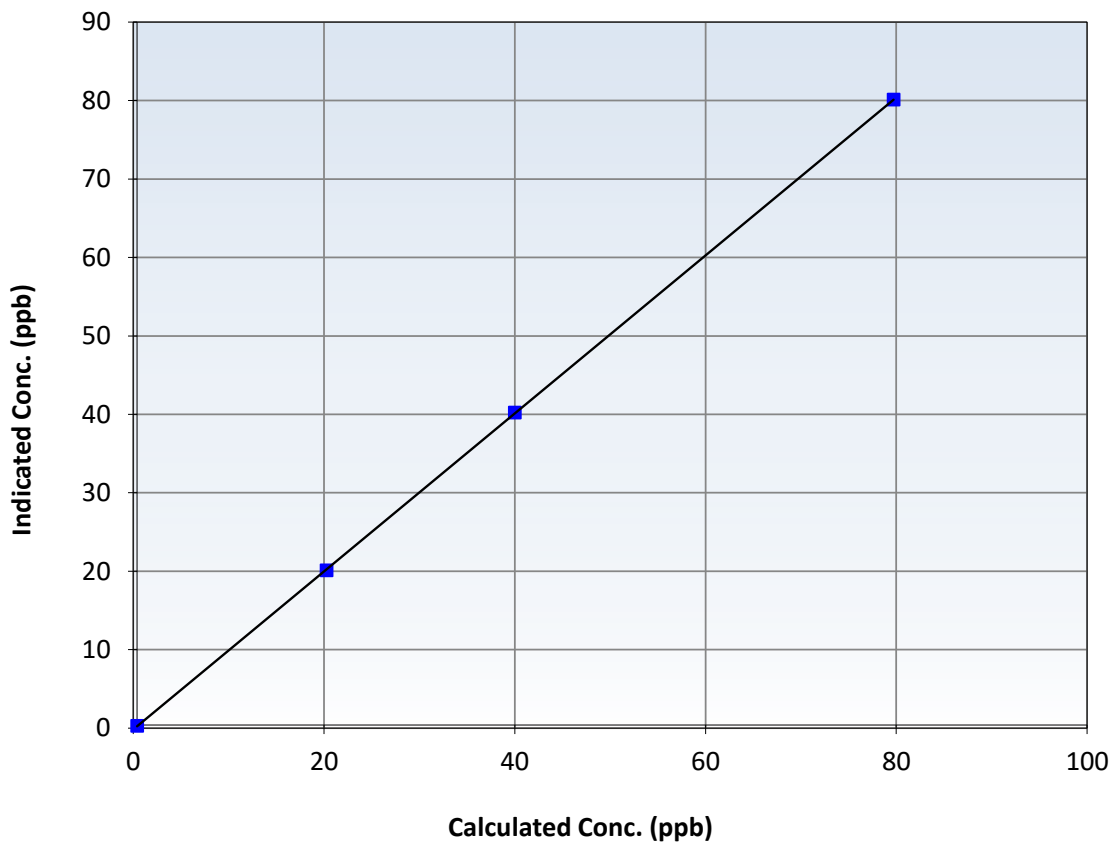
Station Information

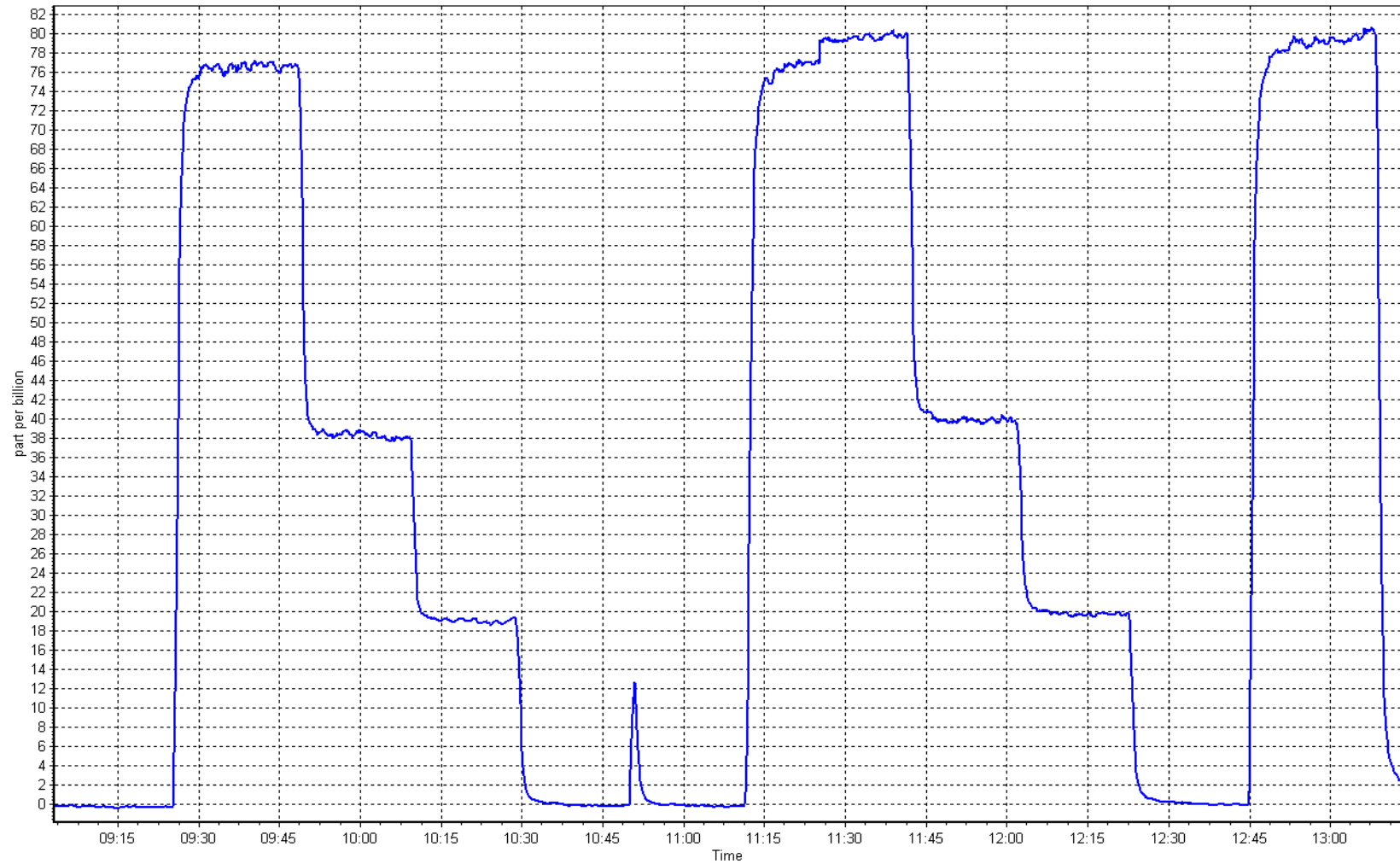
Calibration Date:	June 8, 2026	Previous Calibration:	May 7, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	9:04	End Time (MST):	13:13
Analyzer make:	Thermo 43i LTE	Analyzer serial #:	1180540018

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999992		≥ 0.995
79.3	79.7	0.9951	Slope	1.006986		$0.90 - 1.10$
39.6	39.8	0.9952	Intercept	-0.162162		± 3
19.9	19.7	1.0080				

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Athabasca Valley
 Calibration Date: June 4, 2026
 Start time (MST): 8:58
 Reason: Routine

Station number: AMS 07
 Last Cal Date: May 5, 2026
 End time (MST): 12:33

Calibration Standards

Gas Cert Reference:	CC320556	Cal Gas Expiry Date:	March 10, 2031
CH ₄ Cal Gas Conc.	496.0 ppm	CH ₄ Equiv Conc.	1059.8 ppm
C ₃ H ₈ Cal Gas Conc.	205.0 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH ₄ Conc.	496.0 ppm	CH ₄ Equiv Conc.	1059.8 ppm
Removed C ₃ H ₈ Conc.	205.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3805
Zero Air Gen model:	Teledyne API T701H	Serial Number:	198

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1331259520
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.73E-04	3.12E-04	NMHC SP Ratio:	5.35E-05
CH ₄ Retention time:	14.4	14.4	NMHC Peak Area:	168514
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.8	16.91	16.62	1.018
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.62	Prev response	16.95	*% change	-2.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	16.91	16.87	1.002
Mid point	4960	39.9	8.46	8.40	1.007
Low point	4980	20.0	4.24	4.28	0.990
As left zero	5000	0.0	0.00	0.03	----
As left span	4920	79.8	16.91	16.72	1.012
Average Correction Factor					1.000

Notes:

Sample inlet filter was changed after as founds. Adjusted span only.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.8	9.00	8.81	1.021
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.81	Prev response	9.04	*% change	-2.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	9.00	8.98	1.002
Mid point	4960	39.9	4.50	4.48	1.004
Low point	4980	20.0	2.26	2.28	0.989
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.8	9.00	8.92	1.009
Average Correction Factor					0.998

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.8	7.92	7.81	1.013
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.81	Prev response	7.91	*% change	-1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	7.92	7.89	1.003
Mid point	4960	39.9	3.96	3.92	1.010
Low point	4980	20.0	1.98	2.00	0.991
As left zero	5000	0.0	0.00	0.03	----
As left span	4920	79.8	7.92	7.80	1.014
Average Correction Factor					1.001

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.000221	0.996228
THC Cal Offset:	0.029048	0.013856
CH ₄ Cal Slope:	0.998060	0.995607
CH ₄ Cal Offset:	0.005063	0.004061
NMHC Cal Slope:	1.001831	0.997118
NMHC Cal Offset:	0.024384	0.009194

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

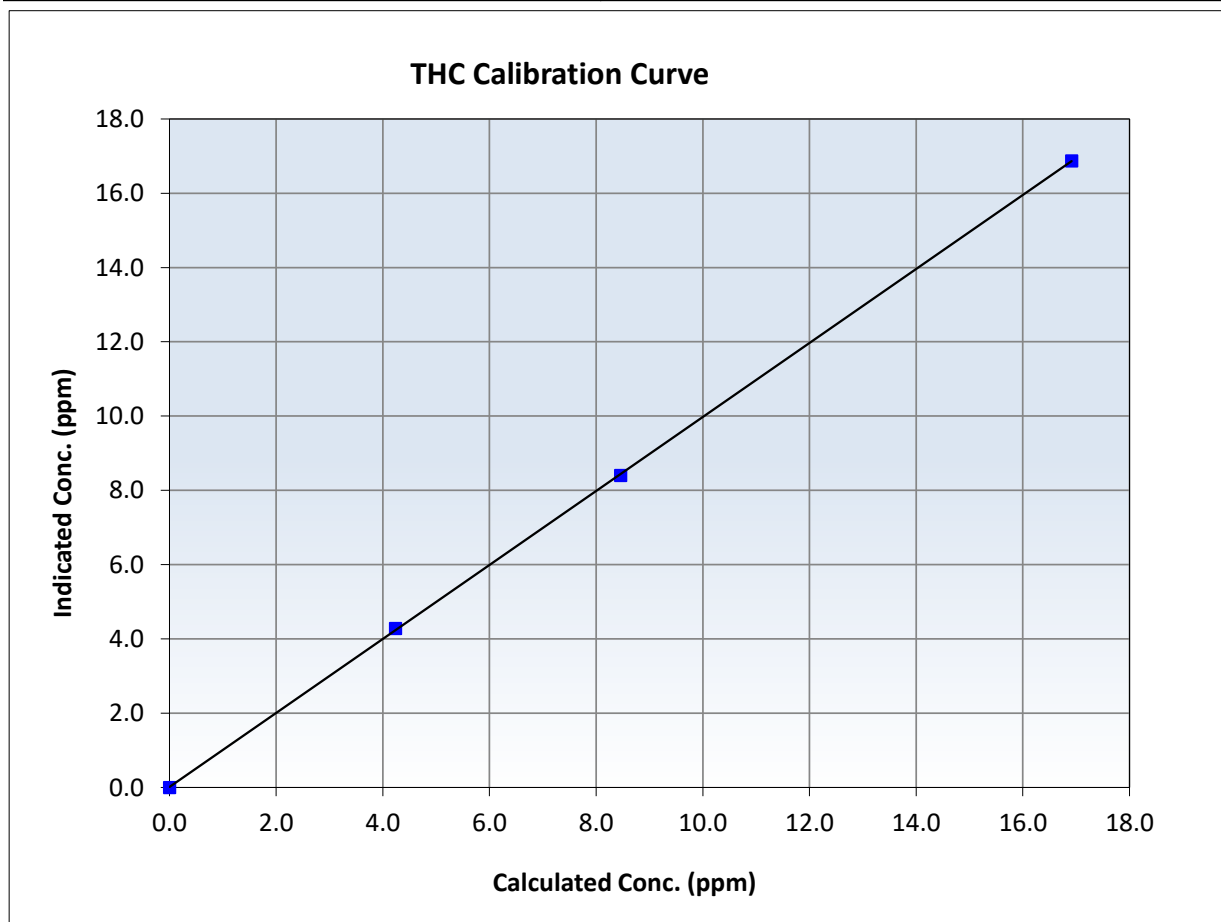
THC Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 5, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	8:58	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999975	≥ 0.995
16.91	16.87	1.0024	Slope	0.996228	$0.90 - 1.10$
8.46	8.40	1.0069	Intercept	0.013856	± 0.5
4.24	4.28	0.9900			





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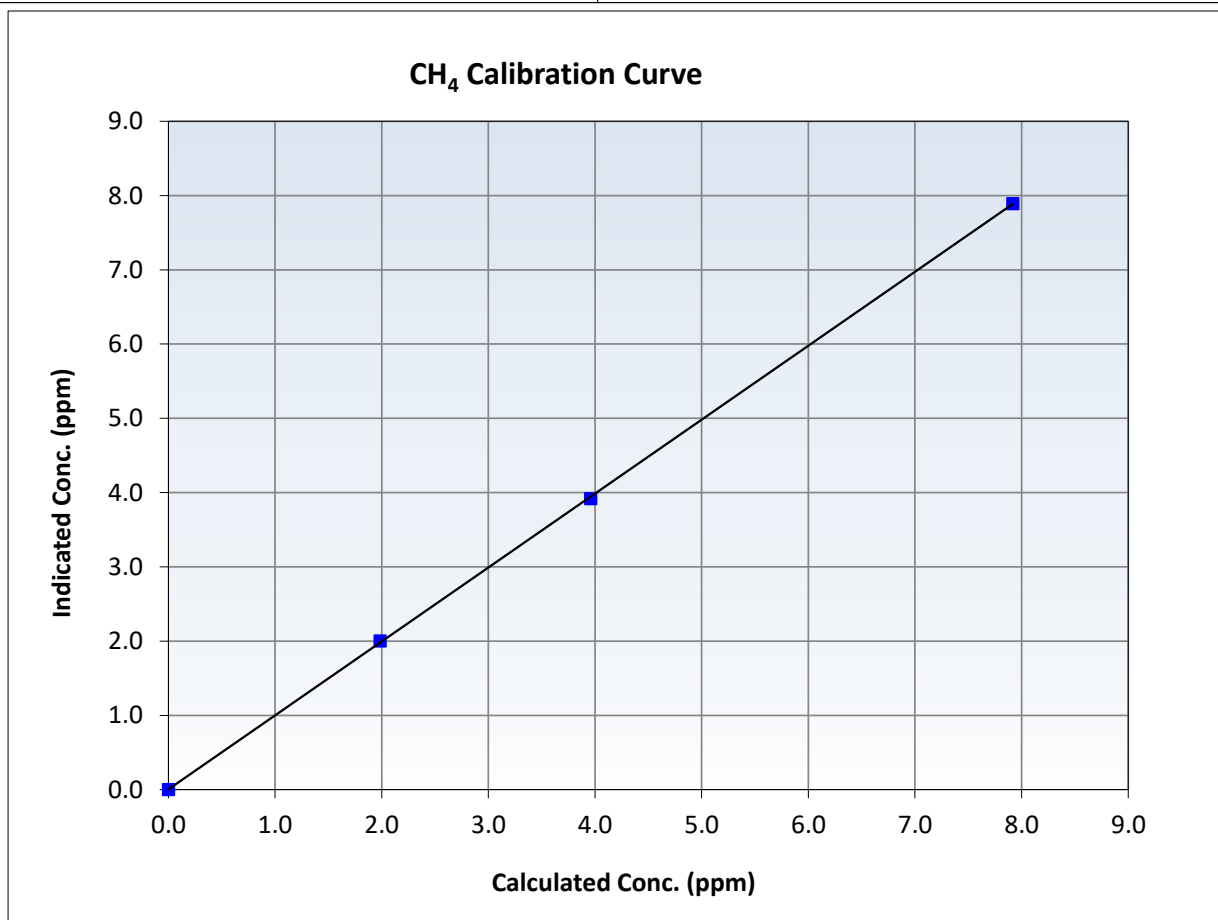
CH₄ Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 5, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	8:58	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999963	<i>≥0.995</i>
7.92	7.89	1.0030	Slope	0.995607	<i>0.90 - 1.10</i>
3.96	3.92	1.0100	Intercept	0.004061	<i>+/-0.5</i>
1.98	2.00	0.9910			





Wood Buffalo Environmental Association

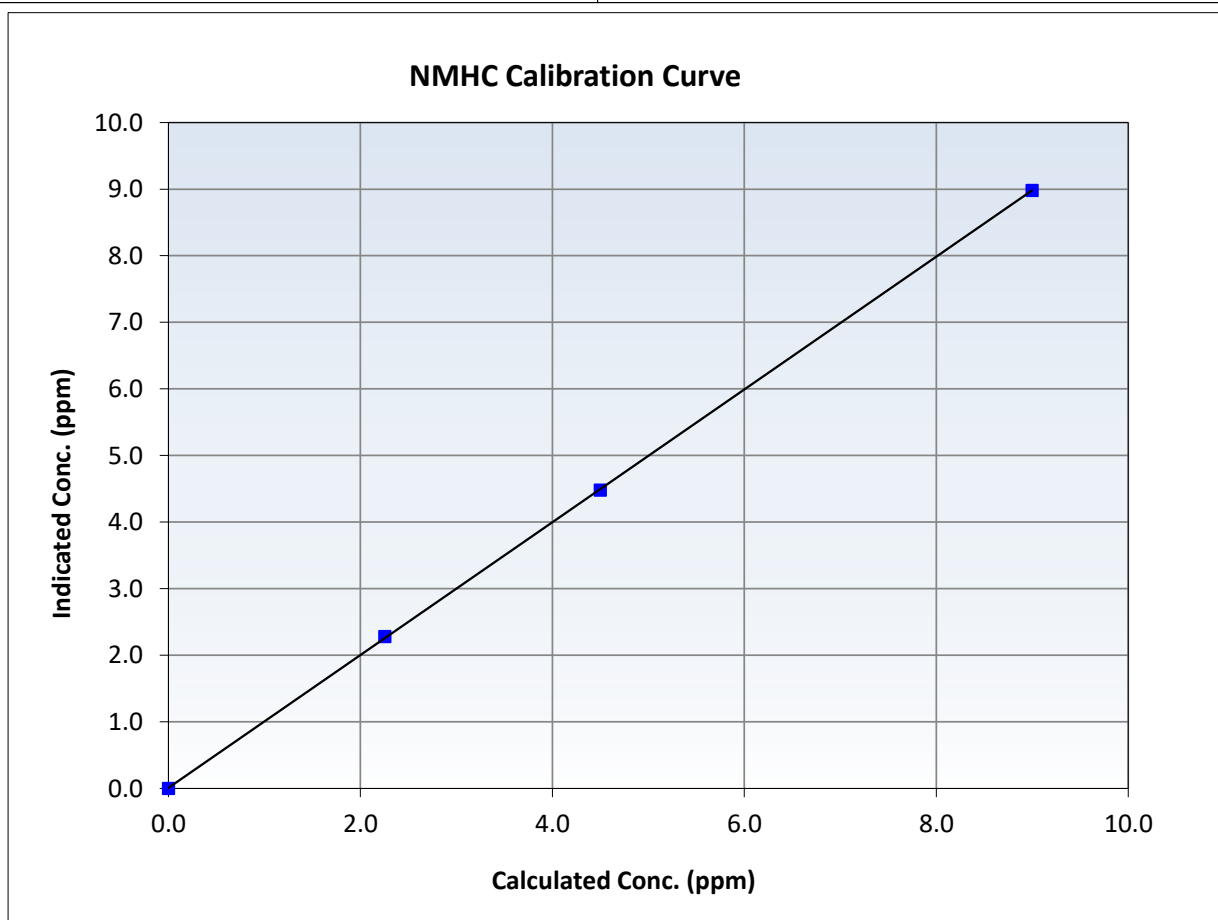
NMHC Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 5, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	8:58	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

Calibration Data

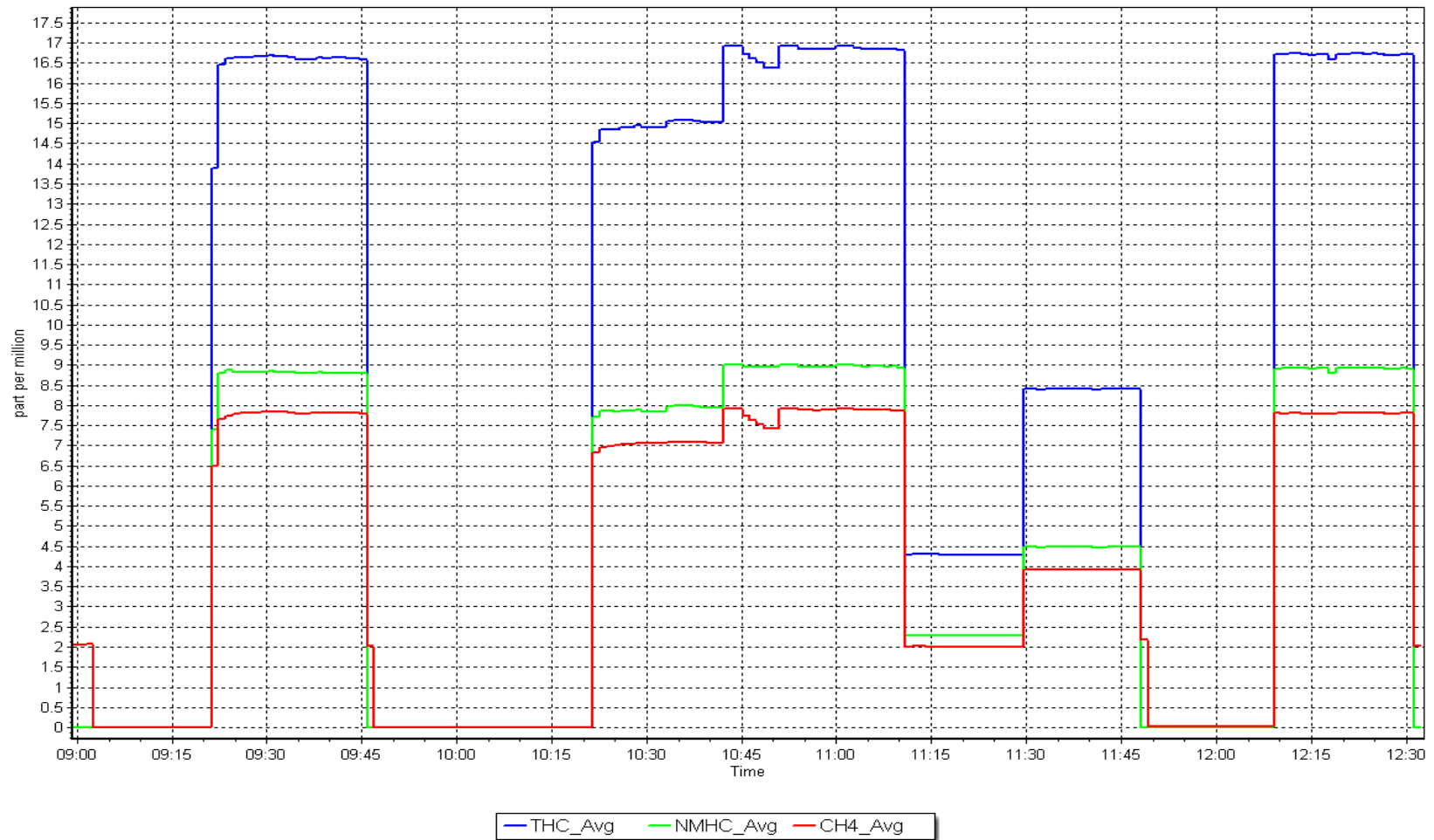
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999982	<i>≥0.995</i>
9.00	8.98	1.0016	Slope	0.997118	<i>0.90 - 1.10</i>
4.50	4.48	1.0042	Intercept	0.009194	<i>+/-0.5</i>
2.26	2.28	0.9890			



NMHC Calibration Plot

Date: June 4, 2026

Location: Athabasca Valley





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Athabasca Valley
Station number: AMS 07
Calibration Date: June 11, 2026
Last Cal Date: May 11, 2026
Start time (MST): 9:48
End time (MST): 13:57
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0033919
NO_x Cal Gas Conc: 60.10 ppm
Removed Cylinder #: N/A
Removed Gas NO_x Conc: 60.10 ppm
NO_x gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 59.90 ppm
Removed Gas Exp Date: N/A
Removed Gas NO Conc: 59.90 ppm
NO gas Diff:
Serial Number: 3805
Serial Number: 198

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	----	----
AF High point	4933	66.8	803.0	800.3	2.7	804.5	800.0	4.5	0.9978	1.0002
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 805.6 ppb	NO = 801.3 ppb				* = > +/-5% change initiates investigation		*Percent Change	NO _x = -0.1%	
Baseline Corr 1st pt	NO _x = 804.7 ppb	NO = 800.1 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.2%	
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found	NO _x r ² :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found	NO r ² :	NO SI:	NO Int:	
						As found	NO ₂ r ² :	NO ₂ SI:	NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1160120024

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.001012	0.999973
NO _x Cal Offset:	1.811889	1.851898
NO Cal Slope:	0.999056	0.997585
NO Cal Offset:	1.791932	2.131935
NO ₂ Cal Slope:	1.004737	1.007941
NO ₂ Cal Offset:	0.969964	0.547833

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.920	0.920	NO bkgnd or offset:	6.6	6.6
NOX coeff or slope:	1.005	1.005	NOX bkgnd or offset:	7.1	7.1
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	183.9	185.7

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.3	0.0	-0.3	----	----
High point	4933	66.8	803.0	800.3	2.7	803.4	799.0	4.4	0.9995	1.0016
Mid point	4966	33.4	401.5	400.2	1.3	405.4	403.7	1.8	0.9904	0.9913
Low point	4983	16.7	200.7	200.1	0.7	204.1	203.0	1.2	0.9836	0.9856
As left zero	5000	0.0	0.0	0.0	0.0	-0.5	-0.1	-0.4	----	----
As left span	4933	66.8	803.0	396.6	406.4	805.6	396.6	408.9	0.9967	1.0000
Average Correction Factor									0.9911	0.9928

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.3	----	----
High GPT point	796.1	396.6	402.2	405.6	0.9915	100.9%
Mid GPT point	796.1	598.0	200.8	203.0	0.9890	101.1%
Low GPT point	796.1	697.5	101.3	103.7	0.9766	102.4%
Average Correction Factor					0.9857	101.5%

Notes:

Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By:

Jan Castro



Wood Buffalo Environmental Association

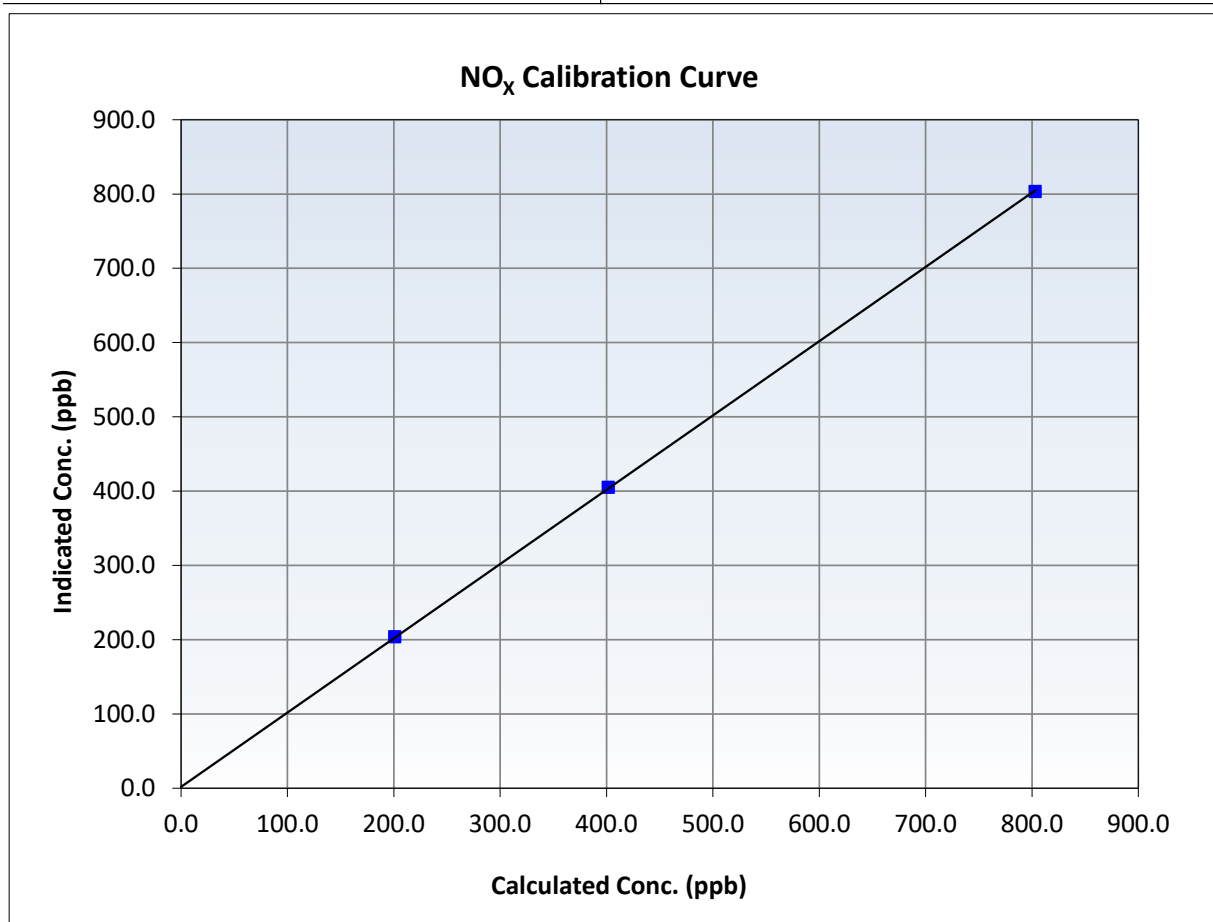
NO_x Calibration Summary

Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 11, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:48	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999963	≥0.995
803.0	803.4	0.9995	Slope	0.999973	0.90 - 1.10
401.5	405.4	0.9904	Intercept	1.851898	+/-20
200.7	204.1	0.9836			





Wood Buffalo Environmental Association

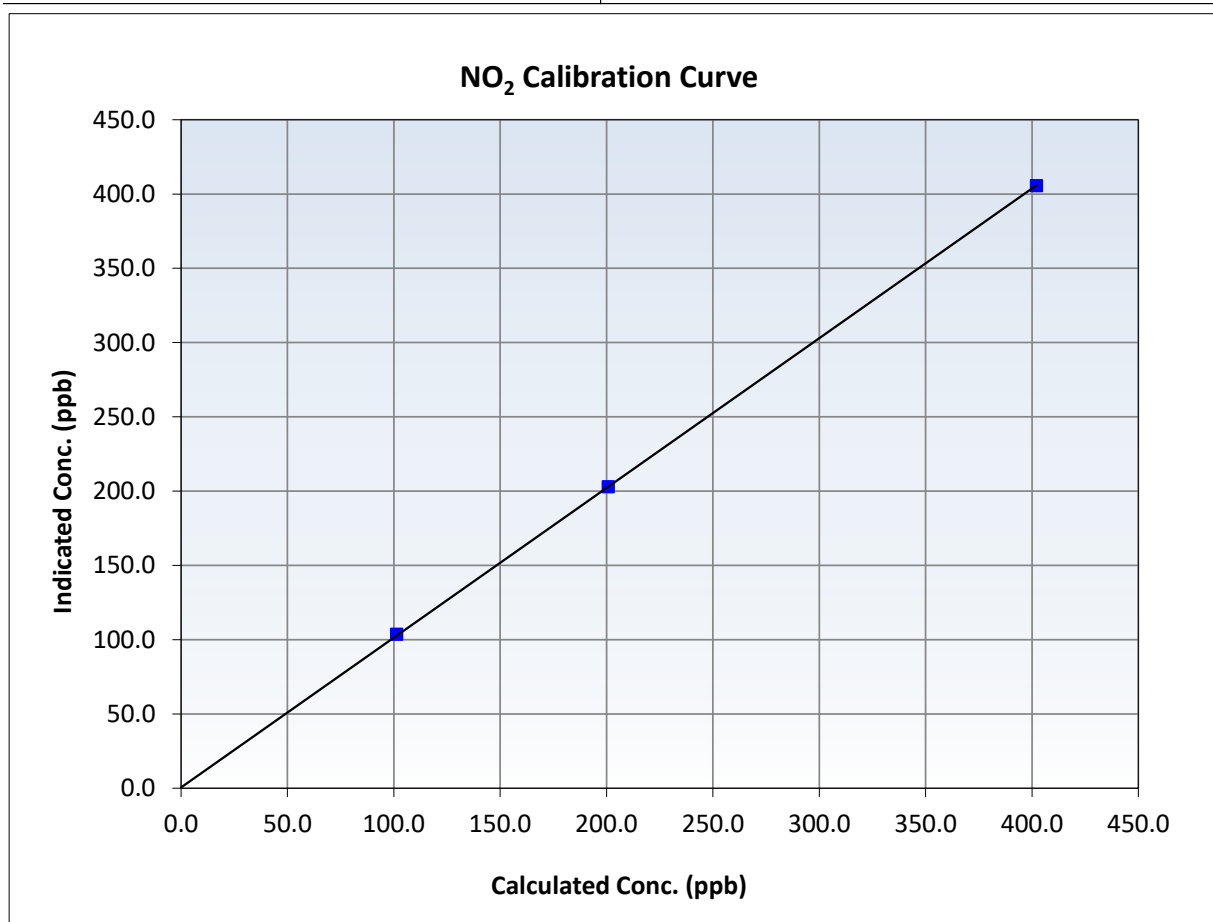
NO₂ Calibration Summary

Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 11, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:48	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999978	≥0.995
402.2	405.6	0.9915	Slope	1.007941	0.90 - 1.10
200.8	203.0	0.9890	Intercept	0.547833	+/-20
101.3	103.7	0.9766			





Wood Buffalo Environmental Association

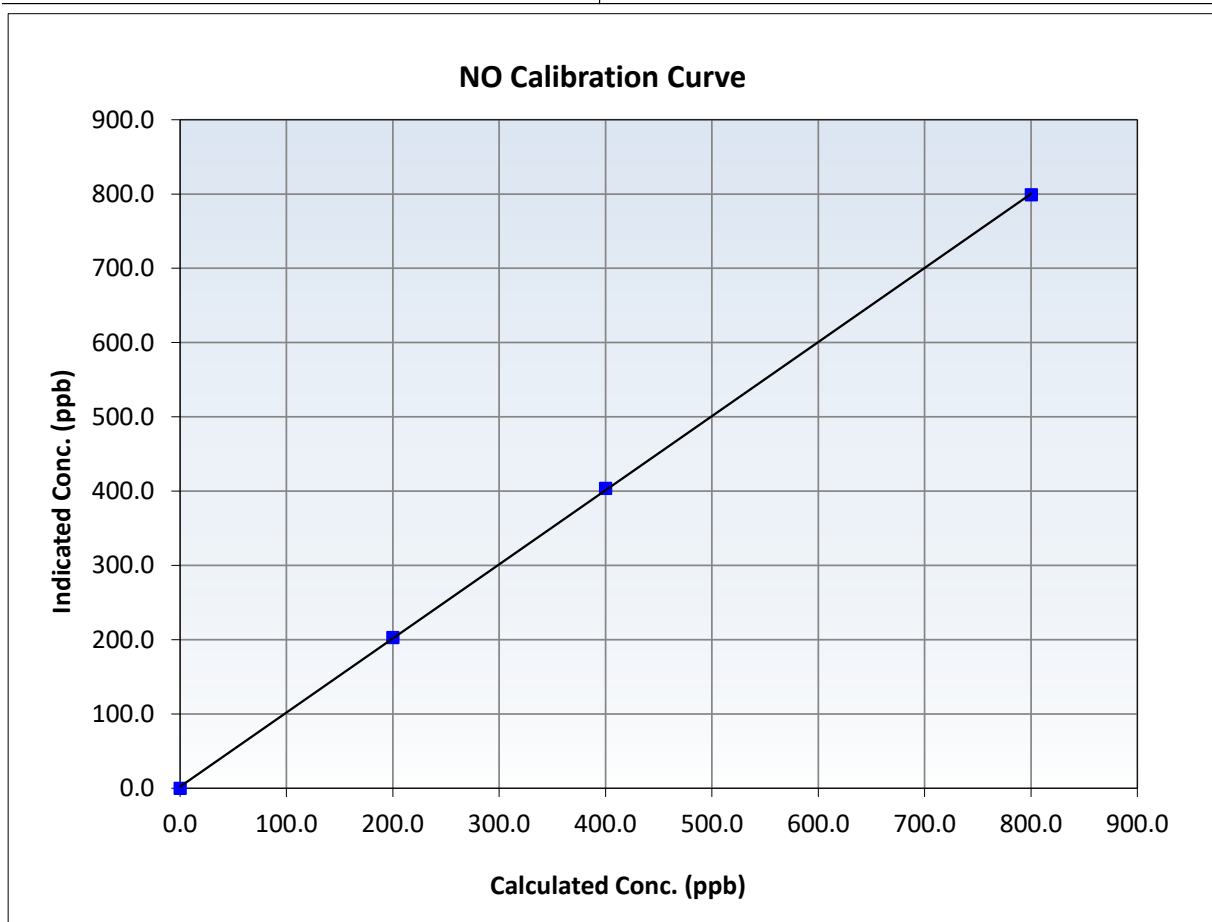
NO Calibration Summary

Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 11, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:48	End Time (MST):	13:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

Calibration Data

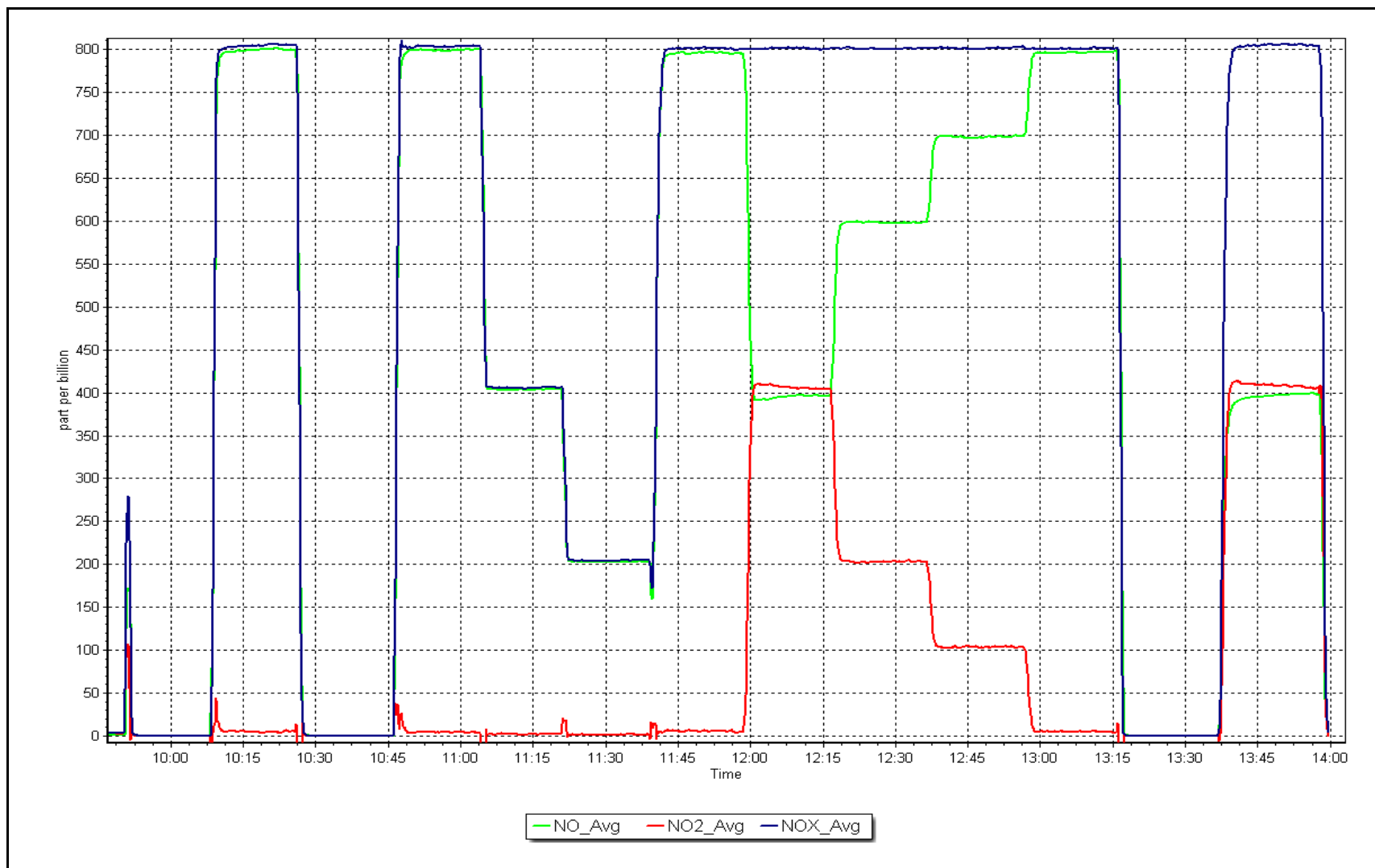
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999960	≥ 0.995
800.3	799.0	1.0016	Slope	0.997585	$0.90 - 1.10$
400.2	403.7	0.9913	Intercept	2.131935	± 20
200.1	203.0	0.9856			



NO_x Calibration Plot

Date: June 11, 2026

Location: Athabasca Valley





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Athabasca Valley
Calibration Date: June 3, 2026
Start time (MST): 9:54
Reason: Routine
Station number: AMS07
Last Cal Date: May 13, 2026
End time (MST): 12:54

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H
Serial Number: 3805
Serial Number: 198

Analyzer Information

Analyzer make: Thermo 49i
Analyzer Range: 0 - 500 ppb
Analyzer serial #: 1507964700

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.994143	0.999657	Backgd or Offset:	-0.2	-0.2
Calibration intercept:	1.000000	-0.040000	Coeff or Slope:	1.038	1.003

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	NA	0.0	-0.5	----
As found High point	5000	1876.6	400.0	412.3	0.969
As found Mid point					
As found Low point					
Baseline Corr As found:	412.8	Previous response	398.7	*% change	3.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	NA	0.0	-0.1	----
High point	5000	1876.6	400.0	399.7	1.001
Mid point	5000	1253.9	200.0	200.2	0.999
Low point	5000	957.2	100.0	99.8	1.002
As left zero	5000	NA	0.0	0.0	----
As left span	5000	1876.6	400.0	401.6	0.996
Average Correction Factor					1.001

Notes: Sample inlet filter changed after as founds. Adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

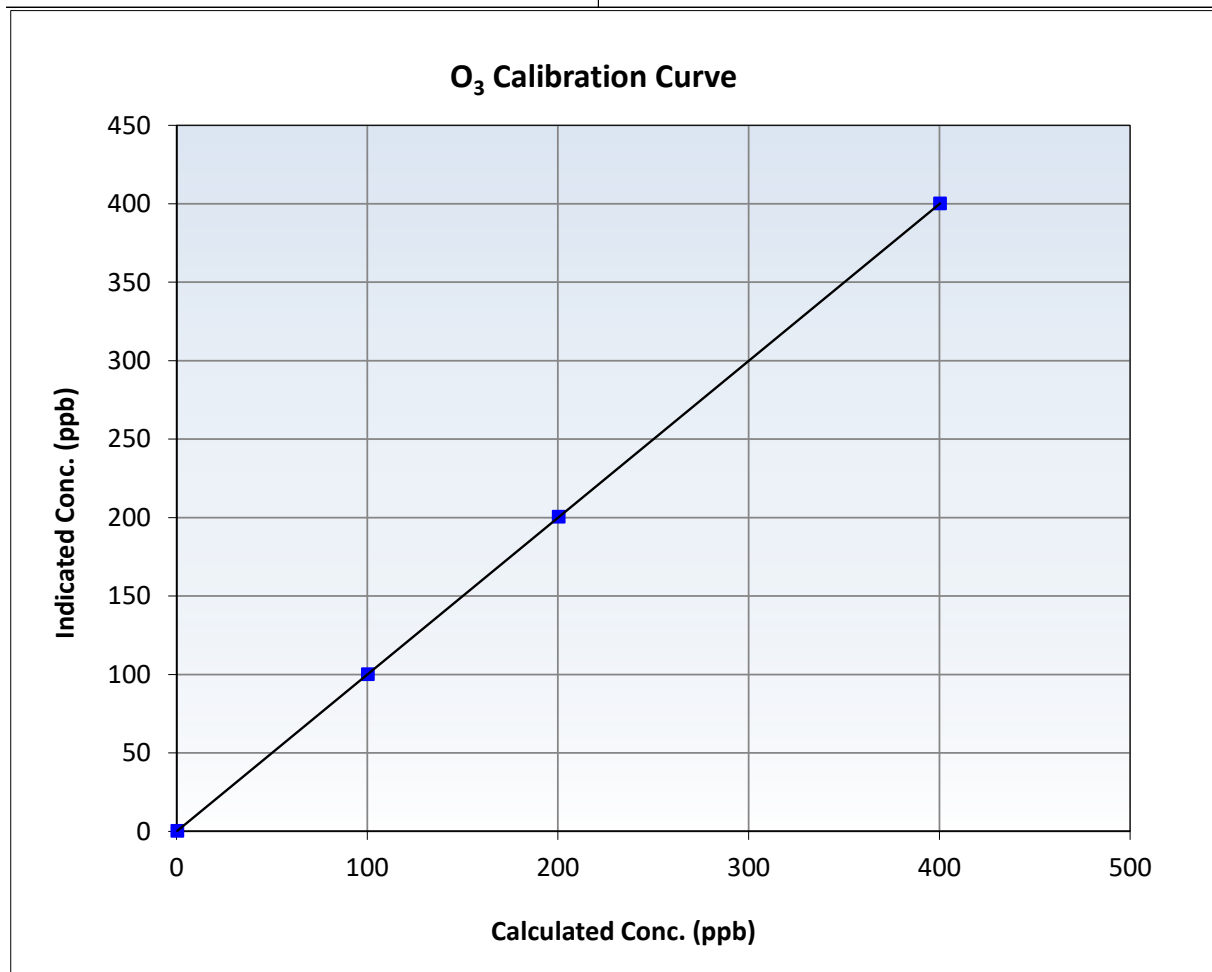
O₃ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 13, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	9:54	End Time (MST):	12:54
Analyzer make:	Thermo 49i	Analyzer serial #:	1507964700

Calibration Data

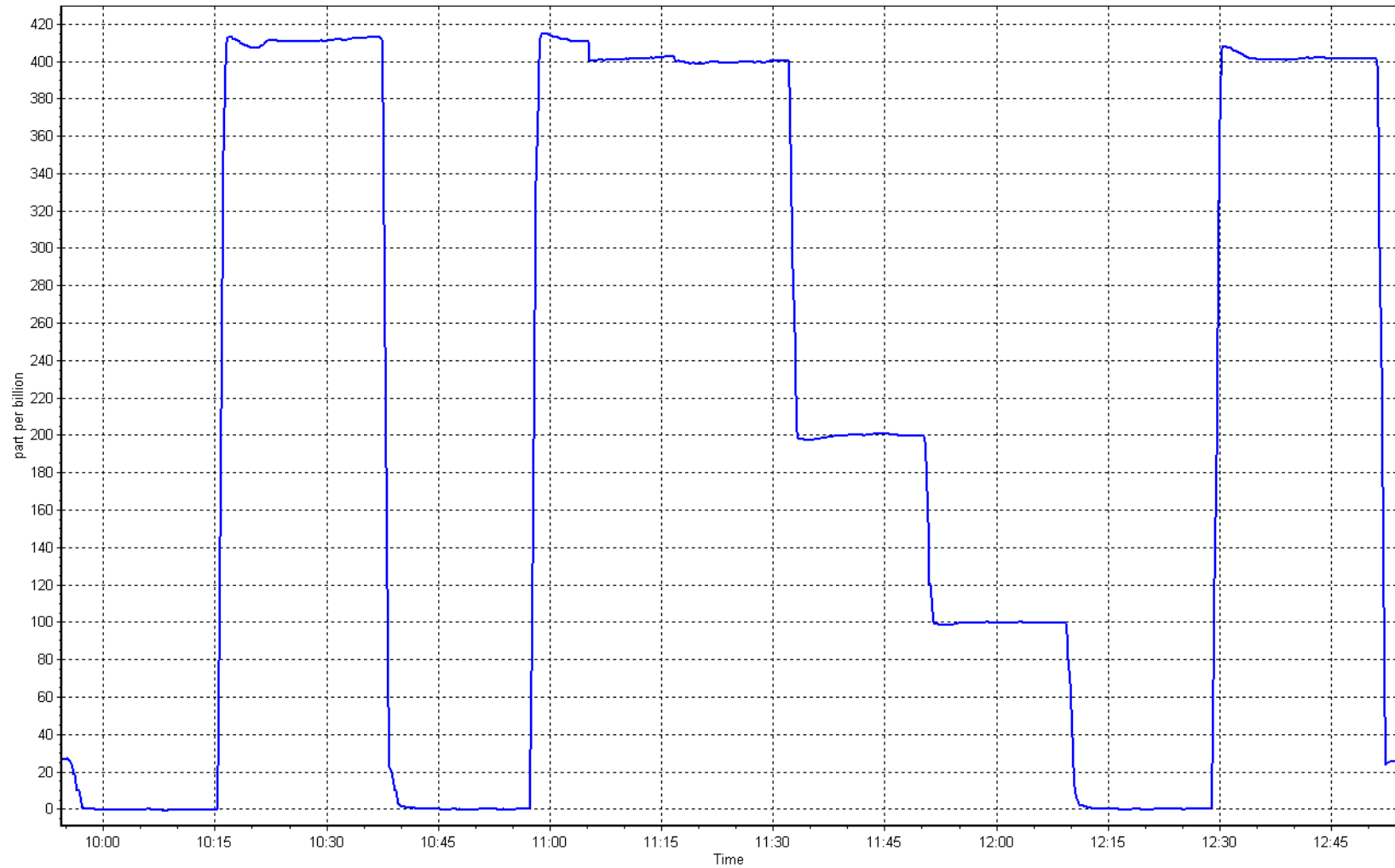
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999999	≥0.995
400.0	399.7	1.0008	Slope	0.999657	0.90 - 1.10
200.0	200.2	0.9990	Intercept	-0.040000	+/- 5
100.0	99.8	1.0020			



O₃ Calibration Plot

Date: June 3, 2026

Location: Athabasca Valley





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Athabasca Valley Station number: AMS 07
Calibration Date: June 11, 2026 Last Cal Date: May 11, 2026
Start time (MST): 12:35 End time (MST): 12:56

Analyzer Make: API T640 S/N: 2235
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388754
Temp/RH standard: Alicat FP-25BT S/N: 388754

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	11.50	10.93	11.50	☐	+/- 2 °C
P (mmHg)	736.50	735.32	736.50	☐	+/- 10 mmHg
Flow (LPM)	5.01	4.92	5.01	☐	+/- 0.25 LPM
PW% (pump)	30	----	30	☐	>80%
Zero Verification	PM w/o HEPA: _____	3.70	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: April 9, 2026
Date Disposable Filter Changed: April 9, 2026

Post- maintenance Zero Verification: PM w/ HEPA: _____ <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: October 9, 2025
Date RH/T Sensor Cleaned: October 9, 2025

Notes: Verified flow, pressure, temperature and pump power. No adjustment needed. Leak check passed.

Calibration by: Jan Castro



Wood Buffalo Environmental Association

CO Calibration Report

Station Information

Station Name: Athabasca Valley Station number: AMS 07
Calibration Date: June 15, 2026 Last Cal Date: May 12, 2026
Start time (MST): 9:20 End time (MST): 13:33
Reason: Routine

Calibration Standards

Cal Gas Concentration: 2,953 ppm Cal Gas Exp Date: September 30, 2029
Cal Gas Cylinder #: T1TWKRN
Removed Cal Gas Conc: 2,953 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 3805
ZAG Make/Model: Teledyne API 701H Serial Number: 198

Analyzer Information

Analyzer make: Thermo 48iQ Analyzer serial #: 12522542354
Analyzer Range: 0 - 50 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.992274	0.998324	Backgd or Offset:	-2.760	-2.810
Calibration intercept:	0.305957	0.180017	Coeff or Slope:	1.000	1.021

CO As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4932	67.8	40.0	39.1	1.024
As found Mid point	4966	33.9	20.0	20.0	1.001
As found Low point	4983	16.9	10.0	10.2	0.981
New cylinder response					
Baseline Corr As found:	39.10	Prev response:	40.04	*% change:	-2.4%
Baseline Corr 2nd AF pt:	20.0	AF Slope:	0.974068	AF Intercept:	0.249775
Baseline Corr 3rd AF pt:	10.2	AF Correlation:	0.999776	* = > +/-5% change initiates investigation	

CO Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4932	67.8	40.0	40.0	1.001
Mid point	4966	33.9	20.0	20.4	0.981
Low point	4983	16.9	10.0	10.3	0.974
As left zero	5000	0.0	0.0	0.0	----
As left span	4932	67.8	40.0	40.1	0.999
Average Correction Factor					0.985

Notes: Changed inlet filter after as founds. Adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

CO Calibration Summary

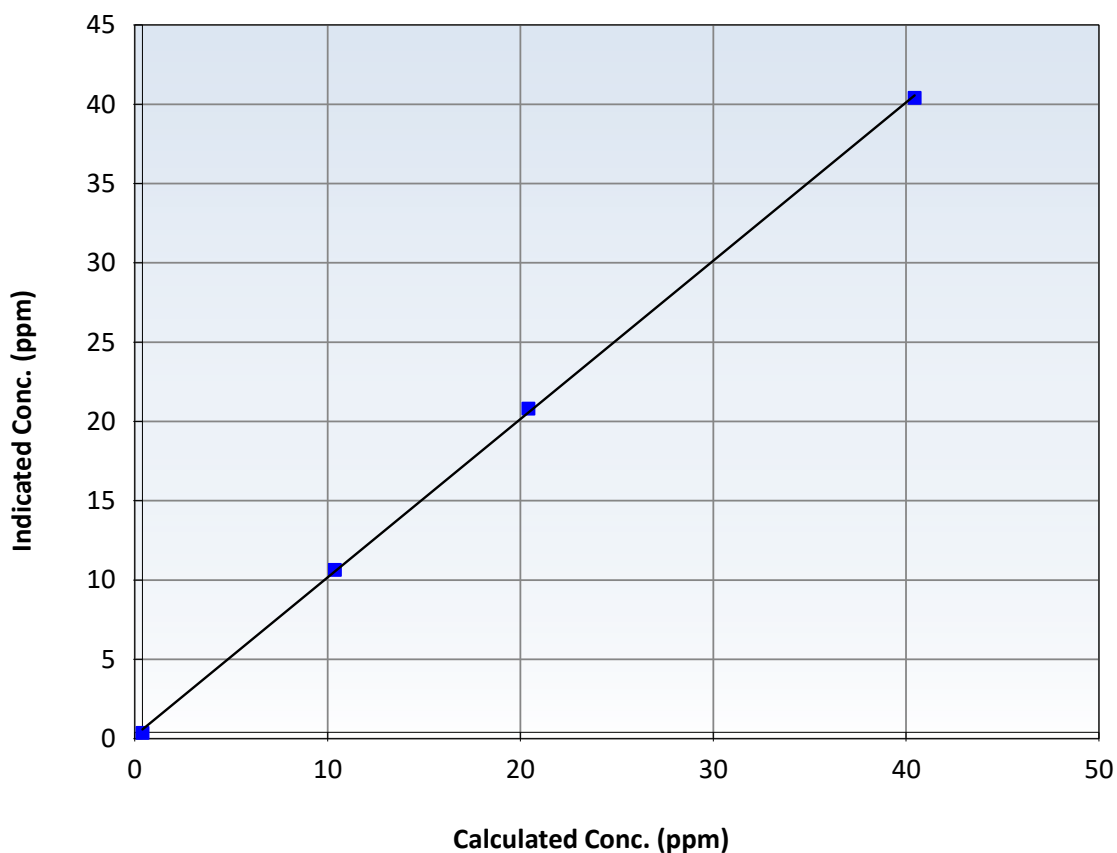
Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 12, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:20	End Time (MST):	13:33
Analyzer make:	Thermo 48iQ	Analyzer serial #:	12522542354

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999850	≥ 0.995
40.0	40.0	1.0009	Slope	0.998324	$0.90 - 1.10$
20.0	20.4	0.9810	Intercept	0.180017	± 1.5
10.0	10.3	0.9738			

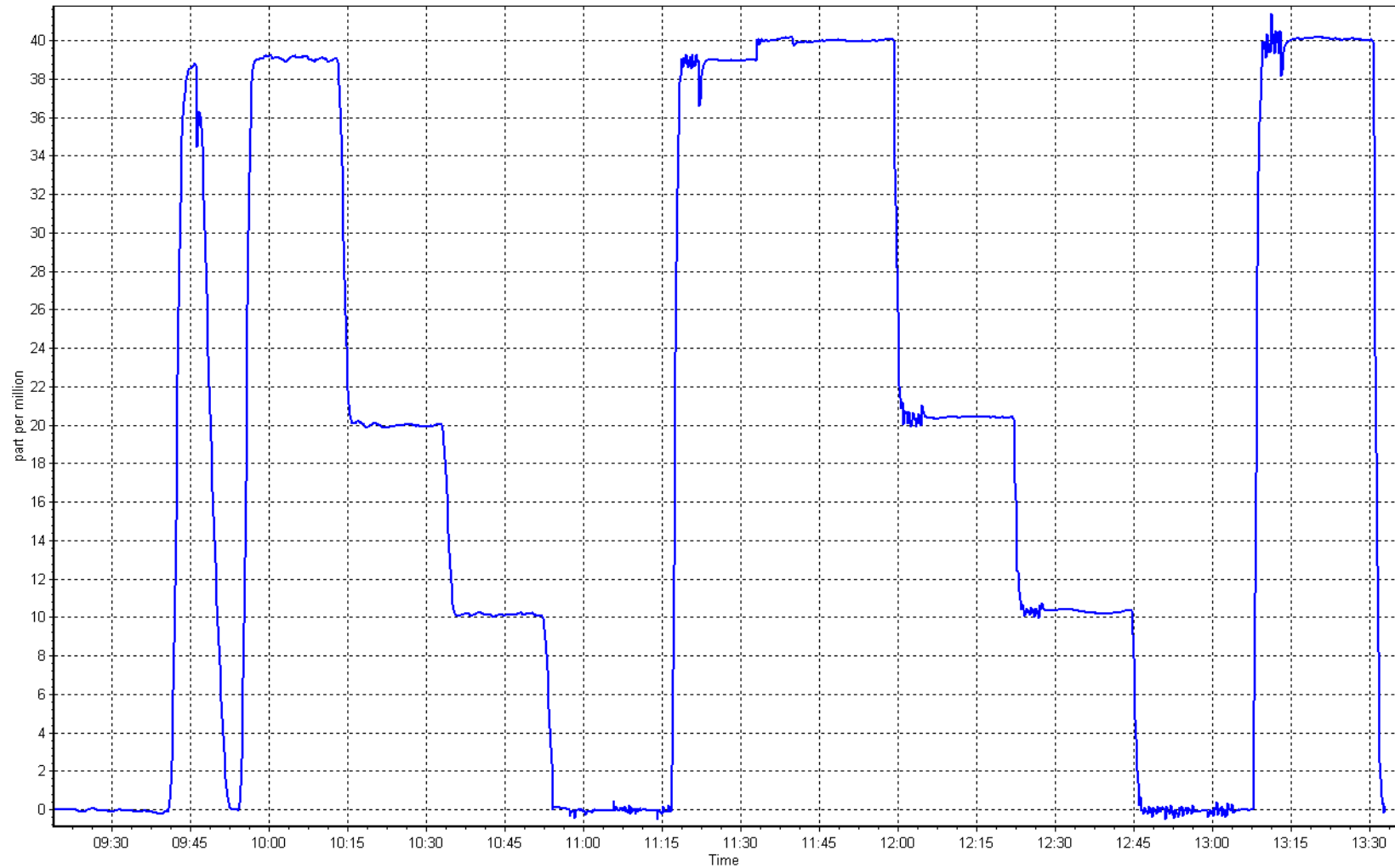
CO Calibration Curve



CO Calibration Plot

Date: June 15, 2026

Location: Athabasca Valley





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS08 FORT CHIPEWYAN JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Fort Chipewyan Station number: AMS 08
Calibration Date: June 4, 2026 Last Cal Date: May 20, 2026
Start time (MST): 9:30 End time (MST): 12:24
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.84 ppm Cal Gas Exp Date: January 6, 2030
Cal Gas Cylinder #: CC196697
Removed Cal Gas Conc: 49.84 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3810
Zero Air Gen Model: Teledyne API T701 Serial Number: 135

Analyzer Information

Analyzer make: Thermo 43i-TLE Serial Number: 1170050147
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000662	1.000060	Backgd or Offset:	3.55	3.49
Calibration intercept:	0.734954	-0.004298	Coeff or Slope:	1.017	1.004

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.6	----
As found High point	4920	80.3	800.4	807.6	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	808.2	Previous response	801.6	*% change	0.8%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	4920	80.3	800.4	800.3	1.000
Mid point	4960	40.2	400.7	400.8	1.000
Low point	4980	20.1	200.4	200.7	0.998
As left zero	5000	0.0	0.0	-0.3	----
As left span	4920	80.3	800.4	799.0	1.002
Average Correction Factor:					0.999

Notes: Changed inlet filter after as founds. Adjustment made to span high point.

Calibration Performed By: Matthew Courtoreille



Wood Buffalo Environmental Association

SO₂ Calibration Summary

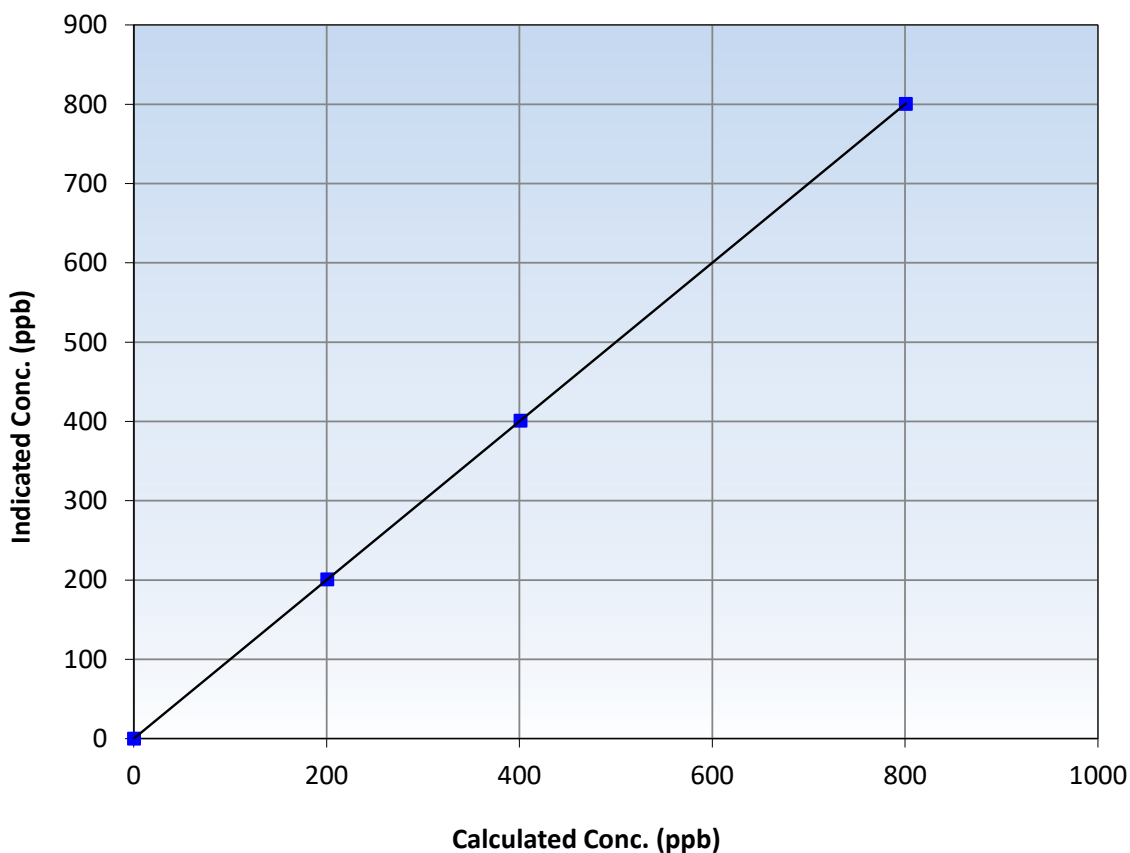
Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 20, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	9:30	End Time (MST):	12:24
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1170050147

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999999	≥0.995
800.4	800.3	1.0001	Slope	1.000060	0.90 - 1.10
400.7	400.8	0.9997	Intercept	-0.004298	+/-30
200.4	200.7	0.9983			

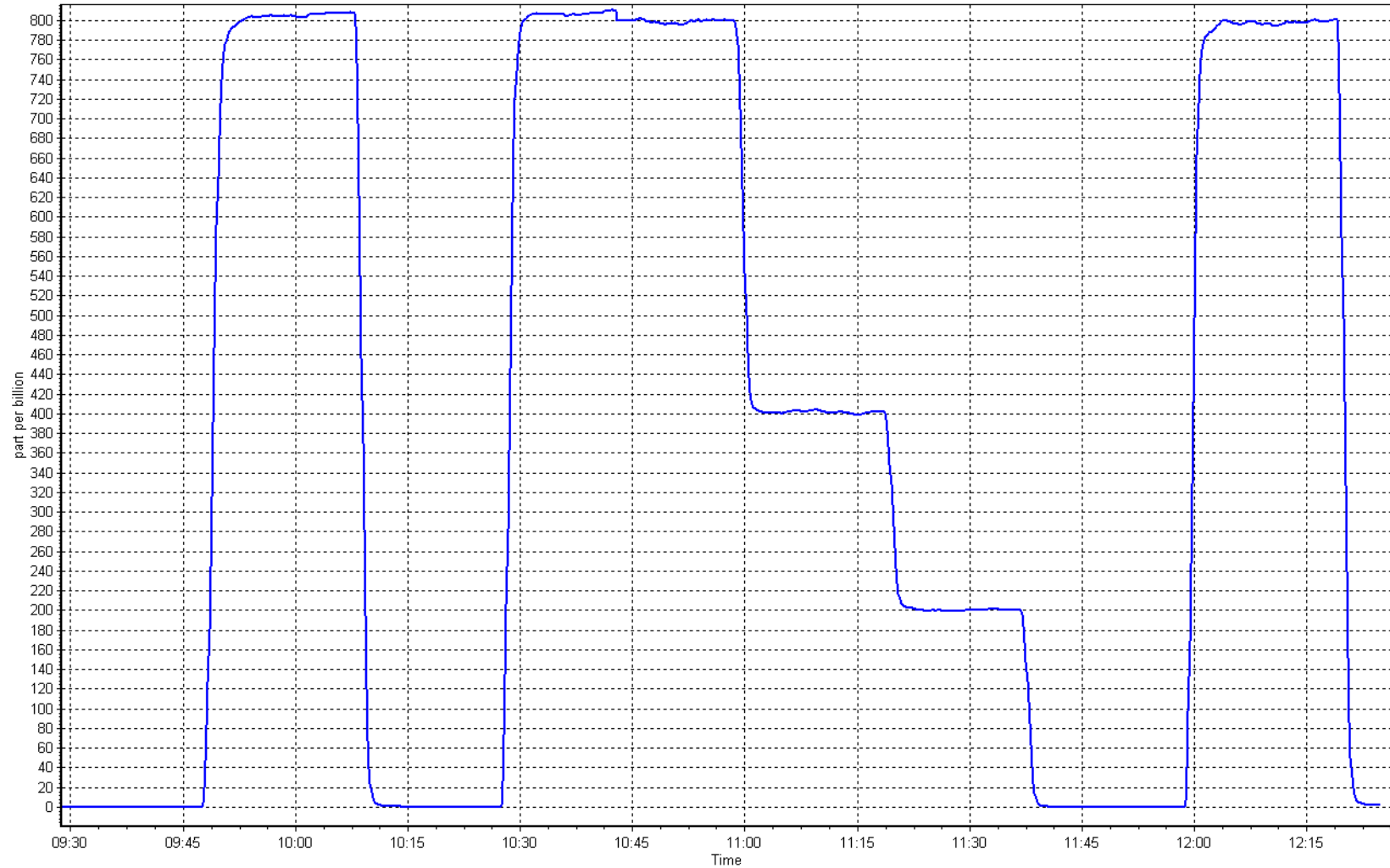
SO₂ Calibration Curve



SO2 Calibration Plot

Date: June 4, 2026

Location: Fort Chipewyan





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Fort Chipewyan
Calibration Date: June 12, 2026
Start time (MST): 13:01
Reason: Routine

Station number: AMS 08
Last Cal Date: May 22, 2026
End time (MST): 16:42

Calibration Standards

Cal Gas Concentration: 4.84 ppm
Cal Gas Cylinder #: SA7549
Removed Cal Gas Conc: 4.84 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 3810
Serial Number: 135

Analyzer Information

Analyzer make: Thermo 43i-TLE
Converter make: CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1218153461
Converter serial #: 630
Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003526	1.010529	Backgd or Offset:	3.1	3.1
Calibration intercept:	-0.317904	-0.437965	Coeff or Slope:	1.181	1.181

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4917	82.6	80.0	82.9	0.962
As found Mid point	4959	41.3	40.0	41.4	0.961
As found Low point	4979	20.7	20.0	20.1	0.987
New cylinder response					
Baseline Corr As found:	83.1	Prev response:	79.93	*% change:	3.8%
Baseline Corr 2nd AF pt:	41.6	AF Slope:	1.041554	AF Intercept:	-0.398645
Baseline Corr 3rd AF pt:	20.3	AF Correlation:	0.999946	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4917	82.6	80.0	80.4	0.995
Mid point	4959	41.3	40.0	40.2	0.994
Low point	4979	20.7	20.0	19.2	1.044
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	82.6	80.0	79.8	1.002
SO2 Scrubber Check	4920	80.3	803.0	0.1	----
Date of last scrubber change:	May 15, 2025			Ave Corr Factor	1.011
Date of last converter efficiency test:					

Notes: changed inlet filter after as found. No adjustment made .

Calibration Performed By: Matthew Courtoreille



Wood Buffalo Environmental Association

TRS Calibration Summary

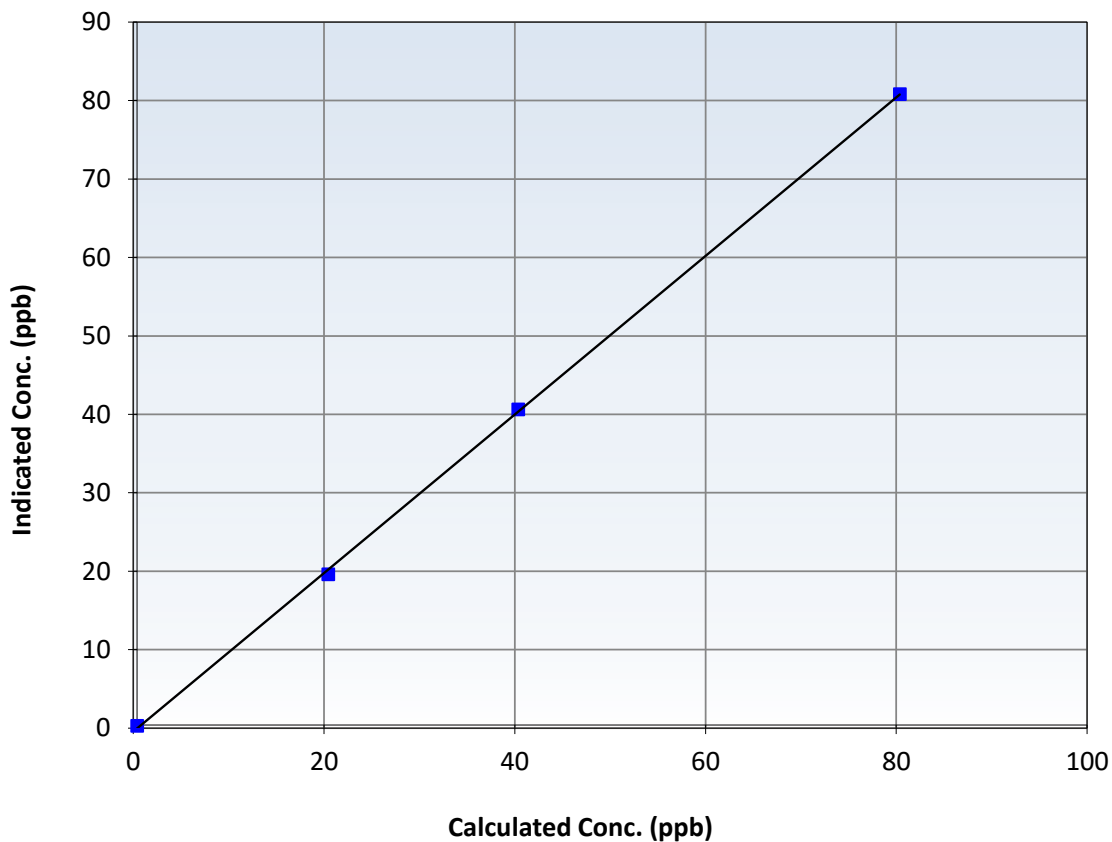
Station Information

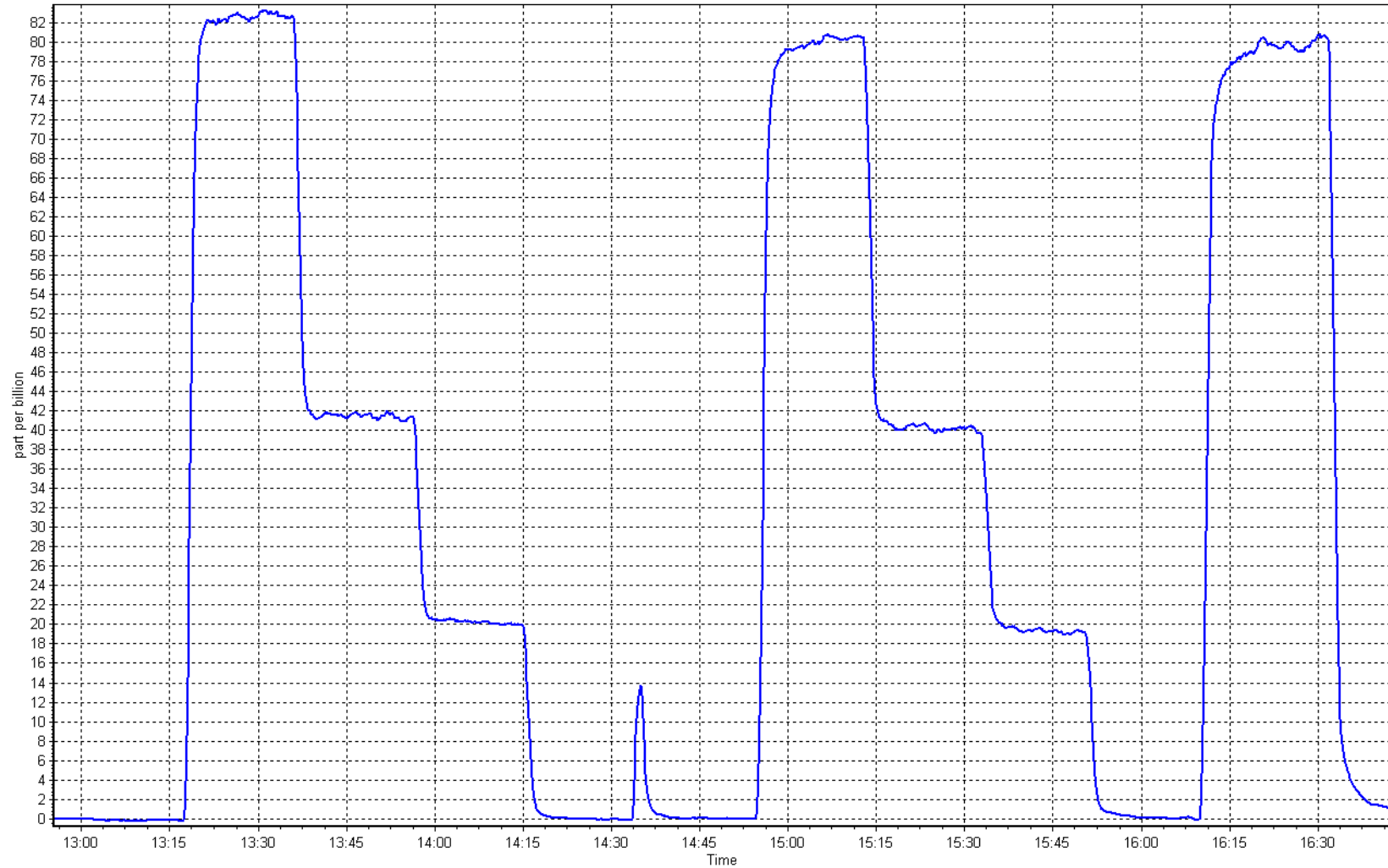
Calibration Date:	June 12, 2026	Previous Calibration:	May 22, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	13:01	End Time (MST):	16:42
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153461

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999847		≥ 0.995
80.0	80.4	0.9946	Slope	1.010529		0.90 - 1.10
40.0	40.2	0.9944	Intercept	-0.437965		+/-3
20.0	19.2	1.0437				

TRS Calibration Curve







Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort Chipewyan
 Station number: AMS 08
 Calibration Date: June 19, 2026
 Last Cal Date: May 21, 2026
 Start time (MST): 8:30
 End time (MST): 12:57
 Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC358100
 NOX Cal Gas Conc: 60.10 ppm
 Removed Cylinder #: NA
 Removed Gas NOX Conc: 60.10 ppm
 NOX ga 4.8
 Calibra 5.2
 ZAG make/model: Teledyne API T700
 Teledyne API T701H
 Cal Gas Expiry Date: January 5, 2032
 NO Cal Gas Conc: 60.00 ppm
 Removed Gas Exp Date: NA
 Removed Gas NO Conc: 60.00 ppm
 NO gas Diff:
 Serial Number: 3810
 Serial Number: 197

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	0.3	-0.1	----	----
AF High point	4933	66.7	801.8	800.4	1.3	813.8	811.5	2.3	0.9855	0.9867
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 810.7 ppb	NO = 808.9 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = 0.4%
Baseline Corr 1st pt	NO _x = 813.6 ppb	NO = 811.2 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 0.3%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1426262592

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.009653	0.999019
NO _x Cal Offset:	1.175381	-0.045530
NO Cal Slope:	1.010393	1.001769
NO Cal Offset:	0.155291	-1.325488
NO ₂ Cal Slope:	1.000094	1.000082
NO ₂ Cal Offset:	0.382358	0.184838

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.037	1.023	NO bkgnd or offset:	6.0	6.4
NOX coeff or slope:	0.996	0.995	NOX bkgnd or offset:	6.1	6.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	173.7	175.8

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
High point	4933	66.7	801.8	800.4	1.3	800.9	801.1	-0.3	1.0011	0.9992
Mid point	4967	33.3	400.2	399.6	0.7	399.9	398.5	1.4	1.0009	1.0027
Low point	4983	16.7	200.7	200.4	0.3	200.5	198.1	2.4	1.0012	1.0116
As left zero	5000	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	----	----
As left span	4933	66.7	801.8	392.3	409.5	803.5	392.3	411.1	0.9979	1.0000
Average Correction Factor									1.0010	1.0045

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	797.1	388.2	410.2	410.5	0.9994	100.1%
Mid GPT point	797.1	599.2	199.2	199.1	1.0007	99.9%
Low GPT point	797.1	698.2	100.2	100.9	0.9934	100.7%
Average Correction Factor					0.9978	100.2%

Notes: Changed inlet filter after as founds. Adjusted Zero and High point span.

Calibration Performed By: Matthew Courtoreille



Wood Buffalo Environmental Association

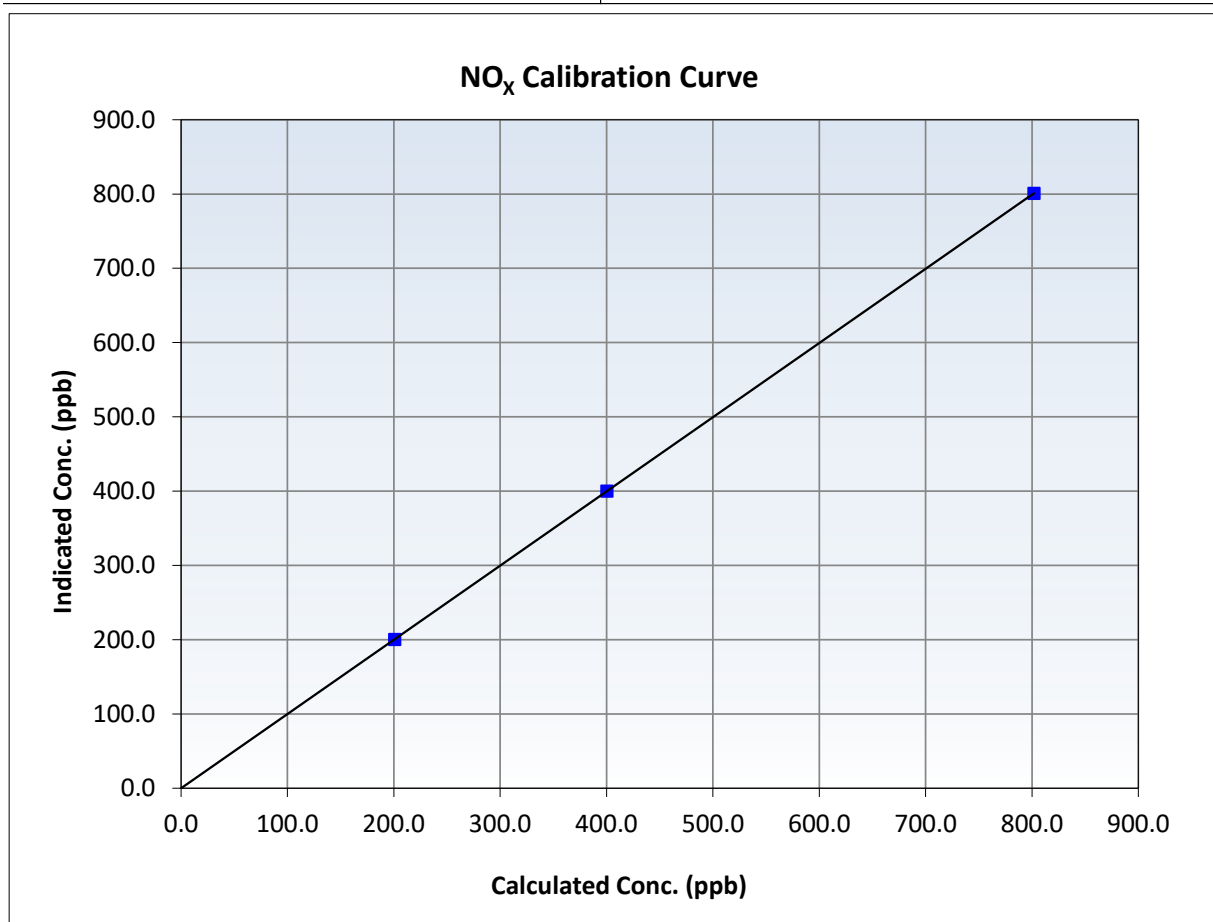
NO_x Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 21, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:30	End Time (MST):	12:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	1.000000	≥0.995
801.8	800.9	1.0011	Slope	0.999019	0.90 - 1.10
400.2	399.9	1.0009	Intercept	-0.045530	+/-20
200.7	200.5	1.0012			





Wood Buffalo Environmental Association

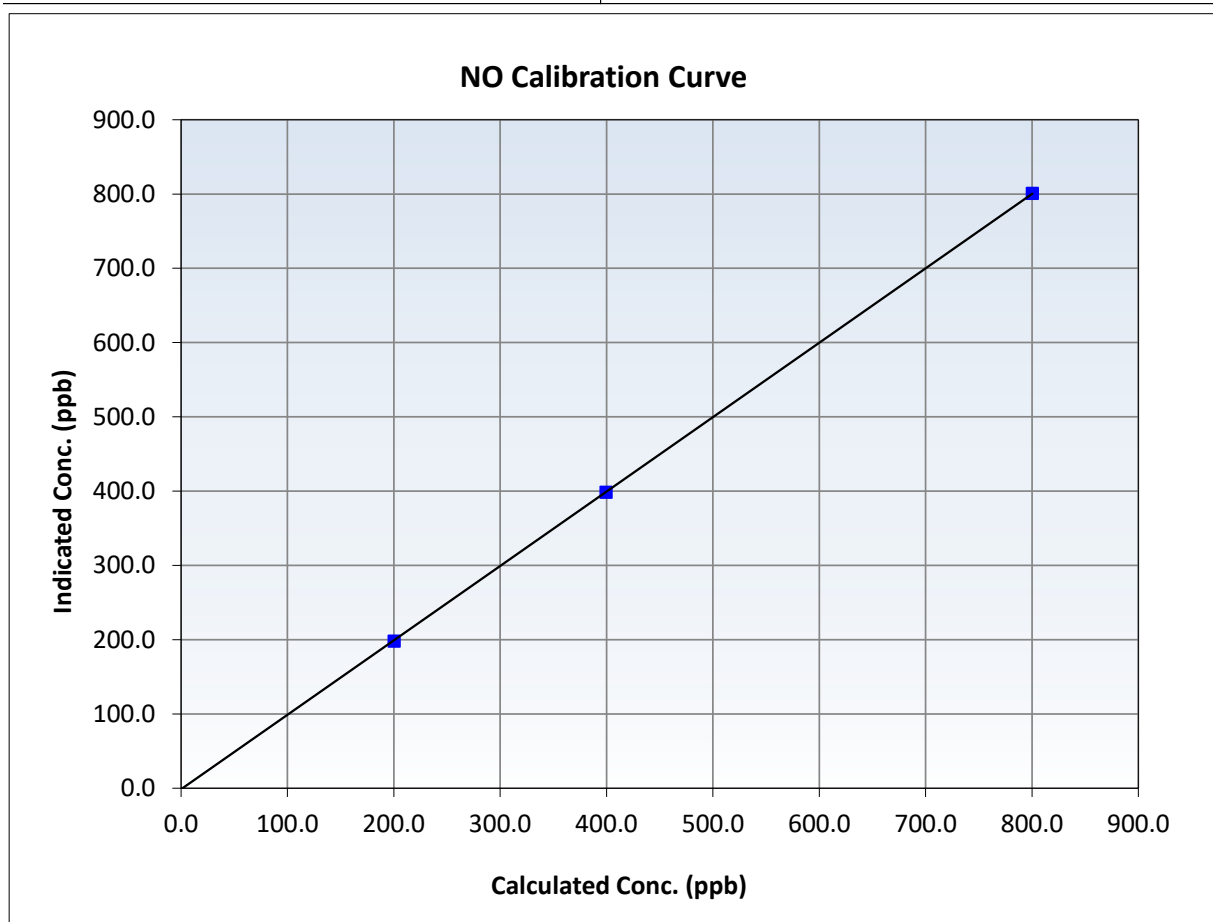
NO Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 21, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:30	End Time (MST):	12:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999989	≥ 0.995
800.4	801.1	0.9992	Slope	1.001769	$0.90 - 1.10$
399.6	398.5	1.0027	Intercept	-1.325488	± 20
200.4	198.1	1.0116			





Wood Buffalo Environmental Association

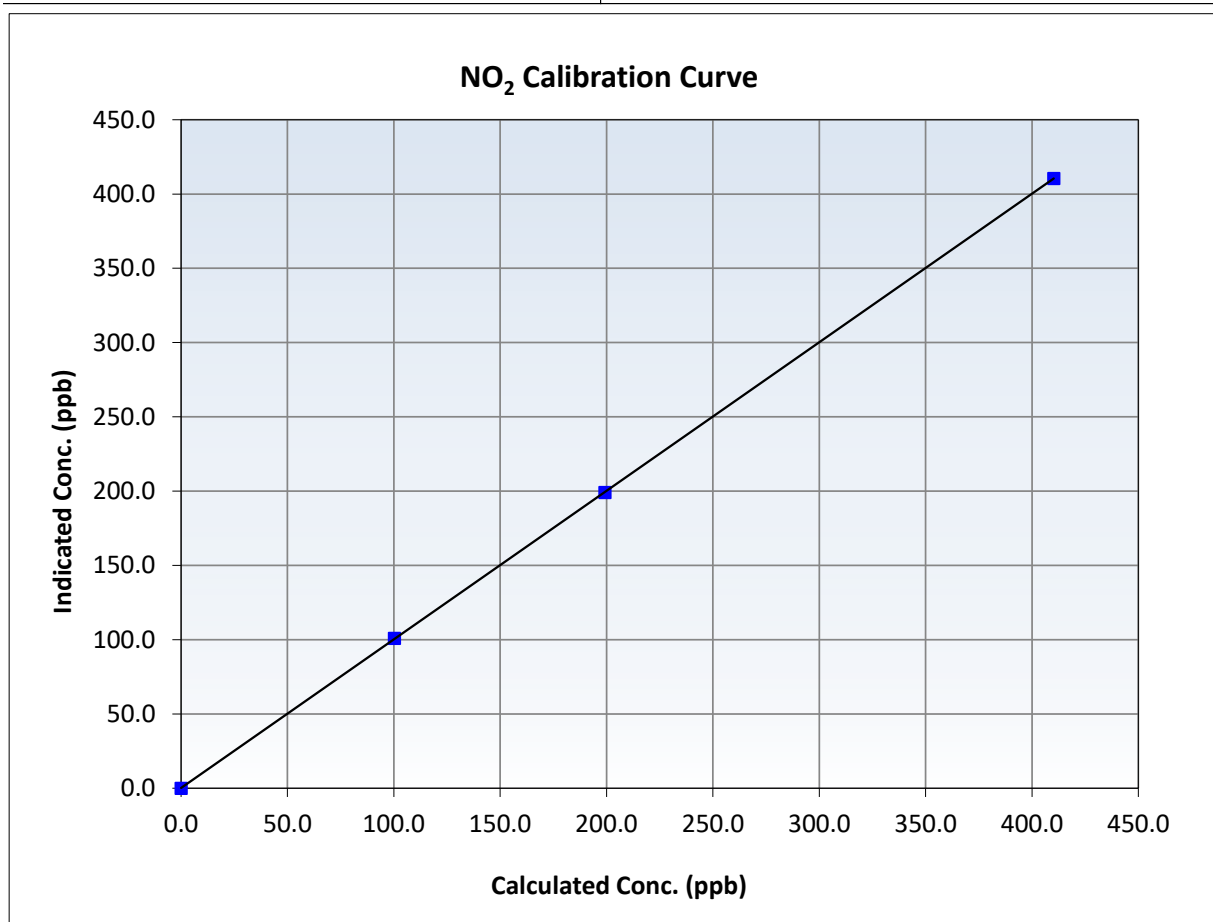
NO₂ Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 21, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:30	End Time (MST):	12:57
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

Calibration Data

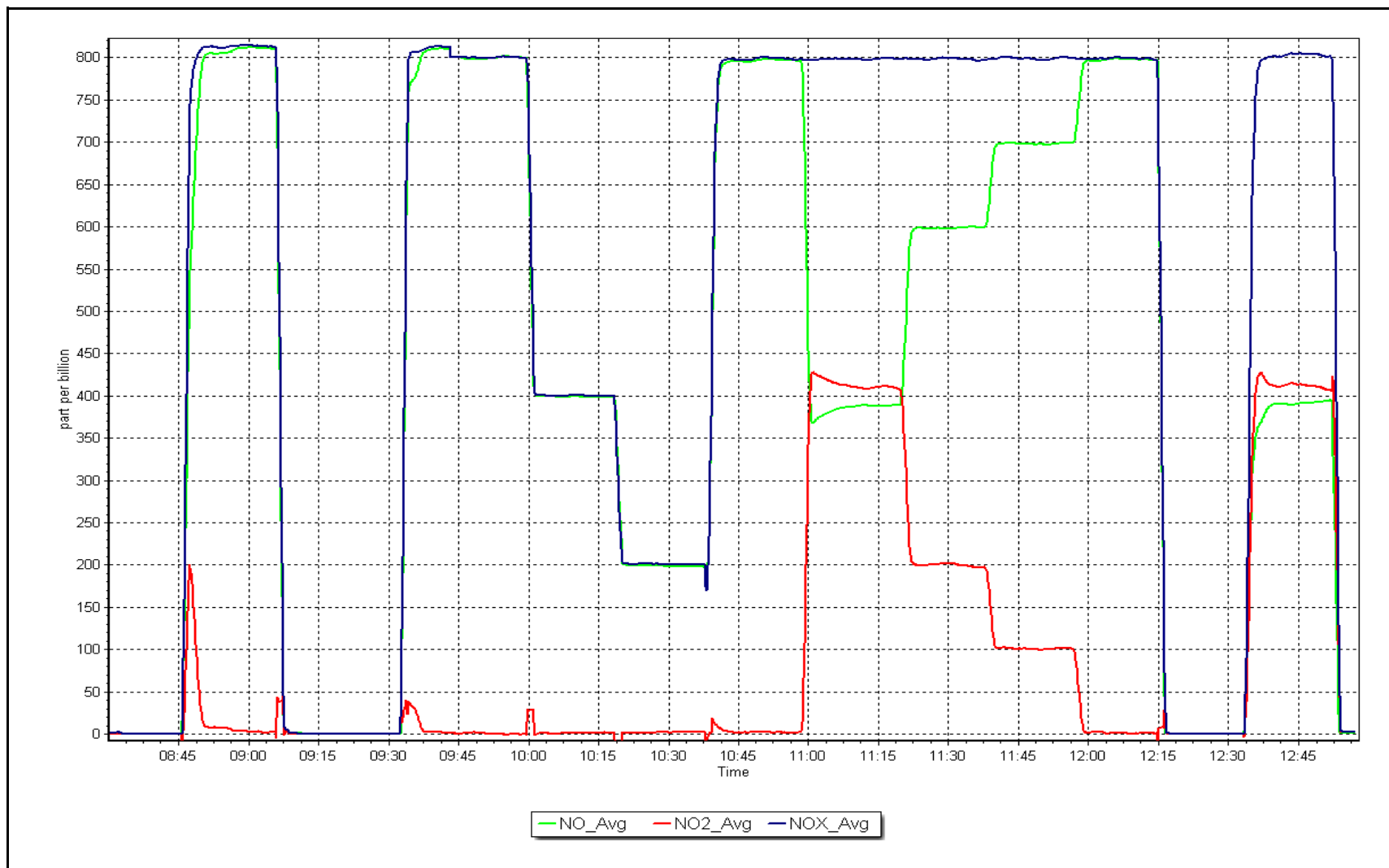
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999996	≥0.995
410.2	410.5	0.9994	Slope	1.000082	0.90 - 1.10
199.2	199.1	1.0007	Intercept	0.184838	+/-20
100.2	100.9	0.9934			



NO_x Calibration Plot

Date: June 19, 2026

Location: Fort Chipewyan





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Fort Chipewyan
Calibration Date: June 5, 2026
Start time (MST): 8:54
Reason: Routine

Station number: AMS 08
Last Cal Date: May 14, 2026
End time (MST): 11:20

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701

Serial Number: 3810
Serial Number: 135

Analyzer Information

Analyzer make: Thermo 49i
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 1152220026

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001686	1.006514	Backgd or Offset:	-2.6	-2.7
Calibration intercept:	1.380000	0.660000	Coeff or Slope:	1.002	1.002

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted
					Correction factor (Cc/(Ic- AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.7	----
As found High point	5000	968.7	400.0	402.6	0.992
As found Mid point					
As found Low point					
Baseline Corr As found:	403.3	Previous response	402.1	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic- AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	5000	968.7	400.0	402.7	0.993
Mid point	5000	820.5	200.0	202.8	0.986
Low point	5000	720.0	100.0	101.9	0.981
As left zero	5000	0.0	0.0	-0.5	----
As left span	5000	968.7	400.0	403.6	0.991
Average Correction Factor					0.987

Notes: Changed inlet filters after as founds.

Calibration Performed By: Matthew Courtoreille



Wood Buffalo Environmental Association

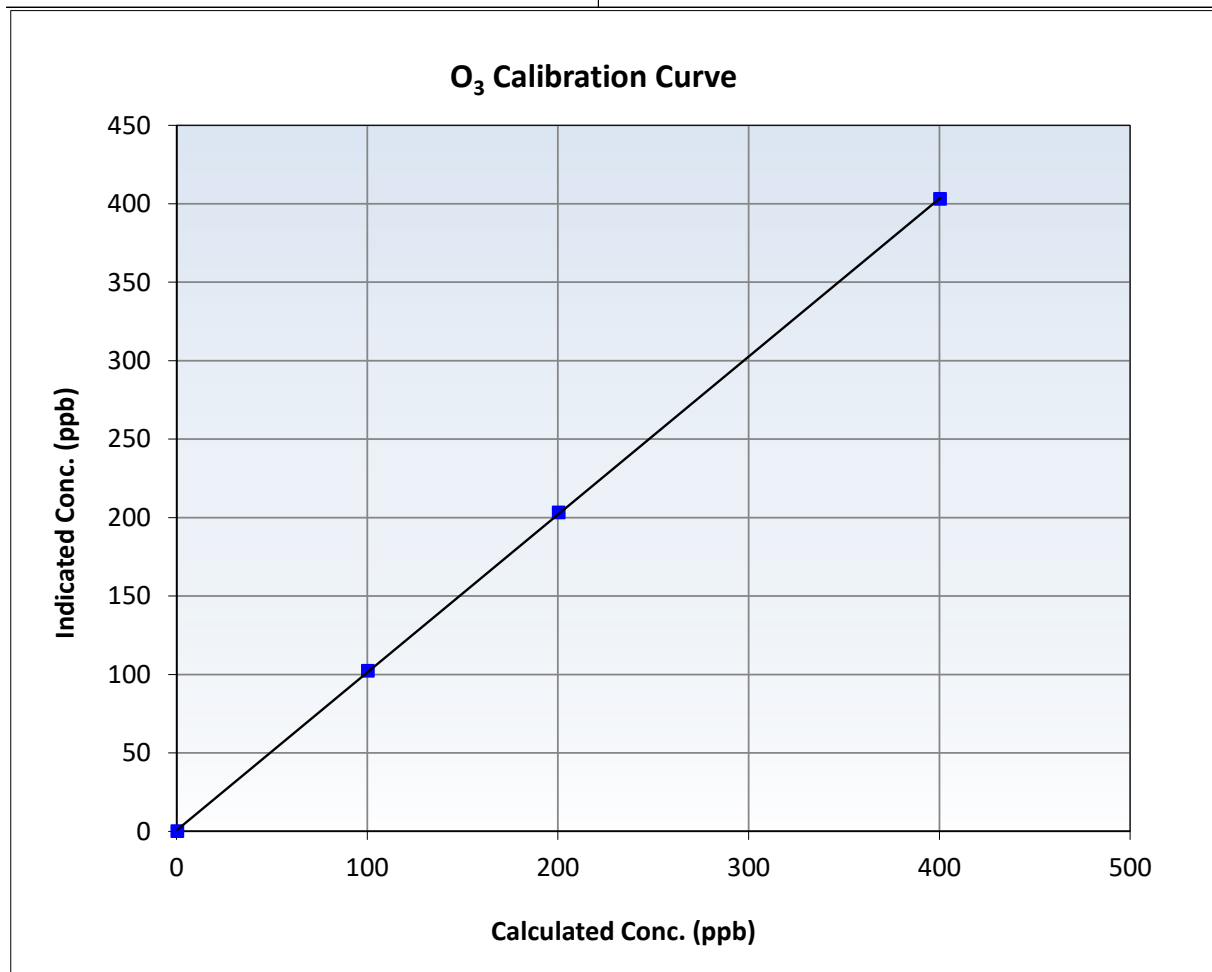
O₃ Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 14, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:54	End Time (MST):	11:20
Analyzer make:	Thermo 49i	Analyzer serial #:	1152220026

Calibration Data

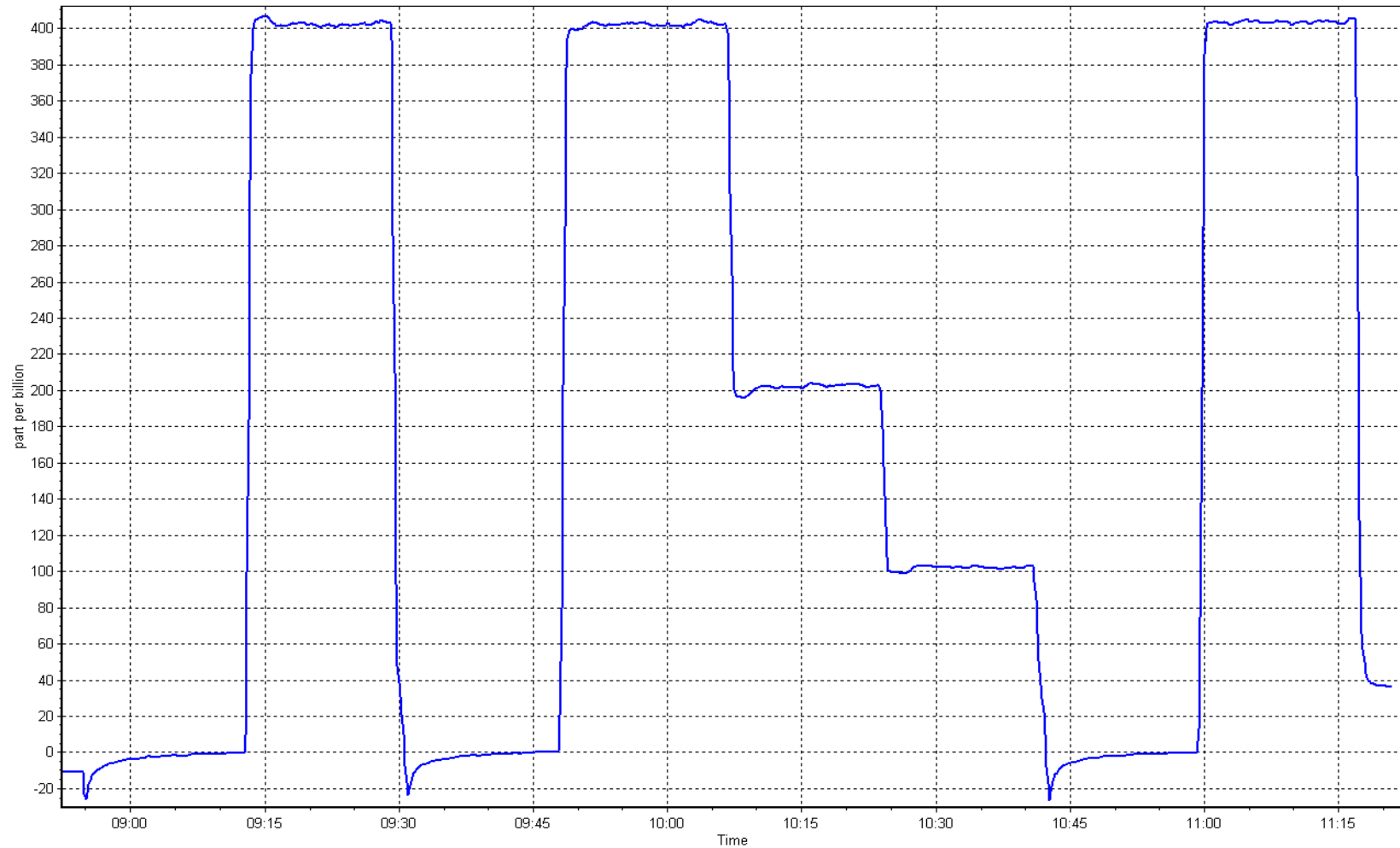
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999976	≥0.995
400.0	402.7	0.9933	Slope	1.006514	0.90 - 1.10
200.0	202.8	0.9862	Intercept	0.660000	+/- 5
100.0	101.9	0.9814			



O₃ Calibration Plot

Date: June 5, 2026

Location: Fort Chipewyan





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Fort Chipewyan Station number: AMS 08
Calibration Date: June 23, 2026 Last Cal Date: May 27, 2026
Start time (MST): 14:27 End time (MST): 14:52

Analyzer Make: Teledyne API T640 S/N: 319
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749
Temp/RH standard: Alicat FP-25BT S/N: 388749

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	23.5	22.22	23.5	☐	+/- 2 °C
P (mmHg)	741.0	743.40	741.0	☐	+/- 10 mmHg
Flow (LPM)	4.97	4.96	4.97	☐	+/- 0.25 LPM
PW% (pump)	28%	NA	28%	☐	>80%
Zero Verification	PM w/o HEPA: 3.52		PM w/ HEPA: 0.00		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☐ Alignment Factor On : ☐

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: 30-Jan-27
Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.9	10.8	10.8	☐	+/- 0.5

Date Optical Chamber Cleaned: March 23, 2026

Date Disposable Filter Changed: March 23, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.00 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: December 3, 2025

Date RH/T Sensor Cleaned: December 3, 2025

Notes: No adjustments needed.

Calibration by: Matthew Courtoreille



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS09 BARGE LANDING JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Barge Landing
Calibration Date: June 12, 2026
Start time (MST): 10:47
Reason: Routine

Station number: AMS 09
Last Cal Date: May 11, 2026
End time (MST): 14:30

Calibration Standards

Cal Gas Concentration: 50.56 ppm
Cal Gas Cylinder #: CC705748
Removed Cal Gas Conc: 50.56 ppm
Removed Gas Cyl #: NA
Calibrator Model: API T700P
Zero Air Gen Model: APIT701

Cal Gas Exp Date: October 9, 2032
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 2464
Serial Number: 5613

Analyzer Information

Analyzer make: Thermo 43i
Analyzer Range: 0 - 1000 ppb

Serial Number: 1118148498

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999399	1.005545	Backgd or Offset:	12.3	12.3
Calibration intercept:	-0.177937	-0.778326	Coeff or Slope:	1.029	1.029

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.2	----
As found High point	4921	79.1	799.8	802.0	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	801.8	Previous response	799.2	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4921	79.1	799.8	804.0	0.995
Mid point	4961	39.5	399.4	400.4	0.997
Low point	4980	19.8	200.2	199.4	1.004
As left zero	5000	0.0	0.0	0.3	----
As left span	4921	79.1	799.8	806.0	0.992
Average Correction Factor:					0.999

Notes: Changed sample inlet filter after as founds. No adjustments made.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

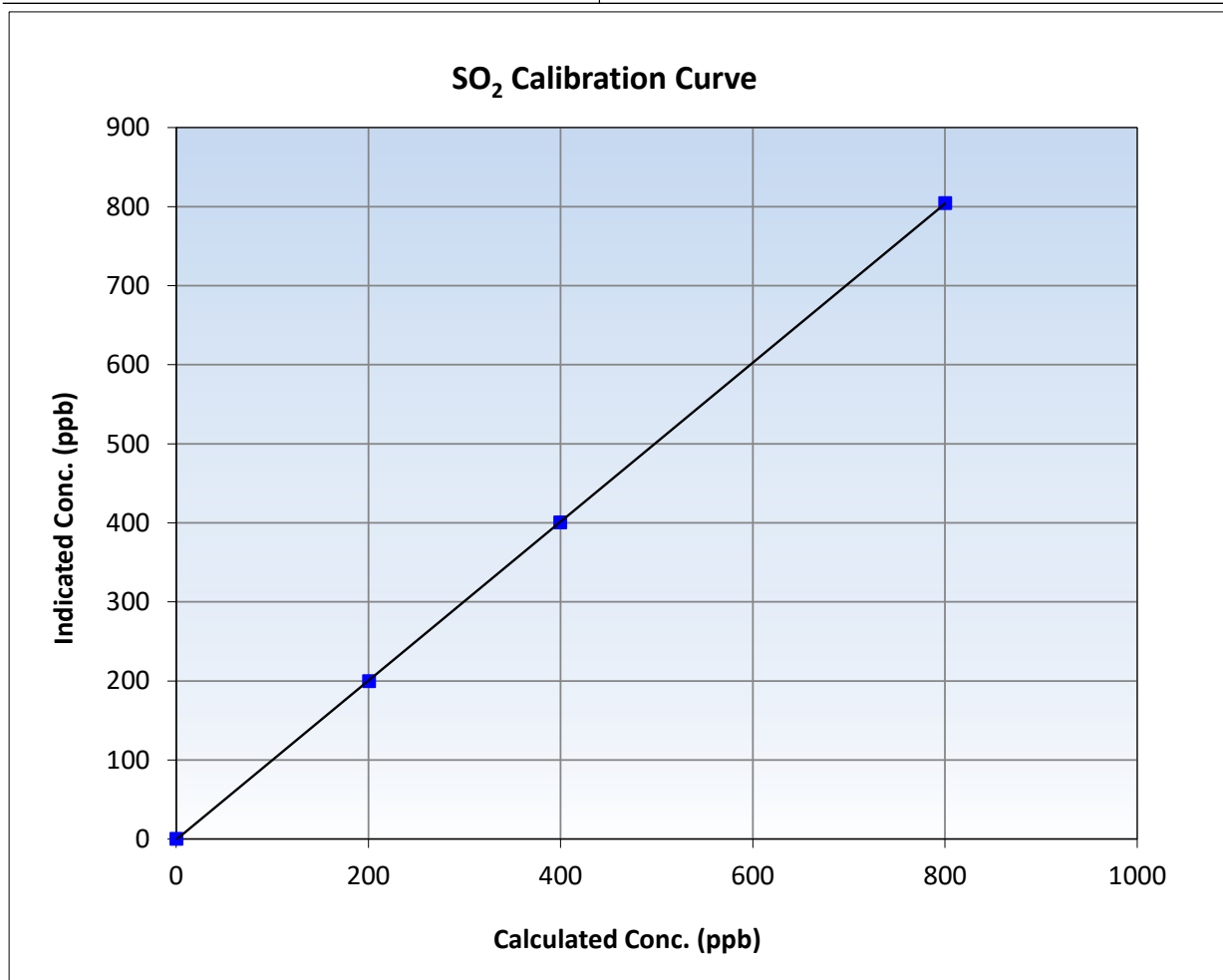
SO₂ Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 11, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	10:47	End Time (MST):	14:30
Analyzer make:	Thermo 43i	Analyzer serial #:	1118148498

Calibration Data

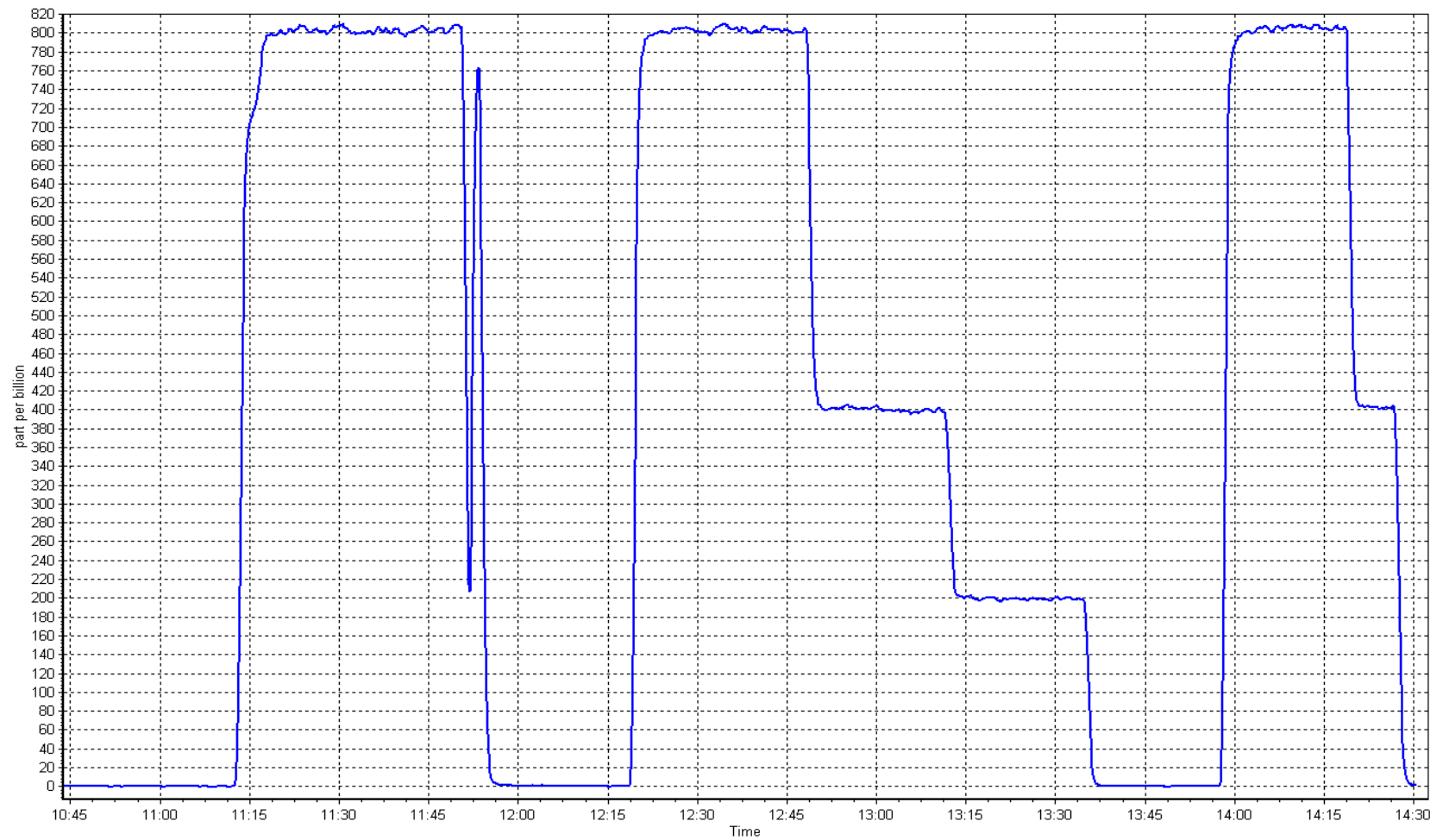
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999992	≥0.995
799.8	804.0	0.9948	Slope	1.005545	0.90 - 1.10
399.4	400.4	0.9975	Intercept	-0.778326	+/-30
200.2	199.4	1.0041			



SO2 Calibration Plot

Date: June 12, 2026

Location: Barge Landing





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Barge Landing
Calibration Date: June 8, 2026
Start time (MST): 9:27
Reason: Routine

Station number: AMS 09
Last Cal Date: May 5, 2026
End time (MST): 14:40

Calibration Standards

Cal Gas Concentration: 5.17 ppm
Cal Gas Cylinder #: CC511415
Removed Cal Gas Conc: 5.17 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: API T700
ZAG Make/Model: API T701

Cal Gas Exp Date: August 22, 2026
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 2464
Serial Number: 5613

Analyzer Information

Analyzer make: Thermo 43iQ-TLE
Converter make: CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1203169744
Converter serial #: 519
Converter Temp: 830 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000692	1.000548	Backgd or Offset:	1.880	1.860
Calibration intercept:	0.019418	-0.000569	Coeff or Slope:	0.731	0.710

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4923	77.4	80.0	81.4	0.982
As found Mid point	4961	38.7	40.0	40.7	0.981
As found Low point	4981	19.3	20.0	20.4	0.974
New cylinder response					
Baseline Corr As found:	81.5	Prev response:	80.12	*% change:	1.7%
Baseline Corr 2nd AF pt:	40.8	AF Slope:	1.017535	AF Intercept:	-0.020200
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999995	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4923	77.4	80.0	80.1	0.999
Mid point	4961	38.7	40.0	40.0	1.001
Low point	4981	19.3	20.0	20.0	0.998
As left zero	5000	0.0	0.0	0.0	----
As left span	4923	77.4	80.0	80.2	0.998
SO2 Scrubber Check	4920	80.2	802.0	0.0	----
Date of last scrubber change:	8-Jul-25			Ave Corr Factor	0.999
Date of last converter efficiency test:					

Notes: Changed the sample inlet filter after as founds. Adjusted span. SOx scrubber check done after cal zero, passed.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

TRS Calibration Summary

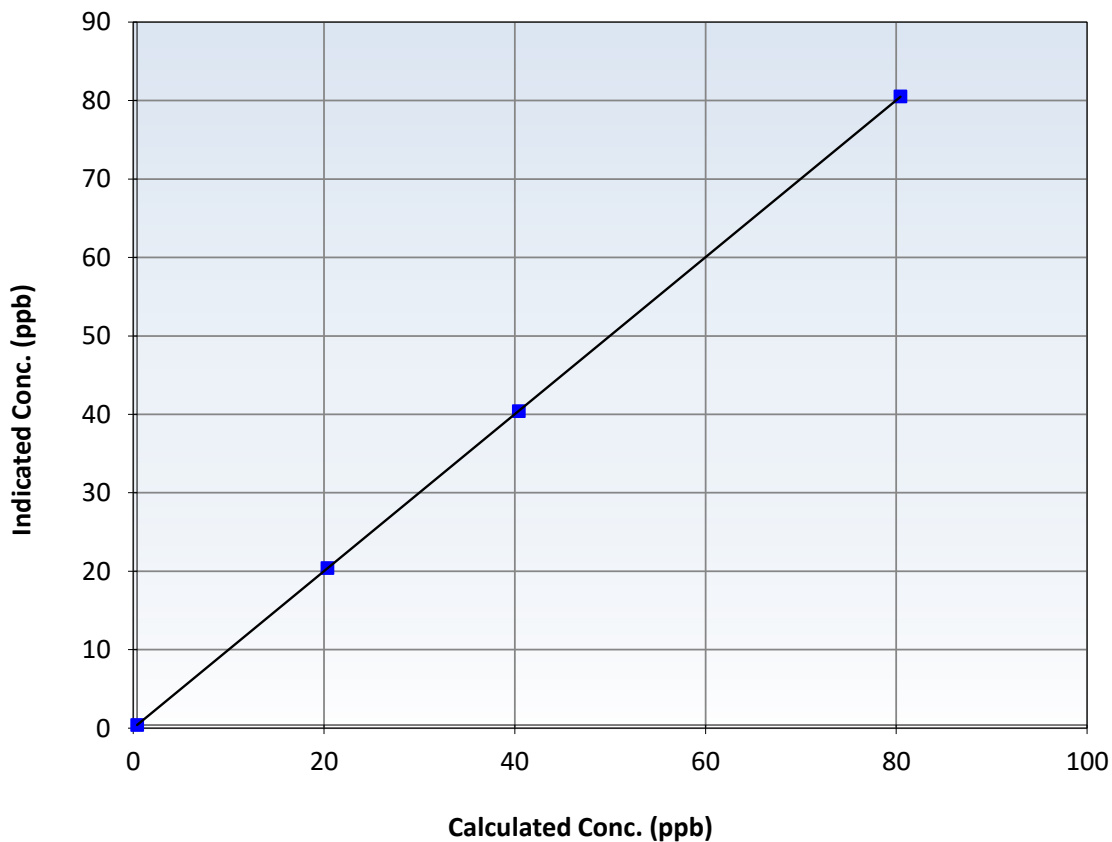
Station Information

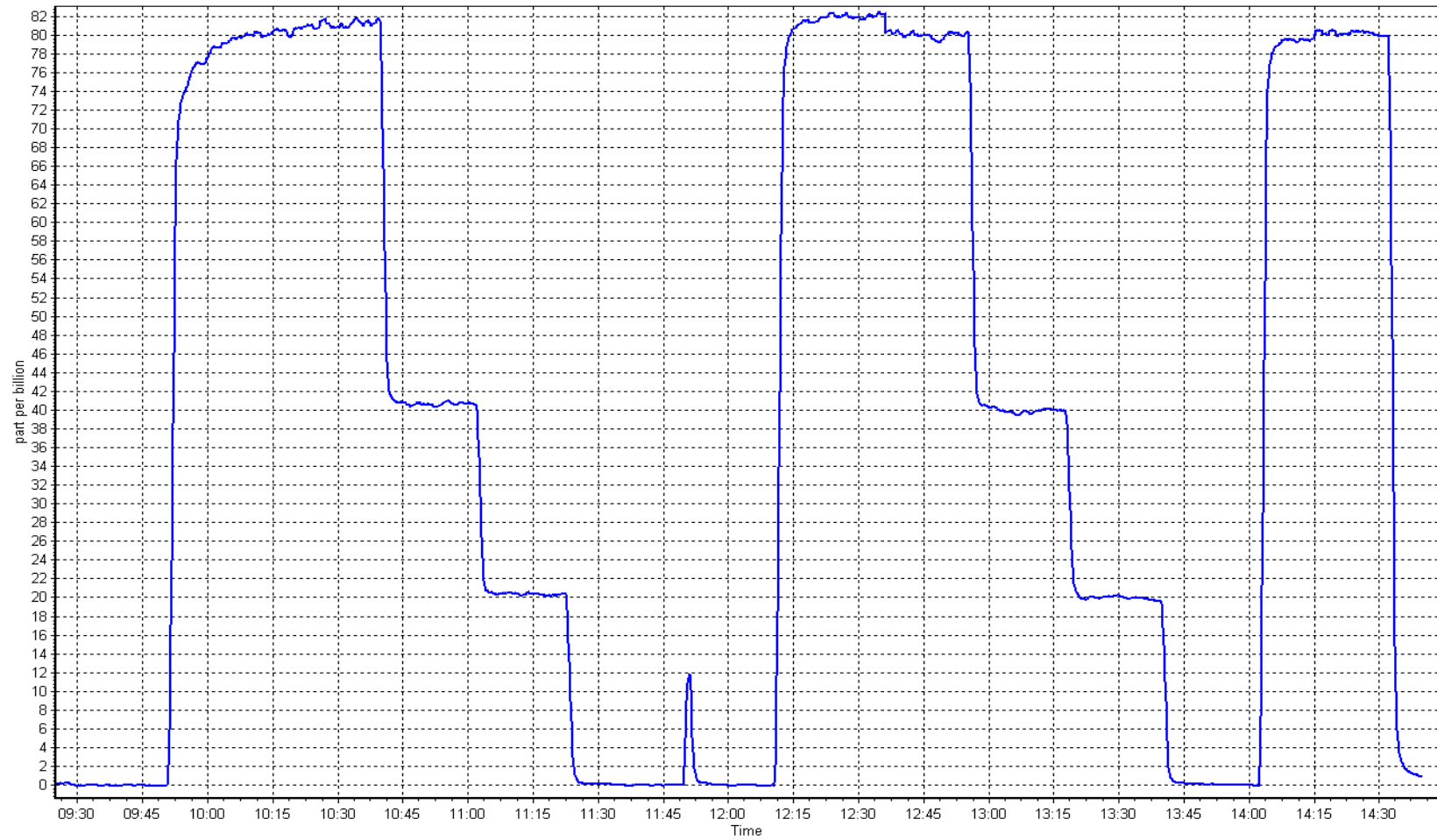
Calibration Date:	June 8, 2026	Previous Calibration:	May 5, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:27	End Time (MST):	14:40
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1203169744

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999999		≥ 0.995
80.0	80.1	0.9993	Slope	1.000548		$0.90 - 1.10$
40.0	40.0	1.0006	Intercept	-0.000569		± 3
20.0	20.0	0.9979				

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Barge Landing
 Calibration Date: June 12, 2026
 Start time (MST): 10:47
 Reason: Routine

Station number: AMS 09
 Last Cal Date: May 11, 2026
 End time (MST): 14:30

Calibration Standards

Gas Cert Reference: CC705748
 CH₄ Cal Gas Conc. 505.6 ppm
 C₃H₈ Cal Gas Conc. 204.8 ppm
 Removed Gas Cert: CC151285
 Removed CH₄ Conc. 505.6 ppm
 Removed C₃H₈ Conc. 204.8 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700P
 Zero Air Gen model: APIT701

Cal Gas Expiry Date: October 9, 2032
 CH₄ Equiv Conc. 1068.8 ppm
 Removed Gas Expiry: January 5, 2025
 CH₄ Equiv Conc. 1068.8 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 2464
 Serial Number: 5613

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1193585650
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.34E-04	2.34E-04	NMHC SP Ratio: 5.63E-05	5.63E-05
CH ₄ Retention time:	14.4	14.4	NMHC Peak Area: 158132	158132
Zero Chromatogram:	OFF	OFF	Flat Baseline: OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	16.91	16.82	1.005
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.82	Prev response	16.83	*% change	-0.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	16.91	16.91	1.000
Mid point	4961	39.5	8.44	8.38	1.007
Low point	4980	19.8	4.23	4.16	1.017
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	16.91	16.92	0.999
Average Correction Factor					1.008

Notes:

Changed sample inlet filter and hydrogen and nitrogen cylinders after as founds. No adjustments made.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	8.91	8.87	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.87	Prev response	8.90	*% change	-0.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	8.91	8.95	0.995
Mid point	4961	39.5	4.45	4.43	1.003
Low point	4980	19.8	2.23	2.21	1.010
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	8.91	8.96	0.994
Average Correction Factor					1.003

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	8.00	7.95	1.006
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.95	Prev response	7.94	*% change	0.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	8.00	7.96	1.005
Mid point	4961	39.5	3.99	3.94	1.013
Low point	4980	19.8	2.00	1.95	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	8.00	7.96	1.005
Average Correction Factor					1.015

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.998591	1.001167
THC Cal Offset:	-0.051170	-0.041973
CH ₄ Cal Slope:	0.995100	0.996000
CH ₄ Cal Offset:	-0.018989	-0.022386
NMHC Cal Slope:	1.002006	1.005293
NMHC Cal Offset:	-0.031779	-0.019589

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

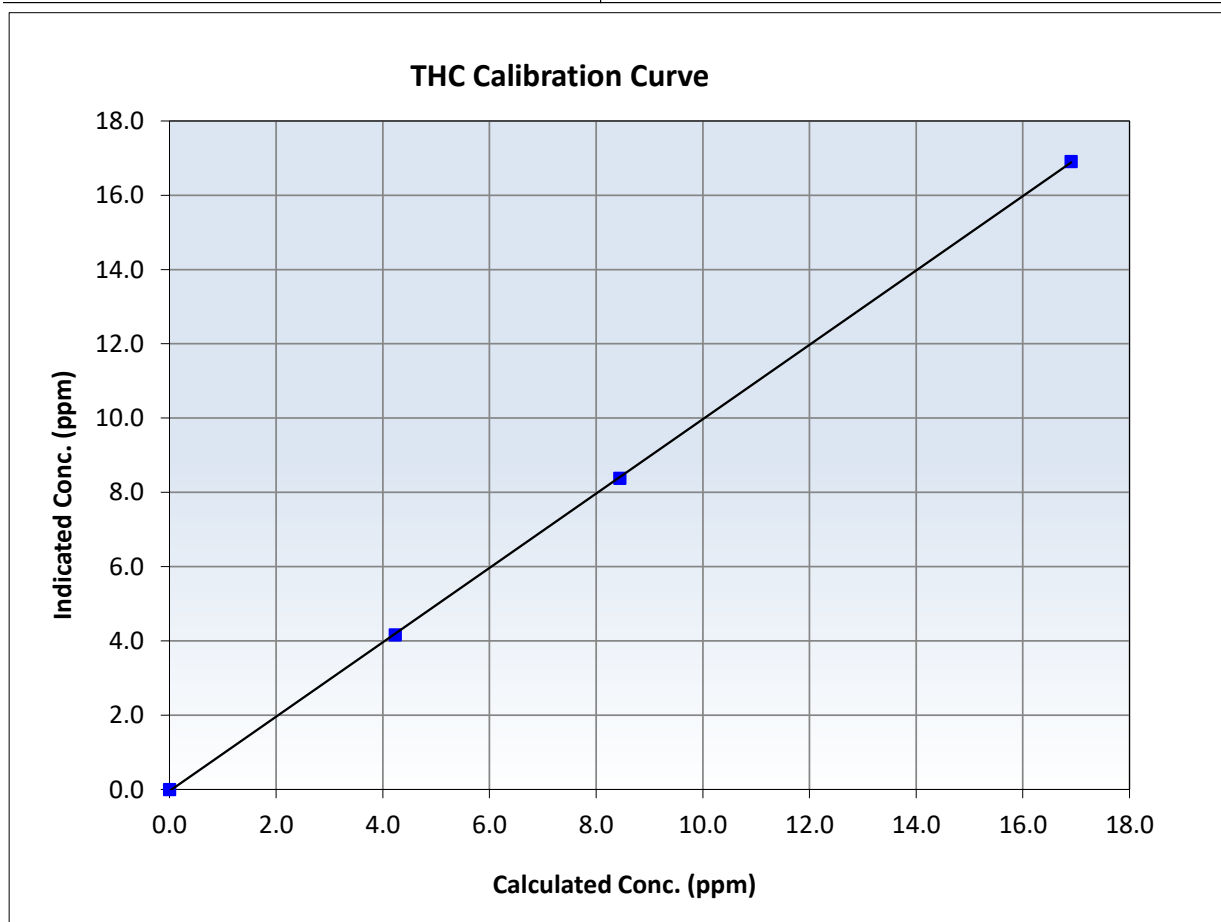
THC Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 11, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	10:47	End Time (MST):	14:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999971	≥ 0.995
16.91	16.91	0.9999	Slope	1.001167	$0.90 - 1.10$
8.44	8.38	1.0075	Intercept	-0.041973	± 0.5
4.23	4.16	1.0175			





Wood Buffalo Environmental Association

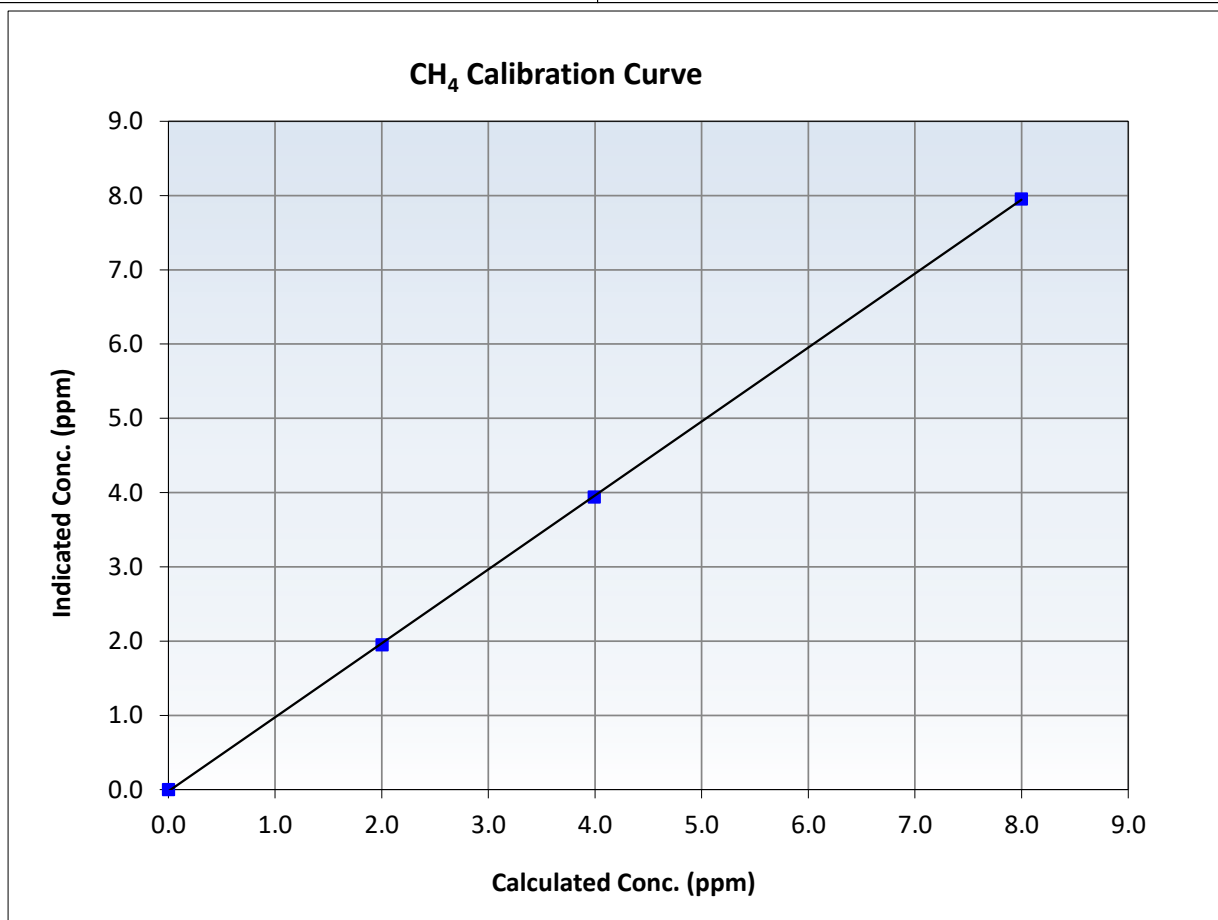
CH₄ Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 11, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	10:47	End Time (MST):	14:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999964	≥ 0.995
8.00	7.96	1.0053	Slope	0.996000	$0.90 - 1.10$
3.99	3.94	1.0132	Intercept	-0.022386	± 0.5
2.00	1.95	1.0263			





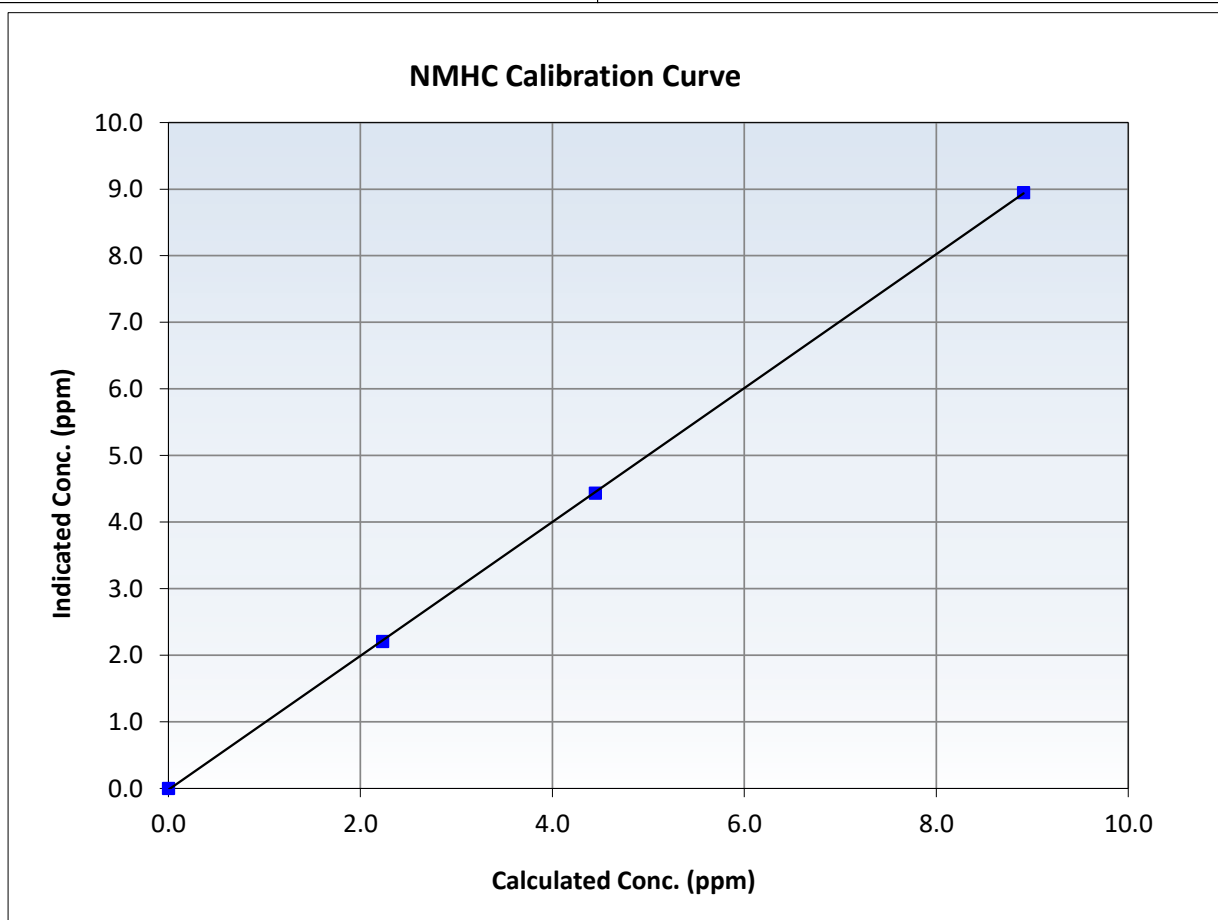
Wood Buffalo Environmental Association NMHC Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 11, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	10:47	End Time (MST):	14:30
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

Calibration Data

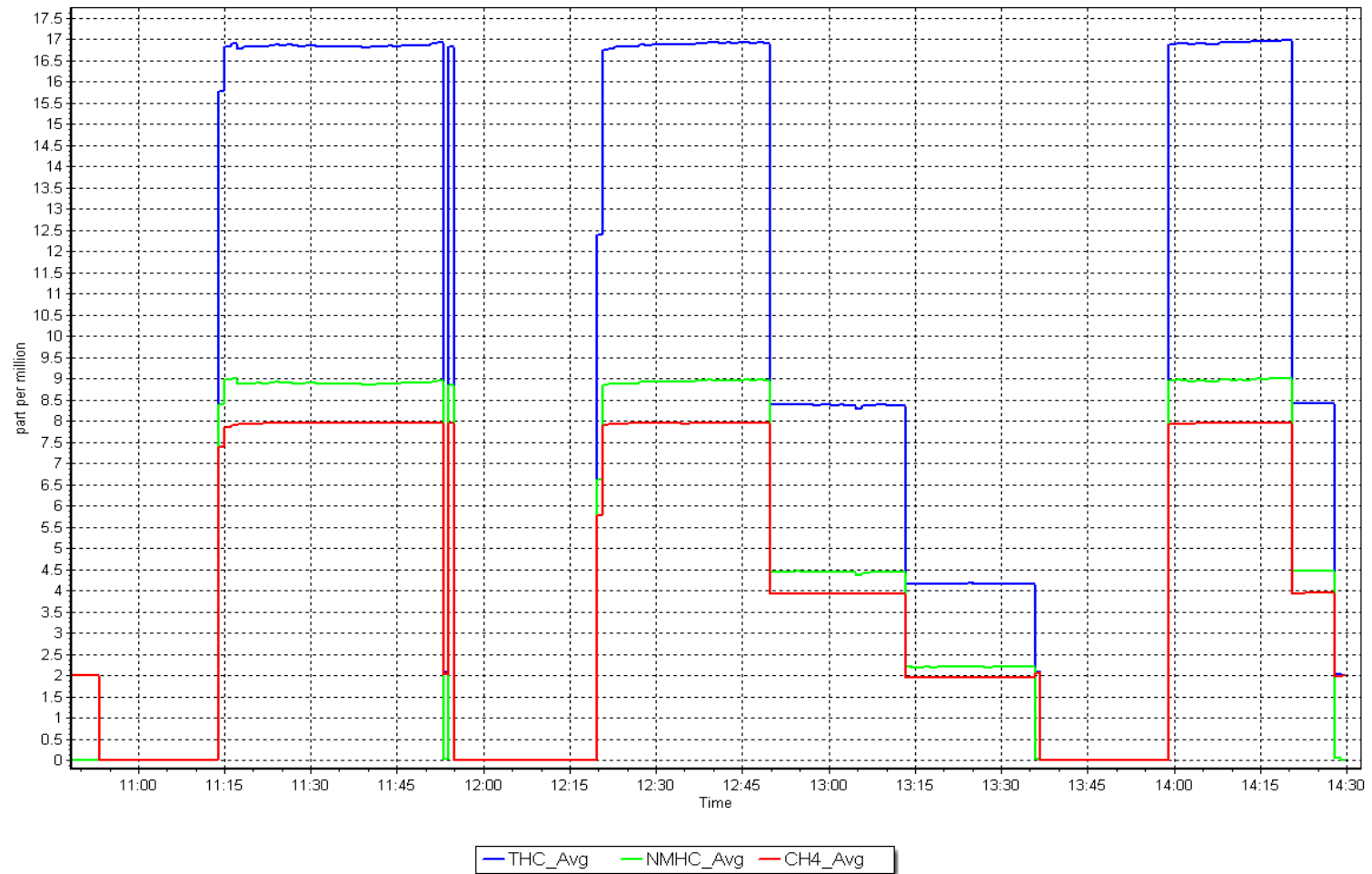
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999975	≥ 0.995
8.91	8.95	0.9955	Slope	1.005293	$0.90 - 1.10$
4.45	4.43	1.0033	Intercept	-0.019589	± 0.5
2.23	2.21	1.0097			



NMHC Calibration Plot

Date: June 12, 2026

Location: Barge Landing





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Barge Landing
Station number: AMS 09
Calibration Date: June 1, 2026
Last Cal Date: May 8, 2026
Start time (MST): 9:07
End time (MST): 14:17
Reason: Routine

Calibration Standards

NO Gas Cylinder #: T2Y1KDH
NOX Cal Gas Conc: 47.38 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 47.38 ppm
NOX gas Diff:
Calibrator Model: Teledyne API 700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: November 17, 2026
NO Cal Gas Conc: 46.94 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 46.94 ppm
NO gas Diff:
Serial Number: 2464
Serial Number: 5613

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
AF High point	4915	85.3	808.3	800.8	7.5	829.0	821.0	8.2	0.9748	0.9755
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 801.0 ppb	NO = 794.9 ppb				* = > +/-5% change initiates investigation			*Percent Change	NO _x = 3.4%
Baseline Corr 1st pt	NO _x = 829.2 ppb	NO = 820.9 ppb				<u>As Found Statistics</u>			*Percent Change	NO = 3.2%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found NO _x r ² :			Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found NO r ² :			NO SI:	NO Int:
						As found NO ₂ r ² :			NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1426262593

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.990986	0.998267
NO _x Cal Offset:	0.026247	0.427861
NO Cal Slope:	0.994198	0.998920
NO Cal Offset:	-1.295527	-0.474289
NO ₂ Cal Slope:	0.995529	1.004919
NO ₂ Cal Offset:	-0.682176	0.177382

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.141	1.114	NO bkgnd or offset:	10.5	10.2
NOX coeff or slope:	0.999	1.001	NOX bkgnd or offset:	10.8	10.5
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	176.5	182.5

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOX Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	0.4	-0.2	----	----
High point	4915	85.3	808.3	800.8	7.5	807.0	799.7	6.9	1.0016	1.0014
Mid point	4957	42.6	403.7	400.0	3.7	404.2	399.2	5.1	0.9988	1.0019
Low point	4979	21.3	201.8	200.0	1.9	201.7	198.0	3.7	1.0006	1.0099
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	----	----
As left span	4915	85.3	808.3	404.9	403.4	805.0	404.9	400.3	1.0041	1.0000
Average Correction Factor									1.0003	1.0044

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	797.5	416.8	388.2	389.9	0.9957	100.4%
Mid GPT point	797.5	596.9	208.1	210.0	0.9910	100.9%
Low GPT point	797.5	695.6	109.4	110.2	0.9928	100.7%
Average Correction Factor					0.9931	100.7%

Notes:

Changed the sample inlet filter after as founds. Adjusted span.

Calibration Performed By:

Braiden Boutilier



Wood Buffalo Environmental Association

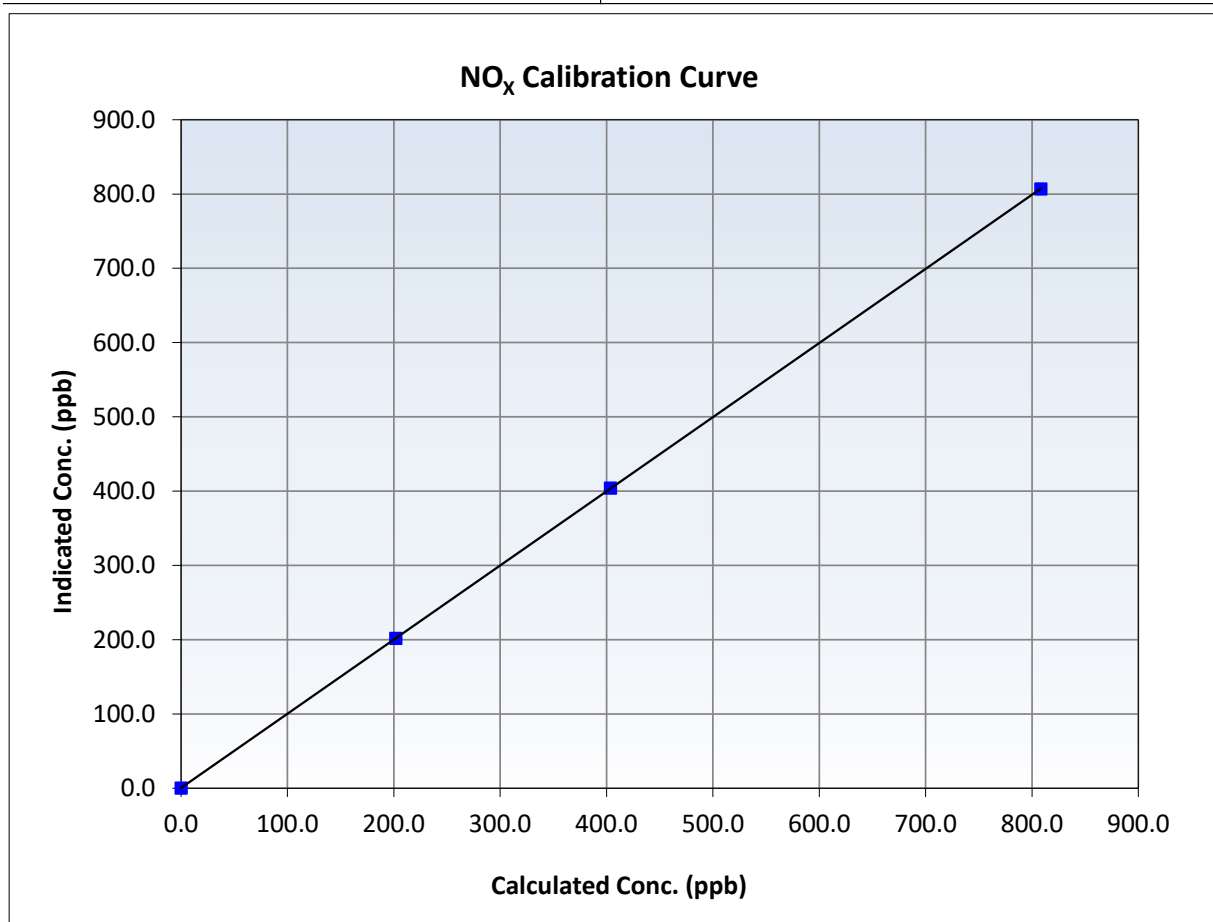
NO_x Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 8, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:07	End Time (MST):	14:17
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999998	≥0.995
808.3	807.0	1.0016	Slope	0.998267	0.90 - 1.10
403.7	404.2	0.9988	Intercept	0.427861	+/-20
201.8	201.7	1.0006			





Wood Buffalo Environmental Association

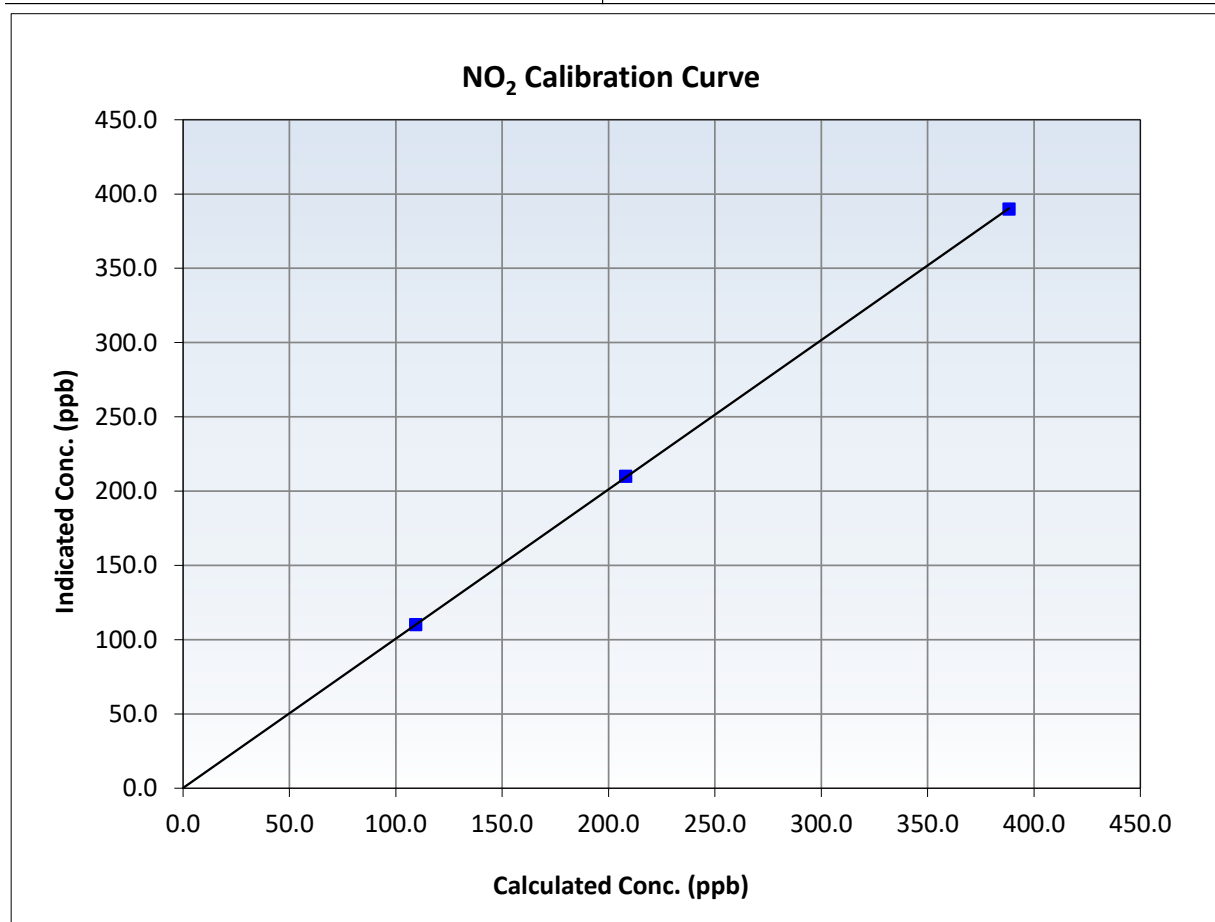
NO₂ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 8, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:07	End Time (MST):	14:17
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999990	≥0.995
388.2	389.9	0.9957	Slope	1.004919	0.90 - 1.10
208.1	210.0	0.9910	Intercept	0.177382	+/-20
109.4	110.2	0.9928			





Wood Buffalo Environmental Association

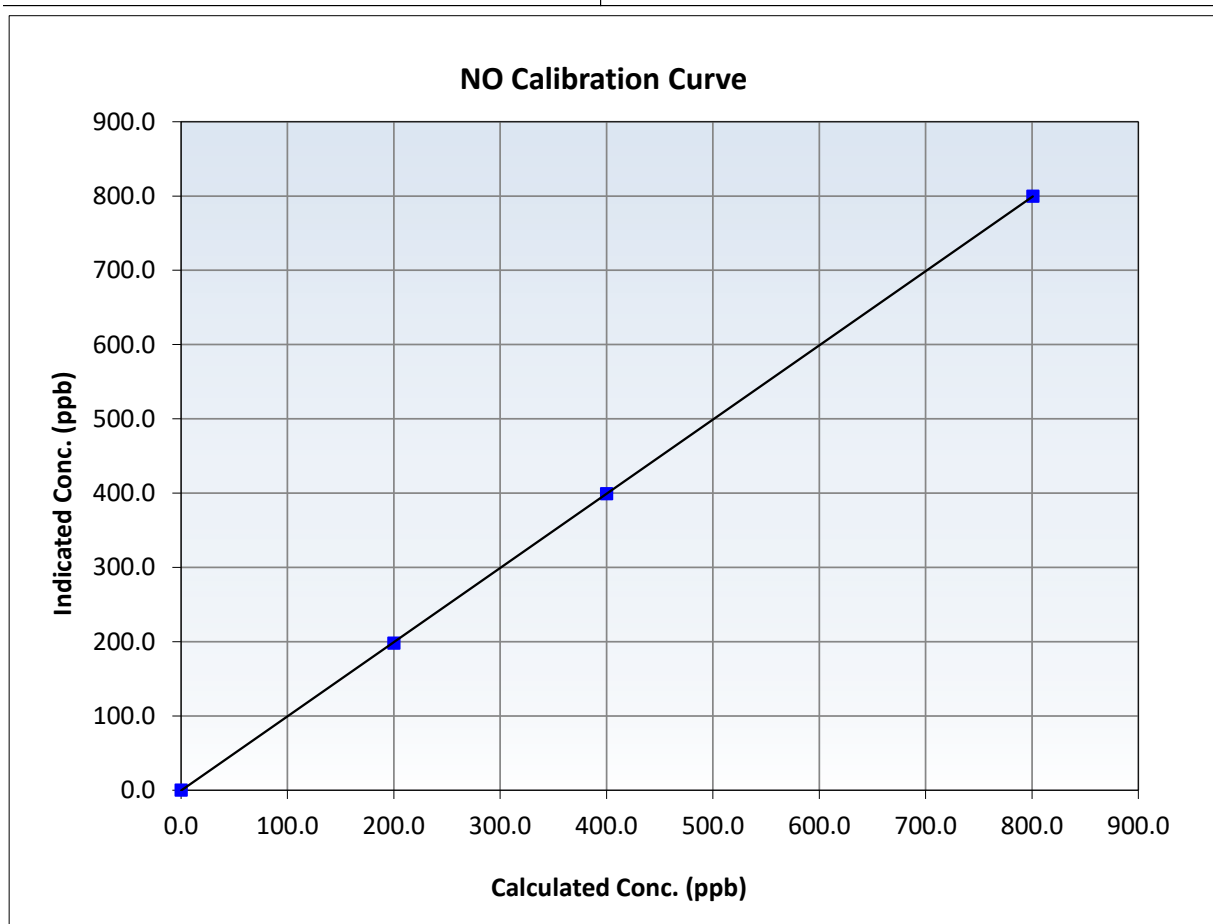
NO Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 8, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:07	End Time (MST):	14:17
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

Calibration Data

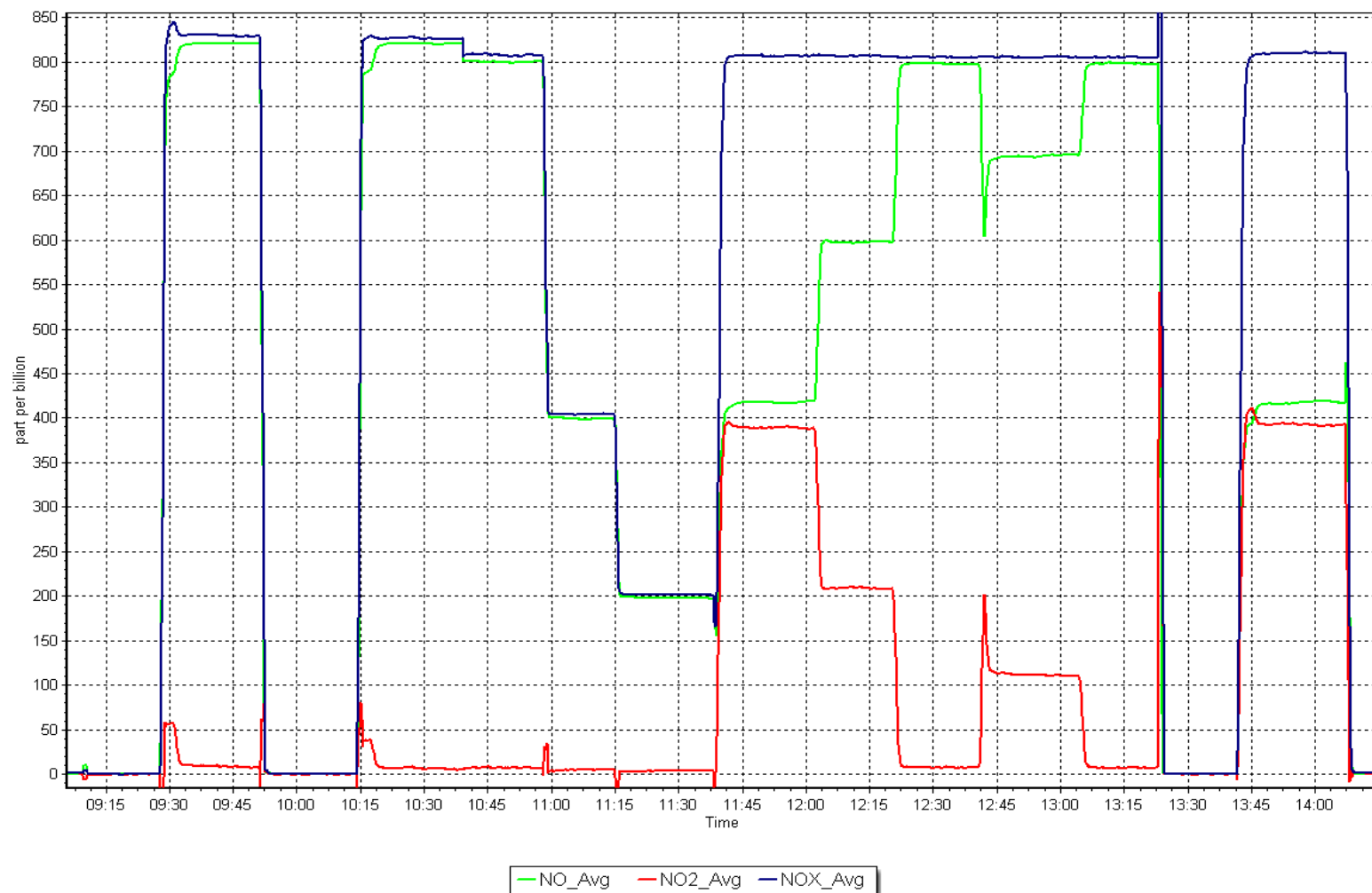
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999993	≥ 0.995
800.8	799.7	1.0014	Slope	0.998920	0.90 - 1.10
400.0	399.2	1.0019	Intercept	-0.474289	+/-20
200.0	198.0	1.0099			



NO_x Calibration Plot

Date: June 1, 2026

Location: Barge Landing





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Barge Landing Station number: AMS 09
Calibration Date: June 1, 2026 Last Cal Date: May 11, 2026
Start time (MST): 9:36 End time (MST): 11:27

Analyzer Make: API T640 S/N: 2237
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388750
Temp/RH standard: Alicat FP-25 S/N: 388750

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	11.3	12.11	11.3	☐	+/- 2 °C
P (mmHg)	743.9	743.21	743.9	☐	+/- 10 mmHg
Flow (LPM)	4.99	5.032	4.99	☐	+/- 0.25 LPM
PW% (pump)	33	----	33	☐	>80%
Zero Verification	PM w/o HEPA: 1.6		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: May 11, 2026
Date Disposable Filter Changed: May 11, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: March 5, 2026
Date RH/T Sensor Cleaned: July 22, 2025

Notes: Verified flow, pressure, temperature and pump power.

Calibration by: Braiden Boutilier



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS11 LOWER CAMP JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Lower Camp Station number: AMS 11
Calibration Date: June 12, 2026 Last Cal Date: May 22, 2026
Start time (MST): 9:17 End time (MST): 12:44
Reason: Routine

Calibration Standards

Cal Gas Concentration: 48.75 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC741503
Removed Cal Gas Conc: 48.75 ppm Rem Gas Exp Date:
Removed Gas Cyl #: CC741503 Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3811
Zero Air Gen Model: Teledyne API T701 Serial Number: 4428

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 100841398
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003271	0.999730	Backgd or Offset:	20.1	19.7
Calibration intercept:	0.046714	0.886823	Coeff or Slope:	1.040	1.027

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4918	82.1	800.5	812.2	0.985
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	812.5	Previous response	803.1	*% change	1.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.4	----
High point	4918	82.1	800.5	801.1	0.999
Mid point	4959	41.1	400.7	401.1	0.999
Low point	4980	20.5	199.9	201.6	0.991
As left zero	5000	0.0	0.0	0.2	----
As left span	4918	82.1	800.5	803.3	0.996
Average Correction Factor:					0.997

Notes: Inlet filter changed after as founds, Adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

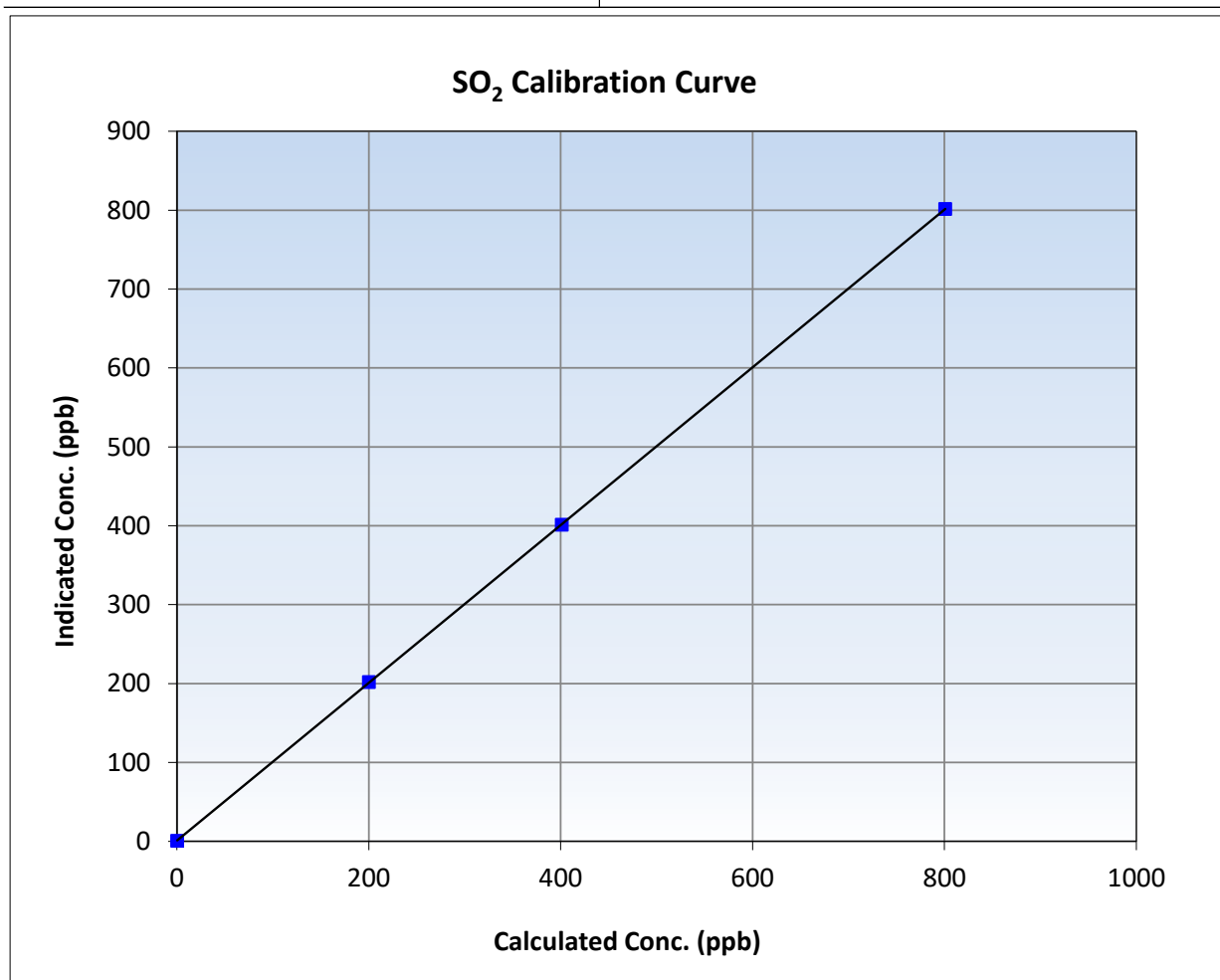
SO₂ Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 22, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:17	End Time (MST):	12:44
Analyzer make:	Thermo 43i	Analyzer serial #:	100841398

Calibration Data

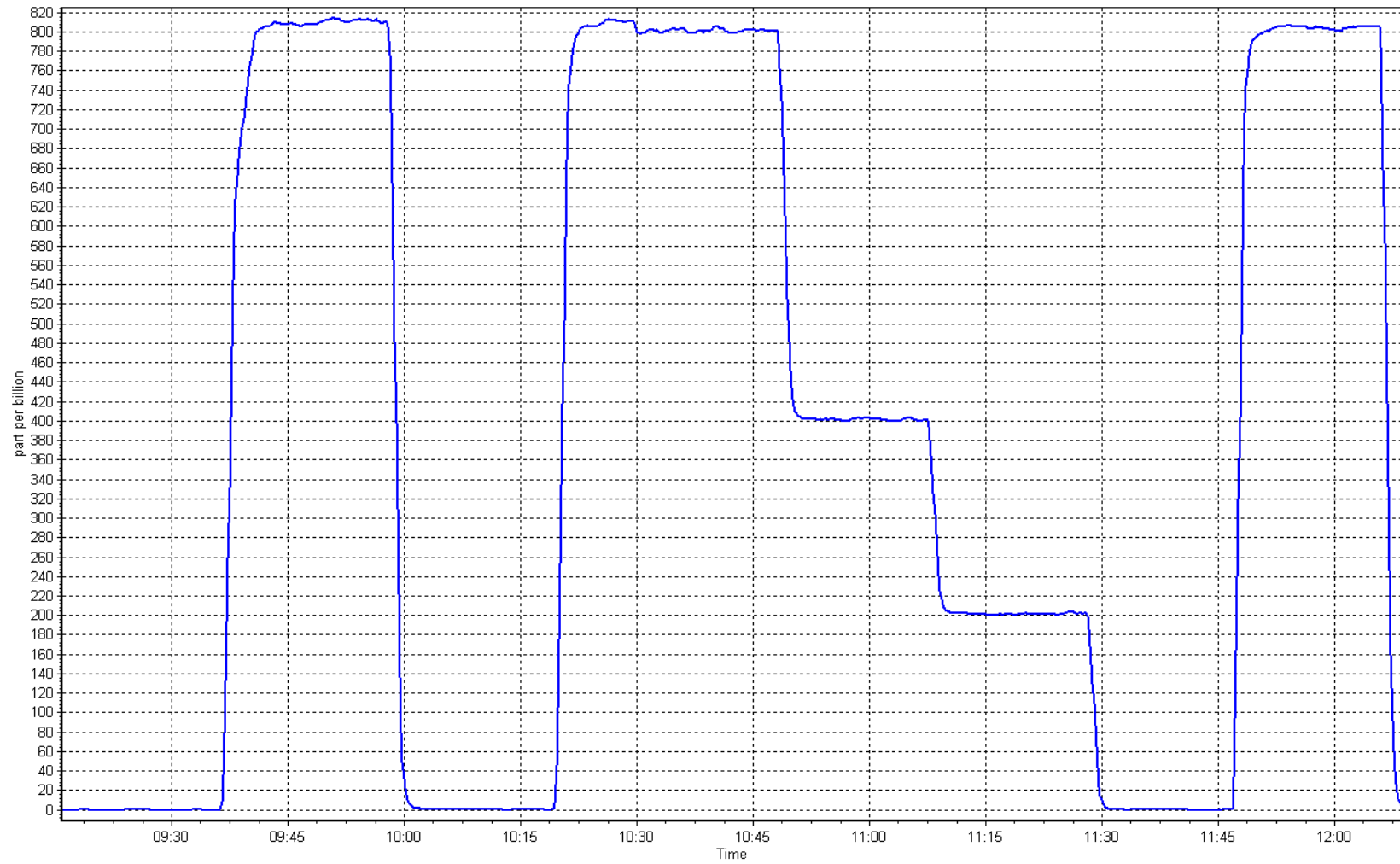
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999996	≥0.995
800.5	801.1	0.9992	Slope	0.999730	0.90 - 1.10
400.7	401.1	0.9990	Intercept	0.886823	+/-30
199.9	201.6	0.9913			



SO2 Calibration Plot

Date: May 22, 2026

Location: Lower Camp





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Lower Camp Station number: AMS 11
Calibration Date: June 10, 2026 Last Cal Date: May 4, 2026
Start time (MST): 10:08 End time (MST): 13:50
Reason: Routine

Calibration Standards

Cal Gas Concentration: 4.83 ppm Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: CC737863
Removed Cal Gas Conc: 4.83 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: API T700 Serial Number: 3811
ZAG Make/Model: API T701H Serial Number: 4428

Analyzer Information

Analyzer make: Thermo 43iQ-TL Analyzer serial #: 1203169745
Converter make: Global G150 Converter serial #: 2022-223
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.007160	1.003445	Backgd or Offset:	2.5
Calibration intercept:	0.180807	0.260807	Coeff or Slope:	0.802

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4917	82.8	80.0	80.8	0.989
As found Mid point	4959	41.4	40.0	41.0	0.973
As found Low point	4979	20.7	20.0	20.6	0.966
New cylinder response					
Baseline Corr As found:	80.9	Prev response:	80.74	*% change:	0.2%
Baseline Corr 2nd AF pt:	41.1	AF Slope:	1.010303	AF Intercept:	0.220825
Baseline Corr 3rd AF pt:	20.7	AF Correlation:	0.999907	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4917	82.8	80.0	80.4	0.995
Mid point	4959	41.4	40.0	40.5	0.987
Low point	4979	20.7	20.0	20.6	0.971
As left zero	5000	0.0	0.0	0.1	----
As left span	4923	82.8	79.9	80.7	0.990
SO2 Scrubber Check	4932	82.2	819.7	0.0	----
Date of last scrubber change:				Ave Corr Factor	0.984
Date of last converter efficiency test:					

Notes: Inlet filter changed after as founds, scrubber check passed, No adjustment.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

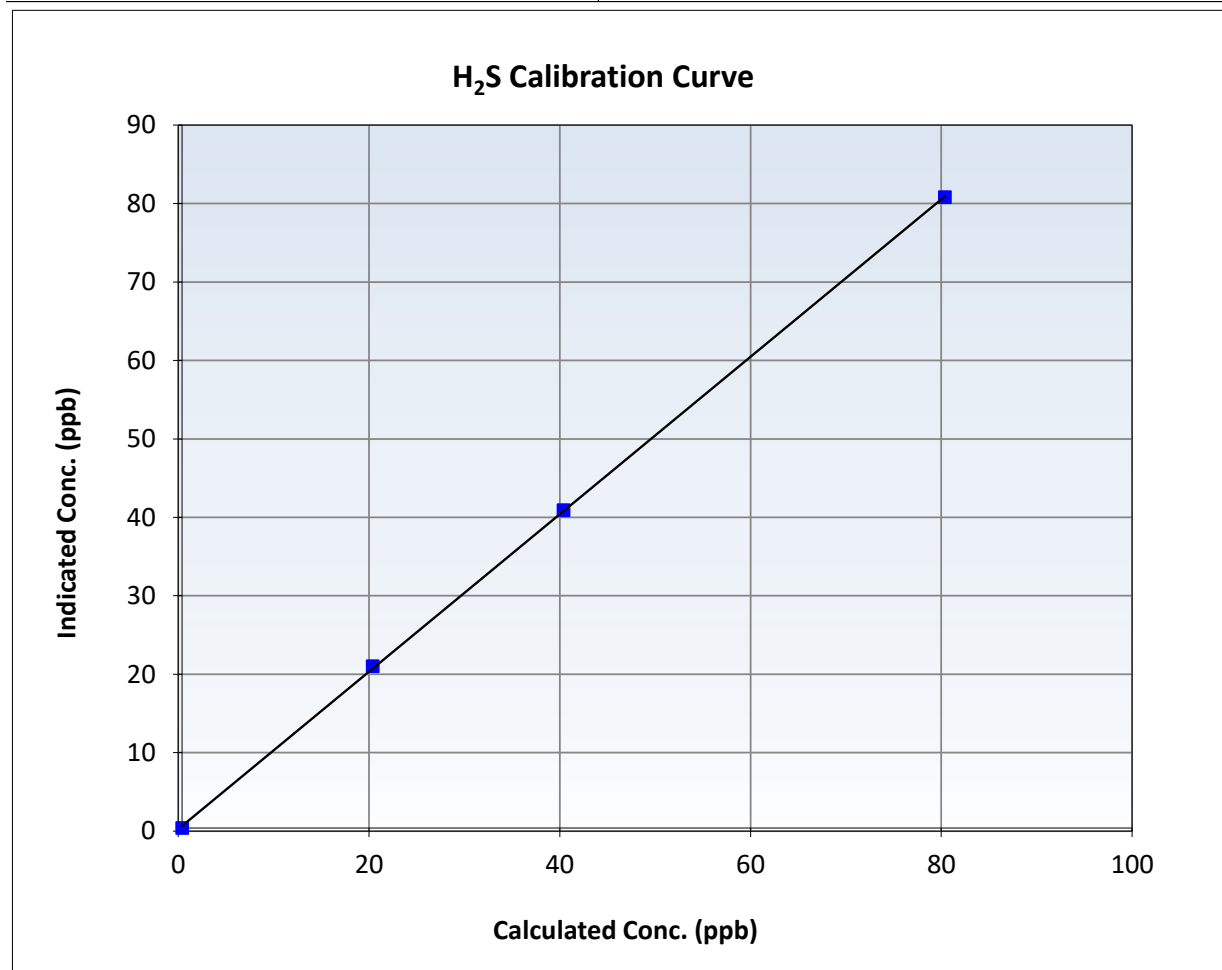
H₂S Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 4, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	10:08	End Time (MST):	13:50
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1203169745

Calibration Data

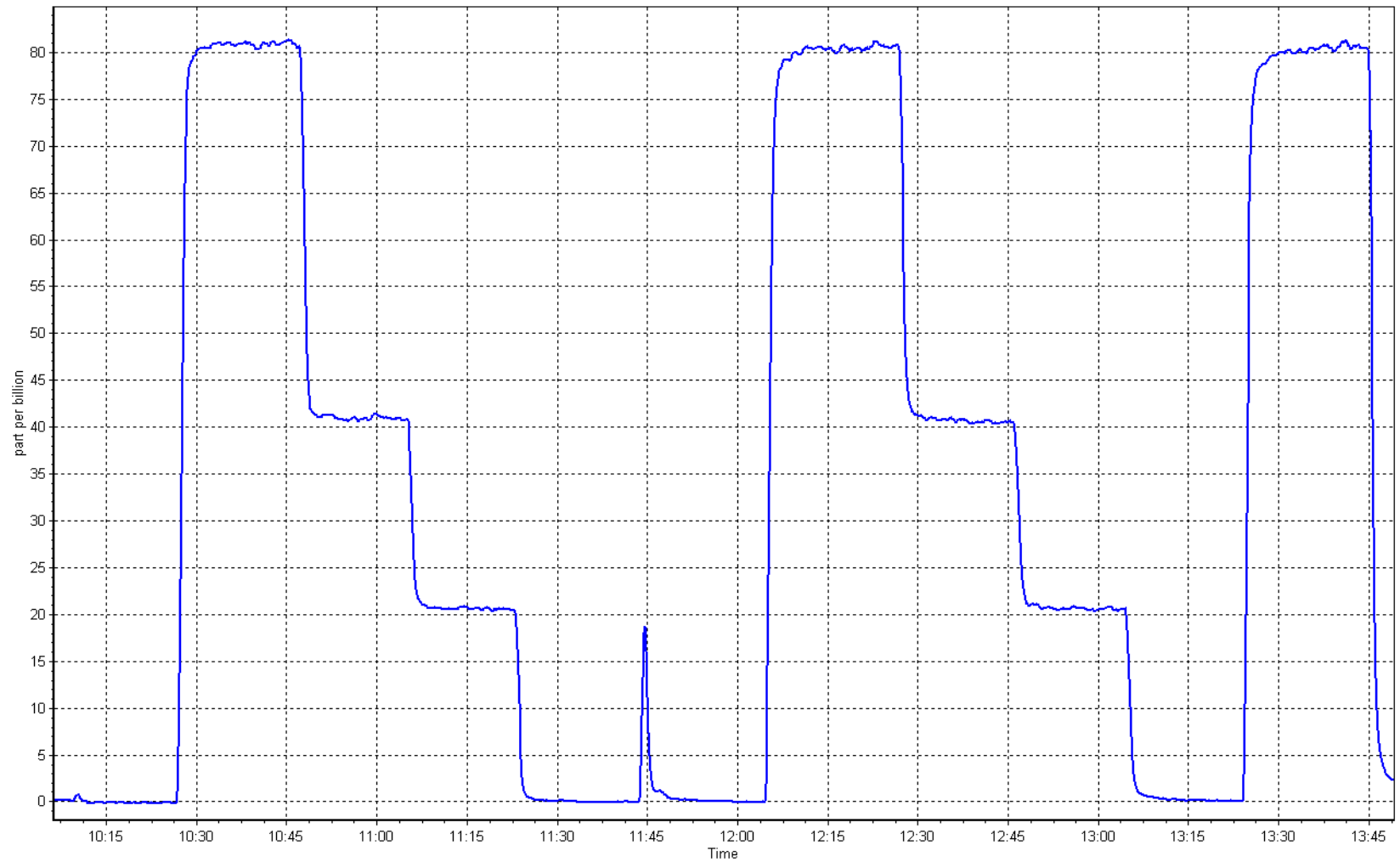
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999952		≥0.995
80.0	80.4	0.9949	Slope	1.003445		0.90 - 1.10
40.0	40.5	0.9874	Intercept	0.260807		+/-3
20.0	20.6	0.9707				



H₂S Calibration Plot

Date: June 10, 2026

Location: Lower Camp





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Lower Camp
 Calibration Date: June 12, 2026
 Start time (MST): 9:17
 Reason: Routine

Station number: AMS 11
 Last Cal Date: May 22, 2026
 End time (MST): 12:44

Calibration Standards

Gas Cert Reference:	CC741503	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	504.8 ppm	CH ₄ Equiv Conc.	1071.9 ppm
C ₃ H ₈ Cal Gas Conc.	206.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	504.8 ppm	CH ₄ Equiv Conc.	1071.9 ppm
Removed C ₃ H ₈ Conc.	206.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3811
Zero Air Gen model:	Teledyne API T701	Serial Number:	4428

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1152430012
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.31E-04	2.30E-04	NMHC SP Ratio:	5.35E-05	5.31E-05
CH ₄ Retention time:	13.2	13.2	NMHC Peak Area:	174083	175323
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.60	17.77	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.77	Prev response	17.69	*% change	0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.60	17.60	1.000
Mid point	4959	41.1	8.81	8.82	0.999
Low point	4980	20.5	4.39	4.45	0.988
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	17.60	17.47	1.007
Average Correction Factor					0.996

Notes:

Inlet filter changed after as founds, Adjusted span only.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	82.1	9.31	9.40	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.40	Prev response	9.40	*% change	0.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.31	9.33	0.998
Mid point	4959	41.1	4.66	4.68	0.996
Low point	4980	20.5	2.32	2.37	0.981
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	9.31	9.24	1.008
Average Correction Factor					0.992

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	82.1	8.29	8.37	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.37	Prev response	8.29	*% change	0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.29	8.27	1.003
Mid point	4959	41.1	4.15	4.14	1.002
Low point	4980	20.5	2.07	2.08	0.996
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	8.29	8.23	1.007
Average Correction Factor					1.001

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.004303	0.998967
THC Cal Offset:	0.012360	0.022951
CH ₄ Cal Slope:	1.000206	0.996624
CH ₄ Cal Offset:	-0.000123	0.005869
NMHC Cal Slope:	1.008625	1.001053
NMHC Cal Offset:	0.011483	0.017082

Calibration Performed By:

Sean Bala



Wood Buffalo Environmental Association

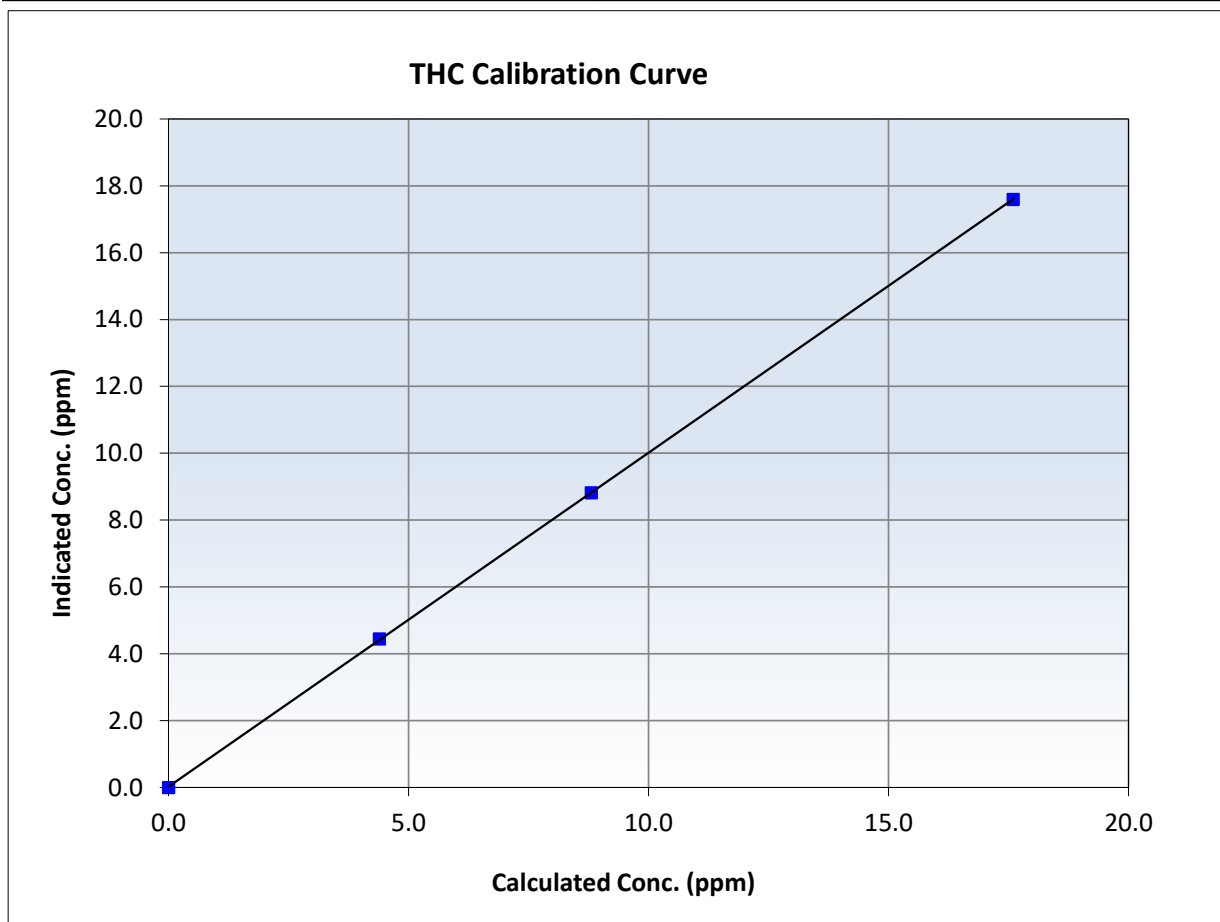
THC Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 22, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:17	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999990	<i>≥0.995</i>
17.60	17.60	1.0001	Slope	0.998967	<i>0.90 - 1.10</i>
8.81	8.82	0.9989	Intercept	0.022951	<i>+/-0.5</i>
4.39	4.45	0.9883			





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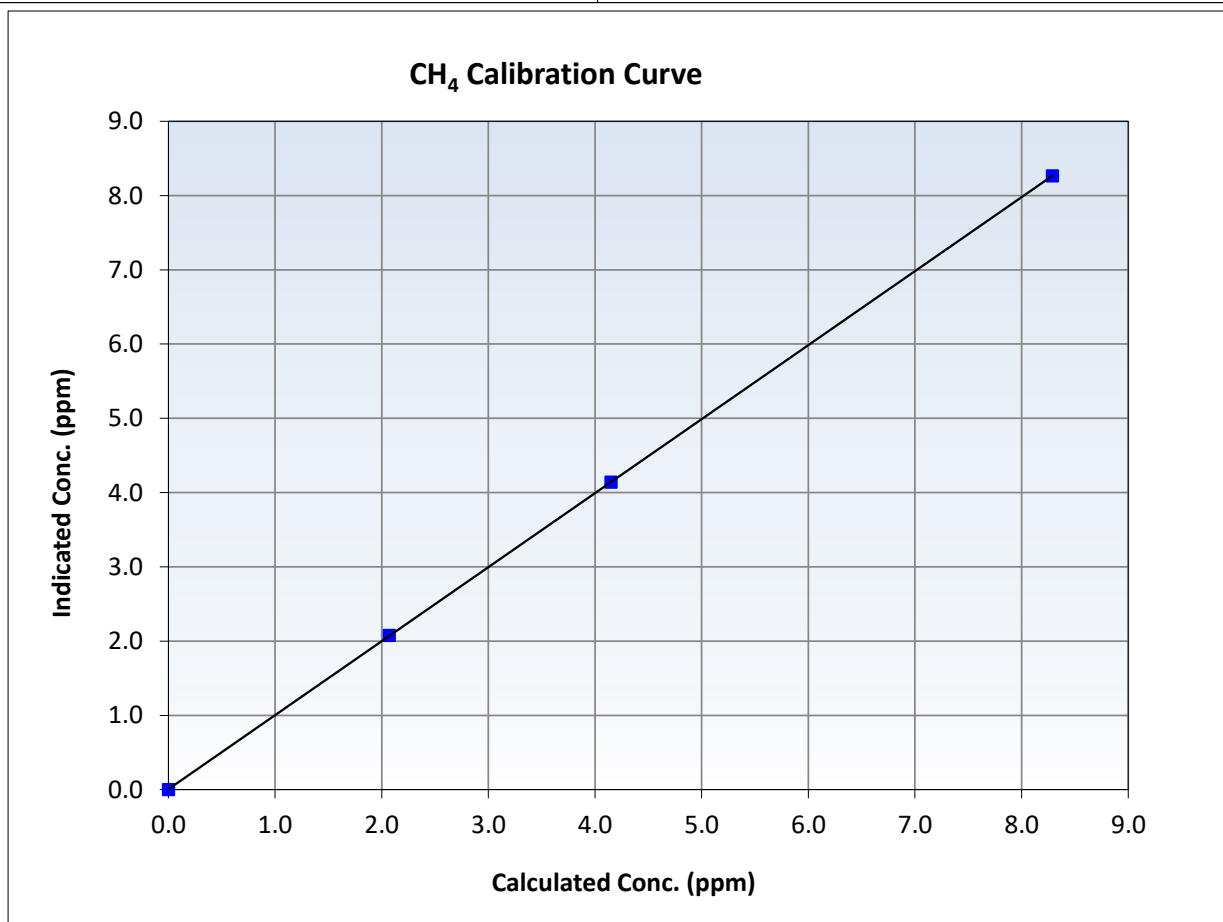
CH₄ Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 22, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:17	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
8.29	8.27	1.0029	Slope	0.996624	<i>0.90 - 1.10</i>
4.15	4.14	1.0023	Intercept	0.005869	<i>+/-0.5</i>
2.07	2.08	0.9964			





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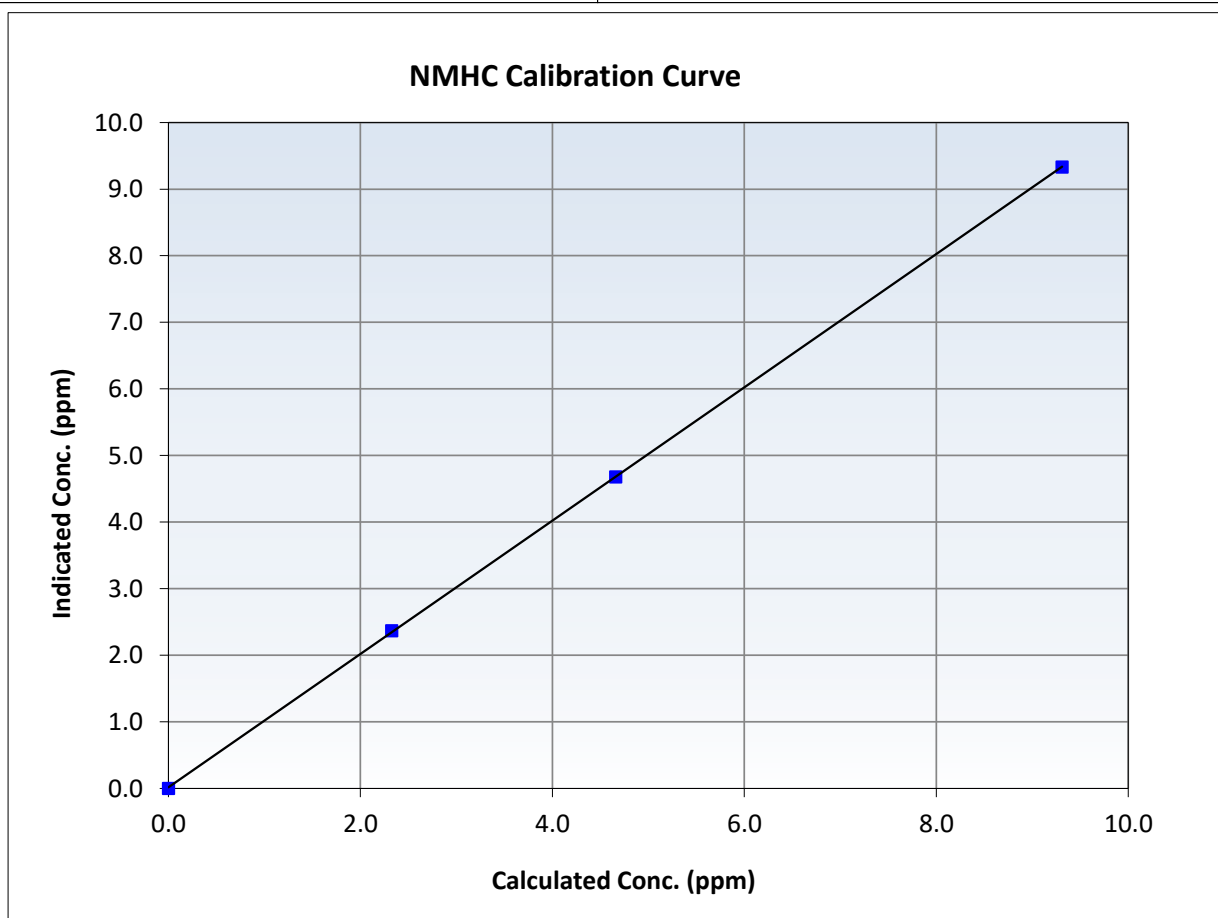
NMHC Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	May 22, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:17	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

Calibration Data

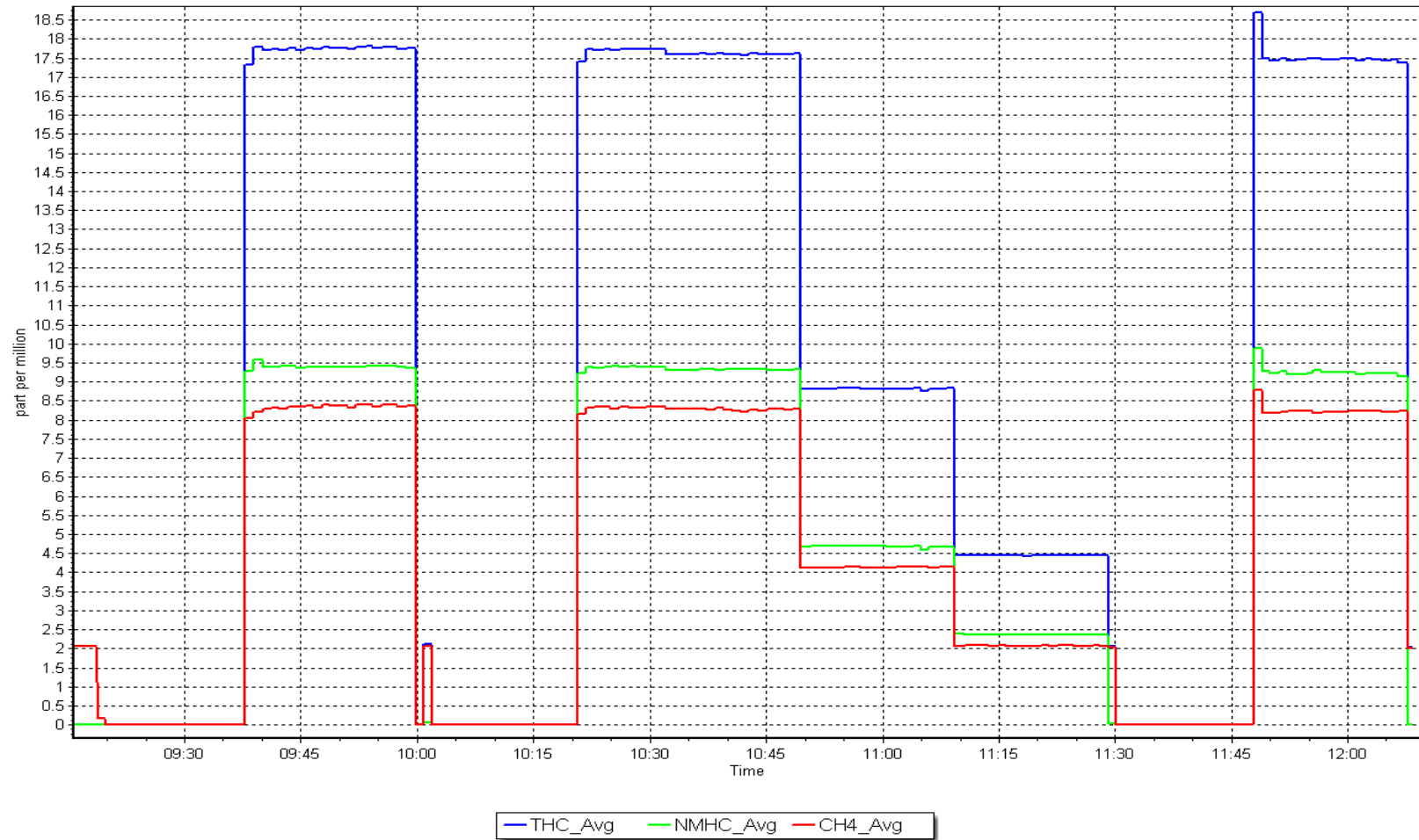
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999980	≥ 0.995
9.31	9.33	0.9976	Slope	1.001053	$0.90 - 1.10$
4.66	4.68	0.9960	Intercept	0.017082	± 0.5
2.32	2.37	0.9813			



NMHC Calibration Plot

Date: June 12, 2026

Location: Lower Camp





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Lower Camp
Calibration Date: June 26, 2026
Start time (MST): 9:23
Reason: Cylinder Change

Station number: AMS 11
Last Cal Date: June 12, 2026
End time (MST): 11:25

Calibration Standards

Gas Cert Reference:	CC741503	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	504.8 ppm	CH ₄ Equiv Conc.	1071.9 ppm
C ₃ H ₈ Cal Gas Conc.	206.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	504.8 ppm	CH ₄ Equiv Conc.	1071.9 ppm
Removed C ₃ H ₈ Conc.	206.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3811
Zero Air Gen model:	Teledyne API T701	Serial Number:	4428

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1152430012
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.30E-04	2.30E-04	NMHC SP Ratio:	5.31E-05	5.31E-05
CH ₄ Retention time:	13.2	13.2	NMHC Peak Area:	175323	175323
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.60	17.77	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.77	Prev response	17.60	*% change	0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.60	17.67	0.996
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor 0.996

Notes:

N2 and H2 cylinder change.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	82.1	9.31	9.40	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.40	Prev response	9.34	*% change	0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.31	9.35	0.996
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor 0.996

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	82.1	8.29	8.37	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.37	Prev response	8.27	*% change	1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.29	8.32	0.996
Mid point					
Low point					
As left zero	5000	0.0	0.00		----
As left span	4918	82.1	8.29		

Average Correction Factor 0.996

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.998967	1.003726
THC Cal Offset:	0.022951	0.000000
CH ₄ Cal Slope:	0.996624	1.003662
CH ₄ Cal Offset:	0.005869	0.000000
NMHC Cal Slope:	1.001053	1.003998
NMHC Cal Offset:	0.017082	0.000000

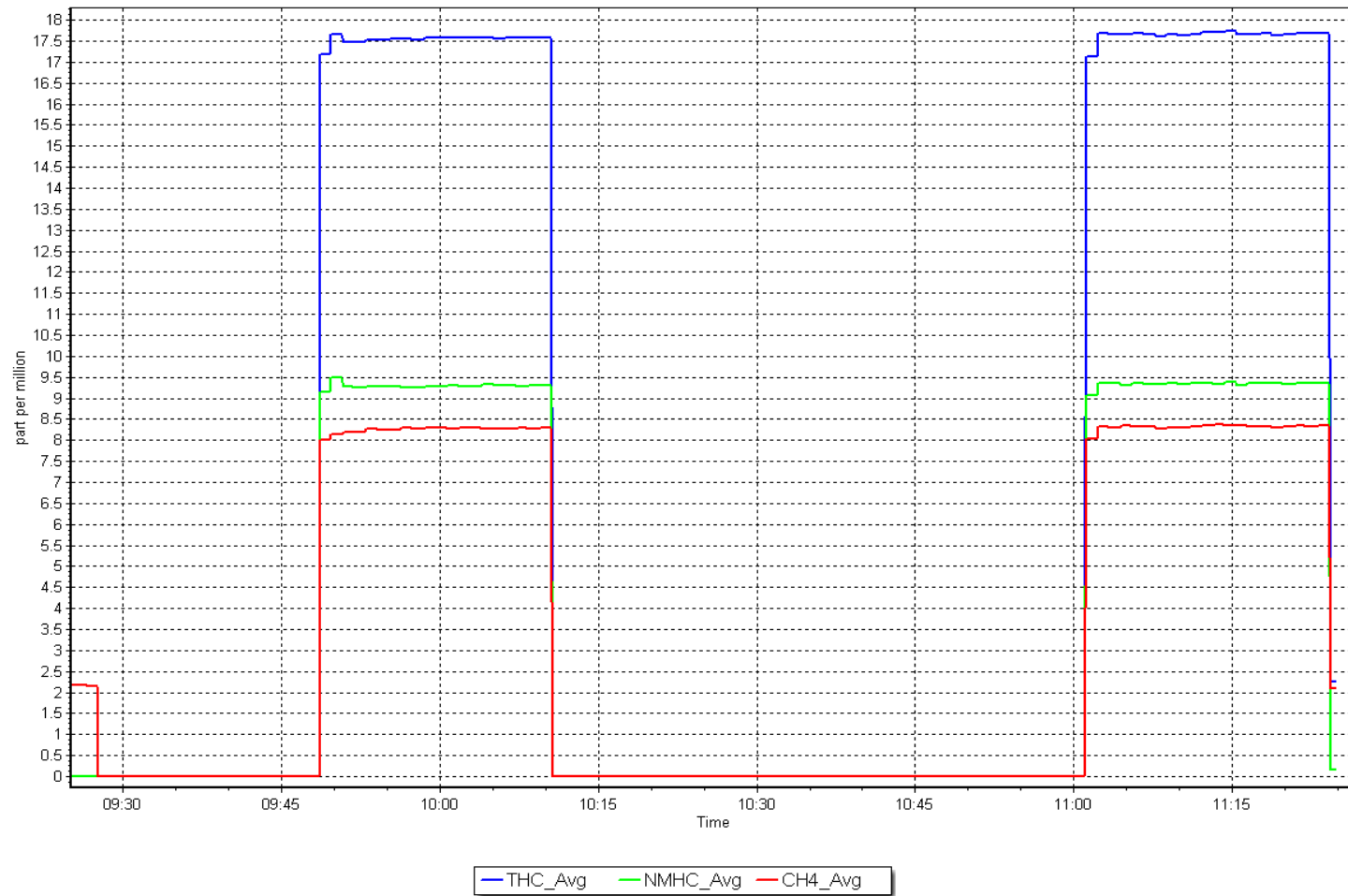
Calibration Performed By:

Sean Bala

NMHC Calibration Plot

Date: June 26, 2026

Location: Lower Camp





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS13 FORT MCKAY SOUTH JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Fort McKay South Station number: AMS 13
Calibration Date: June 3, 2026 Last Cal Date: May 19, 2026
Start time (MST): 10:32 End time (MST): 14:55
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.55 ppm Cal Gas Exp Date: December 29, 2028
Cal Gas Cylinder #: CC260812
Removed Cal Gas Conc: 50.55 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 2657
Zero Air Gen Model: Teledyne API T701 Serial Number: 1118

Analyzer Information

Analyzer make: Thermo 43i-TLE Serial Number: 1331259320
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004258	0.999040	Backgd or Offset:	3.06	2.99
Calibration intercept:	0.041614	0.041881	Coeff or Slope:	0.982	0.956

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4921	79.1	799.7	821.8	0.973
As found Mid point	4961	39.5	399.3	411.3	0.970
As found Low point	4980	19.8	200.2	205.6	0.972
New cylinder response					
Baseline Corr As found:	822.2	Previous response	803.1	*% change	2.3%
Baseline Corr 2nd AF pt:	411.7	AF Slope:	1.028242	AF Intercept:	-0.097895
Baseline Corr 3rd AF pt:	206.0	AF Correlation:	0.999998	* = +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4921	79.1	799.7	798.7	1.001
Mid point	4961	39.5	399.3	399.5	1.000
Low point	4980	19.8	200.2	200.0	1.001
As left zero	5000	0.0	0.0	-0.2	----
As left span	4921	79.1	799.7	798.5	1.001
Average Correction Factor:					1.001

Notes: Changed inlet filter after as founds. Adjusted span only.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

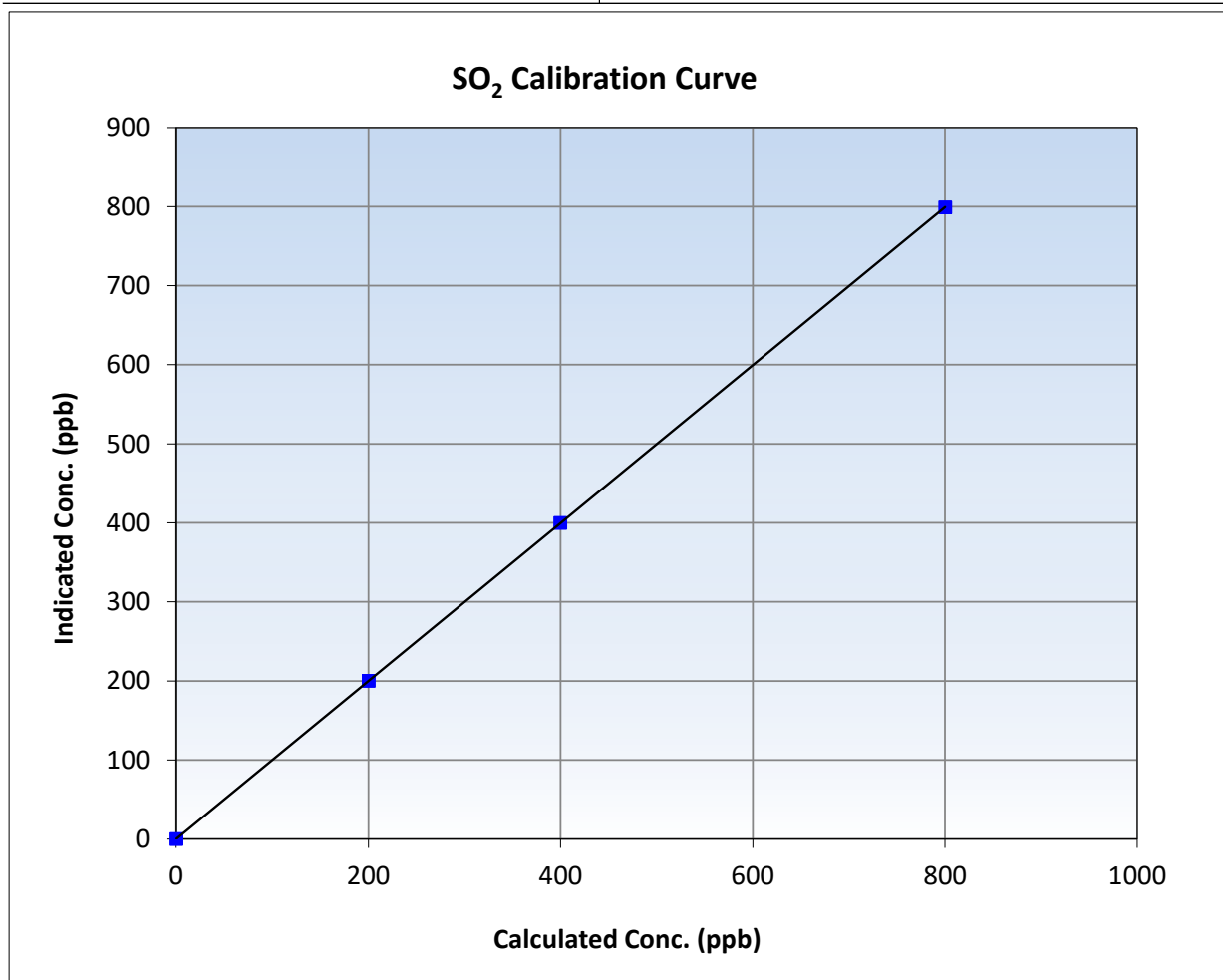
SO₂ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 19, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:32	End Time (MST):	13:39
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1331259320

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999999	≥0.995
799.7	798.7	1.0012	Slope	0.999040	0.90 - 1.10
399.3	399.5	0.9995	Intercept	0.041881	+/-30
200.2	200.0	1.0009			



SO2 Calibration Plot

Date: June 3, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Fort McKay South
Calibration Date: June 24, 2026
Start time (MST): 9:07
Reason: Routine

Station number: AMS 13
Last Cal Date: May 13, 2026
End time (MST): 12:53

Calibration Standards

Cal Gas Concentration: 4.88 ppm
Cal Gas Cylinder #: CC500241
Removed Cal Gas Conc: 4.88 ppm
Removed Gas Cyl #: CC500241
Calibrator Make/Model: Teledyne API T700P
ZAG Make/Model: Teledyne API T701

Cal Gas Exp Date: September 5, 2027
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 2657
Serial Number: 1118

Analyzer Information

Analyzer make: Thermo 43i TLE
Converter make: CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1180540017
Converter serial #: 521
Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005556	1.009717	Backgd or Offset:	3.79	3.79
Calibration intercept:	-0.238407	-0.158394	Coeff or Slope:	1.14	1.135

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4918	81.6	79.6	79.6	0.999
As found Mid point	4959	40.8	39.8	39.7	1.001
As found Low point	4980	20.4	19.9	19.4	1.021
New cylinder response					
Baseline Corr As found:	79.7	Prev response:	79.85	*% change:	-0.2%
Baseline Corr 2nd AF pt:	39.8	AF Slope:	1.002400	AF Intercept:	-0.278411
Baseline Corr 3rd AF pt:	19.5	AF Correlation:	0.999967	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4918	81.6	79.6	80.3	0.992
Mid point	4959	40.8	39.8	40.0	0.996
Low point	4980	20.4	19.9	19.9	1.000
As left zero	5000	0.0	0.0	-0.1	----
As left span	4918	81.6	79.6	80.8	0.986
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:	7-Aug-25		Ave Corr Factor		0.996
Date of last converter efficiency test:					

Notes: Changed inlet filter after multipoint as founds. SO2 scrubber check after calibrator zero and passed.
No adjustment made.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

TRS Calibration Summary

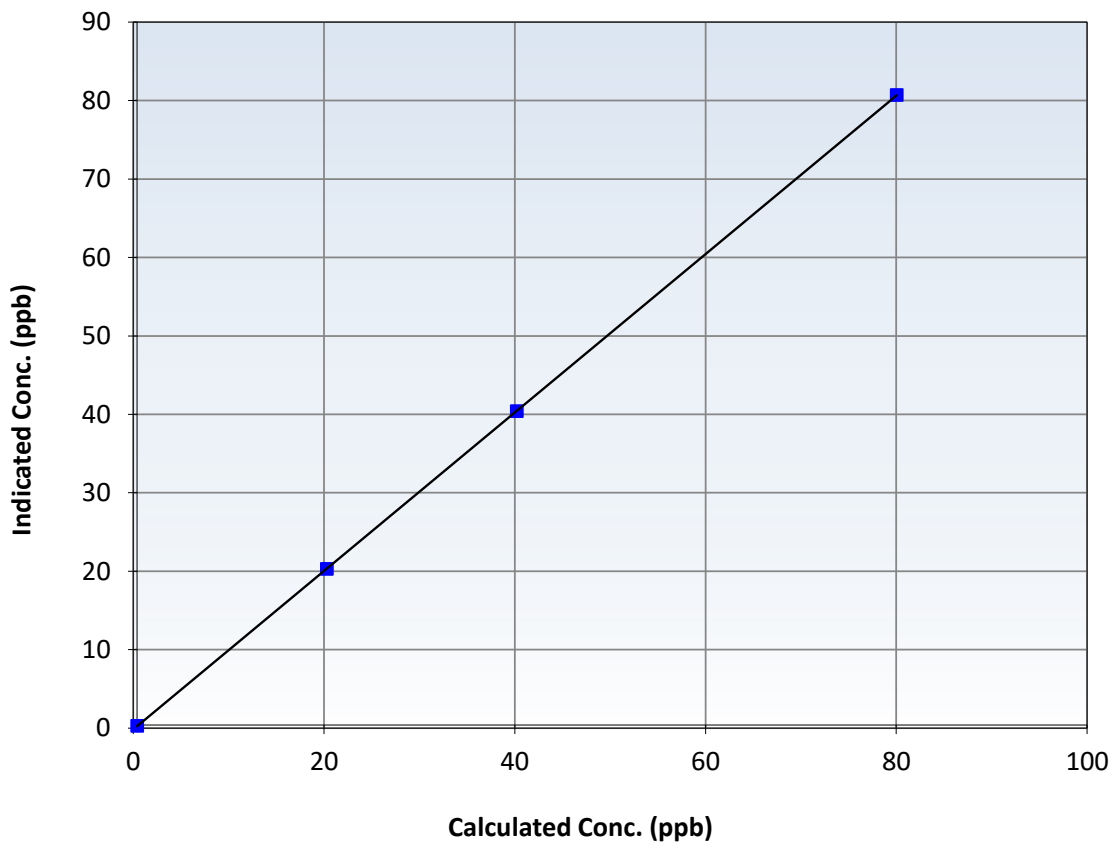
Station Information

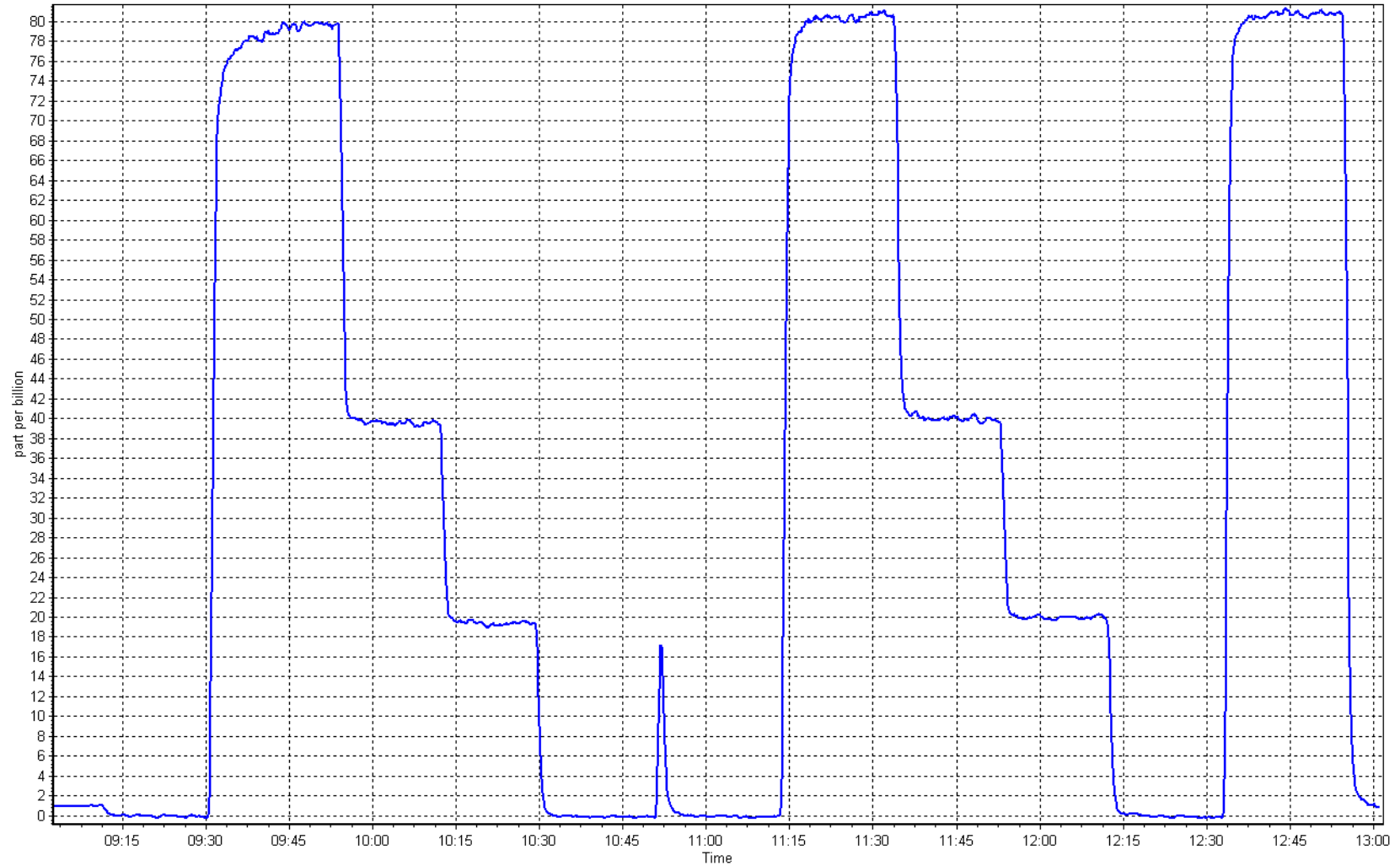
Calibration Date:	June 24, 2026	Previous Calibration:	May 13, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:07	End Time (MST):	12:53
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1180540017

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999997		≥ 0.995
79.6	80.3	0.9919	Slope	1.009717		$0.90 - 1.10$
39.8	40.0	0.9956	Intercept	-0.158394		± 3
19.9	19.9	1.0004				

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort McKay South
 Calibration Date: June 3, 2026
 Start time (MST): 10:32
 Reason: Routine

Station number: AMS 13
 Last Cal Date: May 31, 2026
 End time (MST): 14:55

Calibration Standards

Gas Cert Reference:	CC260812	Cal Gas Expiry Date:	Friday, December 29, 2028
CH ₄ Cal Gas Conc.	503.6 ppm	CH ₄ Equiv Conc.	1077.5 ppm
C ₃ H ₈ Cal Gas Conc.	208.7 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	
Removed CH ₄ Conc.	503.6 ppm	CH ₄ Equiv Conc.	1077.5 ppm
Removed C ₃ H ₈ Conc.	208.7 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	2657
Zero Air Gen model:	Teledyne API T701	Serial Number:	1118

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1181490018
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.94E-04	2.95E-04	NMHC SP Ratio:	4.50E-05
CH ₄ Retention time:	16.60	16.60	NMHC Peak Area:	201770
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF
				ON

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	17.05	16.95	1.006
As found Mid point	4961	39.5	8.51	8.44	1.008
As found Low point	4980	19.8	4.27	4.12	1.035
New cylinder response					
Baseline Corr AF:	16.95	Prev response	17.00	*% change	-0.3%
Baseline Corr 2nd AF:	8.44	AF Slope:	0.996697	AF Intercept:	-0.053340
Baseline Corr 3rd AF:	4.12	AF Correlation:	0.999942	* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	17.05	16.96	1.005
Mid point	4961	39.5	8.51	8.40	1.014
Low point	4980	19.8	4.27	4.15	1.029
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	17.05	16.98	1.004
Average Correction Factor					1.016

Notes: Sample inlet filter and N₂ was changed after MPAFs. Adjusted zero and span.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	9.08	9.12	0.995
As found Mid point	4961	39.5	4.53	4.52	1.004
As found Low point	4980	19.8	2.27	2.22	1.023
New cylinder response					
Baseline Corr AF:	9.12	Prev response	9.05	*% change	0.8%
Baseline Corr 2nd AF:	4.52	AF Slope:	1.006573	AF Intercept:	-0.032781
Baseline Corr 3rd AF:	2.22	AF Correlation:	0.999941	* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	9.08	9.06	1.002
Mid point	4961	39.5	4.53	4.50	1.008
Low point	4980	19.8	2.27	2.22	1.025
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	9.08	9.05	1.003
Average Correction Factor					1.012

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	16	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	196813
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	7.97	7.83	1.017
As found Mid point	4961	39.5	3.98	3.93	1.014
As found Low point	4980	19.8	1.99	1.90	1.049
New cylinder response					
Baseline Corr AF:	7.83	Prev response	7.95	*% change	-1.5%
Baseline Corr 2nd AF:	3.93	AF Slope:	0.985585	AF Intercept:	-0.020559
Baseline Corr 3rd AF:	1.90	AF Correlation:	0.999912	* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	7.97	7.90	1.008
Mid point	4961	39.5	3.98	3.90	1.020
Low point	4980	19.8	1.99	1.93	1.033
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	7.97	7.92	1.006
Average Correction Factor					1.020

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.001113	0.996560
THC Cal Offset:	-0.069764	-0.054570
CH ₄ Cal Slope:	1.003110	0.993170
CH ₄ Cal Offset:	-0.040379	-0.027990
NMHC Cal Slope:	0.999613	0.999447
NMHC Cal Offset:	-0.030387	-0.025979

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

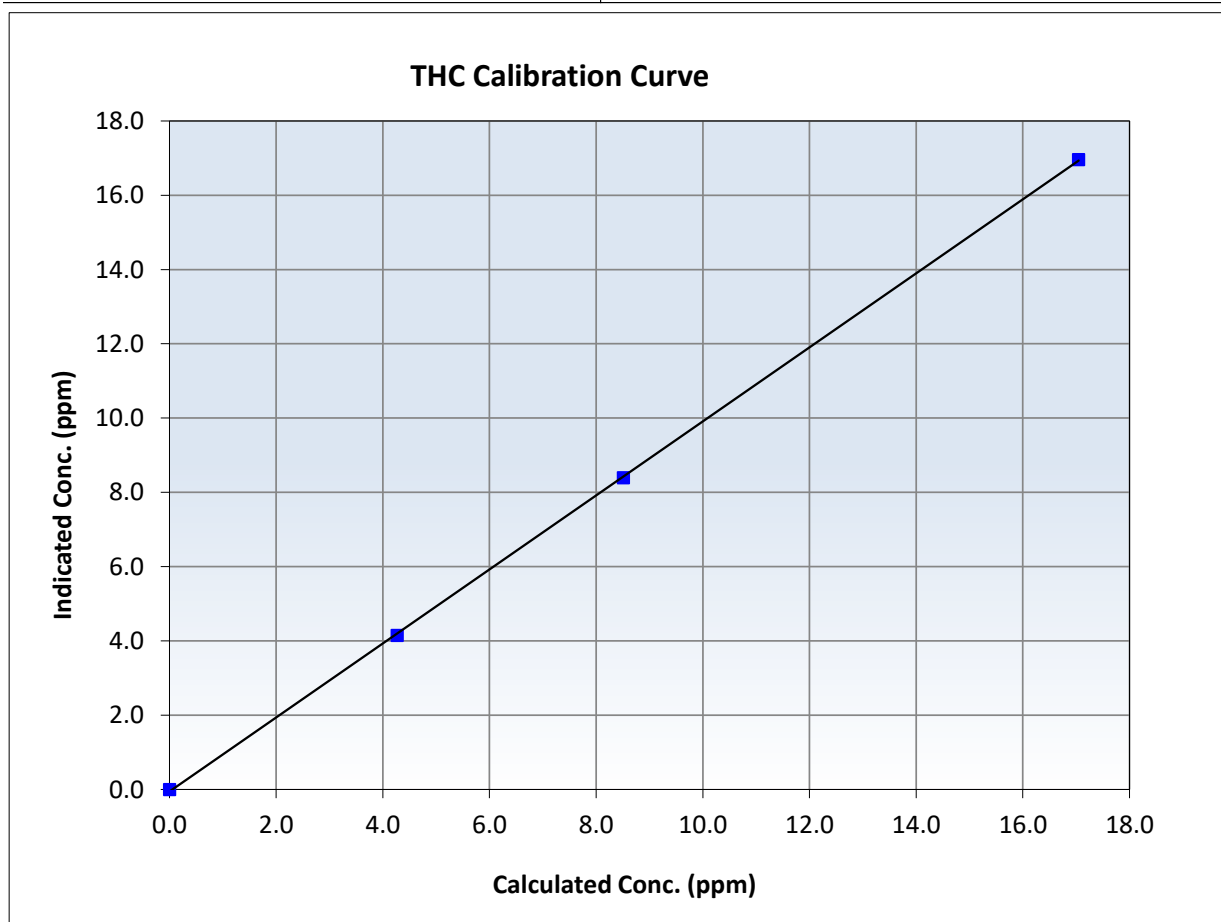
THC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 31, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:32	End Time (MST):	14:55
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999953	<i>≥0.995</i>
17.05	16.96	1.0050	Slope	0.996560	<i>0.90 - 1.10</i>
8.51	8.40	1.0139	Intercept	-0.054570	<i>+/-0.5</i>
4.27	4.15	1.0290			





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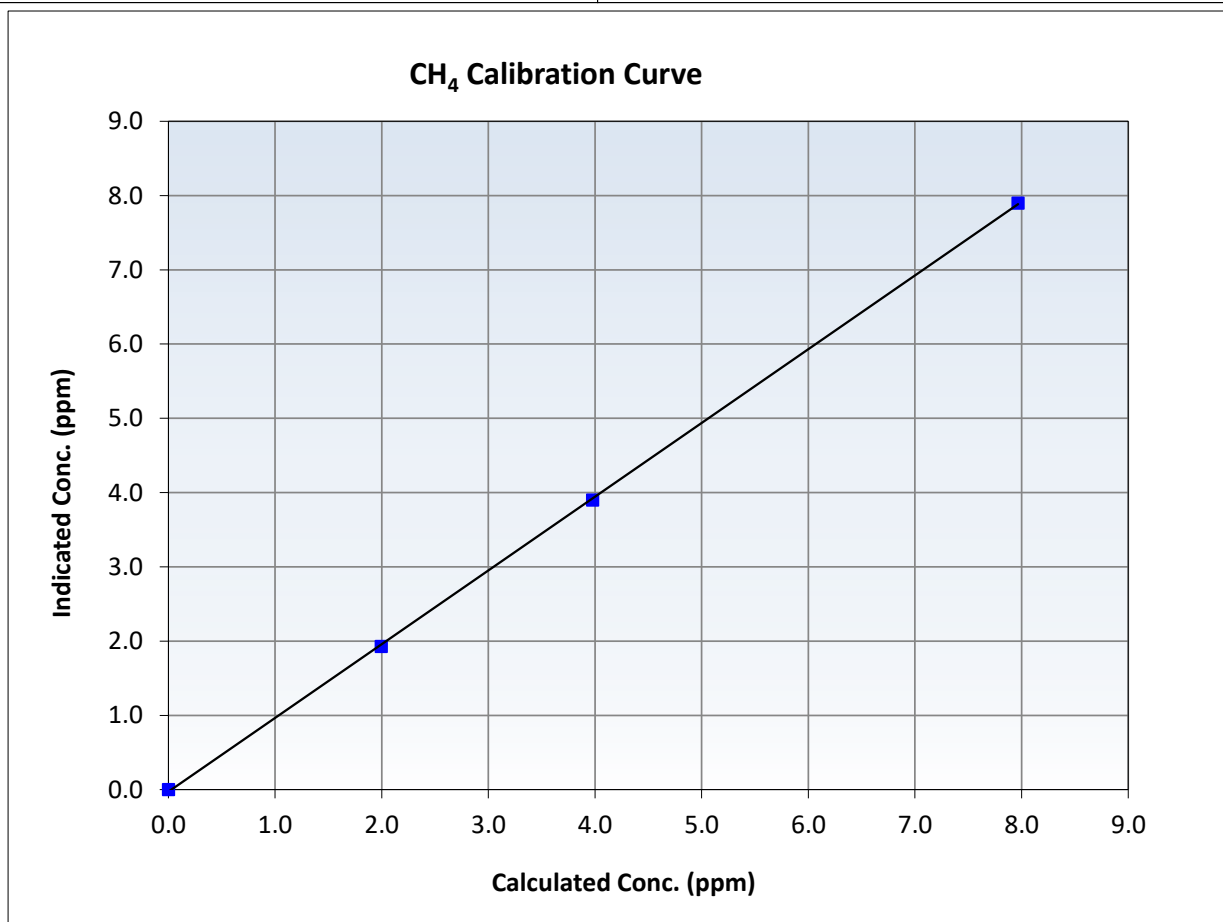
CH₄ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 31, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:32	End Time (MST):	14:55
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999940	<i>≥0.995</i>
7.97	7.90	1.0083	Slope	0.993170	<i>0.90 - 1.10</i>
3.98	3.90	1.0197	Intercept	-0.027990	<i>+/-0.5</i>
1.99	1.93	1.0333			





Wood Buffalo Environmental Association

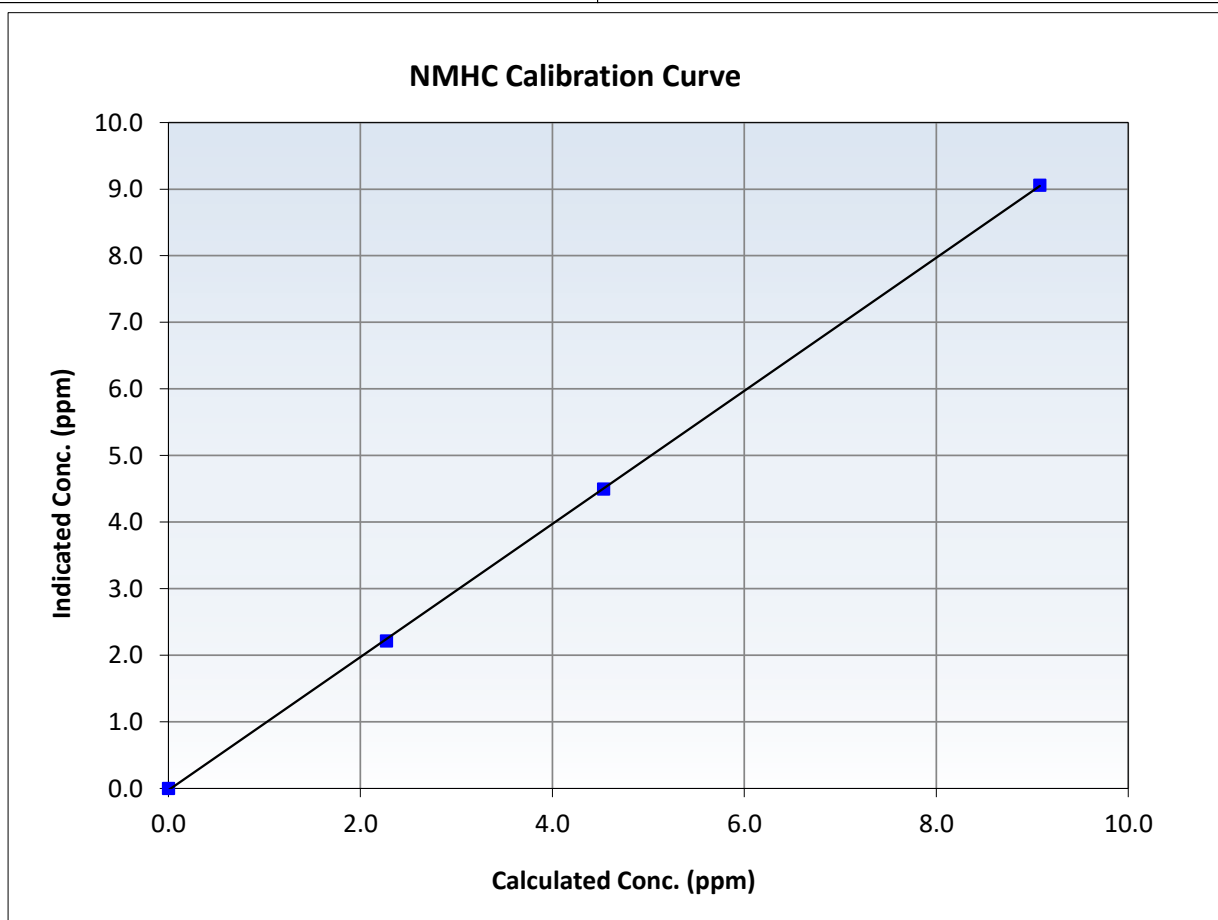
NMHC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 31, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:32	End Time (MST):	14:55
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

Calibration Data

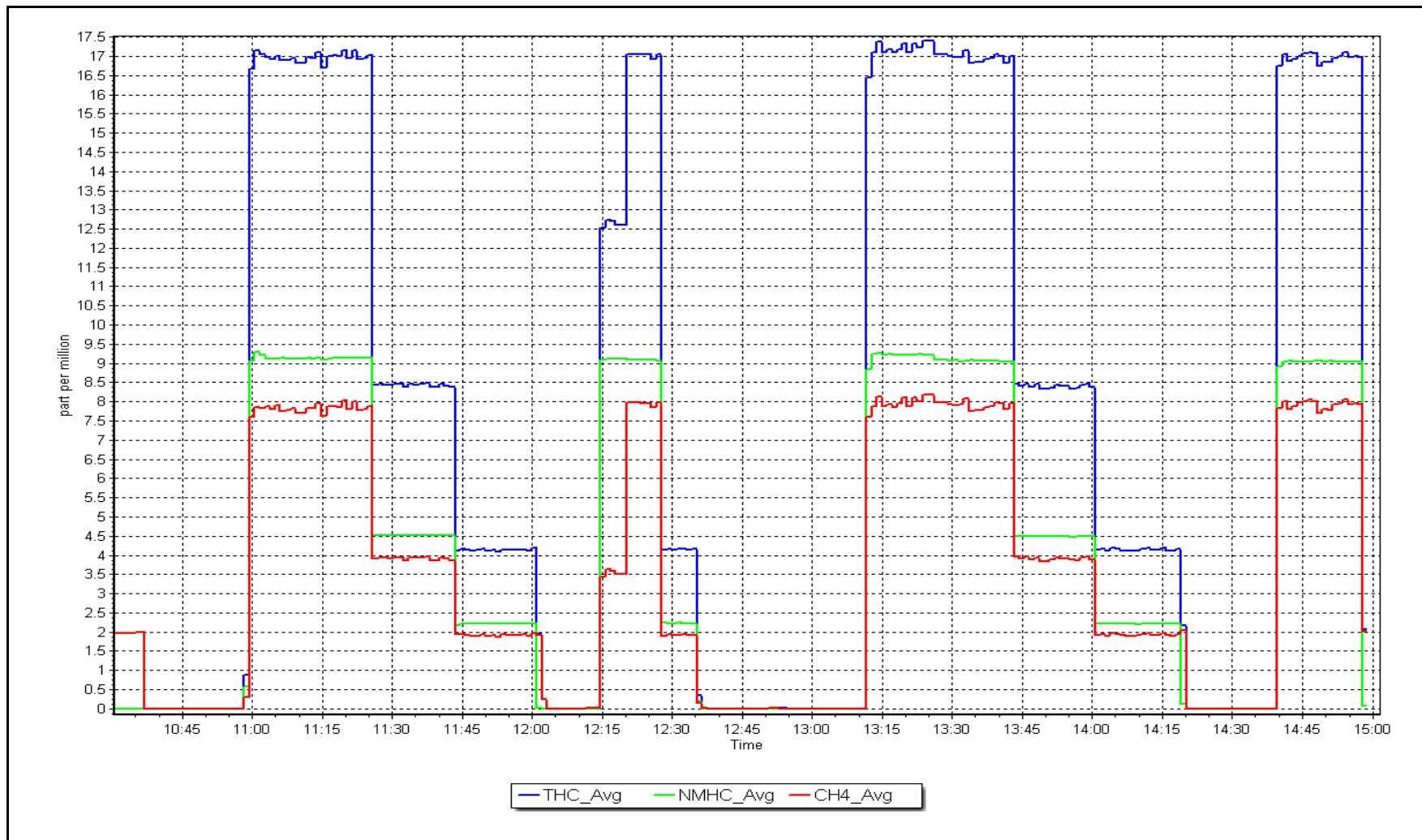
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999962	<i>≥0.995</i>
9.08	9.06	1.0021	Slope	0.999447	<i>0.90 - 1.10</i>
4.53	4.50	1.0084	Intercept	-0.025979	<i>+/-0.5</i>
2.27	2.22	1.0252			



NMHC Calibration Plot

Date: June 3, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort McKay South
Station number: AMS 13
Calibration Date: June 1, 2026
Last Cal Date: May 14, 2026
Start time (MST): 9:36
End time (MST): 12:11
Reason: Removal

Calibration Standards

NO Gas Cylinder #: T2UP1RP
NO_x Cal Gas Conc: 48.25 ppm
Removed Cylinder #: NA
Removed Gas NO_x Conc: 48.25 ppm
NO_x gas Diff:
Calibrator Model: Teledyne API T700P
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: November 17, 2026
NO Cal Gas Conc: 47.88 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 47.88 ppm
NO gas Diff:
Serial Number: 2657
Serial Number: 1118

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.1	----	----
AF High point	4917	83.5	805.7	799.5	6.2	893.0	883.8	9.2	0.9022	0.9048
AF Mid point	4958	41.8	403.4	400.3	3.1	438.9	431.6	7.3	0.9191	0.9279
AF Low point	4979	20.9	201.7	200.1	1.5	213.7	209.9	3.8	0.9438	0.9544
New cyl resp										
Previous Response	NO _x = 802.5 ppb	NO = 797.4 ppb	* = > +/-5% change initiates investigation				*Percent Change		NO _x = 10.1%	
Baseline Corr 1st pt	NO _x = 893.0 ppb	NO = 883.6 ppb	<u>As Found Statistics</u>				*Percent Change		NO = 9.8%	
Baseline Corr 2nd pt	NO _x = 438.9 ppb	NO = 431.4 ppb	As found		NO _x r ² : 0.999819		Nx SI: 1.111378		Nx Int: -5.574	
Baseline Corr 3rd pt	NO _x = 213.7 ppb	NO = 209.7 ppb	As found		NO r ² : 0.999715		NO SI: 1.108513		NO Int: -6.591	
			As found		NO ₂ r ² : 0.999865		NO ₂ SI: 1.003118		NO ₂ Int: -2.355	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero	----	----	0.0	-0.1	----	----
As found high GPT point	872.1	441.6	436.7	437.0	0.9993	100.1%
As found mid GPT point	872.1	643.0	235.3	232.5	1.0120	98.8%
As found low GPT point	872.1	753.1	125.2	120.8	1.0362	96.5%



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42iQ
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12124313137

Instrument Settings

	<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.836	
NOX coeff or slope:	1.000	
NO2 coeff or slope:	1.000	

	<u>Start</u>	<u>Finish</u>
NO bkgnd or offset:	0.6	
NOX bkgnd or offset:	0.8	
Reaction cell Press:	187.7	

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.999871	
NO _x Cal Offset:	-3.071819	
NO Cal Slope:	1.001849	
NO Cal Offset:	-3.610028	
NO ₂ Cal Slope:	0.997752	
NO ₂ Cal Offset:	-0.645657	

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
-----------	---------------------------	-----------------------------	---	--	---	--	---------------------------------------	--	---	--

Cal zero
High point
Mid point
Low point
As left zero
As left span

Average Correction Factor

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	--	---------------------------------------	---	--	---	--

Cal zero
High GPT point
Mid GPT point
Low GPT point

Average Correction Factor

Notes:

Removal calibrations done to do further troubleshooting at the shop.

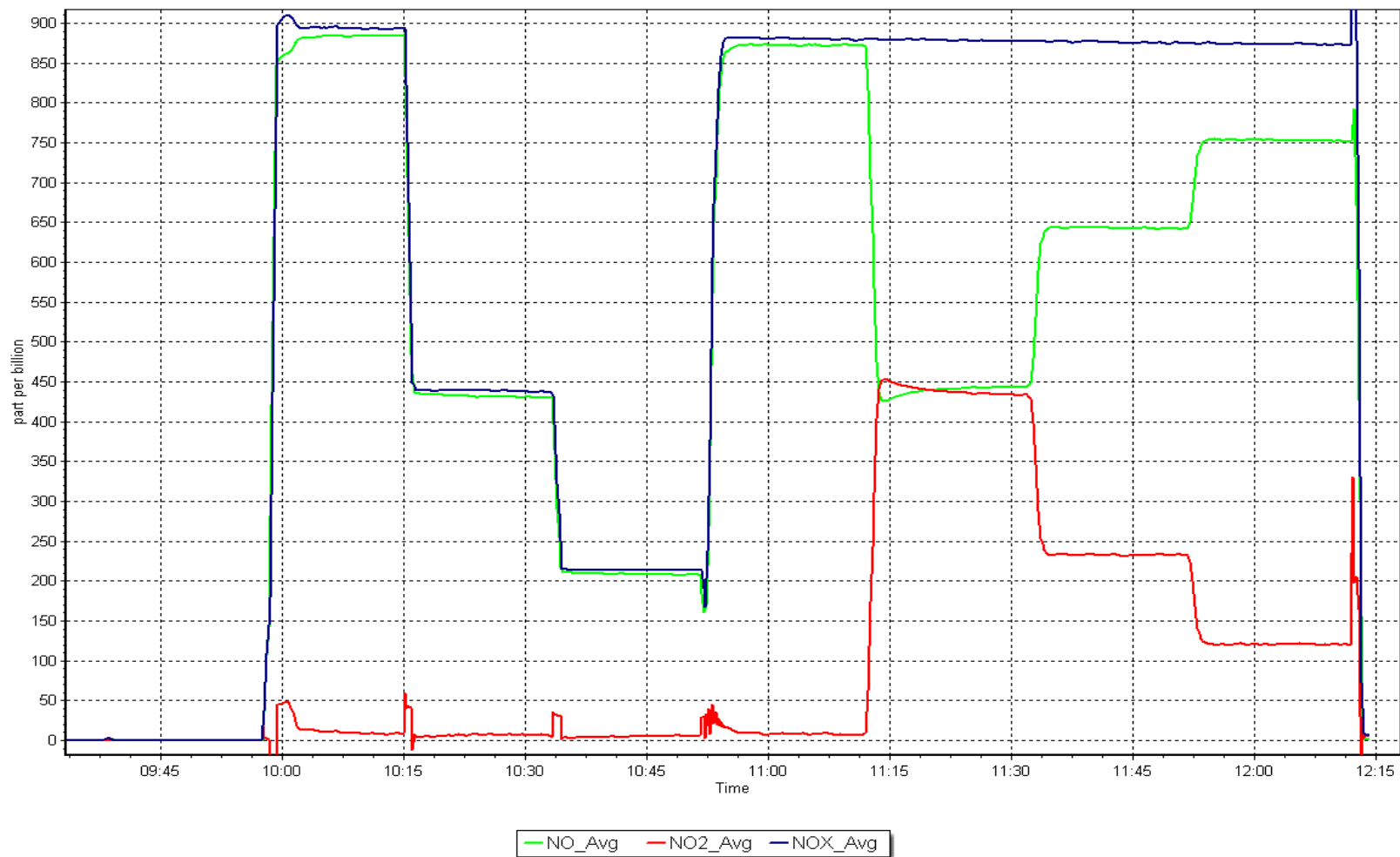
Calibration Performed By:

Jan Castro

NO_x Calibration Plot

Date: June 1, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort McKay South
Station number: AMS 13
Calibration Date: June 2, 2026
Last Cal Date:
Start time (MST): 9:47
End time (MST): 13:37
Reason: Install

Calibration Standards

NO Gas Cylinder #: T2UP1RP
NOX Cal Gas Conc: 48.25 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 48.25 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700P
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: November 17, 2026
NO Cal Gas Conc: 47.88 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 47.88 ppm
NO gas Diff:
Serial Number: 2657
Serial Number: 1118

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero										
AF High point										
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = NA	ppb	NO = NA	ppb	* = > +/-5% change initiates investigation		*Percent Change		NO _x =	NA
Baseline Corr 1st pt	NO _x = NA	ppb	NO = NA	ppb	<u>As Found Statistics</u>		*Percent Change		NO =	NA
Baseline Corr 2nd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO _x r ² :	Nx SI:		Nx Int:	
Baseline Corr 3rd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO r ² :	NO SI:		NO Int:	
					As found	NO ₂ r ² :	NO2 SI:		NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42iQ
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12300522720

Calibration Statistics

Start

Finish

NO_x Cal Slope: 1.000581
NO_x Cal Offset: -2.572472
NO Cal Slope: 1.002808
NO Cal Offset: -3.570560
NO₂ Cal Slope: 1.011253
NO₂ Cal Offset: 0.238131

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.215		NO bkgnd or offset:	3.8	
NOX coeff or slope:	1.014		NOX bkgnd or offset:	4.3	
NO2 coeff or slope:	1.000		Reaction cell Press:	168.6	

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.2	----	----
High point	4917	83.5	805.7	799.5	6.2	805.1	800.4	4.6	1.0007	0.9989
Mid point	4958	41.8	403.4	400.3	3.1	398.9	394.9	4.0	1.0112	1.0137
Low point	4979	20.9	201.7	200.1	1.5	197.5	194.2	3.3	1.0212	1.0306
As left zero	5000	0.0	0.0	0.0	0.0	-0.3	0.0	-0.3	----	----
As left span	4917	83.5	805.7	406.5	399.2	794.4	406.5	387.9	1.0142	1.0000
Average Correction Factor									1.0111	1.0144

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	790.2	403.7	392.7	396.8	0.9896	101.0%
Mid GPT point	790.2	603.0	193.4	197.0	0.9816	101.9%
Low GPT point	790.2	697.1	99.3	100.4	0.9888	101.1%
Average Correction Factor					0.9867	101.4%

Notes: Sample inlet filter was changed before calibrator zero. Adjusted zero and span. Used 2nd NO point because of drift.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

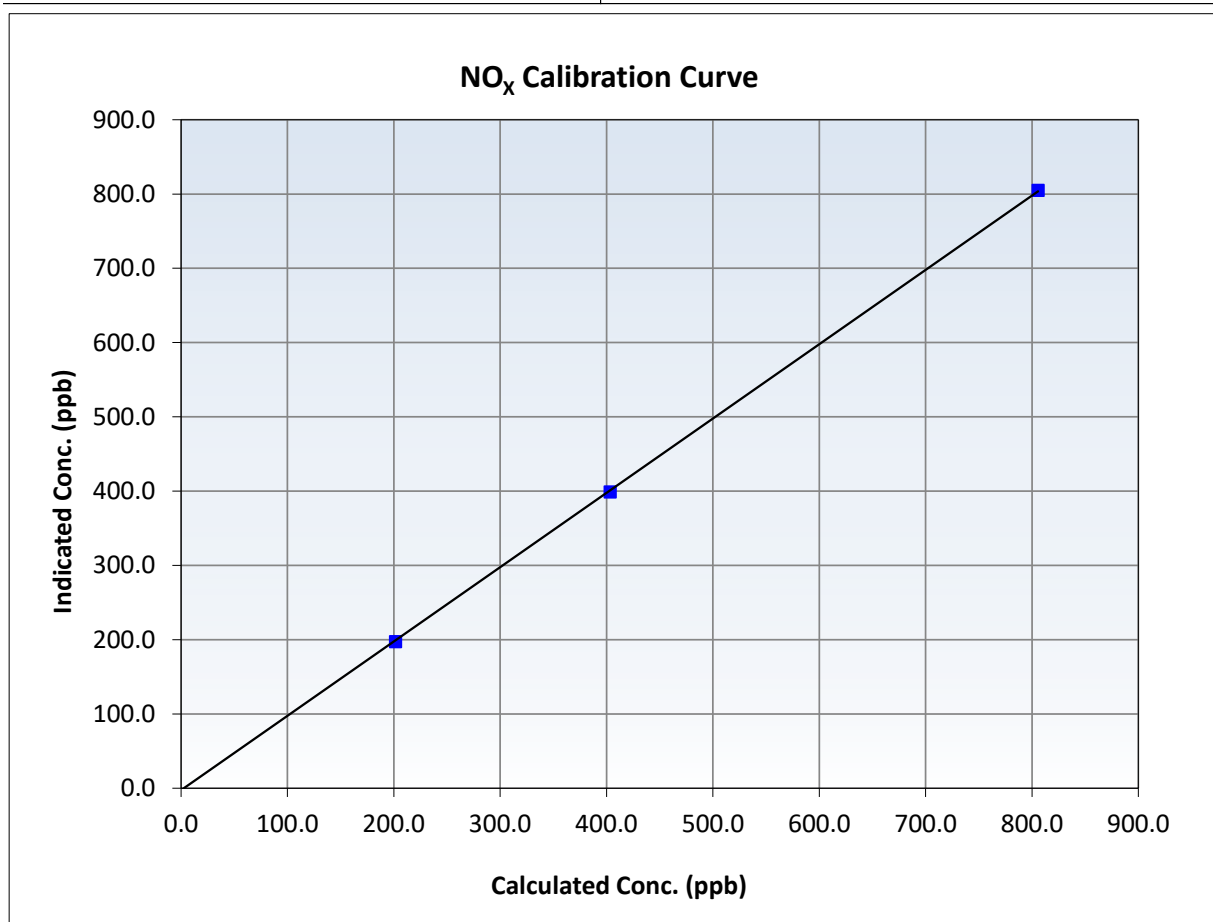
NO_x Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:47	End Time (MST):	13:37
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999956	≥0.995
805.7	805.1	1.0007	Slope	1.000581	0.90 - 1.10
403.4	398.9	1.0112	Intercept	-2.572472	+/-20
201.7	197.5	1.0212			





Wood Buffalo Environmental Association

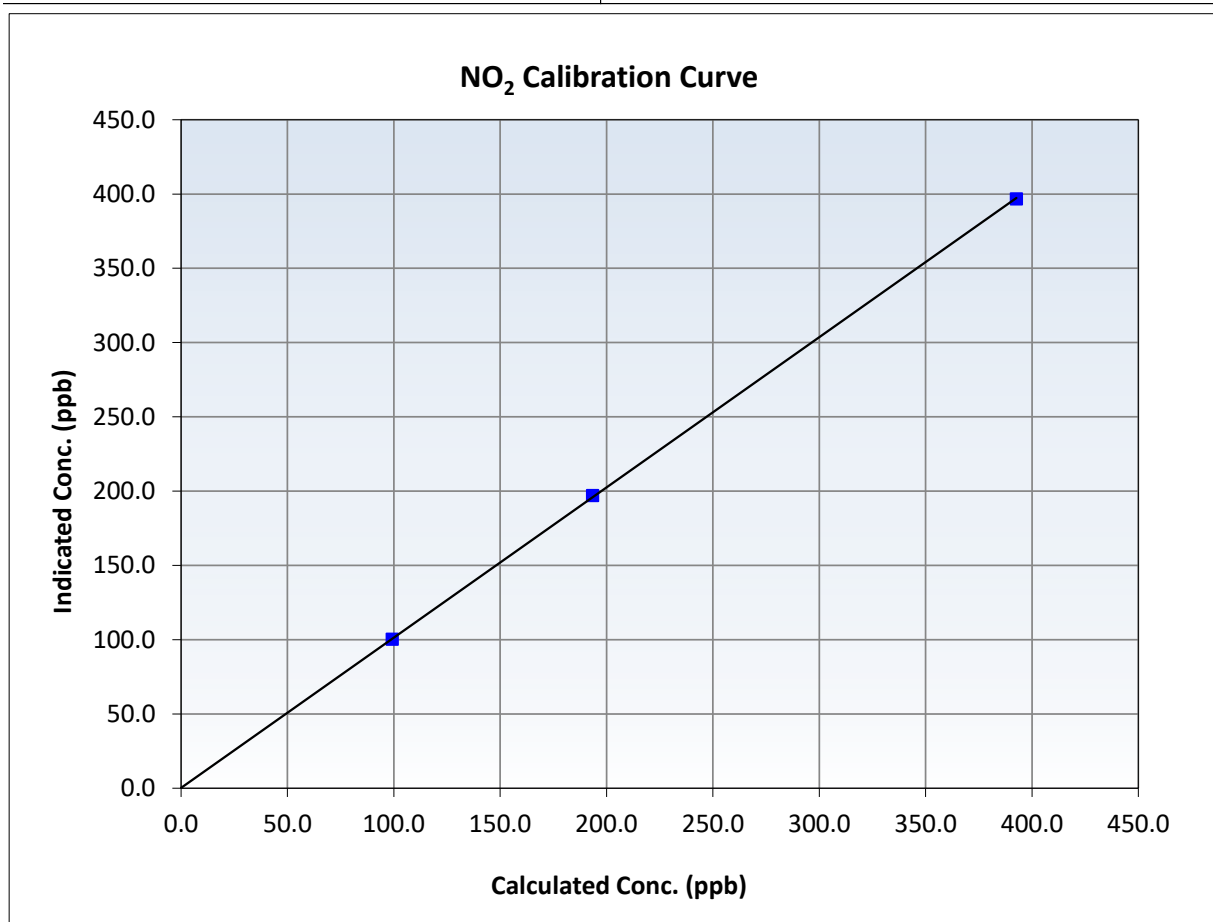
NO₂ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:47	End Time (MST):	13:37
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999977	≥ 0.995
392.7	396.8	0.9896	Slope	1.011253	$0.90 - 1.10$
193.4	197.0	0.9816	Intercept	0.238131	± 20
99.3	100.4	0.9888			





Wood Buffalo Environmental Association

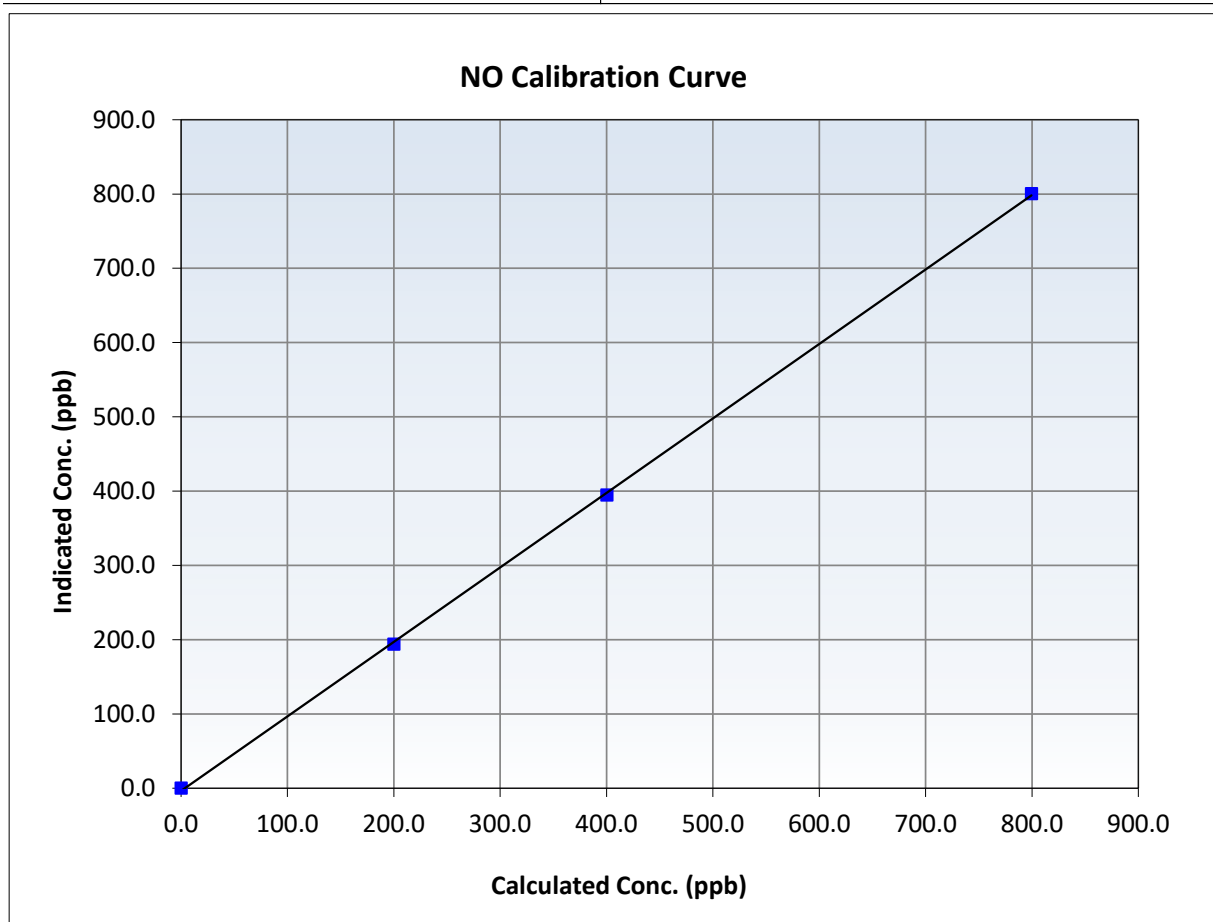
NO Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:47	End Time (MST):	13:37
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

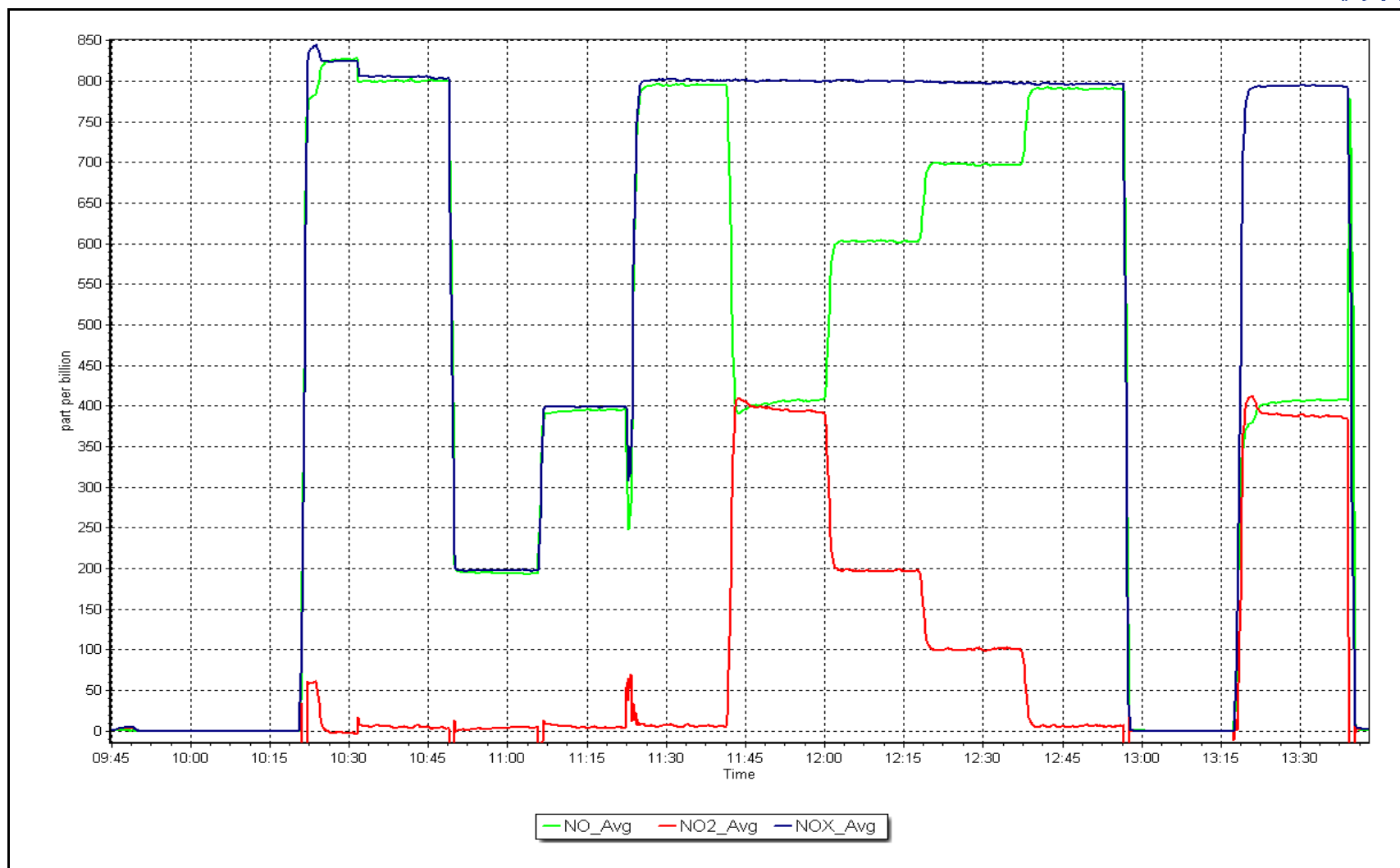
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999899	≥ 0.995
799.5	800.4	0.9989	Slope	1.002808	0.90 - 1.10
400.3	394.9	1.0137	Intercept	-3.570560	+/-20
200.1	194.2	1.0306			



NO_x Calibration Plot

Date: June 2, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort McKay South
Station number: AMS 13
Calibration Date: June 17, 2026
Last Cal Date: June 2, 2026
Start time (MST): 10:00
End time (MST): 14:25
Reason: Maintenance

Calibration Standards

NO Gas Cylinder #: T2UP1RP
NOX Cal Gas Conc: 48.25 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 48.25 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700P
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: November 17, 2026
NO Cal Gas Conc: 47.88 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 47.88 ppm
NO gas Diff:
Serial Number: 2657
Serial Number: 1118

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	0.4	-0.2	----	----
AF High point	4917	83.5	805.7	799.5	6.2	888.2	876.0	12.1	0.9072	0.9131
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 803.6 ppb	NO = 798.2 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = 9.5%
Baseline Corr 1st pt	NO _x = 888.1 ppb	NO = 875.6 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 8.8%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42iQ
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12300522720

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.000581	1.001120
NO _x Cal Offset:	-2.572472	-2.812583
NO Cal Slope:	1.002808	1.003137
NO Cal Offset:	-3.570560	-4.010764
NO ₂ Cal Slope:	1.011253	0.997299
NO ₂ Cal Offset:	0.238131	-0.578065

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.215	1.111	NO bkgnd or offset:	3.8	3.9
NOX coeff or slope:	1.014	1.007	NOX bkgnd or offset:	4.3	4.1
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	168.6	163.1

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	----	----
High point	4917	83.5	805.7	799.5	6.2	805.3	800.1	5.1	1.0005	0.9993
Mid point	4958	41.8	403.4	400.3	3.1	399.1	395.2	3.9	1.0107	1.0129
Low point	4979	20.9	201.7	200.1	1.5	196.9	193.1	3.9	1.0243	1.0365
As left zero	5000	0.0	0.0	0.0	0.0	-0.3	-0.1	-0.1	----	----
As left span	4917	83.5	805.7	406.5	399.2	796.1	406.5	389.5	1.0121	1.0000
Average Correction Factor									1.0119	1.0162

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	794.5	407.6	393.1	391.5	1.0040	99.6%
Mid GPT point	794.5	592.4	208.3	207.5	1.0038	99.6%
Low GPT point	794.5	690.2	110.5	108.7	1.0164	98.4%
Average Correction Factor					1.0080	99.2%

Notes: Analyzer drifting up since install. Looks like settling in. Tested against portable calibrator, same result as nightly span. Diagnostics seem fine, chamber pressure dropped from 168 to 163, seems stable over the past few nights, zero and span with slight adjustments. Adjusted calibrator photometer lamp from 3500mv to 4800mv

Calibration Performed By:

Ryan Power



Wood Buffalo Environmental Association

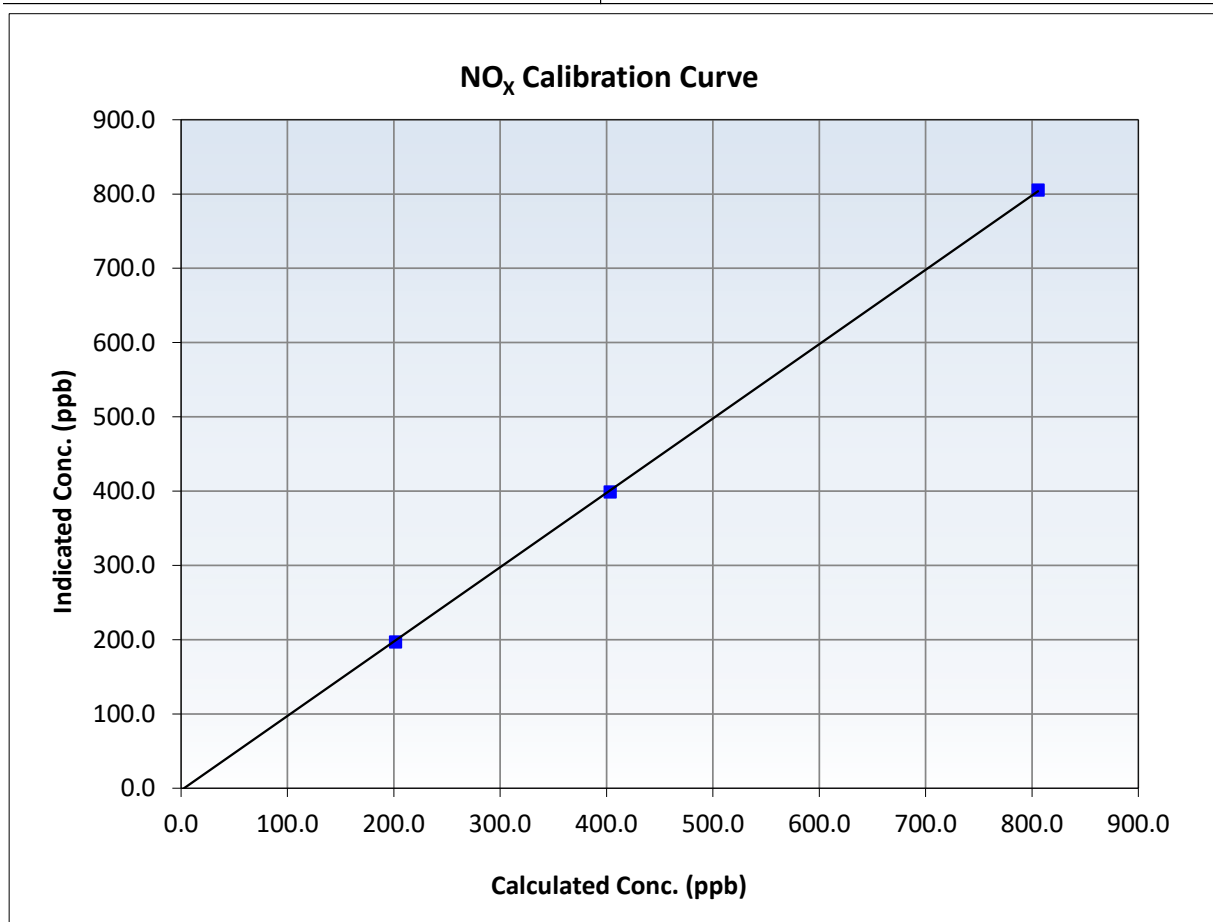
NO_x Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 2, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:00	End Time (MST):	14:25
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999950	≥0.995
805.7	805.3	1.0005	Slope	1.001120	0.90 - 1.10
403.4	399.1	1.0107	Intercept	-2.812583	+/-20
201.7	196.9	1.0243			





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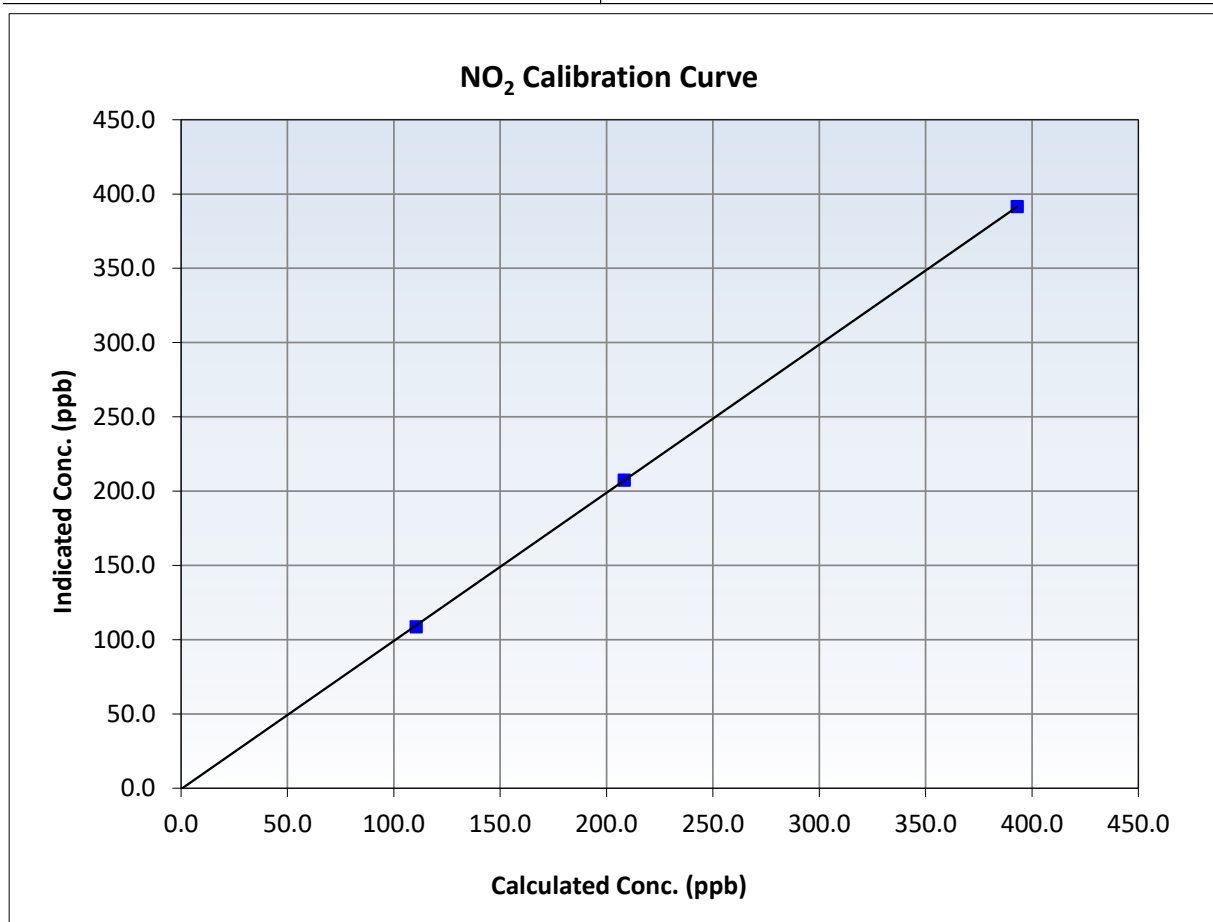
NO₂ Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 2, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:00	End Time (MST):	14:25
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999986	≥0.995
393.1	391.5	1.0040	Slope	0.997299	0.90 - 1.10
208.3	207.5	1.0038	Intercept	-0.578065	+/-20
110.5	108.7	1.0164			





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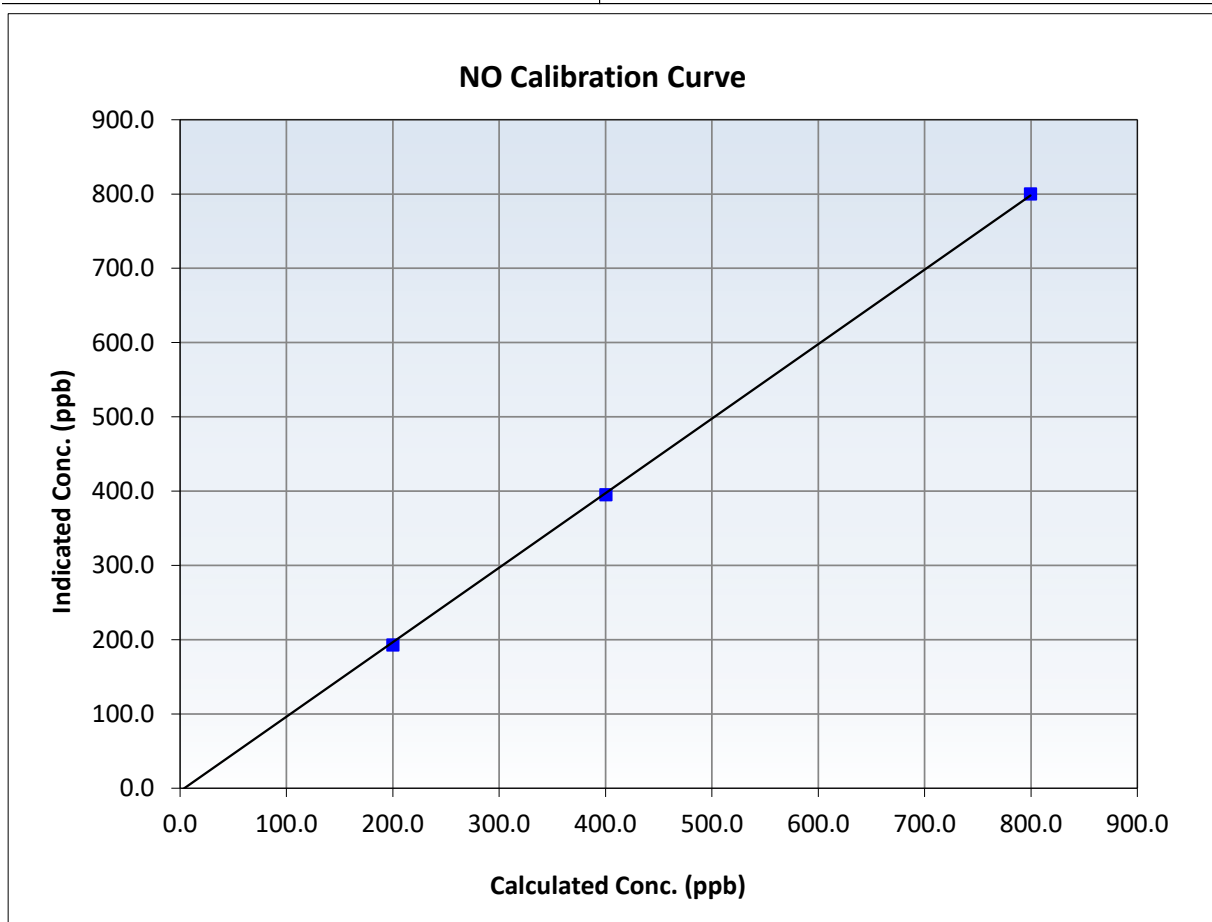
NO Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 2, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	10:00	End Time (MST):	14:25
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12300522720
			14:18

Calibration Data

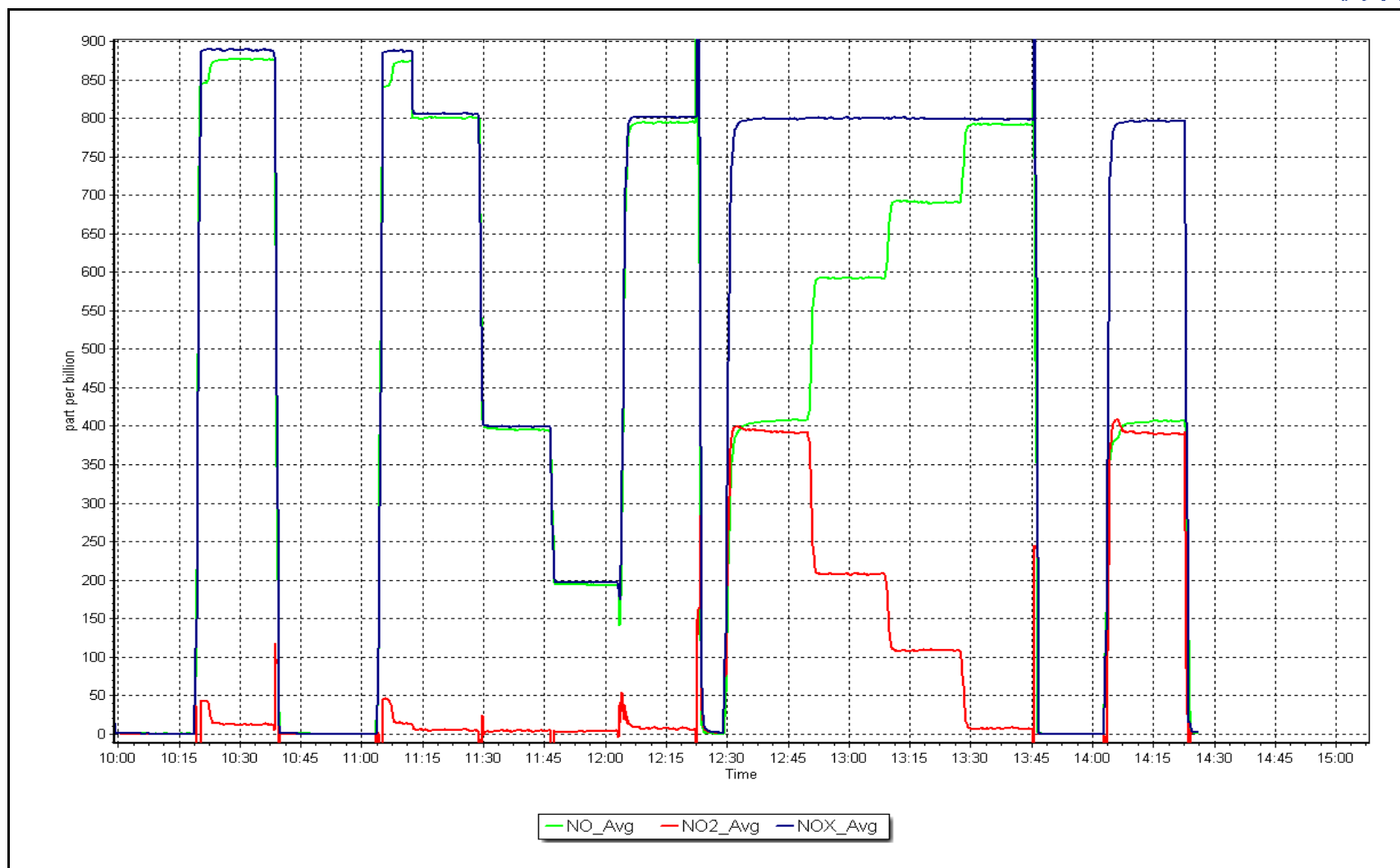
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	-0.1	----	Correlation Coefficient	0.999891	≥ 0.995
799.5	800.1	0.9993	Slope	1.003137	0.90 - 1.10
400.3	395.2	1.0129	Intercept	-4.010764	+/-20
200.1	193.1	1.0365			



NO_x Calibration Plot

Date: June 17, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Fort McKay South
Calibration Date: June 5, 2026
Start time (MST): 9:49
Reason: Routine

Station number: AMS 13
Last Cal Date: May 12, 2026
End time (MST): 12:30

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API 701

Serial Number: 2657
Serial Number: 1118

Analyzer Information

Analyzer make: Thermo 49i
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 1426262595

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005971	1.002143	Backgd or Offset:	0.2	0.2
Calibration intercept:	1.080000	1.100000	Coeff or Slope:	1.656	1.656

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	-0.2	----
As found High point	5000	991.7	400.0	401.2	0.997
As found Mid point					
As found Low point					
Baseline Corr As found:	401.4	Previous response	403.5	*% change	-0.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.2	----
High point	5000	997.6	400.0	401.5	0.996
Mid point	5000	809.3	200.0	202.0	0.990
Low point	5000	690.0	100.0	102.2	0.978
As left zero	5000	800.0	0.0	0.2	----
As left span	5000	994.6	400.0	403.4	0.992
Average Correction Factor					0.988

Notes: Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

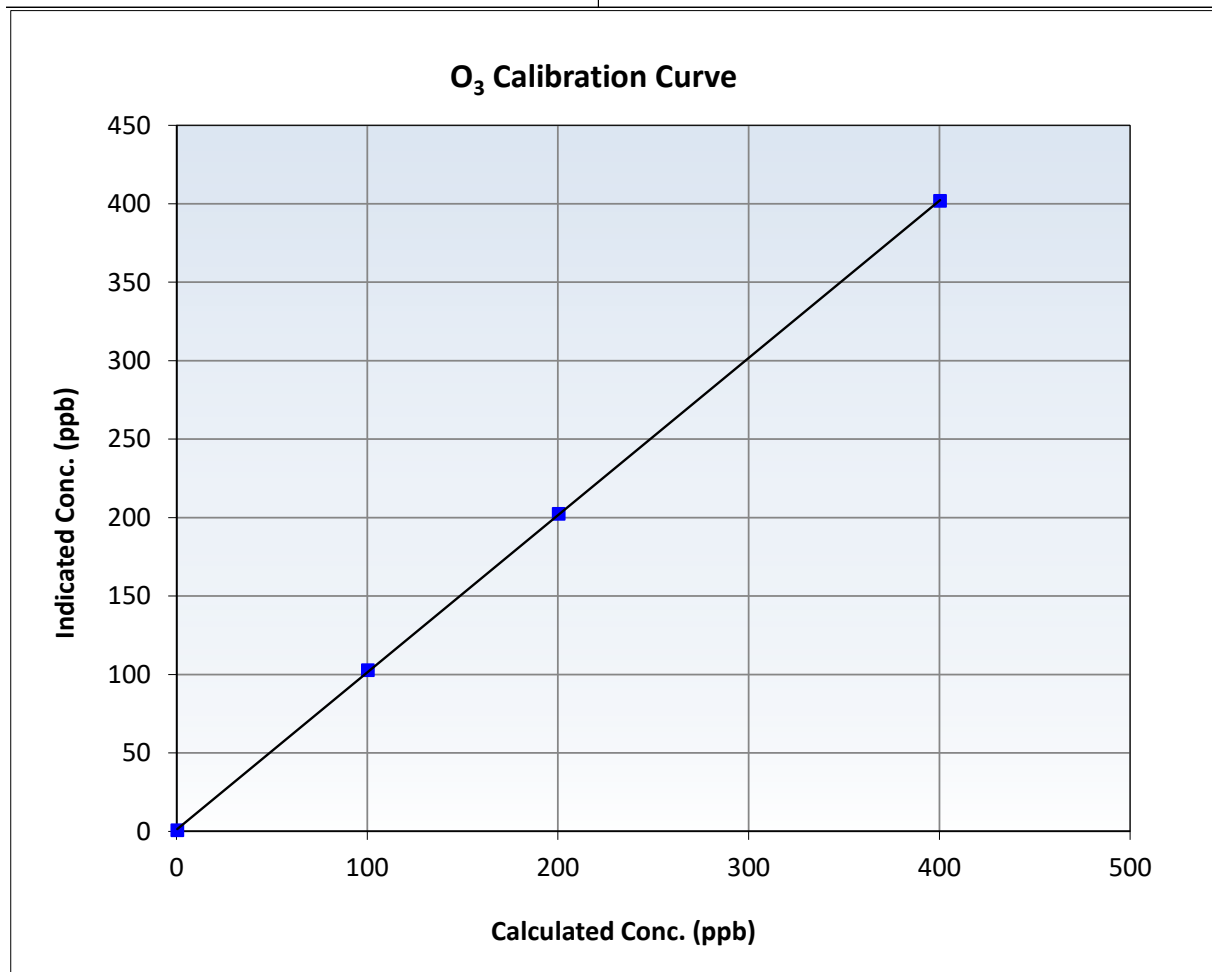
O₃ Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 12, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:49	End Time (MST):	12:30
Analyzer make:	Thermo 49i	Analyzer serial #:	1426262595

Calibration Data

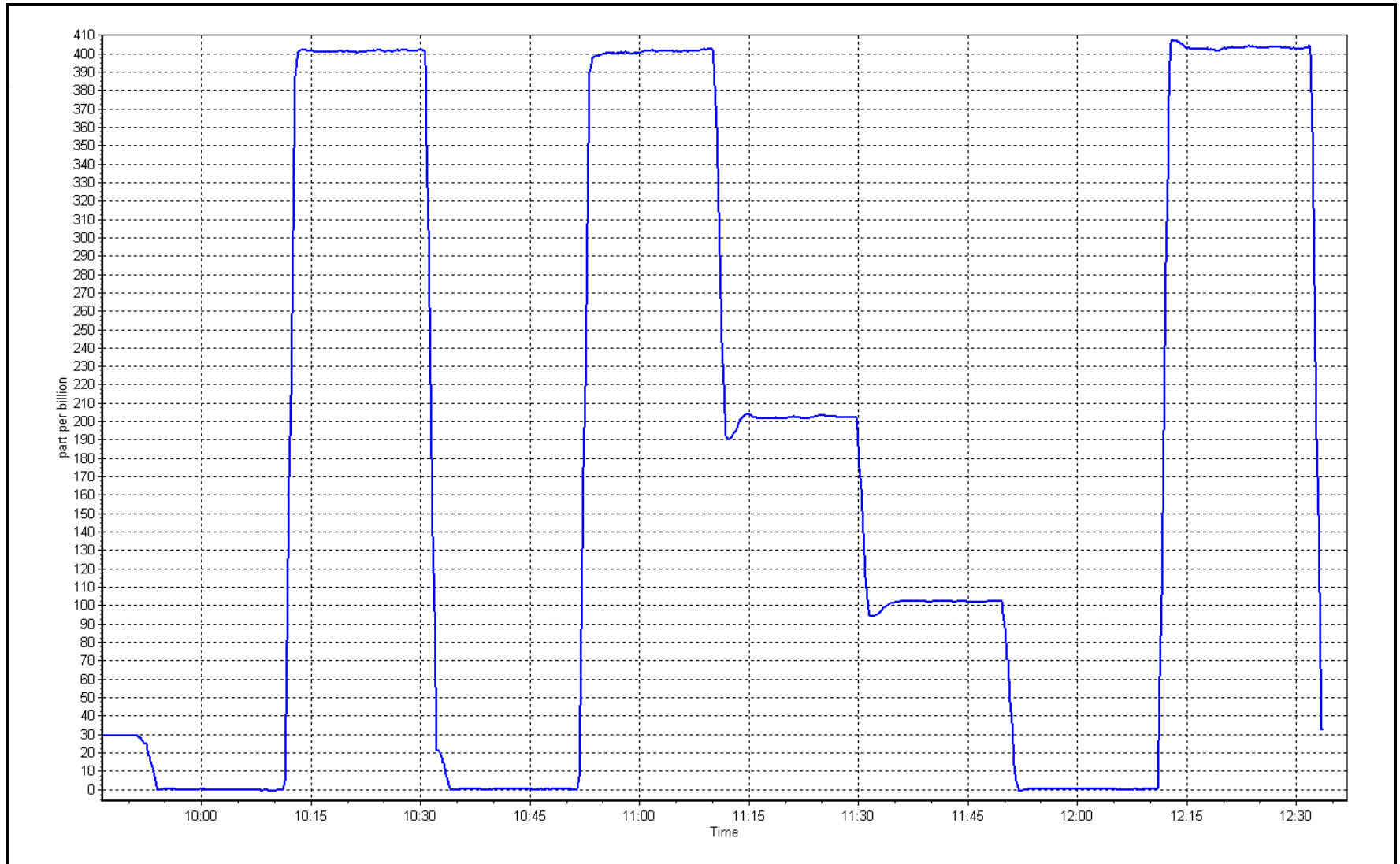
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999977	≥0.995
400.0	401.5	0.9963	Slope	1.002143	0.90 - 1.10
200.0	202.0	0.9901	Intercept	1.100000	+/- 5
100.0	102.2	0.9785			



O₃ Calibration Plot

Date: June 5, 2026

Location: Fort McKay South





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Fort McKay South Station number: AMS 13
Calibration Date: June 24, 2026 Last Cal Date: May 15, 2026
Start time (MST): 10:30 End time (MST): 10:47

Analyzer Make: Teledyne API T640 S/N: 1335
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388754
Temp/RH standard: Alicat FP-25 S/N: 388754

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	25.10	24.40	25.10	☐	+/- 2 °C
P (mmHg)	735.80	734.77	735.80	☐	+/- 10 mmHg
Flow (LPM vol)	4.99	4.94	4.99	☐	+/- 0.25 LPM
PW% (pump)	45	----	45	☐	>80%
Zero Verification	PM w/o HEPA: 6.40		PM w/ HEPA: 0.00		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: April 1, 2026
Date Disposable Filter Changed: April 1, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: June 2, 2025
Date RH/T Sensor Cleaned: June 2, 2025

Notes: Verified flow, pressure, temperature and pump power. No adjustment made. Leak check passed.

Calibration by: Jan Castro



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS14
ANZAC
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Anzac Station number: AMS 14
Calibration Date: June 1, 2026 Last Cal Date: May 14, 2026
Start time (MST): 5:38 End time (MST): 10:59
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.32 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC462030
Removed Cal Gas Conc: 50.32 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: API T700 Serial Number: 3812
Zero Air Gen Model: API T701H Serial Number: 357

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 0710321322
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997094	0.999636	Backgd or Offset:	27.6	28.4
Calibration intercept:	0.190626	-0.349851	Coeff or Slope:	1.141	1.117

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	1.9	----
As found High point	4920	79.5	800.2	816.6	0.982
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	814.7	Previous response	798.0	*% change	2.0%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4920	79.5	800.2	799.7	1.001
Mid point	4960	39.8	400.6	400.0	1.001
Low point	4980	19.9	200.3	199.3	1.005
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	79.5	800.2	801.6	0.998
Average Correction Factor:					1.002

Notes: No Maintenance done. Zero and span adjusted.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

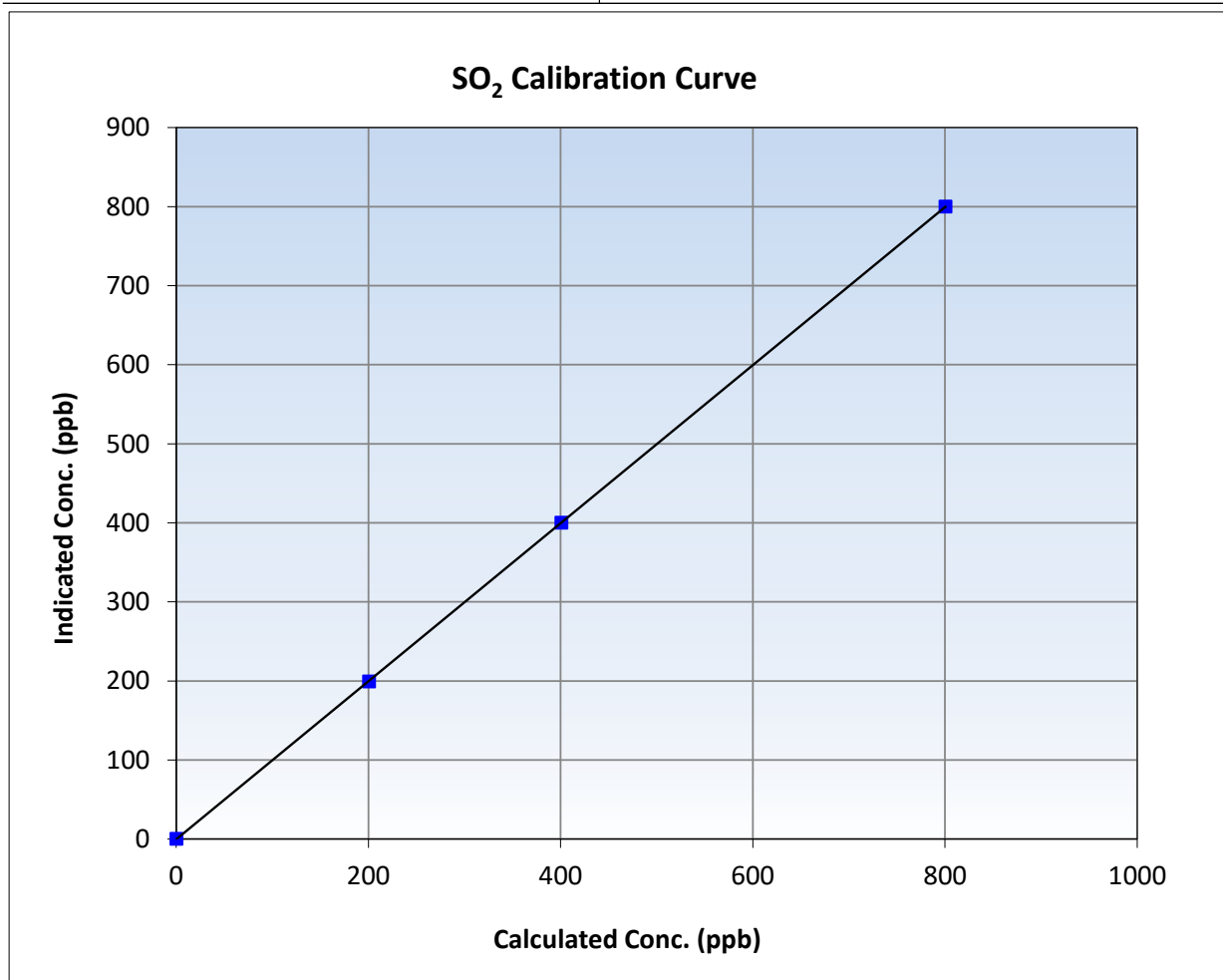
SO₂ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	5:38	End Time (MST):	10:59
Analyzer make:	Thermo 43i	Analyzer serial #:	0710321322

Calibration Data

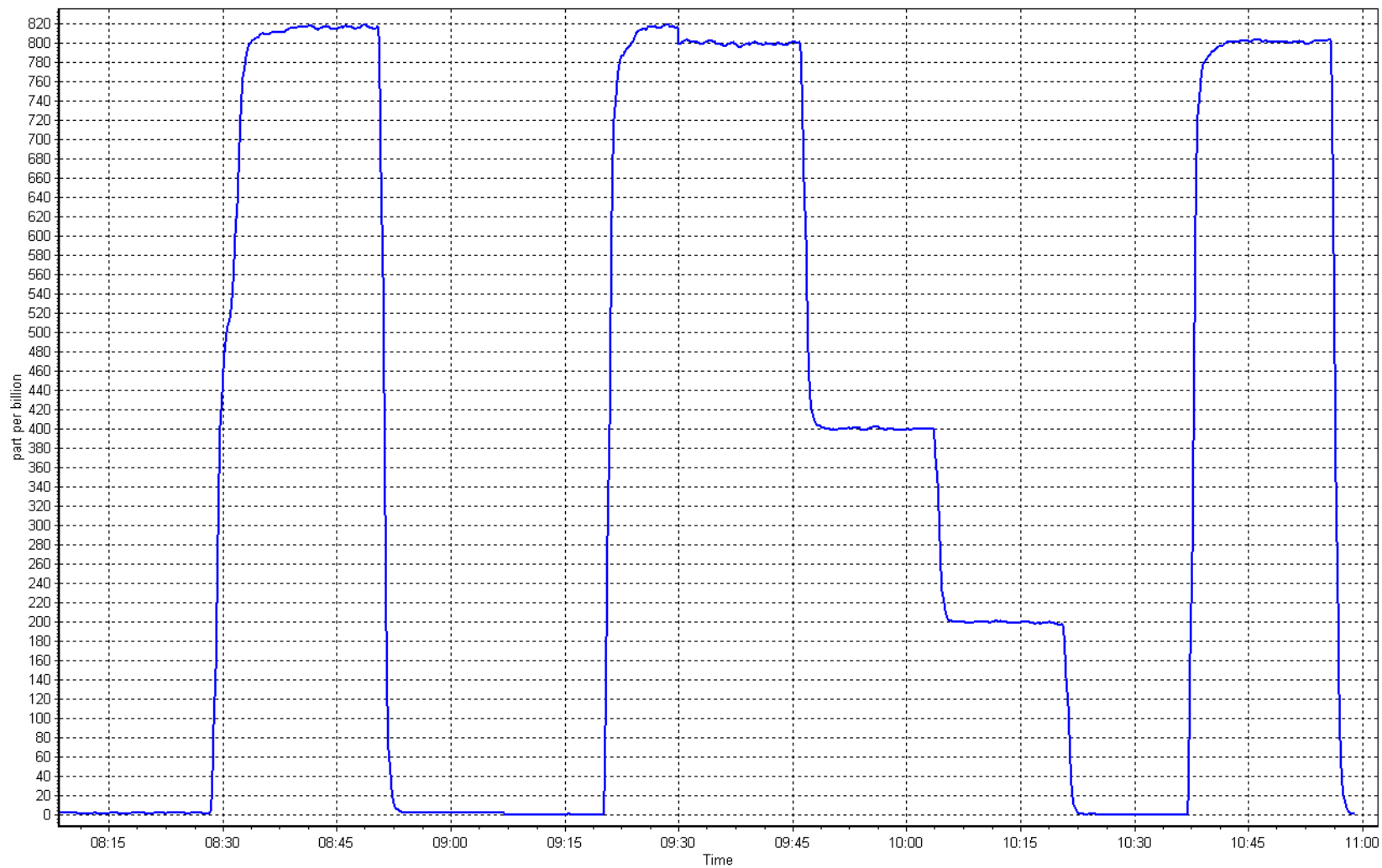
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999998	≥0.995
800.2	799.7	1.0006	Slope	0.999636	0.90 - 1.10
400.6	400.0	1.0014	Intercept	-0.349851	+/-30
200.3	199.3	1.0049			



SO2 Calibration Plot

Date: June 1, 2026

Location: Anzac





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Anzac
Calibration Date: June 9, 2026
Start time (MST): 9:55
Reason: Routine

Station number: AMS 14
Last Cal Date: May 22, 2026
End time (MST): 14:41

Calibration Standards

Cal Gas Concentration: 5.05 ppm
Cal Gas Cylinder #: DT0021903
Removed Cal Gas Conc: 5.05 ppm
Removed Gas Cyl #:
Calibrator Make/Model: API T700
ZAG Make/Model: API 701H
Cal Gas Exp Date: September 22, 2028
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 3812
Serial Number: 357

Analyzer Information

Analyzer make: Thermo 43i-TLE
Converter make: CD Nova CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1218153582
Converter serial #: 461
Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997854	0.995425	Backgd or Offset:	2.20	2.20
Calibration intercept:	-0.021596	-0.061589	Coeff or Slope:	0.948	0.948

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	79.2	80.0	79.8	1.001
As found Mid point	4960	39.6	40.0	40.1	0.995
As found Low point	4980	19.8	20.0	19.7	1.010
New cylinder response					
Baseline Corr As found:	79.9	Prev response:	79.80	*% change:	0.1%
Baseline Corr 2nd AF pt:	40.2	AF Slope:	0.999997	AF Intercept:	-0.121608
Baseline Corr 3rd AF pt:	19.8	AF Correlation:	0.999975	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4921	79.2	80.0	79.6	1.005
Mid point	4960	39.6	40.0	39.7	1.008
Low point	4980	19.8	20.0	19.8	1.010
As left zero	5000	0.0	0.0	0.0	----
As left span	4921	79.2	80.0	78.0	1.025
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	28-May-25		Ave Corr Factor		1.007
Date of last converter efficiency test:	September 16, 2025		103.4% efficiency		

Notes: Changed the sample inlet filter after the as founds. SOx scrubber check was completed after the calibrator zero. No adjustments made.

Calibration Performed By: Param Kaur



Wood Buffalo Environmental Association

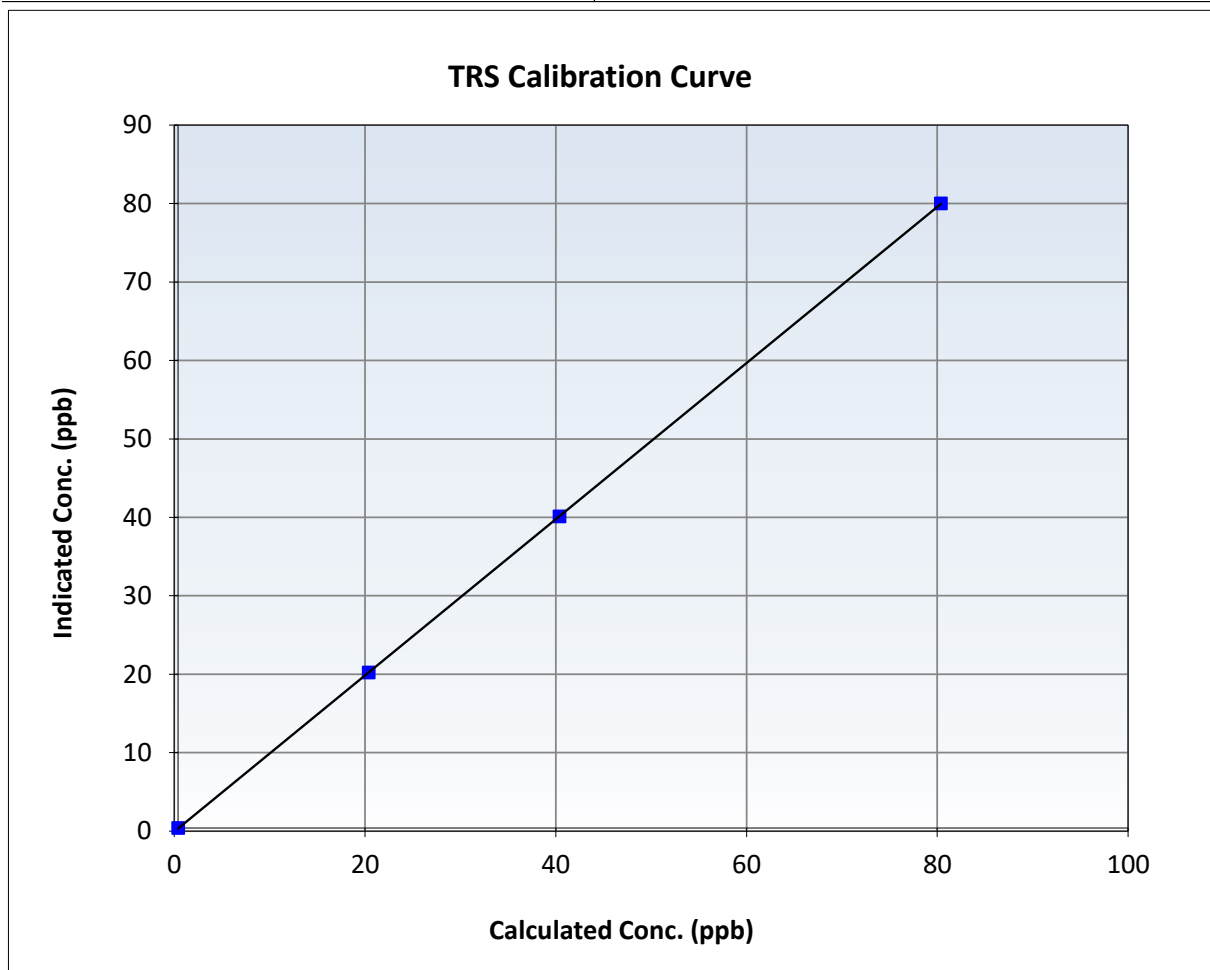
TRS Calibration Summary

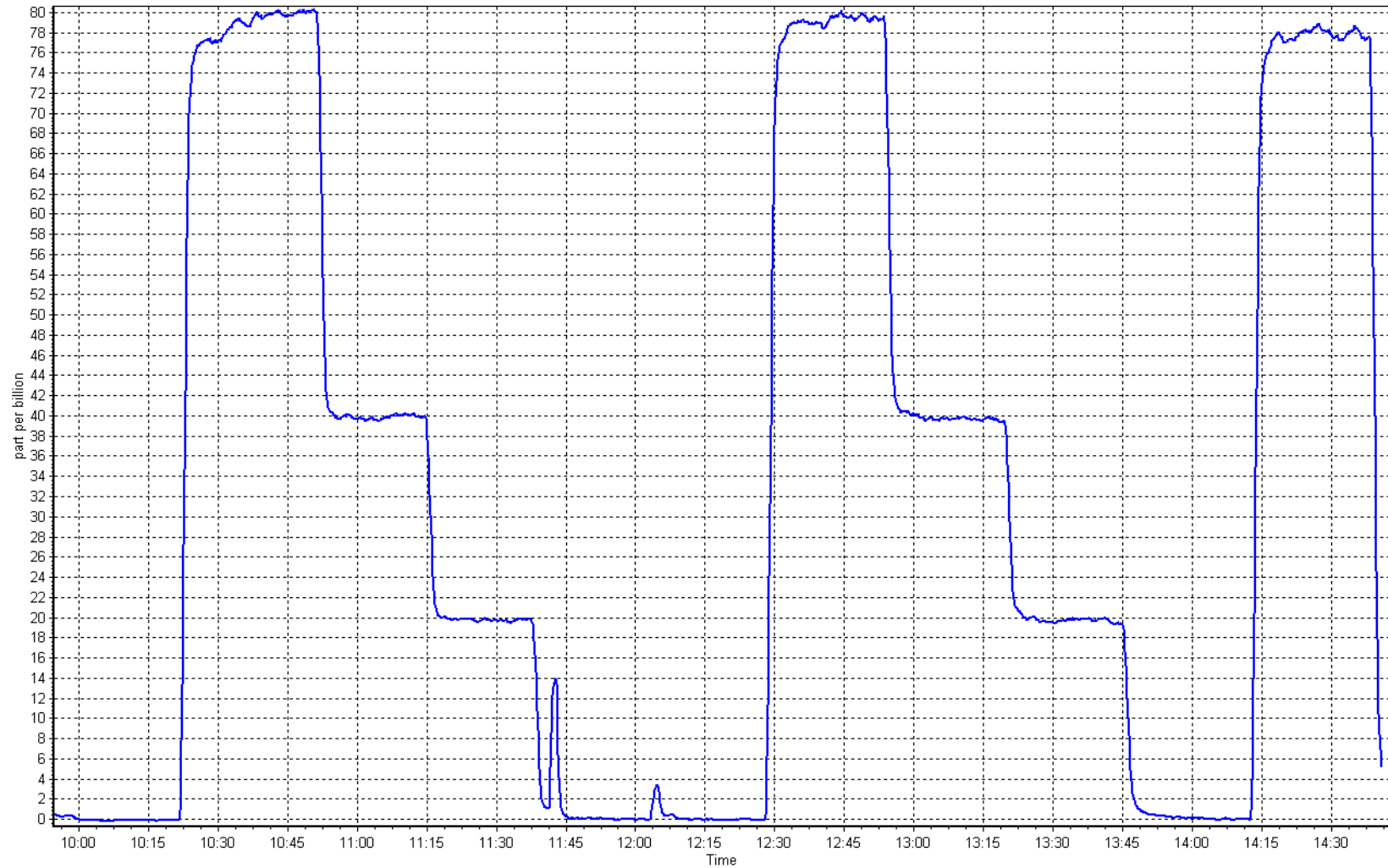
Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 22, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	9:55	End Time (MST):	14:41
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153582

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999997		≥ 0.995
80.0	79.6	1.0049	Slope	0.995425		$0.90 - 1.10$
40.0	39.7	1.0075	Intercept	-0.061589		± 3
20.0	19.8	1.0100				







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Anzac
Calibration Date: June 1, 2026
Start time (MST): 8:05
Reason: Routine

Station number: AMS 14
Last Cal Date: May 14, 2026
End time (MST): 10:58

Calibration Standards

Gas Cert Reference:	CC462030	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	505.3 ppm	CH ₄ Equiv Conc.	1068.8 ppm
C ₃ H ₈ Cal Gas Conc.	204.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH ₄ Conc.	505.3 ppm	CH ₄ Equiv Conc.	1068.8 ppm
Removed C ₃ H ₈ Conc.	204.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	3812
Zero Air Gen model:	API 701H	Serial Number:	357

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1331259521
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.88E-04	3.93E-04	NMHC SP Ratio:	6.23E-05
CH ₄ Retention time:	16.6	16.8	NMHC Peak Area:	143908
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	17.00	16.92	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.92	Prev response	16.92	*% change	0.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	17.00	16.98	1.001
Mid point	4960	39.8	8.51	8.41	1.011
Low point	4980	19.9	4.25	4.19	1.016
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	17.00	16.97	1.001
Average Correction Factor					1.009

Notes:

No Maintenance done. Span adjusted.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.5	8.96	8.98	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.98	Prev response	8.92	*% change	0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	8.96	8.95	1.001
Mid point	4960	39.8	4.49	4.46	1.007
Low point	4980	19.9	2.24	2.22	1.009
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.96	8.94	1.002
Average Correction Factor					1.006

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.5	8.04	7.94	1.012
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.94	Prev response	8.00	*% change	-0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	8.04	8.04	1.000
Mid point	4960	39.8	4.02	3.96	1.017
Low point	4980	19.9	2.01	1.97	1.023
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.04	8.03	1.000
Average Correction Factor					1.013

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.998091	0.999866
THC Cal Offset:	-0.040003	-0.043207
CH ₄ Cal Slope:	0.999033	1.001023
CH ₄ Cal Offset:	-0.027488	-0.031489
NMHC Cal Slope:	0.997463	0.998904
NMHC Cal Offset:	-0.013115	-0.011518

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

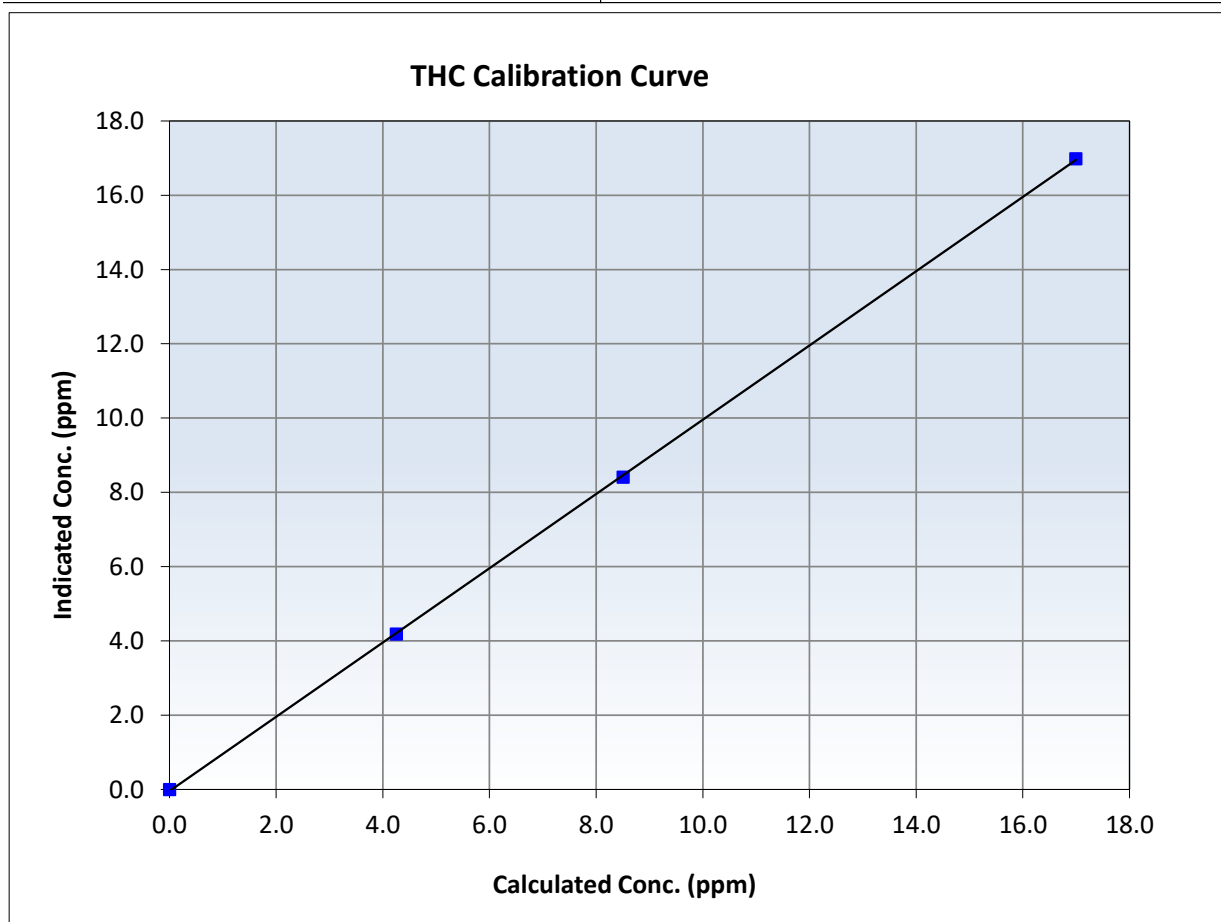
THC Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	8:05	End Time (MST):	10:58
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999962	≥ 0.995
17.00	16.98	1.0008	Slope	0.999866	$0.90 - 1.10$
8.51	8.41	1.0113	Intercept	-0.043207	± 0.5
4.25	4.19	1.0162			





Wood Buffalo Environmental Association

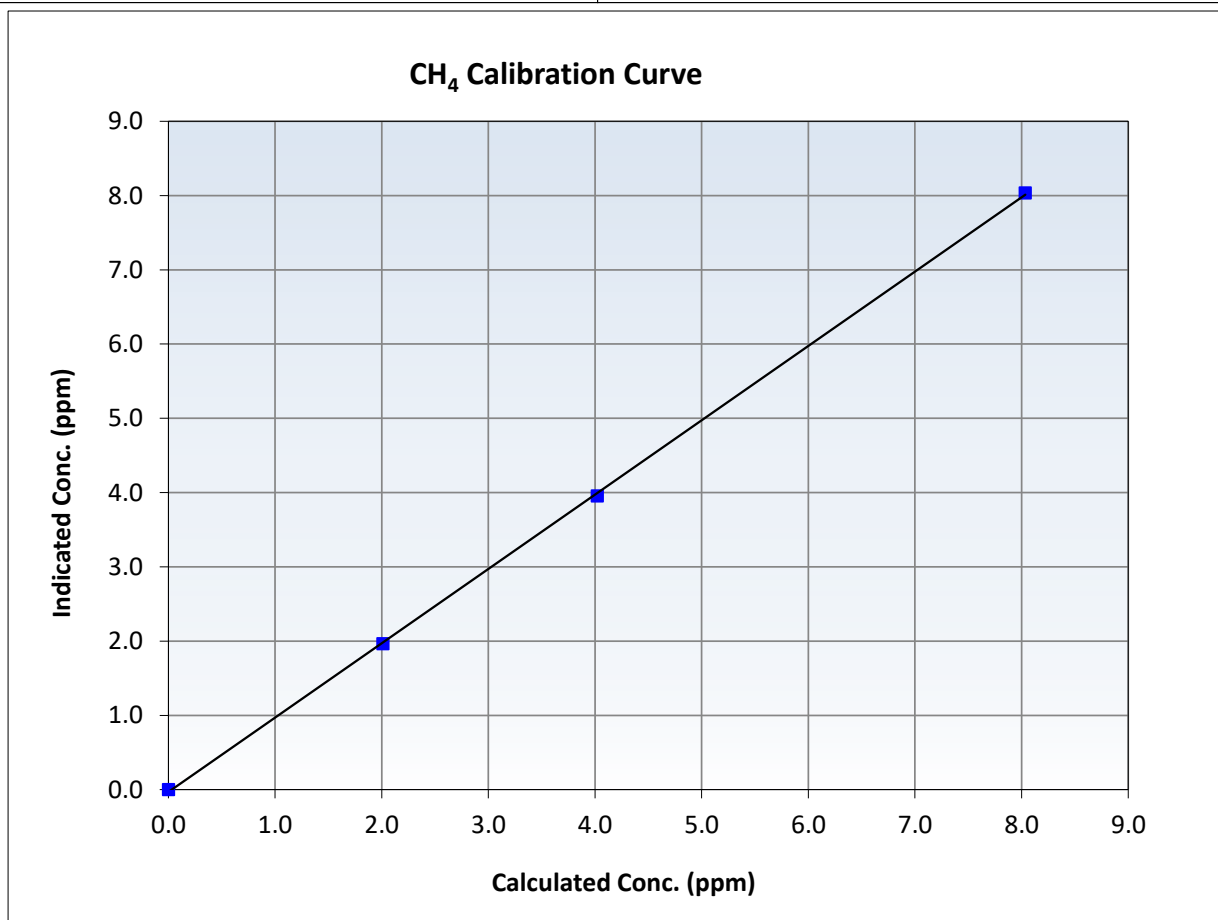
CH₄ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	8:05	End Time (MST):	10:58
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999908	<i>≥0.995</i>
8.04	8.04	1.0000	Slope	1.001023	<i>0.90 - 1.10</i>
4.02	3.96	1.0165	Intercept	-0.031489	<i>+/-0.5</i>
2.01	1.97	1.0235			





Wood Buffalo Environmental Association

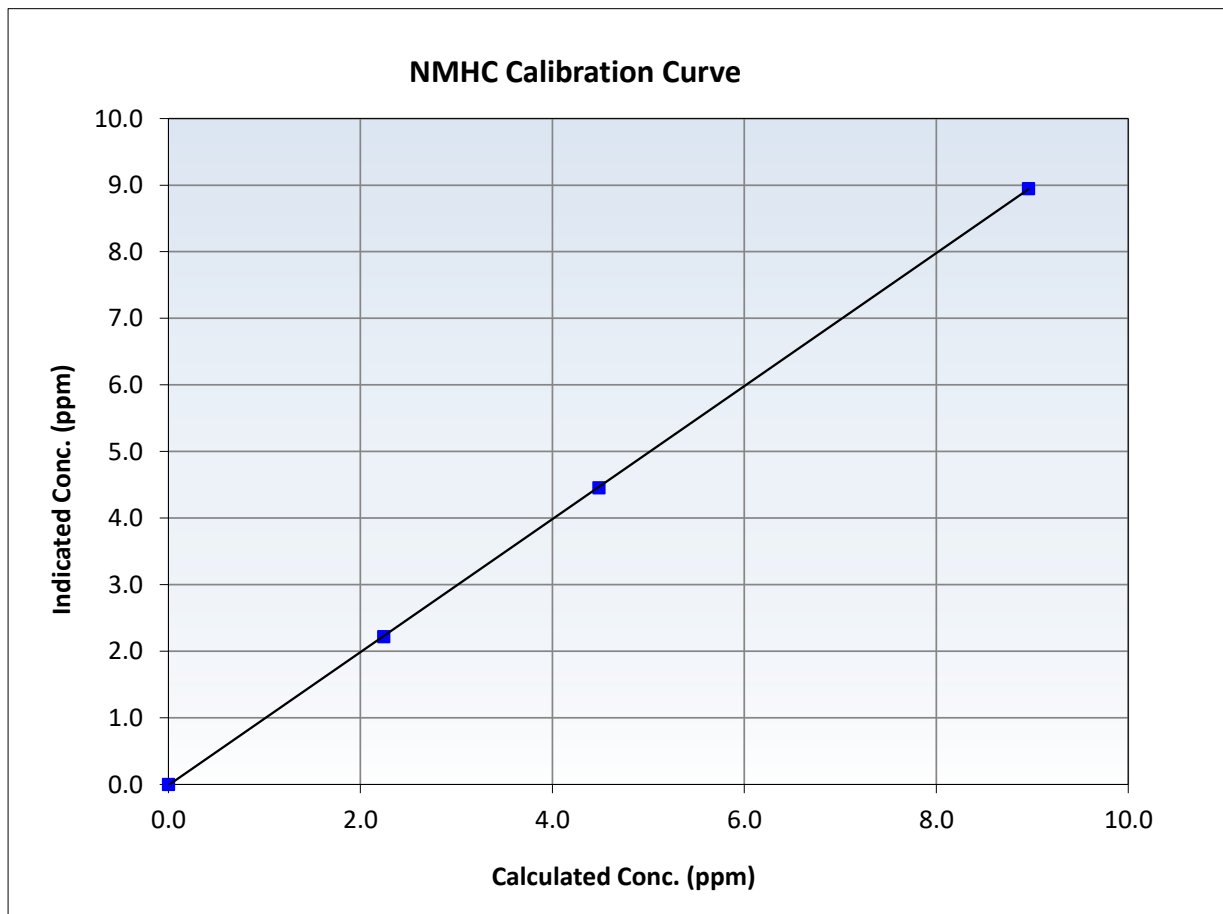
NMHC Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	8:05	End Time (MST):	10:58
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

Calibration Data

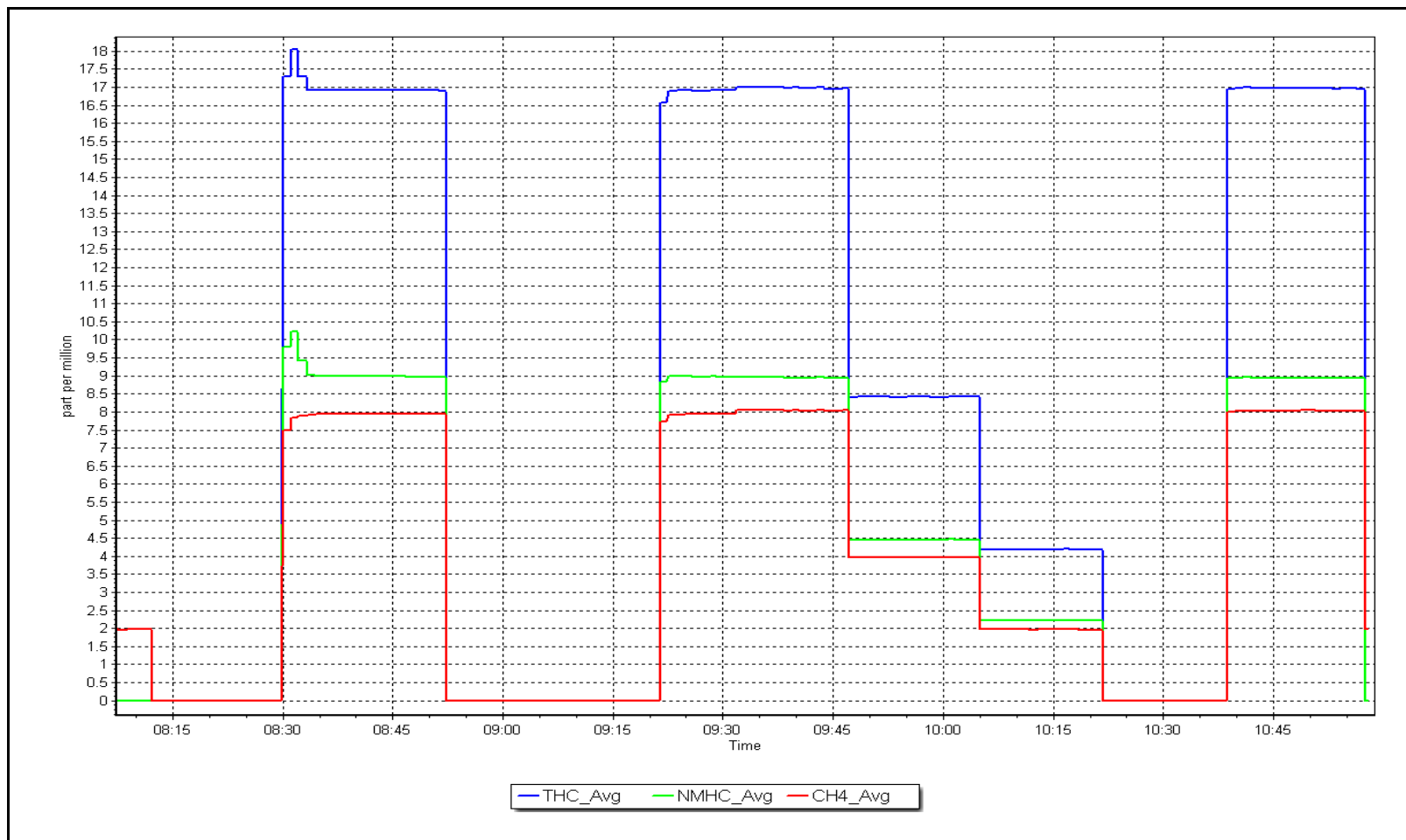
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999991	≥ 0.995
8.96	8.95	1.0015	Slope	0.998904	$0.90 - 1.10$
4.49	4.46	1.0066	Intercept	-0.011518	± 0.5
2.24	2.22	1.0093			



NMHC Calibration Plot

Date: June 1, 2026

Location: Anzac





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Anzac
Calibration Date: June 30, 2026
Start time (MST): 7:14
Reason: Cylinder Change

Station number: AMS 14
Last Cal Date: June 1, 2026
End time (MST): 8:26

Calibration Standards

Gas Cert Reference:	CC462030	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	505.3 ppm	CH ₄ Equiv Conc.	1068.8 ppm
C ₃ H ₈ Cal Gas Conc.	204.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH ₄ Conc.	505.3 ppm	CH ₄ Equiv Conc.	1068.8 ppm
Removed C ₃ H ₈ Conc.	204.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	3812
Zero Air Gen model:	API 701H	Serial Number:	357

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1331259521
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.93E-04	3.93E-04	NMHC SP Ratio:	6.23E-05	6.23E-05
CH ₄ Retention time:	16.8	16.8	NMHC Peak Area:	143854	143854
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	17.00	16.49	1.030
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.49	Prev response	16.95	*% change	-2.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	17.00	16.48	1.031
Average Correction Factor					

Notes:

Nitrogen Cylinder Change.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.5	8.96	8.64	1.037
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.64	Prev response	8.94	*% change	-3.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.96	8.62	1.039
Average Correction Factor					

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	79.5	8.04	7.85	1.023
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.85	Prev response	8.01	*% change	-2.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.04	7.85	1.023
Average Correction Factor					

Calibration Statistics

	<u>Start</u>	
THC Cal Slope:	0.999866	
THC Cal Offset:	-0.043207	
CH ₄ Cal Slope:	1.001023	
CH ₄ Cal Offset:	-0.031489	
NMHC Cal Slope:	0.998904	
NMHC Cal Offset:	-0.011518	

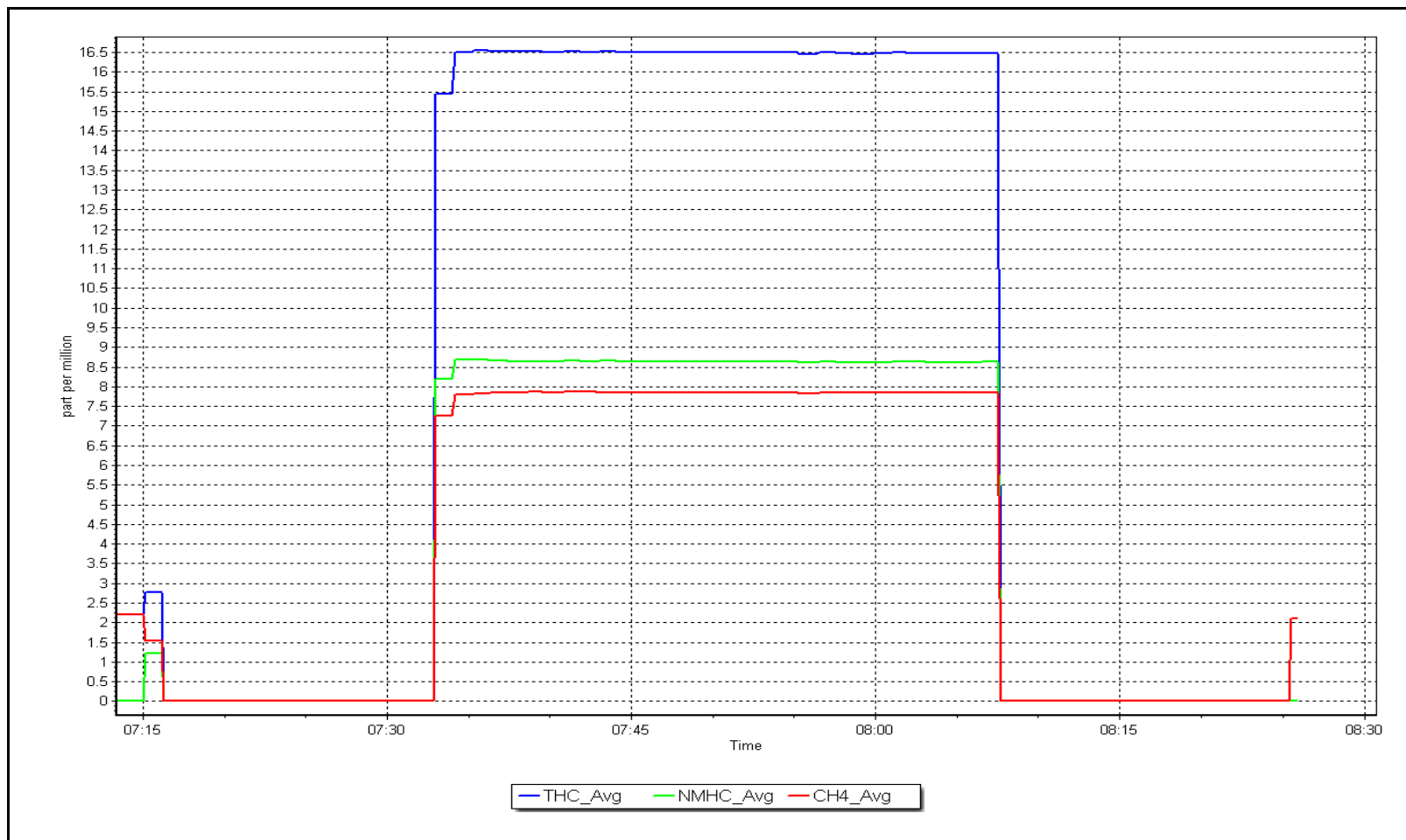
Finish

Calibration Performed By: Melissa Lemay

NMHC Calibration Plot

Date: June 30, 2026

Location: Anzac





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Anzac
 Station number: AMS 14
 Calibration Date: June 2, 2026
 Last Cal Date: May 1, 2026
 Start time (MST): 10:20
 End time (MST): 15:20
 Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0037092
 NOX Cal Gas Conc: 60.7 ppm
 Removed Cylinder #: NA
 Removed Gas NOX Conc: 60.70 ppm
 NOX gas Diff:
 Calibrator Model: Teledyne API T700
 ZAG make/model: Teledyne API T701H
 Cal Gas Expiry Date: May 16, 2031
 NO Cal Gas Conc: 60.40 ppm
 Removed Gas Exp Date: NA
 Removed Gas NO Conc: 60.40 ppm
 NO gas Diff:
 Serial Number: 3812
 Serial Number: 357

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.3	0.0	0.3	----	----
AF High point	4934	66.2	803.6	799.7	4.0	797.7	791.7	6.0	1.0078	1.0101
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 794.0 ppb	NO = 791.3 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = 0.4%
Baseline Corr 1st pt	NO _x = 797.4 ppb	NO = 791.7 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 0.0%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO ₂ SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1152430008

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.375	1.386	NO bkgnd or offset:	3.7	3.8
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	3.7	3.8
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	150.0	152.4

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.987904	0.995359
NO _x Cal Offset:	0.129147	1.106859
NO Cal Slope:	0.991122	0.999500
NO Cal Offset:	-1.229604	-0.712100
NO ₂ Cal Slope:	0.996427	0.996482
NO ₂ Cal Offset:	-0.615161	-0.393098

Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.5	0.2	0.3	----	----
High point	4934	66.2	803.6	799.7	4.0	800.6	799.0	1.8	1.0038	1.0008
Mid point	4967	33.1	401.8	399.8	2.0	401.7	398.5	3.2	1.0003	1.0034
Low point	4983	16.6	201.5	200.5	1.0	202.1	198.8	3.3	0.9972	1.0088
As left zero	5000	0.0	0.0	0.0	0.0	0.5	0.2	0.3	----	----
As left span	4934	66.2	803.6	385.6	418.0	800.1	385.6	414.5	1.0044	1.0000
Average Correction Factor									1.0004	1.0043

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.3	----	----
High GPT point	796.1	384.1	416.0	414.3	1.0040	99.6%
Mid GPT point	796.1	596.5	203.6	202.6	1.0048	99.5%
Low GPT point	796.1	696.8	103.3	101.5	1.0175	98.3%
Average Correction Factor					1.0088	99.1%

Notes:

Span adjusted.

Calibration Performed By:

Param Kaur



Wood Buffalo Environmental Association

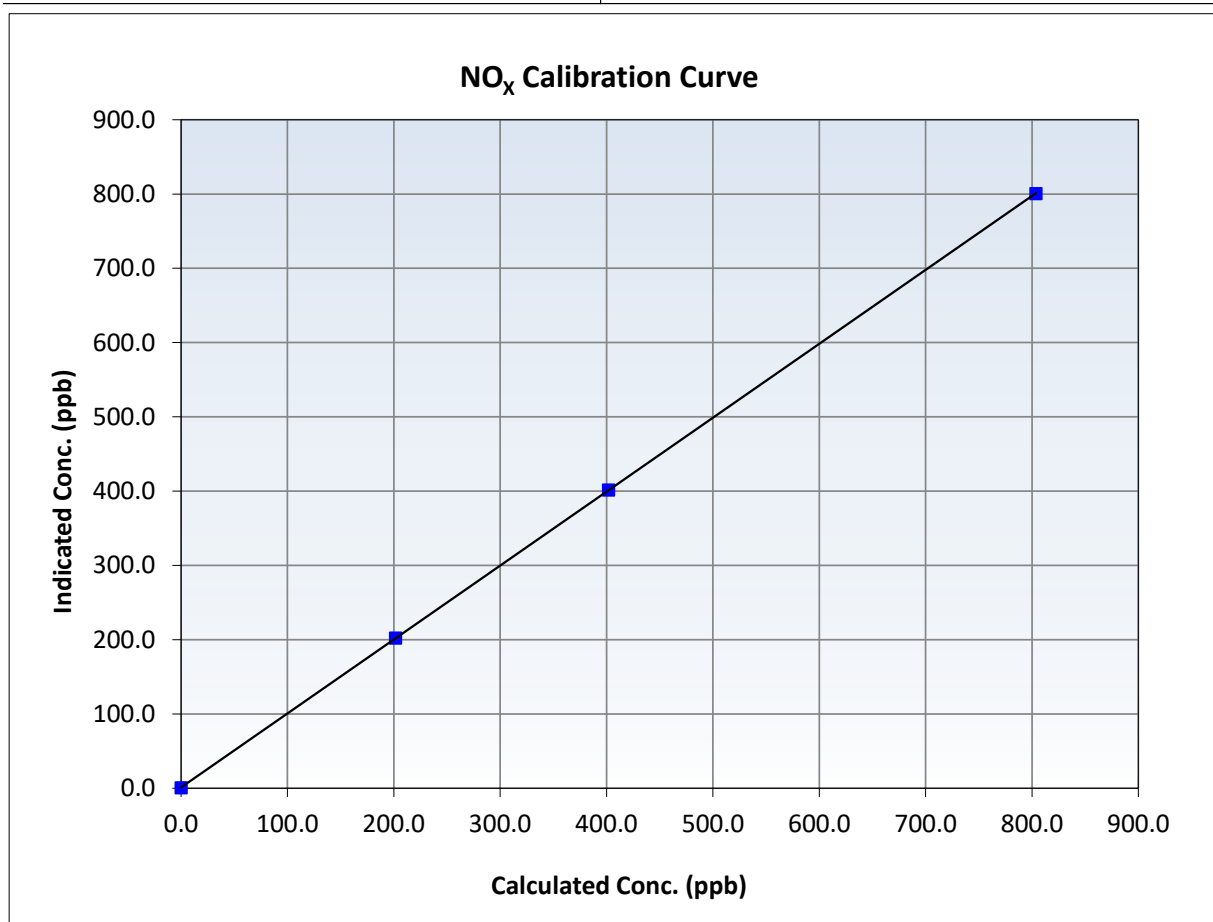
NO_x Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 1, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	10:20	End Time (MST):	15:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.5	----	Correlation Coefficient	0.999997	≥0.995
803.6	800.6	1.0038	Slope	0.995359	0.90 - 1.10
401.8	401.7	1.0003	Intercept	1.106859	+/-20
201.5	202.1	0.9972			





Wood Buffalo Environmental Association

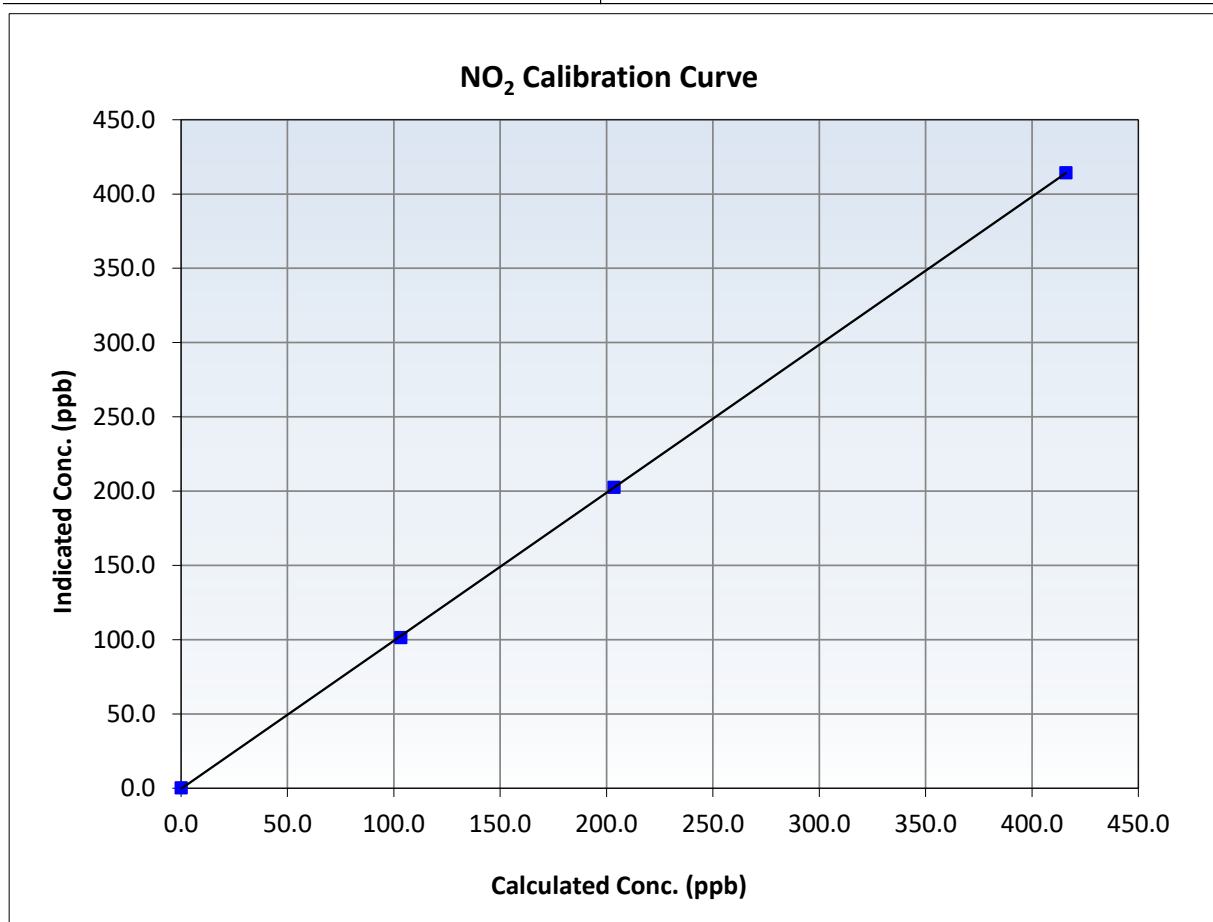
NO₂ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 1, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	10:20	End Time (MST):	15:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999983	≥0.995
416.0	414.3	1.0040	Slope	0.996482	0.90 - 1.10
203.6	202.6	1.0048	Intercept	-0.393098	+/-20
103.3	101.5	1.0175			





Wood Buffalo Environmental Association

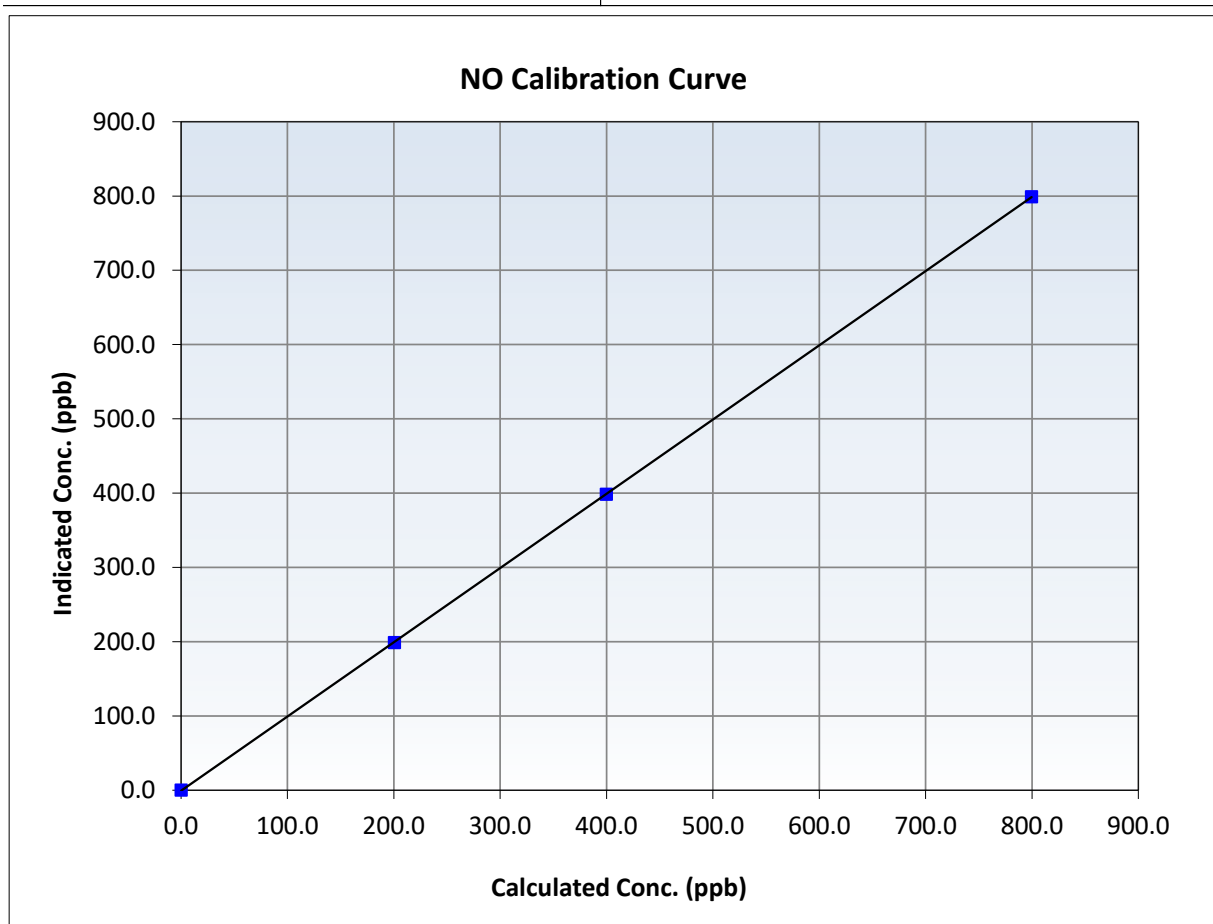
NO Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 1, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	10:20	End Time (MST):	15:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

Calibration Data

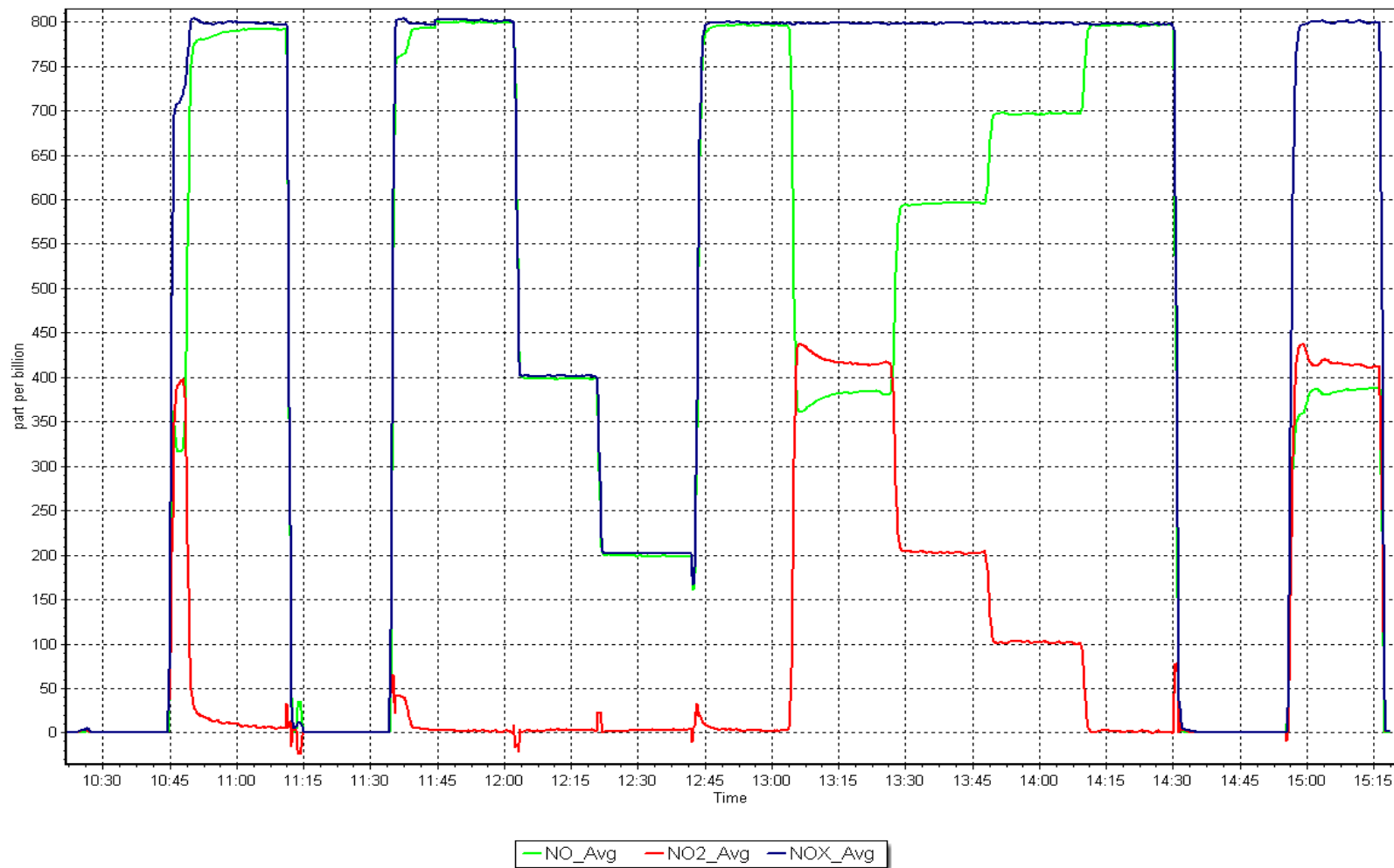
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999994	≥ 0.995
799.7	799.0	1.0008	Slope	0.999500	$0.90 - 1.10$
399.8	398.5	1.0034	Intercept	-0.712100	± 20
200.5	198.8	1.0088			



NO_x Calibration Plot

Date: June 2, 2026

Location: Anzac





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Anzac
Calibration Date: June 8, 2026
Start time (MST): 10:50
Reason: Routine

Station number: AMS 14
Last Cal Date: May 28, 2026
End time (MST): 14:20

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: API T700
ZAG Make/Model: API T701H

Serial Number: 3812
Serial Number: 357

Analyzer Information

Analyzer make: Thermo 49i
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 1152220023

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998914	1.002771	Backgd or Offset:	-0.8	-0.8
Calibration intercept:	0.340000	0.340000	Coeff or Slope:	1.532	1.532

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	5000	936.0	400.0	402.0	0.994
As found Mid point					
As found Low point					
Baseline Corr As found:	402.3	Previous response	399.9	*% change	0.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	5000	934.5	400.0	401.0	0.998
Mid point	5000	810.2	200.0	201.6	0.992
Low point	5000	713.9	100.0	101.0	0.990
As left zero	5000	0.0	0.0	-0.4	----
As left span	5000	933.9	400.0	405.0	0.988
Average Correction Factor					0.993

Notes: Sample inlet filter was changed after as founds. No adjustments made.

Calibration Performed By: Param Kaur



Wood Buffalo Environmental Association

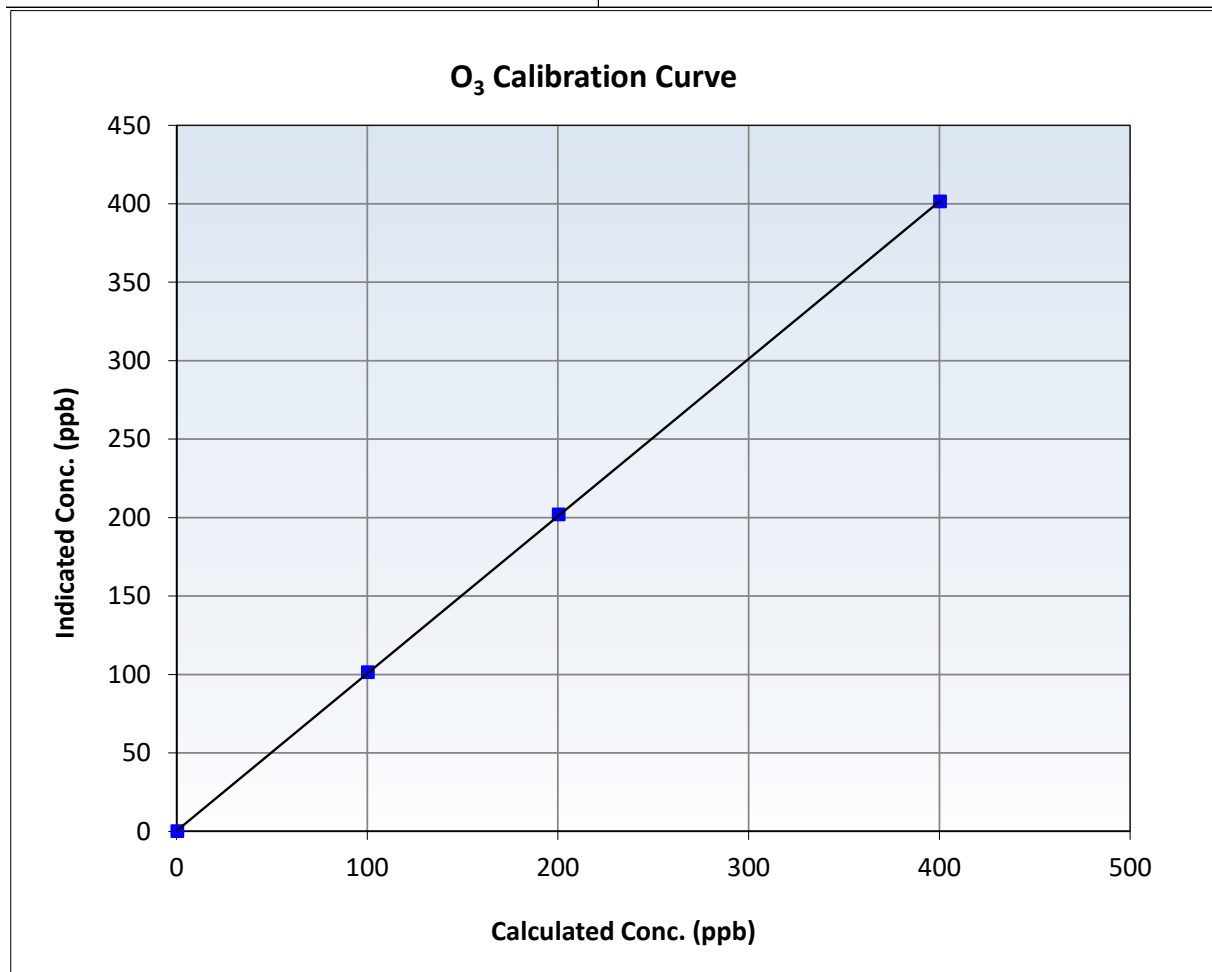
O₃ Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	May 28, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	10:50	End Time (MST):	14:20
Analyzer make:	Thermo 49i	Analyzer serial #:	1152220023

Calibration Data

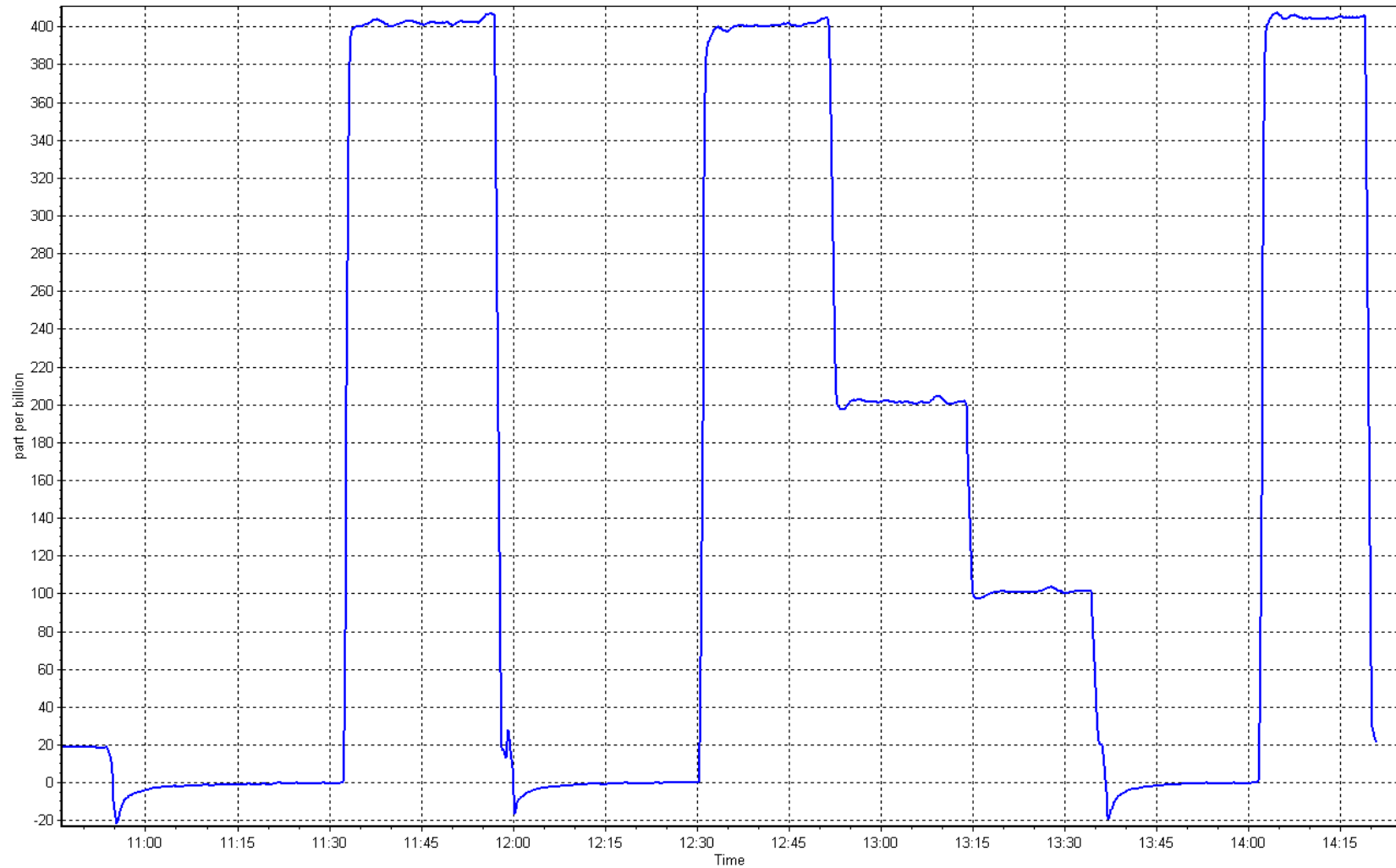
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999986	≥ 0.995
400.0	401.0	0.9975	Slope	1.002771	$0.90 - 1.10$
200.0	201.6	0.9921	Intercept	0.340000	± 5
100.0	101.0	0.9901			



O₃ Calibration Plot

Date: June 8, 2026

Location: Anzac





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Anzac Station number: AMS 14
Calibration Date: June 12, 2026 Last Cal Date: May 22, 2026
Start time (MST): 10:28 End time (MST): 10:48

Analyzer Make: AP T640 S/N: 825
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745
Temp/RH standard: Alicat FP-25BT S/N: 388745

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	14.10	13.95	14.10	☐	+/- 2 °C
P (mmHg)	717.10	718.37	717.10	☐	+/- 10 mmHg
Flow (LPM)	5.01	5.04	5.01	☐	+/- 0.25 LPM
PW% (pump)	36	-----	36	☐	>80%
Zero Verification	PM w/o HEPA:	4.00	PM w/ HEPA:	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: May 22, 2026
Date Disposable Filter Changed: May 22, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: May 22, 2026
Date RH/T Sensor Cleaned: May 22, 2026

Notes: Verified the flow, temperature, pressure and pump PWM. Leak check passed. No adjustments made.

Calibration by: Param Kaur



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS17
WAPASU
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Wapasu Station number: AMS17
Calibration Date: June 11, 2026 Last Cal Date: May 6, 2026
Start time (MST): 10:22 End time (MST): 13:10
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.12 ppm Cal Gas Exp Date: April 9, 2033
Cal Gas Cylinder #: CC422255
Removed Cal Gas Conc: 50.12 ppm Rem Gas Exp Date:
Removed Gas Cyl #: N/A Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 2448
Zero Air Gen Model: Teledyne API 701H Serial Number: 1238

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1218153459
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005694	0.996720	Backgd or Offset:	15.7	15.2
Calibration intercept:	-0.616694	-1.374730	Coeff or Slope:	1.094	1.081

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.5	----
As found High point	4920	79.8	799.9	804.9	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	805.4	Previous response	803.9	*% change	0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4920	79.8	799.9	796.8	1.004
Mid point	4960	39.9	400.0	395.9	1.010
Low point	4980	20.0	200.5	197.8	1.014
As left zero	5000	0.0	0.0	-0.3	----
As left span	4920	79.8	799.9	795.3	1.006
Average Correction Factor:					1.009

Notes: Sample inlet filter changed after as founds. Adjusted span.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

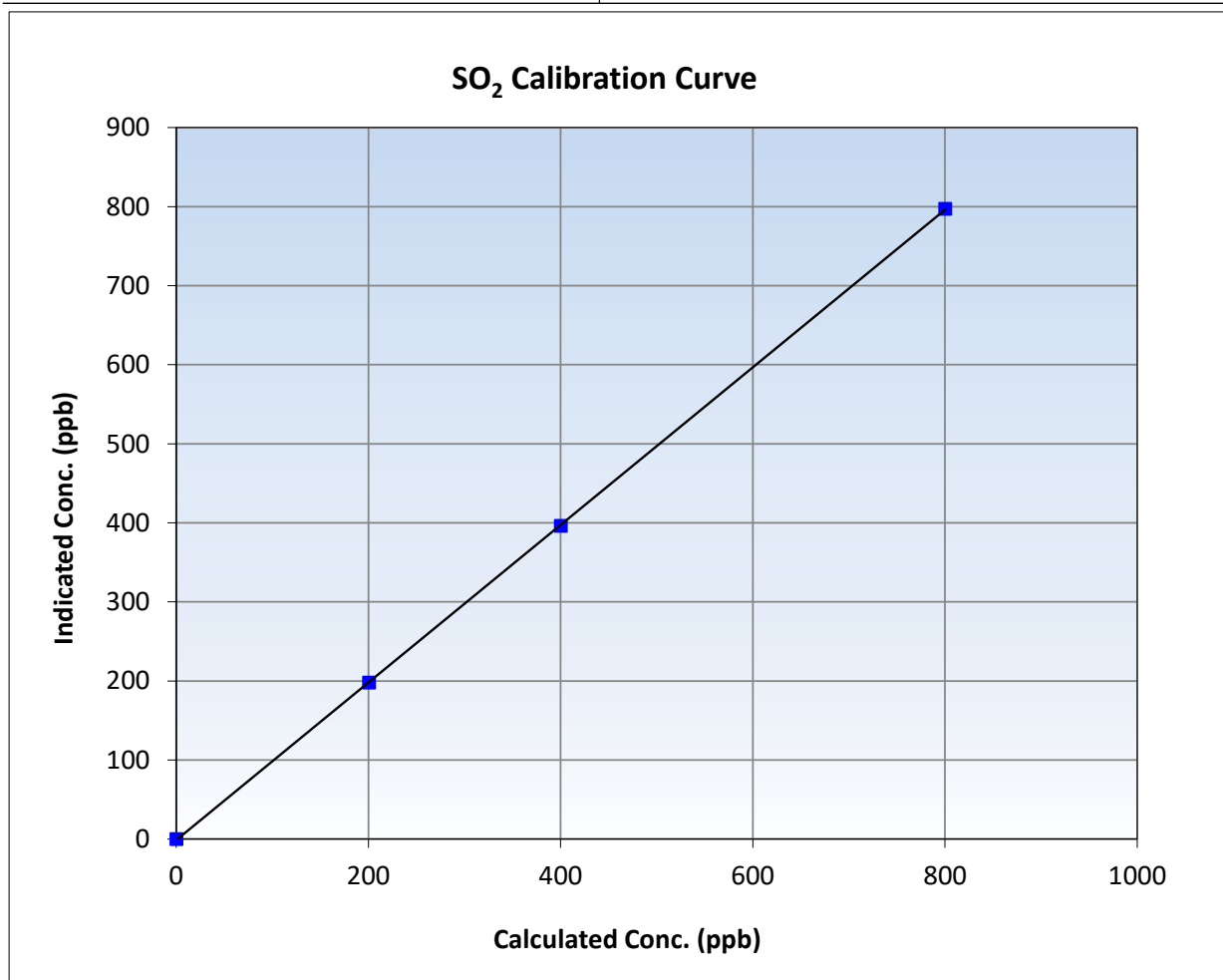
SO₂ Calibration Summary

Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 6, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	10:22	End Time (MST):	13:10
Analyzer make:	Thermo 43i	Analyzer serial #:	1218153459

Calibration Data

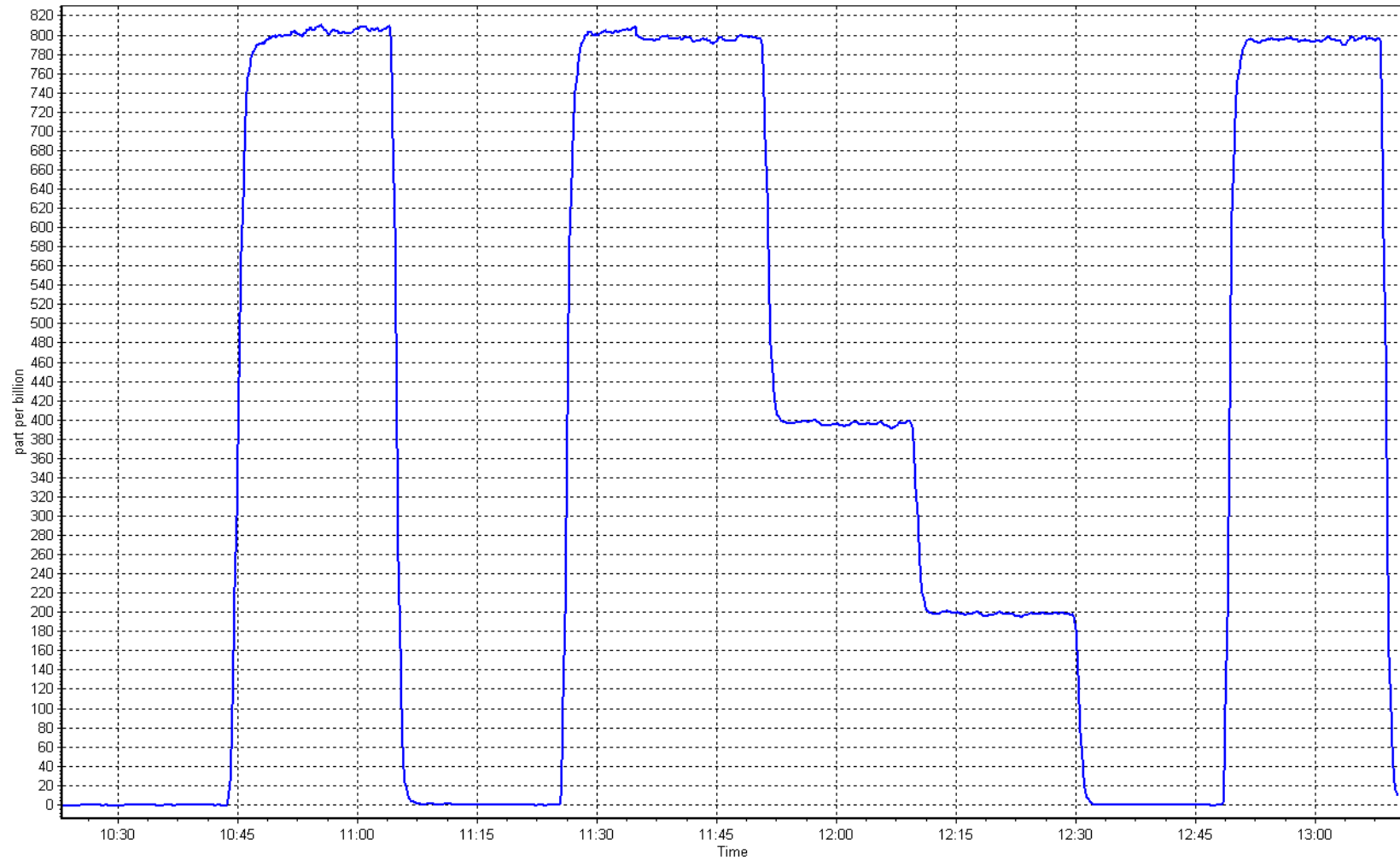
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	-0.2	----	Correlation Coefficient	0.999987	≥0.995
799.9	796.8	1.0039	Slope	0.996720	0.90 - 1.10
400.0	395.9	1.0103	Intercept	-1.374730	+/-30
200.5	197.8	1.0135			



SO2 Calibration Plot

Date: June 11, 2026

Location: Wapasu





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H₂S Calibration Report

Station Information

Station Name: Wapasu
Calibration Date: June 8, 2026
Start time (MST): 10:22
Reason: Routine

Station number: AMS 17
Last Cal Date: May 30, 2026
End time (MST): 14:17

Calibration Standards

Cal Gas Concentration: 4.77 ppm
Cal Gas Cylinder #: DT20029267
Removed Cal Gas Conc: 4.77 ppm
Removed Gas Cyl #:
Calibrator Make/Model: API T700
ZAG Make/Model: API T701H

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 2448
Serial Number: 1238

Analyzer Information

Analyzer make: Thermo 43iQ-TL
Converter make: Global G150
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 12228021057
Converter serial #: 2026-101
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.007068	1.004353	Backgd or Offset:	3.12	2.75
Calibration intercept:	-0.159881	-0.039799	Coeff or Slope:	1.037	1.014

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4916	83.9	80.0	79.0	1.012
As found Mid point	4958	41.9	40.0	39.5	1.009
As found Low point	4979	21.0	20.0	19.7	1.012
New cylinder response					
Baseline Corr As found:	79.1	Prev response:	80.45	*% change:	-1.7%
Baseline Corr 2nd AF pt:	39.6	AF Slope:	0.988358	AF Intercept:	-0.079802
Baseline Corr 3rd AF pt:	19.8	AF Correlation:	0.999998	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4916	83.9	80.0	80.3	0.997
Mid point	4958	41.9	40.0	40.2	0.994
Low point	4979	21.0	20.0	20.1	0.997
As left zero	5000	0.0	0.0	0.0	----
As left span	4916	83.9	80.0	80.6	0.993
SO2 Scrubber Check	4920	79.8	798.0	0.0	----
Date of last scrubber change:		N/A		Ave Corr Factor	0.996
Date of last converter efficiency test:		N/A			

Notes: Sample inelt filter was changed after multipoint as founds. SO2 scrubber check done and passed.
Adjusted span only.

Calibration Performed By: Jan Castro



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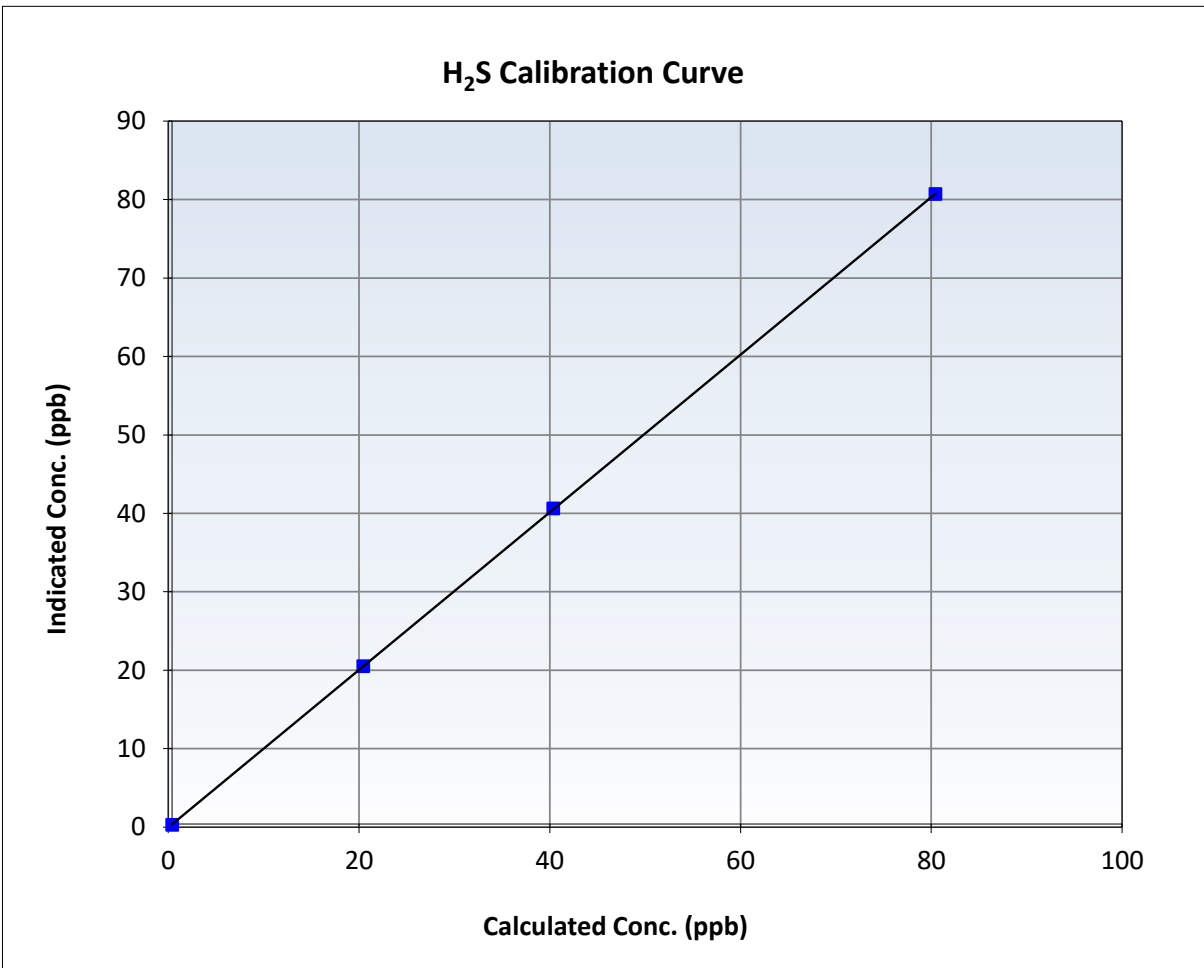
H₂S Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	May 30, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	10:22	End Time (MST):	14:17
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	12228021057

Calibration Data

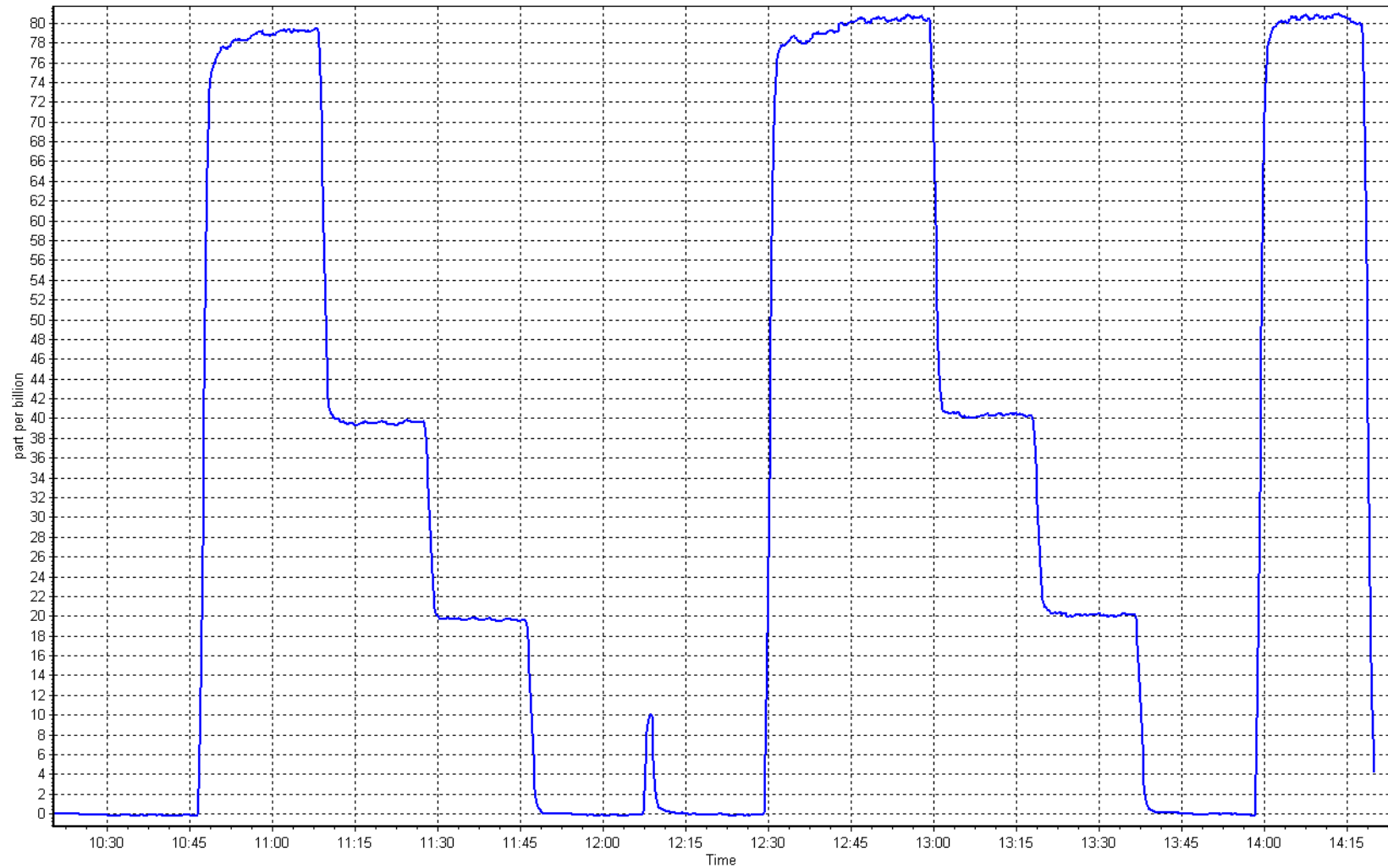
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999996	≥ 0.995
80.0	80.3	0.9968	Slope	1.004353	$0.90 - 1.10$
40.0	40.2	0.9944	Intercept	-0.039799	± 3
20.0	20.1	0.9967			



H₂S Calibration Plot

Date: June 8, 2026

Location: Wapasu





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Wapasu
Calibration Date: June 11, 2026
Start time (MST): 10:22
Reason: Routine

Station number: AMS17
Last Cal Date: May 6, 2026
End time (MST): 13:10

Calibration Standards

Gas Cert Reference: CC422255
CH4 Cal Gas Conc. 499.6 ppm
C3H8 Cal Gas Conc. 203.4 ppm
Removed Gas Cert: n/a
Removed CH4 Conc. 499.6 ppm
Removed C3H8 Conc. 203.4 ppm
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API 701H

Cal Gas Expiry Date: April 9, 2033
CH4 Equiv Conc. 1059.0 ppm
Removed Gas Expiry:
CH4 Equiv Conc. 1059.0 ppm
Diff between cyl:
Serial Number: 2448
Serial Number: 1238

Analyzer Information

Analyzer make: Thermo 51i-LT
Analyzer Range: 0 - 20 ppm

Analyzer serial #: 1218153352

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999229	1.013495	Background:	3.150	3.200
Calibration intercept:	0.080229	-0.245798	Coefficient:	4.353	4.416

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.26	----
As found High point	4920	79.8	16.90	16.64	1.000
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	16.90	Previous response	16.97	*% change	-0.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	-0.24	----
High point	4920	79.8	16.90	16.90	1.000
Mid point	4960	39.9	8.45	8.29	1.020
Low point	4980	20.0	4.24	4.06	1.043
As left zero	5000	0.0	0.00	-0.21	----
As left span	4920	79.8	16.90	16.99	0.995

Average Correction Factor 1.021

Notes:

Sample inlet filter was changed after as founds. Adjusted span.

Calibration Performed By:

Sean Bala



Wood Buffalo Environmental Association

THC Calibration Summary

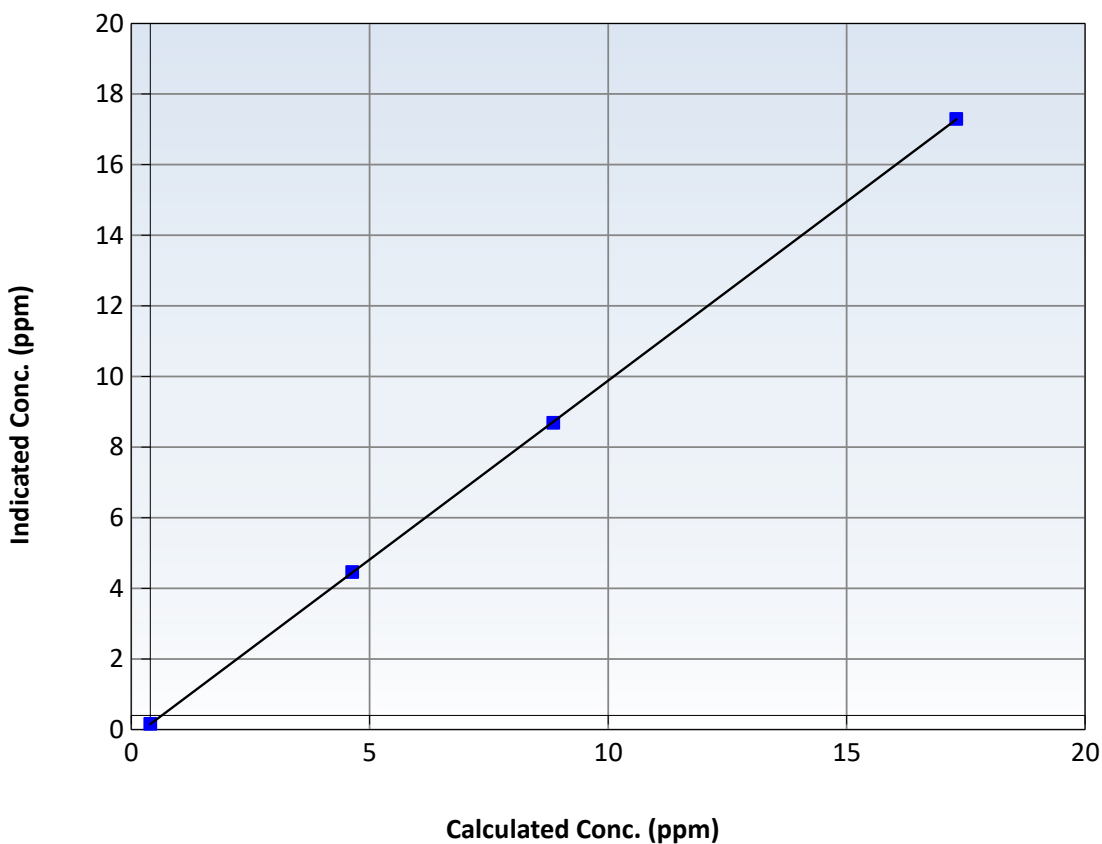
Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 6, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	10:22	End Time (MST):	13:10
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1218153352

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.24	----	Correlation Coefficient	0.999990	≥ 0.995
16.90	16.90	1.0003	Slope	1.013495	$0.90 - 1.10$
8.45	8.29	1.0200	Intercept	-0.245798	± 1.5
4.24	4.06	1.0428			

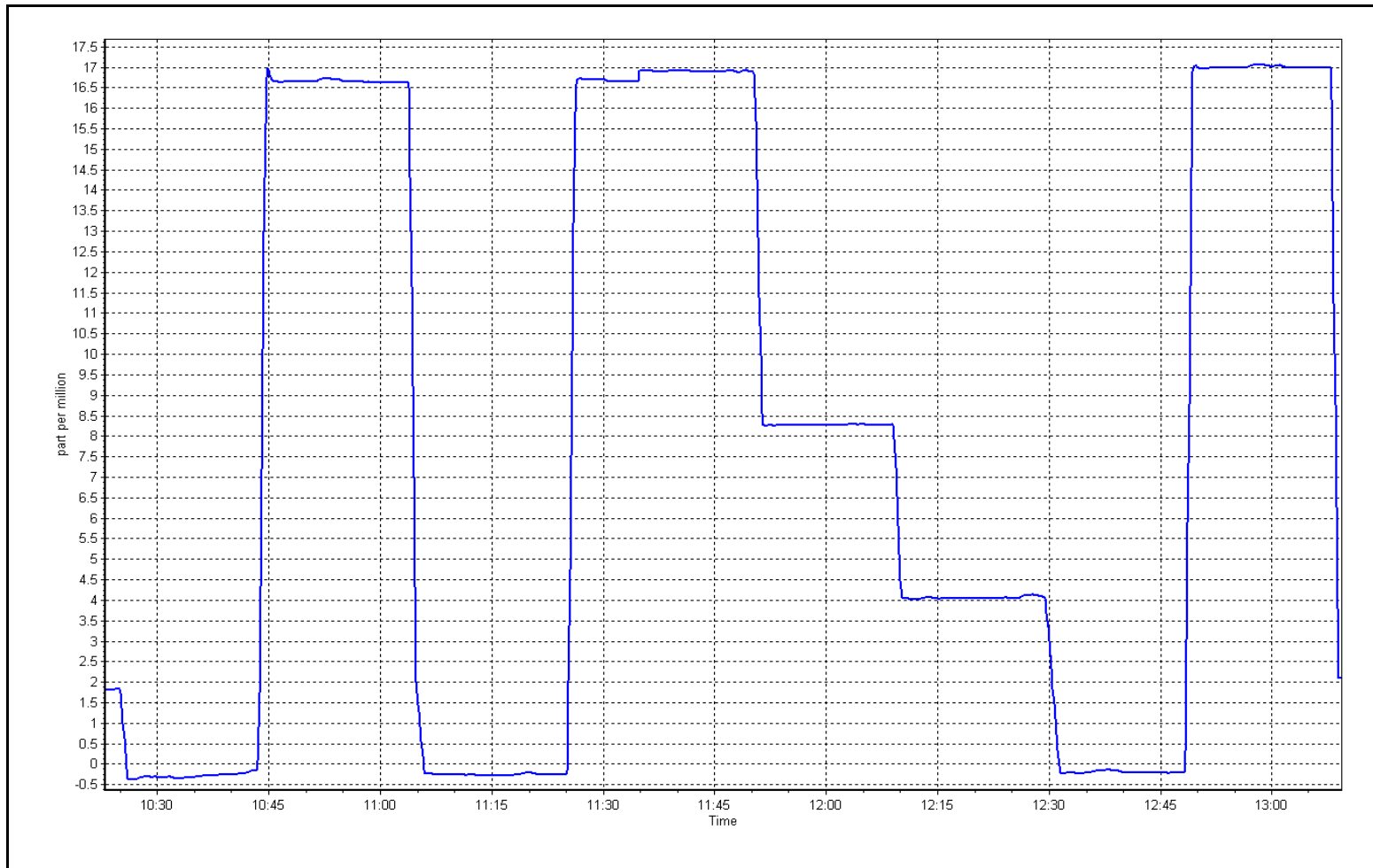
THC Calibration Curve



THC Calibration Plot

Date: June 11, 2026

Location: Wapasu





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Wapasu
Station number: AMS 17
Calibration Date: June 15, 2026
Last Cal Date: May 12, 2026
Start time (MST): 10:47
End time (MST): 14:56
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0045177
NO_x Cal Gas Conc: 61.30 ppm
Removed Cylinder #: NA
Removed Gas NO_x Conc: 61.30 ppm
NO_x gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: July 19, 2032
NO Cal Gas Conc: 61.00 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 61.00 ppm
NO gas Diff:
Serial Number: 2448
Serial Number: 359

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
AF High point	4934	65.6	804.3	800.4	3.9	804.0	798.9	5.2	1.0001	1.0020
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 805.0 ppb	NO = 801.8 ppb				* = > +/-5% change initiates investigation		*Percent Change	NO _x = -0.1%	
Baseline Corr 1st pt	NO _x = 804.2 ppb	NO = 798.8 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.4%	
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found	NO _x r ² :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found	NO r ² :	NO SI:	NO Int:	
						As found	NO ₂ r ² :	NO ₂ SI:	NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo Scientific 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153460

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.029	1.029	NO bkgnd or offset:	3.6	3.6
NOX coeff or slope:	0.997	0.997	NOX bkgnd or offset:	3.9	3.9
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	221.1	221.7

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.999022	0.998865
NO _x Cal Offset:	1.516132	1.696134
NO Cal Slope:	1.001222	0.998524
NO Cal Offset:	0.416029	0.635997
NO ₂ Cal Slope:	0.998393	1.002168
NO ₂ Cal Offset:	-0.035320	0.834390

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.3	-0.3	----	----
High point	4934	65.6	804.3	800.4	3.9	804.2	799.7	4.5	1.0001	1.0009
Mid point	4967	32.8	402.1	400.2	2.0	404.4	400.3	4.1	0.9944	0.9997
Low point	4984	16.4	201.0	200.1	1.0	204.1	200.8	3.2	0.9850	0.9963
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.3	-0.3	----	----
As left span	4934	65.6	804.3	398.4	405.9	806.6	398.4	408.1	0.9972	1.0000
Average Correction Factor									0.9932	0.9990

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.3	----	----
High GPT point	798.5	396.1	406.3	407.8	0.9964	100.4%
Mid GPT point	798.5	596.5	205.9	206.8	0.9958	100.4%
Low GPT point	798.5	698.1	104.3	107.2	0.9733	102.7%
Average Correction Factor					0.9885	101.2%

Notes:

Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By:

Jan Castro



Wood Buffalo Environmental Association

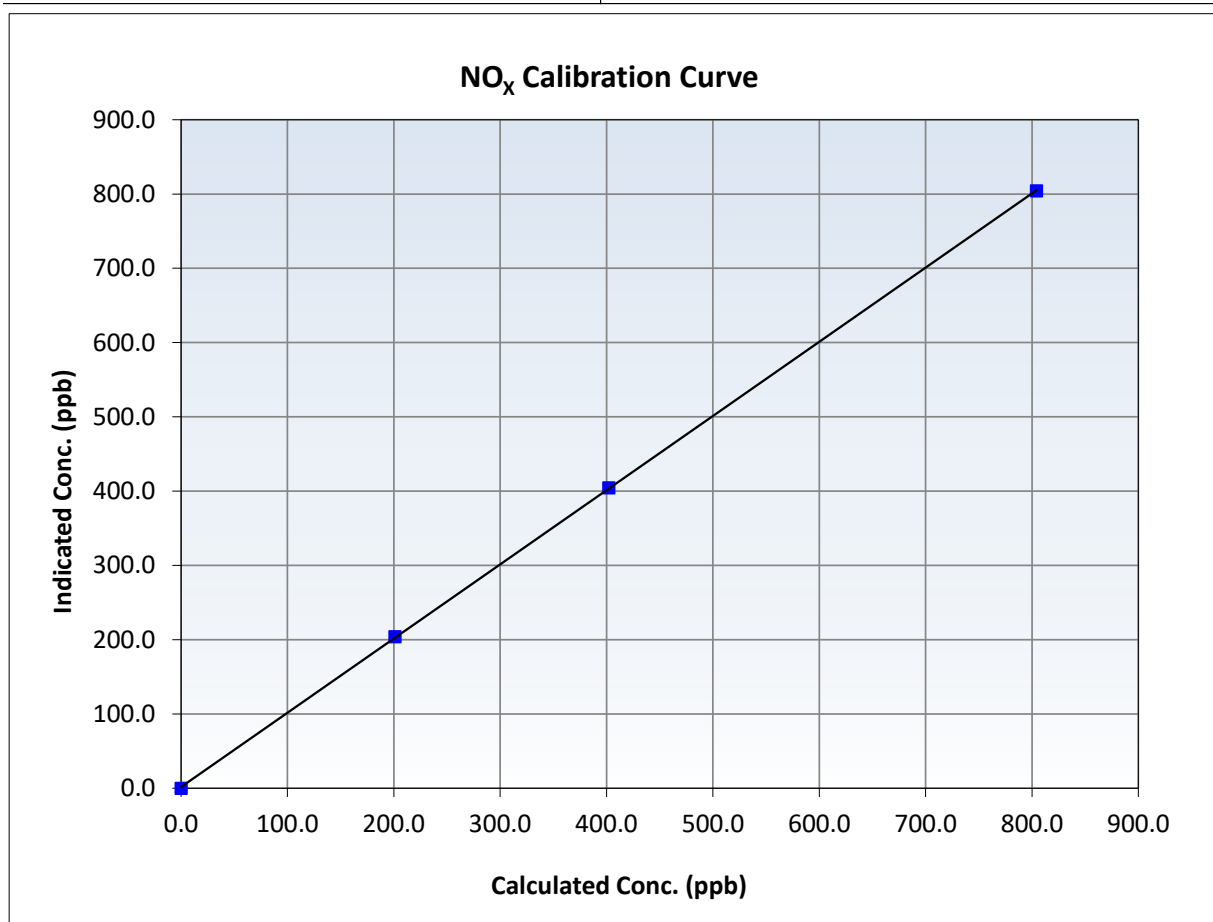
NO_x Calibration Summary

Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 12, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	10:47	End Time (MST):	14:56
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999980	≥0.995
804.3	804.2	1.0001	Slope	0.998865	0.90 - 1.10
402.1	404.4	0.9944	Intercept	1.696134	+/-20
201.0	204.1	0.9850			





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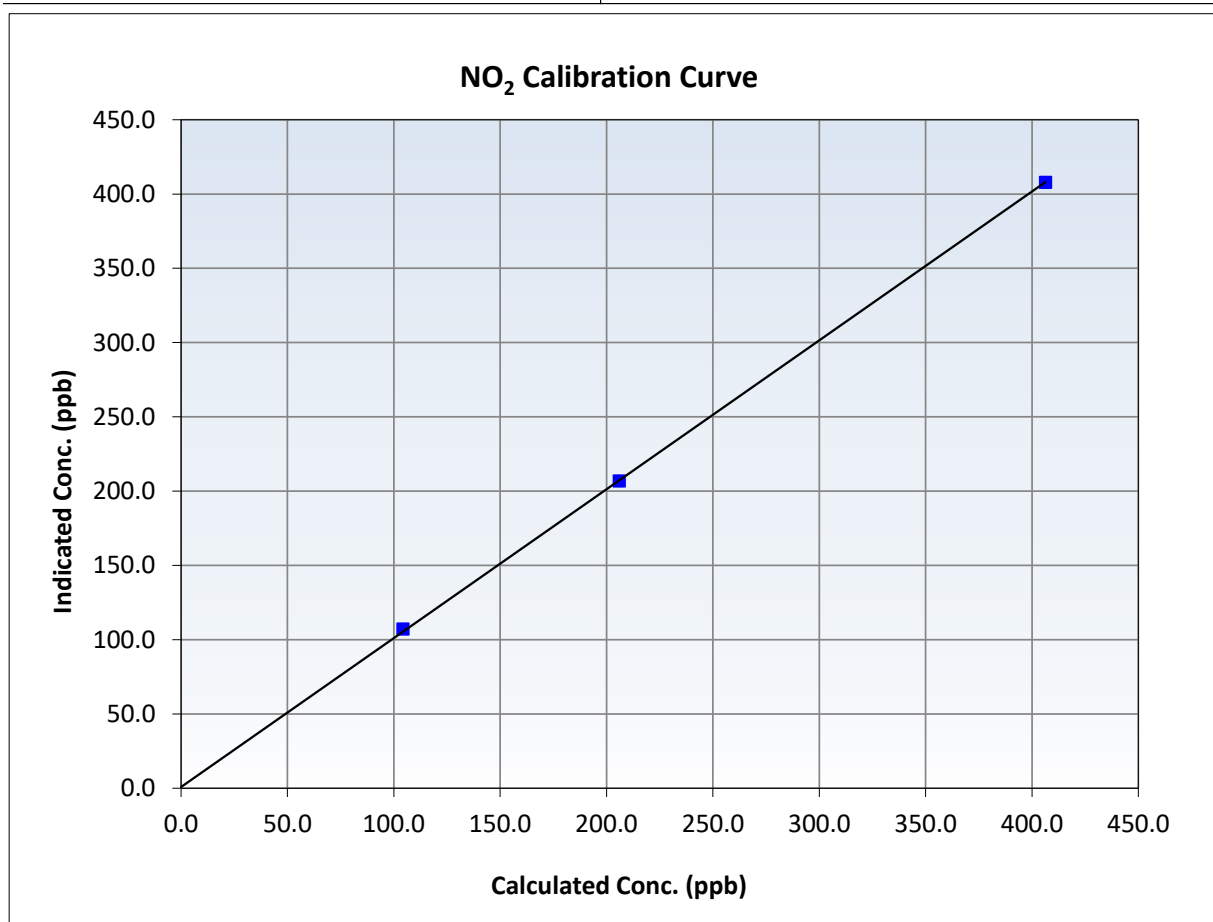
NO₂ Calibration Summary

Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 12, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	10:47	End Time (MST):	14:56
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999947	≥0.995
406.3	407.8	0.9964	Slope	1.002168	0.90 - 1.10
205.9	206.8	0.9958	Intercept	0.834390	+/-20
104.3	107.2	0.9733			





Wood Buffalo Environmental Association

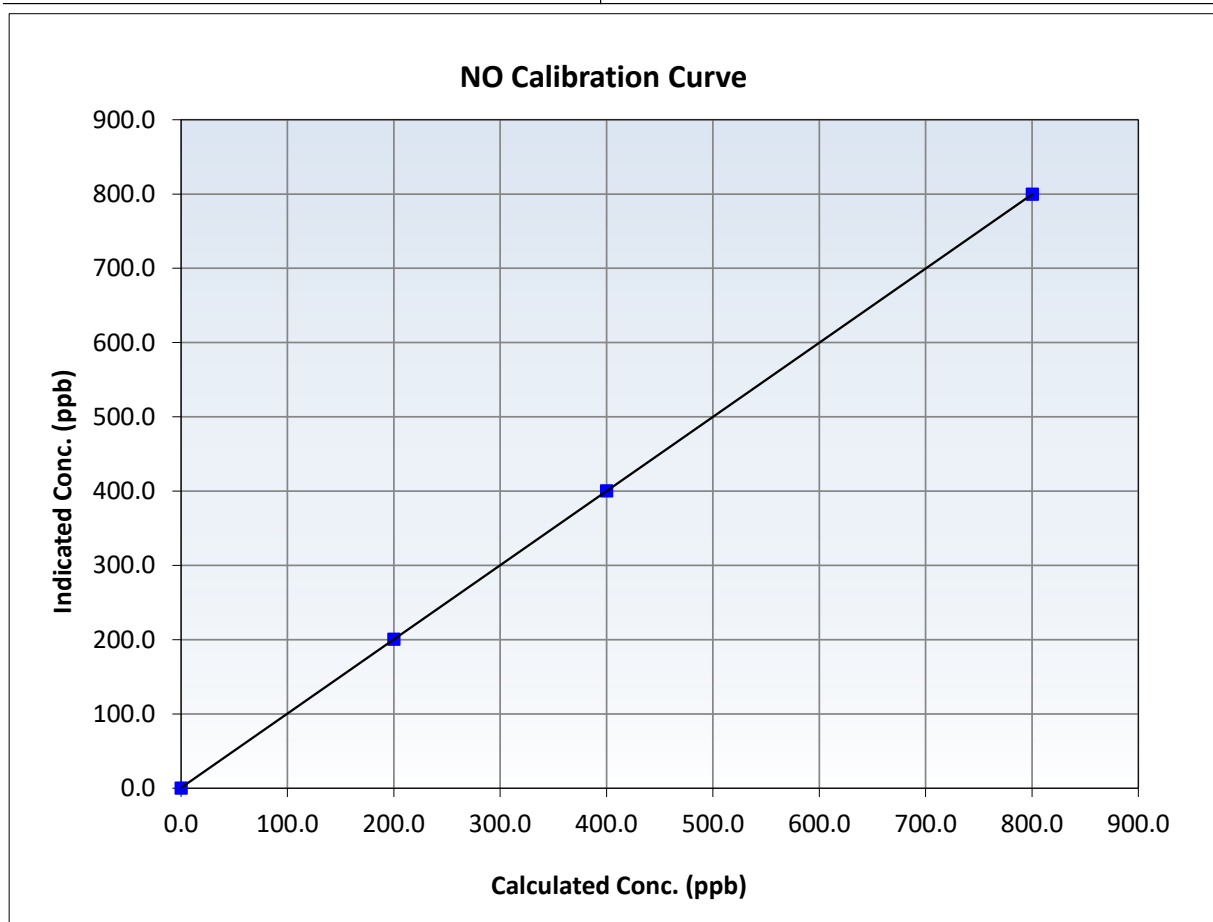
NO Calibration Summary

Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 12, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	10:47	End Time (MST):	14:56
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

Calibration Data

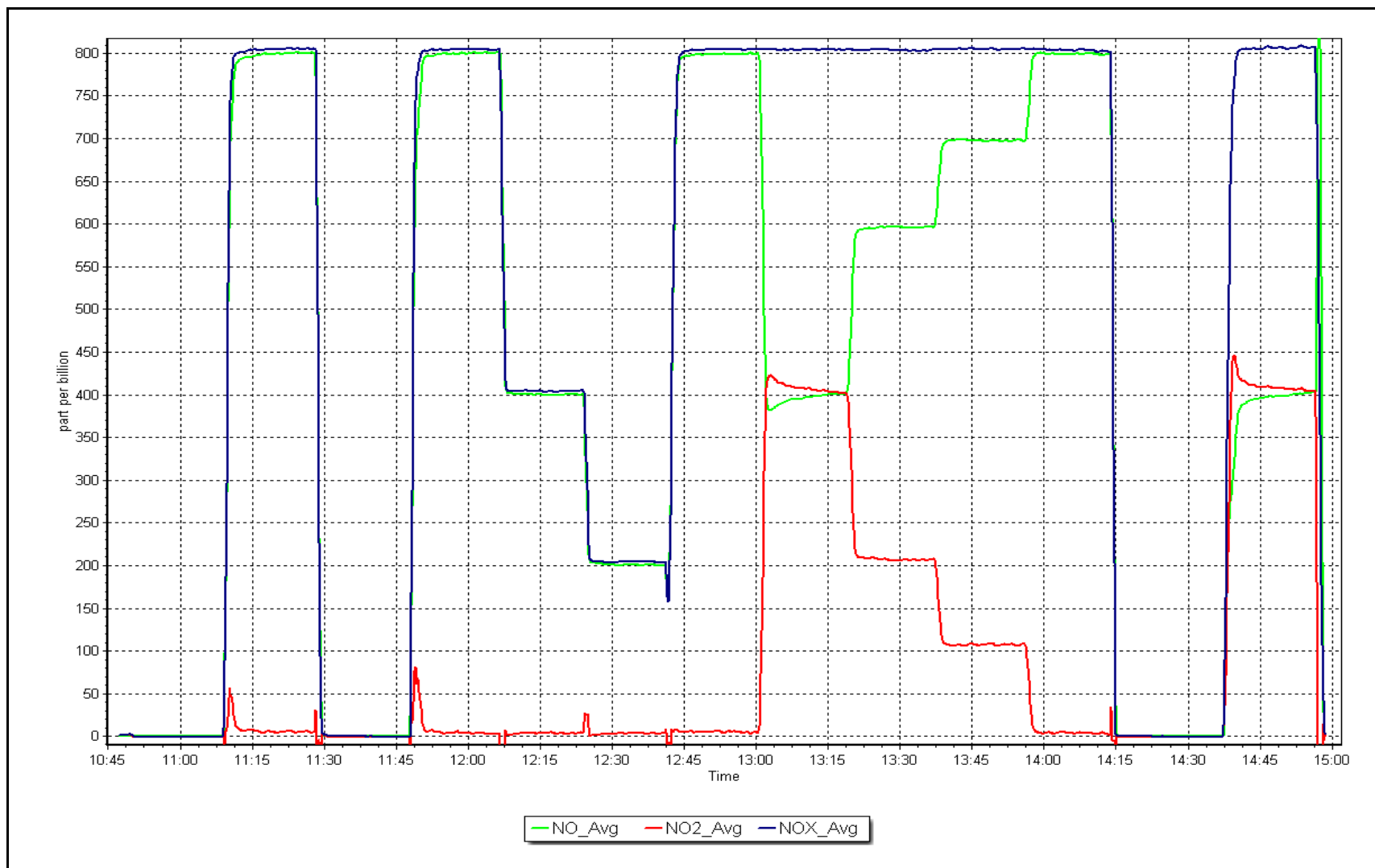
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999999	≥ 0.995
800.4	799.7	1.0009	Slope	0.998524	$0.90 - 1.10$
400.2	400.3	0.9997	Intercept	0.635997	± 20
200.1	200.8	0.9963			



NO_x Calibration Plot

Date: June 15, 2026

Location: Wapasu





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Wapasu
Calibration Date: June 4, 2026
Start time (MST): 10:27
Reason: Routine

Station number: AMS17
Last Cal Date: May 5, 2026
End time (MST): 13:03

Calibration Standards

O3 generation mode: Photometer
Calibrator Make/Model: API T700
ZAG Make/Model: API T701H

Serial Number: 2448
Serial Number: 359

Analyzer Information

Analyzer make: Thermo Scientific 49i
Analyzer Range: 0 - 500 ppb

Analyzer serial #: 1501663734

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001714	0.994314	Backgd or Offset:	-0.4	-0.4
Calibration intercept:	0.200000	0.420000	Coeff or Slope:	1.005	1.005

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted
					Correction factor (Cc/(Ic-
					AFzero)
					<i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	-0.5	----
As found High point	5000	1010.5	400.0	398.0	1.004
As found Mid point					
As found Low point					
Baseline Corr As found:	398.5	Previous response	400.9	*% change	-0.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = > +/-5% change initiates investigation</i>	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero))
					<i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.2	----
High point	5000	1011.4	400.0	398.0	1.005
Mid point	5000	853.8	200.0	199.5	1.003
Low point	5000	745.7	100.0	100.0	1.000
As left zero	5000	800.0	0.0	0.2	----
As left span	5000	1009.6	400.0	402.0	0.995
Average Correction Factor					1.003

Notes: Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

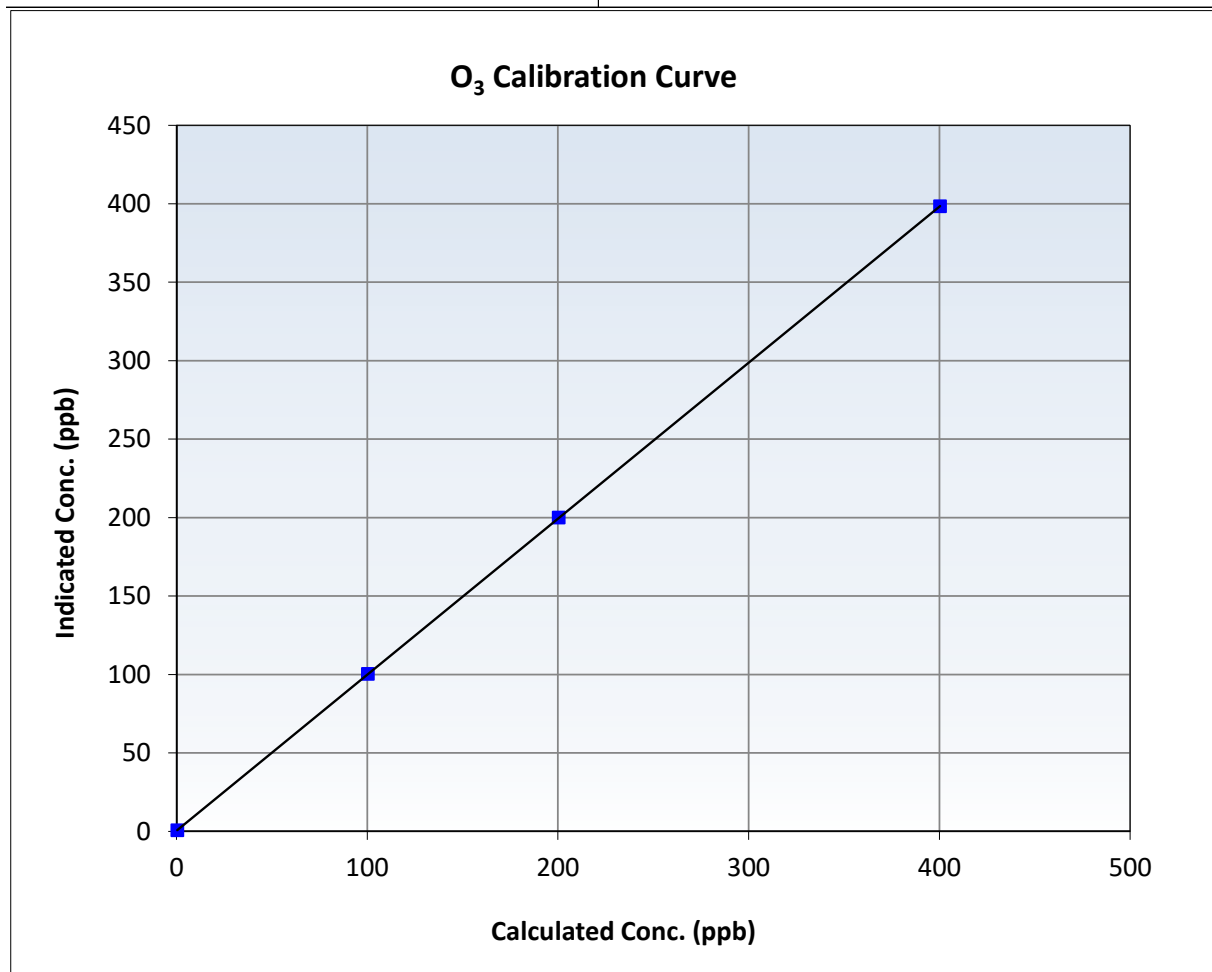
O₃ Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 5, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	10:27	End Time (MST):	13:03
Analyzer make:	Thermo Scientific 49i	Analyzer serial #:	1501663734

Calibration Data

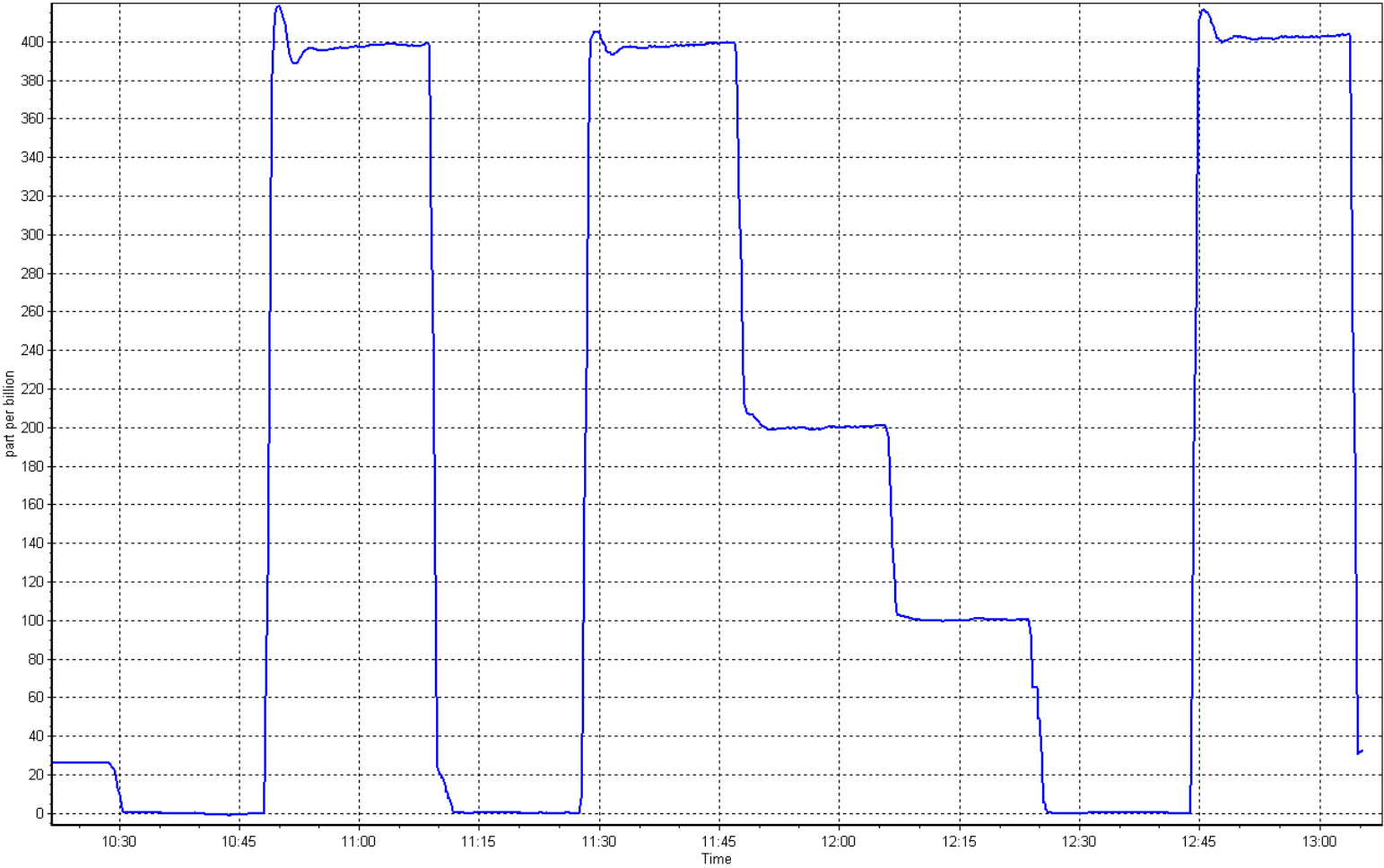
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999998	≥0.995
400.0	398.0	1.0050	Slope	0.994314	0.90 - 1.10
200.0	199.5	1.0025	Intercept	0.420000	+/- 5
100.0	100.0	1.0000			



O₃ Calibration Plot

Date: June 4, 2026

Location: Wapasu





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Wapasu Station number: AMS 17
Calibration Date: June 15, 2026 Last Cal Date: May 12, 2026
Start time (MST): 11:46 End time (MST): 12:29

Analyzer Make: Teledyne API T640 S/N: 1183
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388754
Temp/RH standard: Alicat FP-25BT S/N: 388754

Monthly Calibration Test

<u>Parameter</u>	<u>As found</u>	<u>Measured</u>	<u>As left</u>	<u>Adjusted</u>	<u>(Limits)</u>
T (°C)	22.20	21.13	22.20	☐	+/- 2 °C
P (mmHg)	713.10	712.51	713.10	☐	+/- 10 mmHg
Flow (LPM)	5.01	4.89	5.01	☐	+/- 0.25 LPM
PW% (pump)	32	----	32	☐	>80%
Zero Verification	PM w/o HEPA: 3.40		PM w/ HEPA: 0.00		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027
Lot No.: 100128-050-042

<u>Parameter</u>	<u>As found</u>	<u>Post maintenance</u>	<u>As left</u>	<u>Adjusted</u>	<u>(Limits)</u>
PMT Peak Test	10.70	10.80	10.80	☐	+/- 0.5

Date Optical Chamber Cleaned: June 15, 2026
Date Disposable Filter Changed: June 15, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.00 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: July 21, 2025
Date RH/T Sensor Cleaned: July 21, 2025

Notes:

Verified flow, pressure, temperature and pump power. No adjustments made. Leak check passed.

Calibration by: Jan Castro



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS18 STONY MOUNTAIN JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Stony Mountain Station number: AMS 18
Calibration Date: June 10, 2026 Last Cal Date: May 19, 2026
Start time (MST): 12:49 End time (MST): 16:31
Reason: Routine

Calibration Standards

Cal Gas Concentration: 51.22 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC417455
Removed Cal Gas Conc: 51.22 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: CC417455 Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 2658
Zero Air Gen Model: Teledyne API 701 Serial Number: 4890

Analyzer Information

Analyzer make: Thermo 43i Serial Number: JC1501301453
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001885	1.001626	Backgd or Offset:	27.1	27.0
Calibration intercept:	-1.097682	-1.257182	Coeff or Slope:	0.812	0.812

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.2	----
As found High point	4921	78.1	800.2	798.9	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	798.7	Previous response	800.6	*% change	-0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4921	78.1	800.2	801.2	0.999
Mid point	4960	39.1	400.6	398.6	1.005
Low point	4981	19.5	199.7	197.8	1.010
As left zero	5000	0.0	0.0	0.5	----
As left span	4921	78.1	800.2	800.7	0.999
Average Correction Factor:					1.005

Notes: Changed the inlet filter after as founds. No adjustments made.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

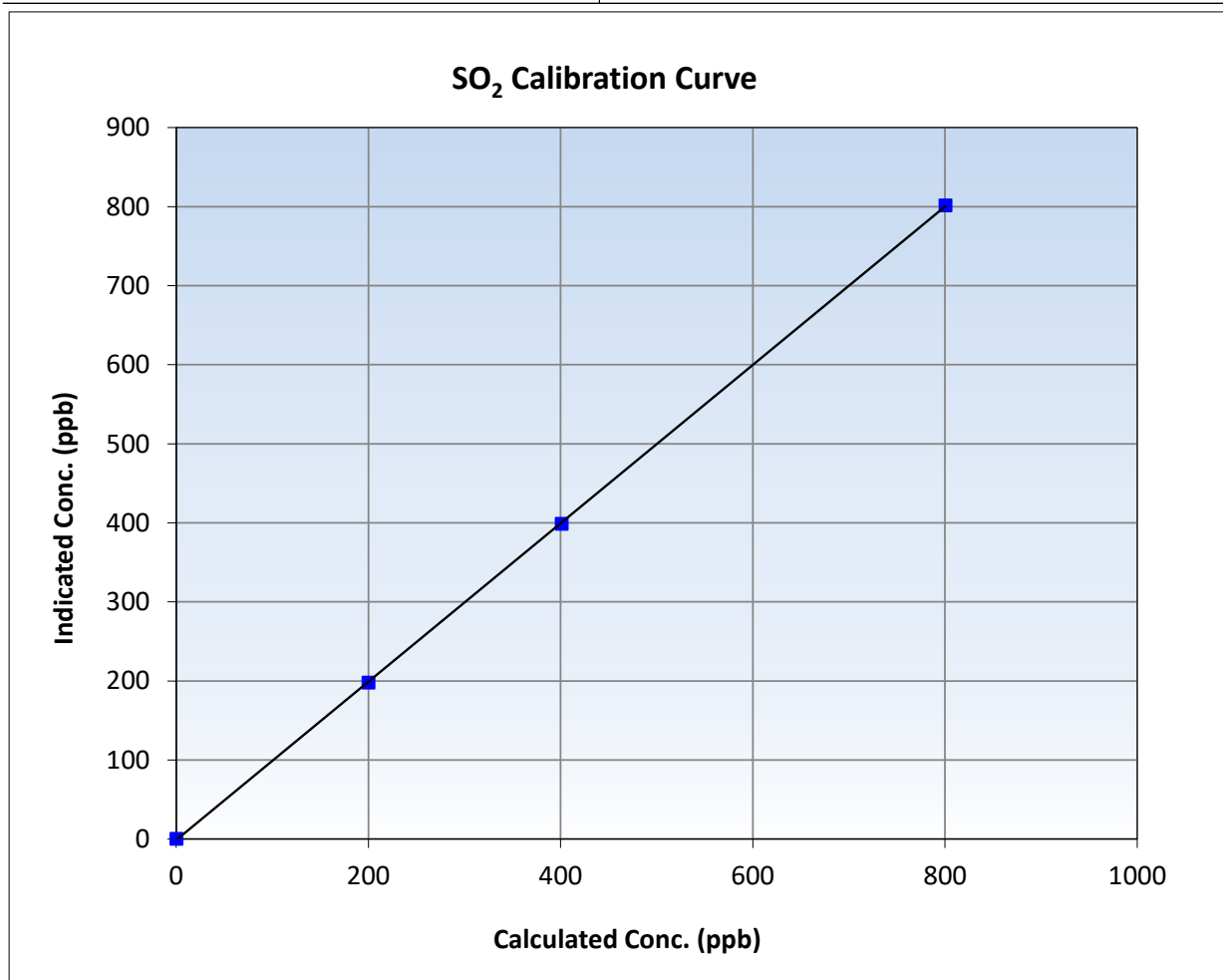
SO₂ Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 19, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	12:49	End Time (MST):	16:31
Analyzer make:	Thermo 43i	Analyzer serial #:	JC1501301453

Calibration Data

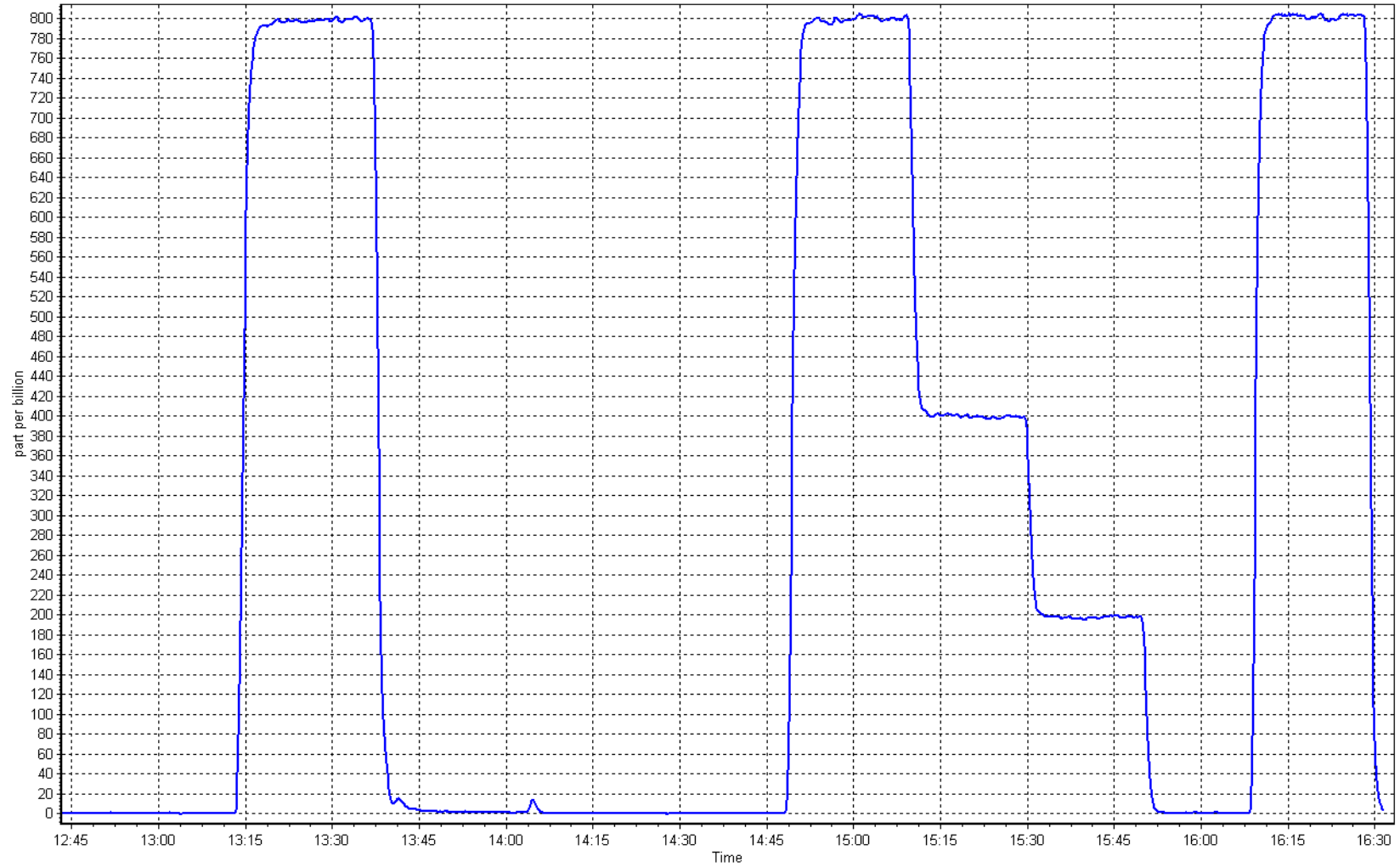
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999983	≥0.995
800.2	801.2	0.9988	Slope	1.001626	0.90 - 1.10
400.6	398.6	1.0050	Intercept	-1.257182	+/-30
199.7	197.8	1.0098			



SO2 Calibration Plot

Date: June 10, 2026

Location: Stony Mountain





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Stony Mountain Station number: AMS18
Calibration Date: June 22, 2026 Last Cal Date: May 25, 2026
Start time (MST): 10:50 End time (MST): 15:04
Reason: Routine

Calibration Standards

Cal Gas Concentration: 4.86 ppm Cal Gas Exp Date: May 9, 2027
Cal Gas Cylinder #: CC523103
Removed Cal Gas Conc: 4.86 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 2658
ZAG Make/Model: Teledyne API T701 Serial Number: 4890

Analyzer Information

Analyzer make: Thermo 43i-TLE Analyzer serial #: 1218153359
Converter make: CD Nova CDN-101 Converter serial #: 555
Analyzer Range: 0 - 100 ppb Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003801	0.988661	Backgd or Offset:	2.96	2.94
Calibration intercept:	0.120770	0.200992	Coeff or Slope:	1.178	1.178

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4917	82.3	80.0	80.2	0.999
As found Mid point	4958	41.2	40.1	40.3	0.996
As found Low point	4979	20.6	20.0	20.2	0.996
New cylinder response					
Baseline Corr As found:	80.1	Prev response:	80.43	*% change:	-0.4%
Baseline Corr 2nd AF pt:	40.2	AF Slope:	1.001087	AF Intercept:	0.140823
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999998	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4917	82.3	80.0	79.2	1.010
Mid point	4958	41.2	40.1	40.1	0.999
Low point	4979	20.6	20.0	19.8	1.011
As left zero	5000	0.0	0.0	0.3	----
As left span	4917	82.3	80.0	78.9	1.014
SO2 Scrubber Check	4923	77.1	771.0	0.0	----
Date of last scrubber change:	17-Dec-21		Ave Corr Factor		1.007
Date of last converter efficiency test:					

Notes: Changed the inlet filter after as founds. Scrubber check completed. No adjustments made.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

TRS Calibration Summary

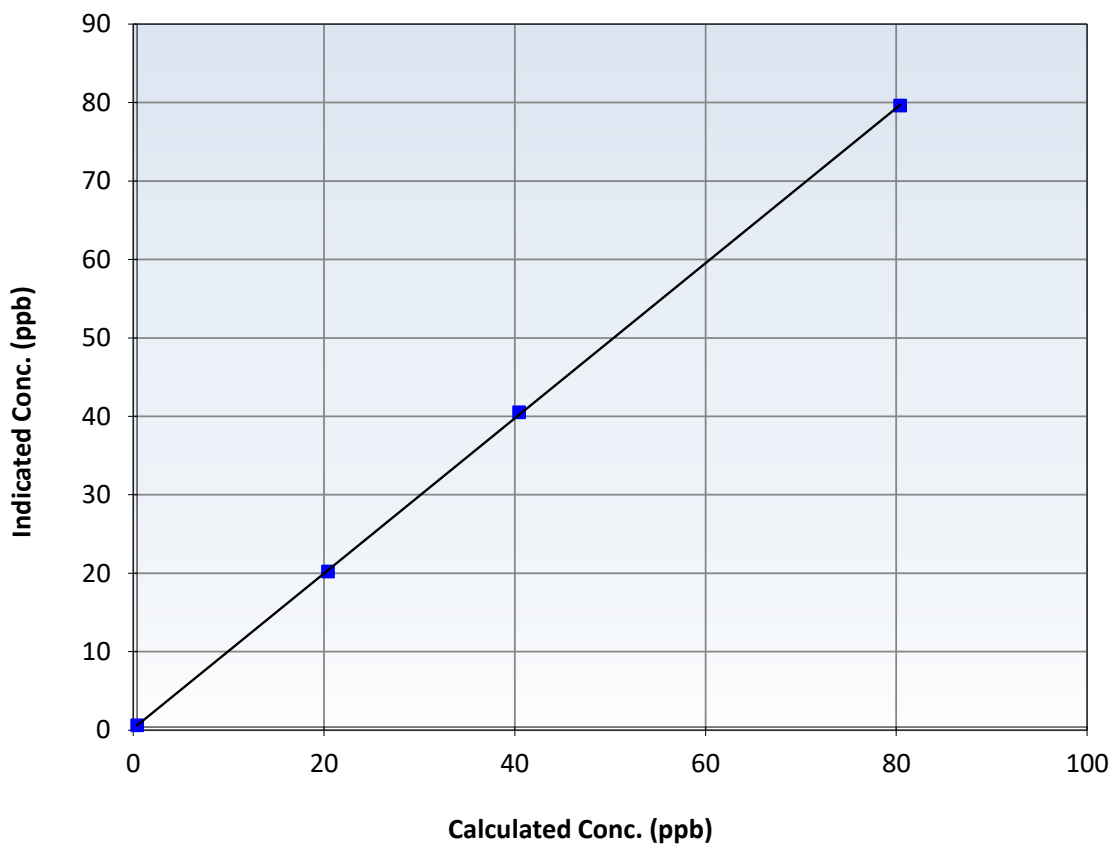
Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 25, 2026
Station Name:	Stony Mountain	Station Number:	AMS18
Start Time (MST):	10:50	End Time (MST):	15:04
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153359

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999959		≥ 0.995
80.0	79.2	1.0102	Slope	0.988661		$0.90 - 1.10$
40.1	40.1	0.9988	Intercept	0.200992		± 3
20.0	19.8	1.0114				

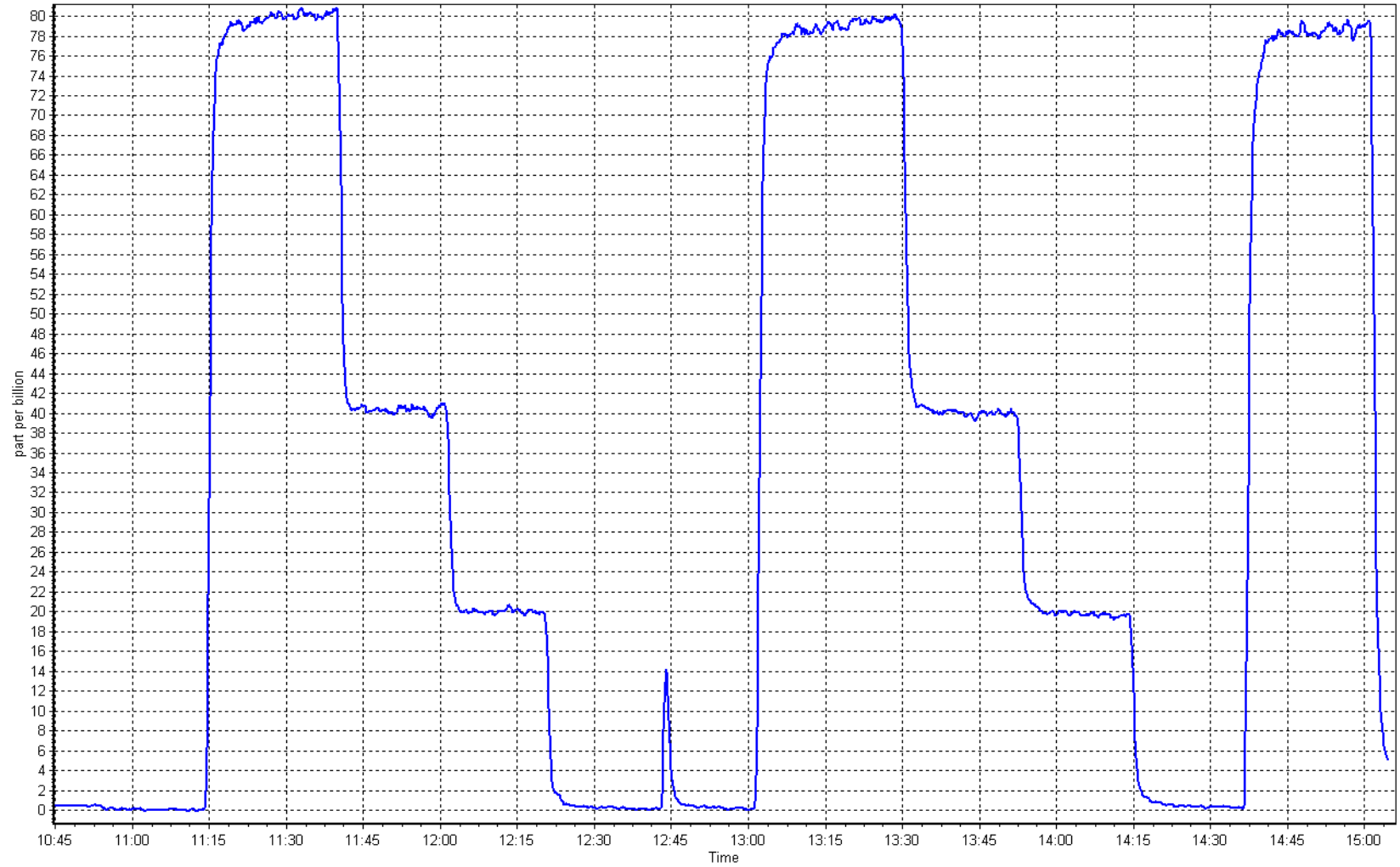
TRS Calibration Curve



TRS Calibration Plot

Date: June 22, 2026

Location: Stony Mountain





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Stony Mountain
Calibration Date: June 10, 2026
Start time (MST): 12:49
Reason: Routine

Station number: AMS 18
Last Cal Date: May 19, 2026
End time (MST): 16:31

Calibration Standards

Gas Cert Reference:	XC026809B	Cal Gas Expiry Date:	January 12, 2029
CH ₄ Cal Gas Conc.	504.9 ppm	CH ₄ Equiv Conc.	1076.6 ppm
C ₃ H ₈ Cal Gas Conc.	207.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH ₄ Conc.	504.9 ppm	CH ₄ Equiv Conc.	1076.6 ppm
Removed C ₃ H ₈ Conc.	207.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	2658
Zero Air Gen model:	Teledyne API T701	Serial Number:	4890

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1170050130
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.84E-04	2.84E-04	NMHC SP Ratio:	4.75E-05	4.75E-05
CH ₄ Retention time:	14.8	14.8	NMHC Peak Area:	187959	187959
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.1	16.82	16.77	1.003
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.77	Prev response	16.84	*% change	-0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	16.82	16.72	1.006
Mid point	4960	39.1	8.42	8.37	1.006
Low point	4981	19.5	4.20	4.08	1.029
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	16.82	16.65	1.010
Average Correction Factor					1.014

Notes: Changed the inlet filter and H₂, N₂ cylinders after as founds. Adjusted zero only.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.1	8.93	8.91	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.91	Prev response	8.93	*% change	-0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	8.93	8.85	1.009
Mid point	4960	39.1	4.47	4.44	1.007
Low point	4981	19.5	2.23	2.17	1.028
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	8.93	8.84	1.010
Average Correction Factor					1.015

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.1	7.89	7.85	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.85	Prev response	7.91	*% change	-0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	7.89	7.87	1.003
Mid point	4960	39.1	3.95	3.93	1.004
Low point	4981	19.5	1.97	1.91	1.030
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	7.89	7.80	1.011
Average Correction Factor					1.012

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.004330	0.995870
THC Cal Offset:	-0.049131	-0.037363
CH ₄ Cal Slope:	1.006390	0.999542
CH ₄ Cal Offset:	-0.028780	-0.022394
NMHC Cal Slope:	1.002562	0.992511
NMHC Cal Offset:	-0.020550	-0.014769

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

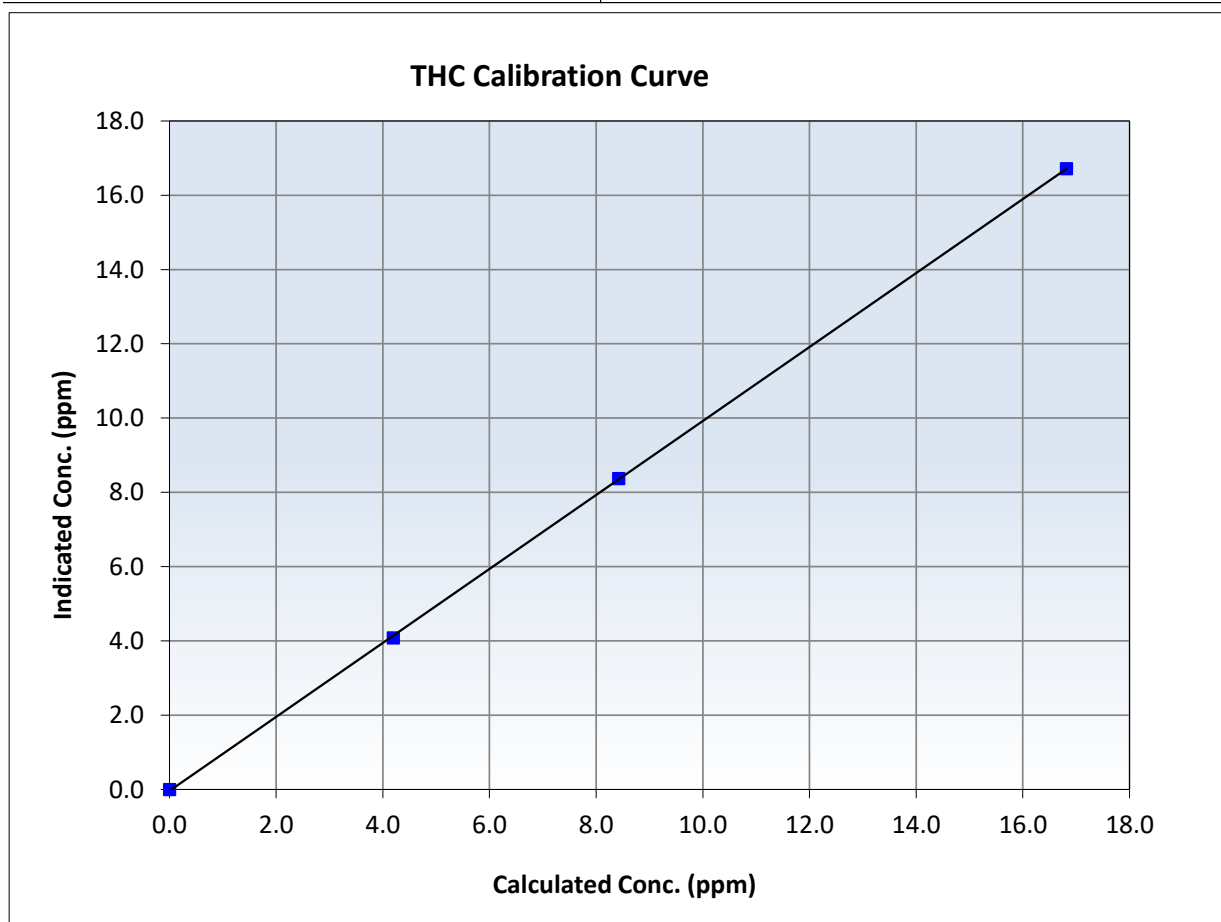
THC Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 19, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	12:49	End Time (MST):	16:31
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999960	<i>≥0.995</i>
16.82	16.72	1.0061	Slope	0.995870	<i>0.90 - 1.10</i>
8.42	8.37	1.0059	Intercept	-0.037363	<i>+/-0.5</i>
4.20	4.08	1.0293			





Wood Buffalo Environmental Association

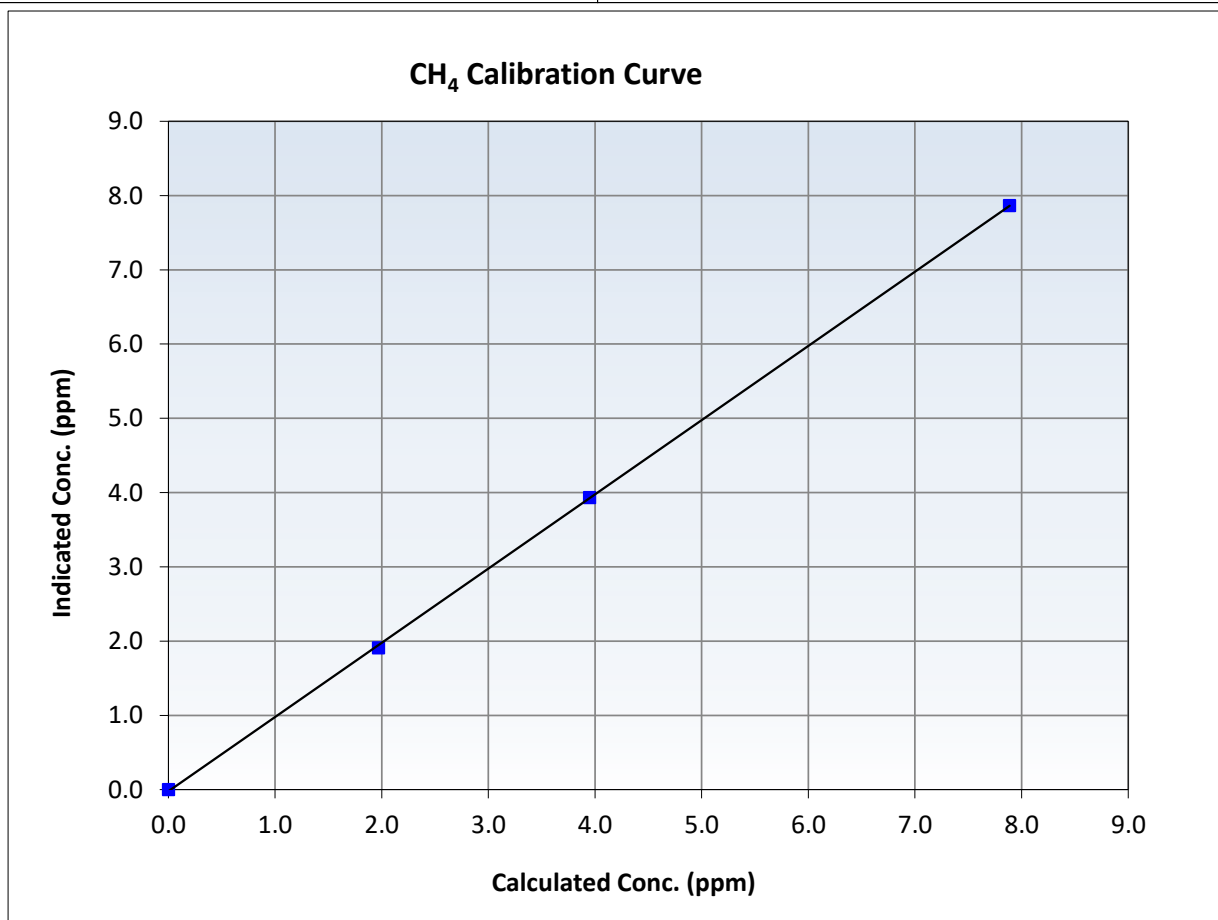
CH₄ Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 19, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	12:49	End Time (MST):	16:31
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999948	≥ 0.995
7.89	7.87	1.0027	Slope	0.999542	$0.90 - 1.10$
3.95	3.93	1.0043	Intercept	-0.022394	± 0.5
1.97	1.91	1.0303			





Wood Buffalo Environmental Association

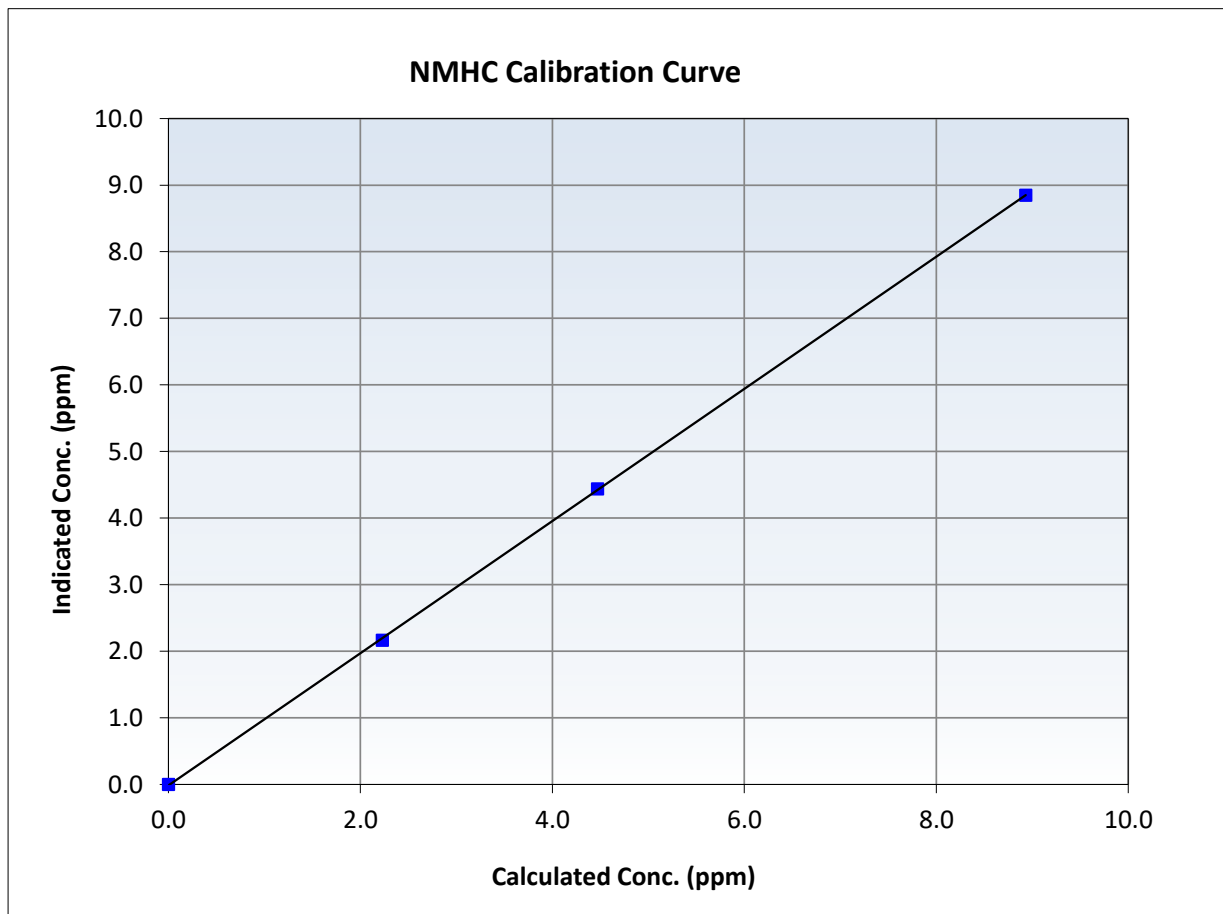
NMHC Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 19, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	12:49	End Time (MST):	16:31
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

Calibration Data

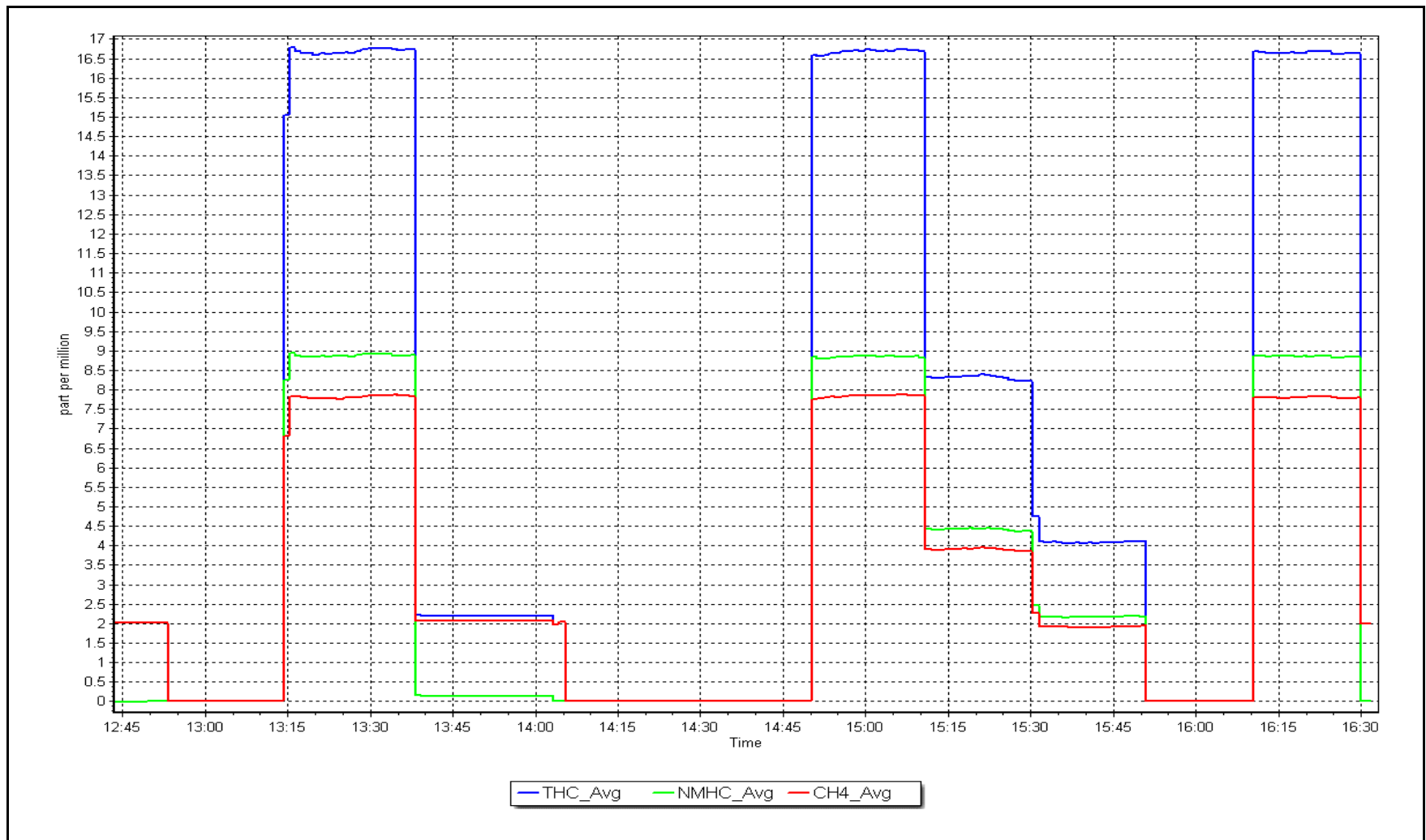
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999968	<i>≥0.995</i>
8.93	8.85	1.0093	Slope	0.992511	<i>0.90 - 1.10</i>
4.47	4.44	1.0074	Intercept	-0.014769	<i>+/-0.5</i>
2.23	2.17	1.0284			



NMHC Calibration Plot

Date: June 10, 2026

Location: Stony Mountain





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Stony Mountain
Station number: AMS 18
Calibration Date: June 25, 2026
Last Cal Date: May 11, 2026
Start time (MST): 10:51
End time (MST): 17:26
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0045516
NO_x Cal Gas Conc: 60.30 ppm
Removed Cylinder #: N/A
Removed Gas NO_x Conc: 60.30 ppm
NO_x gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API 701
Cal Gas Expiry Date: November 17, 2026
NO Cal Gas Conc: 60.10 ppm
Removed Gas Exp Date: N/A
Removed Gas NO Conc: 60.10 ppm
NO gas Diff:
Serial Number: 2658
Serial Number: 4890

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	----	----
AF High point	4933	66.6	803.3	800.6	2.7	799.5	792.9	6.7	1.0047	1.0098
AF Mid point										
AF Low point										
New cyl resp										
Previous Respo 4933	NO _x = 803.0 ppb	NO = 799.5 ppb	* = > +/-5% change initiates investigation			*Percent Change	NO _x = -0.4%			
Baseline Corr 1st pt	NO _x = 799.5 ppb	NO = 792.8 ppb	<u>As Found Statistics</u>			*Percent Change	NO = -0.8%			
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found NO _x r ² :			Nx SI:	Nx Int:			
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found NO r ² :			NO SI:	NO Int:			
			As found NO ₂ r ² :			NO ₂ SI:	NO ₂ Int:			

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo Scientific 42i Serial Number: 1501663731
NOX Range (ppb): 0 - 1000 ppb

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.152	1.162	NO bkgnd or offset:	11.4	11.5
NOX coeff or slope:	1.000	0.996	NOX bkgnd or offset:	11.5	11.6
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	218.6	218.9

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.999918	0.997829
NO _x Cal Offset:	-0.207802	-1.548789
NO Cal Slope:	1.000194	1.000053
NO Cal Offset:	-1.289379	-2.690051
NO ₂ Cal Slope:	1.025972	1.003433
NO ₂ Cal Offset:	-1.143539	-0.841693

Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	----	----
High point	4933	66.6	803.3	800.6	2.7	801.0	799.4	1.2	1.0028	1.0015
Mid point	4967	33.3	401.6	400.2	1.3	397.6	396.0	1.6	1.0100	1.0107
Low point	4983	16.6	200.2	199.5	0.7	197.2	194.2	3.0	1.0153	1.0275
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.3	-0.1	----	----
As left span	4933	66.6	803.3	391.1	412.2	804.0	391.1	413.1	0.9991	1.0000
Average Correction Factor									1.0094	1.0132

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	798.5	391.1	410.1	410.7	0.9985	100.2%
Mid GPT point	798.5	596.1	205.1	205.5	0.9979	100.2%
Low GPT point	798.5	695.6	105.6	103.7	1.0180	98.2%
Average Correction Factor					1.0048	99.5%

Notes: Changed the inlet filter after as founds. Calibrator zero check was performed around 13:28 MST following resolution of the network issue. Adjusted span only.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

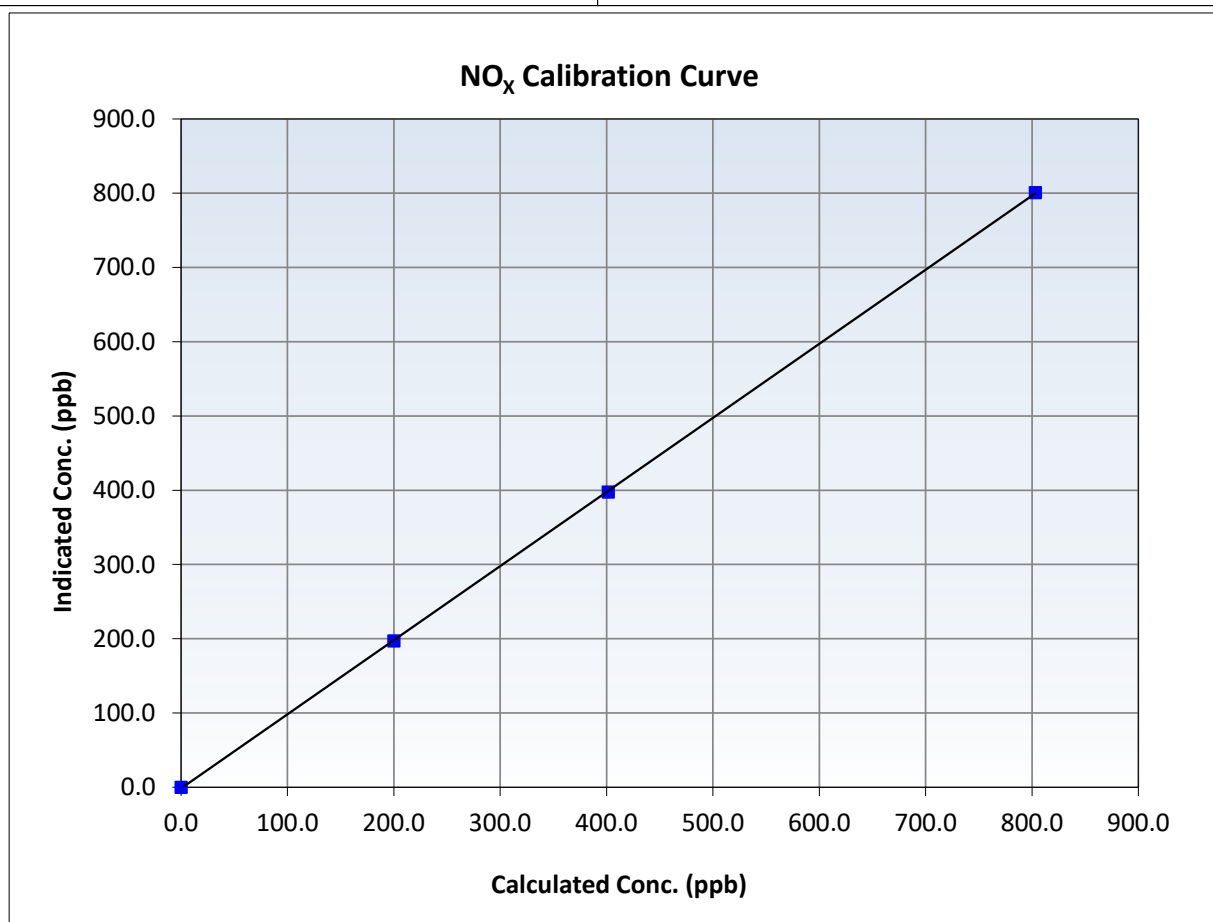
NO_x Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 11, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:51	End Time (MST):	17:26
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999980	≥0.995
803.3	801.0	1.0028	Slope	0.997829	0.90 - 1.10
401.6	397.6	1.0100	Intercept	-1.548789	+/-20
200.2	197.2	1.0153			





Wood Buffalo Environmental Association

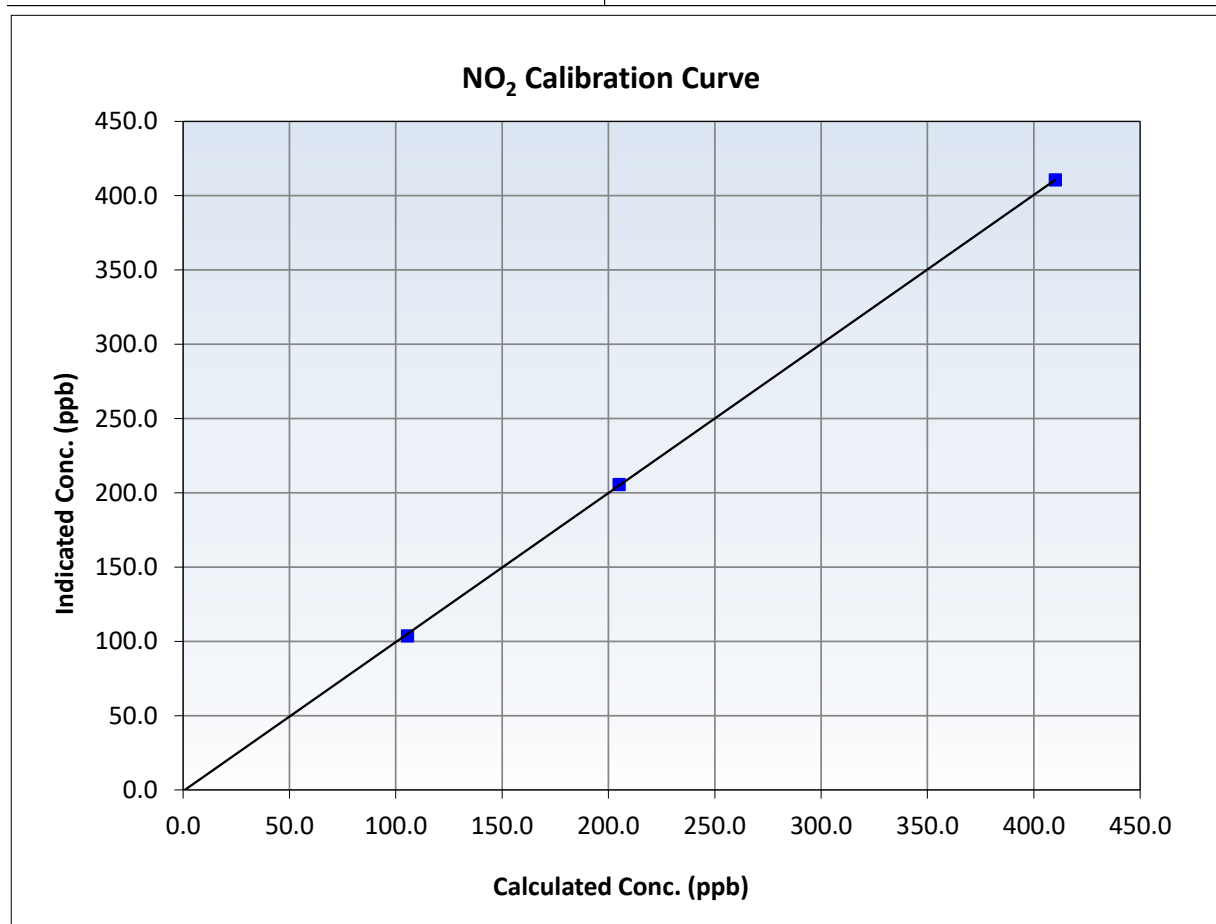
NO₂ Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 11, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:51	End Time (MST):	17:26
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999970	<i>≥0.995</i>
410.1	410.7	0.9985	Slope	1.003433	<i>0.90 - 1.10</i>
205.1	205.5	0.9979	Intercept	-0.841693	<i>+/-20</i>
105.6	103.7	1.0180			





Wood Buffalo Environmental Association

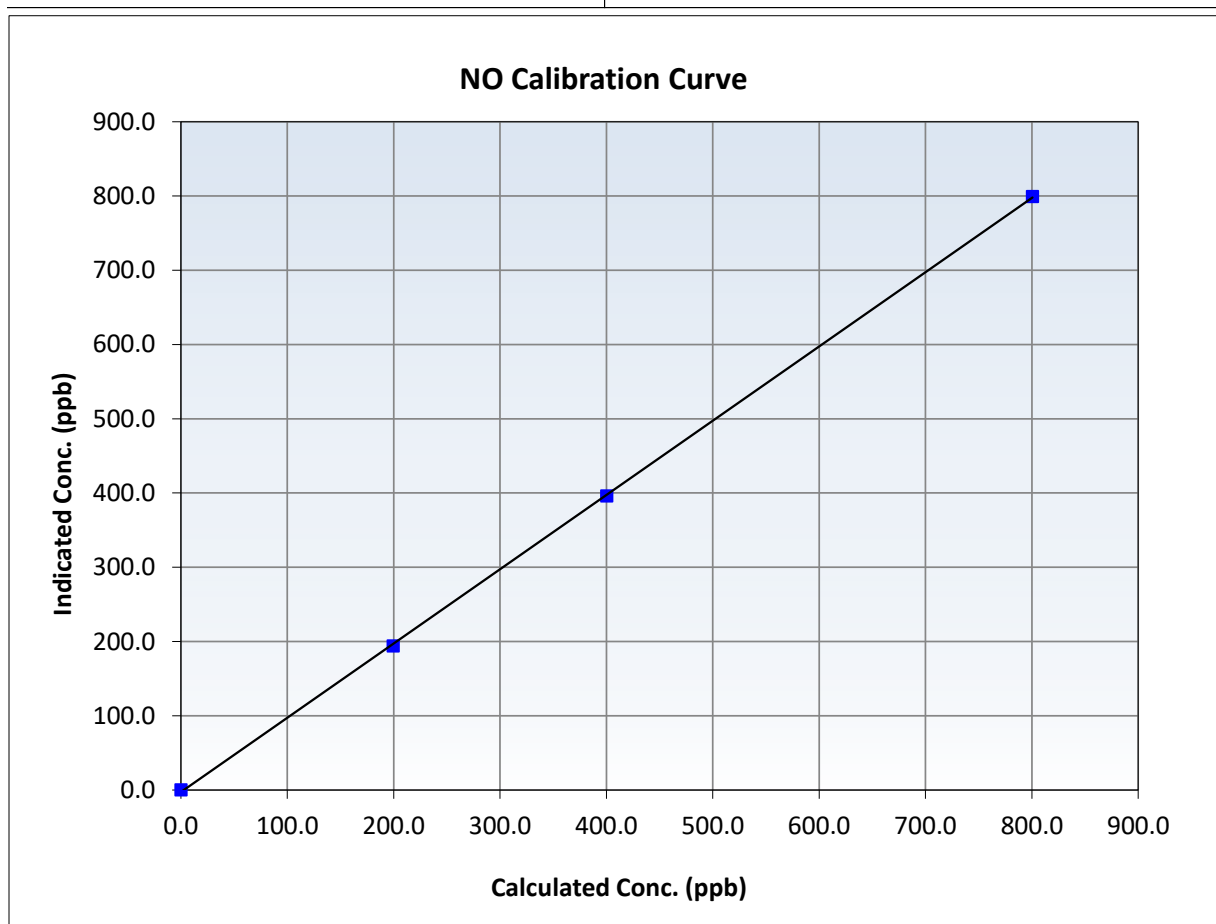
NO Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 11, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:51	End Time (MST):	17:26
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

Calibration Data

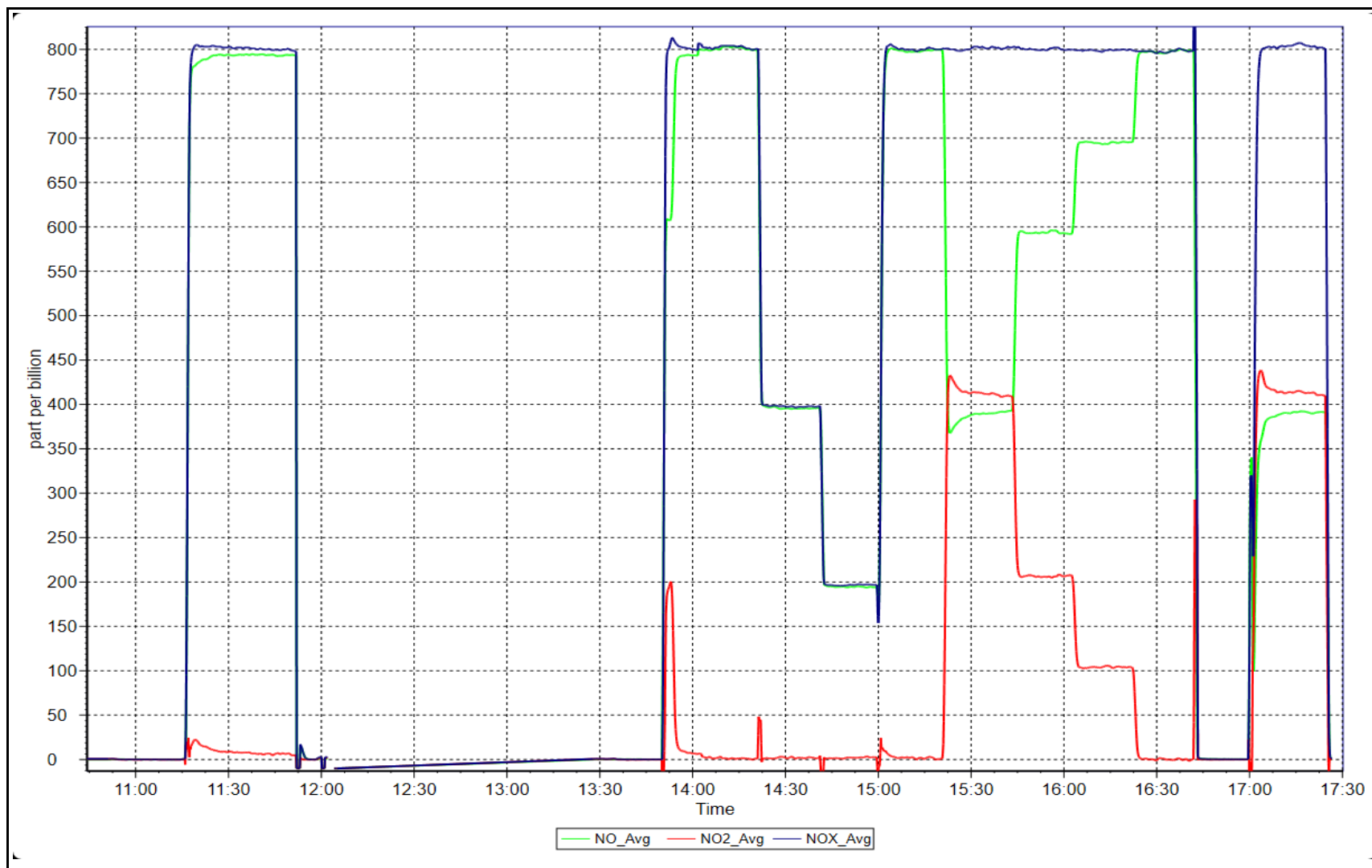
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999944	≥ 0.995
800.6	799.4	1.0015	Slope	1.000053	0.90 - 1.10
400.2	396.0	1.0107	Intercept	-2.690051	+/-20
199.5	194.2	1.0275			



NO_x Calibration Plot

Date: June 25, 2026

Location: Stony Mountain





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Stony Mountain Station number: AMS 18
Calibration Date: June 2, 2026 Last Cal Date: May 21, 2026
Start time (MST): 12:59 End time (MST): 14:16
Reason: Routine

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700 Serial Number: 2658
ZAG Make/Model: Teledyne API 701H Serial Number: 4890

Analyzer Information

Analyzer make: API T400 Analyzer serial #: 825
Analyzer Range: 0 - 500 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.010486	1.002400	Backgd or Offset:	4.3	2.8
Calibration intercept:	-0.660000	0.780000	Coeff or Slope:	0.984	0.980

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	NA	0.0	-0.5	----
As found High point	4888	1155.7	400.0	401.3	0.996
As found Mid point					
As found Low point					
Baseline Corr As found:	401.8	Previous response	403.5	*% change	-0.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	NA	0.0	0.9	----
High point	4888	1155.7	400.0	401.8	0.996
Mid point	4888	894.4	200.0	201.2	0.994
Low point	4888	762.7	100.0	100.9	0.991
As left zero	5000	NA	0.0	1.0	----
As left span	4812	1155.7	400.0	403.0	0.993
Average Correction Factor					0.994

Notes: Sample inlet filter changed and adjusted zero only.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

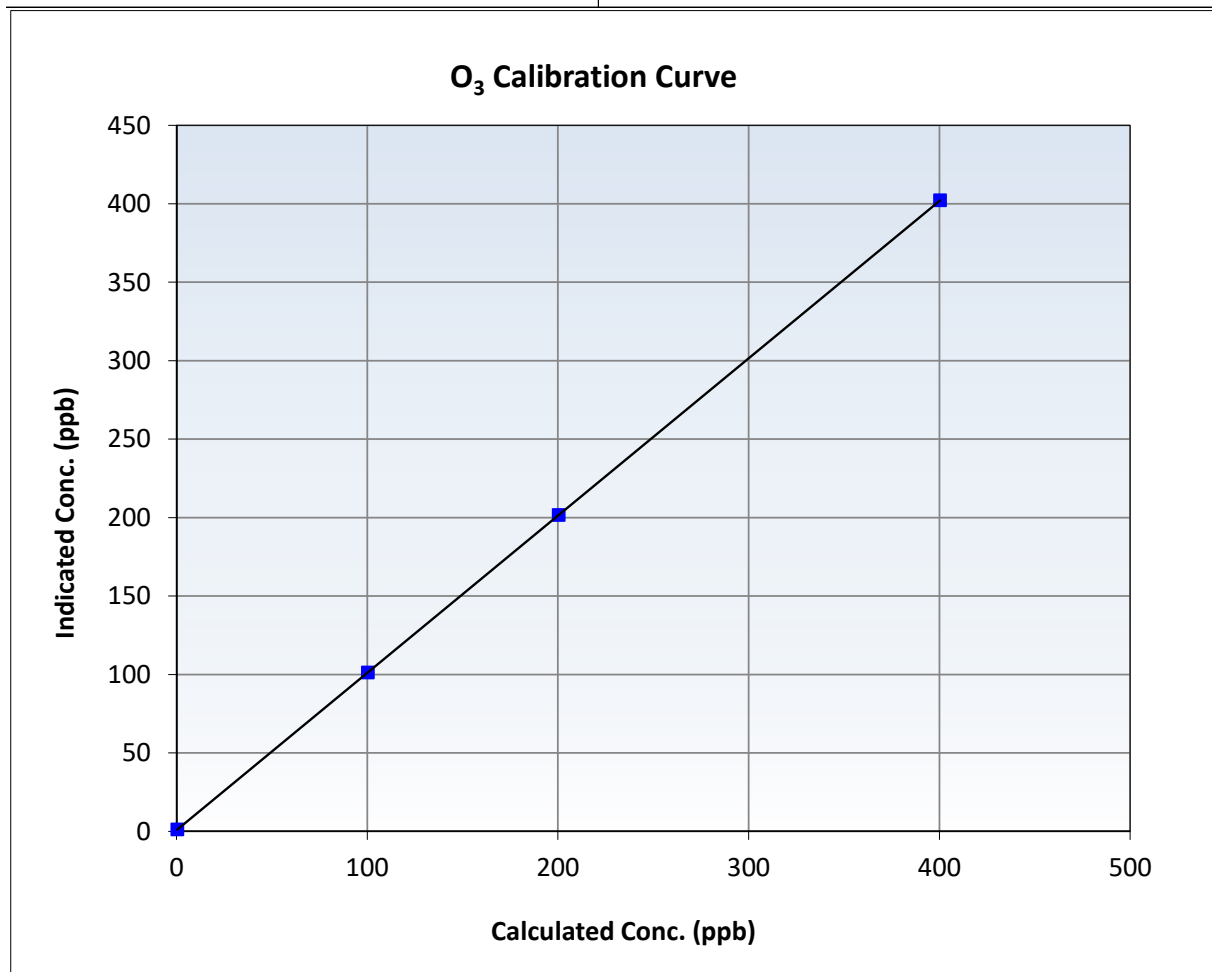
O₃ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 21, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	12:59	End Time (MST):	14:16
Analyzer make:	API T400	Analyzer serial #:	825

Calibration Data

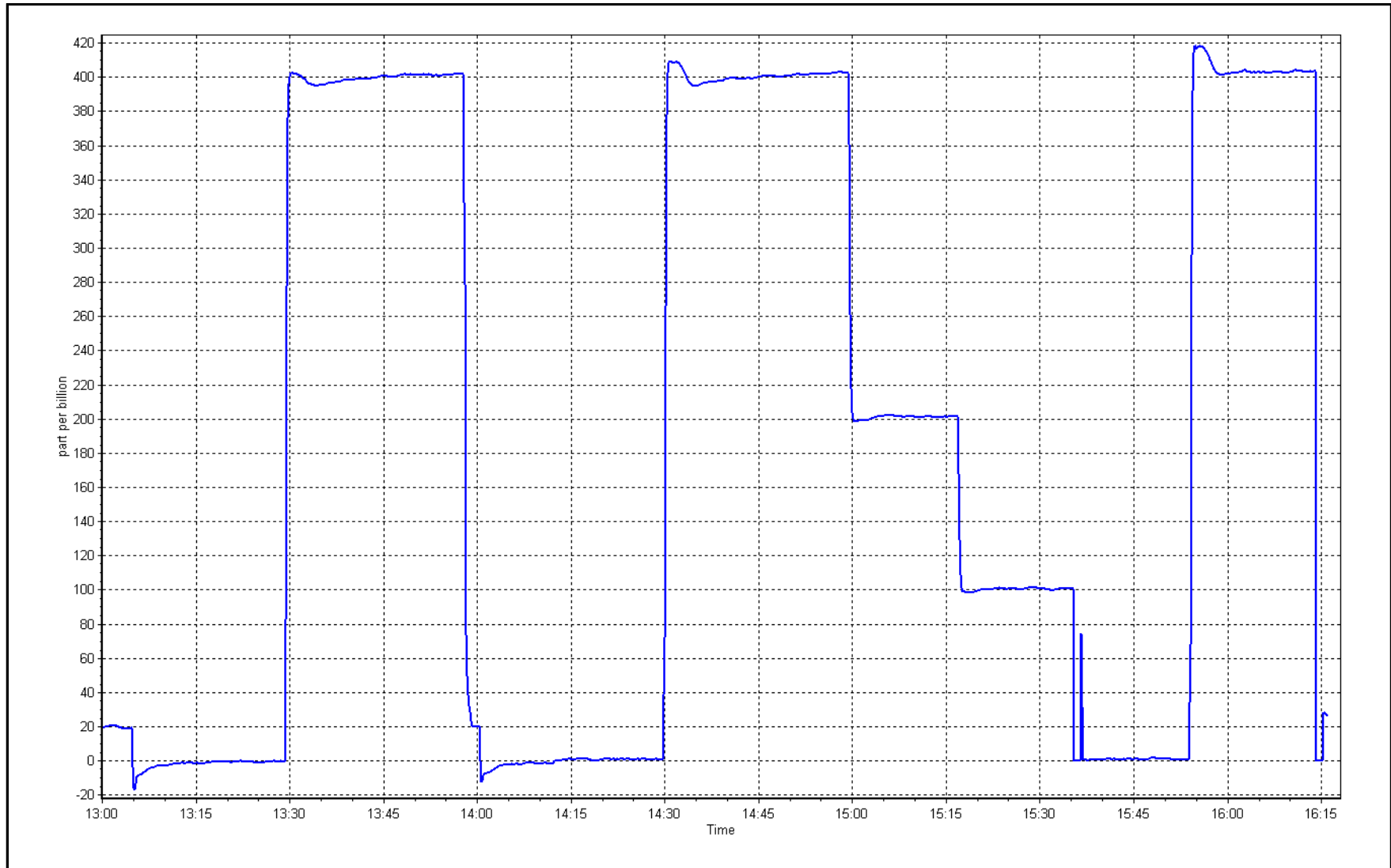
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.9	----	Correlation Coefficient	1.000000	≥ 0.995
400.0	401.8	0.9955	Slope	1.002400	$0.90 - 1.10$
200.0	201.2	0.9940	Intercept	0.780000	± 5
100.0	100.9	0.9911			



O₃ Calibration Plot

Date: June 2, 2026

Location: Stony Mountain





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Stony Mountain Station number: AMS 18
Calibration Date: June 4, 2026 Last Cal Date: May 21, 2026
Start time (MST): 11:40 End time (MST): 12:10
Analyzer Make: API T640 S/N: 325
Particulate Fraction: PM2.5
Flow Meter Make/Model: Alicat FP-25 S/N: 388746
Temp/RH standard: Alicat FP-25 S/N: 388746

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	16.5	15.8	16.5	☐	+/- 2 °C
P (mmHg)	697.6	698.80	697.6	☐	+/- 10 mmHg
Flow (LPM)	5.04	5.03	5.04	☐	+/- 0.25 LPM
PW% (pump)	35	----	35	☐	>80%
Zero Verification	PM w/o HEPA: 3.2		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: June 10, 2024
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	11.0	11	11.0	☐	+/- 0.5

Date Optical Chamber Cleaned: May 21, 2026

Date Disposable Filter Changed: May 21, 2026

Post- maintenance Zero Verification: PM w/ HEPA: NA <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: May 21, 2026

Date RH/T Sensor Cleaned: May 21, 2026

Notes: Removal calibration due to constant communications loss. Replacing to see if the same issue is present with a known working instrument.

Calibration by: Devin Russell



Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Stony Mountain Station number: AMS 18
Calibration Date: June 4, 2026 Last Cal Date: NA
Start time (MST): 12:10 End time (MST): 12:40

Analyzer Make: API T640 S/N: 645
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388746
Temp/RH standard: Alicat FP-25 S/N: 388746

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	17.7	17.25	17.7	☐	+/- 2 °C
P (mmHg)	699.3	698.80	699.3	☐	+/- 10 mmHg
Flow (LPM)	4.99	4.99	4.99	☐	+/- 0.25 LPM
PW% (pump)	36	----	36	☐	>80%
Zero Verification	PM w/o HEPA: 6.2		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: June 10, 2024
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	11.0	11	11.0	☐	+/- 0.5

Date Optical Chamber Cleaned: June 4, 2026
Date Disposable Filter Changed: June 4, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: May 21, 2026
Date RH/T Sensor Cleaned: May 21, 2026

Notes: Installation calibration. Flow, pressure, temperature, and PMT checked. No issues. Leak check passed.

Calibration by: Devin Russell



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS19
FIREBAG
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Firebag Station number: AMS 19
Calibration Date: June 5, 2026 Last Cal Date: May 19, 2026
Start time (MST): 9:53 End time (MST): 13:32
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.97 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC705799
Removed Cal Gas Conc: 50.97 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 5258
Zero Air Gen Model: Teledyne API T701H Serial Number: 201

Analyzer Information

Analyzer make: Thermo 43iQTL Serial Number: 12530443167
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998694	0.997038	Backgd or Offset:	2.13	2.08
Calibration intercept:	-1.322901	-1.443498	Coeff or Slope:	1.137	1.112

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.9	----
As found High point	4922	78.5	800.2	813.9	0.982
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	814.8	Previous response	797.8	*% change	2.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.6	----
High point	4922	78.5	800.2	796.8	1.004
Mid point	4961	39.2	399.6	396.6	1.008
Low point	4980	19.6	199.8	196.9	1.015
As left zero	5000	0.0	0.0	-0.6	----
As left span	4922	78.5	800.2	801.3	0.999
Average Correction Factor:					1.009

Notes: Inlet filter changed after as founds, span adjusted.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

SO₂ Calibration Summary

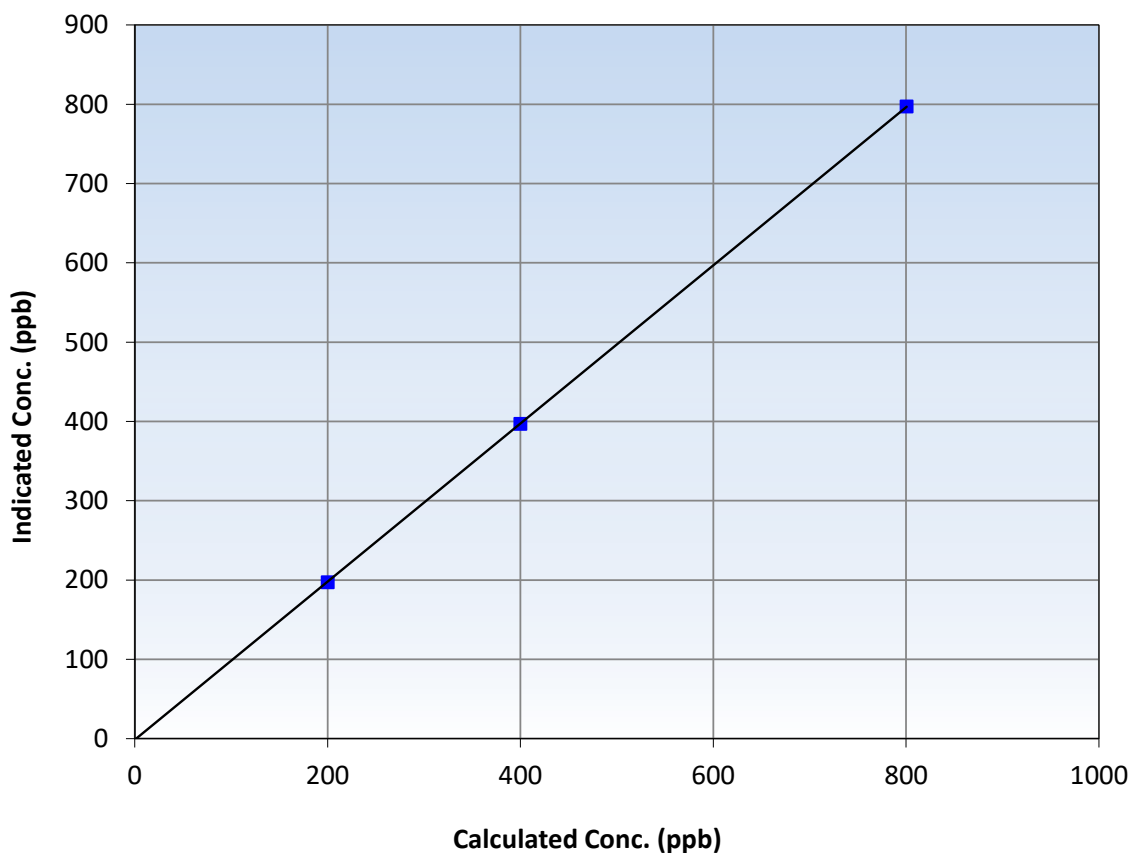
Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 19, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:53	End Time (MST):	13:32
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12530443167

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.6	----	Correlation Coefficient	0.999995	≥0.995
800.2	796.8	1.0043	Slope	0.997038	0.90 - 1.10
399.6	396.6	1.0075	Intercept	-1.443498	+/-30
199.8	196.9	1.0148			

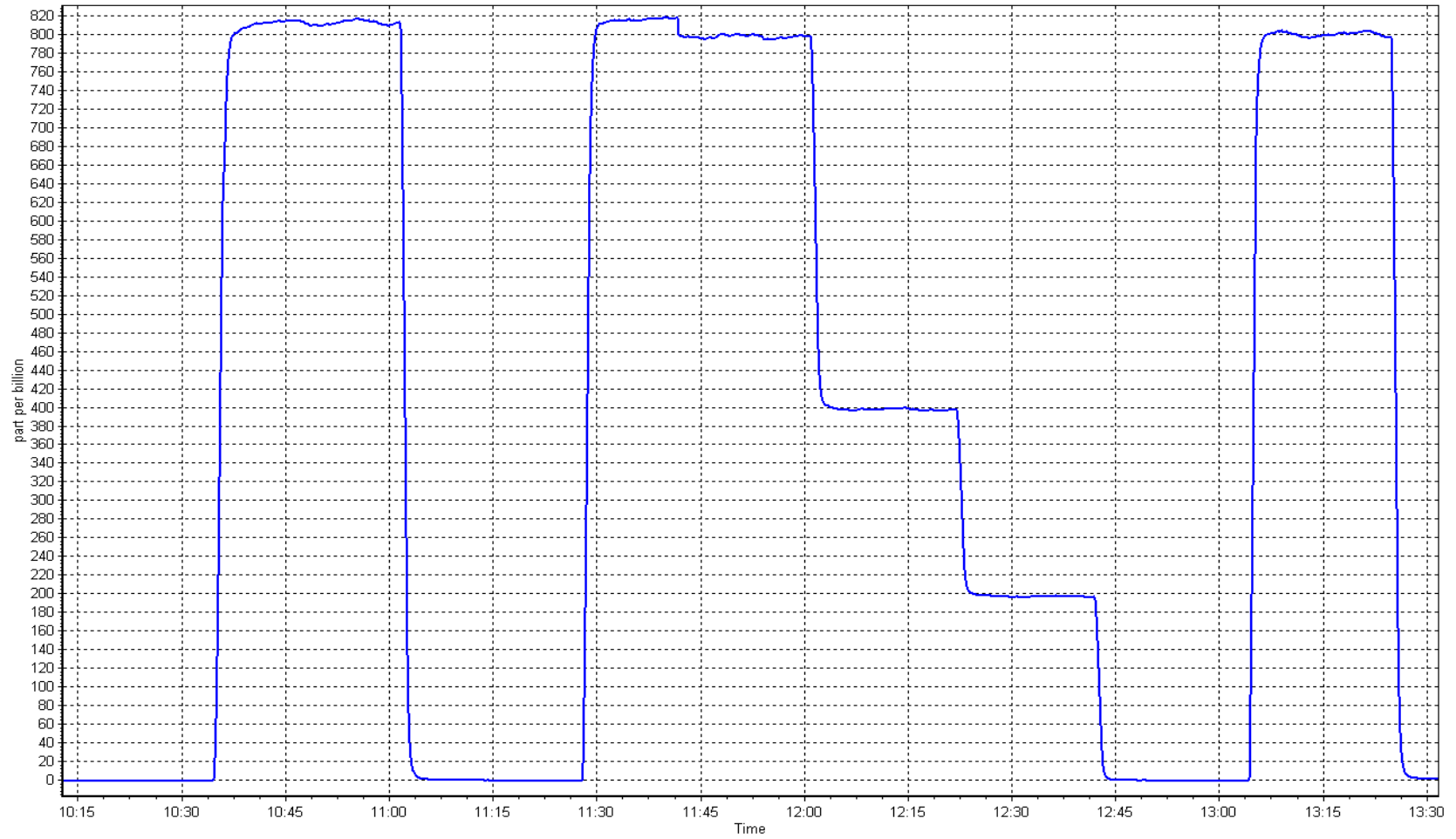
SO₂ Calibration Curve



SO2 Calibration Plot

Date: June 5, 2026

Location: Firebag





Wood Buffalo Environmental Association

H2S Calibration Report

Station Information

Station Name: Firebag Station number: AMS 19
Calibration Date: June 8, 2026 Last Cal Date: May 27, 2026
Start time (MST): 10:10 End time (MST): 14:12
Reason: Routine

Calibration Standards

Cal Gas Concentration: 5.29 ppm Cal Gas Exp Date: March 19, 2027
Cal Gas Cylinder #: DT0010492
Removed Cal Gas Conc: 5.29 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 5258
ZAG Make/Model: Teledyne API T701 Serial Number: 201

Analyzer Information

Analyzer make: Thermo 43i-TLE Analyzer serial #: 1151680032
Converter make: Global Converter serial #: 2022-222
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.007477	1.005191	Backgd or Offset:	3.09
Calibration intercept:	-0.480000	-0.600000	Coeff or Slope:	1.208

H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.5	----
As found High point	4924	75.6	80.0	81.4	0.977
As found Mid point	4962	37.8	40.0	40.2	0.983
As found Low point	4981	18.9	20.0	19.5	1.000
New cylinder response					
Baseline Corr As found:	81.9	Prev response:	80.10	*% change:	2.2%
Baseline Corr 2nd AF pt:	40.7	AF Slope:	1.025623	AF Intercept:	-0.740000
Baseline Corr 3rd AF pt:	20.0	AF Correlation:	0.999960	* = > +/-5% change initiates investigation	

H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.4	----
High point	4924	75.6	80.0	79.9	1.001
Mid point	4962	37.8	40.0	39.5	1.012
Low point	4981	18.9	20.0	19.3	1.036
As left zero	5000	0.0	0.0	-0.2	----
As left span	4924	75.6	80.0	78.7	1.016
SO2 Scrubber Check	4922	78.5	785.0	0.0	----
Date of last scrubber change:		18-Jan-23		Ave Corr Factor	1.017
Date of last converter efficiency test:		November 26, 2024		106.2% efficiency	

Notes: Inlet filter changed after as founds, scrubber check passed. No changes made.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

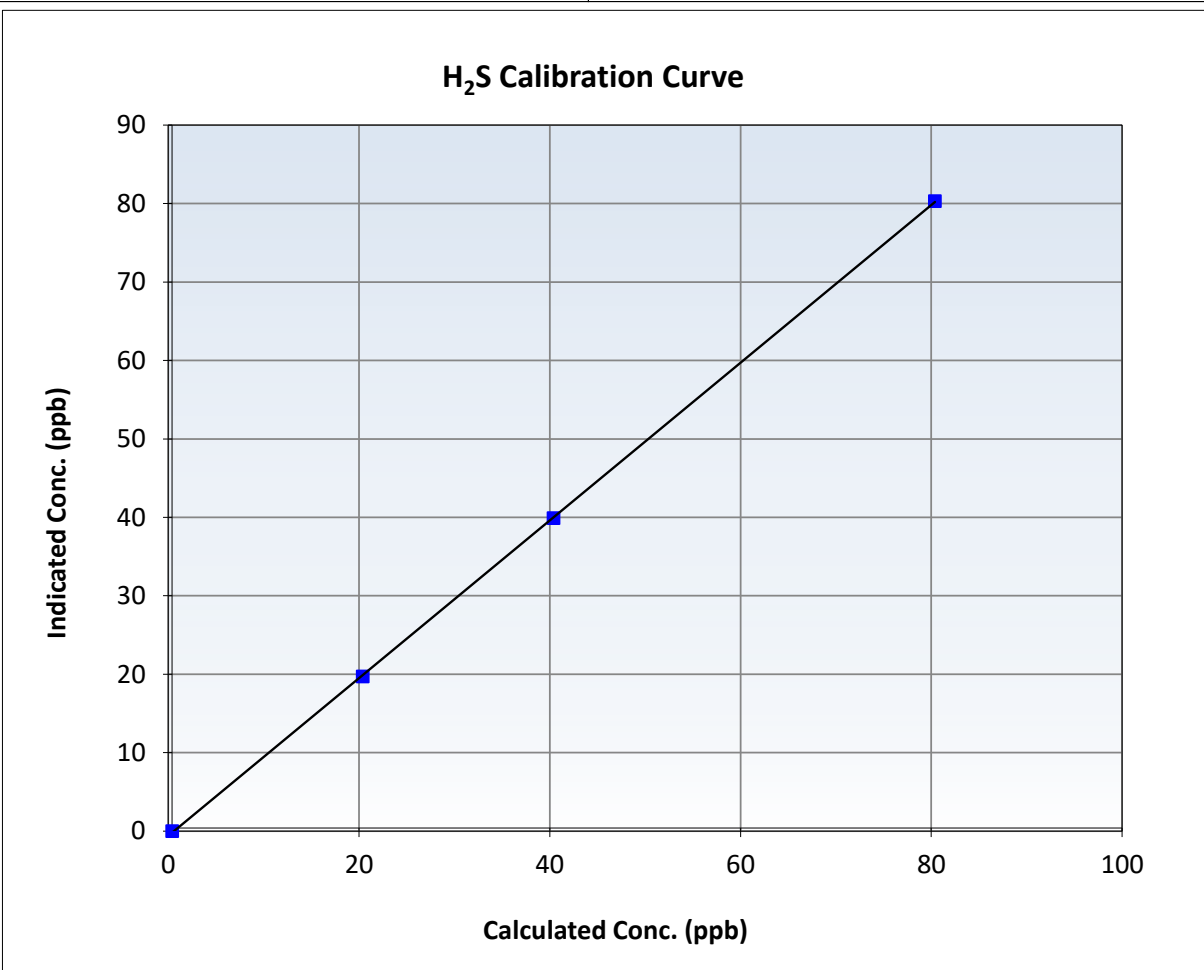
H2S Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	May 27, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:10	End Time (MST):	14:12
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680032

Calibration Data

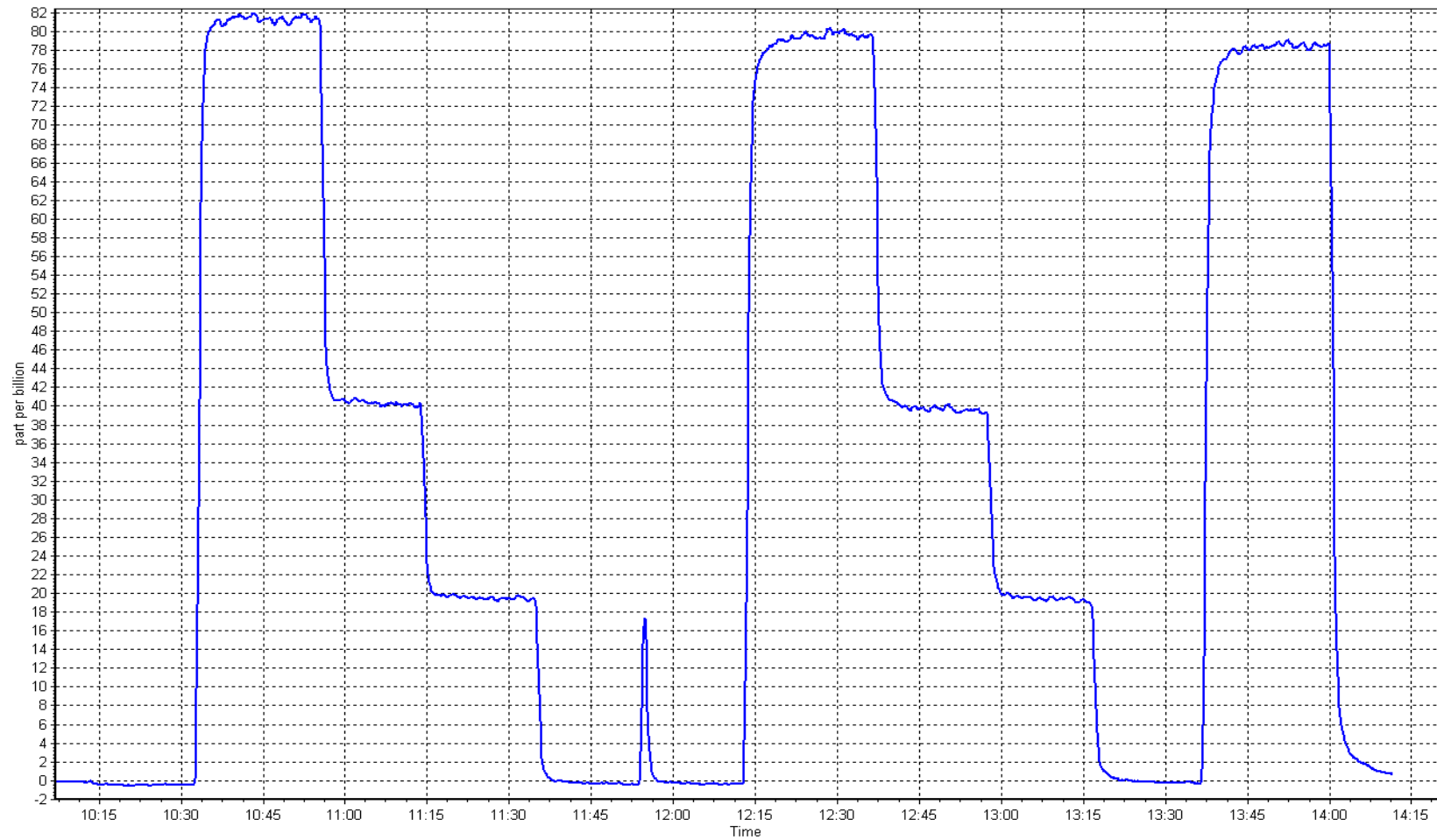
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.4	----	Correlation Coefficient	0.999972		≥ 0.995
80.0	79.9	1.0011	Slope	1.005191		$0.90 - 1.10$
40.0	39.5	1.0125	Intercept	-0.600000		± 3
20.0	19.3	1.0361				



H2S Calibration Plot

Date: June 8, 2026

Location: Firebag





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Firebag Station number: AMS 19
Calibration Date: June 5, 2026 Last Cal Date: May 19, 2026
Start time (MST): 9:53 End time (MST): 13:32
Reason: Routine

Calibration Standards

Gas Cert Reference: CC705799 Cal Gas Expiry Date: October 9, 2032
CH4 Cal Gas Conc. 505.1 ppm CH4 Equiv Conc. 1066.9 ppm
C3H8 Cal Gas Conc. 204.3 ppm
Removed Gas Cert: Removed Gas Expiry:
Removed CH4 Conc. 505.1 ppm CH4 Equiv Conc. 1066.9 ppm
Removed C3H8 Conc. 204.3 ppm Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 5258
ZAG Make/Model: Teledyne API T701H Serial Number: 201

Analyzer Information

Analyzer make: Thermo 51i-LT Analyzer serial #: 1336160089
Analyzer Range: 0 - 20 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.989696	0.983194	Background:	2.13	2.13
Calibration intercept:	0.110780	0.123157	Coefficient:	3.773	3.800

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.14	----
As found High point	4922	78.5	16.75	16.62	1.017
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	16.48	Previous response	16.69	*% change	-1.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.21	----
High point	4922	78.5	16.75	16.64	1.007
Mid point	4961	39.2	8.36	8.30	1.008
Low point	4980	19.6	4.18	4.16	1.006
As left zero	4999	0.0	0.00	0.17	----
As left span	4922	78.4	16.73	16.65	1.005
Average Correction Factor					1.007

Notes: Inlet filter changed after as founds, no changes made.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

THC Calibration Summary

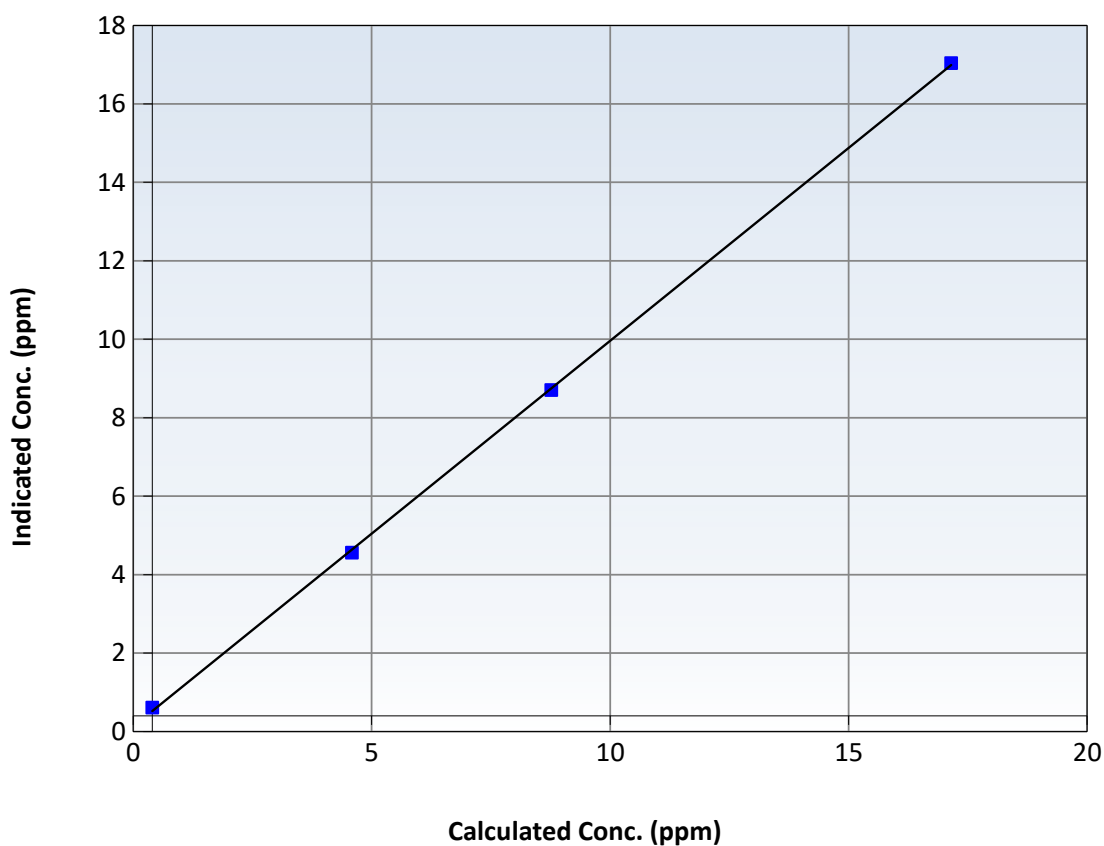
Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 19, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:53	End Time (MST):	13:32
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1336160089

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.21	----	Correlation Coefficient	0.999884	≥ 0.995
16.75	16.64	1.0069	Slope	0.983194	$0.90 - 1.10$
8.36	8.30	1.0077	Intercept	0.123157	± 1.5
4.18	4.16	1.0064			

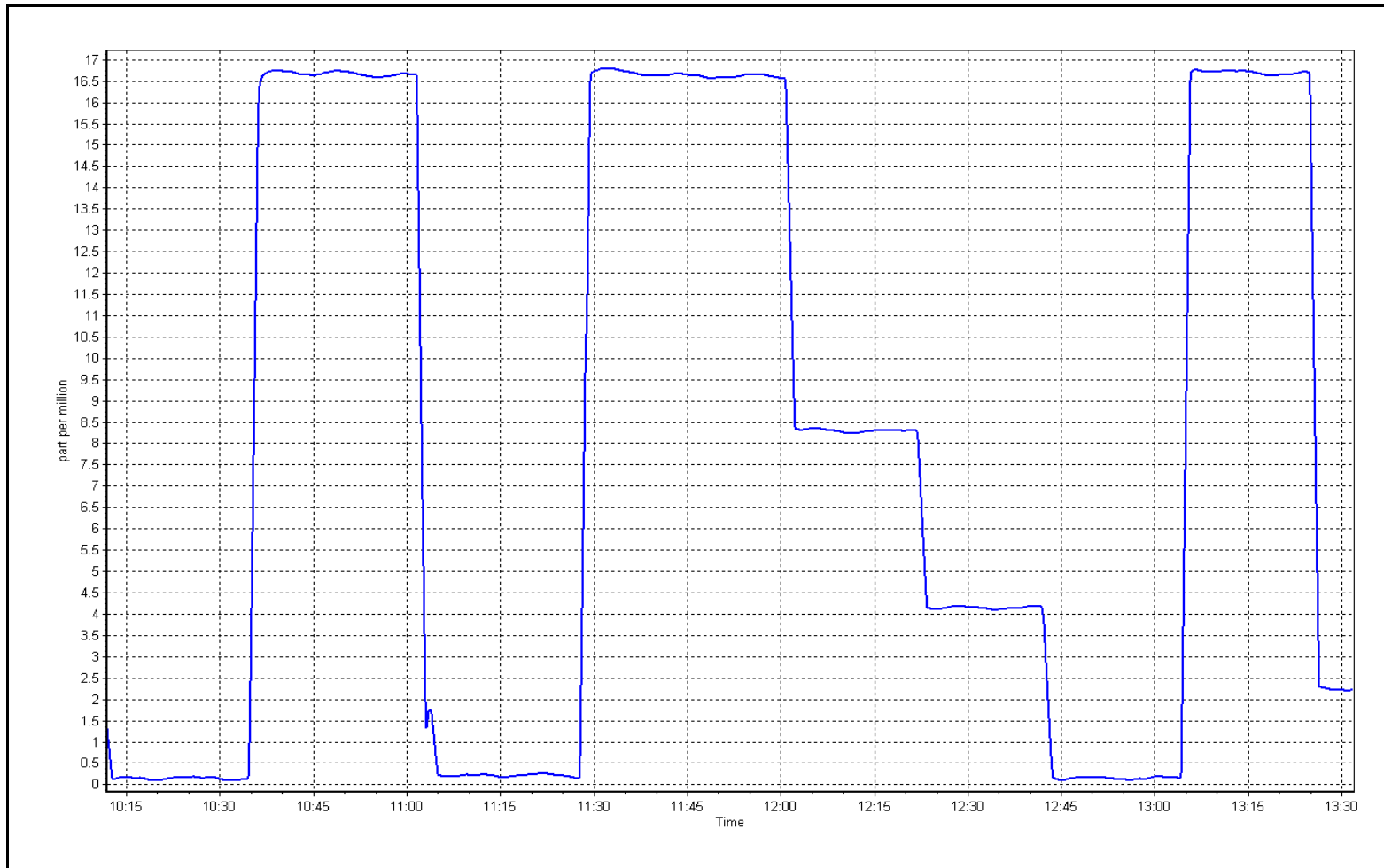
THC Calibration Curve



THC Calibration Plot

Date: June 5, 2026

Location: Firebag





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Firebag Station number: AMS 19
Calibration Date: June 15, 2026 Last Cal Date: June 5, 2026
Start time (MST): 10:36 End time (MST): 13:59
Reason: Maintenance

Calibration Standards

Gas Cert Reference: CC705799 Cal Gas Expiry Date: October 9, 2032
CH4 Cal Gas Conc. 505.1 ppm CH4 Equiv Conc. 1066.9 ppm
C3H8 Cal Gas Conc. 204.3 ppm
Removed Gas Cert: Removed Gas Expiry:
Removed CH4 Conc. 505.1 ppm CH4 Equiv Conc. 1066.9 ppm
Removed C3H8 Conc. 204.3 ppm Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 5258
ZAG Make/Model: Teledyne API T701H Serial Number: 201

Analyzer Information

Analyzer make: Thermo 51i-LT Analyzer serial #: 1336160089
Analyzer Range: 0 - 20 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.983194	1.004927	Background: 2.13	2.35
Calibration intercept:	0.123157	-0.070530	Coefficient: 3.800	3.844

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.17	----
As found High point	4922	78.5	16.75	16.72	1.012
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	16.55	Previous response	16.59	*% change	-0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	-0.02	----
High point	4922	78.5	16.75	16.78	0.998
Mid point	4961	39.2	8.36	8.33	1.004
Low point	4980	19.6	4.18	4.07	1.027
As left zero	4999	0.0	0.00	-0.01	----
As left span	4922	78.4	16.73	16.77	0.998
Average Correction Factor					1.010

Notes: Changed hydrogen cylinder, adjusted zero.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

THC Calibration Summary

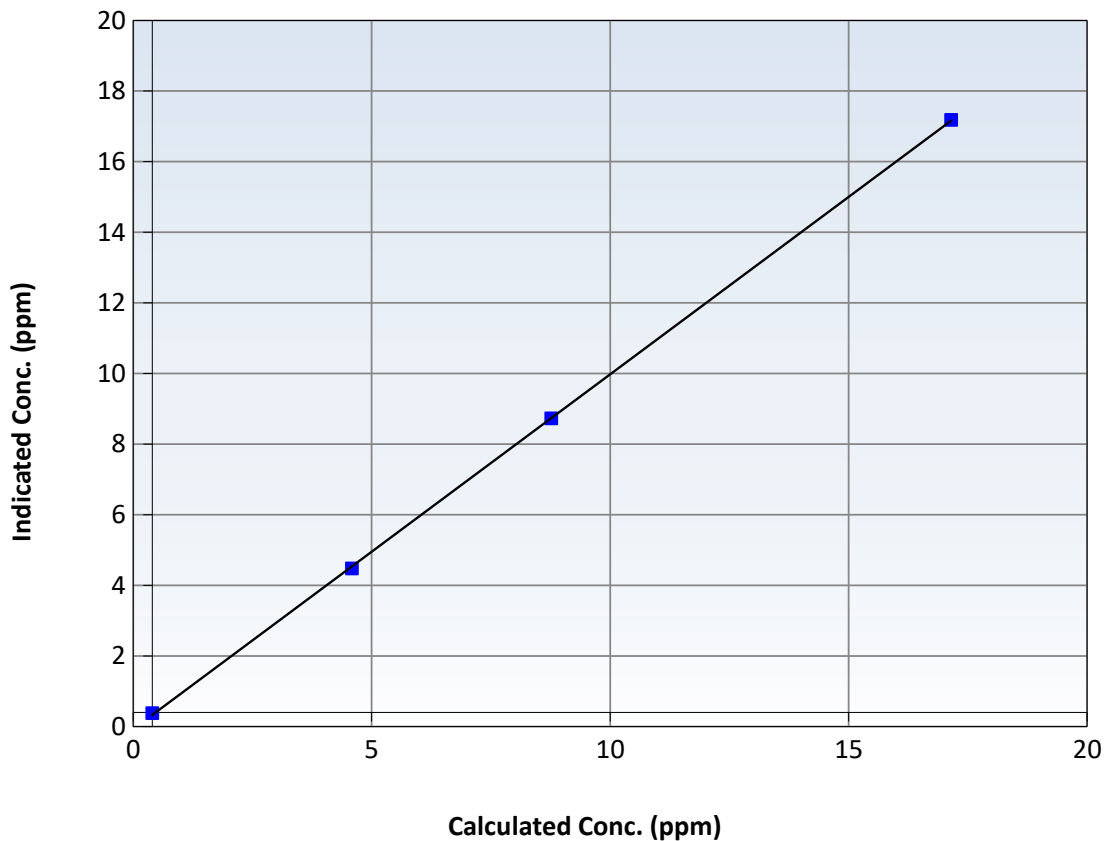
Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	June 5, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:36	End Time (MST):	13:59
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1336160089

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.02	----	Correlation Coefficient	0.999960	≥ 0.995
16.75	16.78	0.9982	Slope	1.004927	$0.90 - 1.10$
8.36	8.33	1.0042	Intercept	-0.070530	± 1.5
4.18	4.07	1.0269			

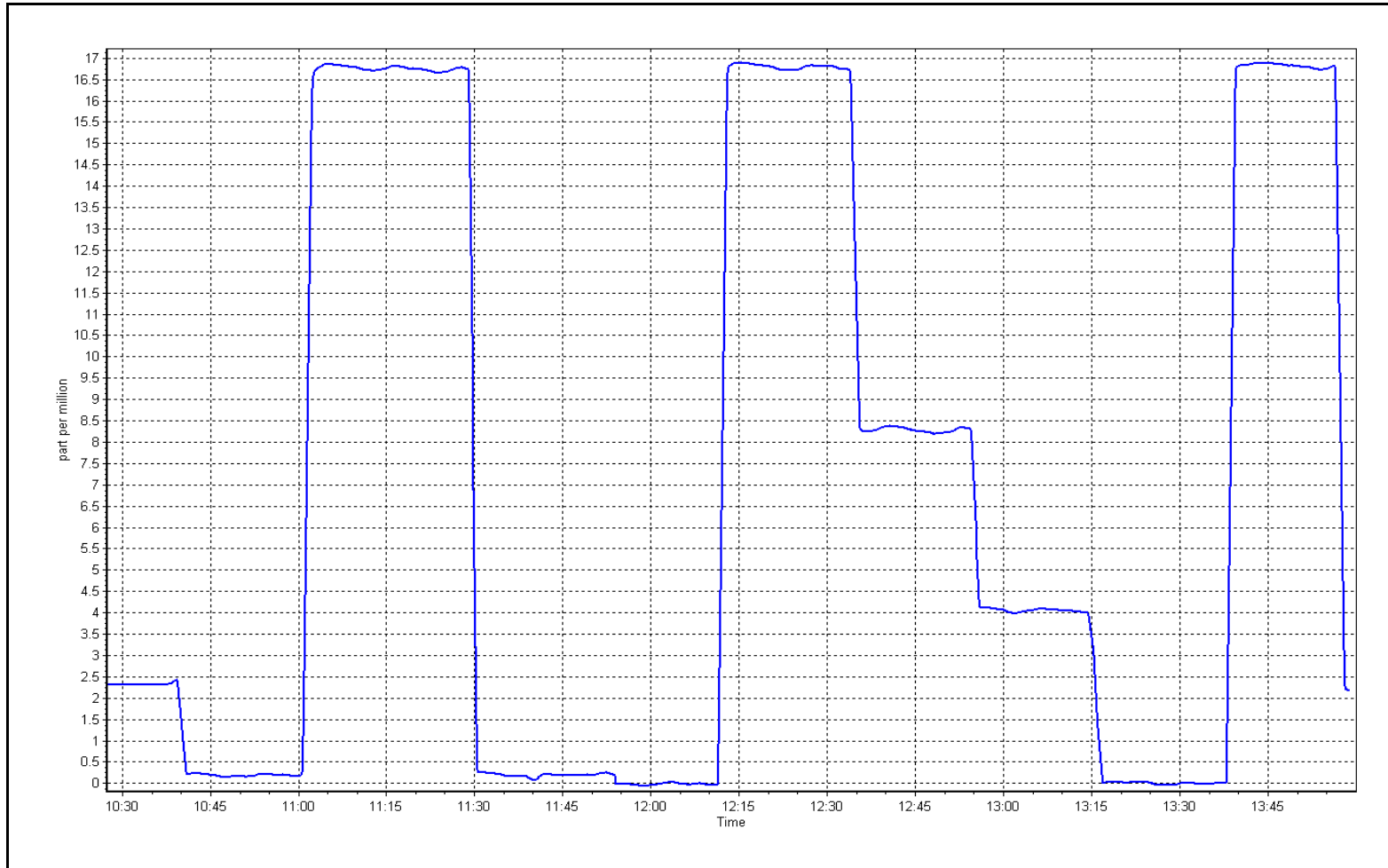
THC Calibration Curve



THC Calibration Plot

Date: June 15, 2026

Location: Firebag





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Firebag
Station number: AMS 19
Calibration Date: June 22, 2026
Last Cal Date: May 26, 2026
Start time (MST): 10:24
End time (MST): 14:55
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0045593
NOX Cal Gas Conc: 62.10 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 62.10 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701H
Cal Gas Expiry Date: July 22, 2032
NO Cal Gas Conc: 61.90 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 61.90 ppm
NO gas Diff:
Serial Number: 5258
Serial Number: 201

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
AF High point	4936	64.4	799.8	797.2	2.6	794.9	788.8	6.1	1.0060	1.0105
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 798.9 ppb	NO = 796.3 ppb				* = > +/-5% change initiates investigation		*Percent Change	NO _x = -0.5%	
Baseline Corr 1st pt	NO _x = 795.0 ppb	NO = 788.9 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.9%	
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found	NO _x r ² :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found	NO r ² :	NO SI:	NO Int:	
						As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1410661309

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.001430	0.992914
NO _x Cal Offset:	-1.987967	-1.007927
NO Cal Slope:	1.001971	0.995434
NO Cal Offset:	-2.447945	-1.967905
NO ₂ Cal Slope:	0.992559	0.995884
NO ₂ Cal Offset:	-1.601403	-0.802919

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.931	0.931	NO bkgnd or offset:	4.7	4.7
NOX coeff or slope:	0.991	0.991	NOX bkgnd or offset:	4.7	4.7
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	166.4	167.6

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.0	0.1	----	----
High point	4936	64.4	799.8	797.2	2.6	793.3	792.2	1.1	1.0082	1.0063
Mid point	4968	32.2	399.9	398.6	1.3	396.6	395.0	1.6	1.0083	1.0092
Low point	4984	16.1	200.0	199.3	0.6	195.7	193.7	1.9	1.0218	1.0290
As left zero	5000	0	0.0	0.0	0.0	0.1	0.0	0.1	----	----
As left span	4936	64.4	799.8	395.2	404.6	789.7	395.2	394.5	1.0128	1.0000
Average Correction Factor									1.0128	1.0148

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	785.8	389.7	398.7	396.7	1.0050	99.5%
Mid GPT point	785.8	592.9	195.5	193.5	1.0102	99.0%
Low GPT point	785.8	674.1	114.3	112.0	1.0203	98.0%
Average Correction Factor					1.0118	98.8%

Notes:

Inlet filter changed after as founds, no adjustments made.

Calibration Performed By:

Jason Brooks



Wood Buffalo Environmental Association

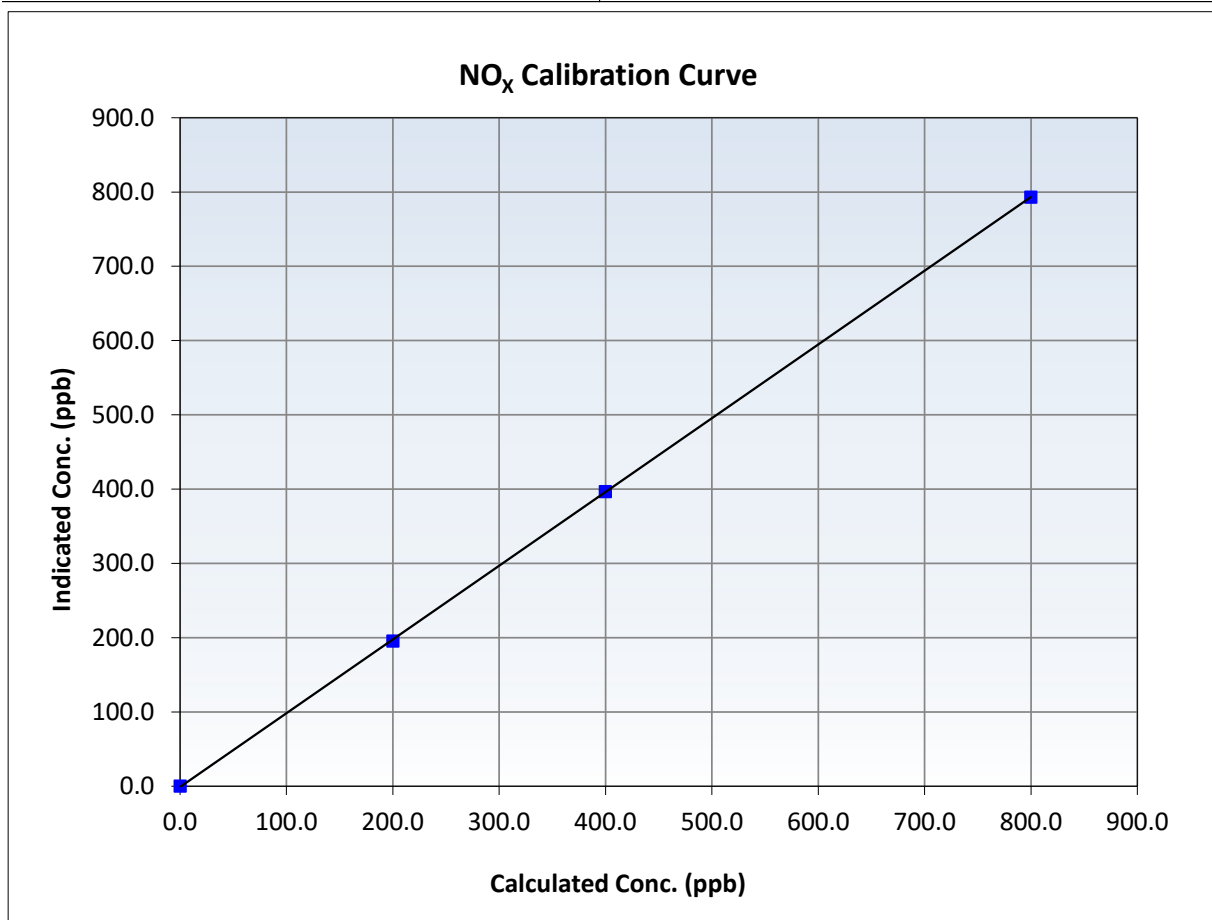
NO_x Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 26, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:24	End Time (MST):	14:55
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999986	≥0.995
799.8	793.3	1.0082	Slope	0.992914	0.90 - 1.10
399.9	396.6	1.0083	Intercept	-1.007927	+/-20
200.0	195.7	1.0218			





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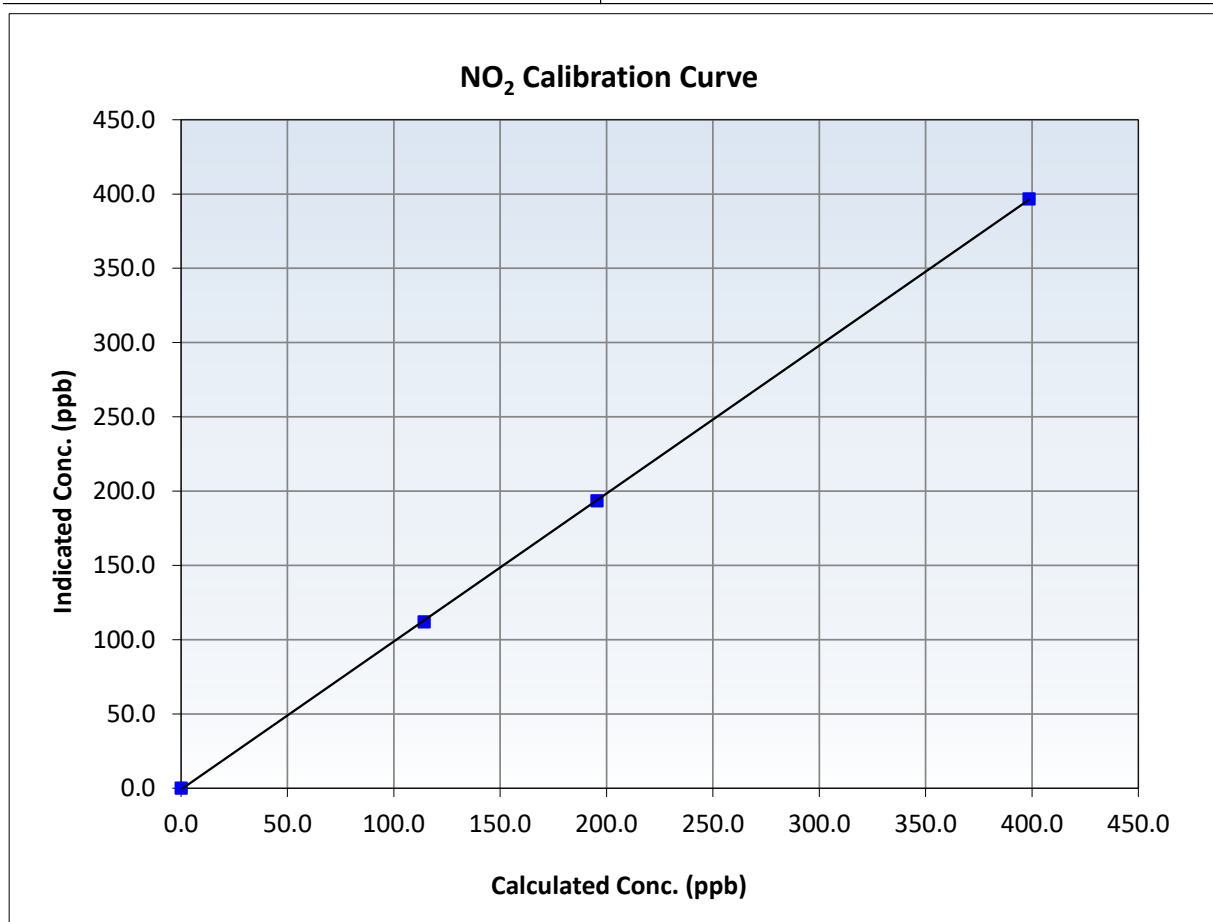
NO₂ Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 26, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:24	End Time (MST):	14:55
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999974	≥0.995
398.7	396.7	1.0050	Slope	0.995884	0.90 - 1.10
195.5	193.5	1.0102	Intercept	-0.802919	+/-20
114.3	112.0	1.0203			





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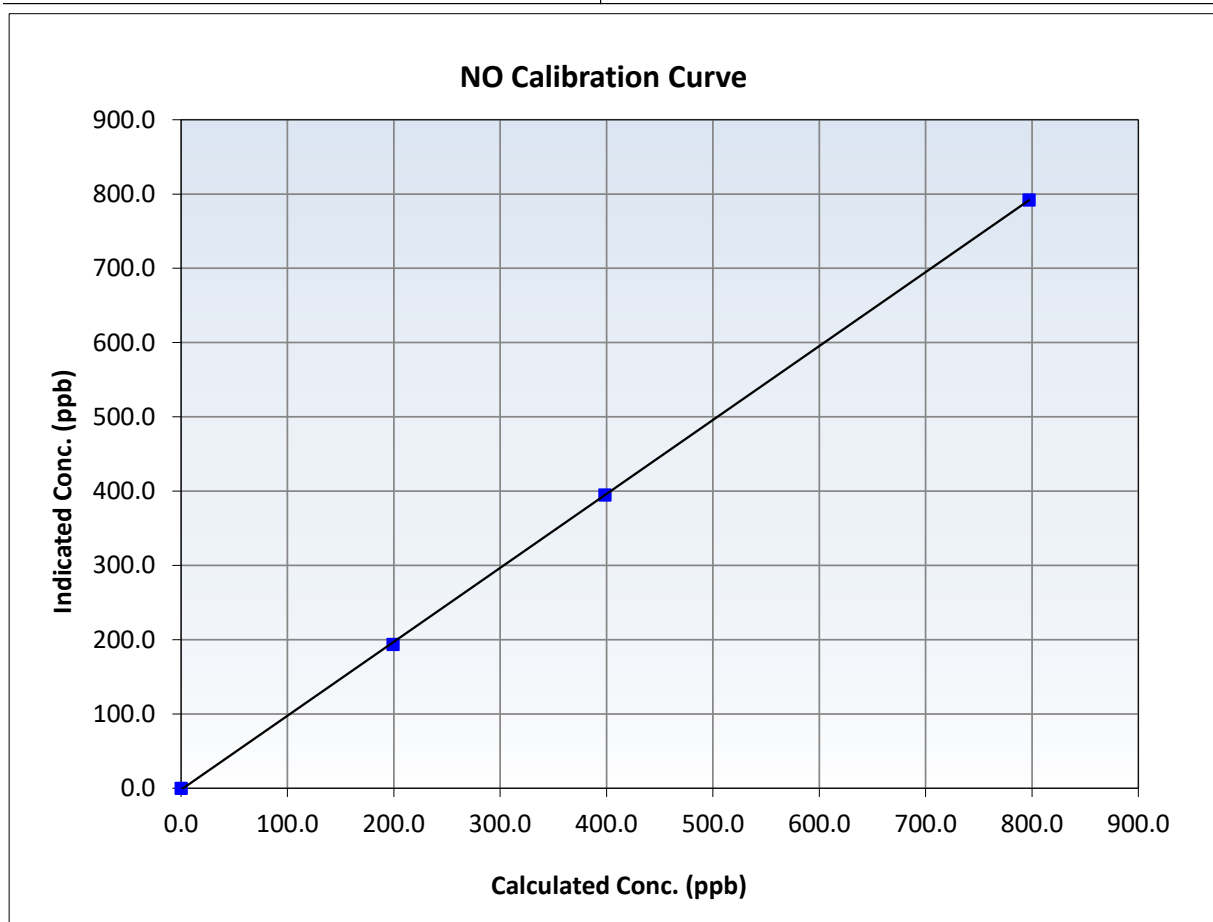
NO Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 26, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:24	End Time (MST):	14:55
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

Calibration Data

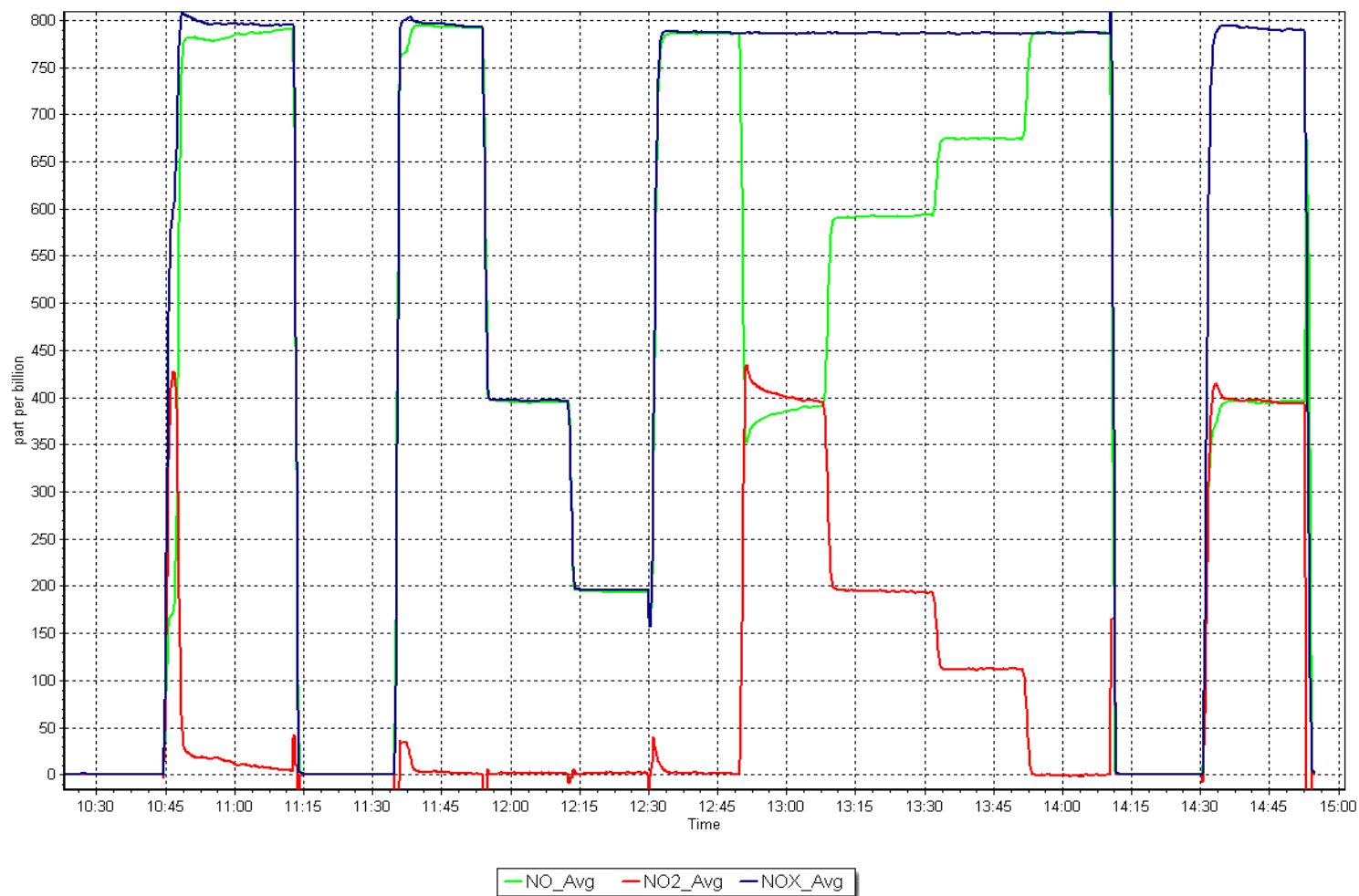
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999966	≥ 0.995
797.2	792.2	1.0063	Slope	0.995434	$0.90 - 1.10$
398.6	395.0	1.0092	Intercept	-1.967905	± 20
199.3	193.7	1.0290			



NO_x Calibration Plot

Date: June 22, 2026

Location: Firebag





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS20 MACKAY RIVER JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: MacKay River Station number: AMS 20
Calibration Date: June 15, 2026 Last Cal Date: May 19, 2026
Start time (MST): 7:00 End time (MST): 10:25
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.15 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC409669
Removed Cal Gas Conc: 49.15 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Model: API T700 Serial Number: 5706
Zero Air Gen Model: API 701 Serial Number: 4888

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1501301450
Analyzer Range: 0-1000ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001059	1.001188	Backgd or Offset:	21.4	21.0
Calibration intercept:	0.244472	-0.675723	Coeff or Slope:	0.930	0.921

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4919	81.4	800.1	806.5	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	806.9	Previous response	801.2	*% change	0.7%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.8	----
High point	4919	81.4	800.1	800.5	0.999
Mid point	4959	40.7	400.1	399.4	1.002
Low point	4980	20.3	199.5	199.6	1.000
As left zero	5000	0.0	0.0	-0.4	----
As left span	4919	81.4	800.1	799.3	1.001
Average Correction Factor:					1.000

Notes: No Maintenance done. Span adjusted.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

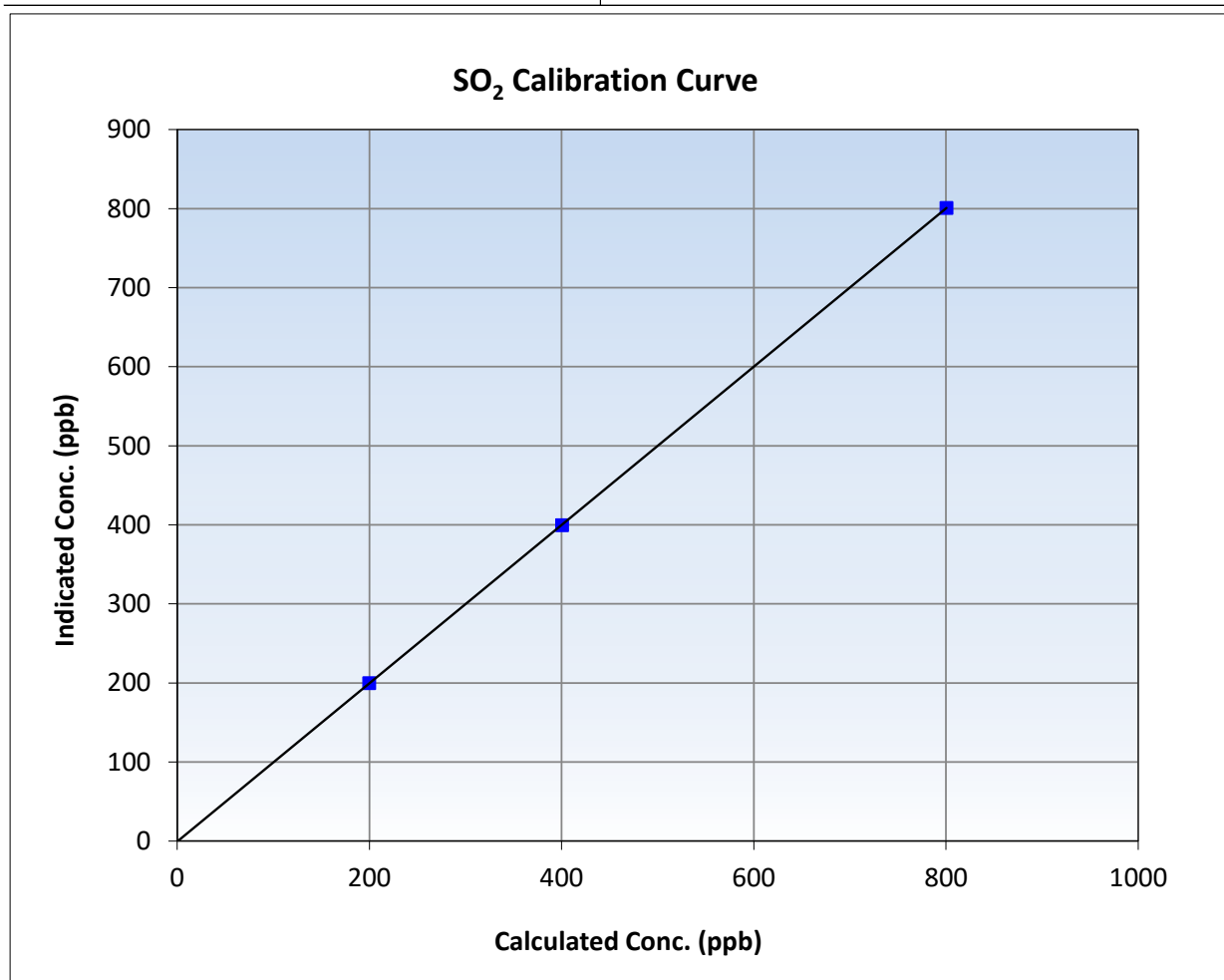
SO₂ Calibration Summary

Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 19, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	7:00	End Time (MST):	10:25
Analyzer make:	Thermo 43i	Analyzer serial #:	1501301450

Calibration Data

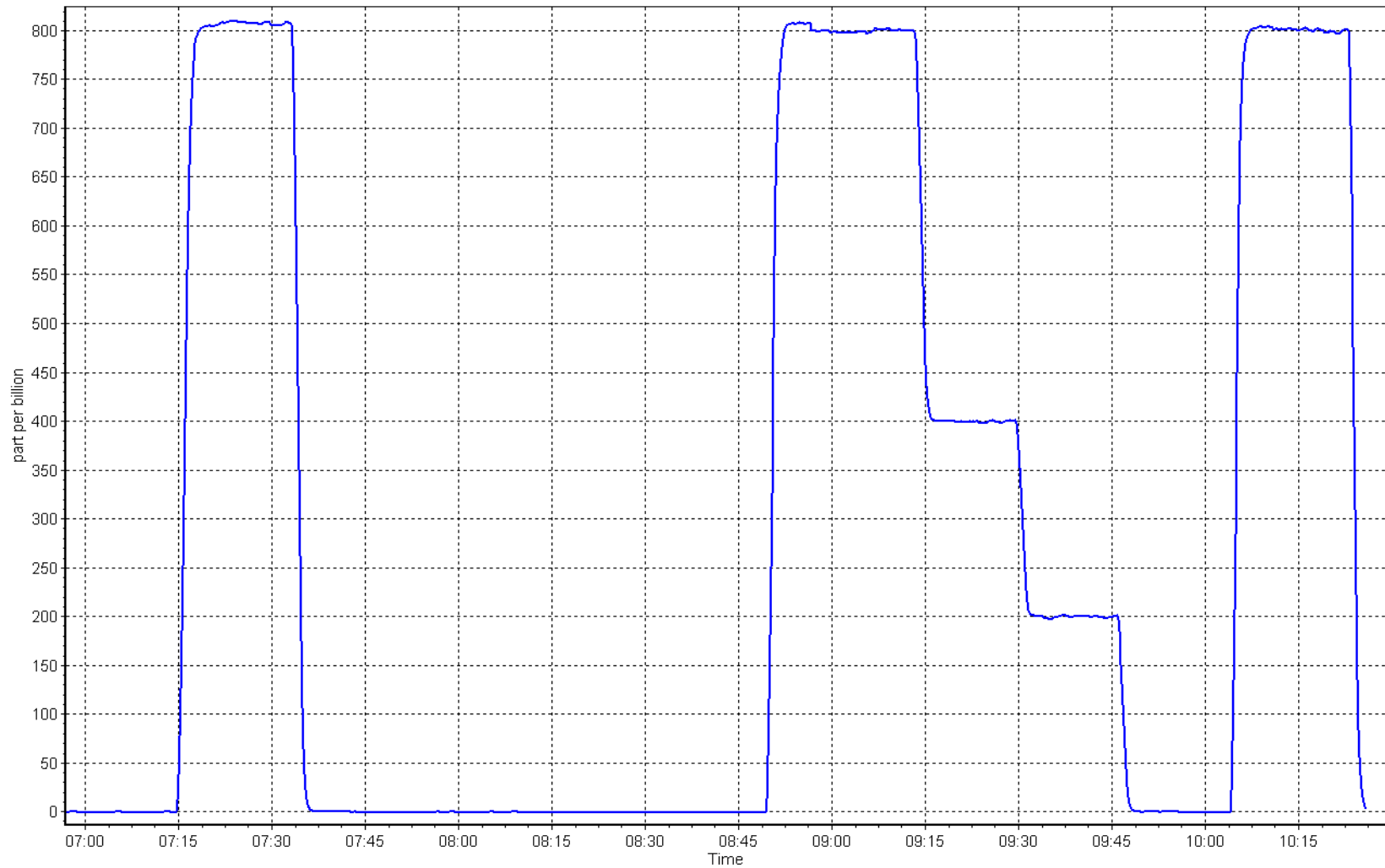
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.8	----	Correlation Coefficient	0.999998	≥0.995
800.1	800.5	0.9995	Slope	1.001188	0.90 - 1.10
400.1	399.4	1.0018	Intercept	-0.675723	+/-30
199.5	199.6	0.9997			



SO2 Calibration Plot

Date: June 15, 2026

Location: MacKay River





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: MacKay River
Calibration Date: June 17, 2026
Start time (MST): 6:15
Reason: Routine

Station number: AMS 20
Last Cal Date: May 11, 2026
End time (MST): 10:14

Calibration Standards

Cal Gas Concentration: 4.96 ppm
Cal Gas Cylinder #: CC737854
Removed Cal Gas Conc: 4.96 ppm
Removed Gas Cyl #:
Calibrator Make/Model: API T700
ZAG Make/Model: API 701

Cal Gas Exp Date: September 22, 2028
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 5706
Serial Number: 4888

Analyzer Information

Analyzer make: Thermo 43i TLE
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1236656117
Converter serial #: 2022-226
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002936	1.007509	Backgd or Offset:	3.90	3.90
Calibration intercept:	-0.003732	-0.063797	Coeff or Slope:	1.071	1.071

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4919	80.6	80.0	81.6	0.978
As found Mid point	4960	40.3	40.0	40.9	0.973
As found Low point	4980	20.2	20.0	20.4	0.973
New cylinder response					
Baseline Corr As found:	81.8	Prev response:	80.19	*% change:	2.0%
Baseline Corr 2nd AF pt:	41.1	AF Slope:	1.022807	AF Intercept:	-0.124243
Baseline Corr 3rd AF pt:	20.6	AF Correlation:	0.999994	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4919	80.6	80.0	80.5	0.993
Mid point	4960	40.3	40.0	40.3	0.993
Low point	4980	20.2	20.0	20.0	1.002
As left zero	5000	0.0	0.0	0.1	----
As left span	4919	80.6	80.0	79.2	1.010
SO2 Scrubber Check	4982	81.3	802.8	-0.1	----
Date of last scrubber change:	25-May-23		Ave Corr Factor		0.996
Date of last converter efficiency test:					

Notes: Sox scrubber checked after the calibrator zero. No adjustments done.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

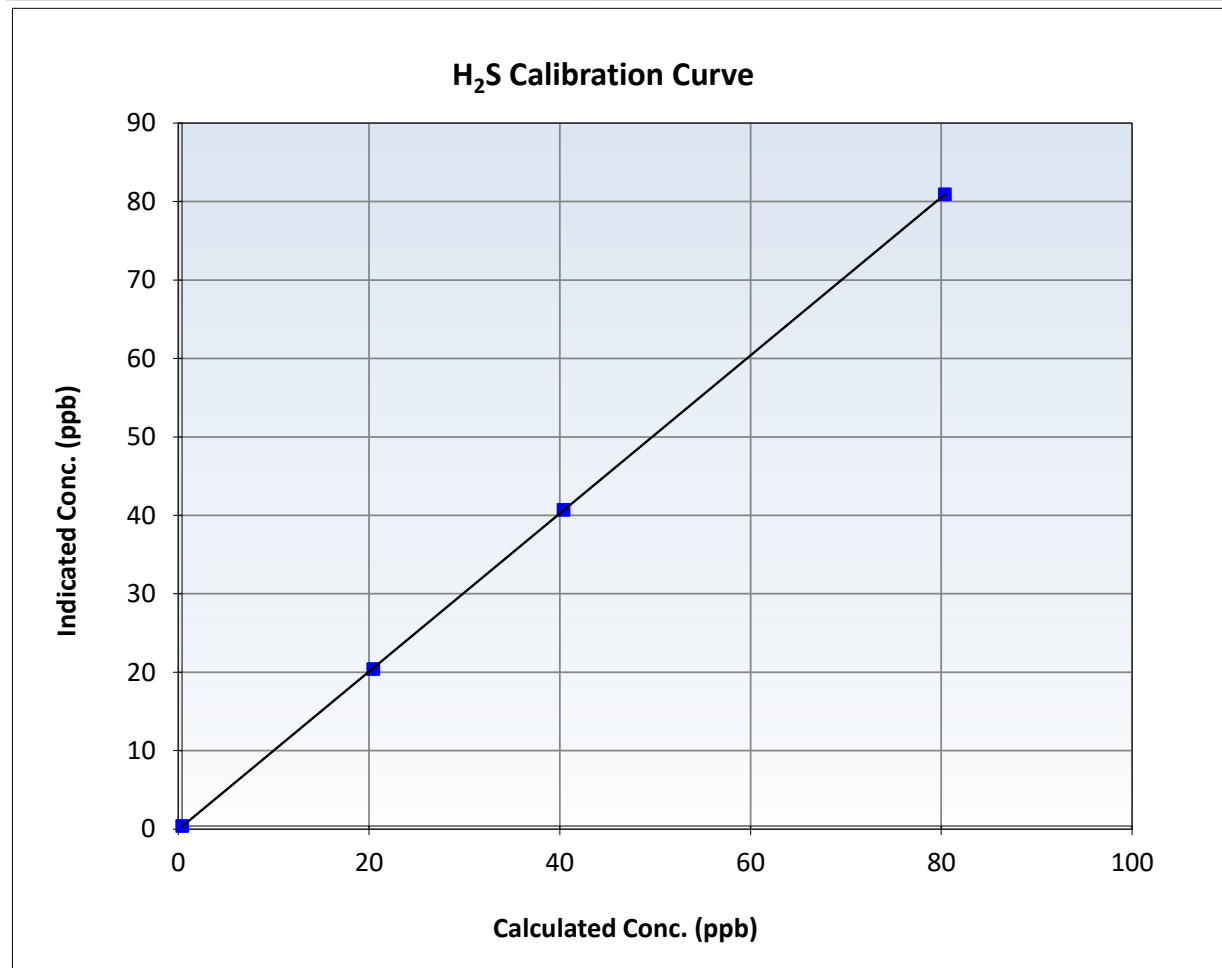
H₂S Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	May 11, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	6:15	End Time (MST):	10:14
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1236656117

Calibration Data

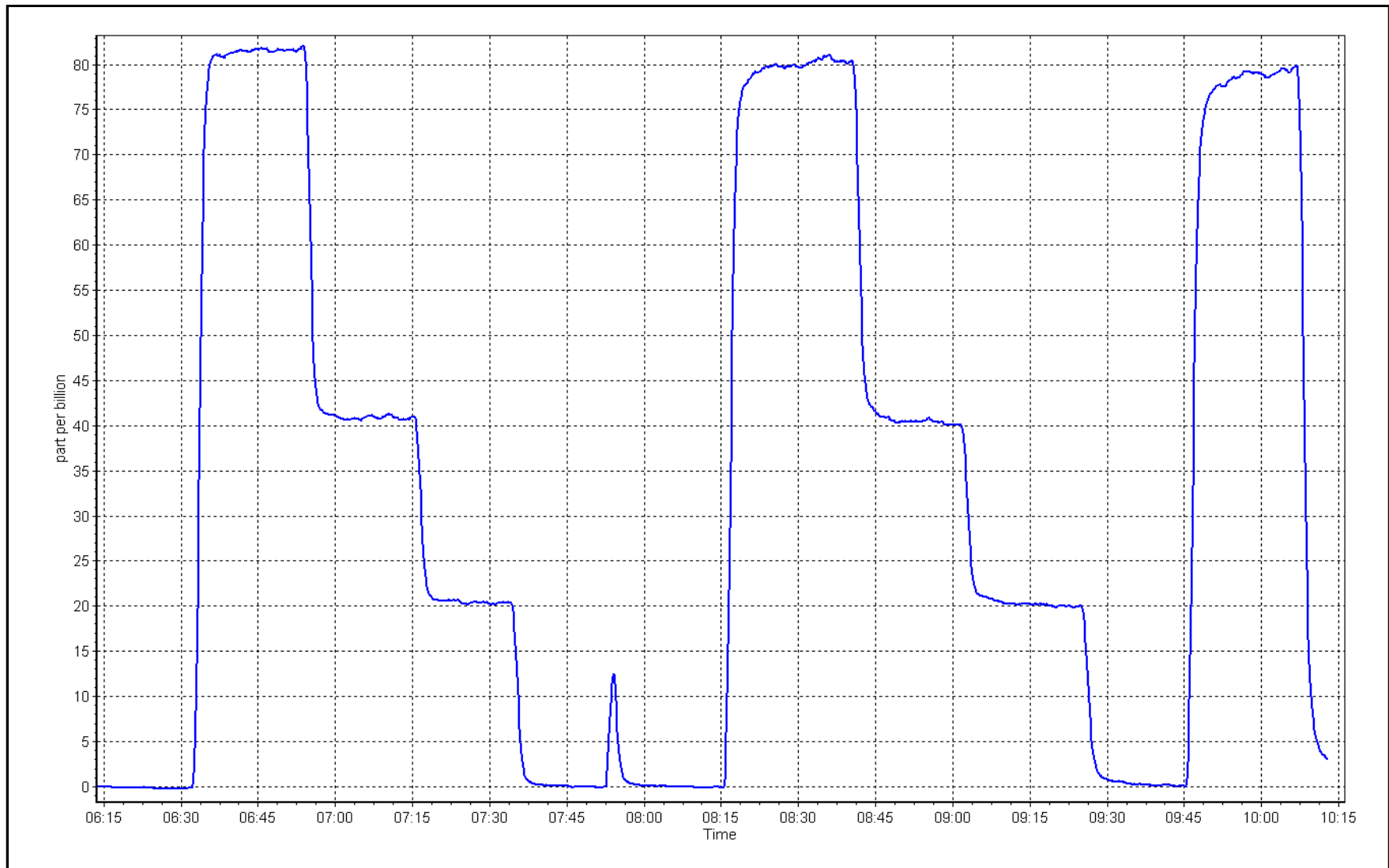
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999994	≥ 0.995
80.0	80.5	0.9933	Slope	1.007509	$0.90 - 1.10$
40.0	40.3	0.9927	Intercept	-0.063797	± 3
20.0	20.0	1.0019			



H₂S Calibration Plot

Date: June 17, 2026

Location: MacKay River





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: MacKay River
Calibration Date: June 15, 2026
Start time (MST): 7:00
Reason: Routine

Station number: AMS 20
Last Cal Date: May 19, 2026
End time (MST): 10:25

Calibration Standards

Gas Cert Reference: CC409669
CH4 Cal Gas Conc. 505.1 ppm
C3H8 Cal Gas Conc. 206.4 ppm
Removed Gas Cert:
Removed CH4 Conc. 505.1 ppm
Removed C3H8 Conc. 206.4 ppm
Calibrator Make/Model: API T700
ZAG Make/Model: API 701

Cal Gas Expiry Date: October 9, 2032
CH4 Equiv Conc. 1072.7 ppm
Removed Gas Expiry:
CH4 Equiv Conc. 1072.7 ppm
Diff between cyl:
Serial Number: 5706
Serial Number: 4888

Analyzer Information

Analyzer make: Thermo 51i-LT
Analyzer Range: 0 - 20 ppm

Analyzer serial #: 1501663727

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997212	0.993322	Background:	2.800	2.880
Calibration intercept:	-0.006801	-0.097841	Coefficient:	4.680	4.410

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted
					Correction factor (Cc/(Ic-AFzero))
					<i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.05	----
As found High point	4919	81.4	17.46	17.61	0.989
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	17.66	Previous response	17.41	*% change	1.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)
					<i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	-0.02	----
High point	4919	81.4	17.46	17.30	1.010
Mid point	4959	40.7	8.73	8.51	1.026
Low point	4980	20.3	4.35	4.17	1.045
As left zero	5000	0.0	0.00	-0.02	----
As left span	4919	81.4	17.46	17.62	0.991
Average Correction Factor					1.027

Notes:

Hydrogen cylinder changed out. Zero and span adjusted.

Calibration Performed By:

Melissa Lemay



Wood Buffalo Environmental Association

THC Calibration Summary

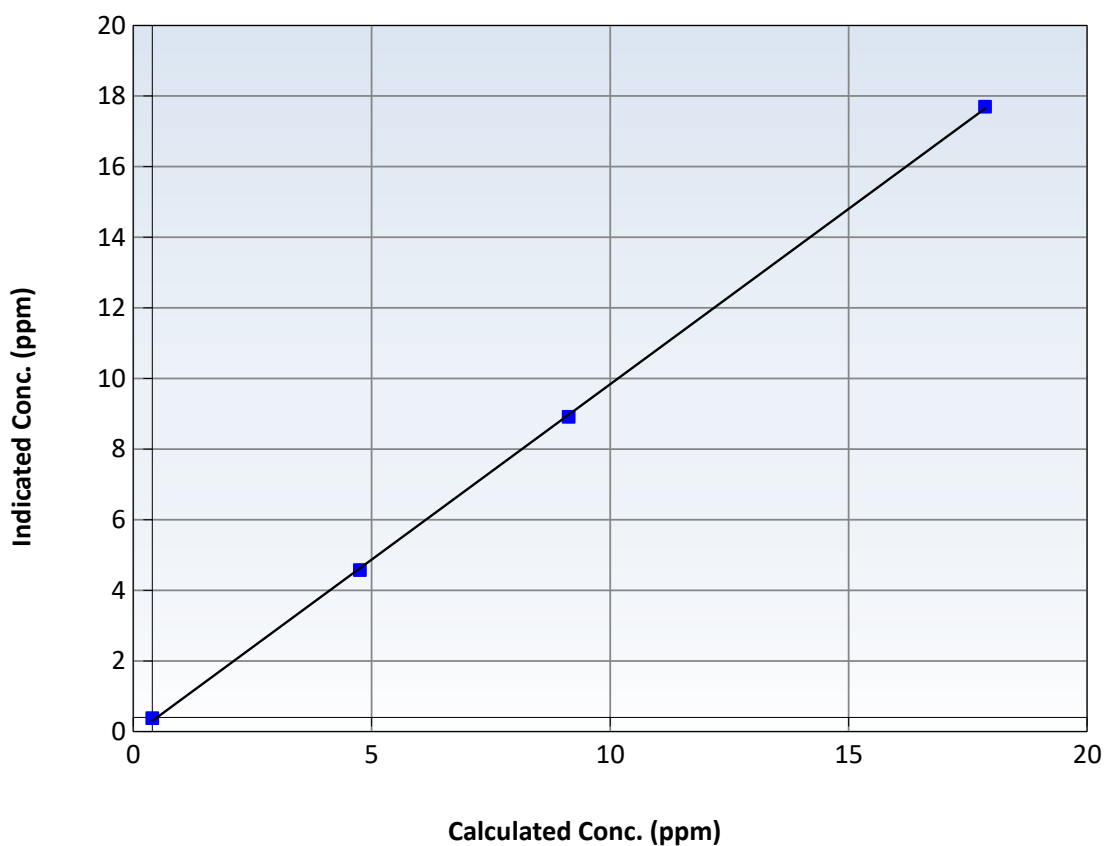
Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 19, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	7:00	End Time (MST):	10:25
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1501663727

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.02	----	Correlation Coefficient	0.999901	≥ 0.995
17.46	17.30	1.0096	Slope	0.993322	$0.90 - 1.10$
8.73	8.51	1.0262	Intercept	-0.097841	± 1.5
4.35	4.17	1.0446			

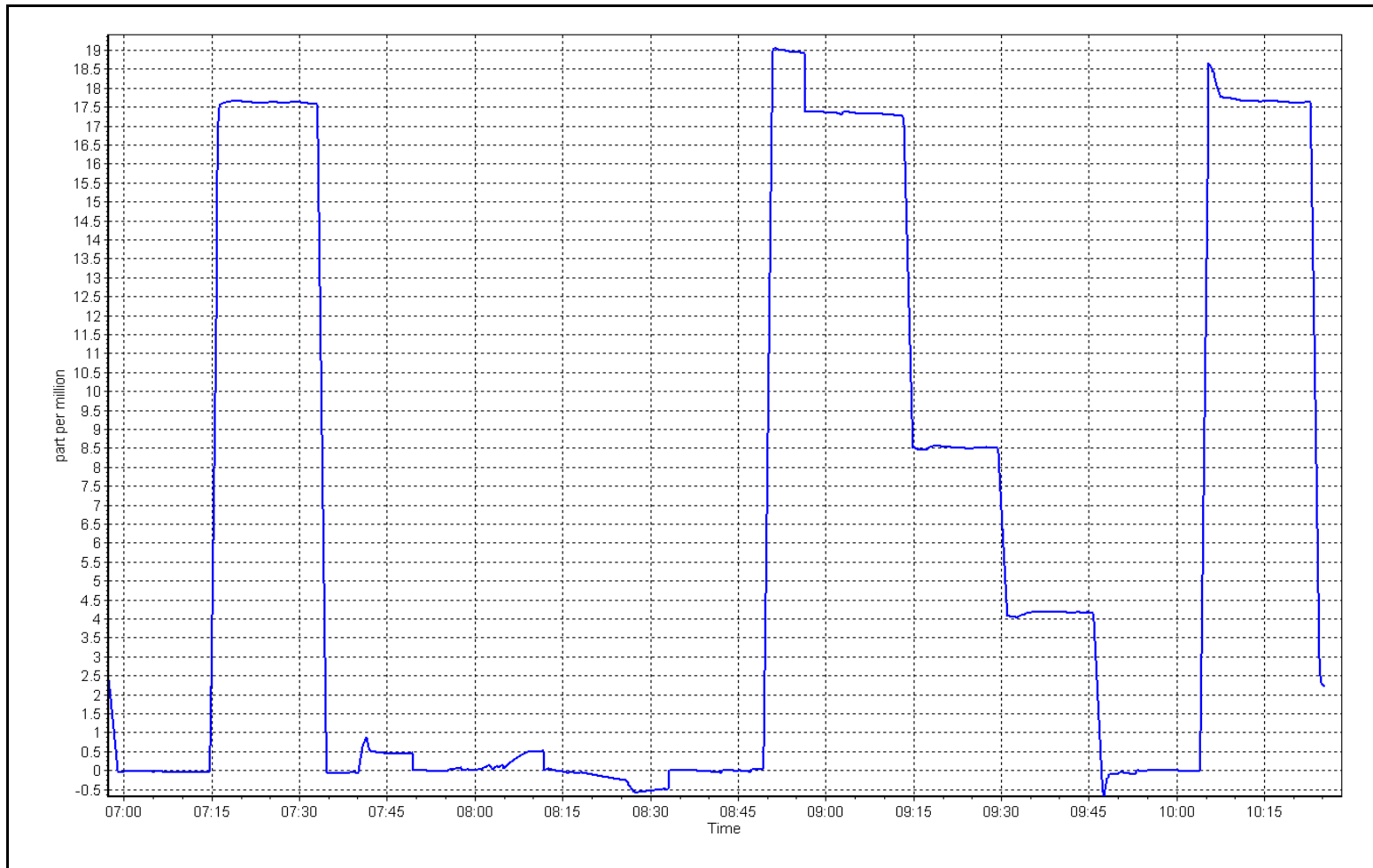
THC Calibration Curve



THC Calibration Plot

Date: June 15, 2026

Location: MacKay River





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: MacKay River
Station number: AMS 20
Calibration Date: June 16, 2026
Last Cal Date: May 13, 2026
Start time (MST): 6:44
End time (MST): 10:50
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0037393
NOX Cal Gas Conc: 62.00 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 62.00 ppm
NOX gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701
Cal Gas Expiry Date: July 22, 2032
NO Cal Gas Conc: 61.90 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 61.90 ppm
NO gas Diff:
Serial Number: 5706
Serial Number: 4888

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.3	0.0	-0.3	----	----
AF High point	4935	64.6	801.1	799.8	1.3	806.2	802.8	3.5	0.9933	0.9963
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 799.0 ppb	NO = 797.6 ppb				* = > +/-5% change initiates investigation			*Percent Change	NO _x = 0.9%
Baseline Corr 1st pt	NO _x = 806.5 ppb	NO = 802.8 ppb				<u>As Found Statistics</u>			*Percent Change	NO = 0.6%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found NO _x r ² :			Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found NO r ² :			NO SI:	NO Int:
						As found NO ₂ r ² :			NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1505164379

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.065	1.065	NO bkgnd or offset:	2.9	2.9
NOX coeff or slope:	0.991	0.991	NOX bkgnd or offset:	3.2	3.2
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	151.6	151.6

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.996373	1.004608
NO _x Cal Offset:	0.753608	0.891487
NO Cal Slope:	0.997909	1.004741
NO Cal Offset:	-0.545534	-0.387239
NO ₂ Cal Slope:	1.000618	0.999103
NO ₂ Cal Offset:	-0.770360	0.002443

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	0.1	-0.2	----	----
High point	4935	64.6	801.1	799.8	1.3	805.0	803.2	1.8	0.9952	0.9958
Mid point	4968	32.3	400.5	399.9	0.6	404.3	401.9	2.5	0.9906	0.9949
Low point	4984	16.2	200.9	200.5	0.3	203.3	200.1	3.1	0.9881	1.0022
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	----	----
As left span	4935	64.6	801.1	436.2	364.9	804.5	436.2	368.2	0.9958	1.0000
Average Correction Factor									0.9913	0.9976

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	800.6	432.7	369.2	368.7	1.0013	99.9%
Mid GPT point	800.6	614.1	187.8	187.9	0.9994	100.1%
Low GPT point	800.6	705.8	96.1	96.1	0.9999	100.0%
Average Correction Factor					1.0002	100.0%

Notes: No Maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

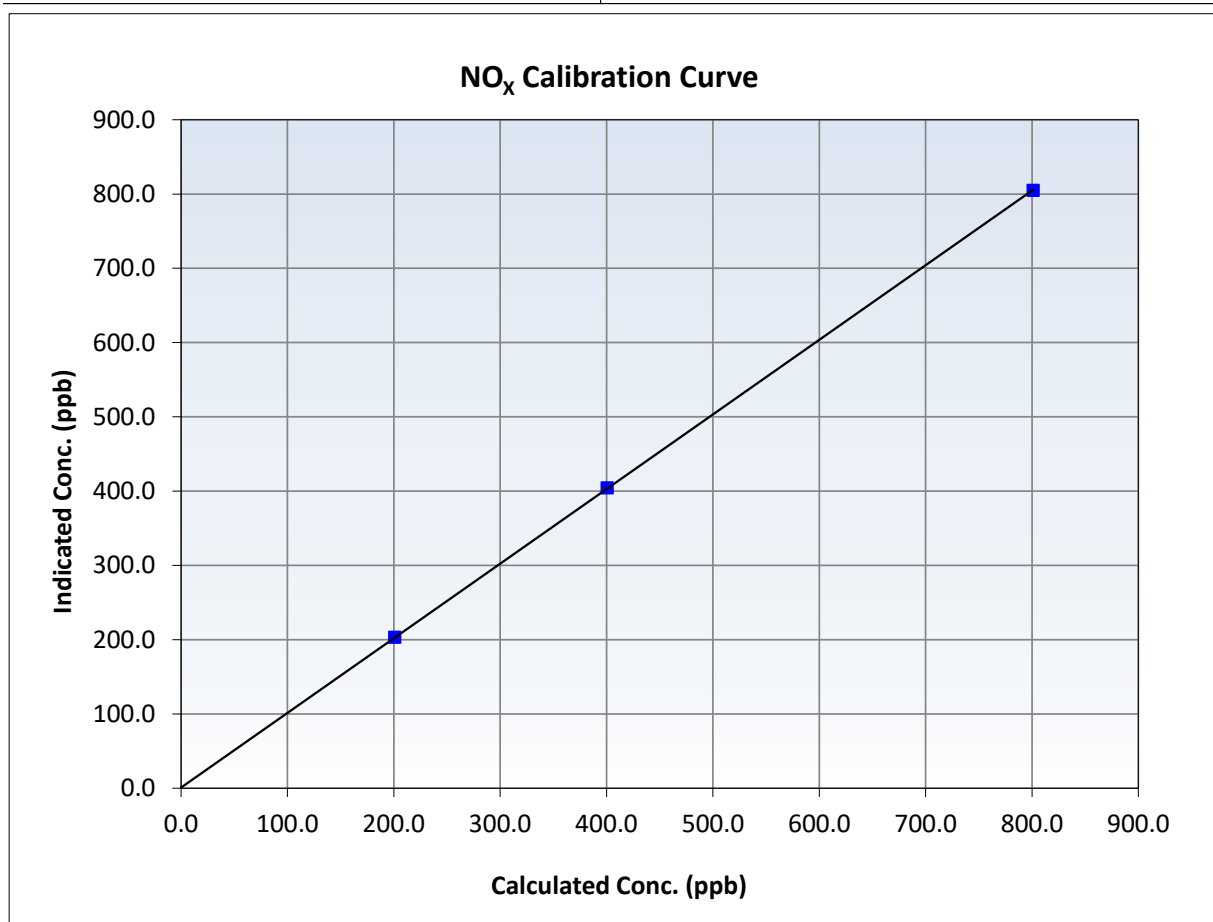
NO_x Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 13, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:44	End Time (MST):	10:50
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999992	≥0.995
801.1	805.0	0.9952	Slope	1.004608	0.90 - 1.10
400.5	404.3	0.9906	Intercept	0.891487	+/-20
200.9	203.3	0.9881			





Wood Buffalo Environmental Association

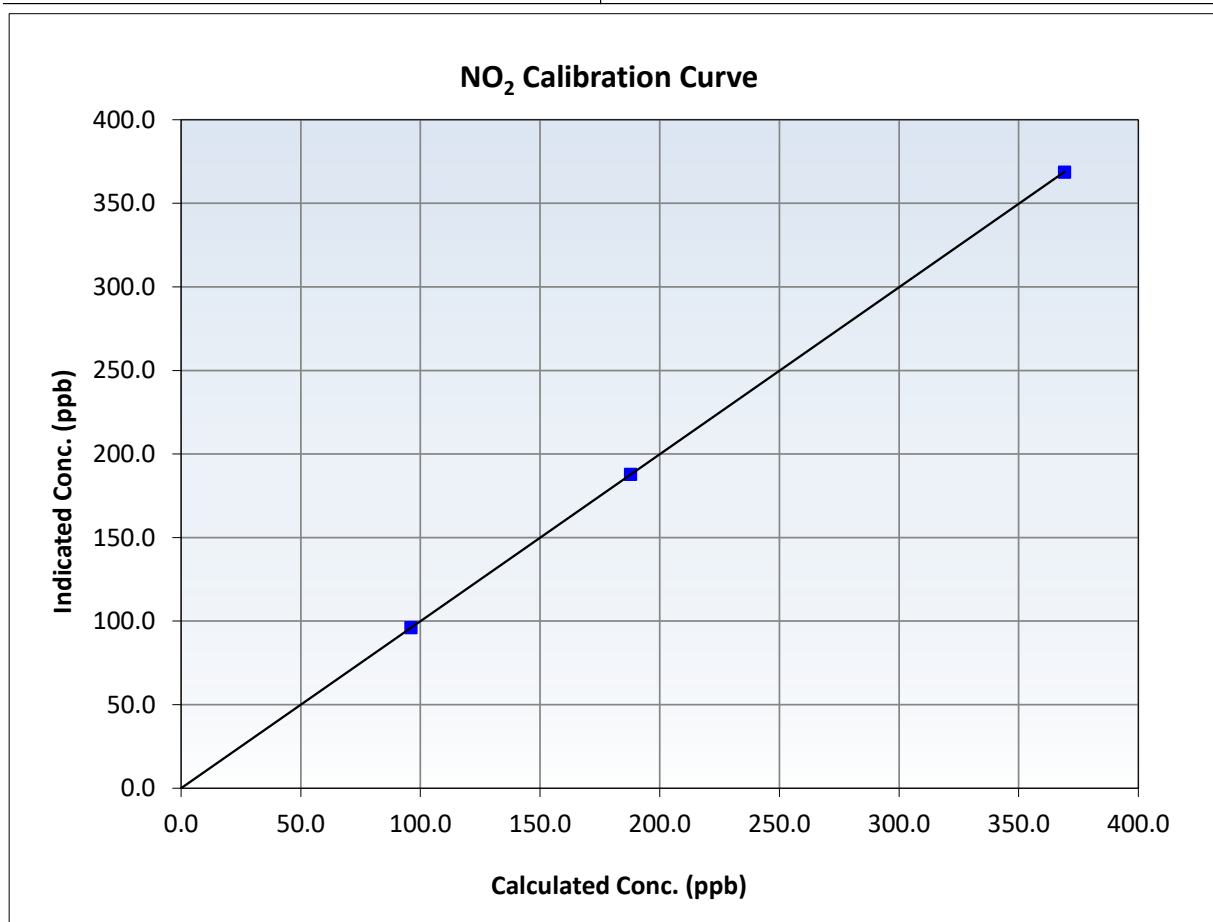
NO₂ Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 13, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:44	End Time (MST):	10:50
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999998	≥0.995
369.2	368.7	1.0013	Slope	0.999103	0.90 - 1.10
187.8	187.9	0.9994	Intercept	0.002443	+/-20
96.1	96.1	0.9999			





Wood Buffalo Environmental Association

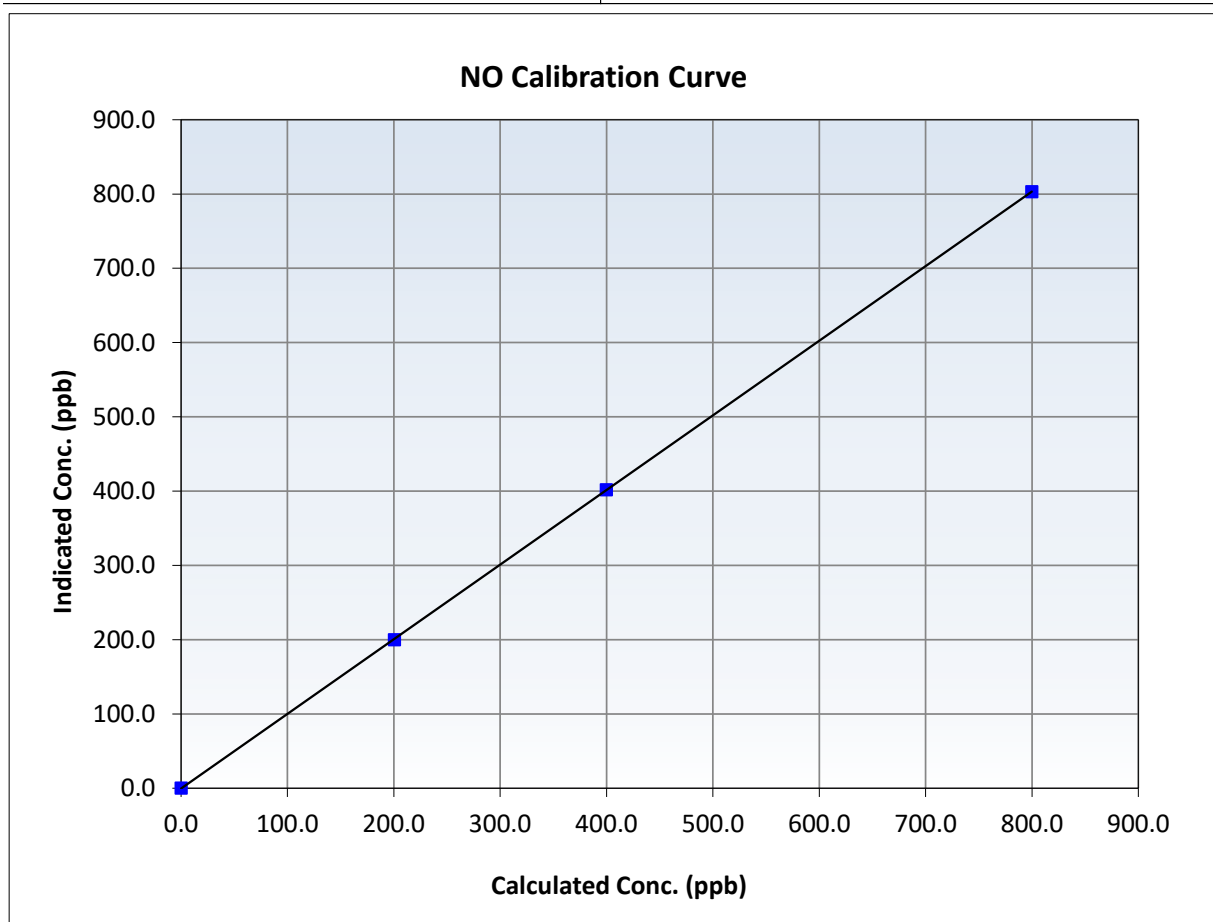
NO Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 13, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:44	End Time (MST):	10:50
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

Calibration Data

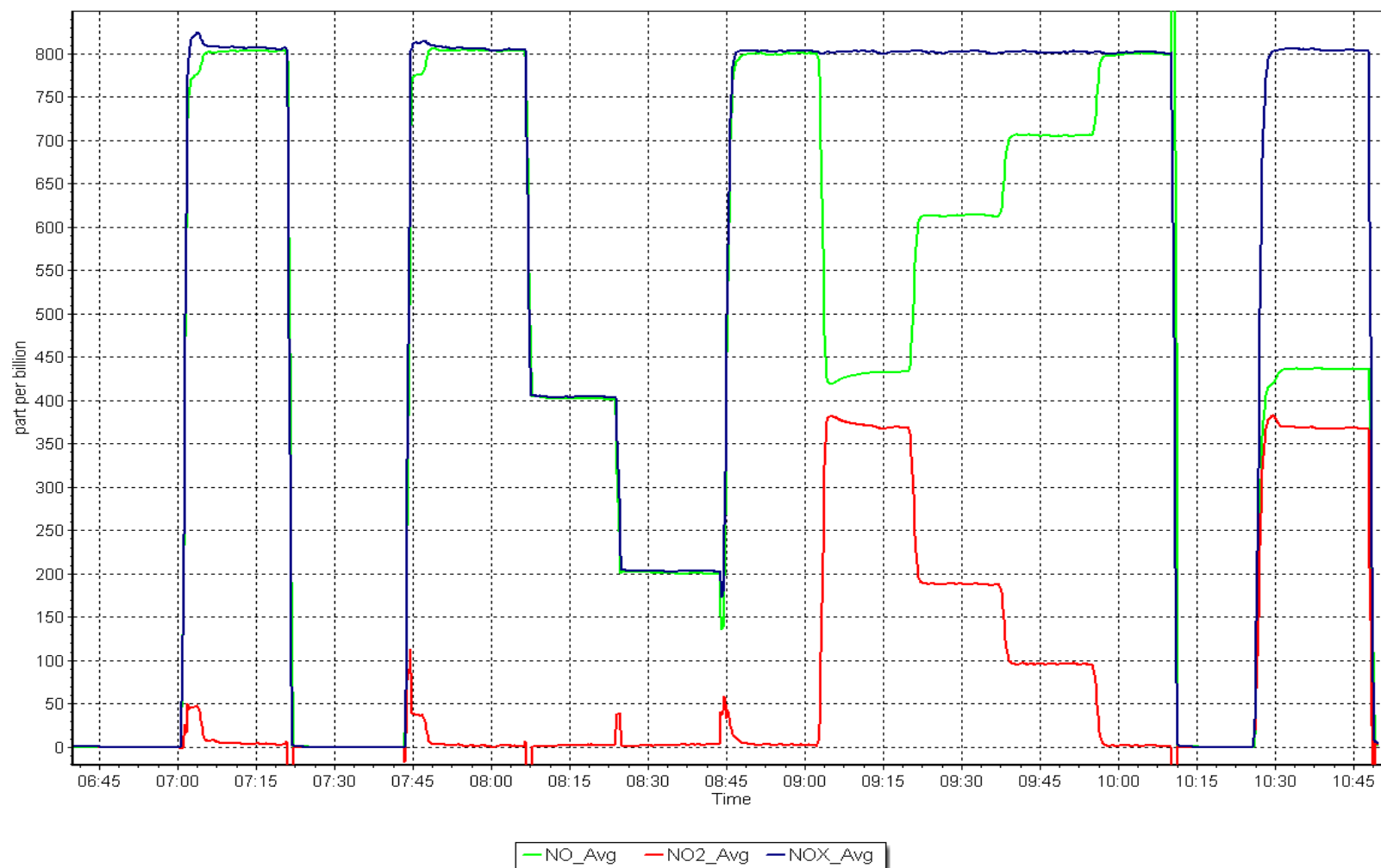
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999996	≥ 0.995
799.8	803.2	0.9958	Slope	1.004741	0.90 - 1.10
399.9	401.9	0.9949	Intercept	-0.387239	+/-20
200.5	200.1	1.0022			



NO_x Calibration Plot

Date: June 16, 2026

Location: MacKay River





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS21
CONKLIN
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Conklin
Calibration Date: June 9, 2026
Start time (MST): 10:45
Reason: Routine

Station number: AMS 21
Last Cal Date: May 13, 2026
End time (MST): 14:10

Calibration Standards

Cal Gas Concentration: 50.34 ppm
Cal Gas Cylinder #: CC340840
Removed Cal Gas Conc: 50.34 ppm
Removed Gas Cyl #: NA
Calibrator Model: Teledyne API T700P
Zero Air Gen Model: Teledyne API T701H

Cal Gas Exp Date: October 9, 2032
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 2656
Serial Number: 355

Analyzer Information

Analyzer make: Thermo 43i
Analyzer Range: 0 - 1000 ppb

Serial Number: 1428701363

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000904	0.997563	Backgd or Offset:	31.9	31.5
Calibration intercept:	1.956959	2.577427	Coeff or Slope:	0.909	0.893

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	79.5	800.3	805.1	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	805.2	Previous response	803.0	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4921	79.5	800.3	800.1	1.000
Mid point	4960	39.8	400.7	402.4	0.996
Low point	4980	19.9	200.4	205.7	0.974
As left zero	5000	0.0	0.0	-0.2	----
As left span	4921	79.5	800.3	803.7	0.996
Average Correction Factor:					0.990

Notes:

Span adjusted.

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

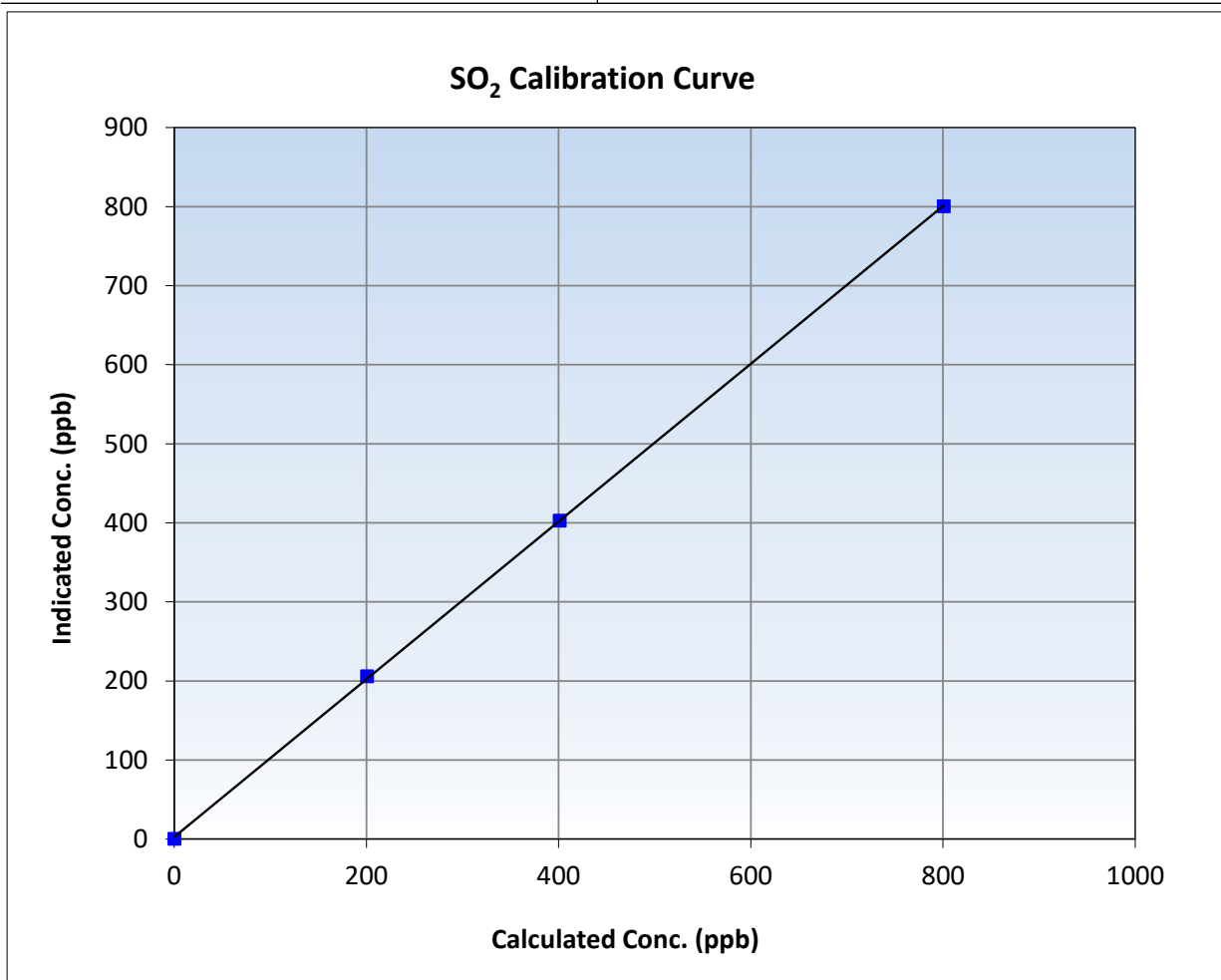
SO₂ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 13, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:45	End Time (MST):	14:10
Analyzer make:	Thermo 43i	Analyzer serial #:	1428701363

Calibration Data

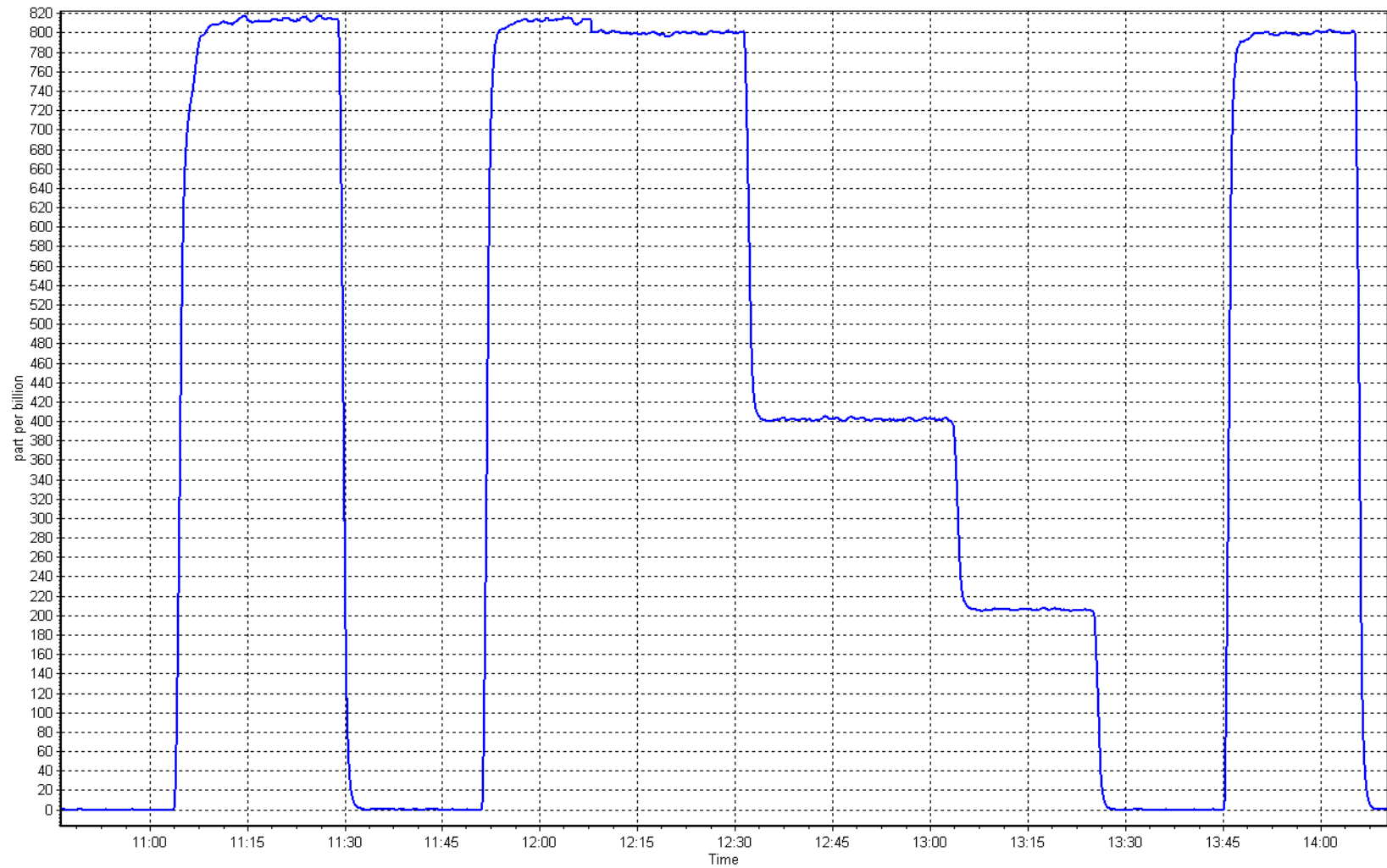
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999950	≥0.995
800.3	800.1	1.0003	Slope	0.997563	0.90 - 1.10
400.7	402.4	0.9958	Intercept	2.577427	+/-30
200.4	205.7	0.9740			



SO2 Calibration Plot

Date: June 9, 2026

Location: Conklin





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Conklin
Calibration Date: June 25, 2026
Start time (MST): 10:28
Reason: Routine

Station number: AMS 21
Last Cal Date: May 26, 2026
End time (MST): 15:07

Calibration Standards

Cal Gas Concentration: 5.06 ppm
Cal Gas Cylinder #: SA15198
Removed Cal Gas Conc: 5.06 ppm
Removed Gas Cyl #:
Calibrator Make/Model: Teledyne T700P
ZAG Make/Model: Teledyne T701H

Cal Gas Exp Date: September 22, 2028
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 2656
Serial Number: 355

Analyzer Information

Analyzer make: Thermo 43i-QTL
Converter make: CD-Nova 101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 12228021058
Converter serial #: 565
Converter Temp: 825 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000158	1.011577	Backgd or Offset:	3.08	3.08
Calibration intercept:	0.080663	0.081128	Coeff or Slope:	1.408	1.408

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4921	79.1	80.0	80.6	0.991
As found Mid point	4961	39.5	40.0	40.2	0.989
As found Low point	4980	19.7	19.9	20.7	0.954
New cylinder response					
Baseline Corr As found:	80.8	Prev response:	80.14	*% change:	0.8%
Baseline Corr 2nd AF pt:	40.4	AF Slope:	1.006149	AF Intercept:	0.121041
Baseline Corr 3rd AF pt:	20.9	AF Correlation:	0.999889	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	79.1	80.0	81.0	0.988
Mid point	4961	39.5	40.0	40.5	0.987
Low point	4980	19.7	19.9	20.5	0.973
As left zero	5000	0.0	0.0	-0.1	----
As left span	4921	79.1	80.0	80.6	0.993
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	August 6, 2025			Ave Corr Factor	0.983
Date of last converter efficiency test:	October 7, 2025				

Notes: Sox scrubber checked after calibrator zero. No adjustments done.

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

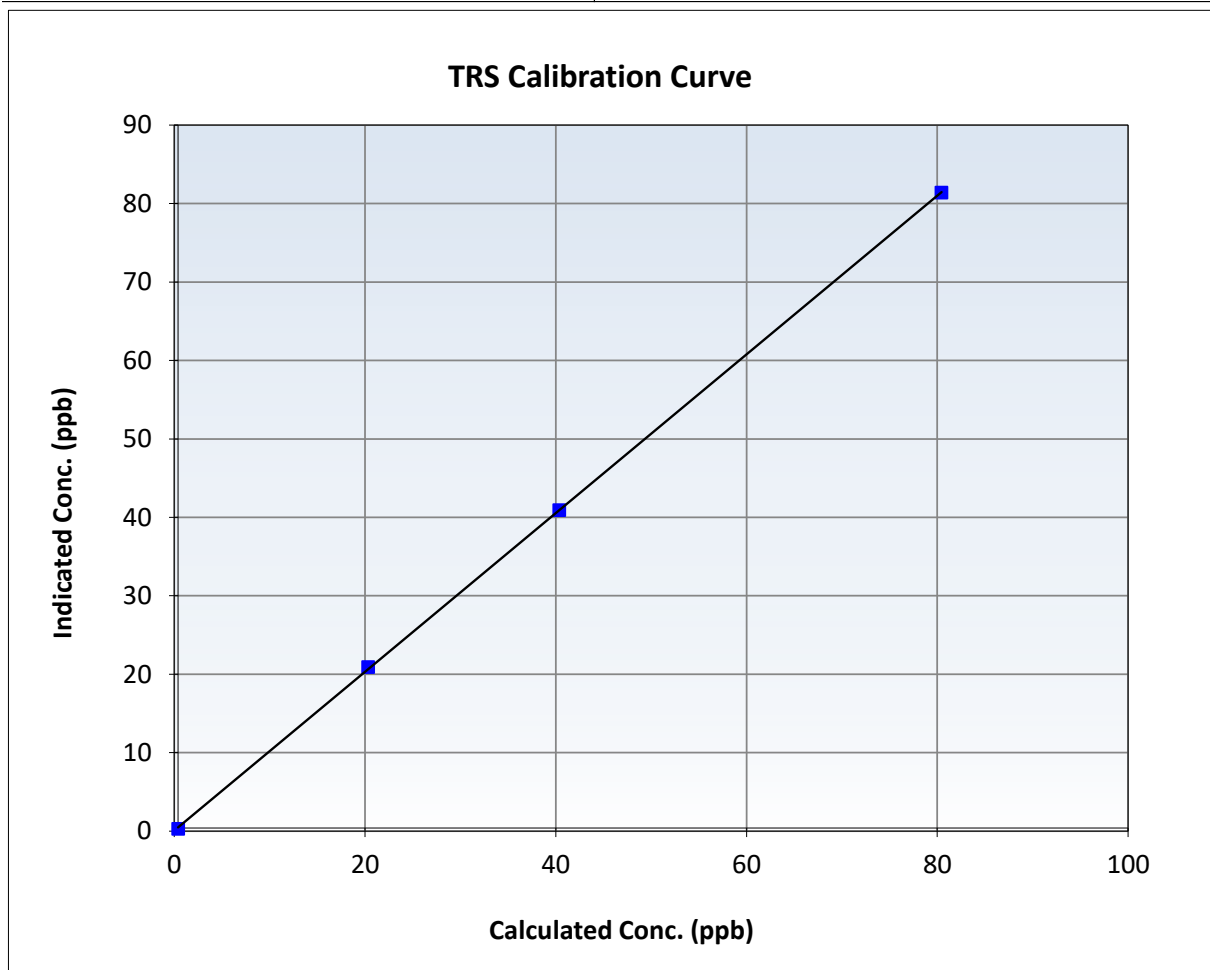
TRS Calibration Summary

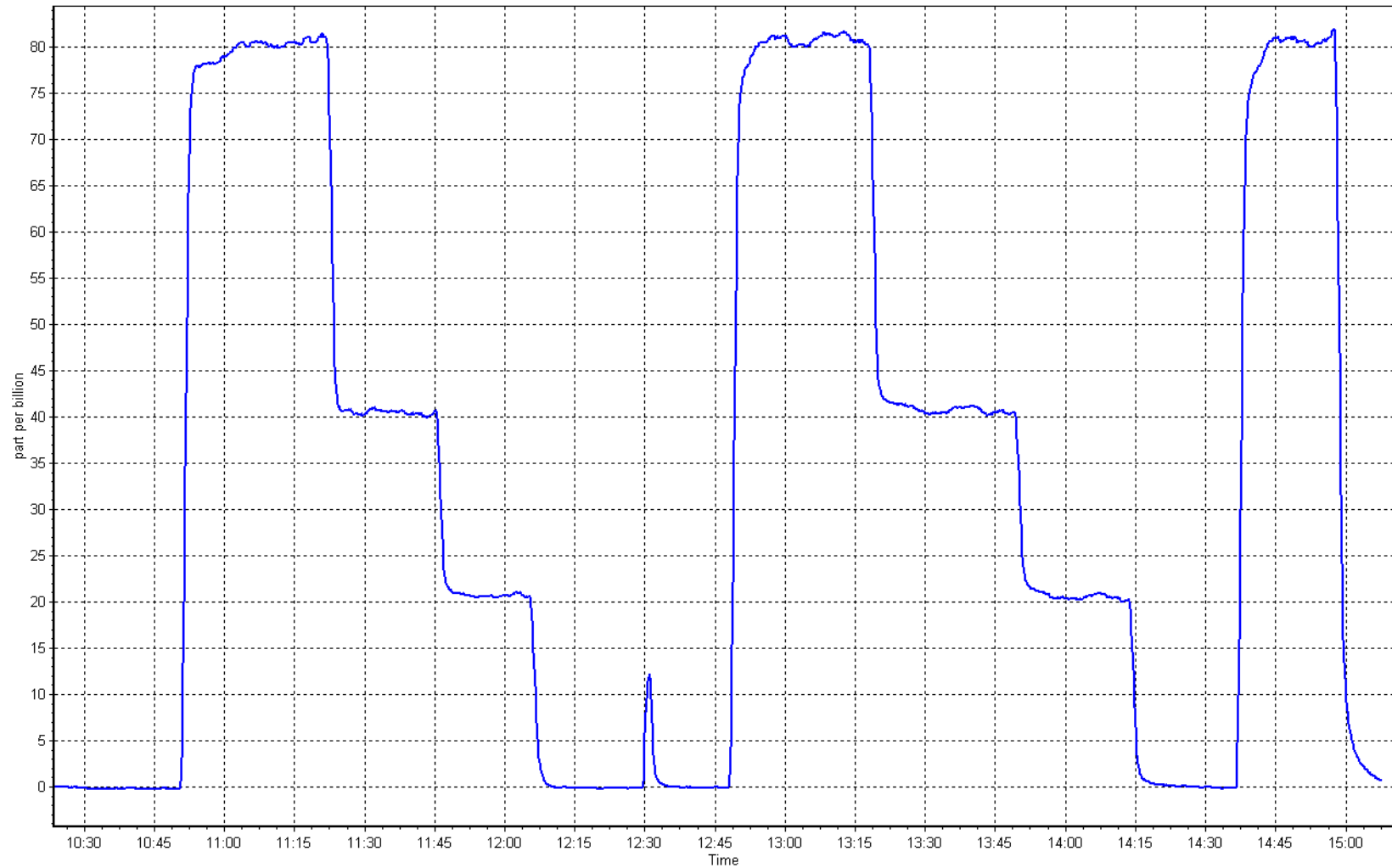
Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 26, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:28	End Time (MST):	15:07
Analyzer make:	Thermo 43i-QTL	Analyzer serial #:	12228021058

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999972	≥ 0.995
80.0	81.0	0.9882	Slope	1.011577	$0.90 - 1.10$
40.0	40.5	0.9869	Intercept	0.081128	± 3
19.9	20.5	0.9726			







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Conklin
 Calibration Date: June 9, 2026
 Start time (MST): 10:45
 Reason: Routine

Station number: AMS 21
 Last Cal Date: May 13, 2026
 End time (MST): 14:10

Calibration Standards

Gas Cert Reference:	CC340840	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	503.8 ppm	CH4 Equiv Conc.	1067.6 ppm
C3H8 Cal Gas Conc.	205.0 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	503.8 ppm	CH4 Equiv Conc.	1067.6 ppm
Removed C3H8 Conc.	205.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700P	Serial Number:	2656
Zero Air Gen model:	Teledyne API T701H	Serial Number:	355

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1152430011
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.57E-04	2.62E-04	NMHC SP Ratio:	5.28E-05
CH4 Retention time:	12.8	13.0	NMHC Peak Area:	169705
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	16.97	16.70	1.016
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.70	Prev response	17.03	*% change	-2.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	16.97	17.00	0.998
Mid point	4960	39.8	8.50	8.56	0.993
Low point	4980	19.9	4.25	4.37	0.972
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	16.97	17.01	0.998
Average Correction Factor					0.988

Notes:

Span adjusted.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	8.96	8.84	1.014
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.84	Prev response	9.02	*% change	-2.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	8.96	8.99	0.997
Mid point	4960	39.8	4.49	4.52	0.992
Low point	4980	19.9	2.24	2.30	0.975
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	8.96	8.99	0.997
Average Correction Factor					0.988

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	8.01	7.86	1.020
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.86	Prev response	8.02	*% change	-2.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	8.01	8.01	1.000
Mid point	4960	39.8	4.01	4.03	0.994
Low point	4980	19.9	2.01	2.07	0.970
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	8.01	8.02	0.999
Average Correction Factor					0.988

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.000303	0.999866
THC Cal Offset:	0.053668	0.053667
CH ₄ Cal Slope:	0.997256	0.997171
CH ₄ Cal Offset:	0.028572	0.030370
NMHC Cal Slope:	1.003128	1.001802
NMHC Cal Offset:	0.024696	0.023898

Calibration Performed By: Aswin Sasi Kumar



Wood Buffalo Environmental Association

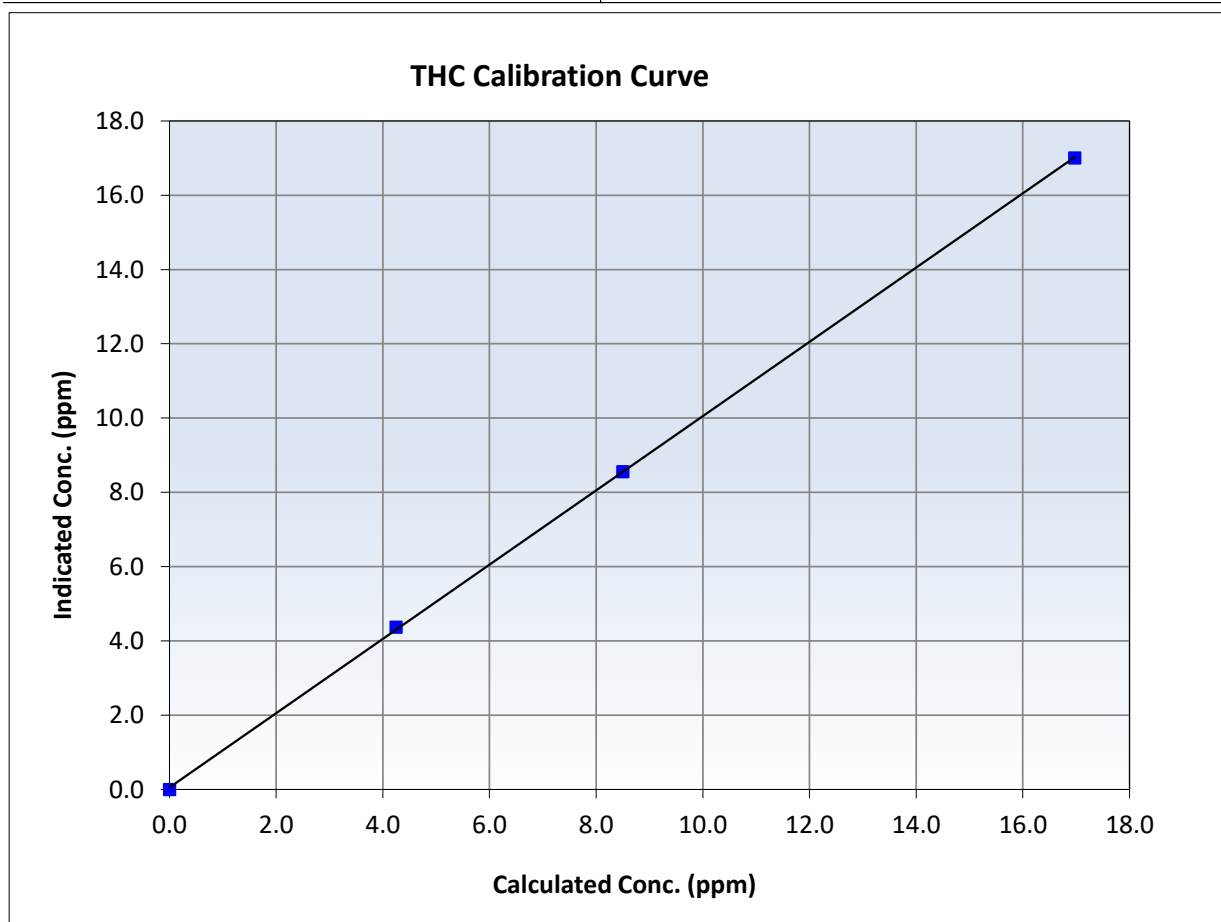
THC Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 13, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:45	End Time (MST):	14:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999950	≥ 0.995
16.97	17.00	0.9981	Slope	0.999866	$0.90 - 1.10$
8.50	8.56	0.9932	Intercept	0.053667	± 0.5
4.25	4.37	0.9723			





Wood Buffalo Environmental Association

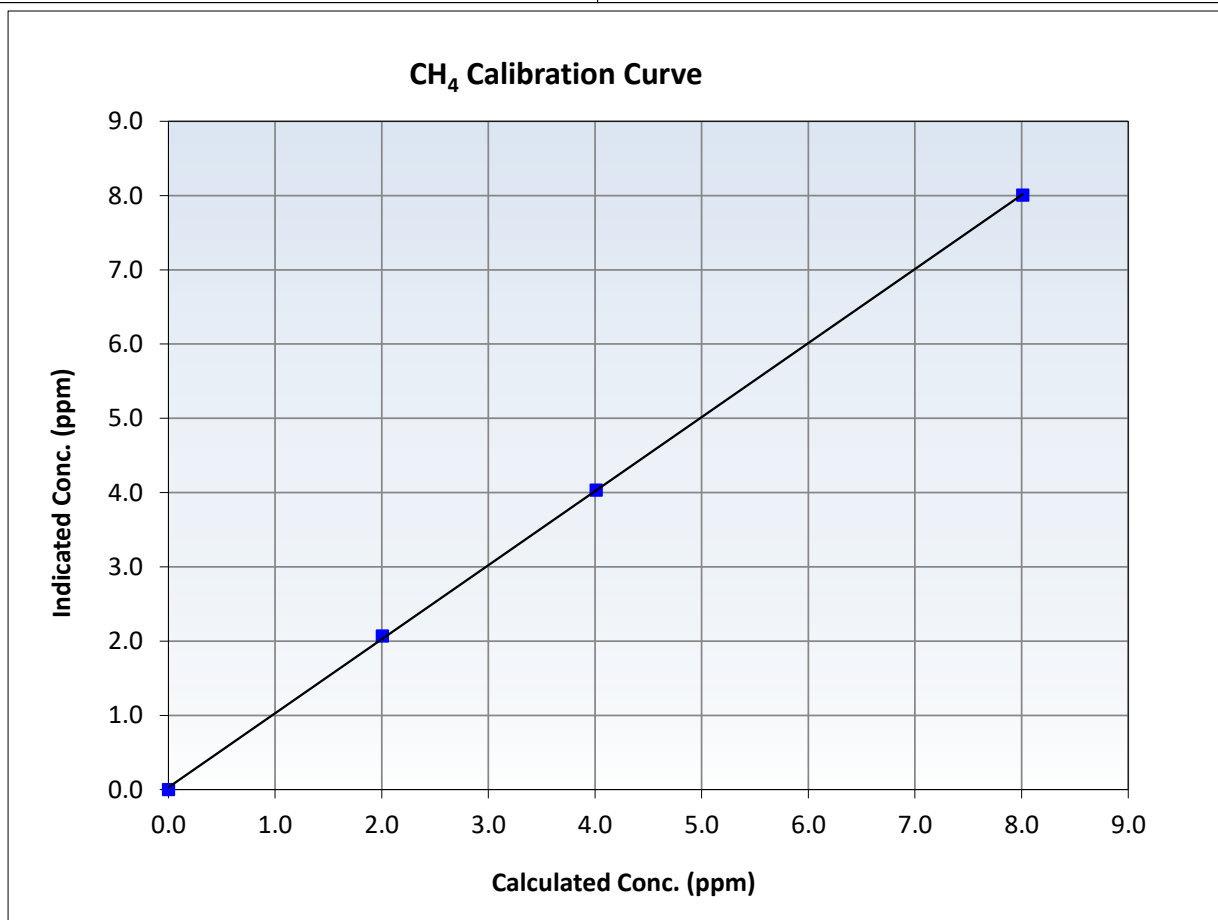
CH₄ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 13, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:45	End Time (MST):	14:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999928	≥ 0.995
8.01	8.01	1.0005	Slope	0.997171	$0.90 - 1.10$
4.01	4.03	0.9944	Intercept	0.030370	± 0.5
2.01	2.07	0.9696			





Wood Buffalo Environmental Association

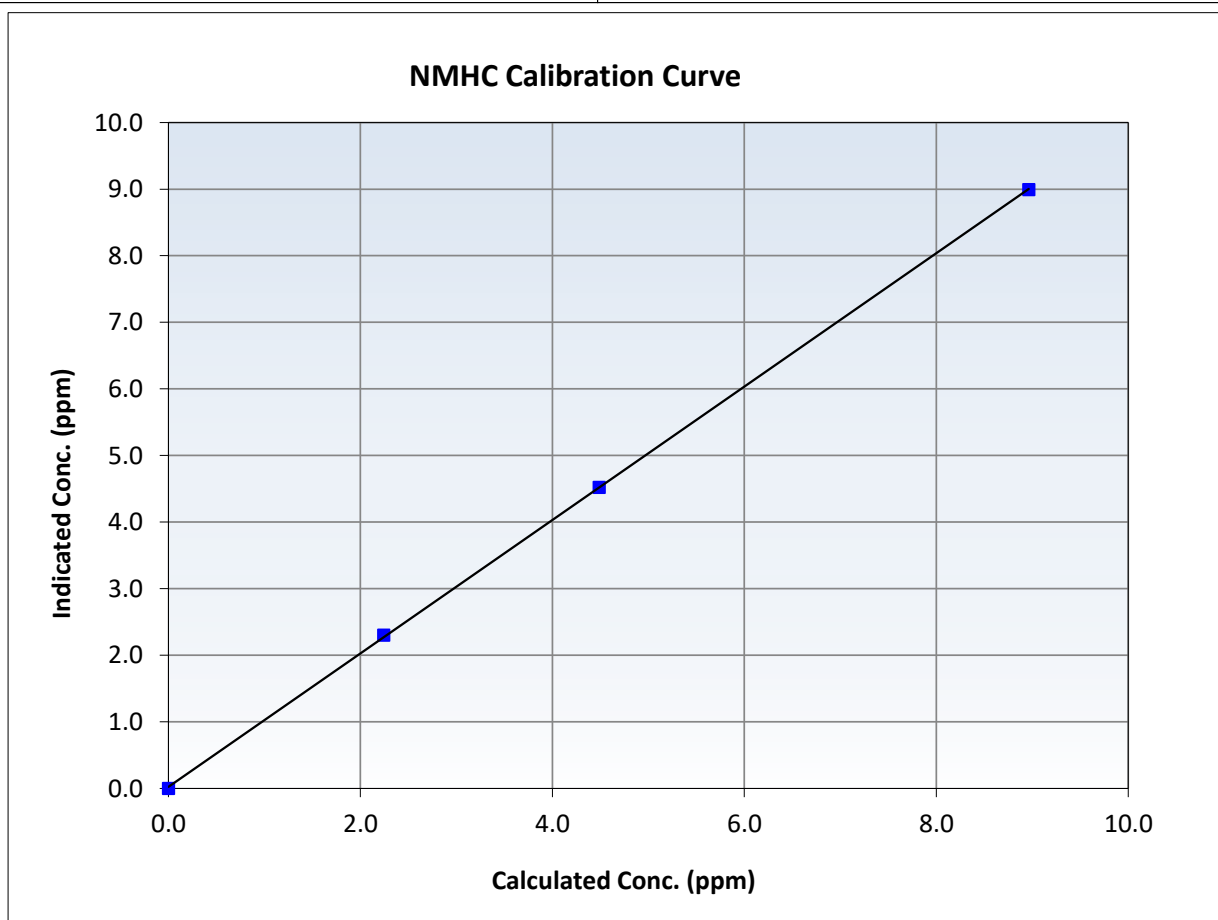
NMHC Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 13, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:45	End Time (MST):	14:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

Calibration Data

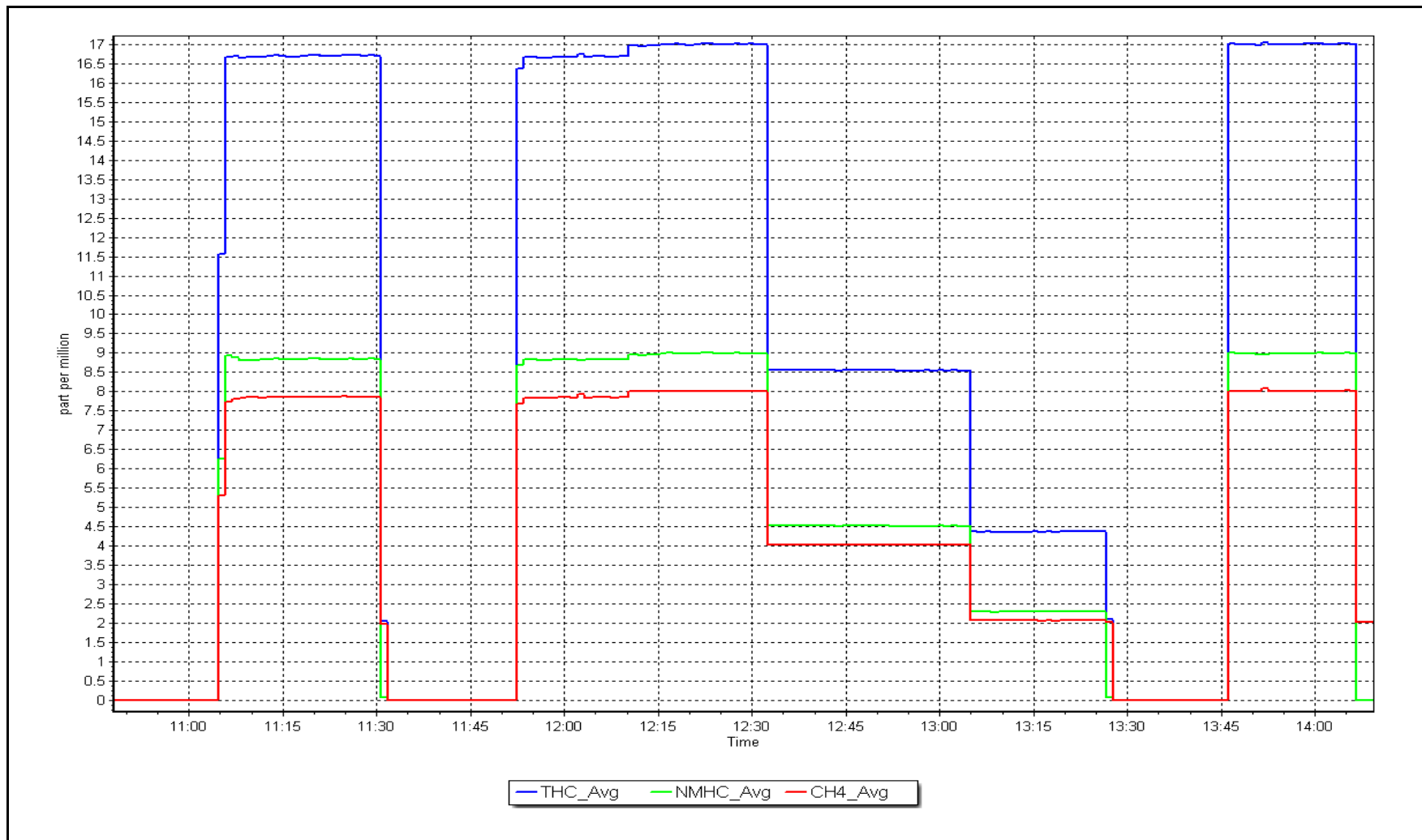
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999964	<i>≥0.995</i>
8.96	8.99	0.9965	Slope	1.001802	<i>0.90 - 1.10</i>
4.49	4.52	0.9924	Intercept	0.023898	<i>+/-0.5</i>
2.24	2.30	0.9747			



NMHC Calibration Plot

Date: June 9, 2026

Location: Conklin





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153356

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.619	0.617	NO bkgnd or offset:	2.9	2.9
NOX coeff or slope:	0.997	0.995	NOX bkgnd or offset:	3.0	3.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	161.8	164.1

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.997561	0.996193
NO _x Cal Offset:	3.528075	3.408060
NO Cal Slope:	1.000277	0.998278
NO Cal Offset:	2.068051	1.868035
NO ₂ Cal Slope:	1.001311	1.001258
NO ₂ Cal Offset:	-0.940457	-0.131685

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	0.3	-0.1	----	----
High point	4918	82.0	802.0	800.3	1.6	801.0	800.4	0.6	1.0012	0.9999
Mid point	4959	41.0	401.0	400.2	0.8	403.7	401.0	2.7	0.9933	0.9979
Low point	4980	20.5	200.5	200.1	0.4	206.7	203.9	2.8	0.9699	0.9812
As left zero	5000	0.0	0.0	0.0	0.0	0.3	0.3	0.0	----	----
As left span	4918	82.0	802.0	389.3	412.7	801.0	389.3	411.8	1.0012	1.0000
Average Correction Factor									0.9881	0.9930

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	798.1	386.6	413.1	413.3	0.9996	100.0%
Mid GPT point	798.1	595.6	204.1	205.0	0.9958	100.4%
Low GPT point	798.1	696.0	103.7	103.2	1.0052	99.5%
Average Correction Factor					1.0002	100.0%

Notes:

Span adjusted.

Calibration Performed By:

Aswin Sasi Kumar



Wood Buffalo Environmental Association

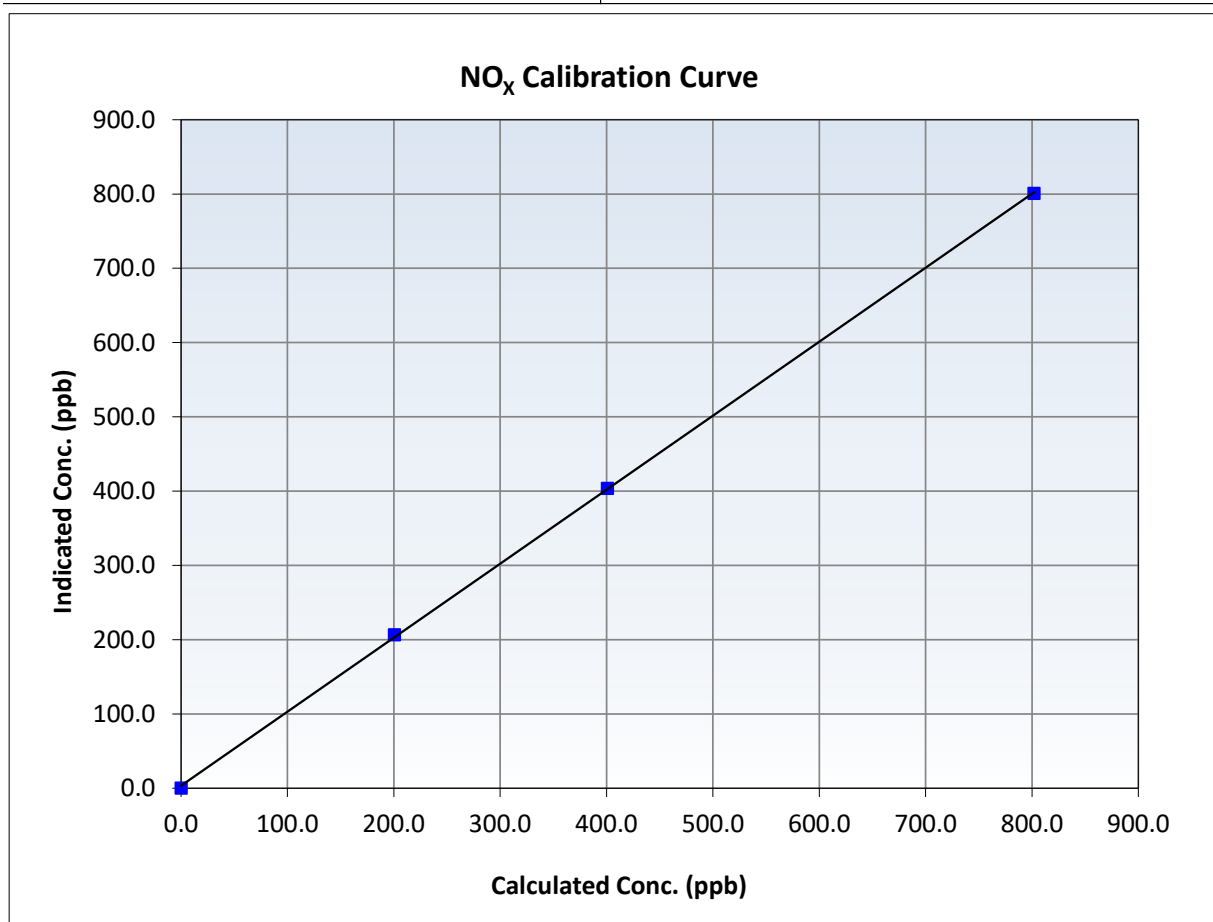
NO_x Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 14, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:21	End Time (MST):	15:16
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999929	≥0.995
802.0	801.0	1.0012	Slope	0.996193	0.90 - 1.10
401.0	403.7	0.9933	Intercept	3.408060	+/-20
200.5	206.7	0.9699			





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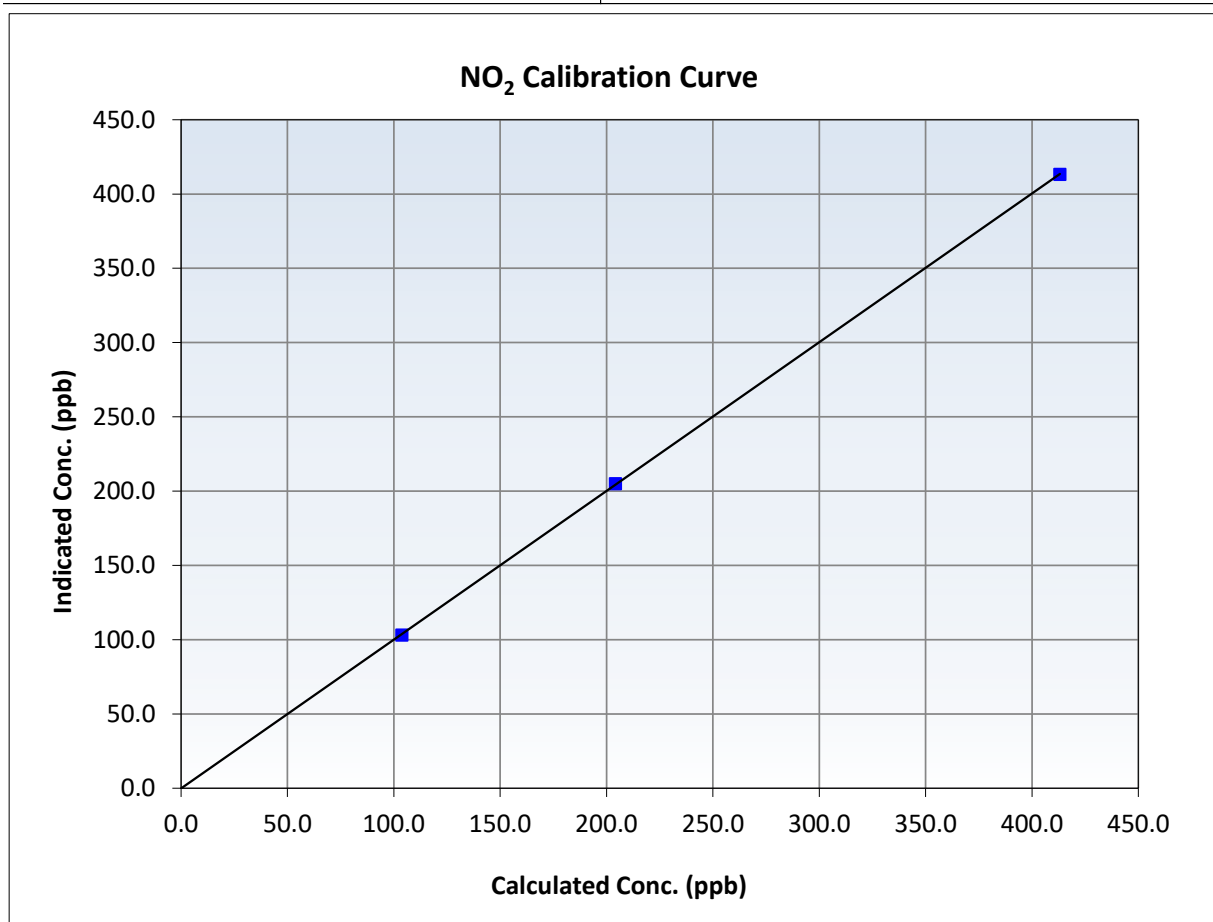
NO₂ Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 14, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:21	End Time (MST):	15:16
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999991	≥0.995
413.1	413.3	0.9996	Slope	1.001258	0.90 - 1.10
204.1	205.0	0.9958	Intercept	-0.131685	+/-20
103.7	103.2	1.0052			





Wood Buffalo Environmental Association

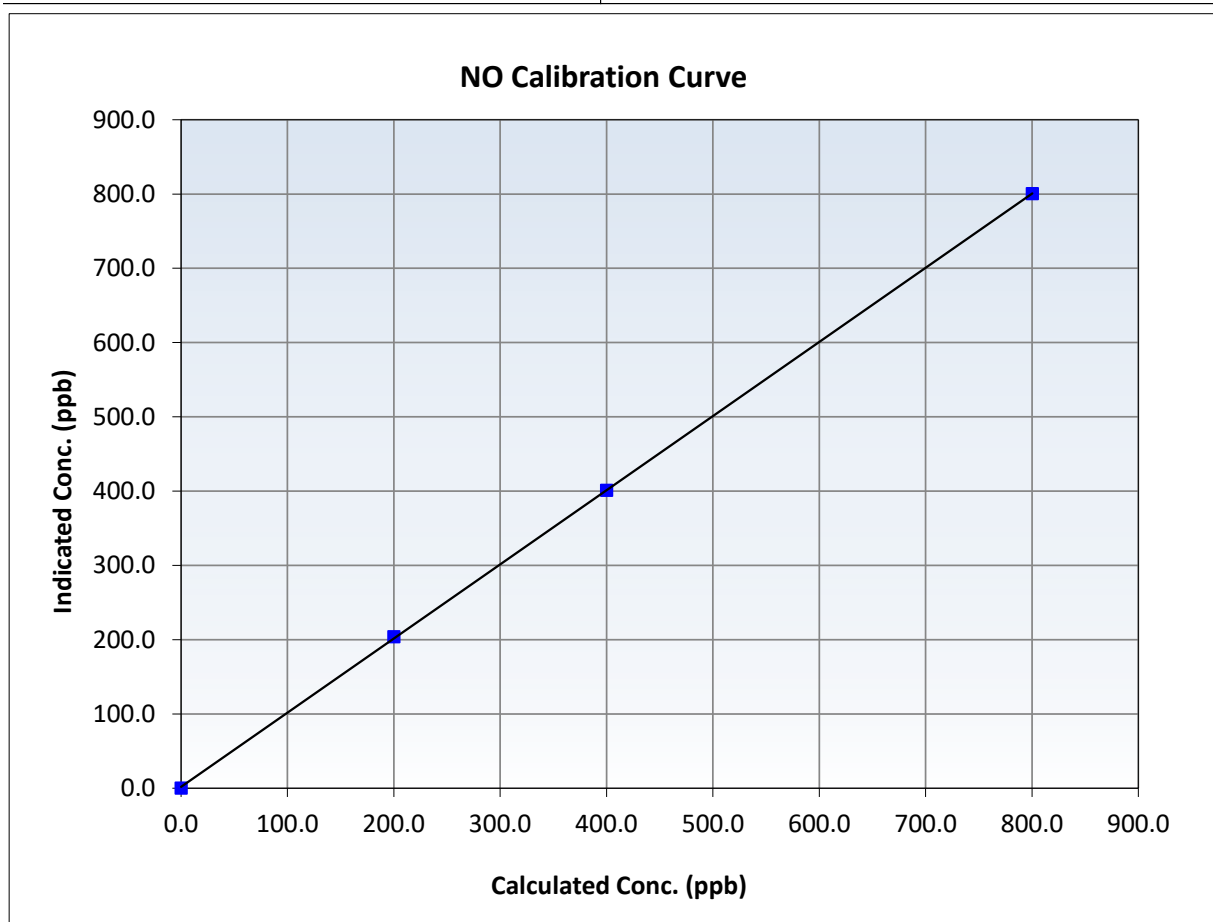
NO Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 14, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:21	End Time (MST):	15:16
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

Calibration Data

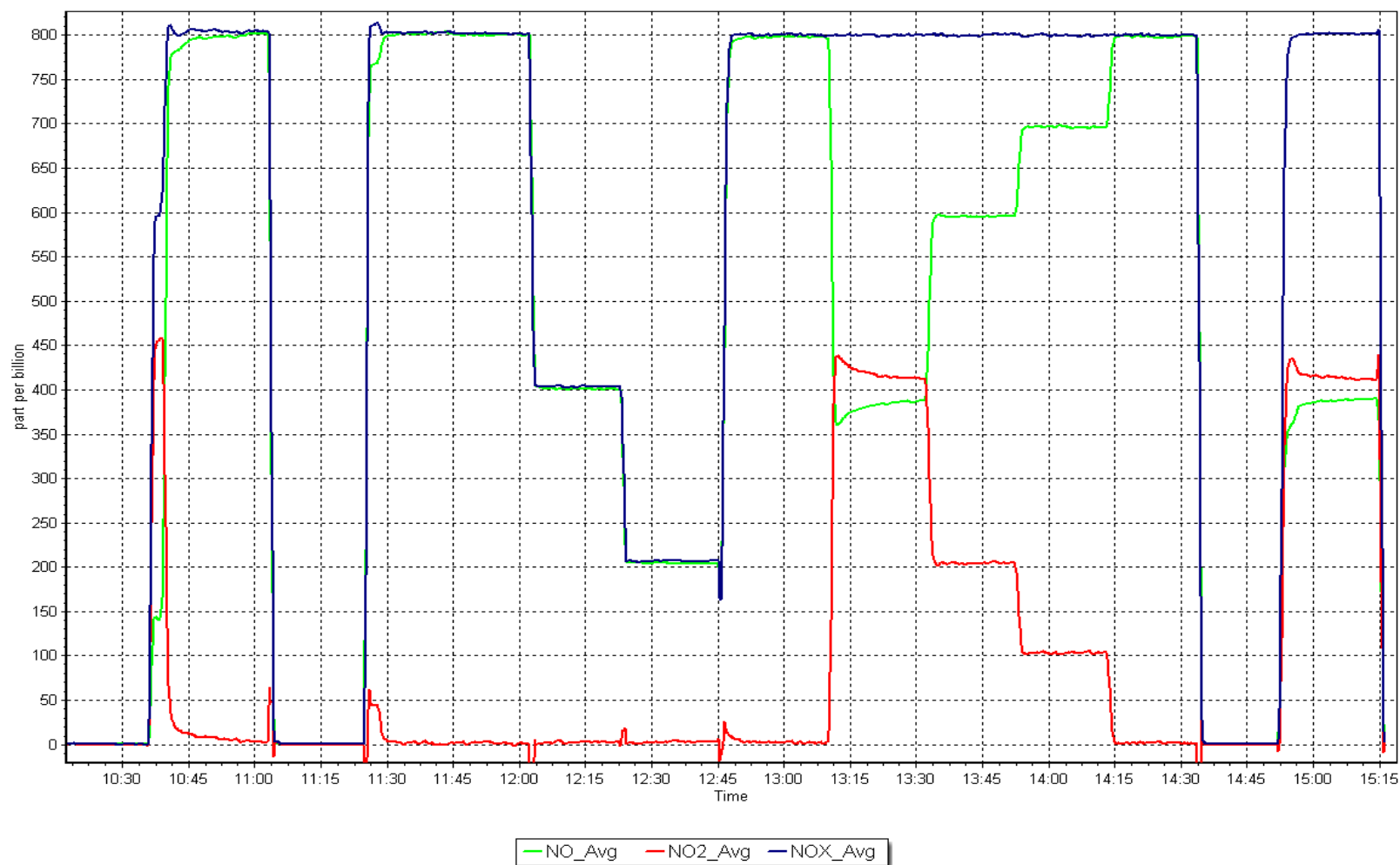
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999977	≥ 0.995
800.3	800.4	0.9999	Slope	0.998278	$0.90 - 1.10$
400.2	401.0	0.9979	Intercept	1.868035	± 20
200.1	203.9	0.9812			



NO_x Calibration Plot

Date: June 19, 2026

Location: Conklin





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Conklin
Calibration Date: June 25, 2026
Start time (MST): 13:45
Station number: AMS 21
Last Cal Date: May 26, 2026
End time (MST): 14:26
Analyzer Make: API T640
Particulate Fraction: PM_{2.5}
S/N: 1266
Flow Meter Make/Model: Alicat FP-25BT
Temp/RH standard: Alicat FP-25BT
S/N: 388748
S/N: 388748

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	26.40	25.90	26.40	☐	+/- 2 °C
P (mmHg)	705.90	702.50	705.90	☐	+/- 10 mmHg
Flow (LPM)	5.00	4.95	5.00	☐	+/- 0.25 LPM
PW% (pump)	45	----	45	☐	>80%
Zero Verification	PM w/o HEPA: 6.40		PM w/ HEPA: 0.00		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: July 16, 2026
Lot No.: 100128-050-040

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.30	N/A	11.10	☒	+/- 0.5

Date Optical Chamber Cleaned: June 25, 2026

Date Disposable Filter Changed: June 25, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.00 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: February 26, 2026

Date RH/T Sensor Cleaned: February 26, 2026

Notes:

Temp, flow and pressure checked. Leak check passed. Quarterly calibration test done.

Calibration by: Aswin Sasi Kumar



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS22
JANVIER
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Janvier Station number: AMS 22
Calibration Date: June 23, 2026 Last Cal Date: May 7, 2026
Start time (MST): 9:38 End time (MST): 13:23
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.82 ppm Cal Gas Exp Date: April 9, 2033
Cal Gas Cylinder #: CC494522
Removed Cal Gas Conc: 49.82 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3806
Zero Air Gen Model: Teledyne API T701H Serial Number: 363

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1152430006
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000033	1.004263	Backgd or Offset:	28.7	27.8
Calibration intercept:	0.895933	1.114460	Coeff or Slope:	1.025	1.025

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.8	----
As found High point	4920	80.3	800.1	802.8	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	803.6	Previous response	801.0	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4920	80.3	800.1	804.0	0.995
Mid point	4960	40.2	400.5	404.1	0.991
Low point	4980	20.1	200.3	203.1	0.986
As left zero	5000	0.0	0.0	0.3	----
As left span	4920	80.3	800.1	807.8	0.990
Average Correction Factor:					0.991

Notes: Changed the inlet filter after as founds. Adjusted zero only.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

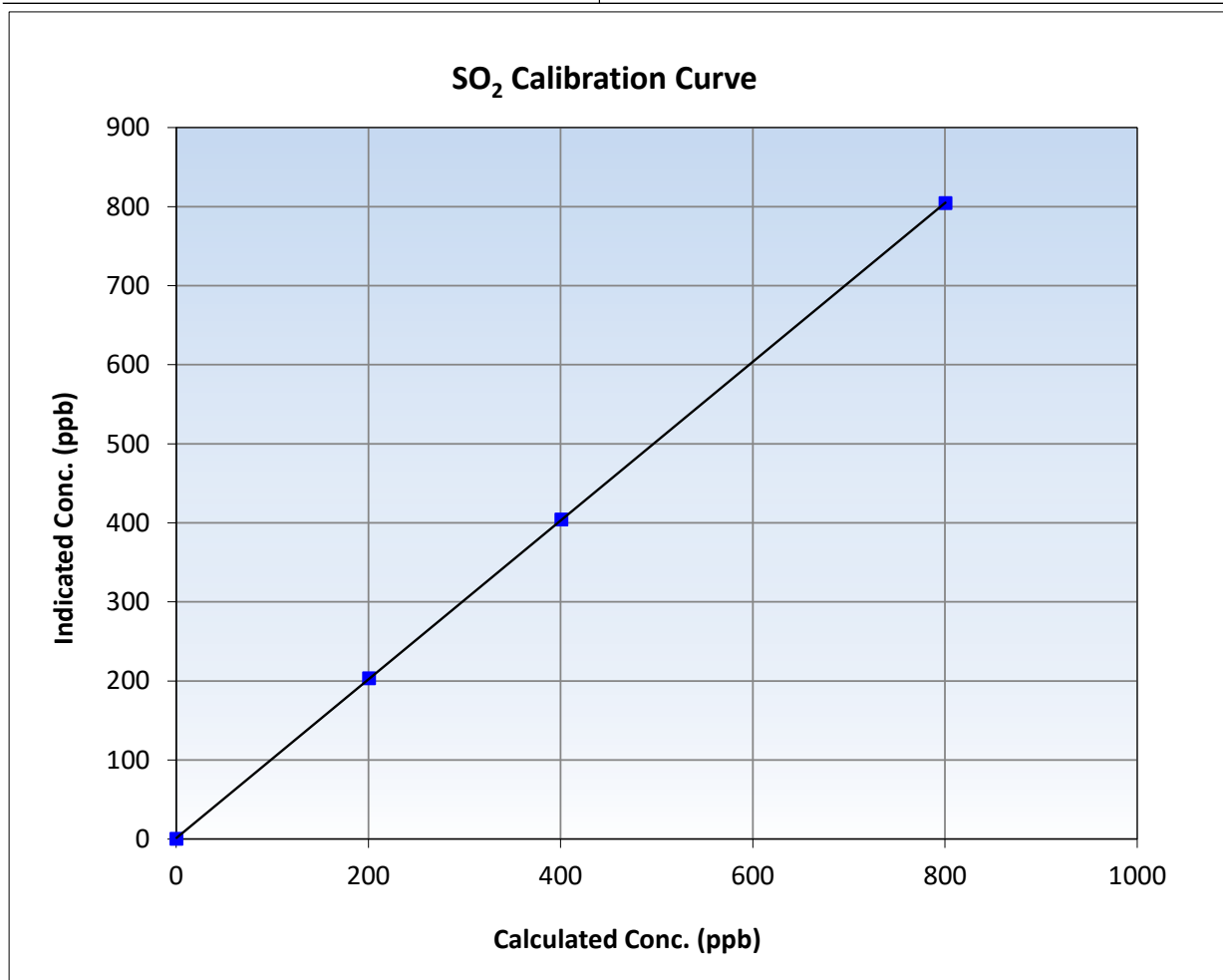
SO₂ Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 7, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:38	End Time (MST):	13:23
Analyzer make:	Thermo 43i	Analyzer serial #:	1152430006

Calibration Data

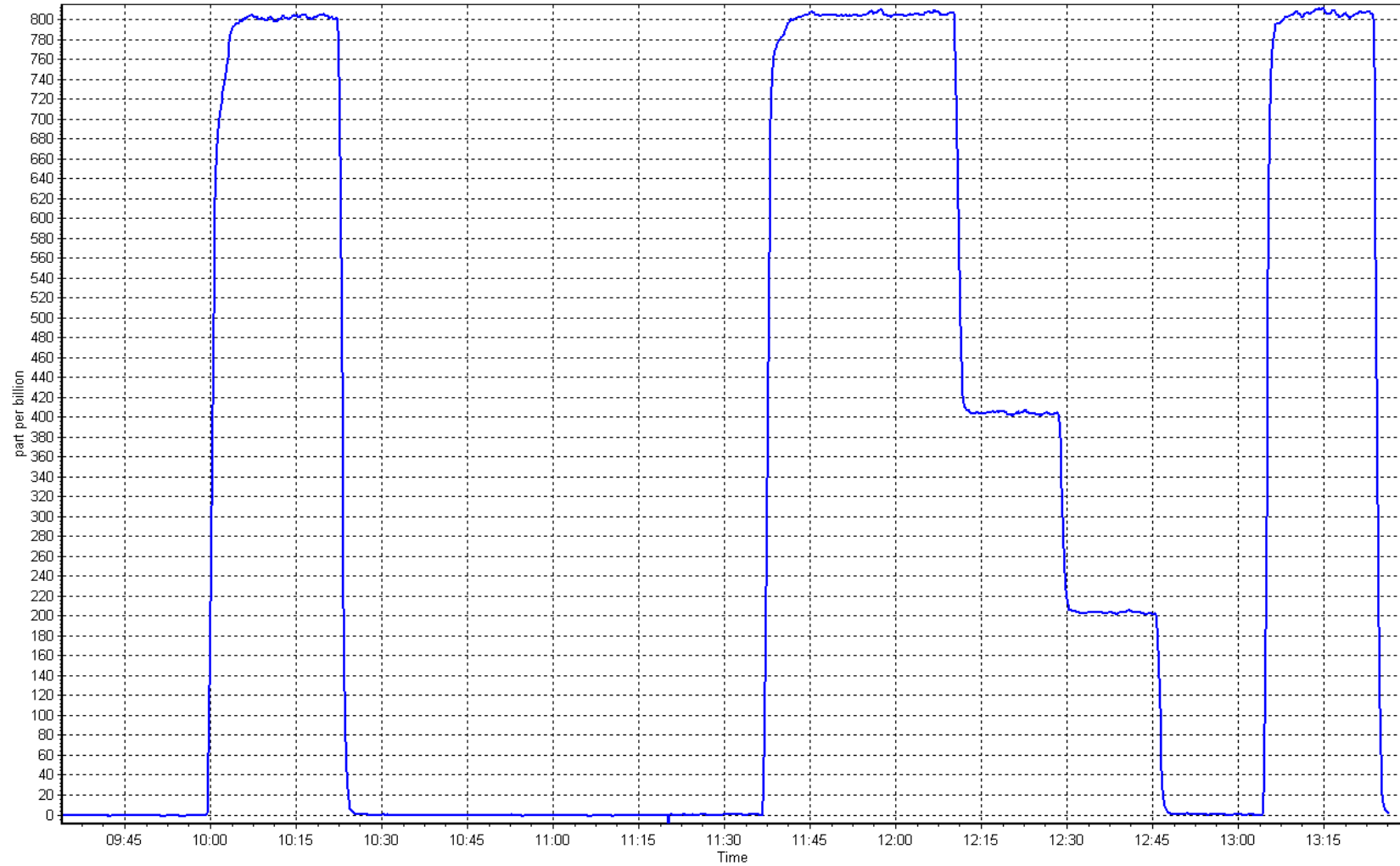
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999992	≥0.995
800.1	804.0	0.9951	Slope	1.004263	0.90 - 1.10
400.5	404.1	0.9912	Intercept	1.114460	+/-30
200.3	203.1	0.9861			



SO2 Calibration Plot

Date: June 23, 2026

Location: Janvier





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Janvier Station number: AMS 22
Calibration Date: June 25, 2026 Last Cal Date: May 21, 2026
Start time (MST): 9:02 End time (MST): 13:12
Reason: Routine

Calibration Standards

Cal Gas Concentration: 5.02 ppm Cal Gas Exp Date: November 15, 2026
Cal Gas Cylinder #: CC424047
Removed Cal Gas Conc: 5.02 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 3806
ZAG Make/Model: Teledyne API T701 Serial Number: 691

Analyzer Information

Analyzer make: Thermo 43i-TLE Analyzer serial #: 1151680031
Converter make: CDN-101 Converter serial #: 620
Analyzer Range: 0 - 100 ppb Converter Temp: 850 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.994373	1.016092	Backgd or Offset:	3.83
Calibration intercept:	0.380808	-0.179176	Coeff or Slope:	1.202

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4920	79.7	80.0	77.0	1.035
As found Mid point	4960	39.8	40.0	38.5	1.030
As found Low point	4980	19.9	20.0	18.8	1.046
New cylinder response					
Baseline Corr As found:	77.3	Prev response:	79.95	*% change:	-3.4%
Baseline Corr 2nd AF pt:	38.8	AF Slope:	0.967105	AF Intercept:	-0.340064
Baseline Corr 3rd AF pt:	19.1	AF Correlation:	0.999977	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	4920	79.7	80.0	81.2	0.986
Mid point	4960	39.8	40.0	40.1	0.997
Low point	4980	19.9	20.0	20.5	0.975
As left zero	5000	0.0	0.0	0.0	----
As left span	4920	79.7	80.0	81.5	0.982
SO2 Scrubber Check	4920	79.8	798.0	0.0	----
Date of last scrubber change:	6-May-26		Ave Corr Factor		0.986
Date of last converter efficiency test:					

Notes: Changed the inlet filter after as founds. Scrubber test performed, adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

TRS Calibration Summary

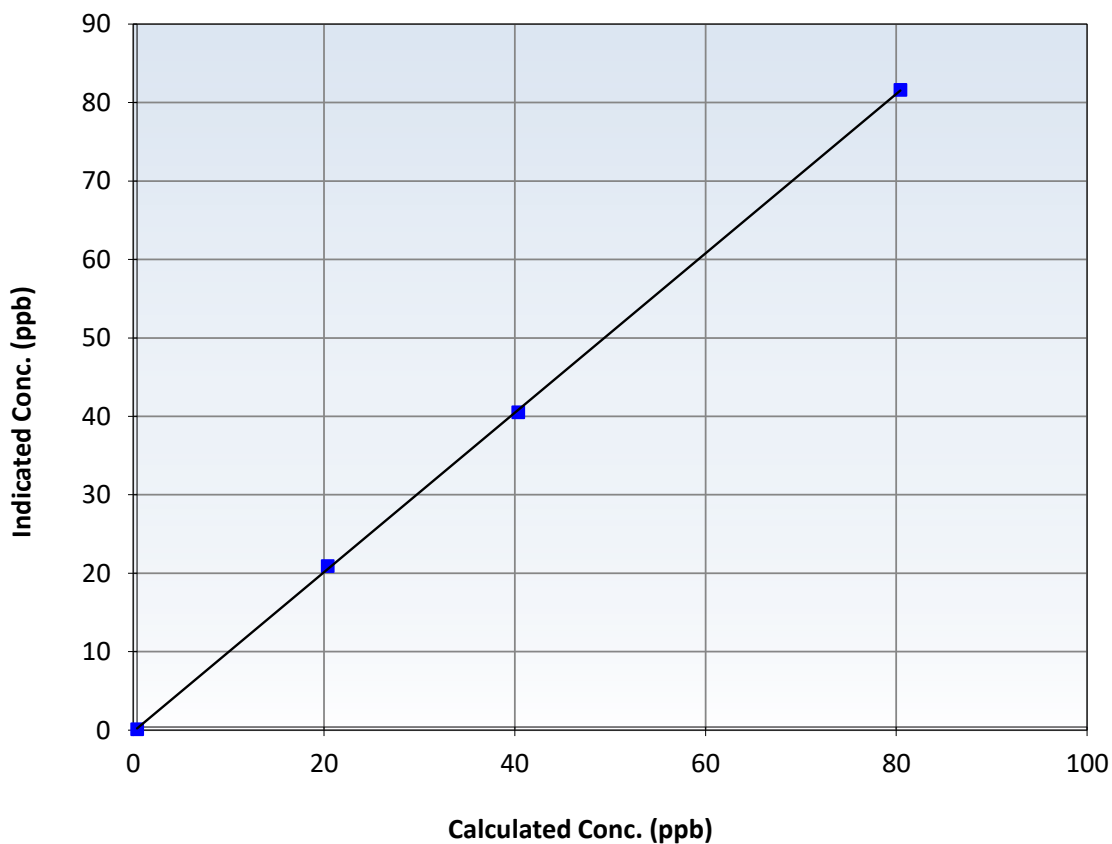
Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 21, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:02	End Time (MST):	13:12
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680031

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999926		≥ 0.995
80.0	81.2	0.9855	Slope	1.016092		$0.90 - 1.10$
40.0	40.1	0.9965	Intercept	-0.179176		± 3
20.0	20.5	0.9746				

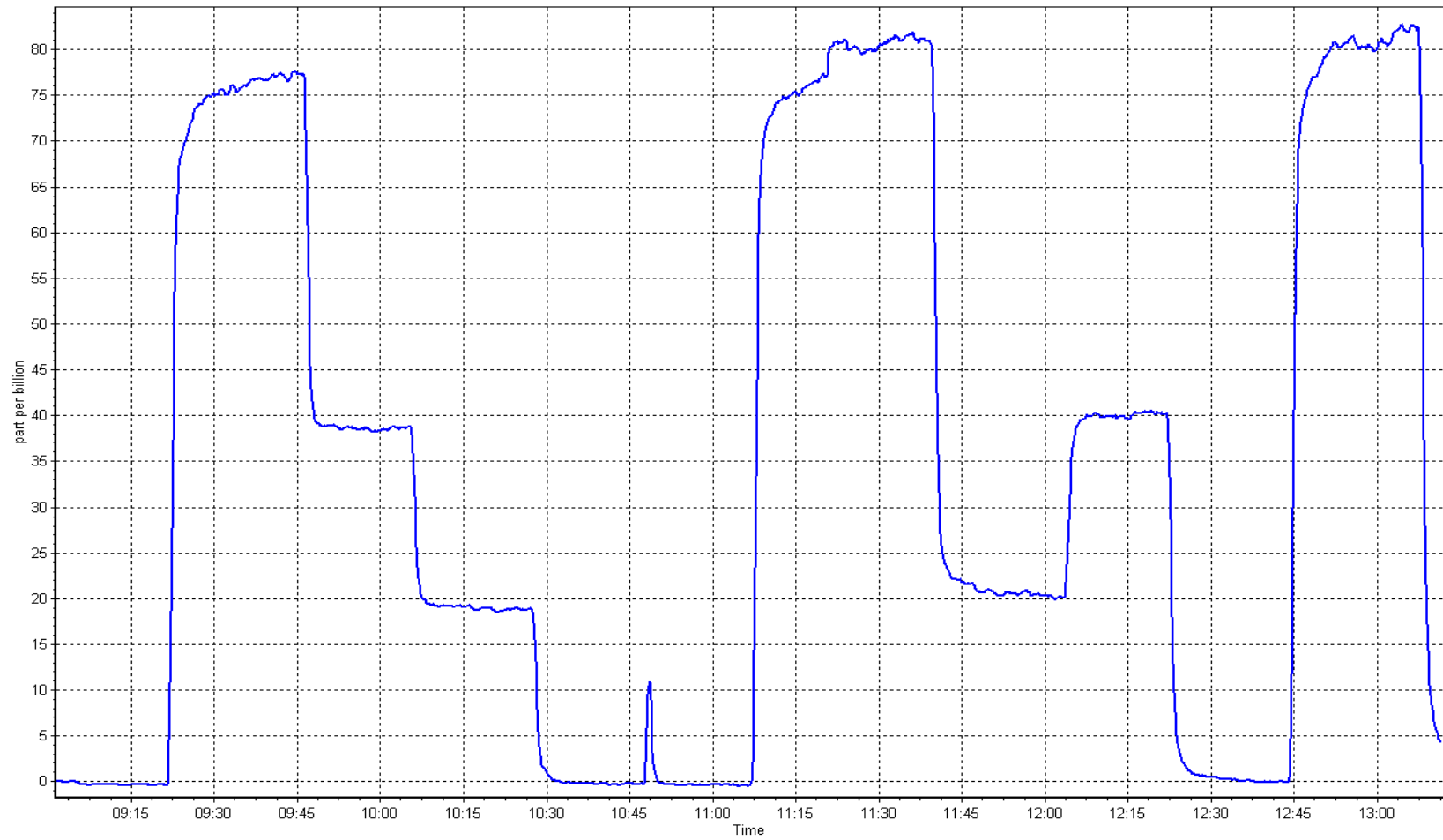
TRS Calibration Curve



TRS Calibration Plot

Date: June 25, 2026

Location: Janvier





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Janvier
 Calibration Date: June 23, 2026
 Start time (MST): 9:38
 Reason: Routine

Station number: AMS 22
 Last Cal Date: May 7, 2026
 End time (MST): 13:23

Calibration Standards

Gas Cert Reference: CC494522
 CH₄ Cal Gas Conc. 499.5 ppm
 C₃H₈ Cal Gas Conc. 202.9 ppm
 Removed Gas Cert: NA
 Removed CH₄ Conc. 499.5 ppm
 Removed C₃H₈ Conc. 202.9 ppm
 Diff between cyl (CH₄):
 Calibrator Model: Teledyne API T700
 Zero Air Gen model: Teledyne API 701H

Cal Gas Expiry Date: April 9, 2033
 CH₄ Equiv Conc. 1057.5 ppm
 Removed Gas Expiry: NA
 CH₄ Equiv Conc. 1057.5 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 3806
 Serial Number: 363

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1317958219
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.61E-04	2.60E-04	NMHC SP Ratio:	5.54E-05
CH ₄ Retention time:	11.8	11.8	NMHC Peak Area:	161785
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF
				5.61E-05
				159752
				OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	16.98	17.17	0.989
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.17	Prev response	17.13	*% change	0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.3	16.98	17.00	0.999
Mid point	4960	40.2	8.50	8.45	1.007
Low point	4980	20.1	4.25	4.22	1.008
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	16.98	17.07	0.995
Average Correction Factor					1.005

Notes: Changed sample inlet filter, H₂ and N₂ after as founds. Adjusted the span only.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.3	8.96	9.03	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.03	Prev response	9.06	*% change	-0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.3	8.96	8.97	1.000
Mid point	4960	40.2	4.49	4.49	1.000
Low point	4980	20.1	2.24	2.25	0.997
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.96	9.01	0.994
Average Correction Factor					0.999

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4920	80.3	8.02	8.15	0.985
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.15	Prev response	8.07	*% change	0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.3	8.02	8.03	0.998
Mid point	4960	40.2	4.02	3.96	1.014
Low point	4980	20.1	2.01	1.97	1.021
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.02	8.06	0.995
Average Correction Factor					1.011

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.002700	1.001329
THC Cal Offset:	0.102989	-0.028314
CH ₄ Cal Slope:	1.000900	1.002539
CH ₄ Cal Offset:	0.041525	-0.030229
NMHC Cal Slope:	1.004414	1.000232
NMHC Cal Offset:	0.062063	0.001715

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

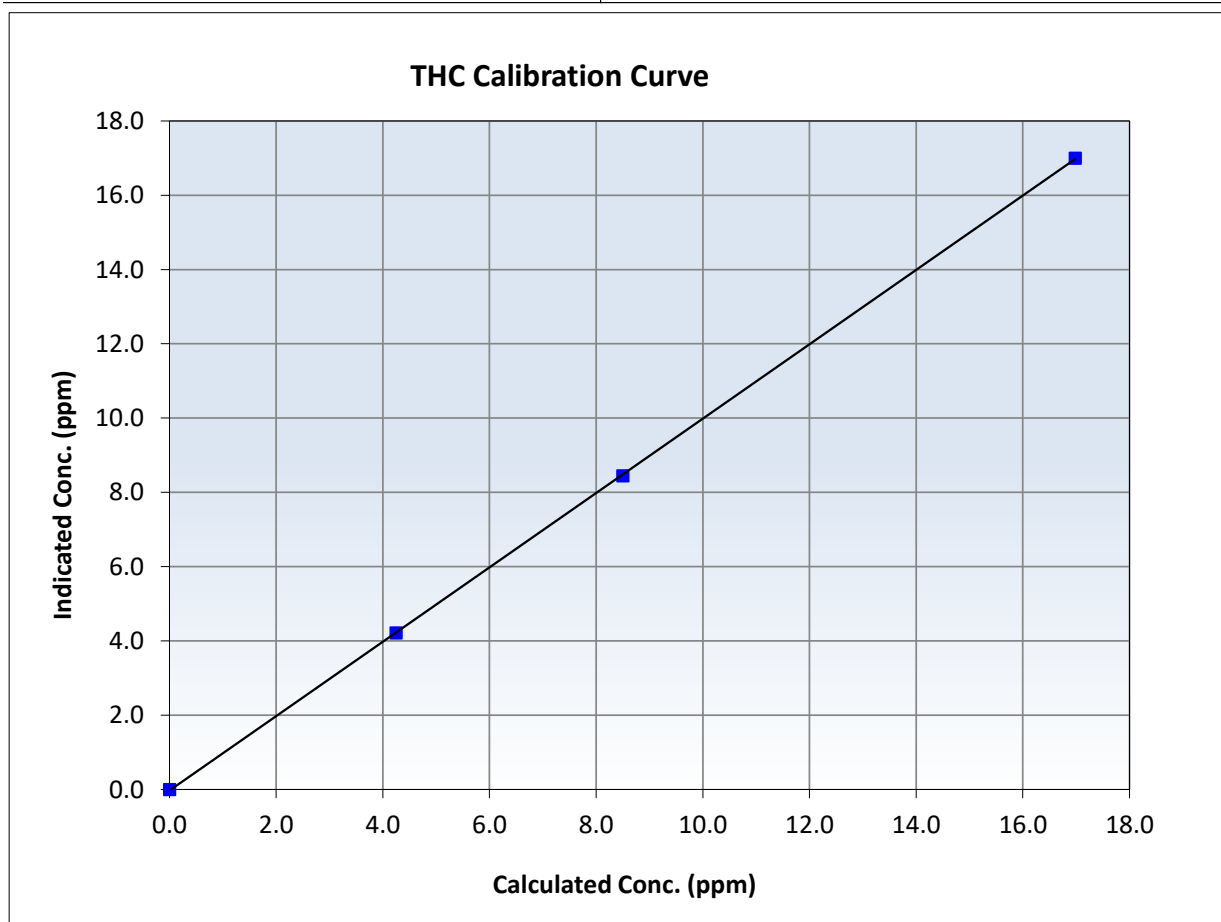
THC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 7, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:38	End Time (MST):	13:23
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999981	≥ 0.995
16.98	17.00	0.9990	Slope	1.001329	$0.90 - 1.10$
8.50	8.45	1.0067	Intercept	-0.028314	± 0.5
4.25	4.22	1.0081			





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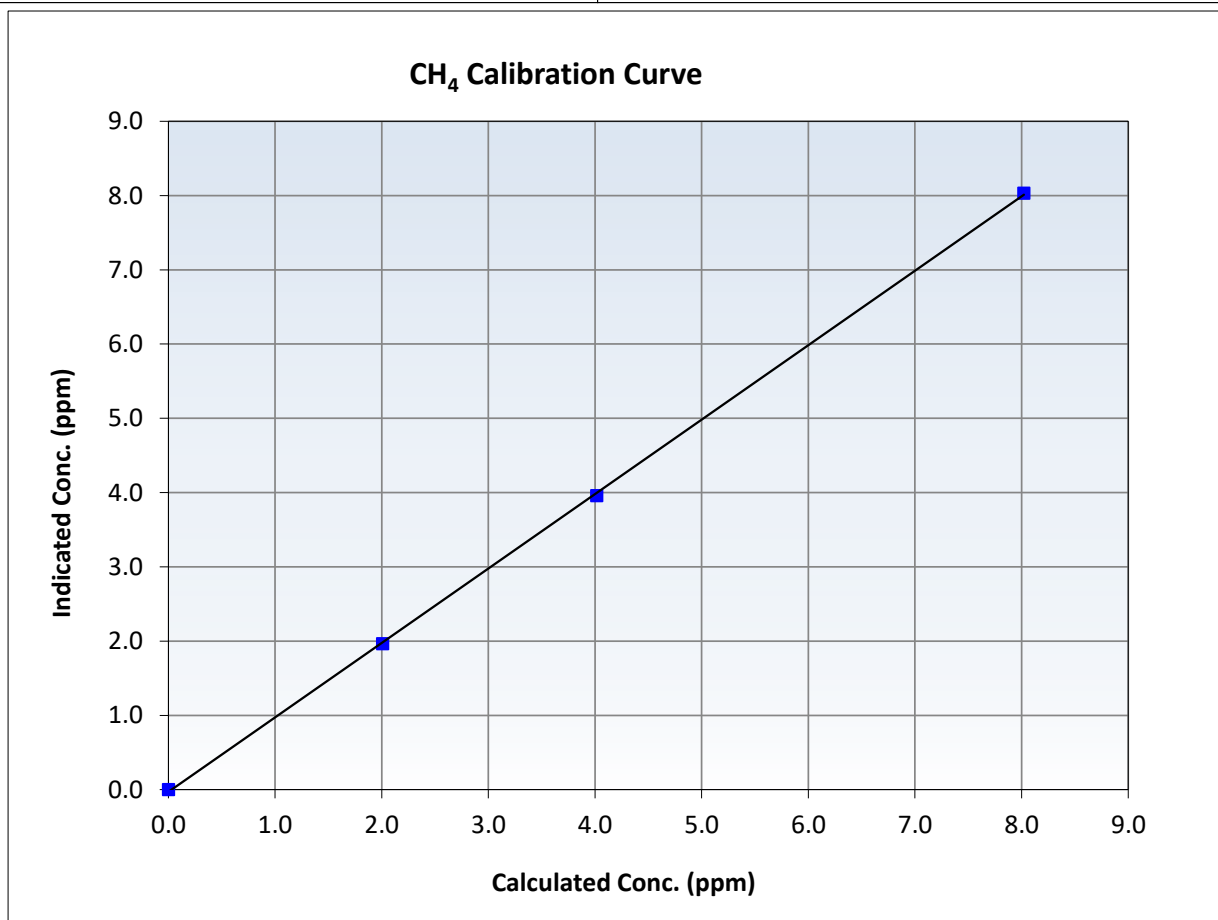
CH₄ Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 7, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:38	End Time (MST):	13:23
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999915	≥ 0.995
8.02	8.03	0.9984	Slope	1.002539	0.90 - 1.10
4.02	3.96	1.0144	Intercept	-0.030229	± 0.5
2.01	1.97	1.0208			





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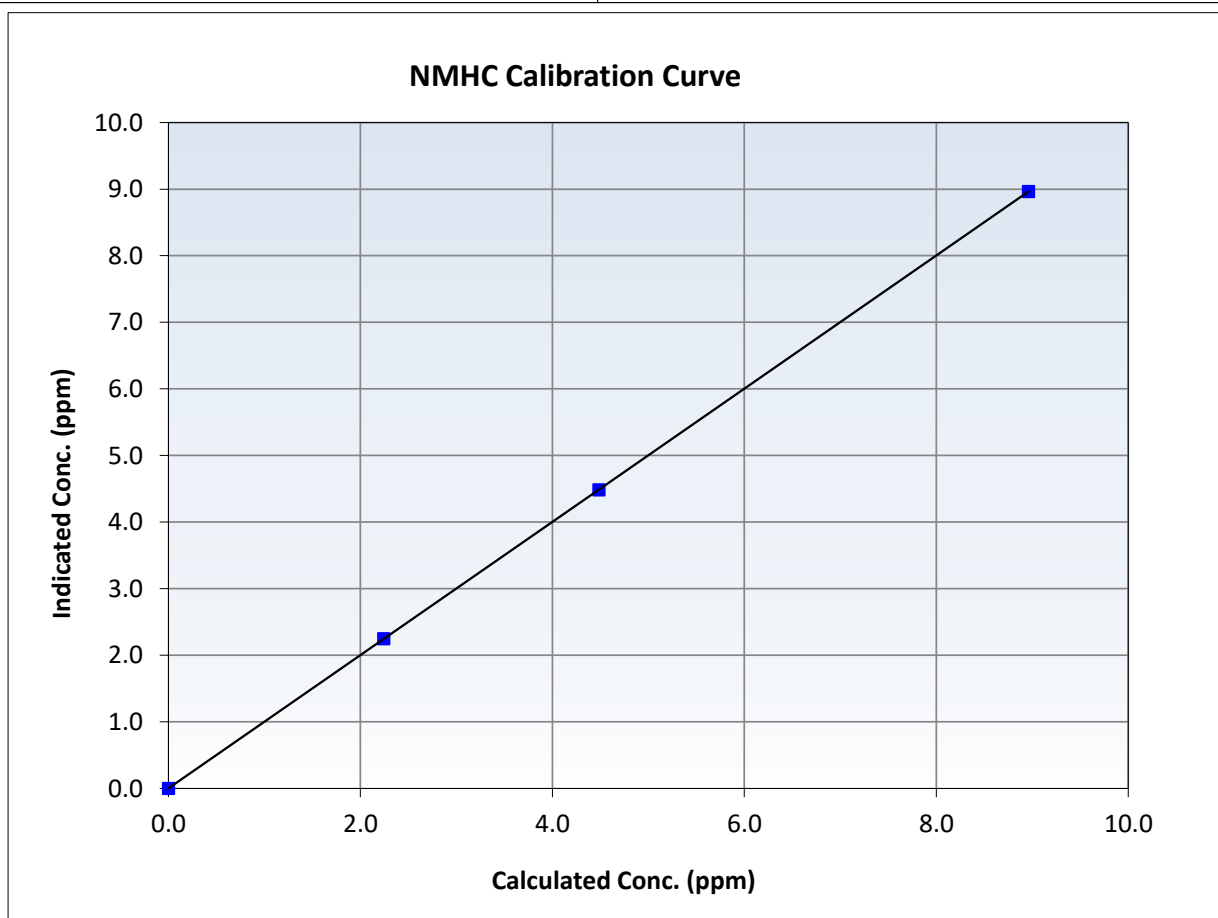
NMHC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 7, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:38	End Time (MST):	13:23
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999999	<i>≥0.995</i>
8.96	8.97	0.9995	Slope	1.000232	<i>0.90 - 1.10</i>
4.49	4.49	1.0002	Intercept	0.001715	<i>+/-0.5</i>
2.24	2.25	0.9969			



NMHC Calibration Plot

Date: June 23, 2026

Location: Janvier





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Janvier
Station number: AMS 22
Calibration Date: June 29, 2026
Last Cal Date: May 13, 2026
Start time (MST): 9:10
End time (MST): 13:24
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0047765
NOX Cal Gas Conc: 48.90 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 48.90 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: March 11, 2031
NO Cal Gas Conc: 48.80 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 48.80 ppm
NO gas Diff:
Serial Number: 3806
Serial Number: 691

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.0	-0.3	0.3	----	----
AF High point	4918	82.0	802.0	800.3	1.6	781.8	774.4	7.3	1.0258	1.0331
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 798.1 ppb	NO = 794.2 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = -2.1%
Baseline Corr 1st pt	NO _x = 781.8 ppb	NO = 774.7 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -2.5%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO ₂ SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1229254994

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.996219	1.001621
NO _x Cal Offset:	-0.856112	-2.476138
NO Cal Slope:	0.995062	1.004159
NO Cal Offset:	-2.136265	-4.196220
NO ₂ Cal Slope:	1.002504	0.997898
NO ₂ Cal Offset:	0.758492	0.065315

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.034	1.070	NO bkgnd or offset:	2.8	2.8
NOX coeff or slope:	0.997	0.993	NOX bkgnd or offset:	3.0	3.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	172.6	172.6

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	-0.1	0.5	----	----
High point	4918	82.0	802.0	800.3	1.6	802.5	801.9	0.6	0.9993	0.9980
Mid point	4960	41.0	400.9	400.1	0.8	396.7	394.3	2.4	1.0106	1.0147
Low point	4980	20.5	200.5	200.1	0.4	196.2	193.4	2.9	1.0218	1.0344
As left zero	5000	0.0	0.0	0.0	0.0	0.3	-0.1	0.4	----	----
As left span	4918	82.0	802.0	399.2	402.8	801.4	399.2	402.2	1.0007	1.0000
Average Correction Factor									1.0106	1.0157

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.5	----	----
High GPT point	798.3	397.7	402.2	401.8	1.0011	99.9%
Mid GPT point	798.3	597.5	202.4	201.5	1.0047	99.5%
Low GPT point	798.3	700.0	99.9	99.6	1.0034	99.7%
Average Correction Factor					1.0031	99.7%

Notes:

Sample inlet filter was changed after as founds. Adjusted span only.

Calibration Performed By:

Sean Bala



Wood Buffalo Environmental Association

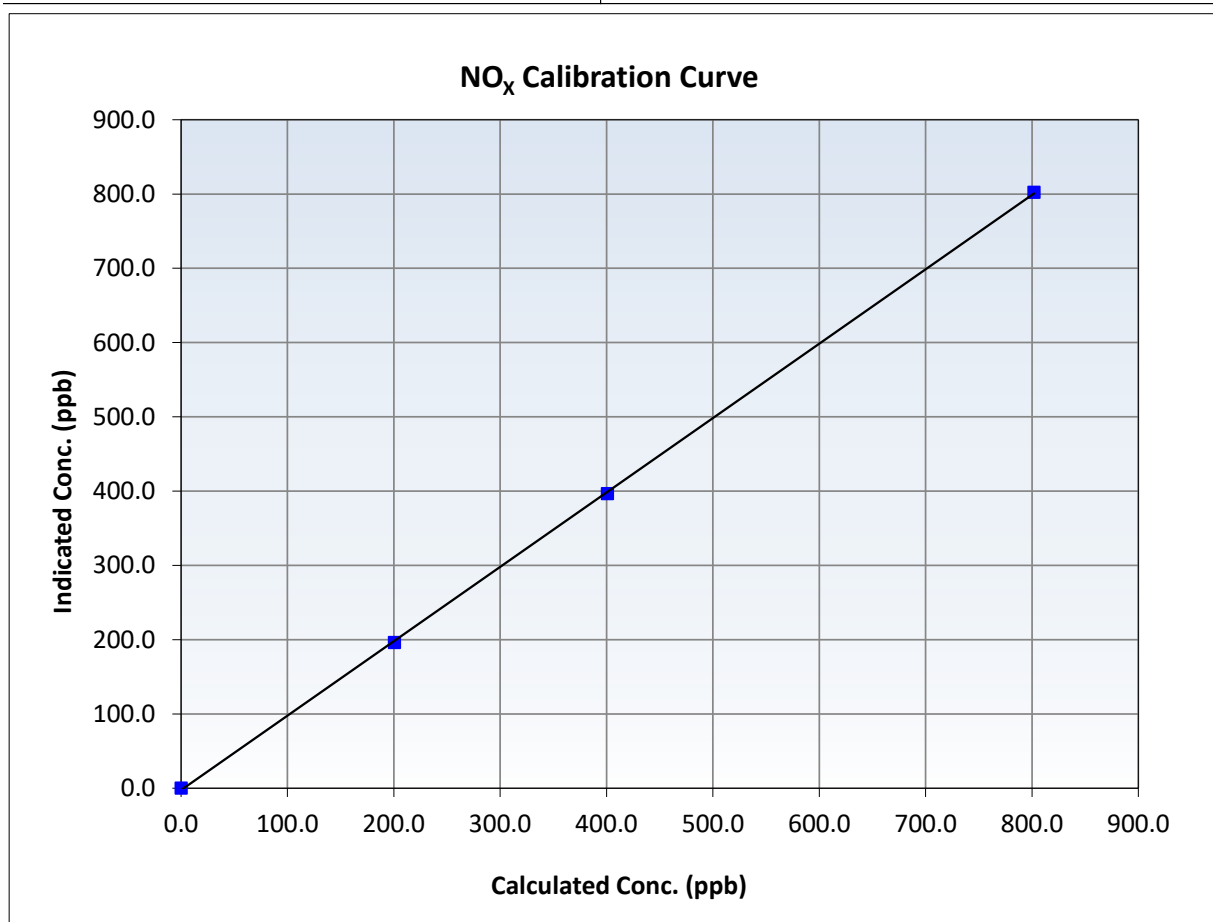
NO_x Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:10	End Time (MST):	13:24
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999941	≥0.995
802.0	802.5	0.9993	Slope	1.001621	0.90 - 1.10
400.9	396.7	1.0106	Intercept	-2.476138	+/-20
200.5	196.2	1.0218			





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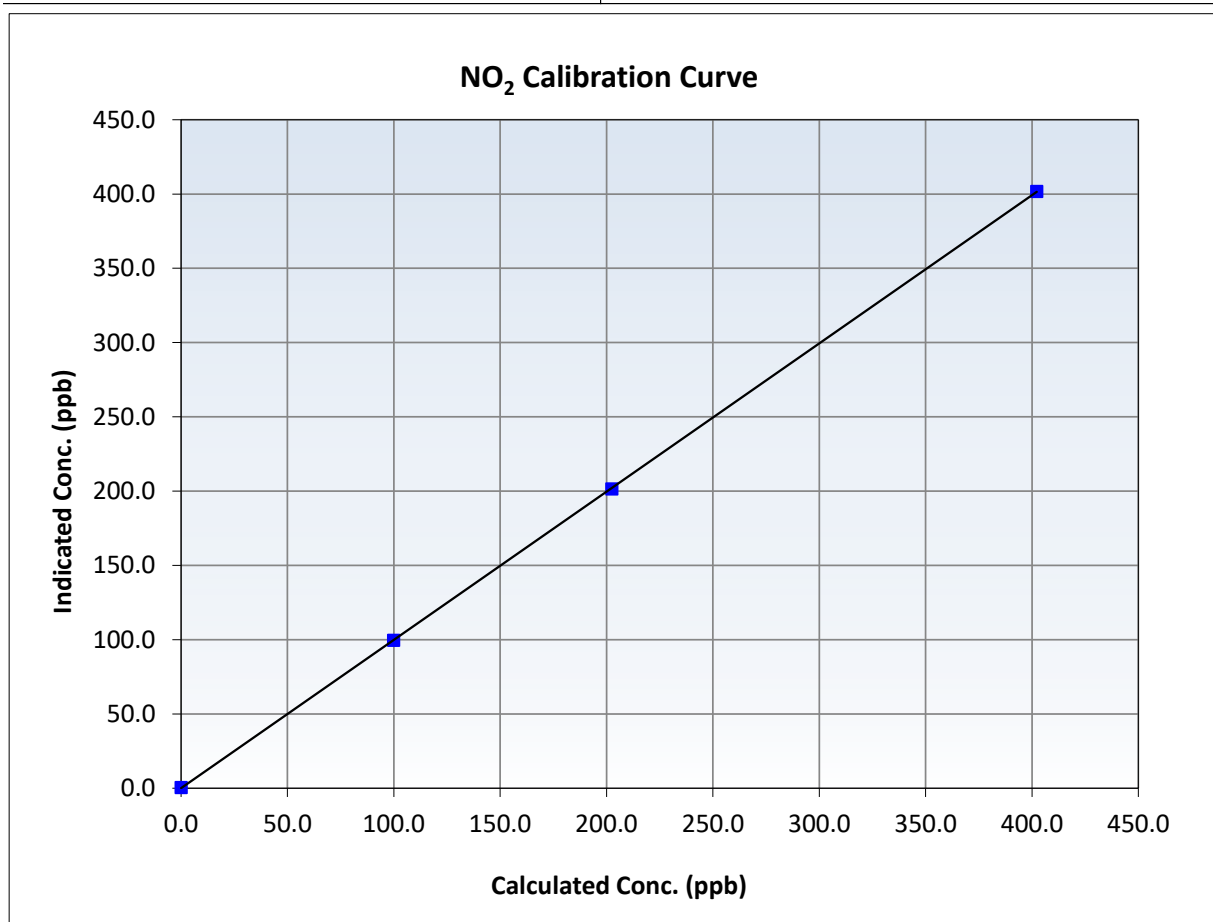
NO₂ Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:10	End Time (MST):	13:24
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.5	----	Correlation Coefficient	0.999992	≥0.995
402.2	401.8	1.0011	Slope	0.997898	0.90 - 1.10
202.4	201.5	1.0047	Intercept	0.065315	+/-20
99.9	99.6	1.0034			





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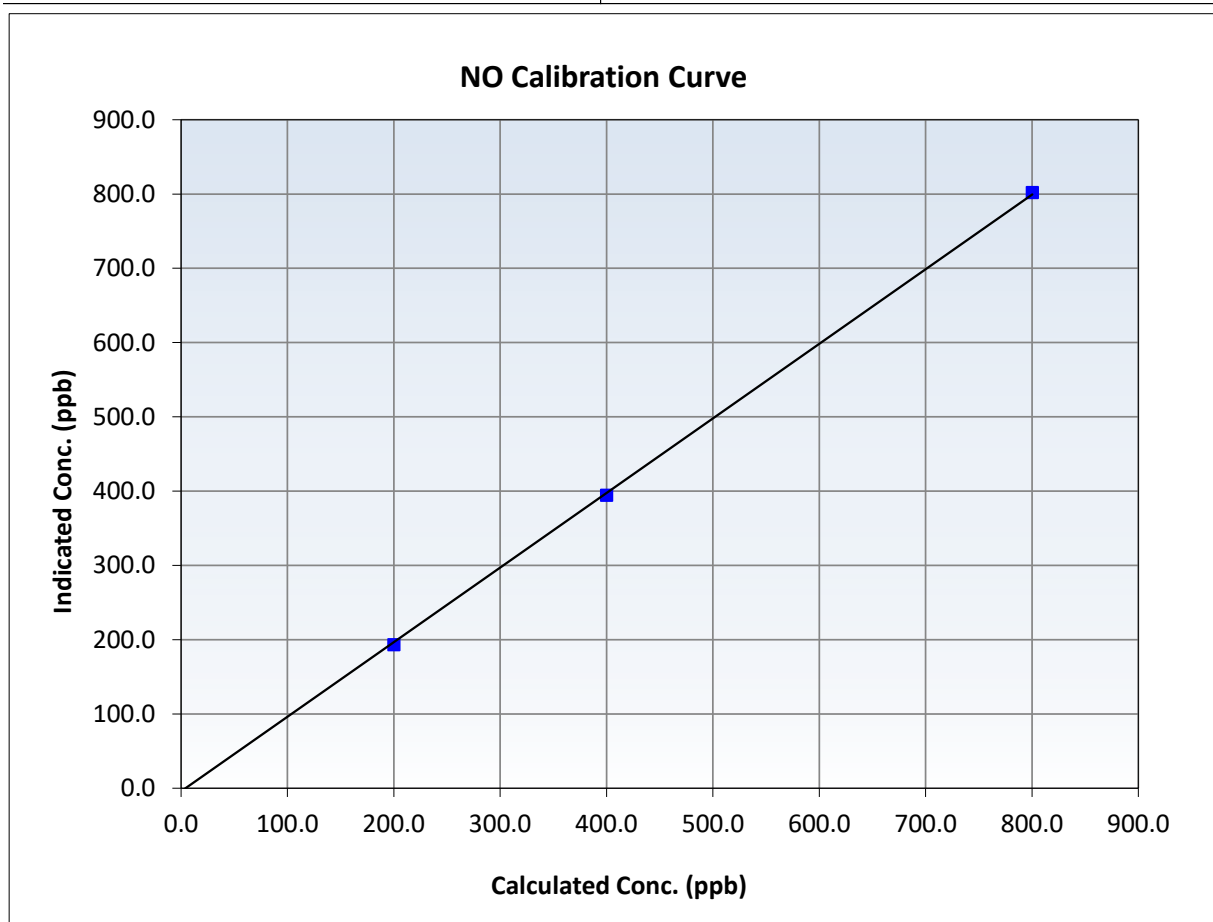
NO Calibration Summary

Station Information

Calibration Date:	June 29, 2026	Previous Calibration:	May 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:10	End Time (MST):	13:24
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

Calibration Data

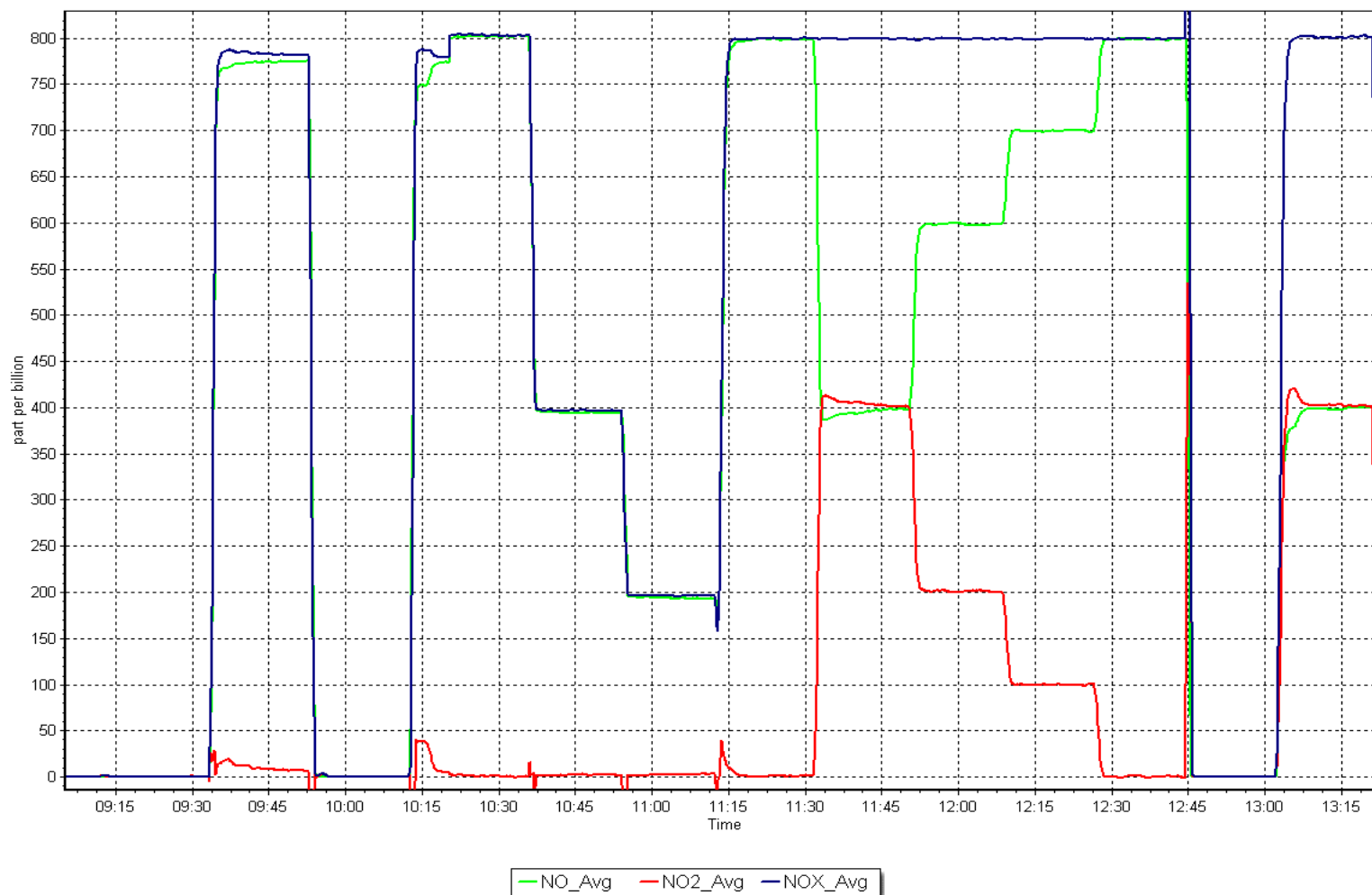
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	-0.1	----	Correlation Coefficient	0.999875	≥ 0.995
800.3	801.9	0.9980	Slope	1.004159	0.90 - 1.10
400.1	394.3	1.0147	Intercept	-4.196220	+/-20
200.1	193.4	1.0344			



NO_x Calibration Plot

Date: June 29, 2026

Location: Janvier





Wood Buffalo Environmental Association

O₃ Calibration Report

Station Information

Station Name: Janvier Station number: AMS 22
Calibration Date: June 22, 2026 Last Cal Date: May 1, 2026
Start time (MST): 10:18 End time (MST): 12:59
Reason: Routine

Calibration Standards

O₃ generation mode: Photometer
Calibrator Make/Model: Teledyne API T700 Serial Number: 3806
ZAG Make/Model: Teledyne API T701H Serial Number: 363

Analyzer Information

Analyzer make: Thermo 49i Analyzer serial #: 1227254861
Analyzer Range: 0 - 500 ppb

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003171	0.999857	Backgd or Offset:	-0.2
Calibration intercept:	0.220000	0.100000	Coeff or Slope:	1.364

O₃ As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	0.0	----
As found High point	5000	928.3	400.0	402.5	0.994
As found Mid point					
As found Low point					
Baseline Corr As found:	402.5	Previous response	401.5	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

O₃ Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.2	----
High point	5000	929.2	400.0	400.0	1.000
Mid point	5000	767.3	200.0	200.3	0.999
Low point	5000	688.9	100.0	99.8	1.002
As left zero	5000	800.0	0.0	0.2	----
As left span	5000	926.9	400.0	404.0	0.990
Average Correction Factor					1.000

Notes: Sample inlet filter was changed after as founds. Adjusted span.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

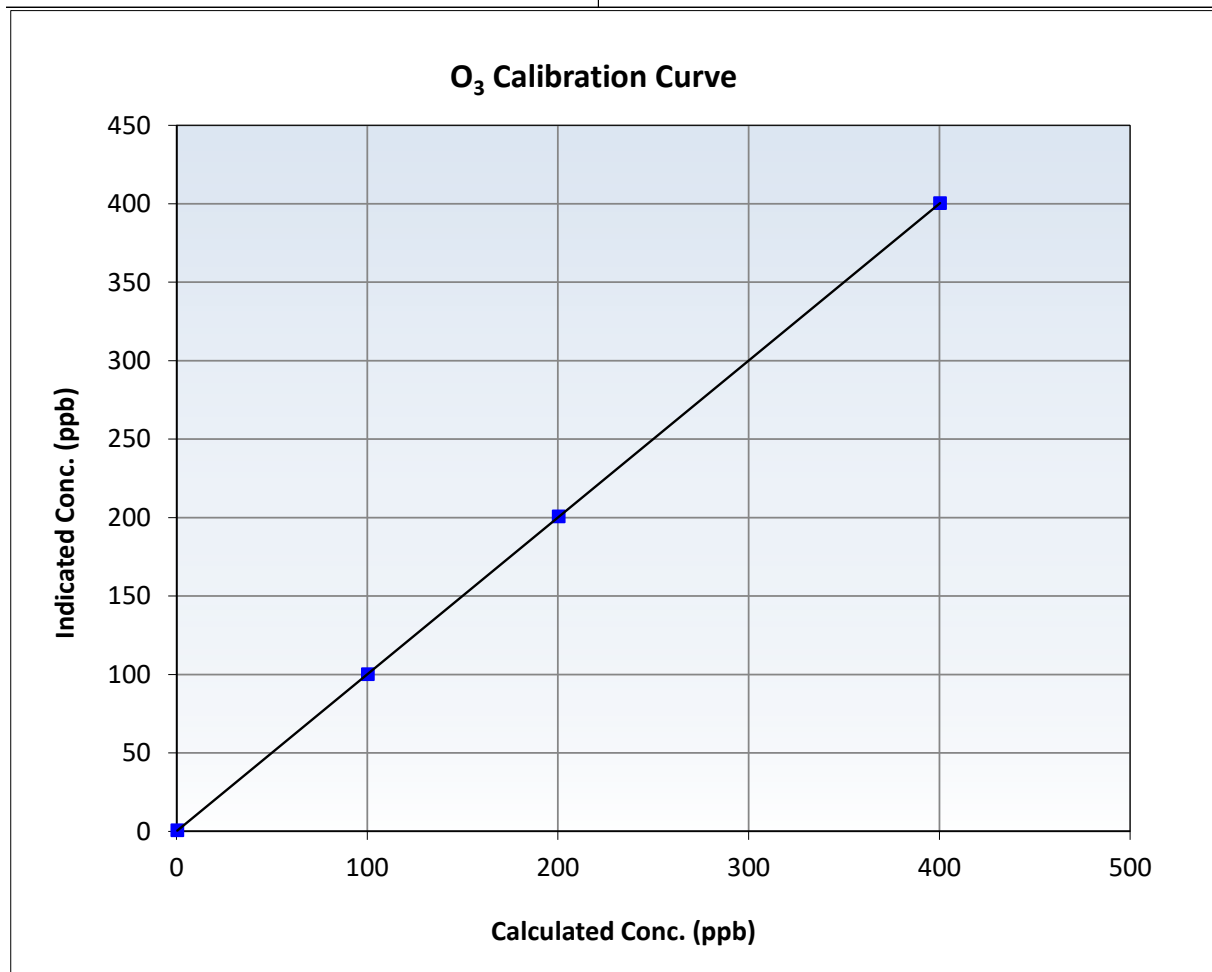
O₃ Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 1, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	10:18	End Time (MST):	12:59
Analyzer make:	Thermo 49i	Analyzer serial #:	1227254861

Calibration Data

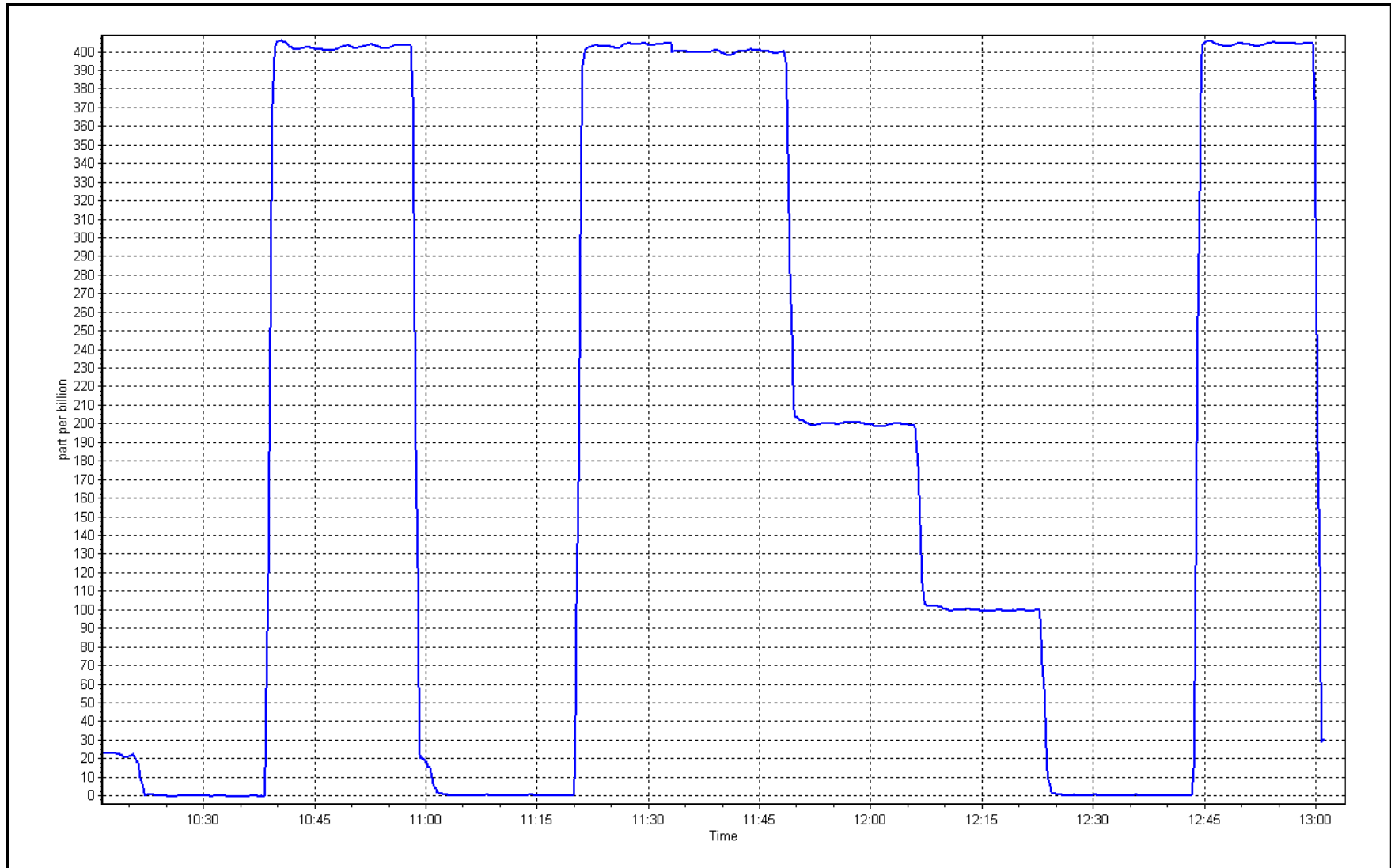
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999998	≥0.995
400.0	400.0	1.0000	Slope	0.999857	0.90 - 1.10
200.0	200.3	0.9985	Intercept	0.100000	+/- 5
100.0	99.8	1.0020			



O₃ Calibration Plot

Date: June 22, 2026

Location: Janvier





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Janvier Station number: AMS 22
Calibration Date: June 29, 2026 Last Cal Date: May 14, 2026
Start time (MST): 11:39 End time (MST): 11:52

Analyzer Make: Teledyne API T640 S/N: 871
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745
Temp/RH standard: Alicat FP-25BT S/N: 388745

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	27.50	27.42	27.50	☐	+/- 2 °C
P (mmHg)	711.3	713.4	711.3	☐	+/- 10 mmHg
Flow (LPM)	5.03	4.96	5.03	☐	+/- 0.25 LPM
PW% (pump)	30	----	30	☐	>80%
Zero Verification	PM w/o HEPA: 62.10		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: October 6, 2024
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	10.9 +/- 0.5

Date Optical Chamber Cleaned: May 14, 2026
Date Disposable Filter Changed: May 14, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: February 24, 2026
Date RH/T Sensor Cleaned: February 24, 2026

Notes: Verified the flow, temperature, pressure and pump PWM. Leak check passed & no adjustments made.

Calibration by: Sean Bala



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS23
FORT HILLS
JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Fort Hills Station number: AMS 23
Calibration Date: June 1, 2026 Last Cal Date: May 5, 2026
Start time (MST): 10:33 End time (MST): 14:08
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.35 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC484463
Removed Cal Gas Conc: 50.35 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Model: API T700 Serial Number: 5762
Zero Air Gen Model: API T701 Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1160290012
Analyzer Range: 0-1000ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.013710	0.999619	Backgd or Offset:	19.2	19.2
Calibration intercept:	-0.216930	-0.539365	Coeff or Slope:	1.070	1.070

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	79.4	799.5	817.4	0.978
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	817.4	Previous response	810.2	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4921	79.4	799.5	799.3	1.000
Mid point	4960	39.7	399.8	397.8	1.005
Low point	4980	19.8	199.4	198.8	1.003
As left zero	5000	0.0	0.0	0.0	----
As left span	4921	79.4	799.5	800.6	0.999
Average Correction Factor:					1.003

Notes: Inlet filter changed after as founds. Adjusted span only.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

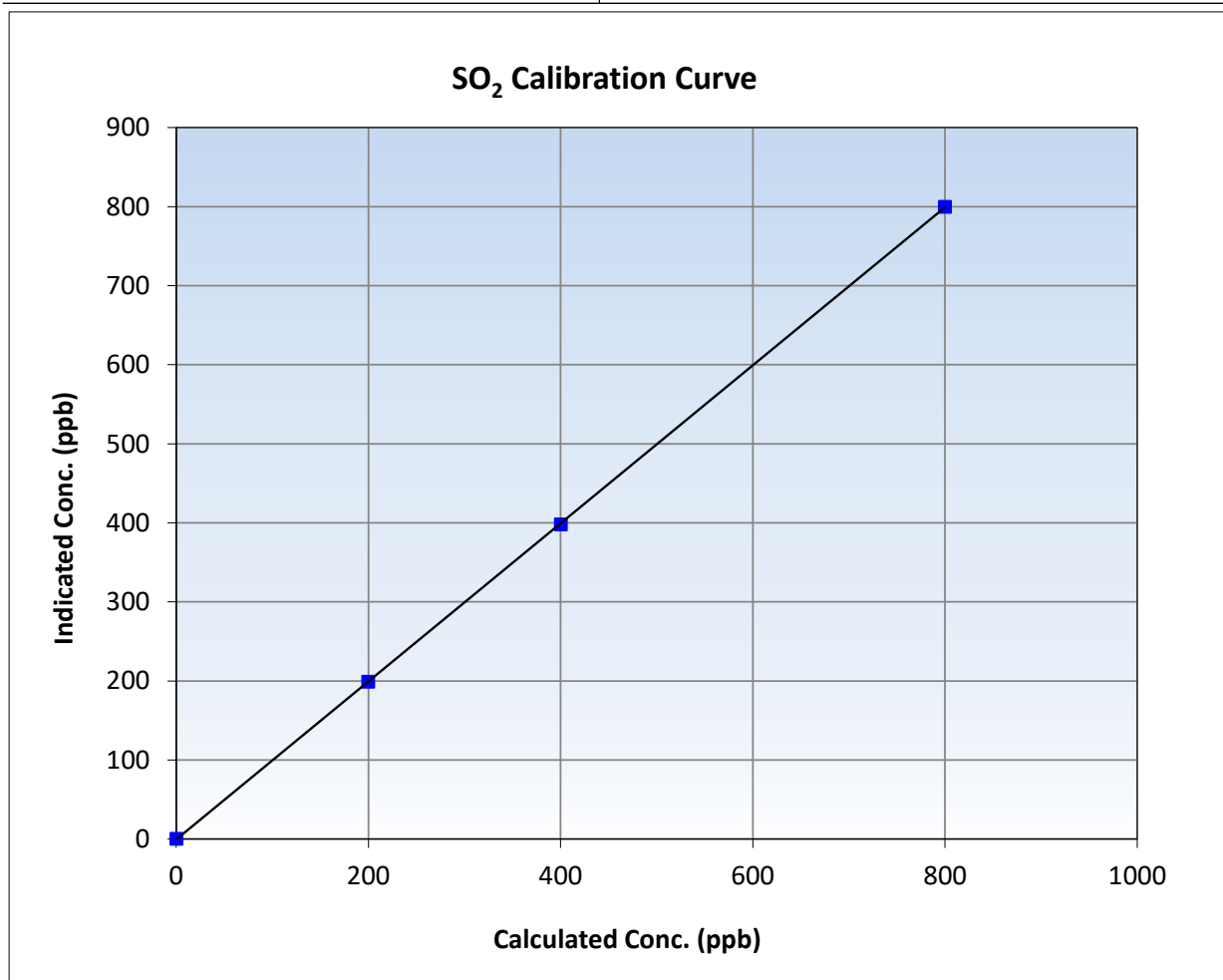
SO₂ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:33	End Time (MST):	14:08
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290012

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999993	≥0.995
799.5	799.3	1.0002	Slope	0.999619	0.90 - 1.10
399.8	397.8	1.0050	Intercept	-0.539365	+/-30
199.4	198.8	1.0030			



SO2 Calibration Plot

Date: June 1, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Fort Hills
Calibration Date: June 15, 2026
Start time (MST): 9:57
Reason: Routine
Station number: AMS 23
Last Cal Date: May 7, 2026
End time (MST): 14:41

Calibration Standards

Cal Gas Concentration: 4.84 ppm
Cal Gas Cylinder #: DT0021910
Removed Cal Gas Conc: 4.84 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: API T700
ZAG Make/Model: API T701
Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 5762
Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 43iQ Trace level
Converter make: Global
Analyzer Range: 0 - 100 ppb
Analyzer serial #: 1200326168
Converter serial #: 2022-227
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004679	1.006105	Backgd or Offset:	0.98
Calibration intercept:	0.141767	0.041859	Coeff or Slope:	1.045

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.3	----
As found High point	4917	82.6	80.0	81.9	0.980
As found Mid point	4959	41.3	40.0	41.0	0.982
As found Low point	4979	20.7	20.0	20.4	0.997
New cylinder response					
Baseline Corr As found:	81.6	Prev response:	80.48	*% change:	1.4%
Baseline Corr 2nd AF pt:	40.7	AF Slope:	1.021828	AF Intercept:	0.141629
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999979	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4917	82.6	80.0	80.5	0.993
Mid point	4959	41.3	40.0	40.3	0.992
Low point	4979	20.7	20.0	20.1	0.997
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	82.6	80.0	80.5	0.993
SO ₂ Scrubber Check	4920	80.3	803.0	0.0	----
Date of last scrubber change:	April 28, 2026			Ave Corr Factor	0.994
Date of last converter efficiency test:					

Notes: Changed sample inlet filter after as founds. SO_x scrubber checked after the calibrator zero. Span adjusted.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

H₂S Calibration Summary

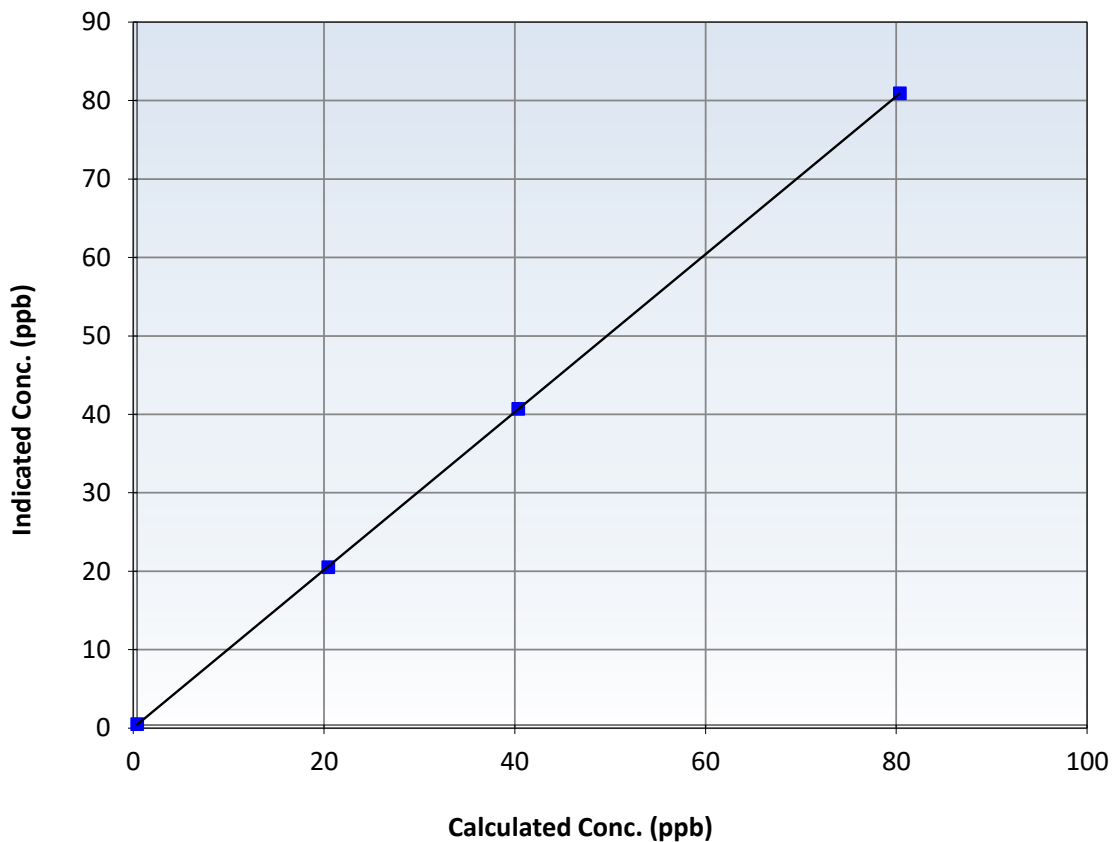
Station Information

Calibration Date:	June 15, 2026	Previous Calibration:	May 7, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:57	End Time (MST):	14:41
Analyzer make:	Thermo 43iQ Trace level	Analyzer serial #:	1200326168

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999996		≥0.995
80.0	80.5	0.9933	Slope	1.006105		0.90 - 1.10
40.0	40.3	0.9920	Intercept	0.041859		+/-3
20.0	20.1	0.9970				

H₂S Calibration Curve



H₂S Calibration Plot

Date: June 15, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Fort Hills
Calibration Date: June 15, 2026
Start time (MST): 9:57
Reason: Routine

Station number: AMS 23
Last Cal Date: May 7, 2026
End time (MST): 14:41

Calibration Standards

Cal Gas Concentration: 4.84 ppm
Cal Gas Cylinder #: DT0021910
Removed Cal Gas Conc: 4.84 ppm
Removed Gas Cyl #:
Calibrator Make/Model: API T700
ZAG Make/Model: API T701

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 5762
Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 43i TLE
Converter make: CDN-101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1300156232
Converter serial #: 594
Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003963	1.009251	Backgd or Offset:	1.92	1.97
Calibration intercept:	-0.058194	0.181775	Coeff or Slope:	0.965	0.994

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4917	82.6	80.0	78.2	1.024
As found Mid point	4959	41.3	40.0	39.0	1.028
As found Low point	4979	20.7	20.0	19.2	1.049
New cylinder response					
Baseline Corr As found:	78.1	Prev response:	80.22	*% change:	-2.7%
Baseline Corr 2nd AF pt:	38.9	AF Slope:	0.978512	AF Intercept:	-0.117554
Baseline Corr 3rd AF pt:	19.1	AF Correlation:	0.999959	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4917	82.6	80.0	80.7	0.991
Mid point	4959	41.3	40.0	40.9	0.977
Low point	4979	20.7	20.0	20.4	0.982
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	82.6	80.0	82.9	0.965
SO2 Scrubber Check	4920	80.3	803.0	0.1	----
Date of last scrubber change:				Ave Corr Factor	0.984
Date of last converter efficiency test:		March 13, 2024		110.3%	efficiency

Notes: Changed sample inlet filter after as founds. SOx scrubber checked after the calibrator zero. Span adjusted.

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

TRS Calibration Summary

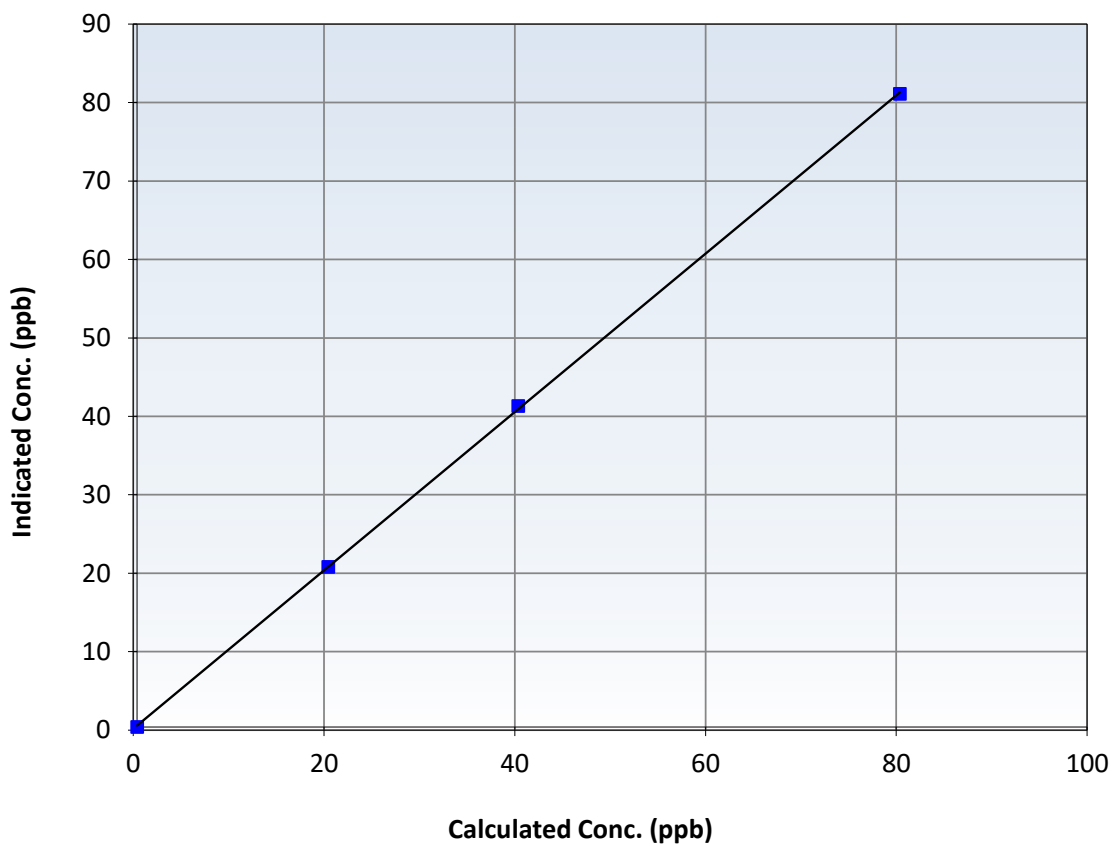
Station Information

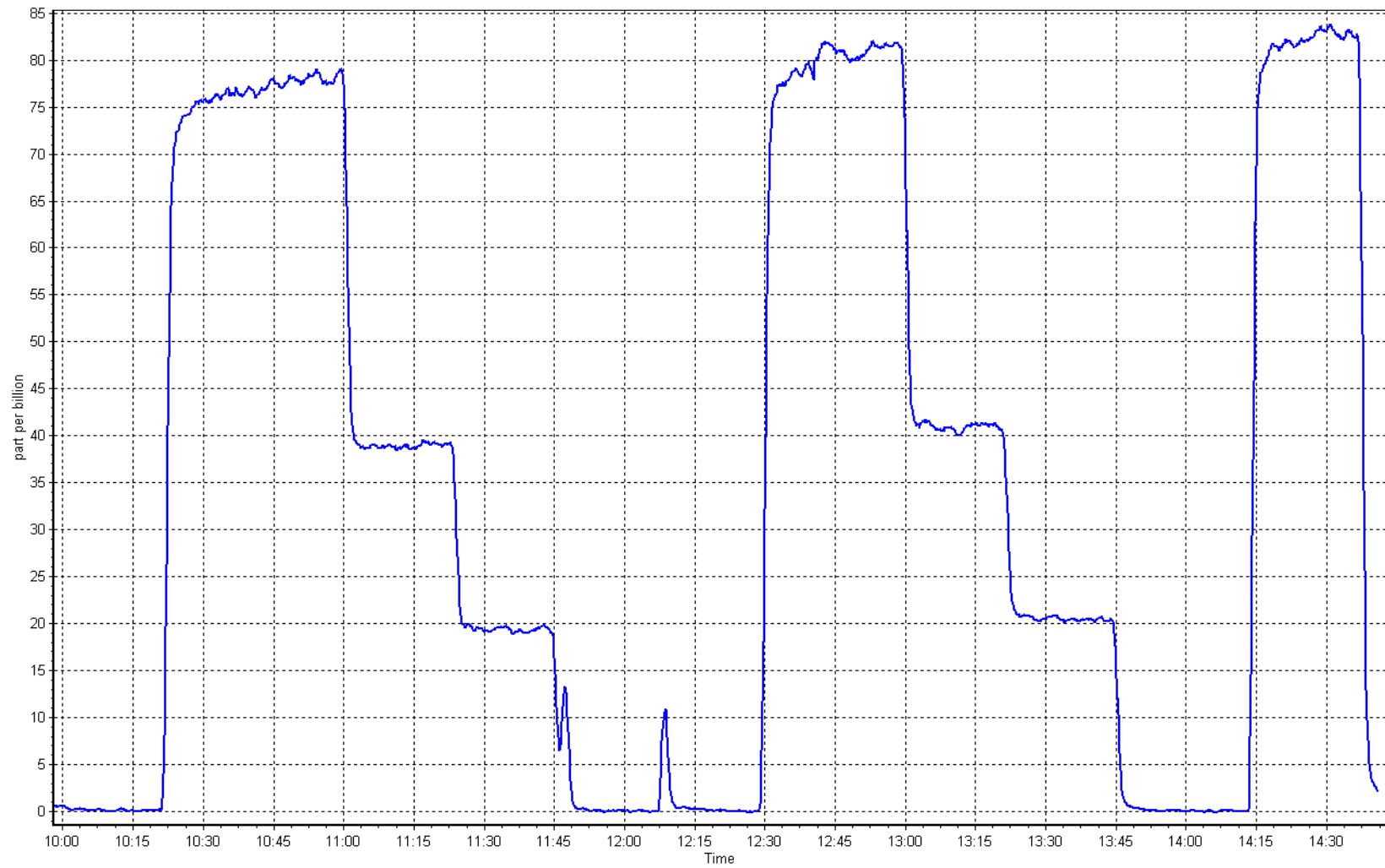
Calibration Date:	June 15, 2026	Previous Calibration:	May 7, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:57	End Time (MST):	14:41
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1300156232

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999942		≥ 0.995
80.0	80.7	0.9909	Slope	1.009251		$0.90 - 1.10$
40.0	40.9	0.9774	Intercept	0.181775		± 3
20.0	20.4	0.9823				

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort Hills
 Calibration Date: June 1, 2026
 Start time (MST): 10:33
 Reason: Routine

Station number: AMS 23
 Last Cal Date: May 5, 2026
 End time (MST): 14:08

Calibration Standards

Gas Cert Reference:	CC484463	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	504.3 ppm	CH ₄ Equiv Conc.	1065.6 ppm
C ₃ H ₈ Cal Gas Conc.	204.1 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	504.3 ppm	CH ₄ Equiv Conc.	1065.6 ppm
Removed C ₃ H ₈ Conc.	204.1 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5762
Zero Air Gen model:	API T701	Serial Number:	1117

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 12227620777
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.85E-04	3.98E-04	NMHC SP Ratio:	5.86E-05	5.82E-05
CH ₄ Retention time:	15.9	16.3	NMHC Peak Area:	152158	153165
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	16.92	16.72	1.012
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.72	Prev response	16.82	*% change	-0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.71	1.013
Mid point	4960	39.7	8.46	8.16	1.037
Low point	4980	19.8	4.22	4.06	1.039
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	16.67	1.015
Average Correction Factor					1.030

Notes:

Inlet filter was changed after as founds. Adjusted both zero and span.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.91	9.01	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.01	Prev response	8.86	*% change	1.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.91	8.79	1.014
Mid point	4960	39.7	4.46	4.31	1.035
Low point	4980	19.8	2.22	2.15	1.036
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.77	1.016
Average Correction Factor					1.028

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.01	7.72	1.038
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.72	Prev response	7.96	*% change	-3.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.01	7.91	1.012
Mid point	4960	39.7	4.00	3.86	1.039
Low point	4980	19.8	2.00	1.92	1.043
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	7.91	1.013
Average Correction Factor					1.031

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.997836	0.988329
THC Cal Offset:	-0.064986	-0.081629
CH ₄ Cal Slope:	0.999290	0.989230
CH ₄ Cal Offset:	-0.045797	-0.043815
NMHC Cal Slope:	0.996312	0.987057
NMHC Cal Offset:	-0.018589	-0.037015

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

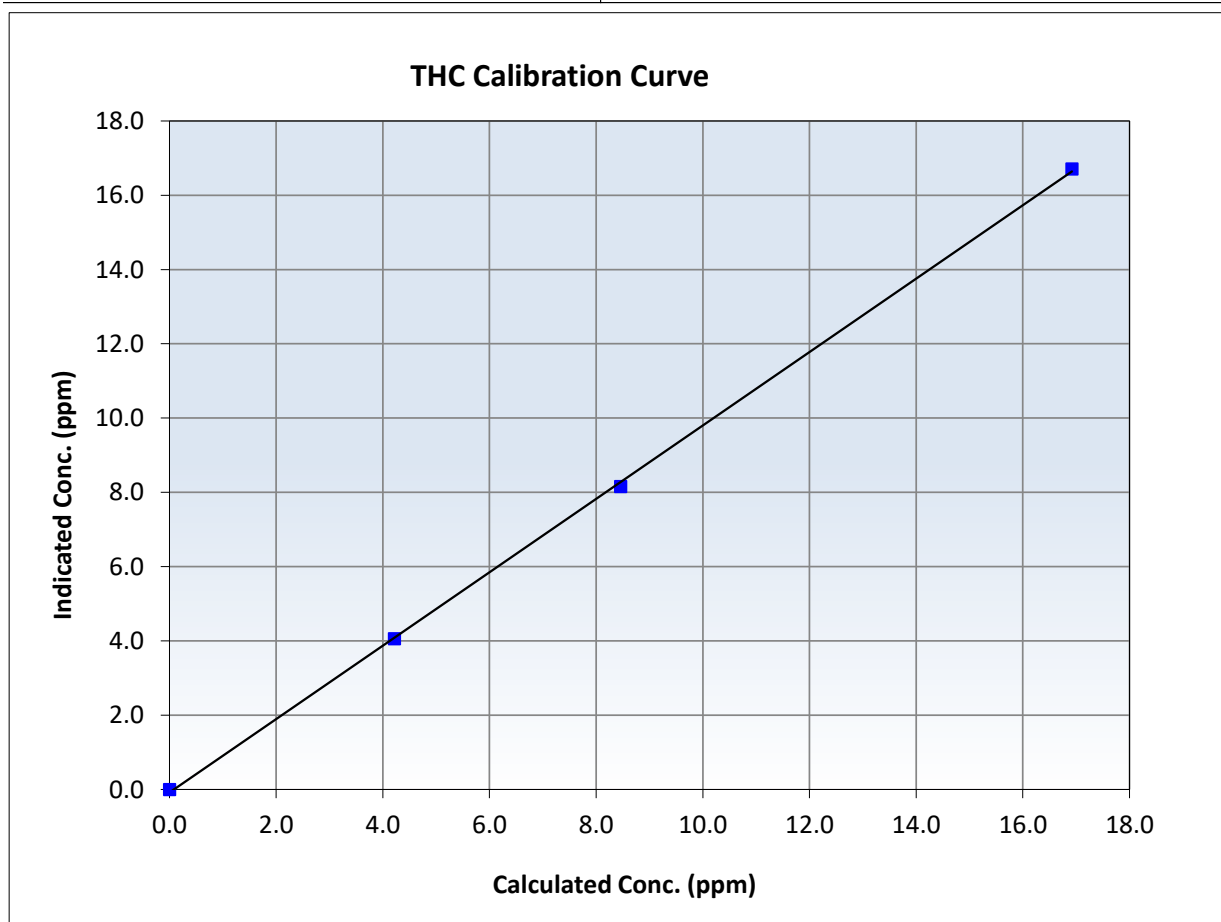
THC Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:33	End Time (MST):	14:08
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999828	≥ 0.995
16.92	16.71	1.0127	Slope	0.988329	0.90 - 1.10
8.46	8.16	1.0368	Intercept	-0.081629	± 0.5
4.22	4.06	1.0394			





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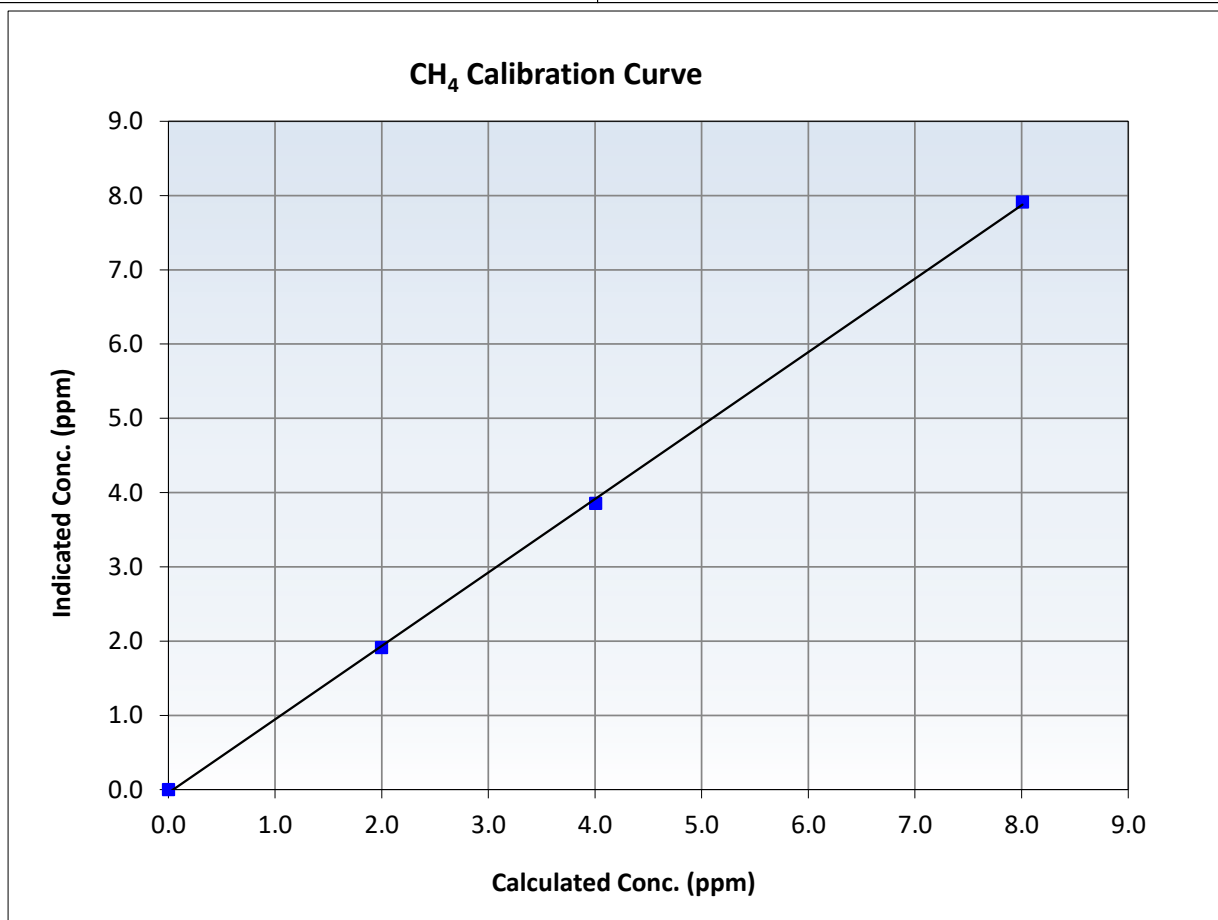
CH₄ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:33	End Time (MST):	14:08
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999786	<i>≥0.995</i>
8.01	7.91	1.0120	Slope	0.989230	<i>0.90 - 1.10</i>
4.00	3.86	1.0388	Intercept	-0.043815	<i>+/-0.5</i>
2.00	1.92	1.0429			





Wood Buffalo Environmental Association

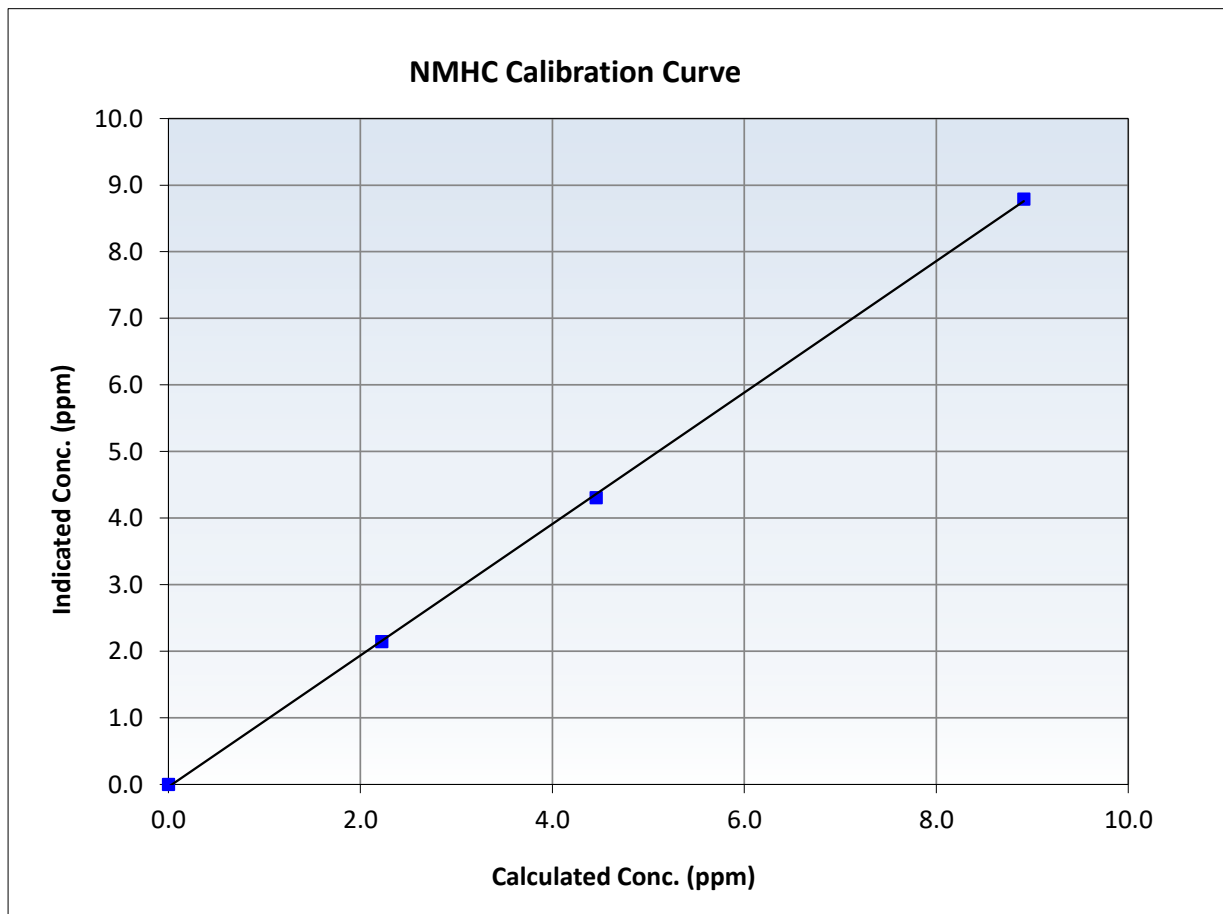
NMHC Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:33	End Time (MST):	14:08
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

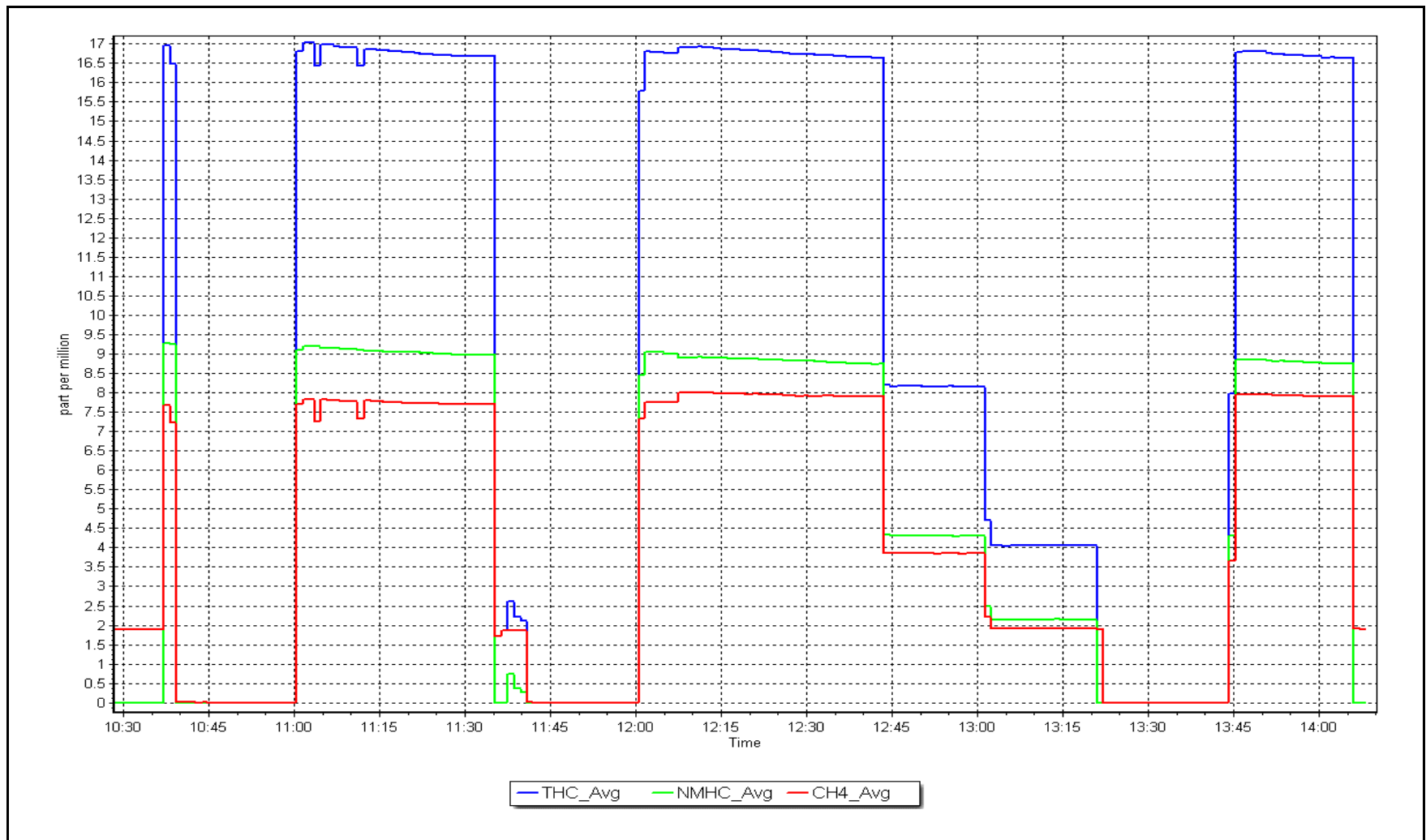
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999867	≥ 0.995
8.91	8.79	1.0138	Slope	0.987057	$0.90 - 1.10$
4.46	4.31	1.0350	Intercept	-0.037015	± 0.5
2.22	2.15	1.0362			



NMHC Calibration Plot

Date: June 1, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort Hills
Calibration Date: June 8, 2026
Start time (MST): 10:59
Reason: Maintenance

Station number: AMS 23
Last Cal Date: June 1, 2026
End time (MST): 14:57

Calibration Standards

Gas Cert Reference: CC484463
CH₄ Cal Gas Conc. 504.3 ppm
C₃H₈ Cal Gas Conc. 204.1 ppm
Removed Gas Cert:
Removed CH₄ Conc. 504.3 ppm
Removed C₃H₈ Conc. 204.1 ppm
Diff between cyl (CH₄):
Calibrator Model: API T700
Zero Air Gen model: API T701

Cal Gas Expiry Date: October 9, 2032
CH₄ Equiv Conc. 1065.6 ppm
Removed Gas Expiry:
CH₄ Equiv Conc. 1065.6 ppm
Diff between cyl (THC):
Diff between cyl (NM):
Serial Number: 5762
Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 12227620777
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	3.98E-04	4.16E-04	NMHC SP Ratio:	5.82E-05	5.80E-05
CH ₄ Retention time:	16.3	17.1	NMHC Peak Area:	153165	153567
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.81	1.007
Mid point	4960	39.7	8.46	8.27	1.023
Low point	4980	19.8	4.22	4.17	1.013
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	16.42	1.030
Average Correction Factor					1.014

Notes: Investigation was made. The instrument showed no alarms, and MPAF could not be performed due to dips and low span readings. A retention time shift was observed. The pump was replaced as part of maintenance and adjusted window timings accordingly, and both zero and span were adjusted.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.91	8.84	1.008
Mid point	4960	39.7	4.46	4.36	1.022
Low point	4980	19.8	2.22	2.20	1.012
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.58	1.039
Average Correction Factor					1.014

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.01	7.97	1.005
Mid point	4960	39.7	4.00	3.91	1.023
Low point	4980	19.8	2.00	1.97	1.015
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	7.84	1.021
Average Correction Factor					1.014

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.988329	0.993074
THC Cal Offset:	-0.081629	-0.036993
CH ₄ Cal Slope:	0.989230	0.994850
CH ₄ Cal Offset:	-0.043815	-0.021996
NMHC Cal Slope:	0.987057	0.991401
NMHC Cal Offset:	-0.037015	-0.015197

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

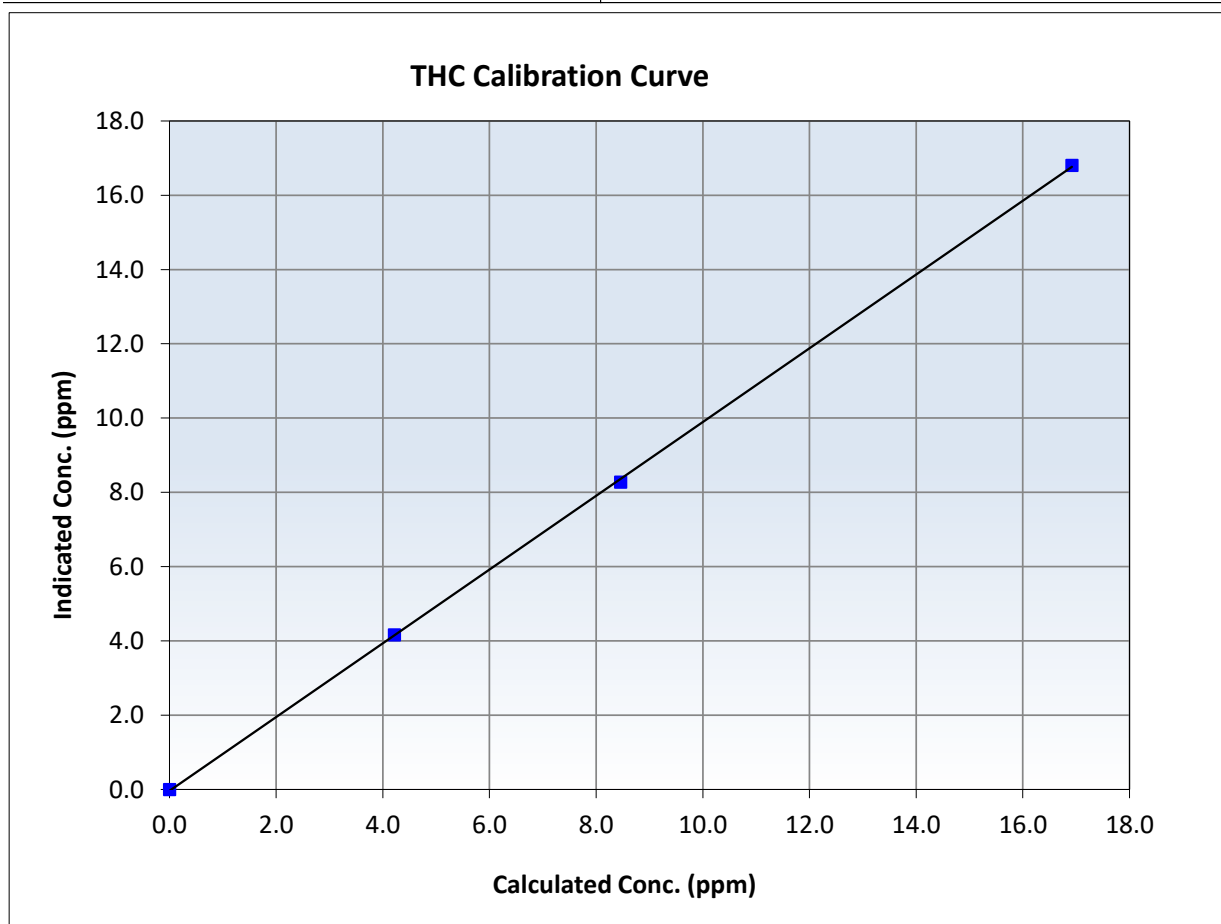
THC Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	June 1, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	14:57
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999923	<i>≥0.995</i>
16.92	16.81	1.0066	Slope	0.993074	<i>0.90 - 1.10</i>
8.46	8.27	1.0227	Intercept	-0.036993	<i>+/-0.5</i>
4.22	4.17	1.0129			





Wood Buffalo Environmental Association

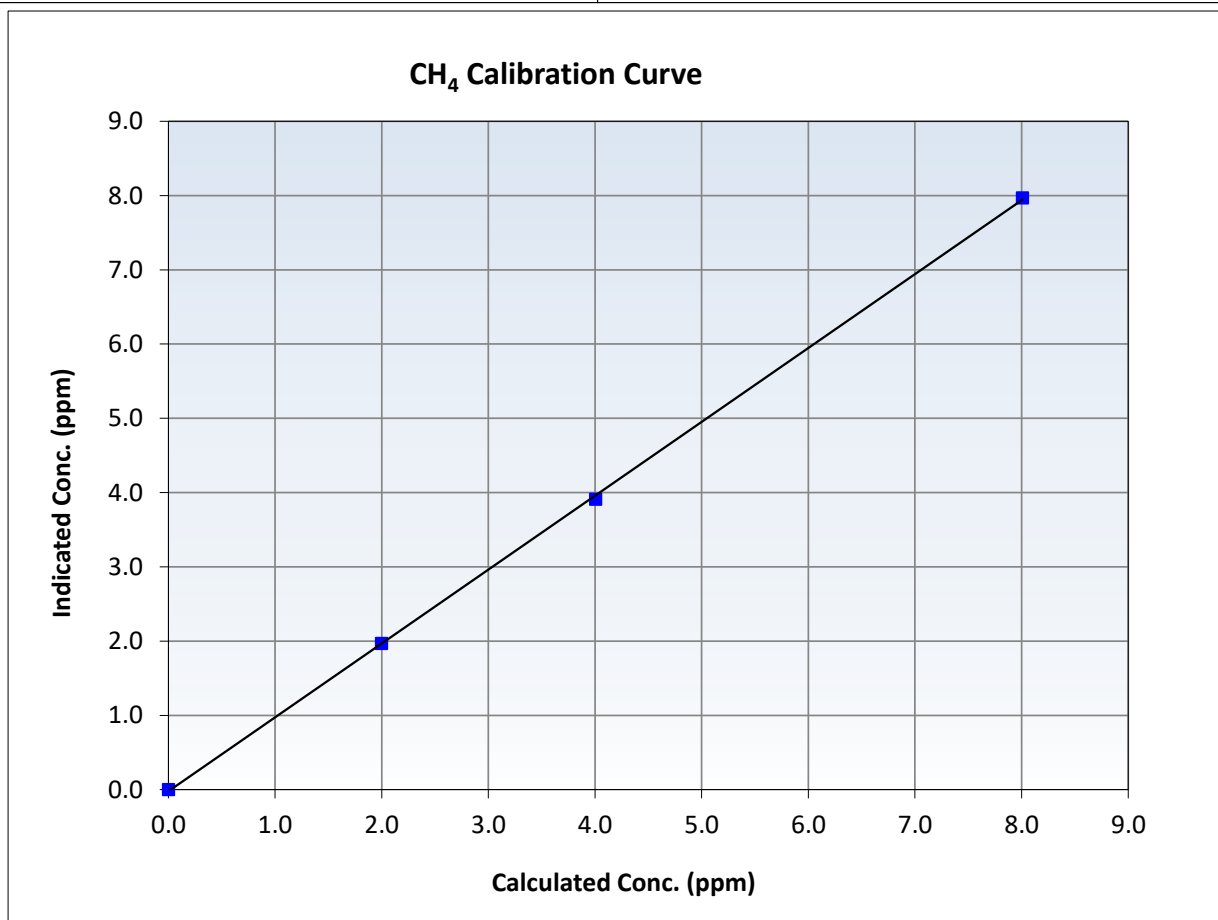
CH₄ Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	June 1, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	14:57
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999901	≥ 0.995
8.01	7.97	1.0050	Slope	0.994850	$0.90 - 1.10$
4.00	3.91	1.0234	Intercept	-0.021996	± 0.5
2.00	1.97	1.0148			





Wood Buffalo Environmental Association

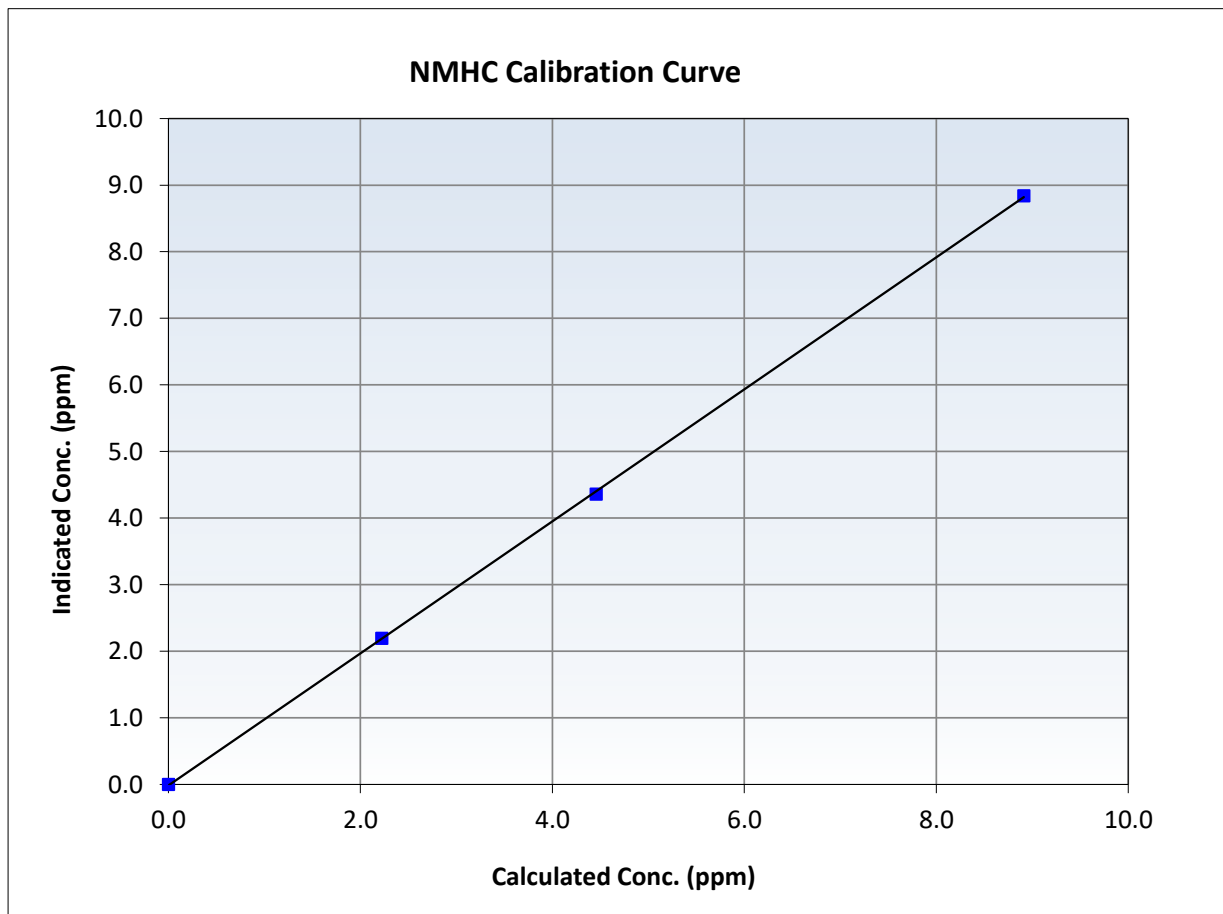
NMHC Calibration Summary

Station Information

Calibration Date:	June 8, 2026	Previous Calibration:	June 1, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	14:57
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999940	<i>≥0.995</i>
8.91	8.84	1.0082	Slope	0.991401	<i>0.90 - 1.10</i>
4.46	4.36	1.0222	Intercept	-0.015197	<i>+/-0.5</i>
2.22	2.20	1.0117			



NMHC Calibration Plot

Date: June 8, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort Hills
 Calibration Date: June 17, 2026
 Start time (MST): 9:54
 Reason: Maintenance

Station number: AMS 23
 Last Cal Date: June 8, 2026
 End time (MST): 15:40

Calibration Standards

Gas Cert Reference: CC484463
 CH₄ Cal Gas Conc. 504.3 ppm
 C₃H₈ Cal Gas Conc. 204.1 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 504.3 ppm
 Removed C₃H₈ Conc. 204.1 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 9, 2032
 CH₄ Equiv Conc. 1065.6 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1065.6 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5762
 Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 12227620777
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	4.16E-04	4.19E-04	NMHC SP Ratio:	5.80E-05	6.17E-05
CH ₄ Retention time:	17.1	17.1	NMHC Peak Area:	153567	144457
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	16.92	13.95	1.213
As found Mid point	4960	39.7	8.46	6.68	1.267
As found Low point	4980	19.8	4.22	3.36	1.256
New cylinder response					
Baseline Corr AF:	13.95	Prev response	16.77	*% change	-20.2%
Baseline Corr 2nd AF:	6.68	AF Slope:	0.824883	AF Intercept:	-0.106843
Baseline Corr 3rd AF:	3.36	AF Correlation:	0.999450	* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.92	1.000
Mid point	4960	39.7	8.46	8.37	1.011
Low point	4980	19.8	4.22	4.17	1.013
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	17.07	0.991
Average Correction Factor					1.008

Notes: Noted a large chromatogram shift leading to low and inconsistent readings. Adjusted carrier pressure, window settings and span. Ran new zero chromatogram.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4921	79.4	8.91	9.13	0.976
As found Mid point	4960	39.7	4.46	4.48	0.995
As found Low point	4980	19.8	2.22	2.22	1.000
New cylinder response					
Baseline Corr AF:	9.13	Prev response	8.82	*% change	3.4%
Baseline Corr 2nd AF:	4.48	AF Slope:	1.025263	AF Intercept:	-0.038941
Baseline Corr 3rd AF:	2.22	AF Correlation:	0.999880	* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4921	79.4	8.91	8.90	1.001
Mid point	4960	39.7	4.46	4.47	0.998
Low point	4980	19.8	2.22	2.21	1.005
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	9.06	0.984
Average Correction Factor					1.001

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4921	79.4	8.01	4.82	1.661
As found Mid point	4960	39.7	4.00	2.20	1.819
As found Low point	4980	19.8	2.00	1.14	1.756
New cylinder response					
Baseline Corr AF:	4.82	Prev response	7.94	*% change	-64.8%
Baseline Corr 2nd AF:	2.20	AF Slope:	0.601993	AF Intercept:	-0.068102
Baseline Corr 3rd AF:	1.14	AF Correlation:	0.997706	* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4921	79.4	8.01	8.03	0.997
Mid point	4960	39.7	4.00	3.91	1.025
Low point	4980	19.8	2.00	1.96	1.020
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	8.01	1.000
Average Correction Factor					1.014

Calibration Statistics

	Start	Finish
THC Cal Slope:	0.993074	1.000457
THC Cal Offset:	-0.036993	-0.039380
CH ₄ Cal Slope:	0.994850	1.003184
CH ₄ Cal Offset:	-0.021996	-0.040184
NMHC Cal Slope:	0.991401	0.999161
NMHC Cal Offset:	-0.015197	-0.000194

Calibration Performed By: Braiden Boutillier



Wood Buffalo Environmental Association

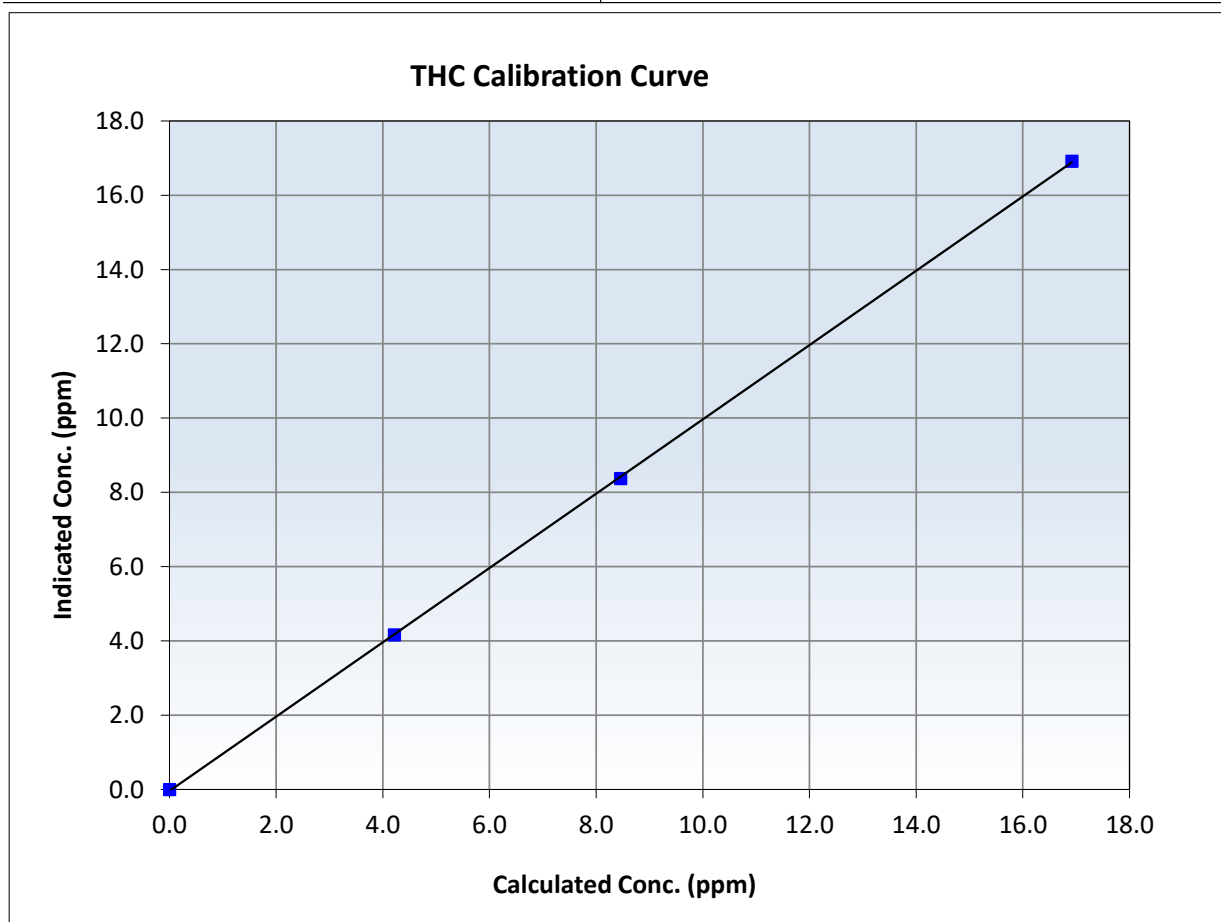
THC Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 8, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:54	End Time (MST):	15:40
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999962	<i>≥0.995</i>
16.92	16.92	1.0000	Slope	1.000457	<i>0.90 - 1.10</i>
8.46	8.37	1.0109	Intercept	-0.039380	<i>+/-0.5</i>
4.22	4.17	1.0127			





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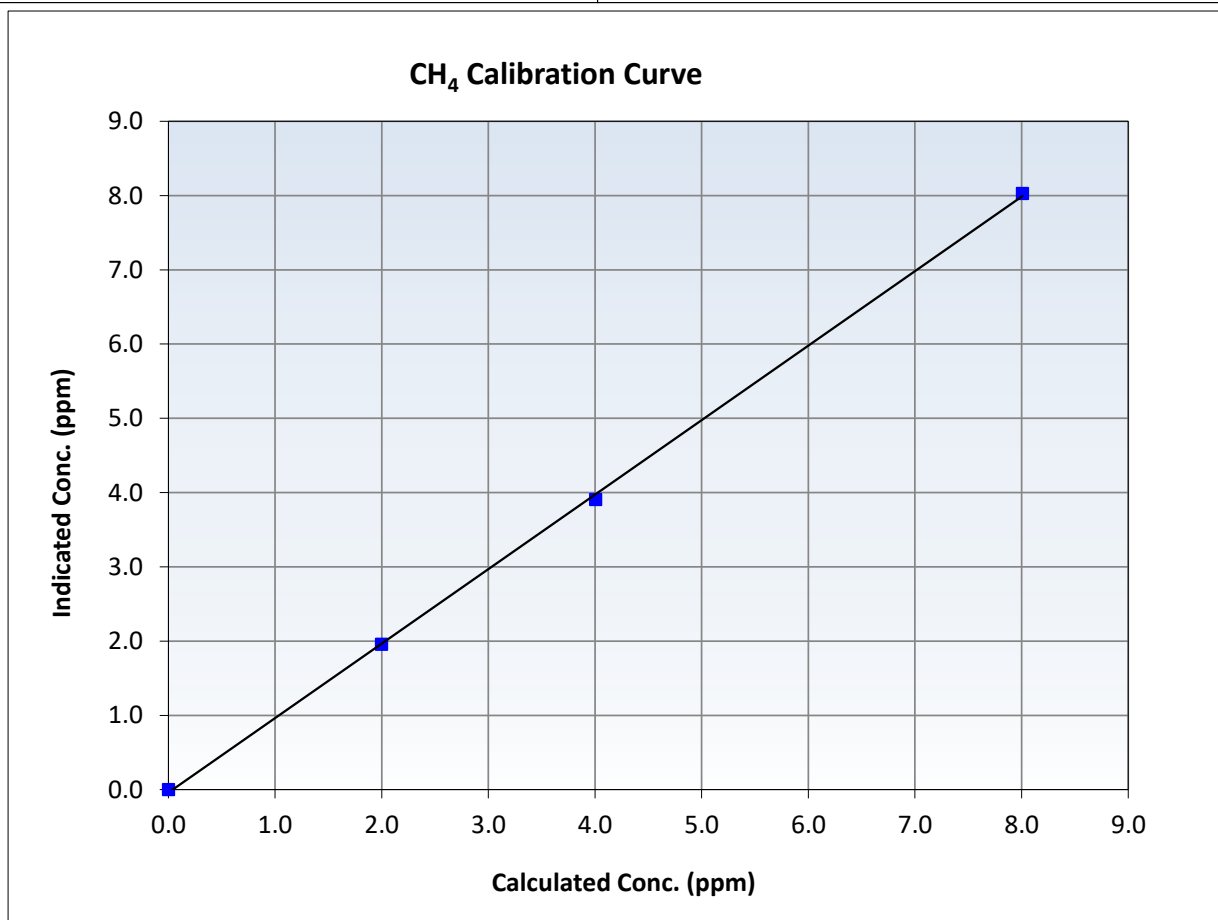
CH₄ Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 8, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:54	End Time (MST):	15:40
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999772	≥ 0.995
8.01	8.03	0.9972	Slope	1.003184	0.90 - 1.10
4.00	3.91	1.0252	Intercept	-0.040184	± 0.5
2.00	1.96	1.0205			





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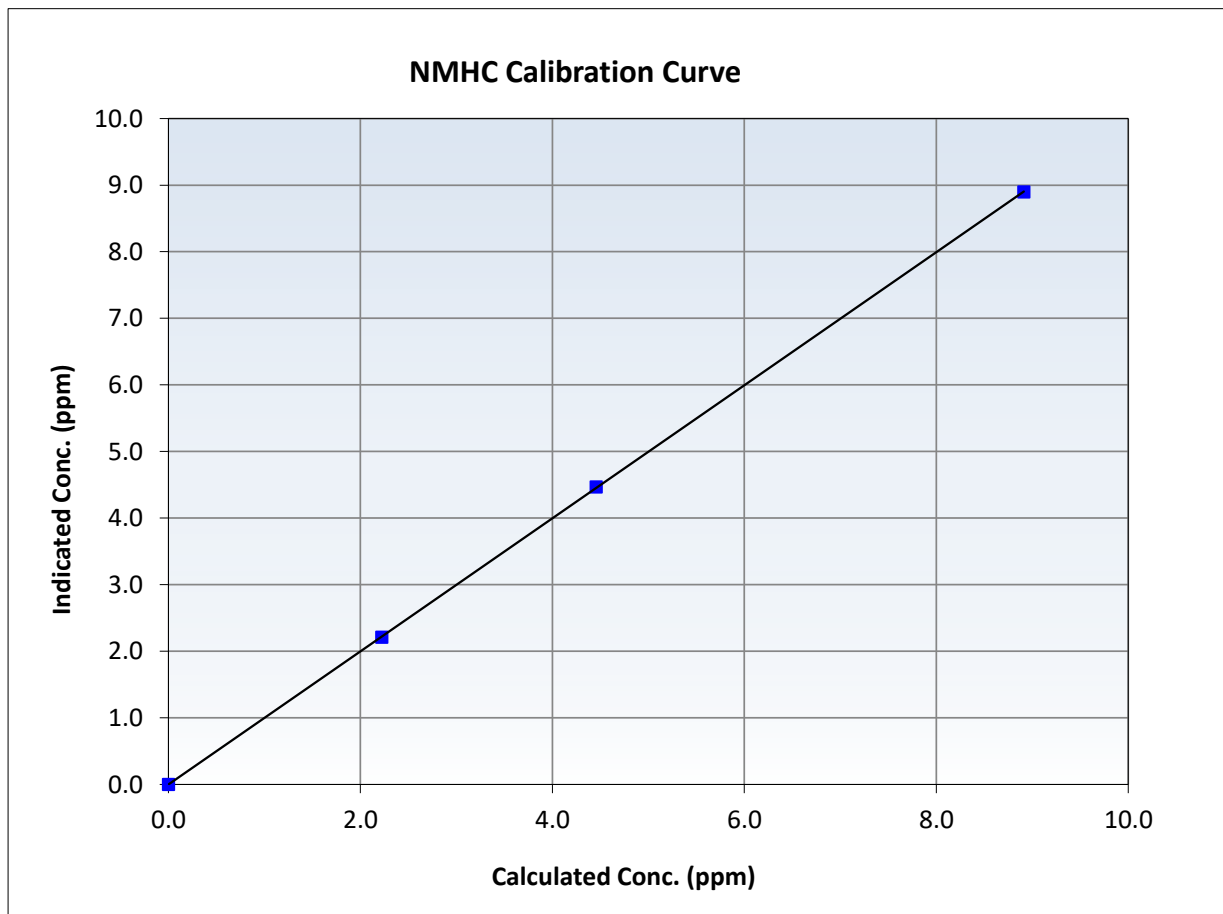
NMHC Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	June 8, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:54	End Time (MST):	15:40
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

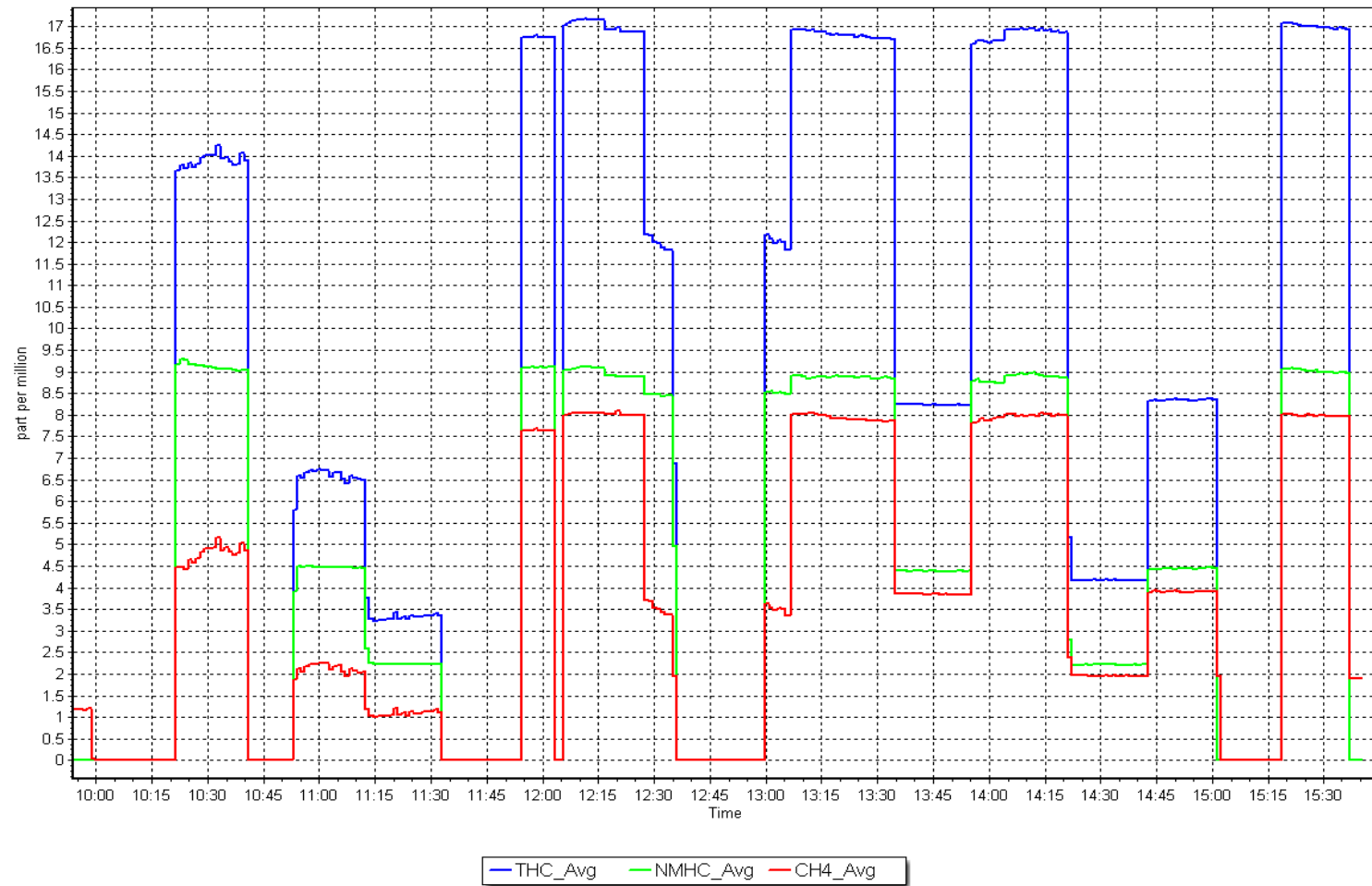
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999993	≥ 0.995
8.91	8.90	1.0014	Slope	0.999161	$0.90 - 1.10$
4.46	4.47	0.9977	Intercept	-0.000194	± 0.5
2.22	2.21	1.0053			



NMHC Calibration Plot

Date: June 17, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort Hills
 Calibration Date: June 19, 2026
 Start time (MST): 9:30
 Reason: Maintenance

Station number: AMS 23
 Last Cal Date: June 17, 2026
 End time (MST): 11:55

Calibration Standards

Gas Cert Reference: CC484463
 CH₄ Cal Gas Conc. 504.3 ppm
 C₃H₈ Cal Gas Conc. 204.1 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 504.3 ppm
 Removed C₃H₈ Conc. 204.1 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 9, 2032
 CH₄ Equiv Conc. 1065.6 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1065.6 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5762
 Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 12227620777
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	4.19E-04	4.26E-04	NMHC SP Ratio:	6.17E-05	5.90E-05
CH ₄ Retention time:	17.1	17.5	NMHC Peak Area:	144457	151000
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	16.92	17.48	0.968
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.48	Prev response	16.89	*% change	3.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.80	1.007
Mid point	4960	39.7	8.46	8.27	1.023
Low point	4980	19.8	4.22	4.14	1.019
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	16.82	1.006
Average Correction Factor					1.016

Notes:

As founds completed. Instrument span adjusted to fix dipping issue.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4921	79.4	8.91	9.56	0.933
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.56	Prev response	8.90	*% change	6.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4921	79.4	8.91	8.91	1.001
Mid point	4960	39.7	4.46	4.39	1.015
Low point	4980	19.8	2.22	2.21	1.008
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.92	0.999
Average Correction Factor					1.008

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4921	79.4	8.01	7.92	1.011
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.92	Prev response	7.99	*% change	-0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	Limit = 0.95-1.05
High point	4921	79.4	8.01	7.89	1.015
Mid point	4960	39.7	4.00	3.87	1.034
Low point	4980	19.8	2.00	1.94	1.030
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	7.91	1.013
Average Correction Factor					1.026

Calibration Statistics

	Start	Finish
THC Cal Slope:	1.000457	0.992730
THC Cal Offset:	-0.039380	-0.044201
CH ₄ Cal Slope:	1.003184	0.985690
CH ₄ Cal Offset:	-0.040184	-0.026416
NMHC Cal Slope:	0.999161	0.999081
NMHC Cal Offset:	-0.000194	-0.018384

Calibration Performed By: Devin Russell



Wood Buffalo Environmental Association

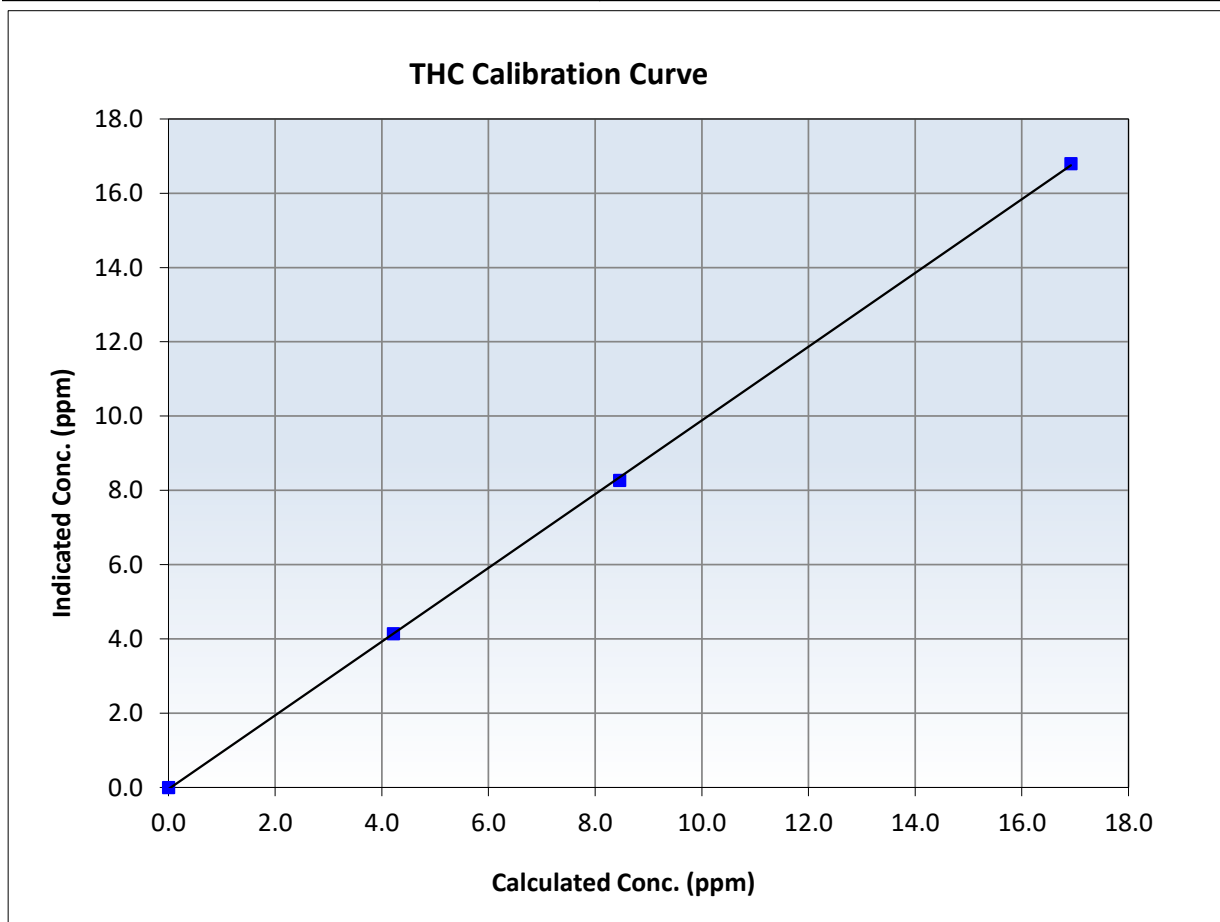
THC Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	June 17, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:30	End Time (MST):	11:55
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999928	≥ 0.995
16.92	16.80	1.0074	Slope	0.992730	$0.90 - 1.10$
8.46	8.27	1.0231	Intercept	-0.044201	± 0.5
4.22	4.14	1.0185			





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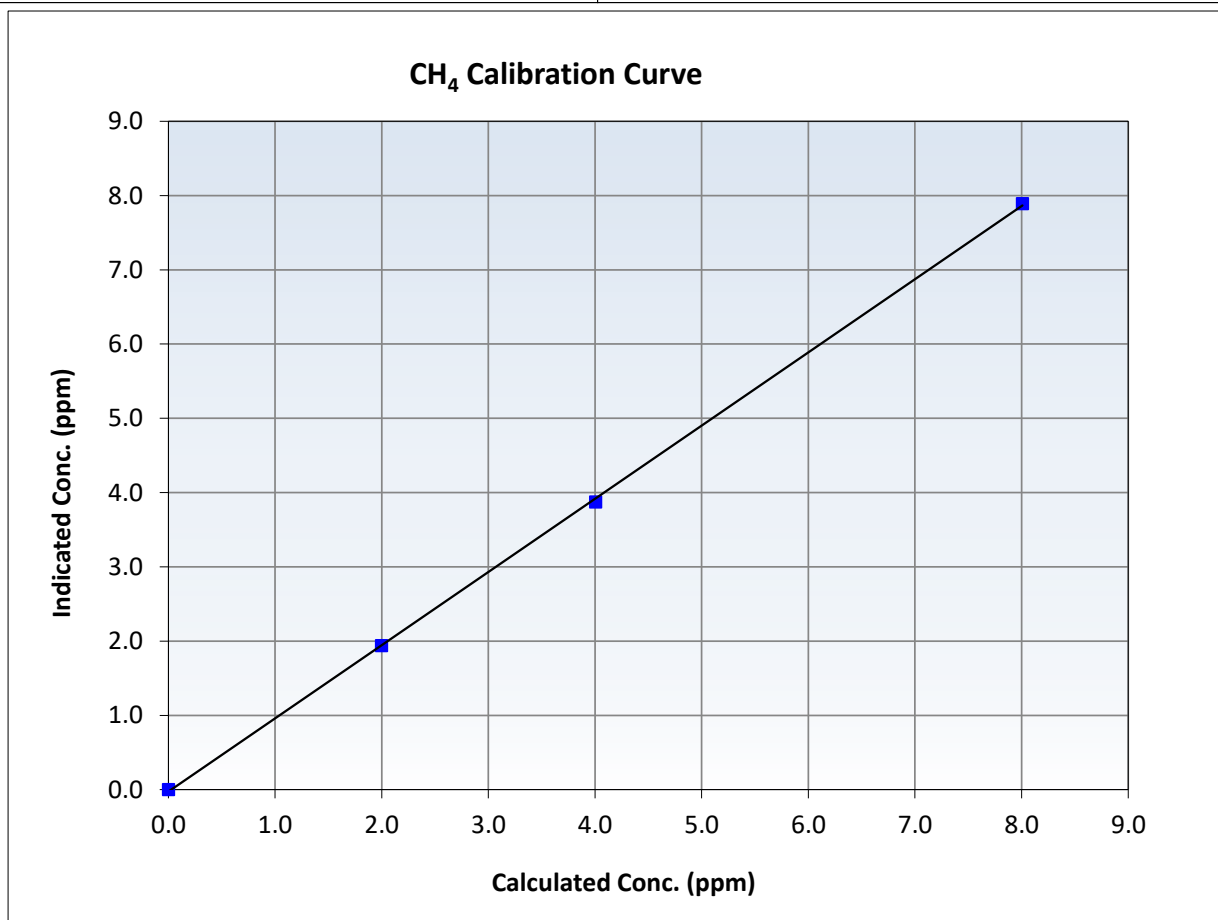
CH₄ Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	June 17, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:30	End Time (MST):	11:55
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999898	≥ 0.995
8.01	7.89	1.0148	Slope	0.985690	$0.90 - 1.10$
4.00	3.87	1.0337	Intercept	-0.026416	± 0.5
2.00	1.94	1.0305			





Wood Buffalo Environmental Association

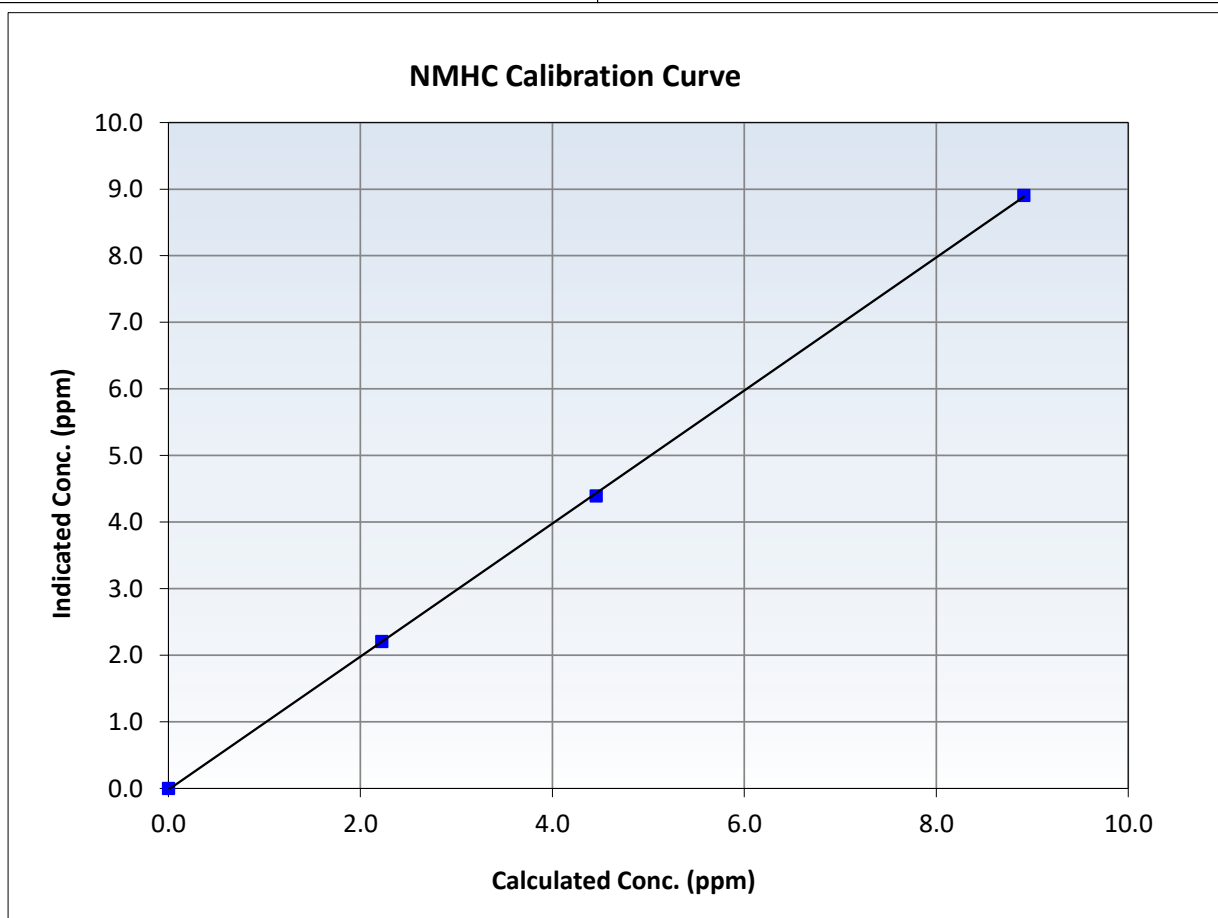
NMHC Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	June 17, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:30	End Time (MST):	11:55
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

Calibration Data

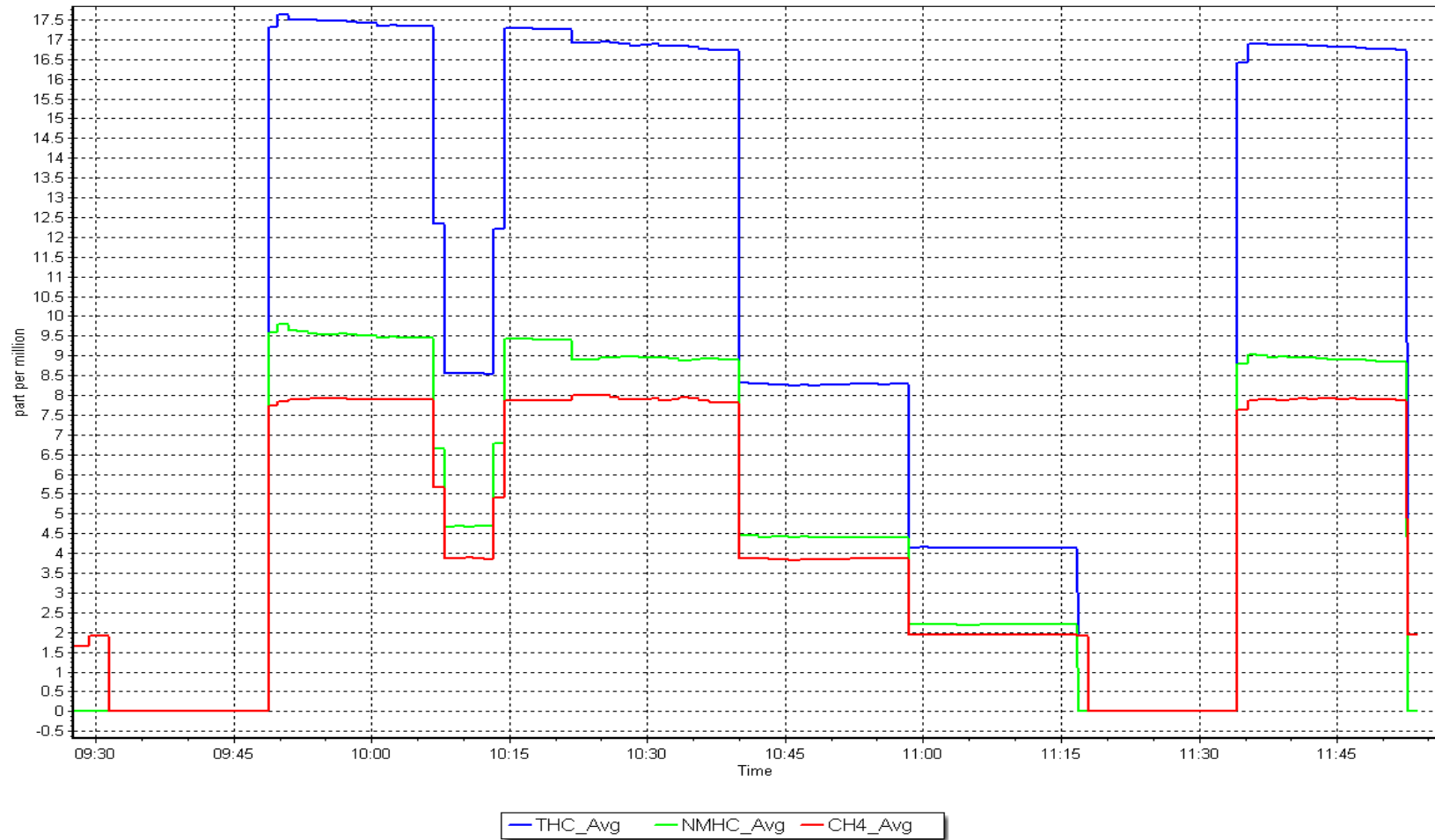
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.00	0.00	----	Correlation Coefficient	0.999941	≥ 0.995
8.91	8.91	1.0007	Slope	0.999081	0.90 - 1.10
4.46	4.39	1.0148	Intercept	-0.018384	± 0.5
2.22	2.21	1.0076			



NMHC Calibration Plot

Date: June 19, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Fort Hills
 Calibration Date: June 23, 2026
 Start time (MST): 13:48
 Reason: Install

Station number: AMS 23
 Last Cal Date: NA
 End time (MST): 15:48

Calibration Standards

Gas Cert Reference: CC484463
 CH₄ Cal Gas Conc. 504.3 ppm
 C₃H₈ Cal Gas Conc. 204.1 ppm
 Removed Gas Cert:
 Removed CH₄ Conc. 504.3 ppm
 Removed C₃H₈ Conc. 204.1 ppm
 Diff between cyl (CH₄):
 Calibrator Model: API T700
 Zero Air Gen model: API T701

Cal Gas Expiry Date: October 9, 2032
 CH₄ Equiv Conc. 1065.6 ppm
 Removed Gas Expiry:
 CH₄ Equiv Conc. 1065.6 ppm
 Diff between cyl (THC):
 Diff between cyl (NM):
 Serial Number: 5762
 Serial Number: 1117

Analyzer Information

Analyzer make: Thermo 55i
 THC Range: 0 - 20 ppm

Analyzer serial #: 1172750023
 NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	NA		NMHC SP Ratio:	NA
CH ₄ Retention time:	NA		NMHC Peak Area:	NA
Zero Chromatogram:	OFF	ON	Flat Baseline:	OFF ON

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.02	----
High point	4921	79.4	16.92	16.91	1.001
Mid point	4960	39.7	8.46	8.41	1.006
Low point	4980	19.8	4.22	4.22	1.000
As left zero	5000	0.0	0.00	0.02	----
As left span	4921	79.4	16.92	16.91	1.001
Average Correction Factor					1.002

Notes:

Installation calibration.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.91	8.90	1.002
Mid point	4960	39.7	4.46	4.43	1.006
Low point	4980	19.8	2.22	2.22	1.001
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.90	1.002
Average Correction Factor					1.003

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.01	8.02	0.999
Mid point	4960	39.7	4.00	3.98	1.007
Low point	4980	19.8	2.00	2.00	0.999
As left zero	5000	0.0	0.00	0.02	----
As left span	4921	79.4	8.01	8.02	0.999
Average Correction Factor					1.001

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	NA	0.998288
THC Cal Offset:	NA	0.001421
CH ₄ Cal Slope:	NA	1.000957
CH ₄ Cal Offset:	NA	-0.006384
NMHC Cal Slope:	NA	0.997889
NMHC Cal Offset:	NA	-0.002988

Calibration Performed By: Mohammed Kashif



Wood Buffalo Environmental Association

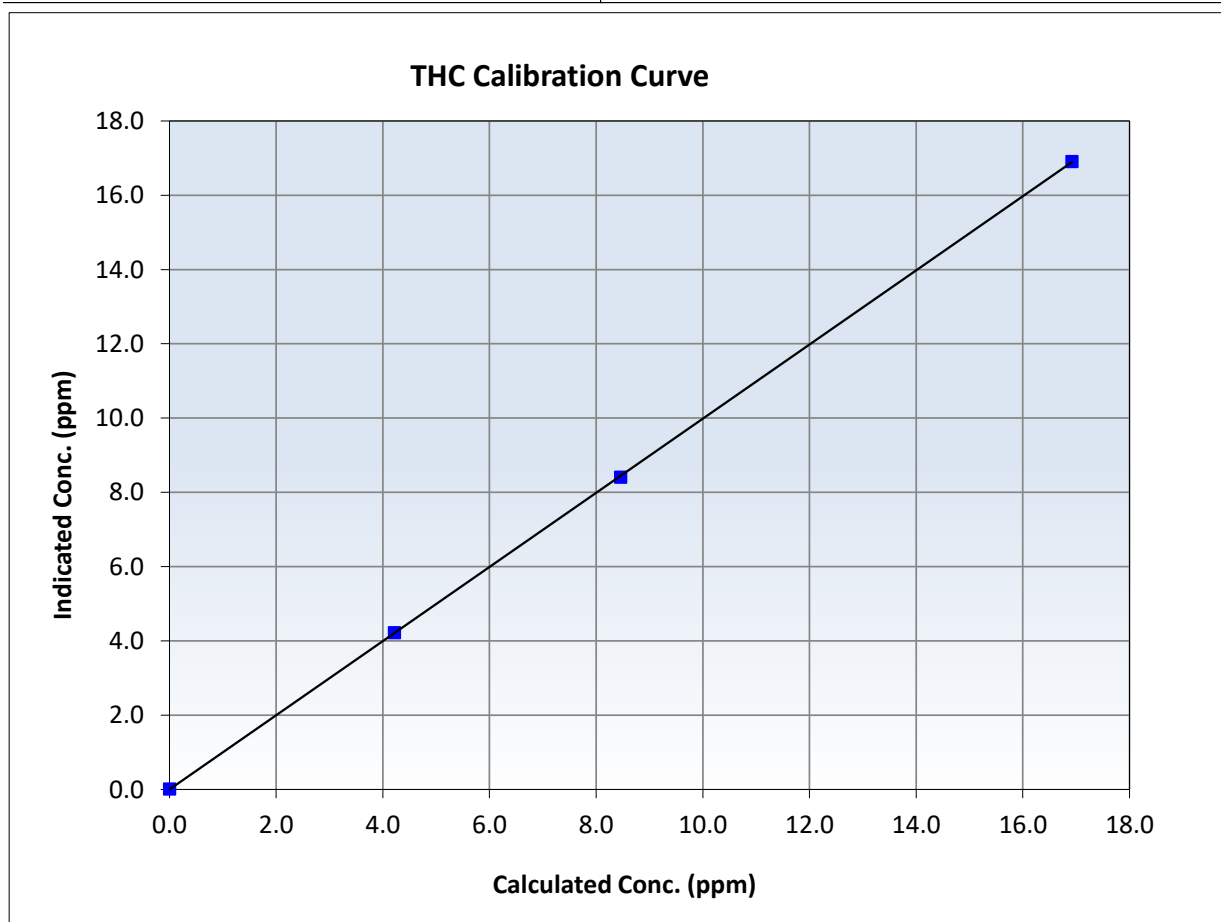
THC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	13:48	End Time (MST):	15:48
Analyzer make:	Thermo 55i	Analyzer serial #:	1172750023

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.02	----	Correlation Coefficient	0.999986	<i>≥0.995</i>
16.92	16.91	1.0005	Slope	0.998288	<i>0.90 - 1.10</i>
8.46	8.41	1.0063	Intercept	0.001421	<i>+/-0.5</i>
4.22	4.22	1.0000			





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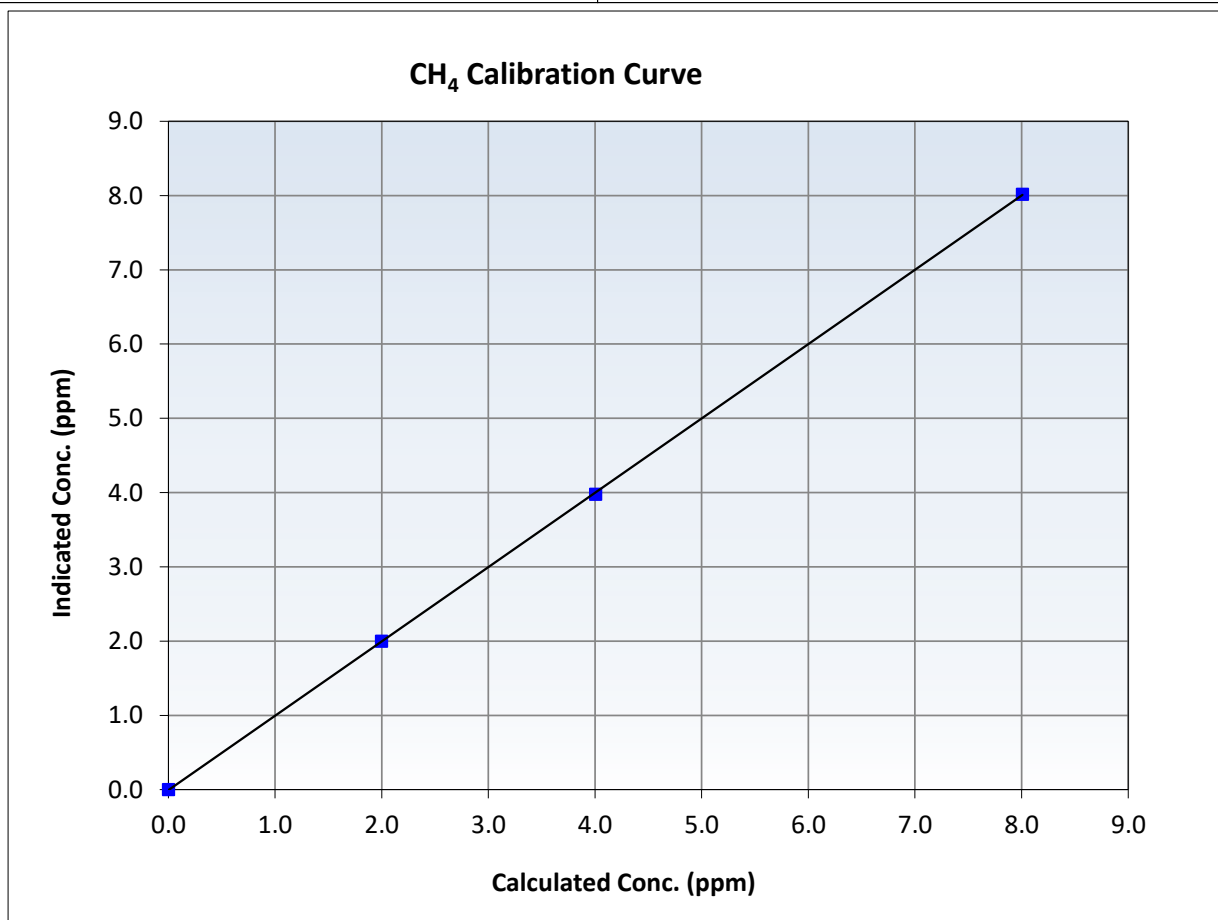
CH₄ Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	13:48	End Time (MST):	15:48
Analyzer make:	Thermo 55i	Analyzer serial #:	1172750023

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999978	<i>≥0.995</i>
8.01	8.02	0.9986	Slope	1.000957	<i>0.90 - 1.10</i>
4.00	3.98	1.0066	Intercept	-0.006384	<i>+/-0.5</i>
2.00	2.00	0.9986			





Wood Buffalo Environmental Association

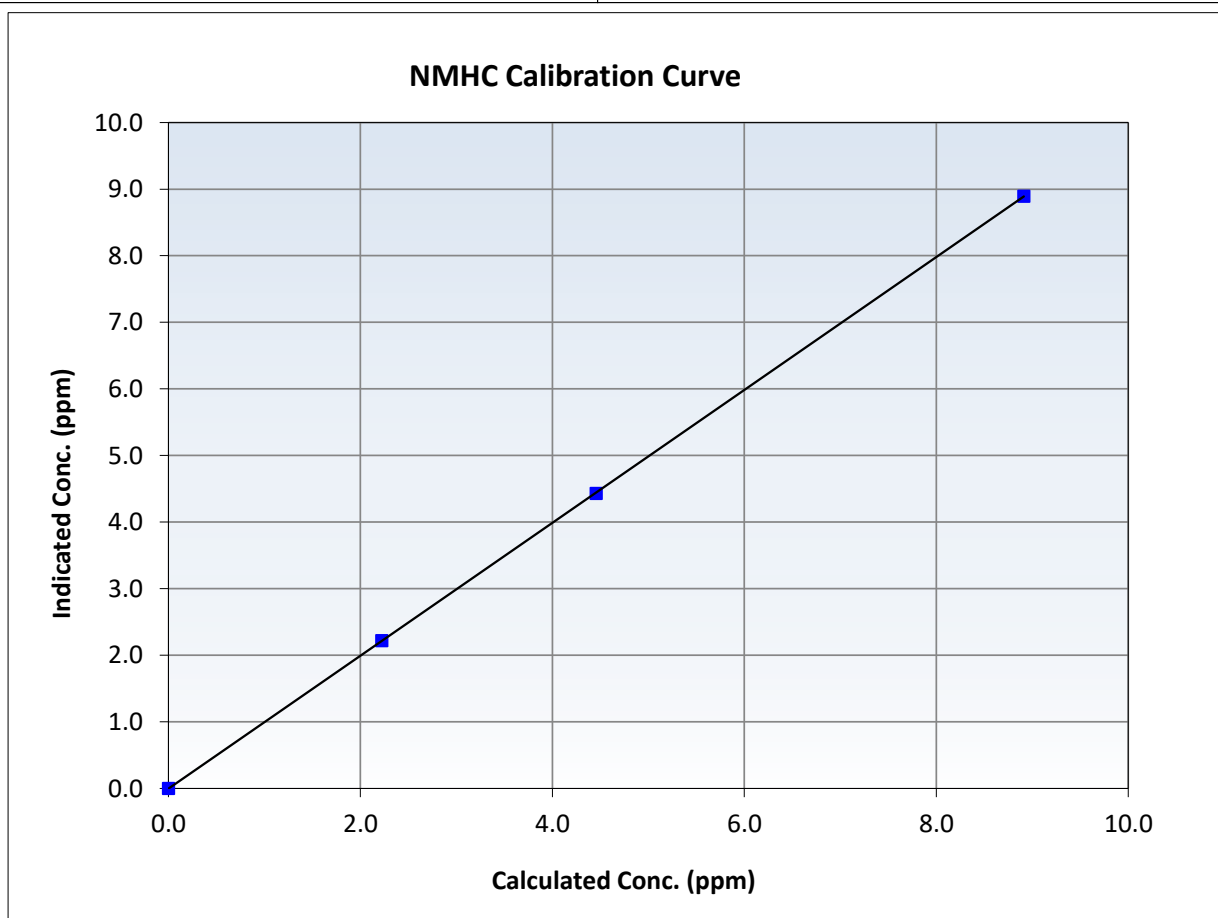
NMHC Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	13:48	End Time (MST):	15:48
Analyzer make:	Thermo 55i	Analyzer serial #:	1172750023

Calibration Data

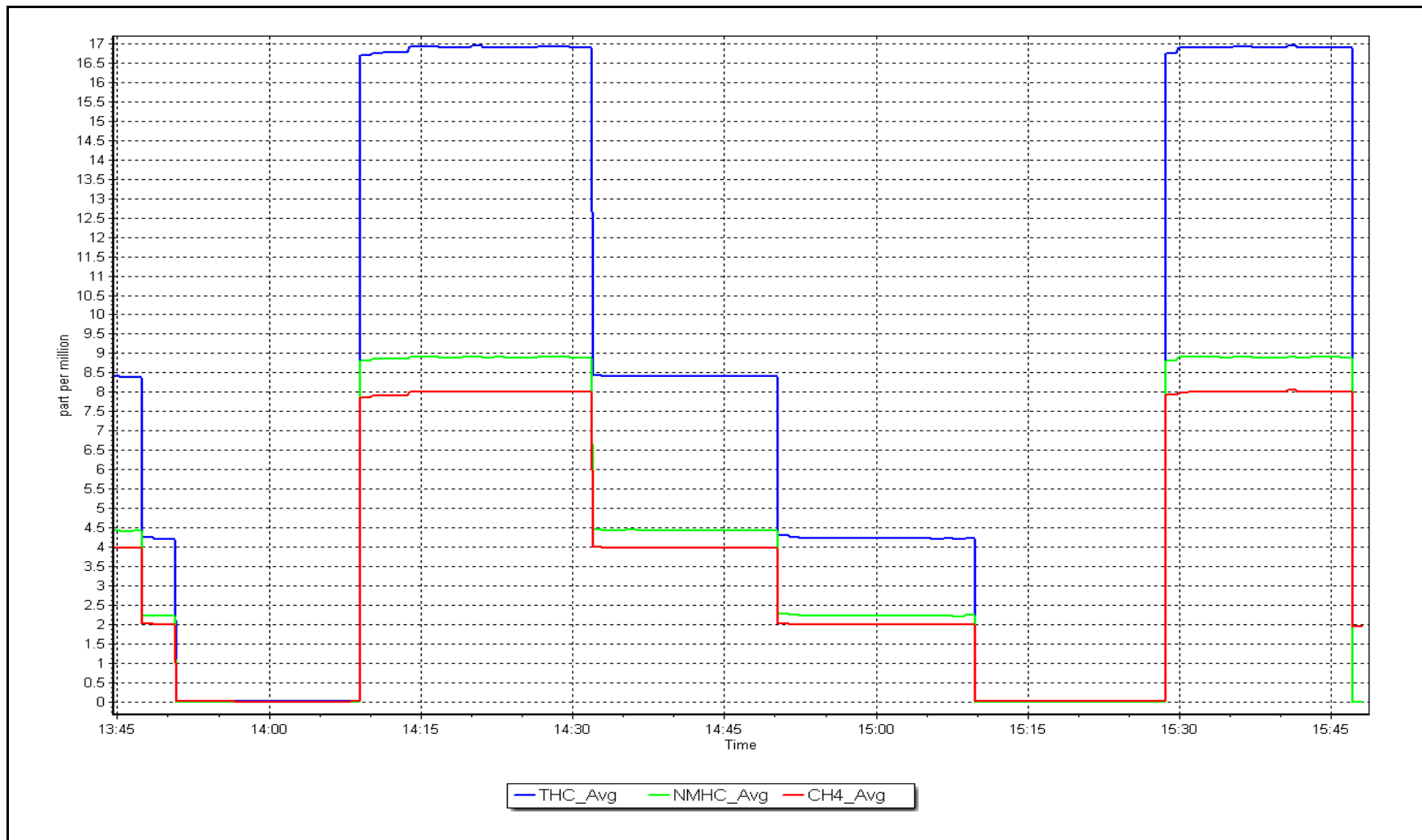
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999994	<i>≥0.995</i>
8.91	8.90	1.0018	Slope	0.997889	<i>0.90 - 1.10</i>
4.46	4.43	1.0058	Intercept	-0.002988	<i>+/-0.5</i>
2.22	2.22	1.0012			



NMHC Calibration Plot

Date: June 23, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort Hills
Station number: AMS 23
Calibration Date: June 5, 2026
Last Cal Date: May 12, 2026
Start time (MST): 10:03
End time (MST): 15:49
Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC358149
NOX Cal Gas Conc: 60.30 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 60.30 ppm
NOX gas Diff:
Calibrator Model: T750
ZAG make/model: API T701
Cal Gas Expiry Date: January 5, 2032
NO Cal Gas Conc: 60.10 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 60.10 ppm
NO gas Diff:
Serial Number: 281
Serial Number: 1117

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	0.0	0.1	----	----
AF High point	4933	66.6	803.3	800.6	2.7	818.5	811.5	7.0	0.9815	0.9866
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 802.0 ppb	NO = 800.6 ppb	<i>* = > +/-5% change initiates investigation</i>		*Percent Change	NO _x = 2.0%
Baseline Corr 1st pt	NO _x = 818.4 ppb	NO = 811.5 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 1.3%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1152430007

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.977	0.961	NO bkgnd or offset:	2.9	2.8
NOX coeff or slope:	0.991	0.988	NOX bkgnd or offset:	2.9	2.9
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	150.6	148.7

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.996002	0.997598
NO _x Cal Offset:	1.992624	0.032323
NO Cal Slope:	0.999062	1.002418
NO Cal Offset:	0.731930	-1.368179
NO ₂ Cal Slope:	0.998010	0.994947
NO ₂ Cal Offset:	0.196426	-1.034899

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	0.2	0.0	----	----
High point	4933	66.6	803.3	800.6	2.7	802.0	802.5	-0.4	1.0016	0.9976
Mid point	4967	33.3	401.6	400.2	1.3	398.9	397.4	1.4	1.0067	1.0072
Low point	4983	16.6	200.2	199.5	0.7	200.7	198.2	2.5	0.9976	1.0068
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.1	0.1	----	----
As left span	4933	66.6	803.3	402.0	401.3	800.5	402.0	398.5	1.0034	1.0000
Average Correction Factor									1.0019	1.0039

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	796.4	399.3	399.8	397.3	1.0062	99.4%
Mid GPT point	796.4	597.0	202.1	199.3	1.0139	98.6%
Low GPT point	796.4	697.7	101.4	98.9	1.0249	97.6%
Average Correction Factor					1.0150	98.5%

Notes:

Changed sample inlet filter after as founds. Adjusted span only.

Calibration Performed By:

Mohammed Kashif



Wood Buffalo Environmental Association

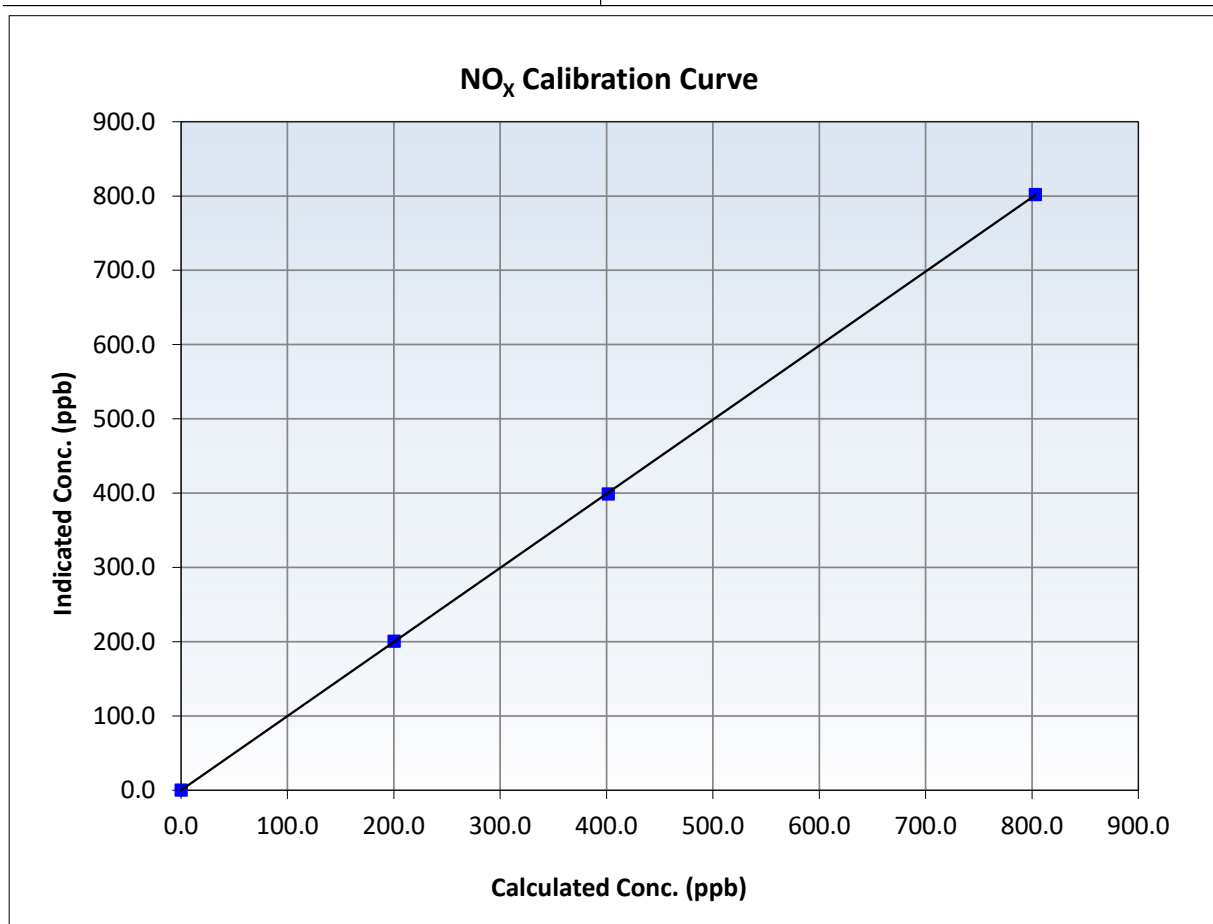
NO_x Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 12, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:03	End Time (MST):	15:49
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999988	≥0.995
803.3	802.0	1.0016	Slope	0.997598	0.90 - 1.10
401.6	398.9	1.0067	Intercept	0.032323	+/-20
200.2	200.7	0.9976			





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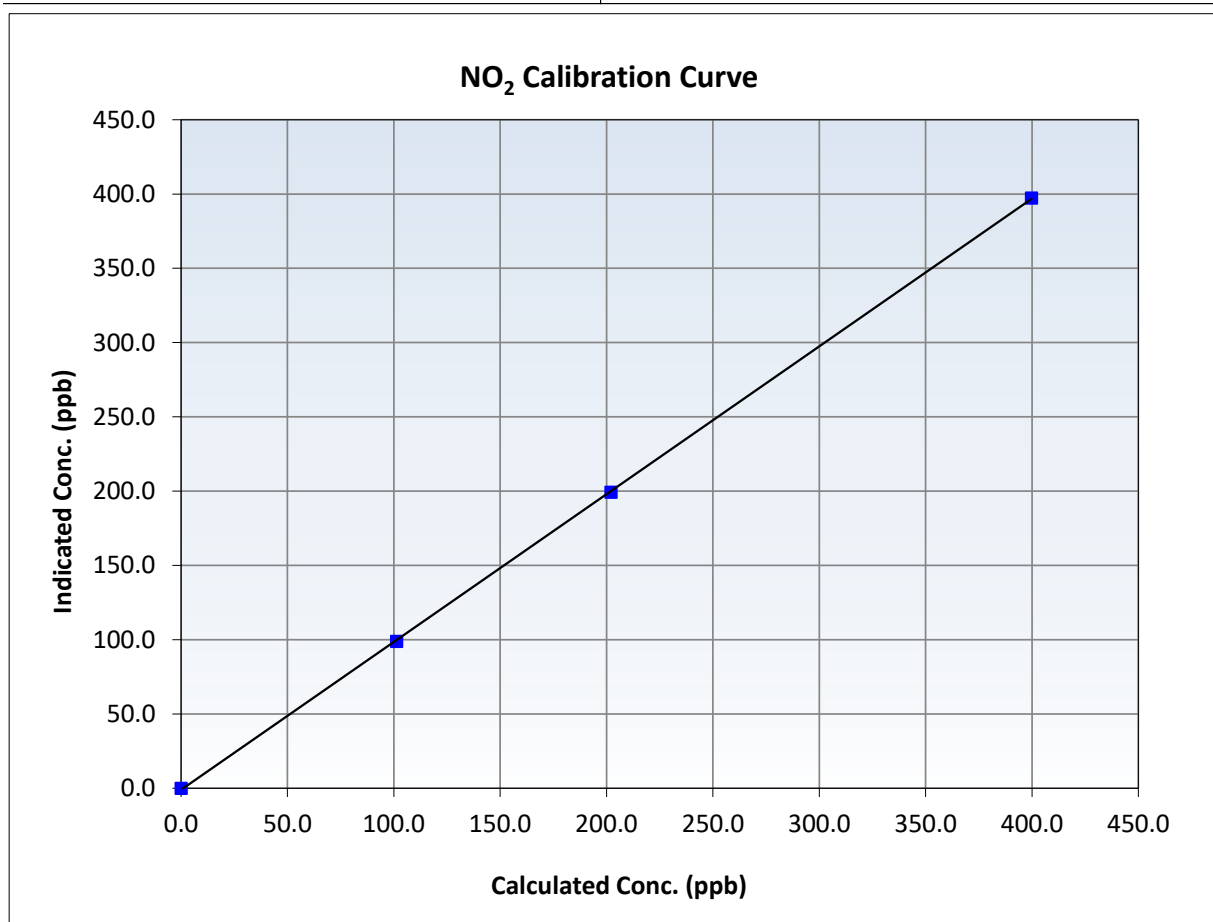
NO₂ Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 12, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:03	End Time (MST):	15:49
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999968	≥0.995
399.8	397.3	1.0062	Slope	0.994947	0.90 - 1.10
202.1	199.3	1.0139	Intercept	-1.034899	+/-20
101.4	98.9	1.0249			





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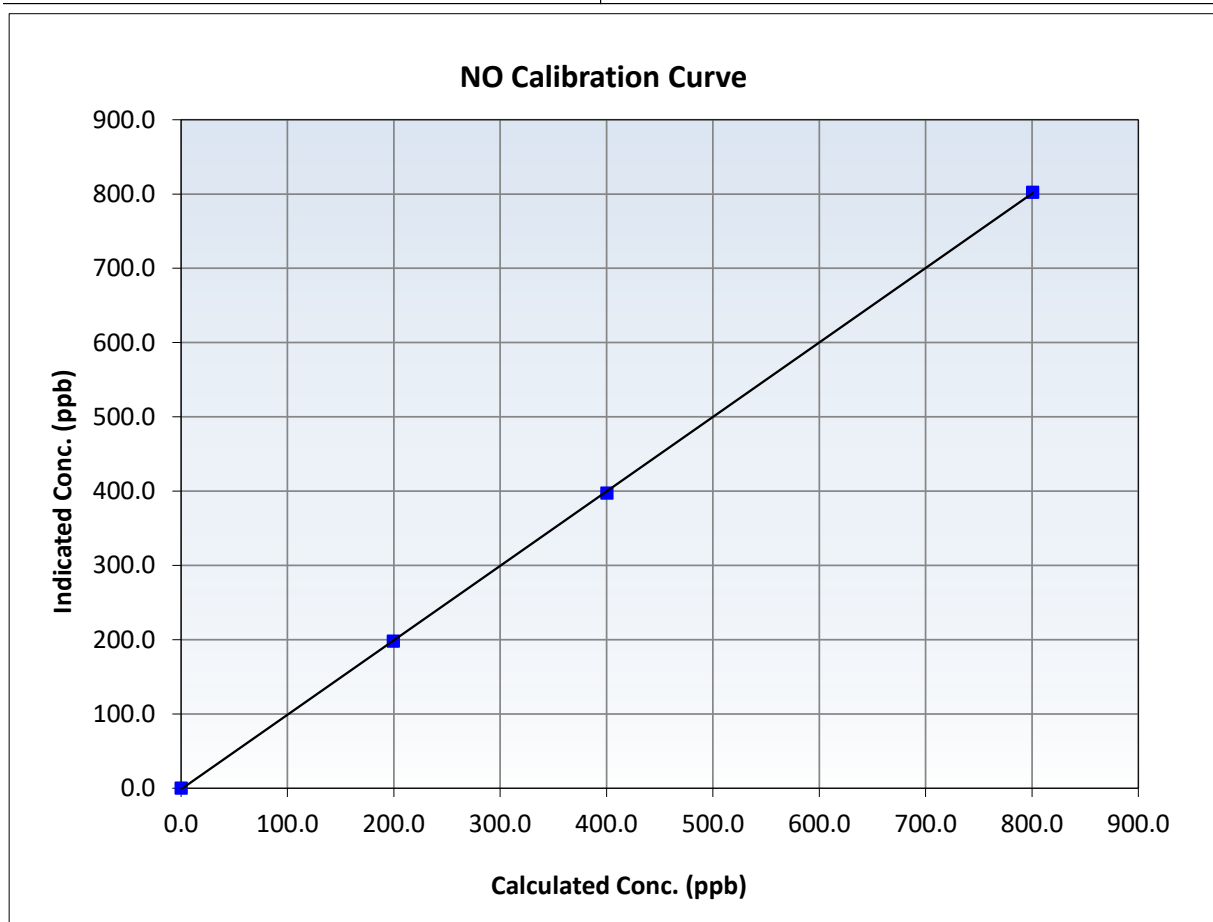
NO Calibration Summary

Station Information

Calibration Date:	June 5, 2026	Previous Calibration:	May 12, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:03	End Time (MST):	15:49
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

Calibration Data

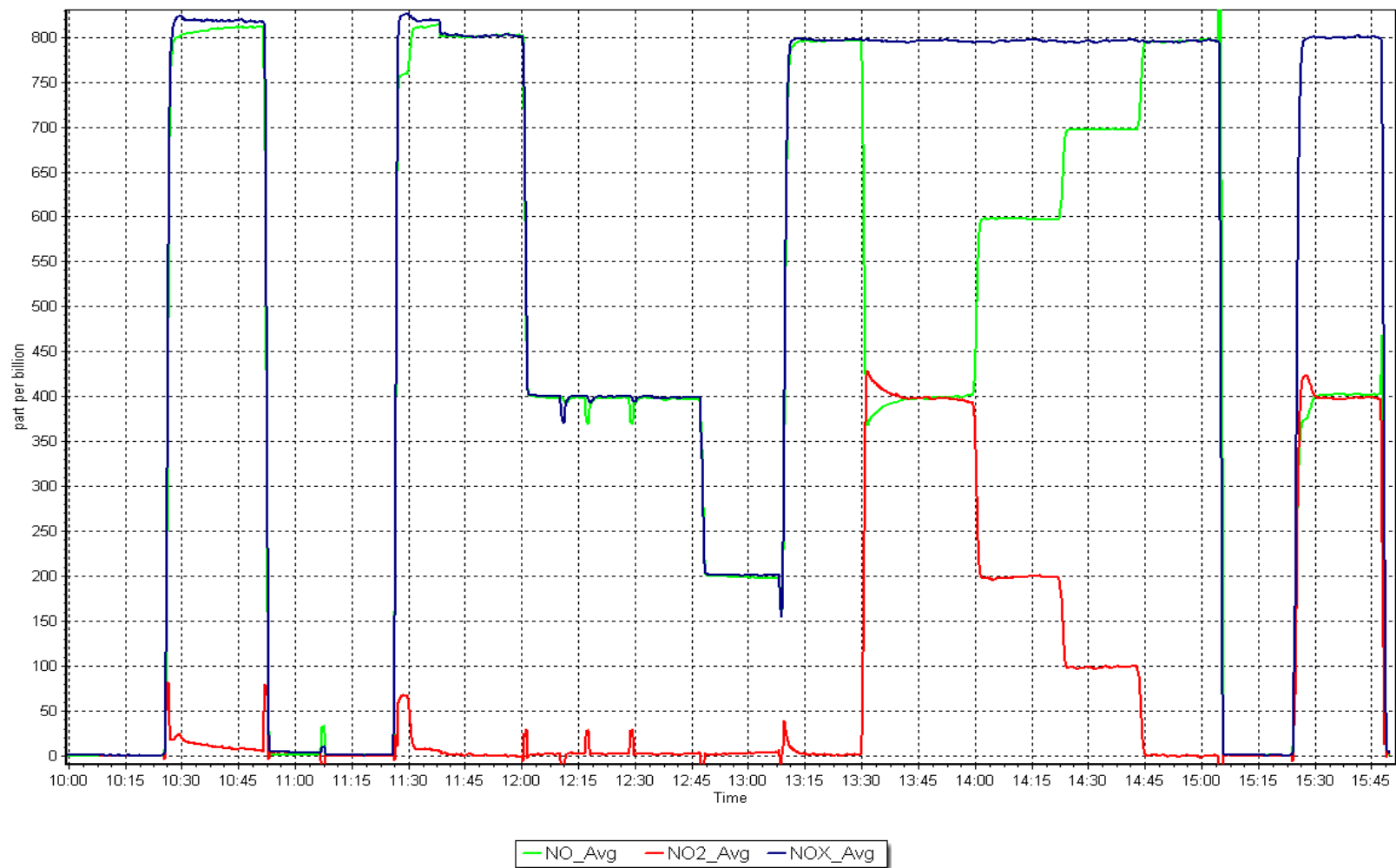
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999970	≥ 0.995
800.6	802.5	0.9976	Slope	1.002418	0.90 - 1.10
400.2	397.4	1.0072	Intercept	-1.368179	+/-20
199.5	198.2	1.0068			



NO_x Calibration Plot

Date: June 5, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Fort Hills
Station number: AMS 23
Calibration Date: June 12, 2026
Last Cal Date: NA
Start time (MST): 9:36
End time (MST): 14:21
Reason: Install

Calibration Standards

NO Gas Cylinder #: CC358149
NOX Cal Gas Conc: 60.30 ppm
Removed Cylinder #:
Removed Gas NOX Conc: 60.30 ppm
NOX gas Diff:
Calibrator Model: T700
ZAG make/model: API T701
Cal Gas Expiry Date: January 5, 2032
NO Cal Gas Conc: 60.10 ppm
Removed Gas Exp Date:
Removed Gas NO Conc: 60.10 ppm
NO gas Diff:
Serial Number: 5762
Serial Number: 1117

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
-----------	------------------------------	--------------------------------	---	--	---	--	---	--	--	---

As found zero
AF High point
AF Mid point
AF Low point
New cyl resp

Previous Response	NO _x = NA	ppb	NO = NA	ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = NA
Baseline Corr 1st pt	NO _x = NA	ppb	NO = NA	ppb	<u>As Found Statistics</u>		*Percent Change	NO = NA
Baseline Corr 2nd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO r ² :	NO SI:	NO Int:
					As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	---	--	--	---	--	--

As Found GPT zero
As found high GPT point
As found mid GPT point
As found low GPT point



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: API T200
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 4260

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	NA	0.470	NO bkgnd or offset:	NA	-1.1
NOX coeff or slope:	NA	0.464	NOX bkgnd or offset:	NA	-0.1
NO2 coeff or slope:	NA	1.000	Reaction cell Press:	NA	8.3

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	NA	1.000713
NO _x Cal Offset:	NA	0.312910
NO Cal Slope:	NA	1.004359
NO Cal Offset:	NA	-1.247618
NO ₂ Cal Slope:	NA	0.990115
NO ₂ Cal Offset:	NA	-0.098904

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.4	0.1	0.3	----	----
High point	4933	66.6	803.3	800.6	2.7	804.5	804.0	0.6	0.9985	0.9958
Mid point	4967	33.3	401.6	400.2	1.3	401.2	398.6	2.5	1.0009	1.0041
Low point	4983	16.6	200.2	199.5	0.7	201.2	198.8	2.4	0.9951	1.0038
As left zero	5000	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	----	----
As left span	4933	66.6	803.3	409.1	394.2	797.1	409.1	388.0	1.0077	1.0000
Average Correction Factor									0.9982	1.0012

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.3	----	----
High GPT point	799.0	409.6	392.1	388.1	1.0102	99.0%
Mid GPT point	799.0	605.3	196.4	194.7	1.0085	99.2%
Low GPT point	799.0	702.5	99.2	97.3	1.0192	98.1%
Average Correction Factor					1.0126	98.8%

Notes:

Install calibration. Adjusted span only.

Calibration Performed By:

Mohammed Kashif



Wood Buffalo Environmental Association

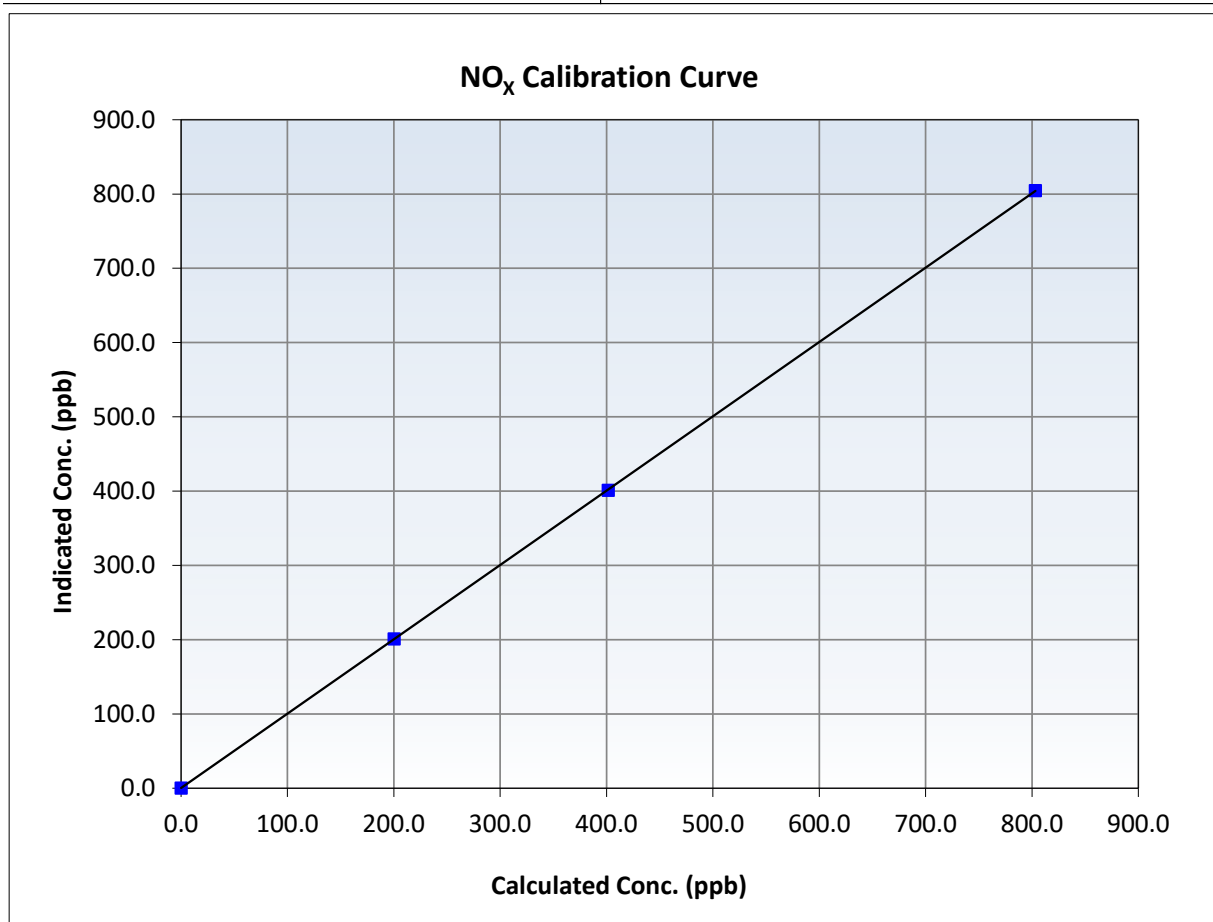
NO_x Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:36	End Time (MST):	14:21
Analyzer make:	API T200	Analyzer serial #:	4260

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999996	≥ 0.995
803.3	804.5	0.9985	Slope	1.000713	$0.90 - 1.10$
401.6	401.2	1.0009	Intercept	0.312910	± 20
200.2	201.2	0.9951			





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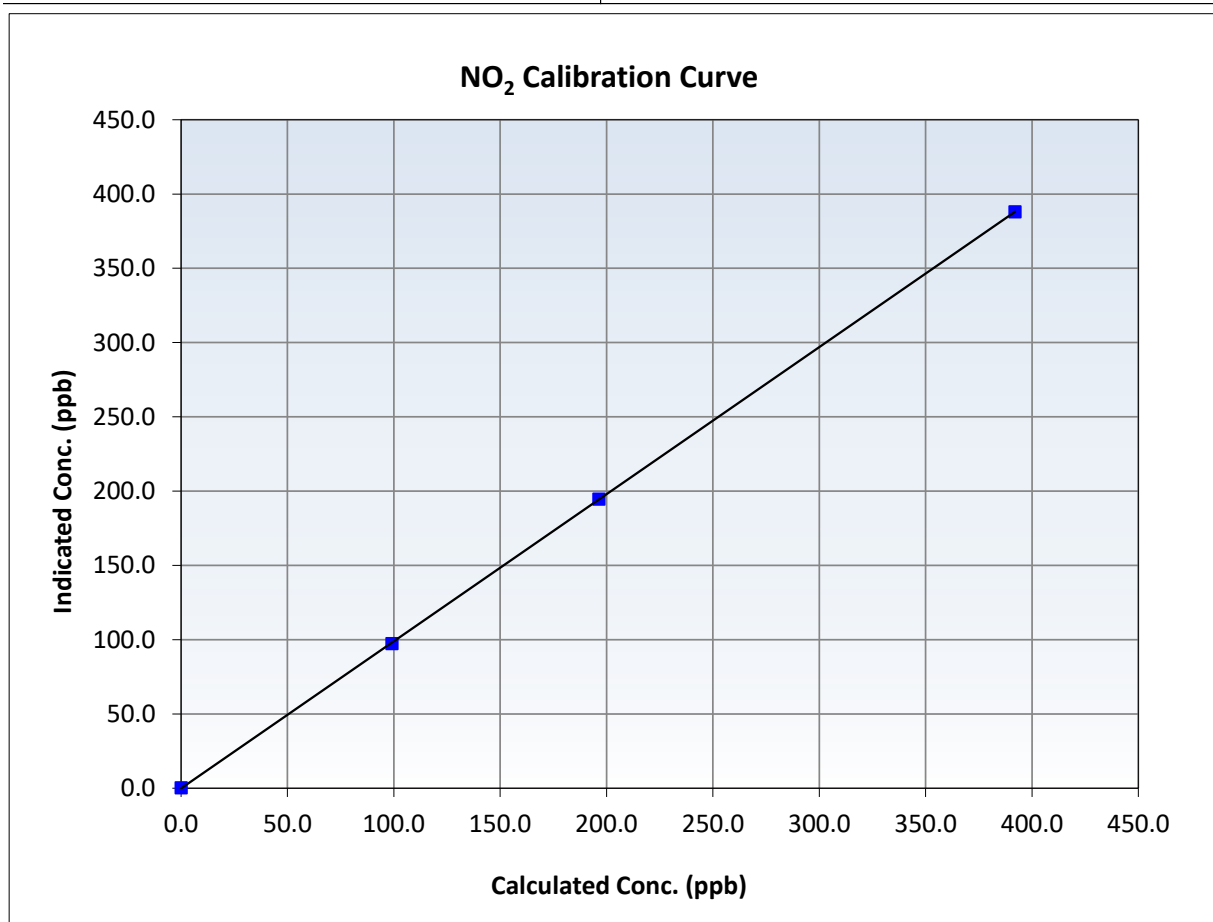
NO₂ Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:36	End Time (MST):	14:21
Analyzer make:	API T200	Analyzer serial #:	4260

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999989	≥ 0.995
392.1	388.1	1.0102	Slope	0.990115	$0.90 - 1.10$
196.4	194.7	1.0085	Intercept	-0.098904	± 20
99.2	97.3	1.0192			





Wood Buffalo Environmental Association

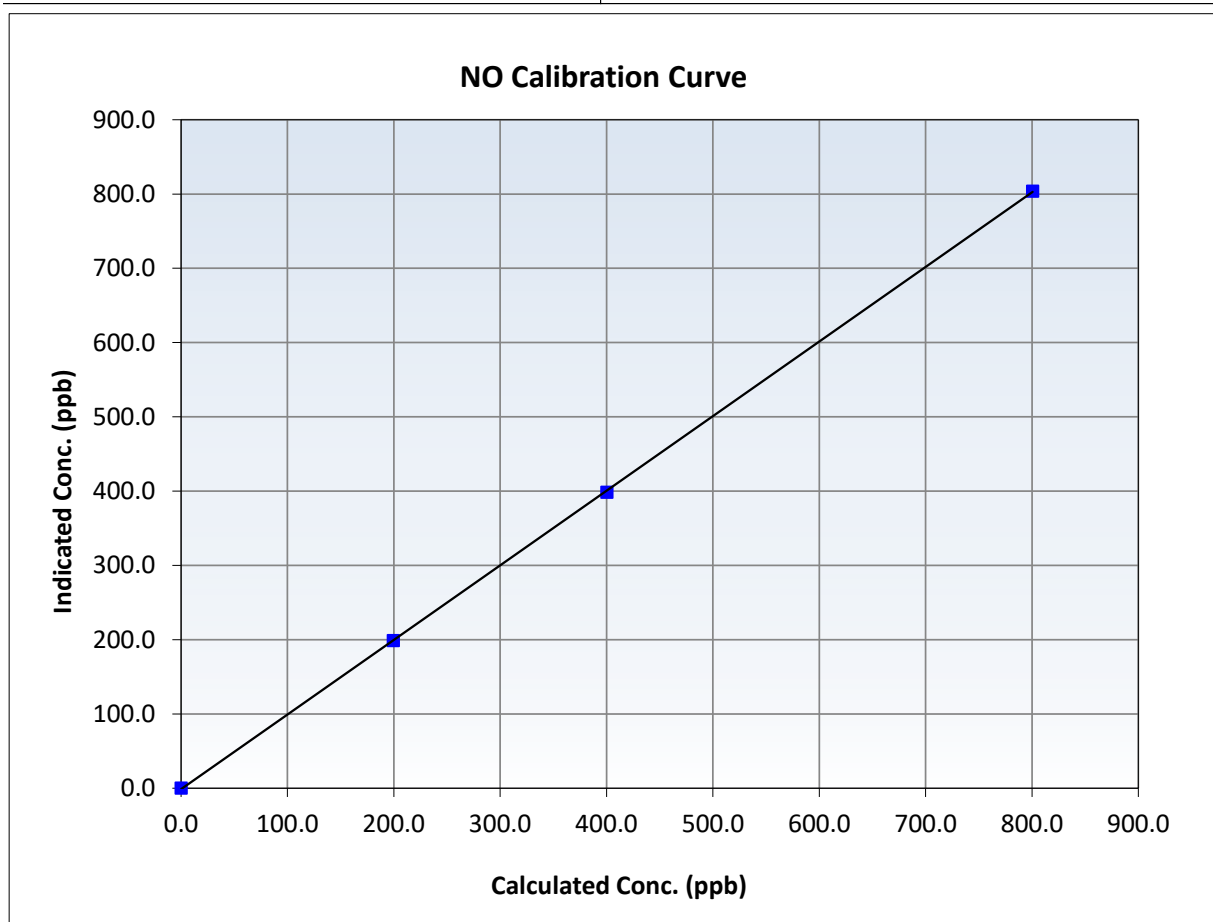
NO Calibration Summary

Station Information

Calibration Date:	June 12, 2026	Previous Calibration:	NA
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	9:36	End Time (MST):	14:21
Analyzer make:	API T200	Analyzer serial #:	4260

Calibration Data

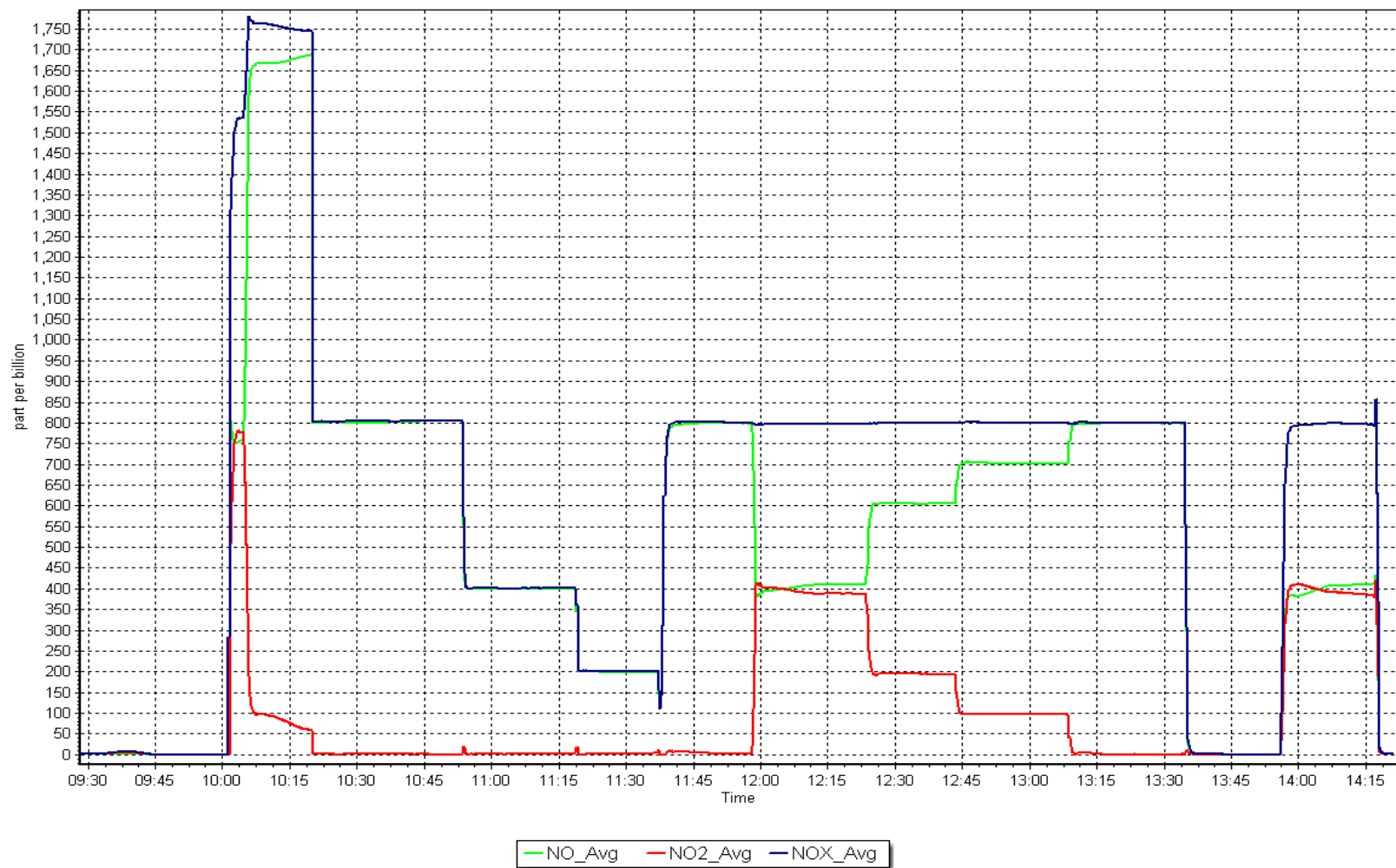
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999978	≥ 0.995
800.6	804.0	0.9958	Slope	1.004359	$0.90 - 1.10$
400.2	398.6	1.0041	Intercept	-1.247618	± 20
199.5	198.8	1.0038			



NO_x Calibration Plot

Date: June 12, 2026

Location: Fort Hills





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Fort Hills Station number: AMS 23
Calibration Date: June 12, 2026 Last Cal Date: May 12, 2026
Start time (MST): 12:49 End time (MST): 13:36

Analyzer Make: API T640 S/N: 320
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749
Temp/RH standard: Alicat FP-25BT S/N: 388749

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	16.6	16.39	16.6	☐	+/- 2 °C
P (mmHg)	739	738.27	739	☐	+/- 10 mmHg
Flow (LPM)	5.02	5.012	5.02	☐	+/- 0.25 LPM
PW% (pump)	32	----	32	☐	>80%
Zero Verification	PM w/o HEPA: 161.8		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 16-Jul-26
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.2	10.9	10.9	☒	+/- 0.5

Date Optical Chamber Cleaned: June 12, 2026
Date Disposable Filter Changed: June 12, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: June 12, 2026
Date RH/T Sensor Cleaned: June 12, 2026

Notes: Leak check, flow, and PMT were checked before and after cleaning. After cleaning the optical chamber, the PMT verified at 10.9 and no adjustments made. Leak check passed.

Calibration by: Mohammed Kashif



Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Fort Hills Station number: AMS 23
Calibration Date: June 22, 2026 Last Cal Date: June 12, 2026
Start time (MST): 9:50 End time (MST): 10:30

Analyzer Make: API T640 S/N: 320
Particulate Fraction: PM_{2.5}

Flow Meter Make/Model: Alicat FP-25BT S/N: 388755
Temp/RH standard: Alicat FP-25BT S/N: 388755

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	20.4	20	20.4	☐	+/- 2 °C
P (mmHg)	740.4	739.5	740.4	☐	+/- 10 mmHg
Flow (LPM)	5.00	5.04	5.00	☐	+/- 0.25 LPM
PW% (pump)	30	----	30	☐	>80%
Zero Verification	PM w/o HEPA: 8.6		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 16-Jul-26
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.2	10.9	10.9	☒	+/- 0.5

Date Optical Chamber Cleaned: June 12, 2026
Date Disposable Filter Changed: June 12, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: June 12, 2026
Date RH/T Sensor Cleaned: June 12, 2026

Notes: Flow, temperature, pressure and leak check verified. Downloaded internal data and then deleted it from the T640. Flow, temperature, pressure and leak check verified again after power cycle.

Calibration by: Devin Russell



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS25 WASKŌW OHCI PIMÂTISIWIN JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026





Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Waskow ohci Pimatisiwin Station number: AMS 25
Calibration Date: June 1, 2026 Last Cal Date: May 7, 2026
Start time (MST): 9:21 End time (MST): 12:43
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.70 ppm Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #: CC342445
Removed Cal Gas Conc: 49.70 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Model: API T700 Serial Number: 621
Zero Air Gen Model: API T701 Serial Number: 4765

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1118148497
Analyzer Range: 0-1000ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999055	0.999355	Backgd or Offset:	11.7	10.7
Calibration intercept:	0.067513	0.387529	Coeff or Slope:	1.063	1.035

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.6	----
As found High point	4920	80.5	800.1	818.7	0.977
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	819.3	Previous response	799.4	*% change	2.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4920	80.5	800.1	799.9	1.000
Mid point	4960	40.2	399.6	399.6	1.000
Low point	4980	20.1	199.8	200.5	0.996
As left zero	5000	0.0	0.0	0.2	----
As left span	4920	80.5	800.1	801.5	0.998
Average Correction Factor:					0.999

Notes: Changed the inlet filter after as founds. Adjusted the zero and span.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

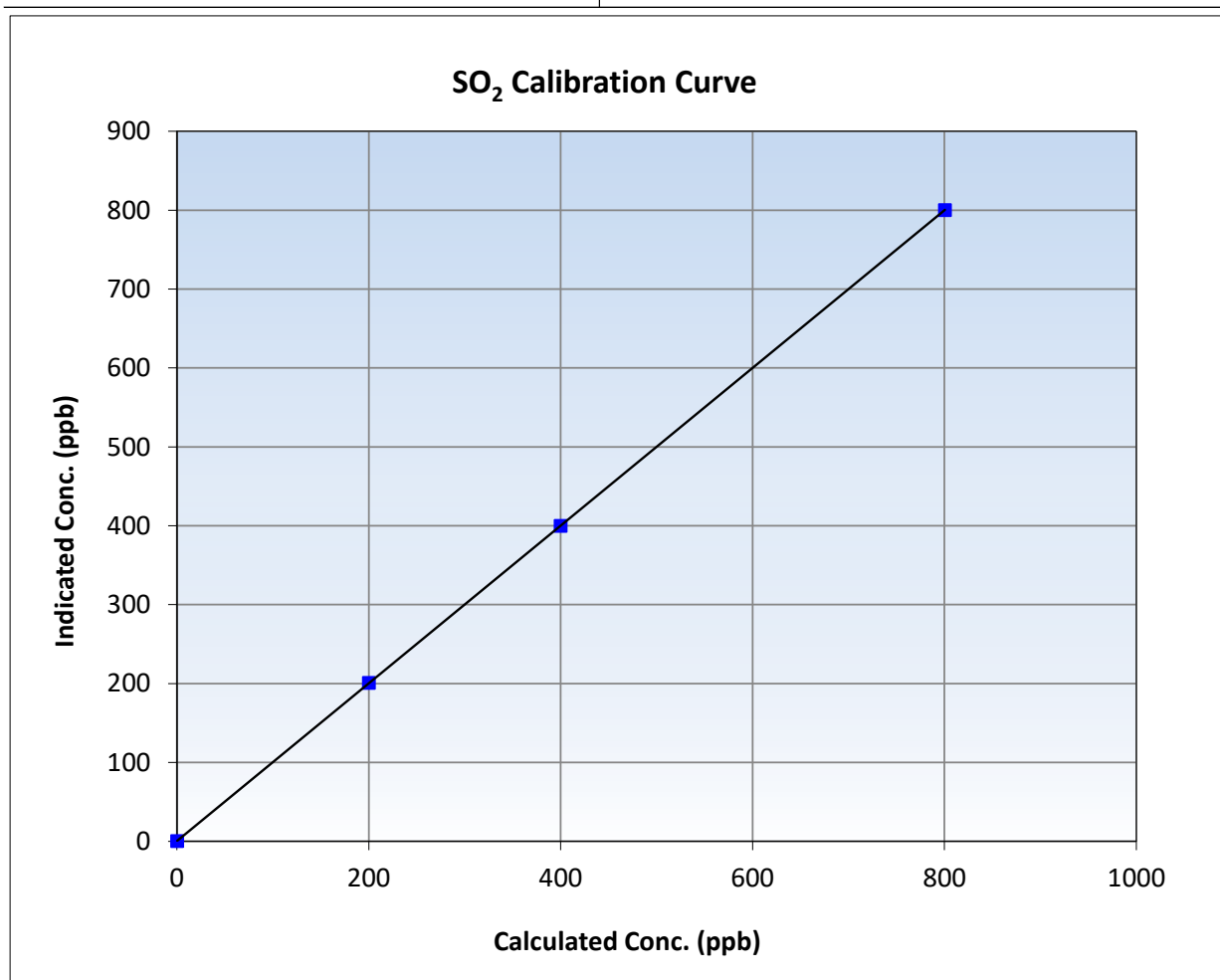
SO₂ Calibration Summary

Station Information

Calibration Date:	June 1, 2026	Previous Calibration:	May 7, 2026
Station Name:	Waskow ohci Pimatisiwin	Station Number:	AMS 25
Start Time (MST):	9:21	End Time (MST):	12:43
Analyzer make:	Thermo 43i	Analyzer serial #:	1118148497

Calibration Data

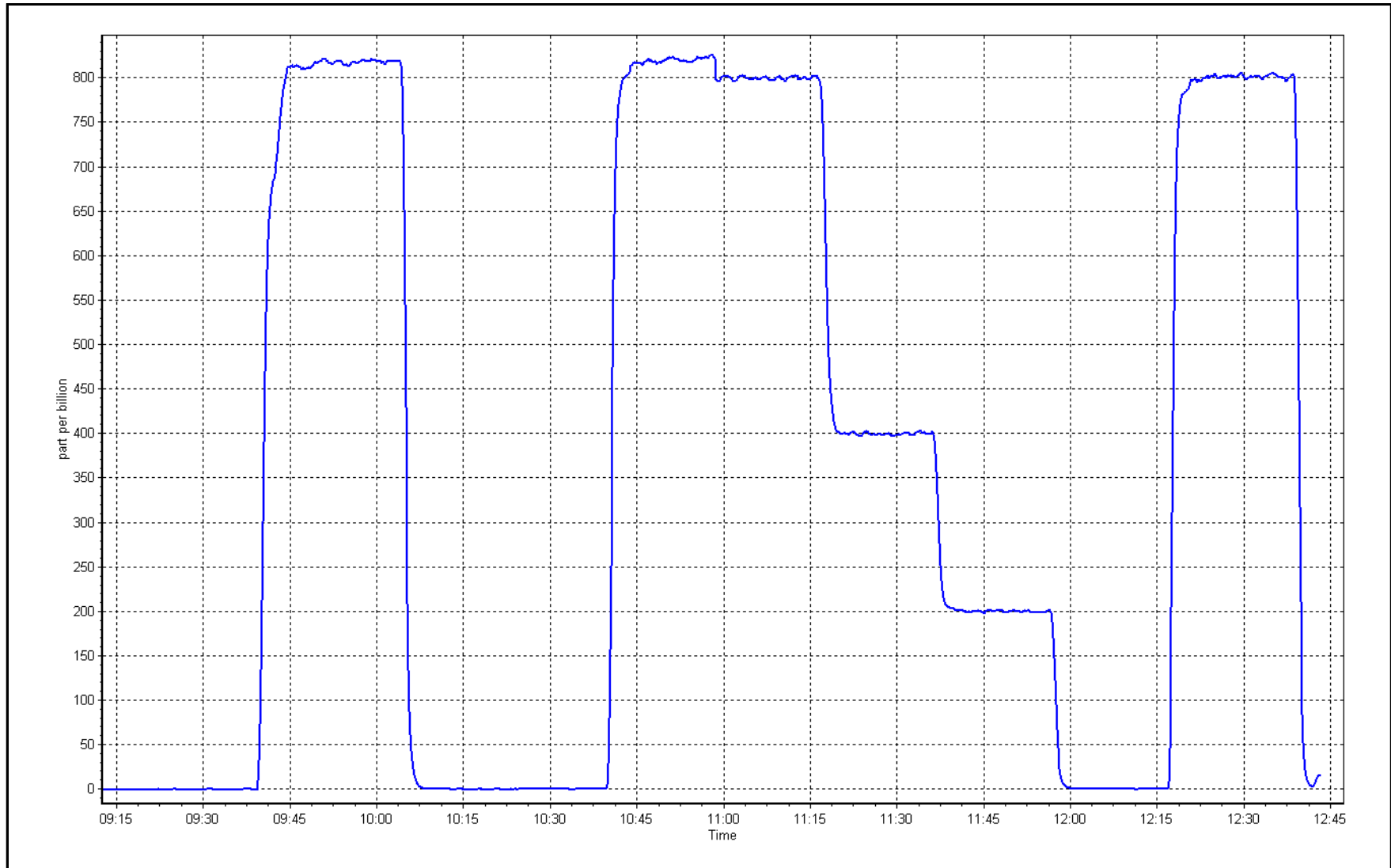
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999999	≥0.995
800.1	799.9	1.0002	Slope	0.999355	0.90 - 1.10
399.6	399.6	0.9999	Intercept	0.387529	+/-30
199.8	200.5	0.9965			



SO2 Calibration Plot

Date: June 1, 2026

Location: Waskow ohci Pimatisiwin





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Waskow ohci Pimatisiwin Station number: AMS 25
Calibration Date: June 4, 2026 Last Cal Date: May 19, 2026
Start time (MST): 10:56 End time (MST): 15:12
Reason: Routine

Calibration Standards

Cal Gas Concentration: 4.97 ppm Cal Gas Exp Date: January 3, 2026
Cal Gas Cylinder #: CC517099
Removed Cal Gas Conc: 4.97 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Make/Model: API T700 Serial Number: 747
ZAG Make/Model: API T701 Serial Number: 261

Analyzer Information

Analyzer make: Thermo 43i-LTE Analyzer serial #: 1170050146
Converter make: Global G-150 Converter serial #: 2024-287
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998935	1.002936	Backgd or Offset:	3.88
Calibration intercept:	-0.077670	-0.017750	Coeff or Slope:	1.138

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4919	80.5	80.0	80.6	0.989
As found Mid point	4960	40.3	40.1	40.3	0.987
As found Low point	4980	20.1	20.0	20.0	0.984
New cylinder response					
Baseline Corr As found:	80.9	Prev response:	79.86	*% change:	1.3%
Baseline Corr 2nd AF pt:	40.6	AF Slope:	1.010647	AF Intercept:	-0.237747
Baseline Corr 3rd AF pt:	20.3	AF Correlation:	0.999997	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4919	80.5	80.0	80.2	0.998
Mid point	4960	40.3	40.1	40.2	0.996
Low point	4980	20.1	20.0	20.1	0.994
As left zero	5000	0.0	0.0	-0.1	----
As left span	4920	80.0	800.0	818.6	0.977
SO2 Scrubber Check	4920	80.0	800.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	0.996
Date of last converter efficiency test:		February 12, 2025		111.0% efficiency	

Notes: Changed the inlet filter and performed an SO2 scrubber check after the as founds. No adjustments made.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

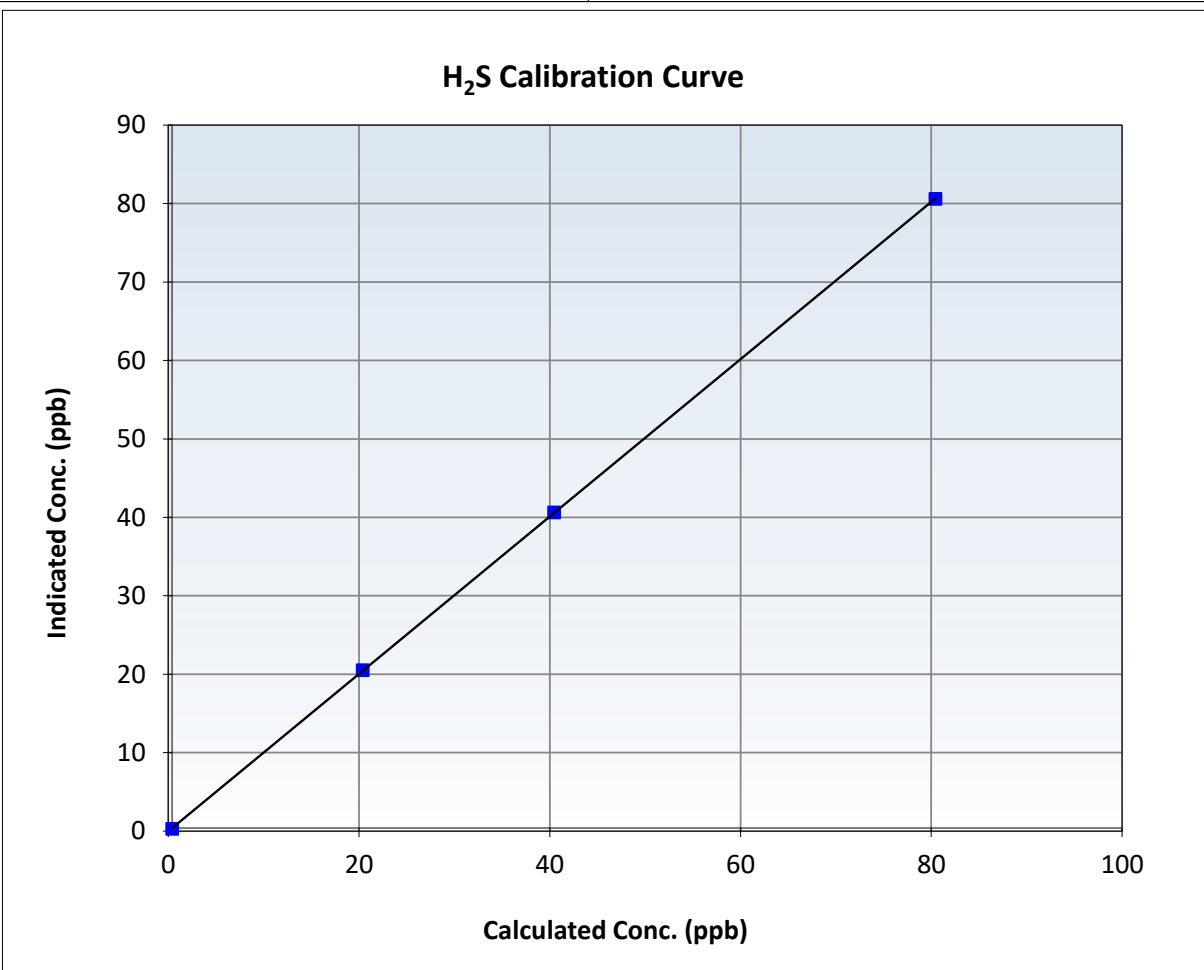
H₂S Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 19, 2026
Station Name:	Waskow ohci Pimatisiwin	Station Number:	AMS 25
Start Time (MST):	10:56	End Time (MST):	15:12
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1170050146

Calibration Data

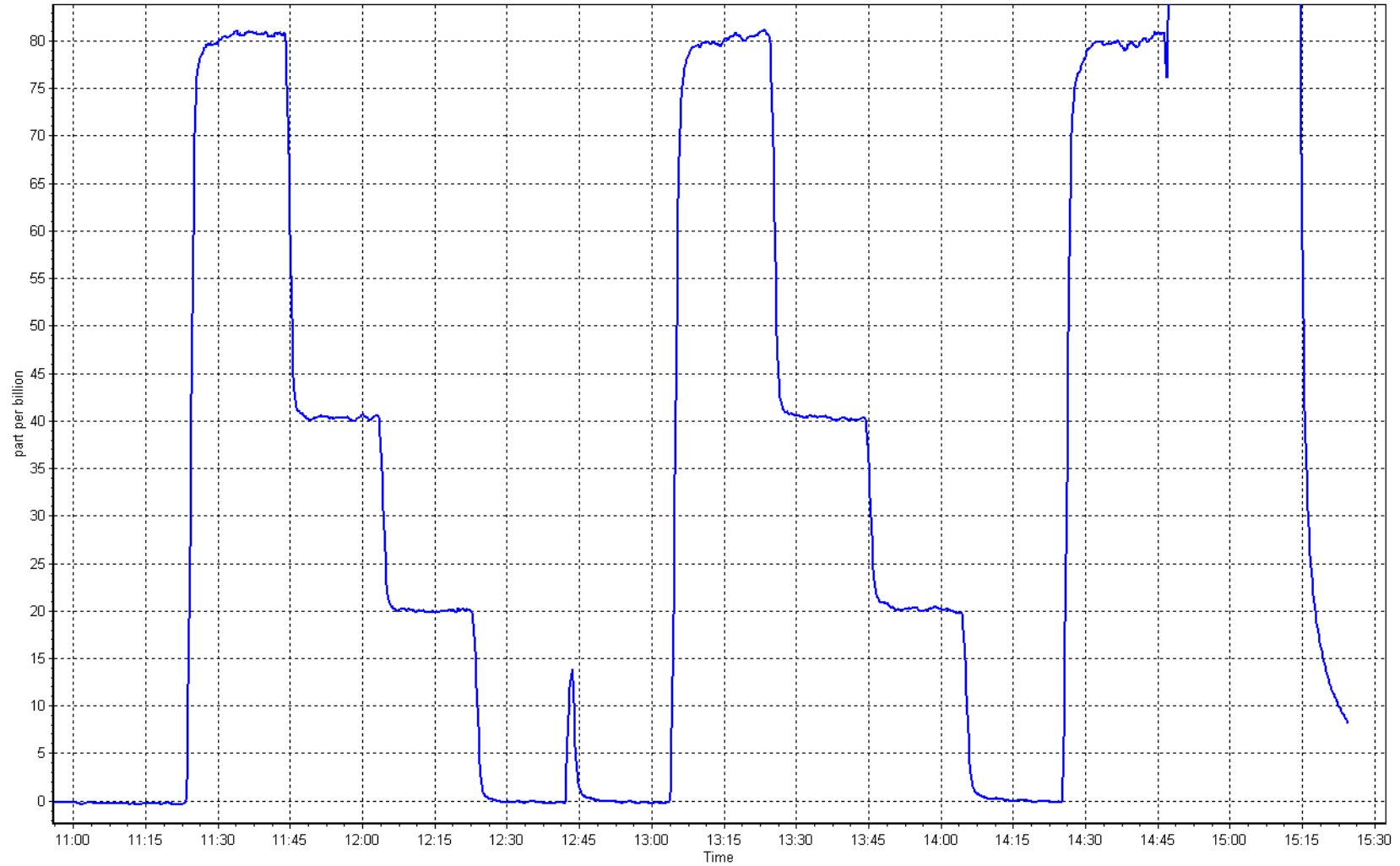
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999995		≥0.995
80.0	80.2	0.9978	Slope	1.002936		0.90 - 1.10
40.1	40.2	0.9964	Intercept	-0.017750		+/-3
20.0	20.1	0.9940				



H₂S Calibration Plot

Date: June 4, 2026

Location: Waskow ohci Pimatisiwin





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Waskow ohci Pimatisiwin Station number: AMS 25
Calibration Date: June 23, 2026 Last Cal Date: June 4, 2026
Start time (MST): 10:47 End time (MST): 14:24
Reason: Install

Calibration Standards

Cal Gas Concentration: 4.97 ppm Cal Gas Exp Date: January 3, 2026
Cal Gas Cylinder #: CC517099
Removed Cal Gas Conc: 4.97 ppm Rem Gas Exp Date:
Removed Gas Cyl #: Diff between cyl:
Calibrator Make/Model: API T700 Serial Number: 747
ZAG Make/Model: API T701 Serial Number: 261

Analyzer Information

Analyzer make: Thermo 43i-LTE Analyzer serial #: 1218153358
Converter make: Global G-150 Converter serial #: 2024-287
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:		0.995513	Backgd or Offset:	2.42
Calibration intercept:		0.142171	Coeff or Slope:	1.057

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	NA	Prev response:	NA	*% change:	NA
Baseline Corr 2nd AF pt:	NA	AF Slope:	NA	AF Intercept:	NA
Baseline Corr 3rd AF pt:	NA	AF Correlation:	NA	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4919	80.5	80.0	79.7	1.004
Mid point	4960	40.3	40.1	40.2	0.996
Low point	4980	20.1	20.0	20.1	0.994
As left zero	5000	0.0	0.0	0.2	----
As left span	4920	80.0	800.0	790.8	1.012
SO2 Scrubber Check					
Date of last scrubber change:				Ave Corr Factor	0.998
Date of last converter efficiency test:		February 12, 2025		111.0% efficiency	

Notes: Installing a new H₂S analyzer. Adjusted the zero. No scrubber test completed.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

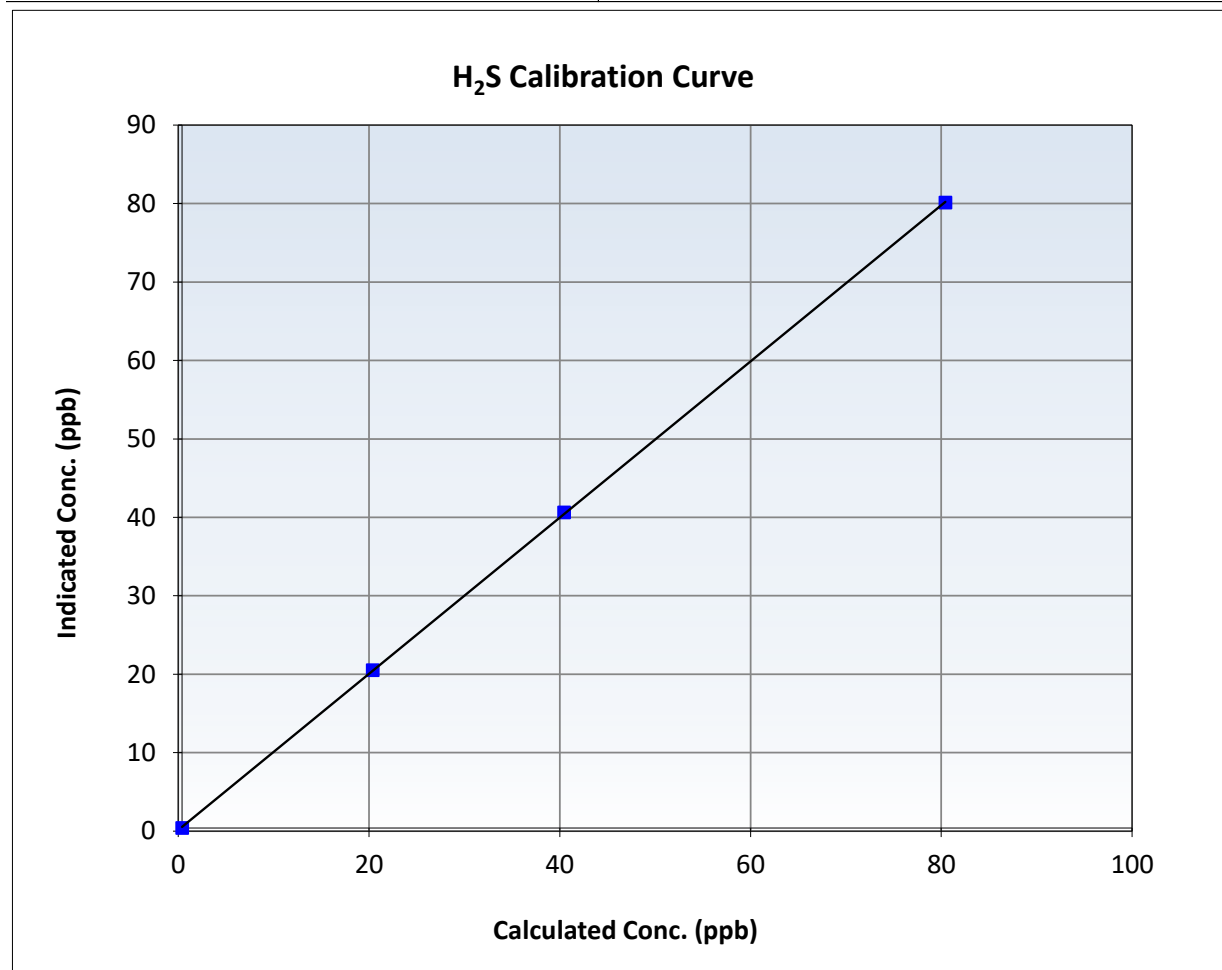
H₂S Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 4, 2026
Station Name:	Waskow ohci Pimatisiwin	Station Number:	AMS 25
Start Time (MST):	10:47	End Time (MST):	14:24
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1218153358

Calibration Data

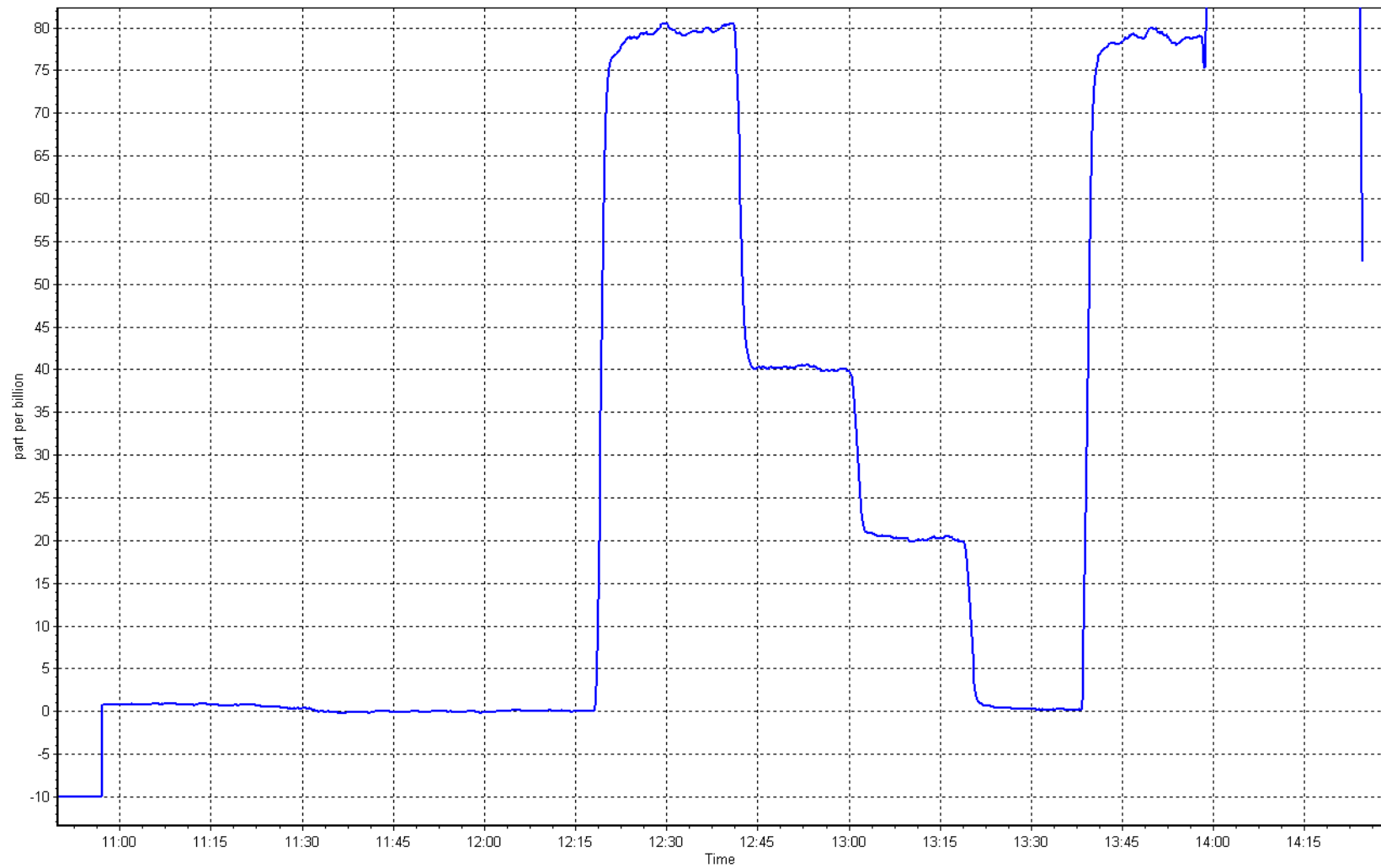
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999980	≥0.995
80.0	79.7	1.0041	Slope	0.995513	0.90 - 1.10
40.1	40.2	0.9964	Intercept	0.142171	+/-3
20.0	20.1	0.9940			



H₂S Calibration Plot

Date: June 23, 2026

Location: Waskow ohci Pimatisiwin





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS27
JACKFISH 2/3
JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Jackfish 2/3 Station number: AMS 27
Calibration Date: June 16, 2026 Last Cal Date: May 14, 2026
Start time (MST): 9:50 End time (MST): 12:30
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.58 ppm Cal Gas Exp Date: December 29, 2028
Cal Gas Cylinder #: SG9133974BAL
Removed Cal Gas Conc: 50.58 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: API T700 Serial Number: 5252
Zero Air Gen Model: API 701 Serial Number: 268

Analyzer Information

Analyzer make: Thermo 43iQ-TL Serial Number: 12124313138
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003765	1.001908	Backgd or Offset:	11.0	10.8
Calibration intercept:	0.185658	-0.114472	Coeff or Slope:	0.911	0.896

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4921	79.1	800.2	813.5	0.983
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	813.9	Previous response	803.4	*% change	1.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	4921	79.1	800.2	801.5	0.998
Mid point	4960	39.5	399.6	400.3	0.998
Low point	4980	19.8	200.3	200.8	0.998
As left zero	5000	0.0	0.0	-0.3	----
As left span	4921	79.1	800.2	803.3	0.996
Average Correction Factor:					0.998

Notes: Changed the sample inlet filter after as founds. Span adjusted.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

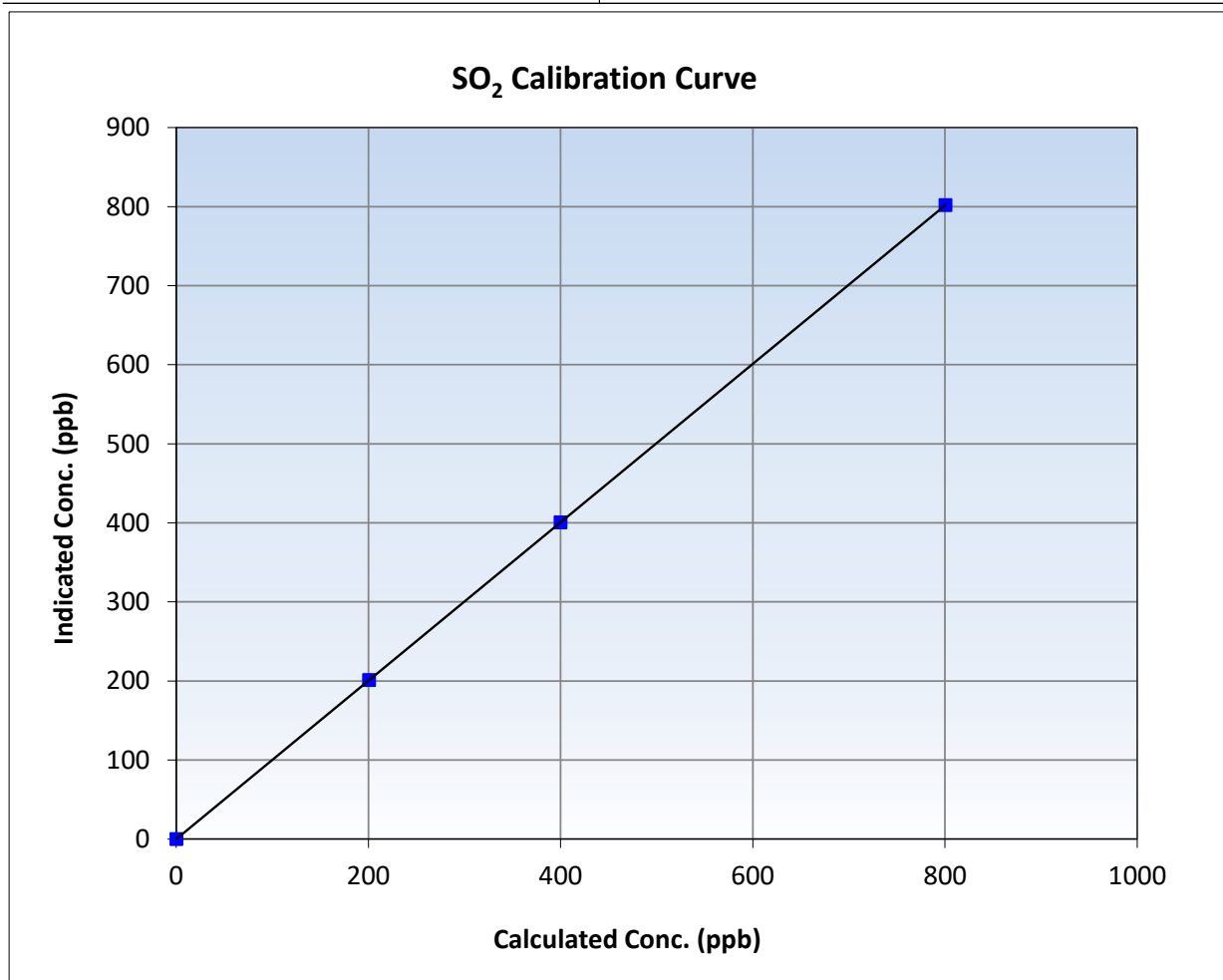
SO₂ Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 14, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:50	End Time (MST):	12:30
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	12124313138

Calibration Data

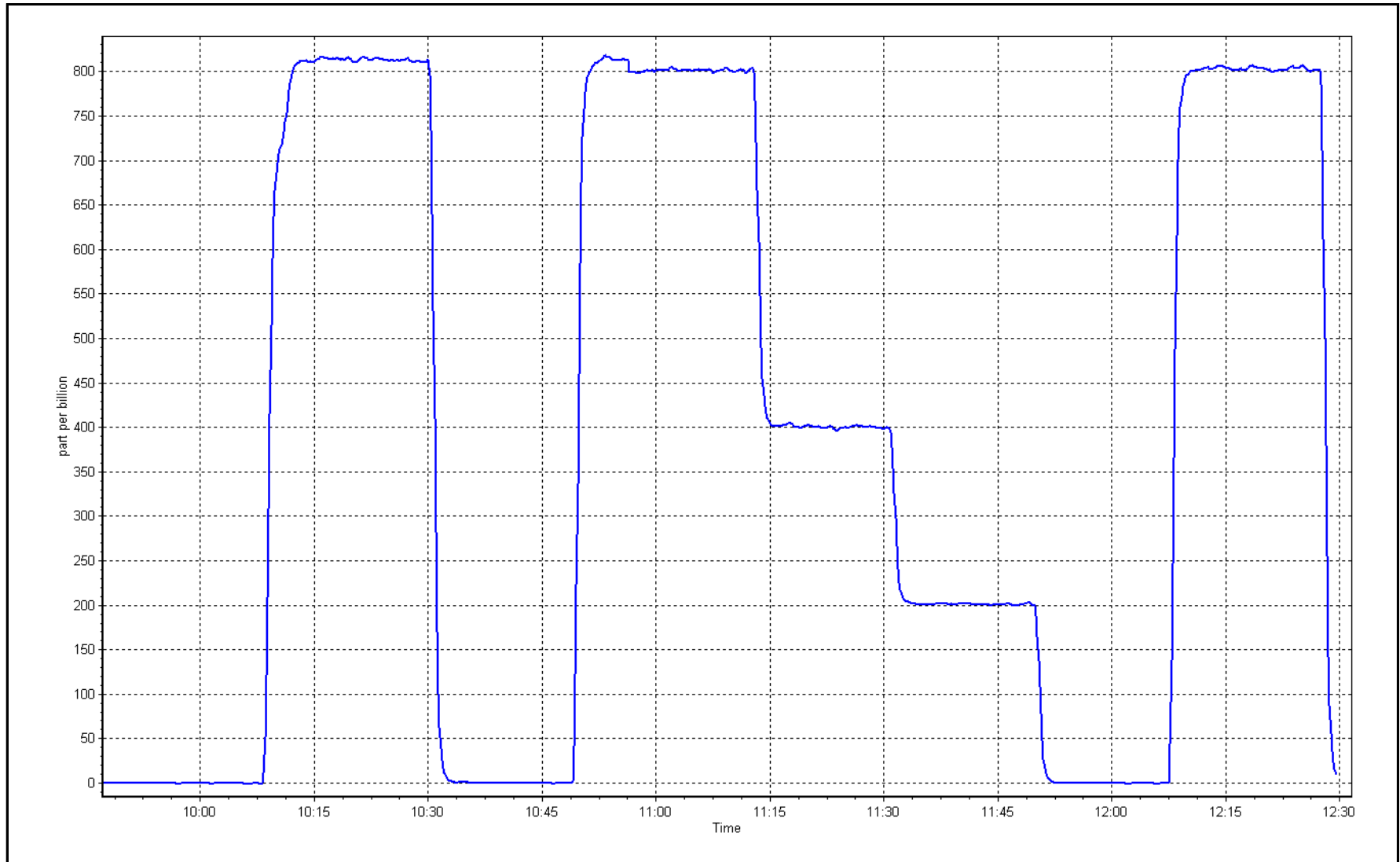
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	1.000000	≥0.995
800.2	801.5	0.9983	Slope	1.001908	0.90 - 1.10
399.6	400.3	0.9983	Intercept	-0.114472	+/-30
200.3	200.8	0.9975			



SO2 Calibration Plot

Date: June 16, 2026

Location: Jackfish 2/3





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Jackfish 2/3
Calibration Date: June 24, 2026
Start time (MST): 9:37
Reason: Routine

Station number: AMS 27
Last Cal Date: May 26, 2026
End time (MST): 13:20

Calibration Standards

Cal Gas Concentration: 4.87 ppm
Cal Gas Cylinder #: CC523090
Removed Cal Gas Conc: 4.87 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H

Cal Gas Exp Date: September 5, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 5252
Serial Number: 268

Analyzer Information

Analyzer make: Thermo 43iQ
Converter make: Global G150
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 12228021055
Converter serial #: 2022-195
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002006	1.009005	Backgd or Offset:	3.2	3.2
Calibration intercept:	-0.261044	-0.280955	Coeff or Slope:	1.031	1.015

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4918	82.1	80.0	81.6	0.975
As found Mid point	4959	41.1	40.0	40.5	0.979
As found Low point	4979	20.5	20.0	20.1	0.974
New cylinder response					
Baseline Corr As found:	82.0	Prev response:	79.86	*% change:	2.6%
Baseline Corr 2nd AF pt:	40.9	AF Slope:	1.025151	AF Intercept:	-0.420915
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999995	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	4918	82.1	80.0	80.4	0.995
Mid point	4959	41.1	40.0	40.1	0.998
Low point	4979	20.5	20.0	19.9	1.003
As left zero	5000	0.0	0.0	-0.3	----
As left span	4918	82.1	80.0	80.8	0.990
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:		18-Nov-25		Ave Corr Factor	0.999
Date of last converter efficiency test:		April 23, 2025			

Notes: Sample inlet filter was changed after multipoint as founds. SO2 scrubber check done and passed.
Adjusted span only.

Calibration Performed By: Sean Bala



Wood Buffalo Environmental Association

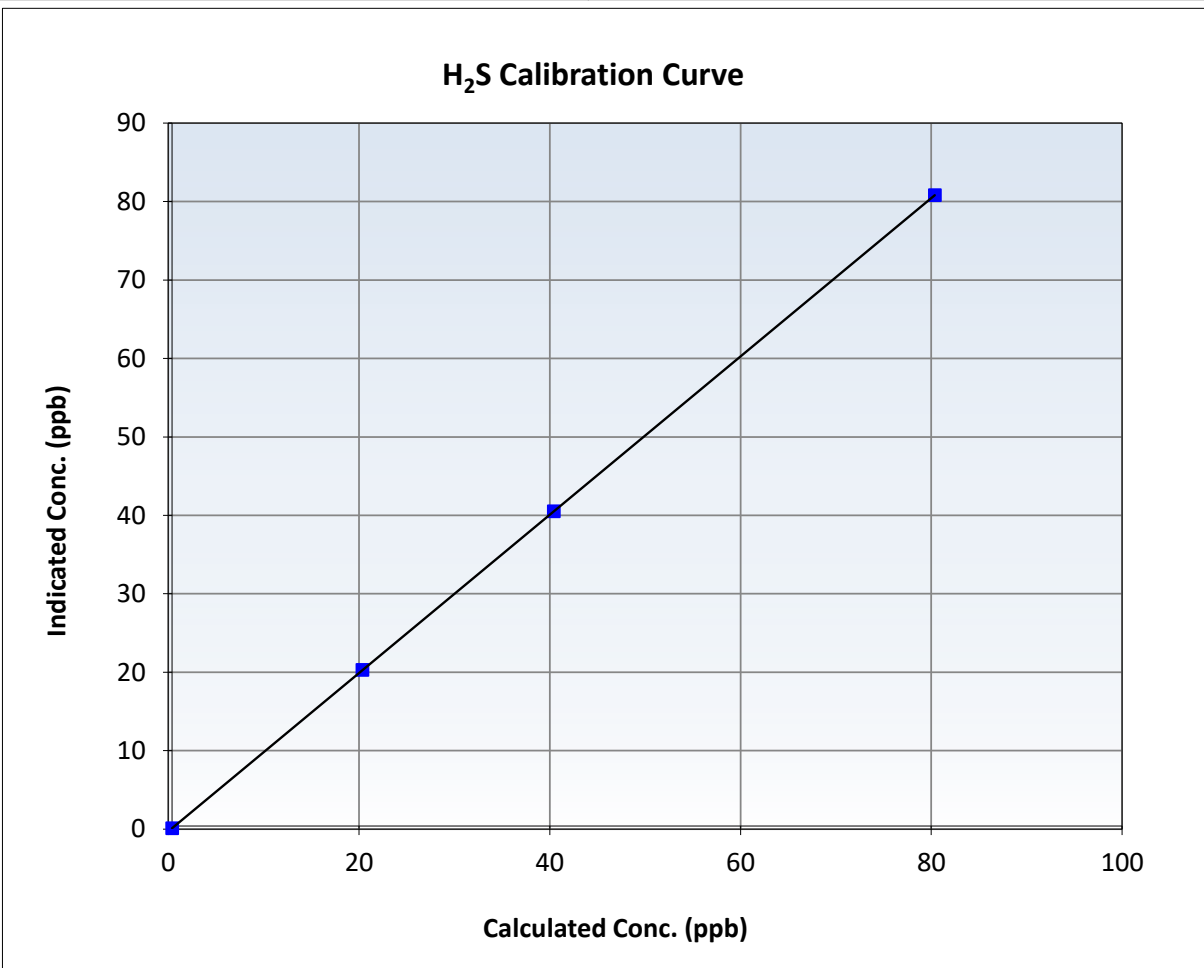
H₂S Calibration Summary

Station Information

Calibration Date:	June 24, 2026	Previous Calibration:	May 26, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:37	End Time (MST):	13:20
Analyzer make:	Thermo 43iQ	Analyzer serial #:	12228021055

Calibration Data

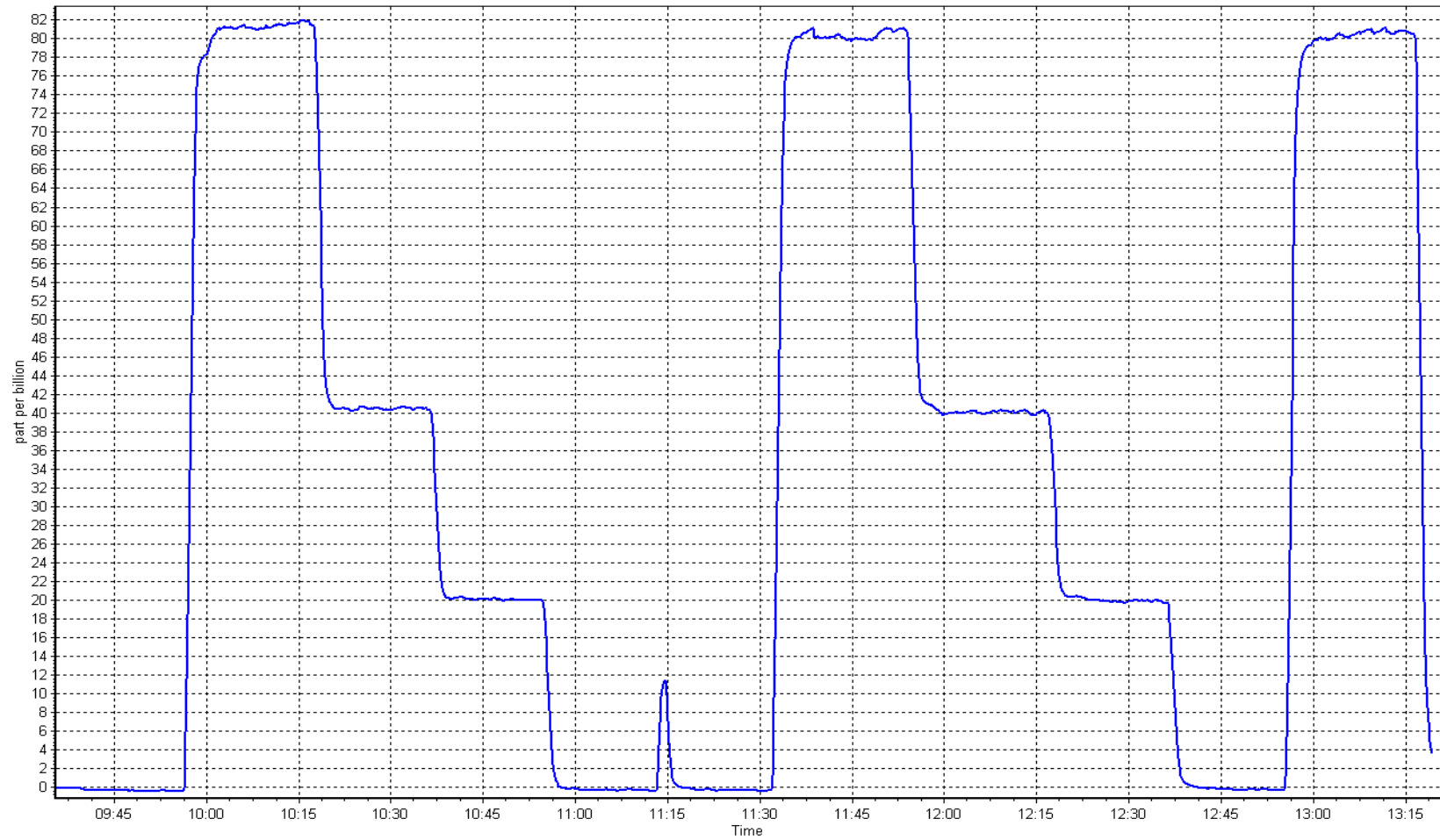
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	1.000000		≥0.995
80.0	80.4	0.9946	Slope	1.009005		0.90 - 1.10
40.0	40.1	0.9983	Intercept	-0.280955		+/-3
20.0	19.9	1.0035				



H₂S Calibration Plot

Date: June 24, 2026

Location: Jackfish 2/3





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Jackfish 2/3
Station number: AMS 27
Calibration Date: June 17, 2026
Last Cal Date: May 28, 2026
Start time (MST): 9:05
End time (MST): 11:33
Reason: Removal

Calibration Standards

NO Gas Cylinder #: CC757838
NOX Cal Gas Conc: 60.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 60.30 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T750
ZAG make/model: Teledyne API T751H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 60.20 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 60.20 ppm
NO gas Diff:
Serial Number: 282
Serial Number: 321

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-1.0	-1.0	0.0	----	----
AF High point	4934	66.4	800.7	799.4	1.3	794.9	793.9	0.9	1.0061	1.0057
AF Mid point	4967	33.2	400.4	399.7	0.7	399.6	395.8	3.8	0.9994	1.0073
AF Low point	4983	16.6	200.2	199.9	0.3	198.6	195.7	2.9	1.0031	1.0162

New cyl resp

Previous Response	NO _x = 801.6 ppb	NO = 799.0 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = -0.7%
Baseline Corr 1st pt	NO _x = 795.9 ppb	NO = 794.9 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -0.5%
Baseline Corr 2nd pt	NO _x = 400.6 ppb	NO = 396.8 ppb	As found	NO _x r ² : 0.999986	Nx SI: 0.994103	Nx Int: -0.236
Baseline Corr 3rd pt	NO _x = 199.6 ppb	NO = 196.7 ppb	As found	NO r ² : 0.999992	NO SI: 0.995168	NO Int: -1.956
			As found	NO ₂ r ² : 0.999919	NO2 SI: 1.000350	NO ₂ Int: 1.715

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero	----	----	0.0	0.0	----	----
As found high GPT point	789.3	375.2	415.4	416.3	0.9979	100.2%
As found mid GPT point	789.3	581.6	209.0	212.0	0.9860	101.4%
As found low GPT point	789.3	683.3	107.3	110.6	0.9704	103.0%



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: API T200
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1035

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.876		NO bkgnd or offset:	-6.0	
NOX coeff or slope:	0.867		NOX bkgnd or offset:	-5.5	
NO2 coeff or slope:	1.000		Reaction cell Press:	4.3	

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.000497	
NO _x Cal Offset:	0.523957	
NO Cal Slope:	0.999671	
NO Cal Offset:	-0.155968	
NO ₂ Cal Slope:	0.998248	
NO ₂ Cal Offset:	-1.766261	

Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
-----------	--------------------------	----------------------------	---	--	---	--	---------------------------------------	--	---	--

Cal zero
High point
Mid point
Low point
As left zero
As left span

Average Correction Factor

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
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Cal zero
High GPT point
Mid GPT point
Low GPT point

Average Correction Factor

Notes:

Removal Calibration.

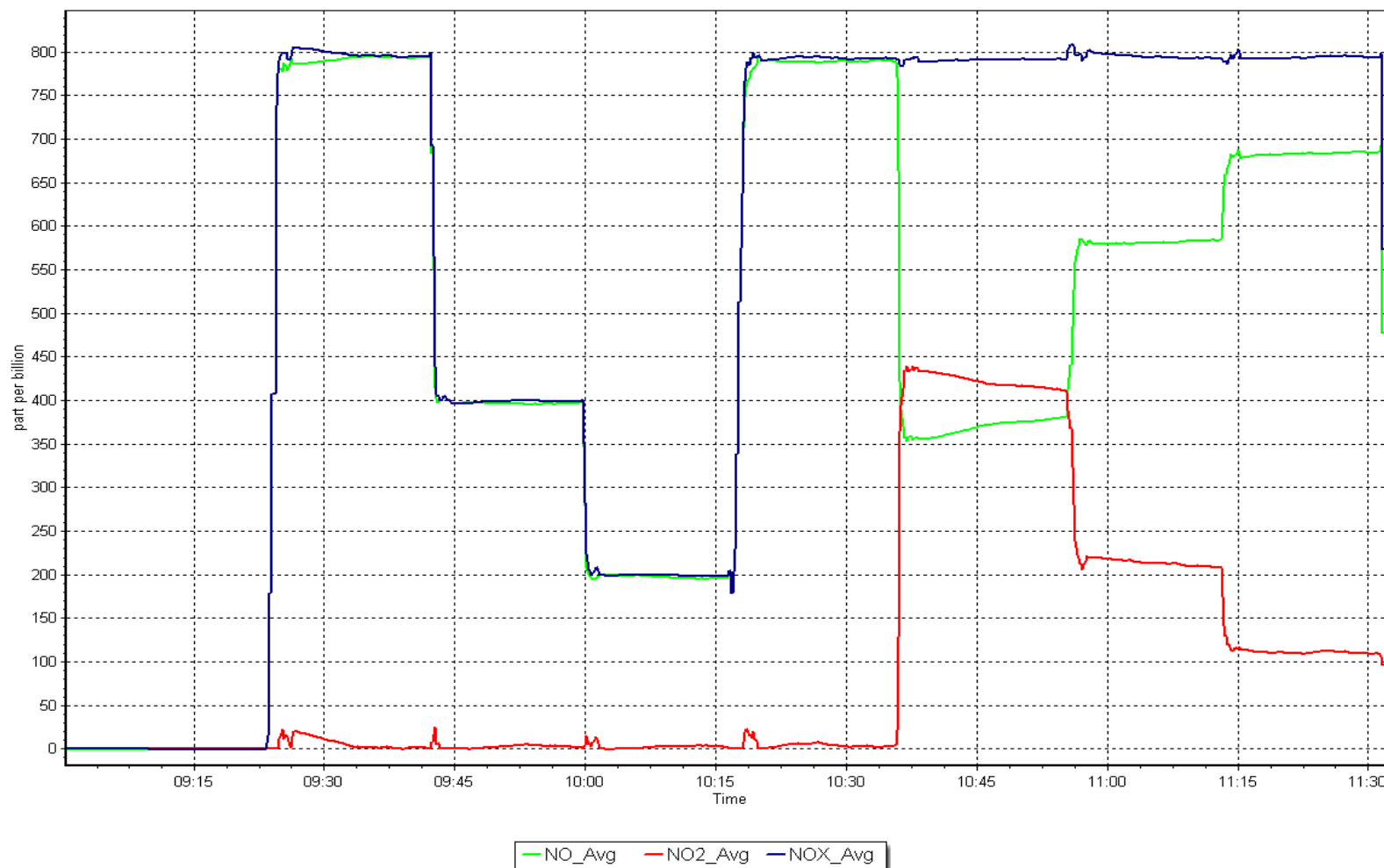
Calibration Performed By:

Sean Bala

NO_x Calibration Plot

Date: June 17, 2026

Location: Jackfish 2/3





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Jackfish 2/3
Station number: AMS 27
Calibration Date: June 18, 2026
Last Cal Date: NA
Start time (MST): 8:54
End time (MST): 12:39
Reason: Install

Calibration Standards

NO Gas Cylinder #: CC757838
NOX Cal Gas Conc: 60.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 60.30 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 60.20 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 60.20 ppm
NO gas Diff:
Serial Number: 5252
Serial Number: 268

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
-----------	------------------------------	--------------------------------	---	--	---	--	---	--	--	---

As found zero
AF High point
AF Mid point
AF Low point
New cyl resp

Previous Response	NO _x = NA	ppb	NO = NA	ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = NA
Baseline Corr 1st pt	NO _x = NA	ppb	NO = NA	ppb	<u>As Found Statistics</u>		*Percent Change	NO = NA
Baseline Corr 2nd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO r ² :	NO SI:	NO Int:
					As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	---	--	--	---	--	--

As Found GPT zero
As found high GPT point
As found mid GPT point
As found low GPT point



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo42iQ
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12400232072

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:		0.995844
NO _x Cal Offset:		1.903977
NO Cal Slope:		0.997198
NO Cal Offset:		0.784032
NO ₂ Cal Slope:		0.996719
NO ₂ Cal Offset:		0.488309

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.185		NO bkgnd or offset:	0.8	
NOX coeff or slope:	0.990		NOX bkgnd or offset:	1.0	
NO2 coeff or slope:	1.000		Reaction cell Press:	163.0	

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	----	----
High point	4934	66.4	800.7	799.4	1.3	798.2	797.4	0.8	1.0032	1.0025
Mid point	4967	33.2	400.4	399.7	0.7	402.0	400.3	1.7	0.9960	0.9985
Low point	4983	16.6	200.2	199.9	0.3	202.9	200.4	2.6	0.9868	0.9974
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.2	0.1	----	----
As left span	4934	66.4	800.7	381.8	418.9	799.1	381.8	417.3	1.0020	1.0000
Average Correction Factor									0.9953	0.9995

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	794.2	375.9	419.6	418.7	1.0022	99.8%
Mid GPT point	794.2	583.0	212.5	211.8	1.0034	99.7%
Low GPT point	794.2	684.9	110.6	111.9	0.9886	101.1%
Average Correction Factor					0.9981	100.2%

Notes:

Install Calibration.

Calibration Performed By:

Sean Bala



Wood Buffalo Environmental Association

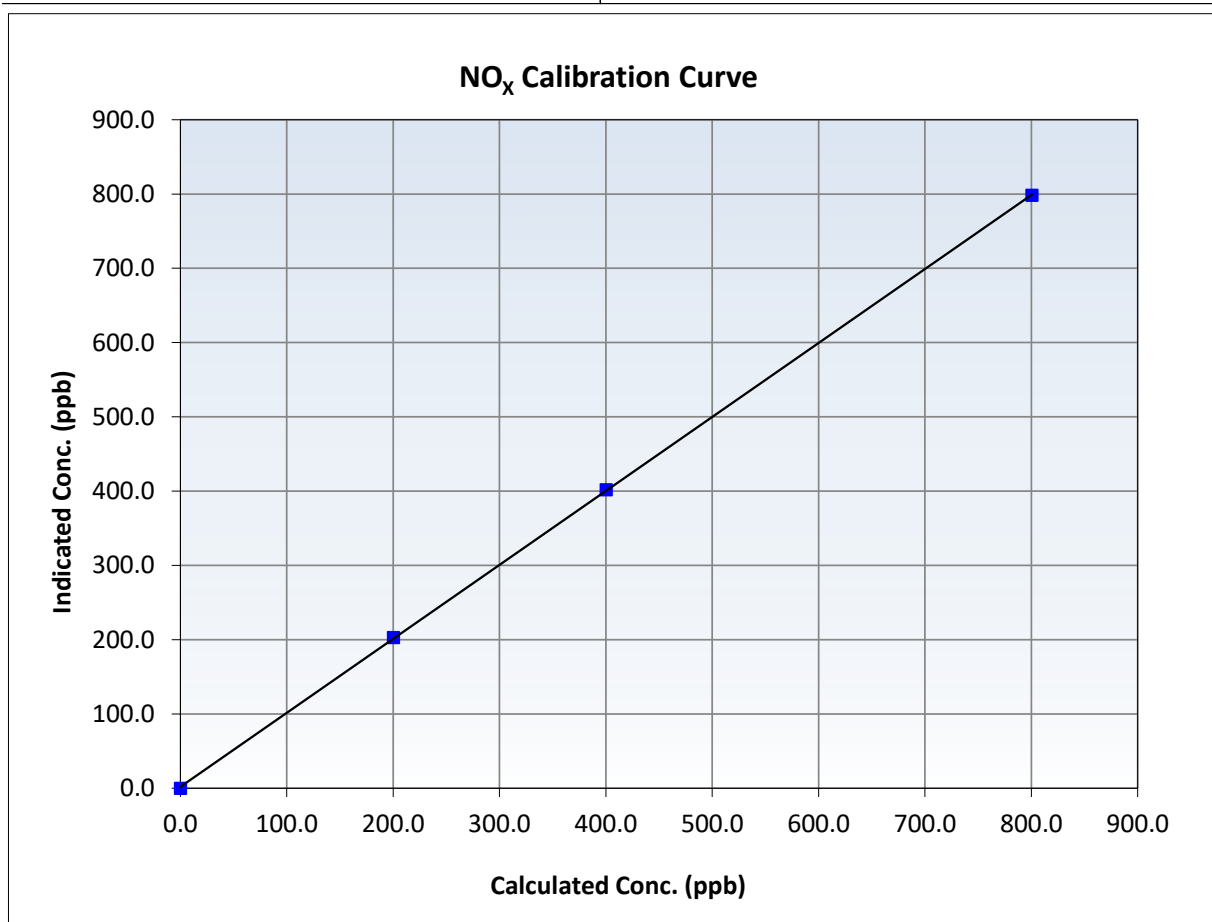
NO_x Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	NA
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:54	End Time (MST):	12:39
Analyzer make:	Thermo42iQ	Analyzer serial #:	12400232072

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999973	≥0.995
800.7	798.2	1.0032	Slope	0.995844	0.90 - 1.10
400.4	402.0	0.9960	Intercept	1.903977	+/-20
200.2	202.9	0.9868			





Wood Buffalo Environmental Association

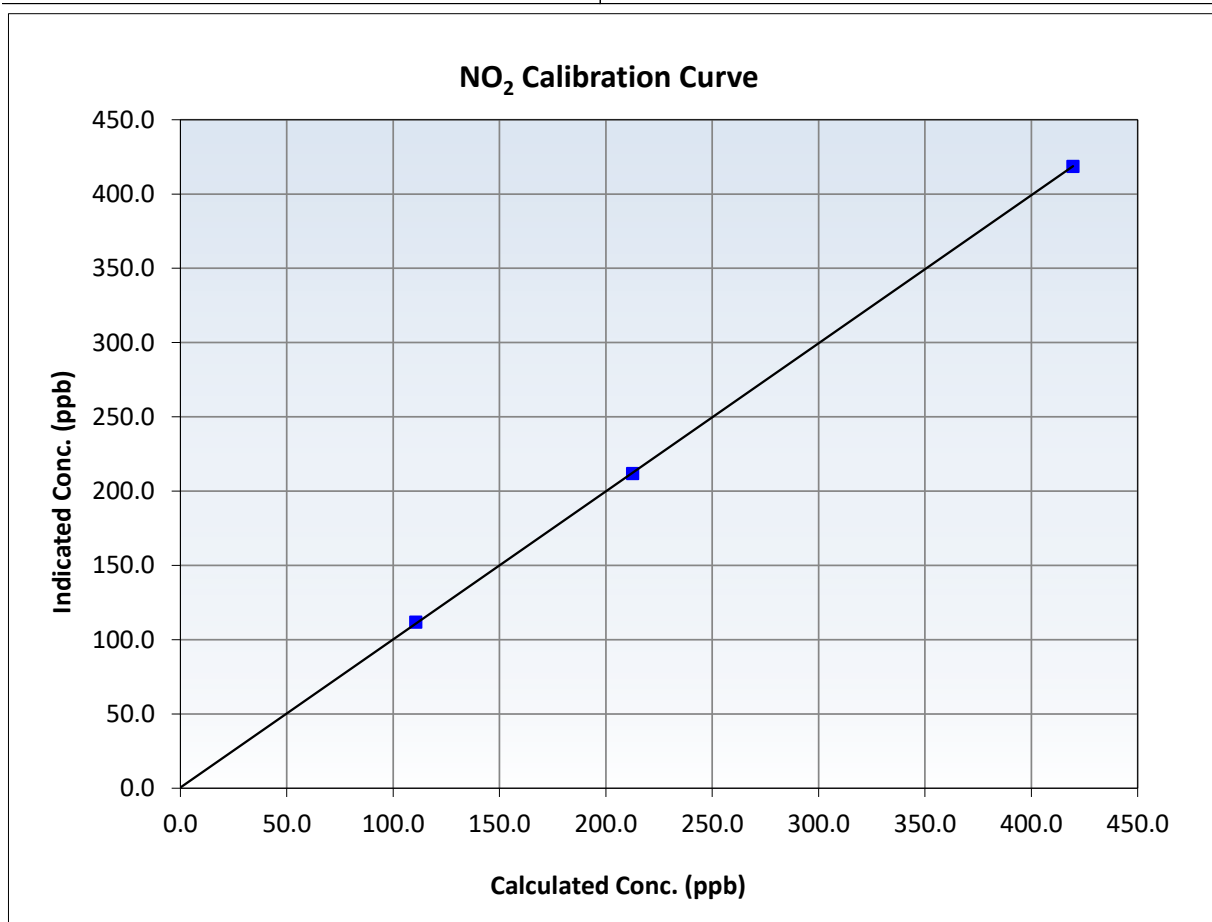
NO₂ Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	NA
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:54	End Time (MST):	12:39
Analyzer make:	Thermo42iQ	Analyzer serial #:	12400232072

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999980	≥ 0.995
419.6	418.7	1.0022	Slope	0.996719	0.90 - 1.10
212.5	211.8	1.0034	Intercept	0.488309	+/-20
110.6	111.9	0.9886			





Wood Buffalo Environmental Association

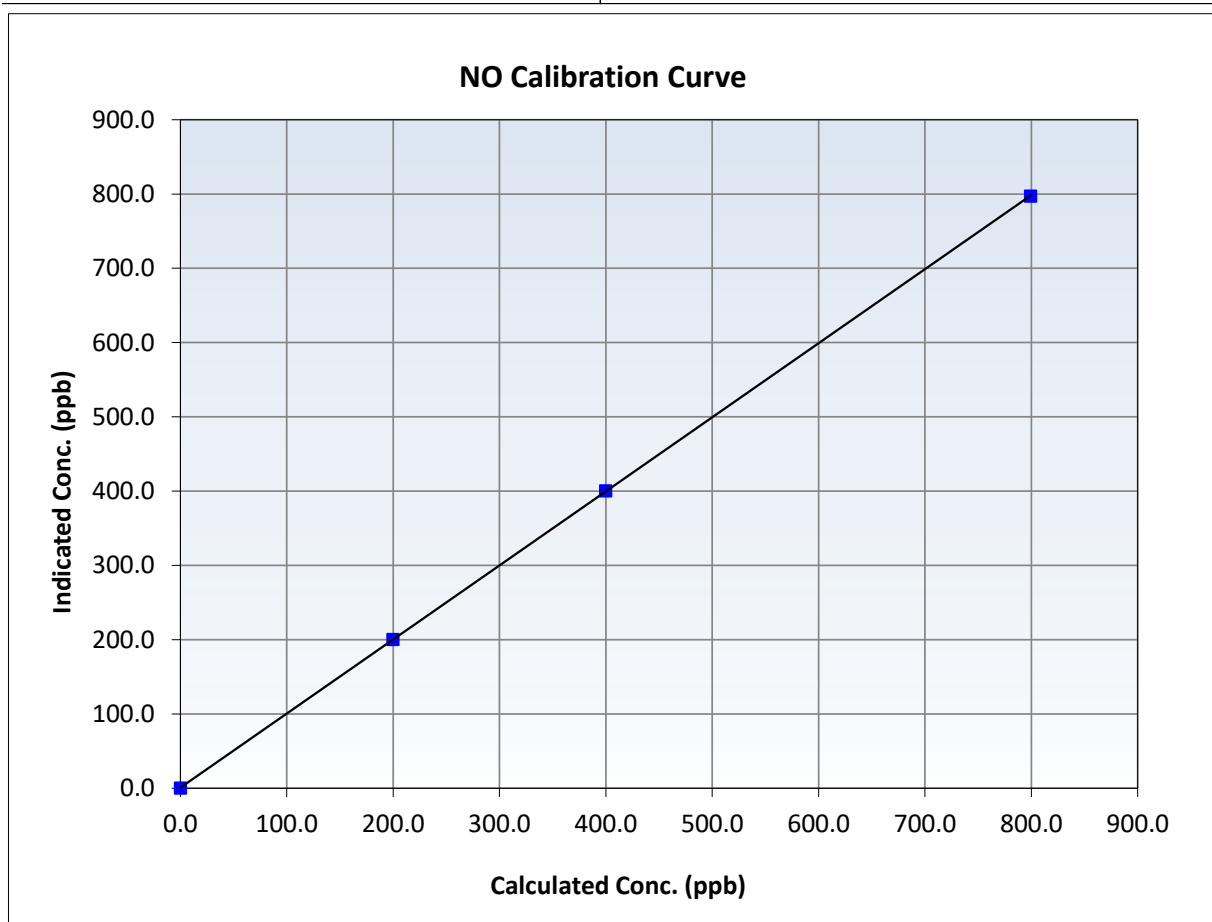
NO Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	NA
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:54	End Time (MST):	12:39
Analyzer make:	Thermo42iQ	Analyzer serial #:	12400232072

Calibration Data

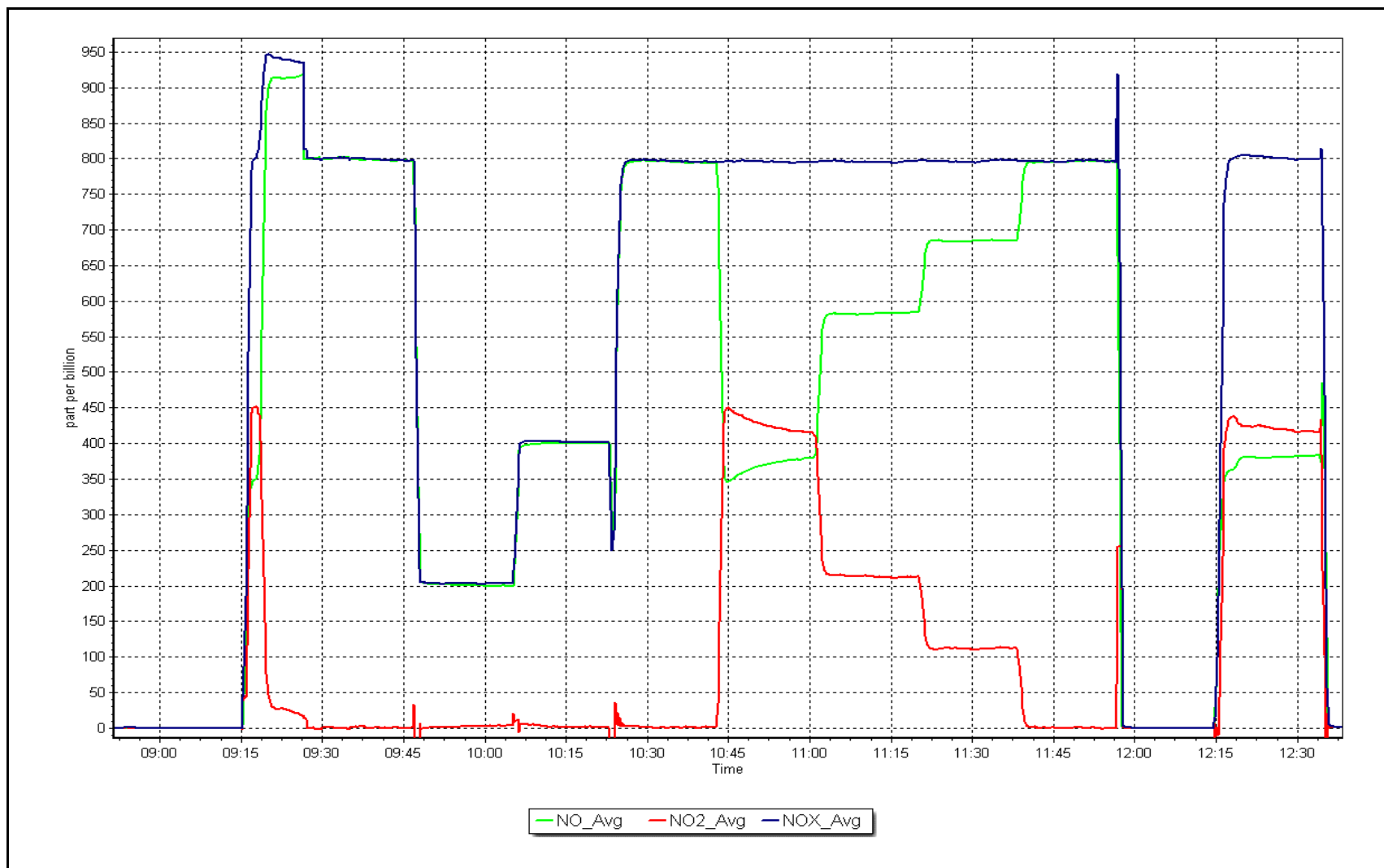
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999995	<i>≥0.995</i>
799.4	797.4	1.0025	Slope	0.997198	<i>0.90 - 1.10</i>
399.7	400.3	0.9985	Intercept	0.784032	<i>+/-20</i>
199.9	200.4	0.9974			



NO_x Calibration Plot

Date: June 18, 2026

Location: Jackfish 2/3





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Jackfish 2/3
Station number: AMS 27
Calibration Date: June 23, 2026
Last Cal Date: June 18, 2026
Start time (MST): 9:23
End time (MST): 13:39
Reason: Maintenance

Calibration Standards

NO Gas Cylinder #: CC757838
NOX Cal Gas Conc: 60.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 60.30 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 60.20 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 60.20 ppm
NO gas Diff:
Serial Number: 5252
Serial Number: 268

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	----	----
AF High point	4934	66.4	800.7	799.4	1.3	892.2	890.6	1.5	0.8975	0.8976
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 799.3 ppb	NO = 797.9 ppb							*Percent Change	NO _x = 10.4%
Baseline Corr 1st pt	NO _x = 892.2 ppb	NO = 890.6 ppb							*Percent Change	NO = 10.4%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb								
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb								
As Found Statistics										
	As found	NO _x r ² :							Nx SI:	Nx Int:
	As found	NO r ² :							NO SI:	NO Int:
	As found	NO ₂ r ² :							NO2 SI:	NO2 Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42iQ
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12400232072

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.995844	1.000768
NO _x Cal Offset:	1.903977	1.203928
NO Cal Slope:	0.997198	1.002974
NO Cal Offset:	0.784032	-0.636007
NO ₂ Cal Slope:	0.996719	1.001331
NO ₂ Cal Offset:	0.488309	1.180589

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.185	1.185	NO bkgnd or offset:	0.8	0.8
NOX coeff or slope:	0.990	0.990	NOX bkgnd or offset:	1.0	1.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	163.0	163.0

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOX Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.2	-0.1	----	----
High point	4934	66.4	800.7	799.4	1.3	802.0	801.8	0.3	0.9984	0.9970
Mid point	4967	33.2	400.4	399.7	0.7	402.4	399.1	3.3	0.9950	1.0015
Low point	4983	16.6	200.2	199.9	0.3	202.7	199.5	3.2	0.9877	1.0019
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.2	0.0	----	----
As left span	4934	66.4	800.7	383.7	417.0	801.3	383.7	417.5	0.9993	1.0000
Average Correction Factor									0.9937	1.0001

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	794.1	376.5	418.9	419.5	0.9986	100.1%
Mid GPT point	794.1	582.1	213.3	216.9	0.9835	101.7%
Low GPT point	794.1	680.8	114.6	116.3	0.9856	101.5%
Average Correction Factor					0.9893	101.1%

Notes:

Changed inlet filter after as founds. Adjusted span only.

Calibration Performed By:

Sean Bala



Wood Buffalo Environmental Association

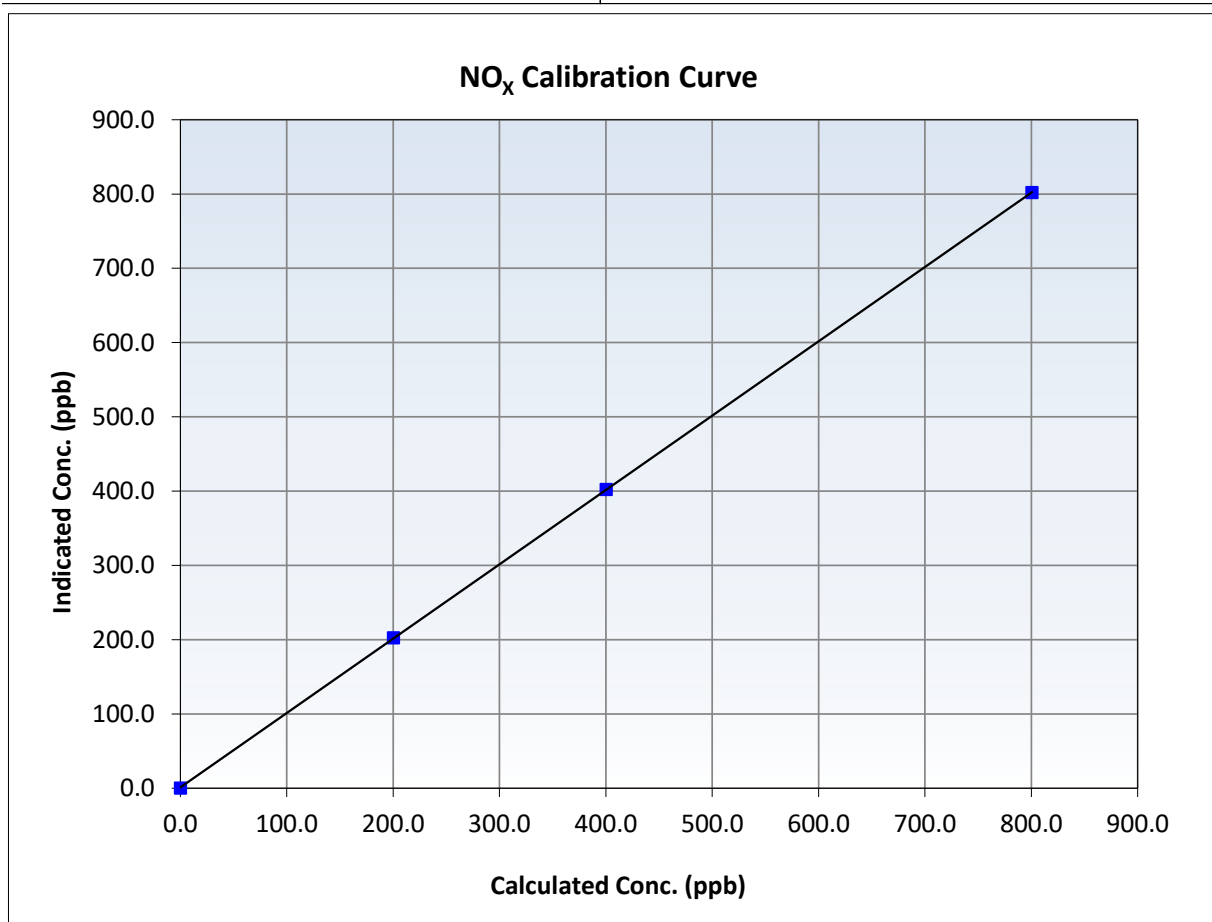
NO_x Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 18, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:23	End Time (MST):	13:39
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12400232072

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999991	≥0.995
800.7	802.0	0.9984	Slope	1.000768	0.90 - 1.10
400.4	402.4	0.9950	Intercept	1.203928	+/-20
200.2	202.7	0.9877			





Wood Buffalo Environmental Association

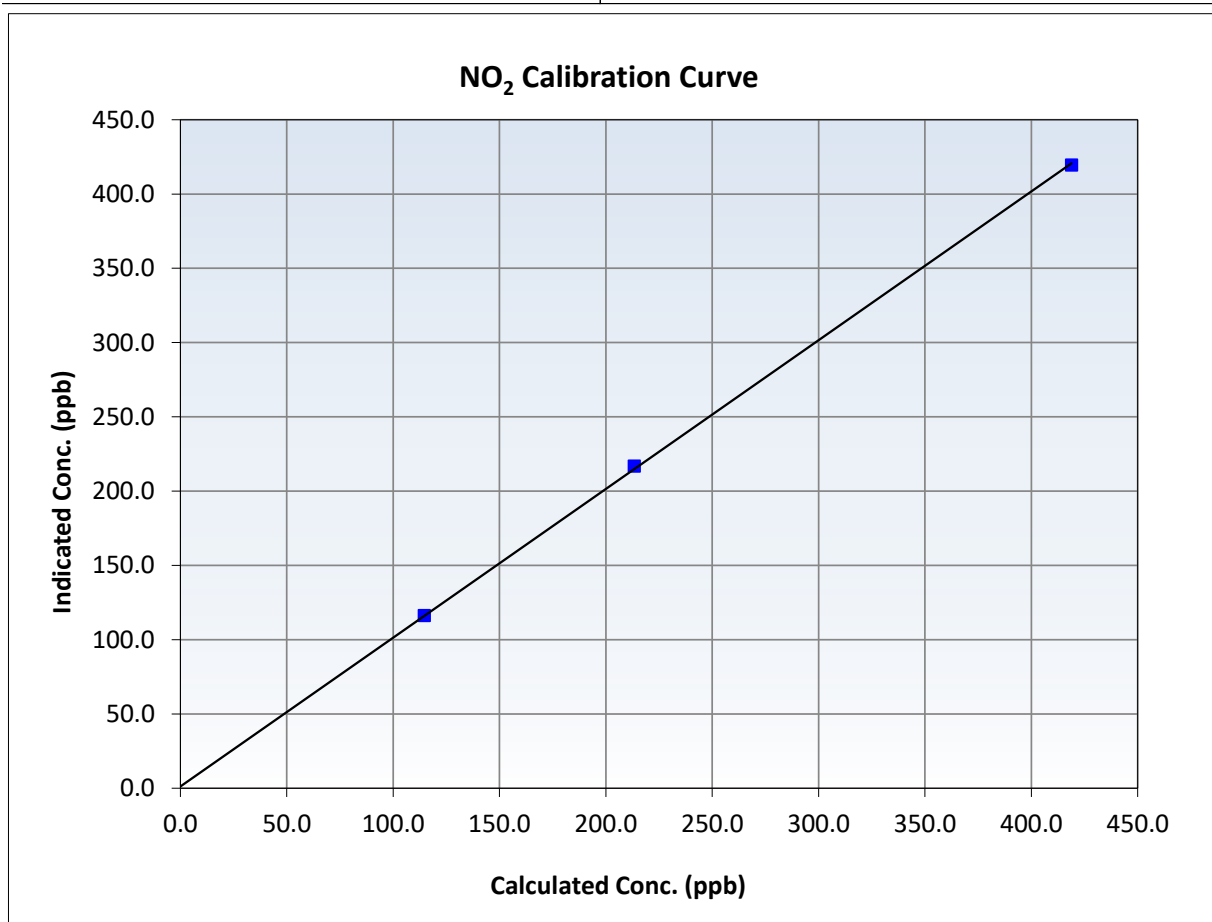
NO₂ Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 18, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:23	End Time (MST):	13:39
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12400232072

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999920	≥0.995
418.9	419.5	0.9986	Slope	1.001331	0.90 - 1.10
213.3	216.9	0.9835	Intercept	1.180589	+/-20
114.6	116.3	0.9856			





Wood Buffalo Environmental Association

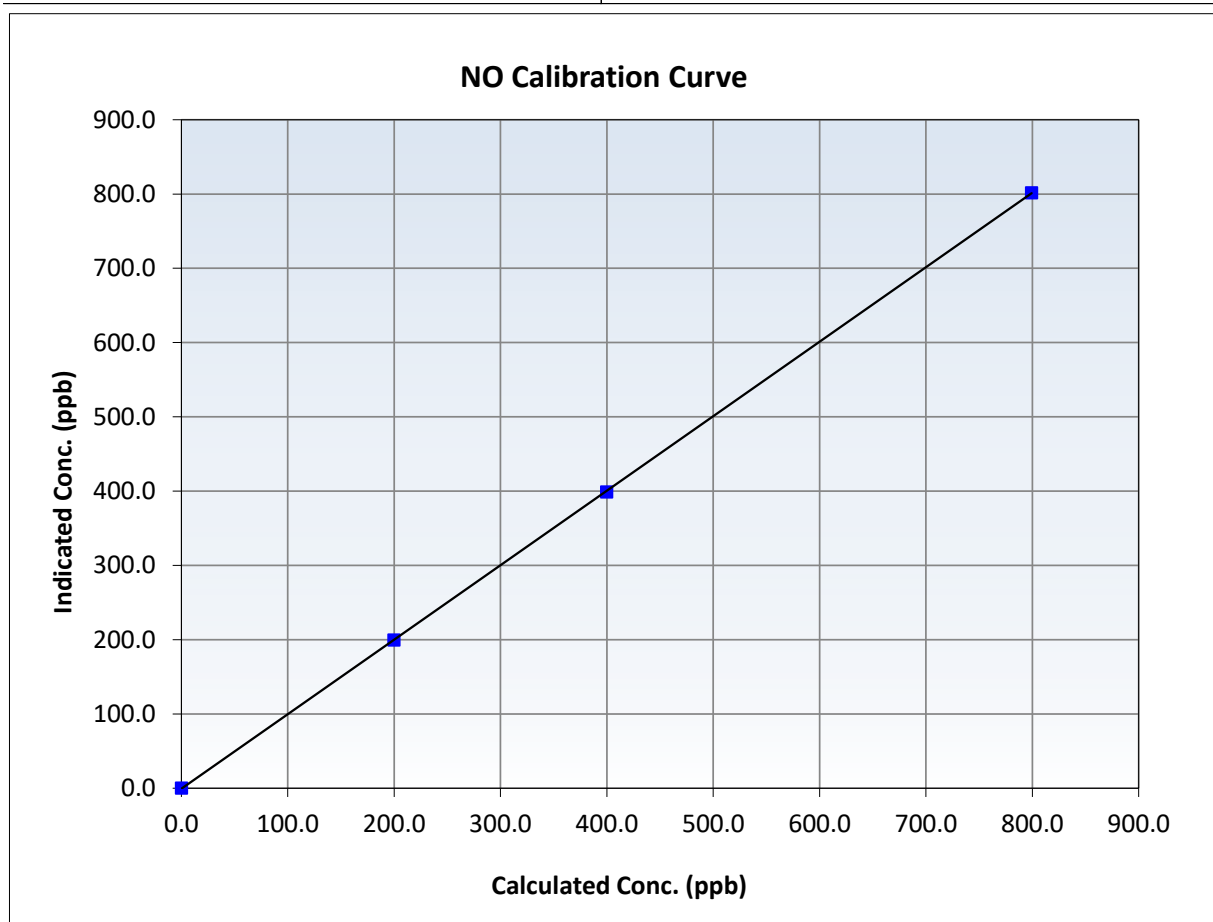
NO Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	June 18, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:23	End Time (MST):	13:39
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12400232072

Calibration Data

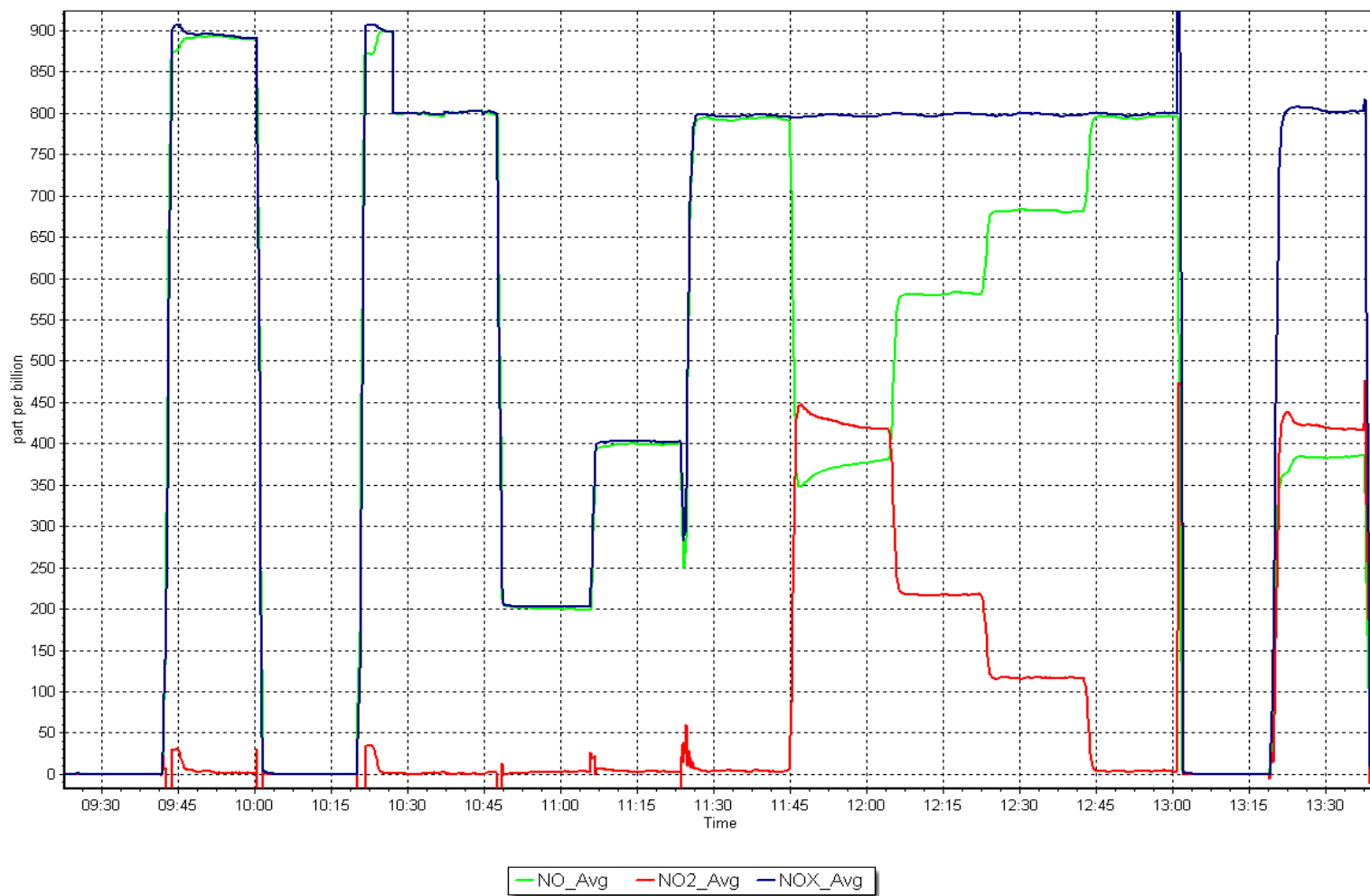
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999993	≥ 0.995
799.4	801.8	0.9970	Slope	1.002974	0.90 - 1.10
399.7	399.1	1.0015	Intercept	-0.636007	+/-20
199.9	199.5	1.0019			



NO_x Calibration Plot

Date: June 23, 2026

Location: Jackfish 2/3





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS29
SURMONT 2
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Surmont 2 Station number: AMS 29
Calibration Date: June 2, 2026 Last Cal Date: May 6, 2026
Start time (MST): 7:03 End time (MST): 11:19
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.95 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: CC356229
Removed Cal Gas Conc: 49.95 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 5472
Zero Air Gen Model: Teledyne API T701 Serial Number: 1402

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1170050150
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000388	1.008230	Backgd or Offset:	14.5	14.5
Calibration intercept:	-1.260673	-1.379251	Coeff or Slope:	0.946	0.946

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4920	80.1	800.2	805.2	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	805.1	Previous response	799.2	*% change	0.7%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4920	80.1	800.2	806.1	0.993
Mid point	4960	40.0	399.6	401.0	0.997
Low point	4980	20.0	199.8	198.3	1.008
As left zero	5000	0.0	0.0	0.4	----
As left span	4920	80.1	800.2	806.6	0.992
Average Correction Factor:					0.999

Notes: No maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

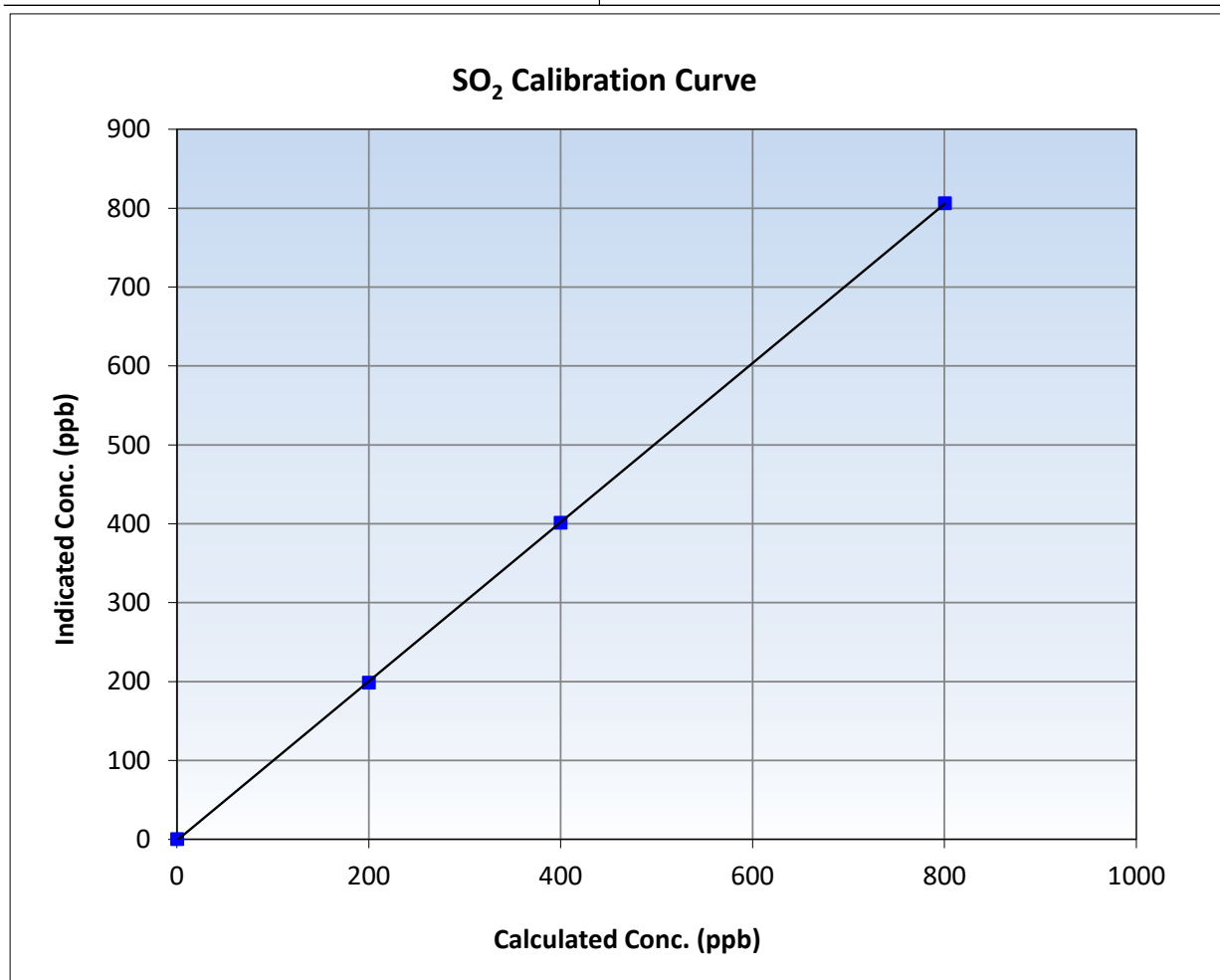
SO₂ Calibration Summary

Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 6, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	7:03	End Time (MST):	11:19
Analyzer make:	Thermo 43i	Analyzer serial #:	1170050150

Calibration Data

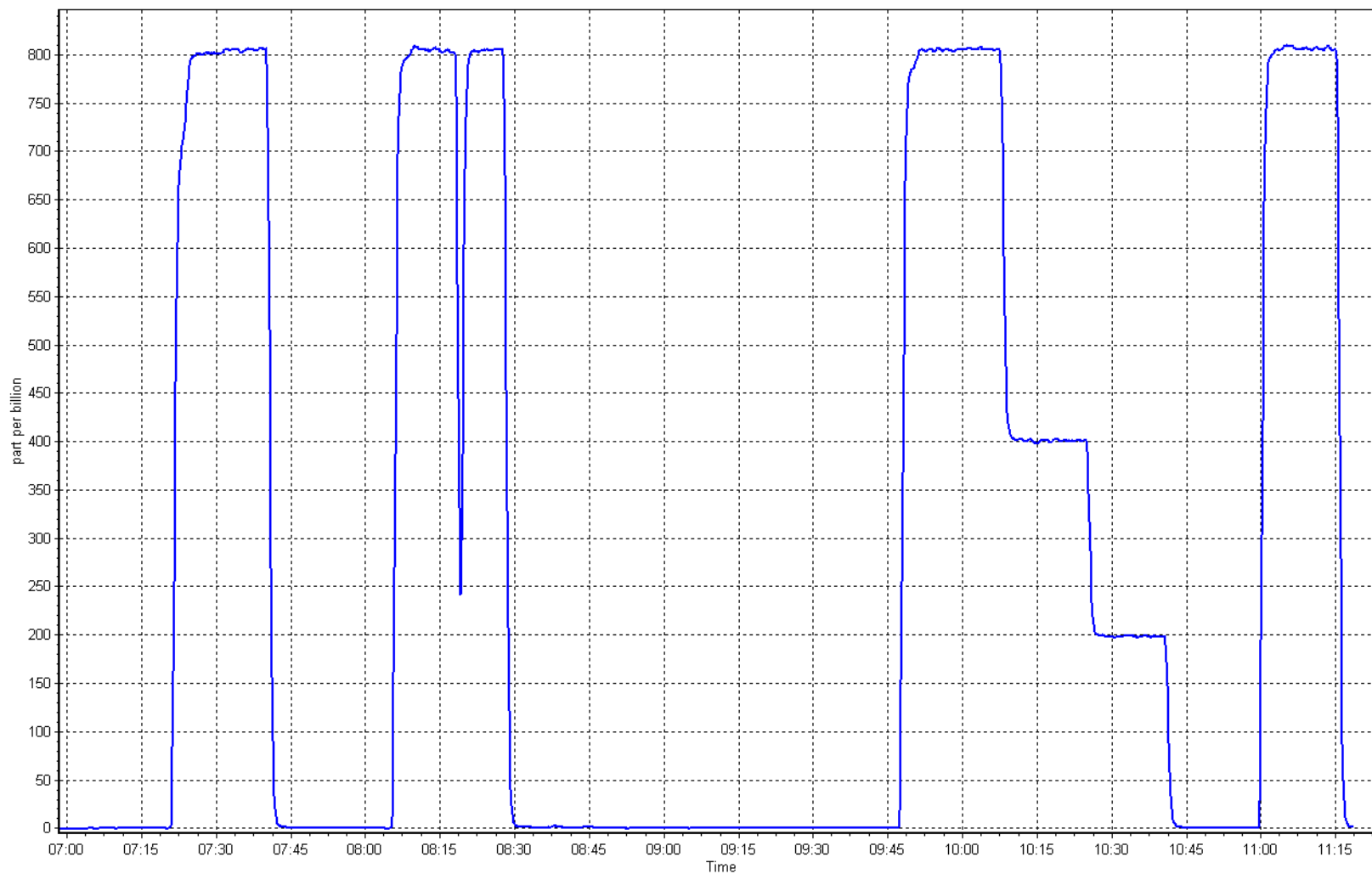
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999982	≥0.995
800.2	806.1	0.9927	Slope	1.008230	0.90 - 1.10
399.6	401.0	0.9965	Intercept	-1.379251	+/-30
199.8	198.3	1.0076			



SO2 Calibration Plot

Date: June 2, 2026

Location: Surmont 2





Wood Buffalo Environmental Association

H2S Calibration Report

Station Information

Station Name: Surmont 2
Calibration Date: June 4, 2026
Start time (MST): 6:12
Reason: Routine

Station number: AMS 29
Last Cal Date: May 27, 2026
End time (MST): 9:31

Calibration Standards

Cal Gas Concentration: 4.750 ppm
Cal Gas Cylinder #: CC737848
Removed Cal Gas Conc: 4.750 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701

Cal Gas Exp Date: August 28, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 5472
Serial Number: 1402

Analyzer Information

Analyzer make: Thermo 43iQ-TLE
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1200326170
Converter serial #: 2022-220
Converter Temp: 325.0 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998881	1.010741	Backgd or Offset:	1.00	1.00
Calibration intercept:	-0.080480	-0.120485	Coeff or Slope:	1.036	1.036

H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4916	84.2	80.0	82.3	0.970
As found Mid point	4958	42.1	40.0	41.0	0.971
As found Low point	4979	21.1	20.0	20.7	0.957
New cylinder response					
Baseline Corr As found:	82.5	Prev response:	79.82	*% change:	3.3%
Baseline Corr 2nd AF pt:	41.2	AF Slope:	1.030172	AF Intercept:	-0.100495
Baseline Corr 3rd AF pt:	20.9	AF Correlation:	0.999984	* = > +/-5% change initiates investigation	

H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4916	84.2	80.0	80.7	0.991
Mid point	4958	42.1	40.0	40.4	0.990
Low point	4979	21.1	20.0	20.0	1.000
As left zero	5000	0.0	0.0	0.1	----
As left span	4916	84.2	80.0	80.2	0.997
SO2 Scrubber Check	4919	81.3	813.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	0.994
Date of last converter efficiency test:		December 5, 2024		108.1% efficiency	

Notes: Sox scrubber checked after the calibrator zero. No adjustments done.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

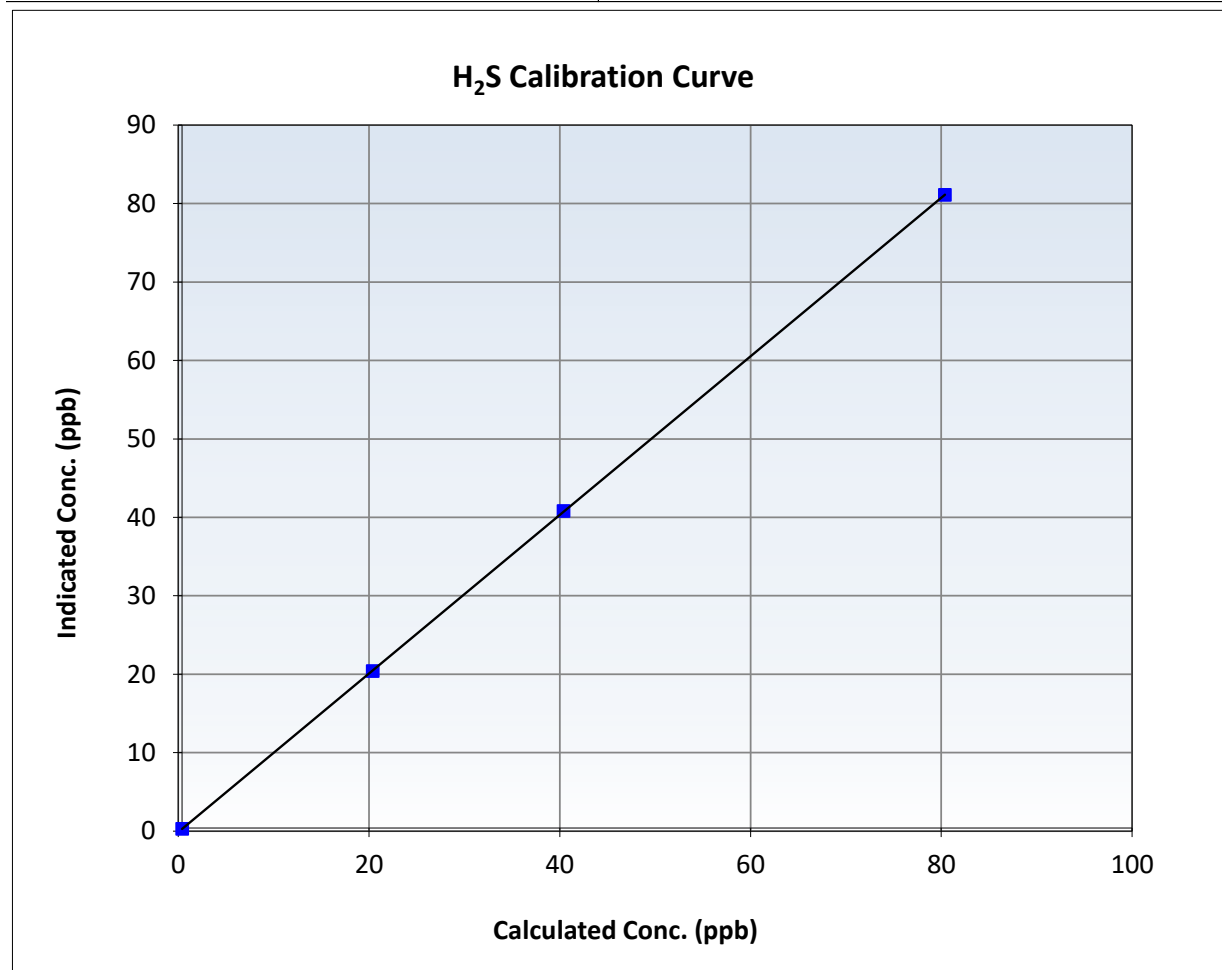
H2S Calibration Summary

Station Information

Calibration Date:	June 4, 2026	Previous Calibration:	May 27, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:12	End Time (MST):	9:31
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1200326170

Calibration Data

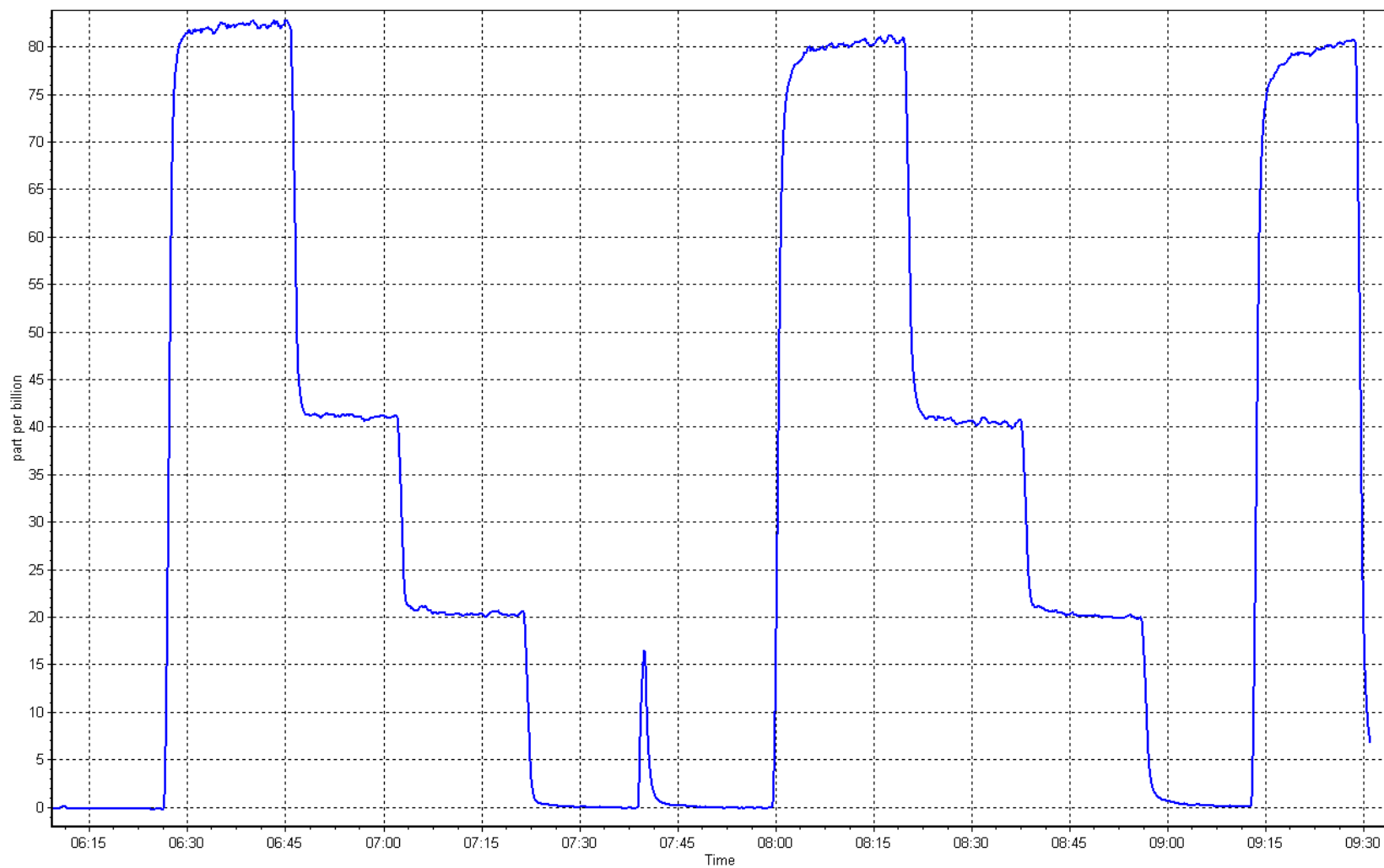
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999995		≥ 0.995
80.0	80.7	0.9912	Slope	1.010741		$0.90 - 1.10$
40.0	40.4	0.9900	Intercept	-0.120485		± 3
20.0	20.0	0.9999				



H2S Calibration Plot

Date: June 4, 2026

Location: Surmont 2





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Surmont 2
Calibration Date: June 2, 2026
Start time (MST): 7:03
Reason: Routine

Station number: AMS 29
Last Cal Date: May 6, 2026
End time (MST): 11:18

Calibration Standards

Gas Cert Reference: CC356229
CH4 Cal Gas Conc. 503.7 ppm
C3H8 Cal Gas Conc. 204.8 ppm
Removed Gas Cert: NA
Removed CH4 Conc. 503.7 ppm
Removed C3H8 Conc. 204.8 ppm
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701

Cal Gas Expiry Date: October 9, 2032
CH4 Equiv Conc. 1066.9 ppm
Removed Gas Expiry: NA
CH4 Equiv Conc. 1066.9 ppm
Diff between cyl:
Serial Number: 5472
Serial Number: 1402

Analyzer Information

Analyzer make: Thermo 51i-LT
Analyzer Range: 0 - 20 ppm

Analyzer serial #: 1180540021

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000785	1.003634	Background:	2.14	2.42
Calibration intercept:	-0.049749	-0.075796	Coefficient:	3.906	3.910

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.07	----
As found High point	4920	80.1	17.09	17.34	0.990
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	17.27	Previous response	17.06	*% change	1.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.05	----
High point	4920	80.1	17.09	17.16	0.996
Mid point	4960	40.0	8.54	8.38	1.018
Low point	4980	20.0	4.27	4.11	1.039
As left zero	5000	0.0	0.00	-0.01	----
As left span	4920	80.1	17.09	17.08	1.001
Average Correction Factor					1.018

Notes: tried putting in new hydrogen cylinder, not a good new cylinder. Put old cylinder back in. Zero and span adjusted.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

THC Calibration Summary

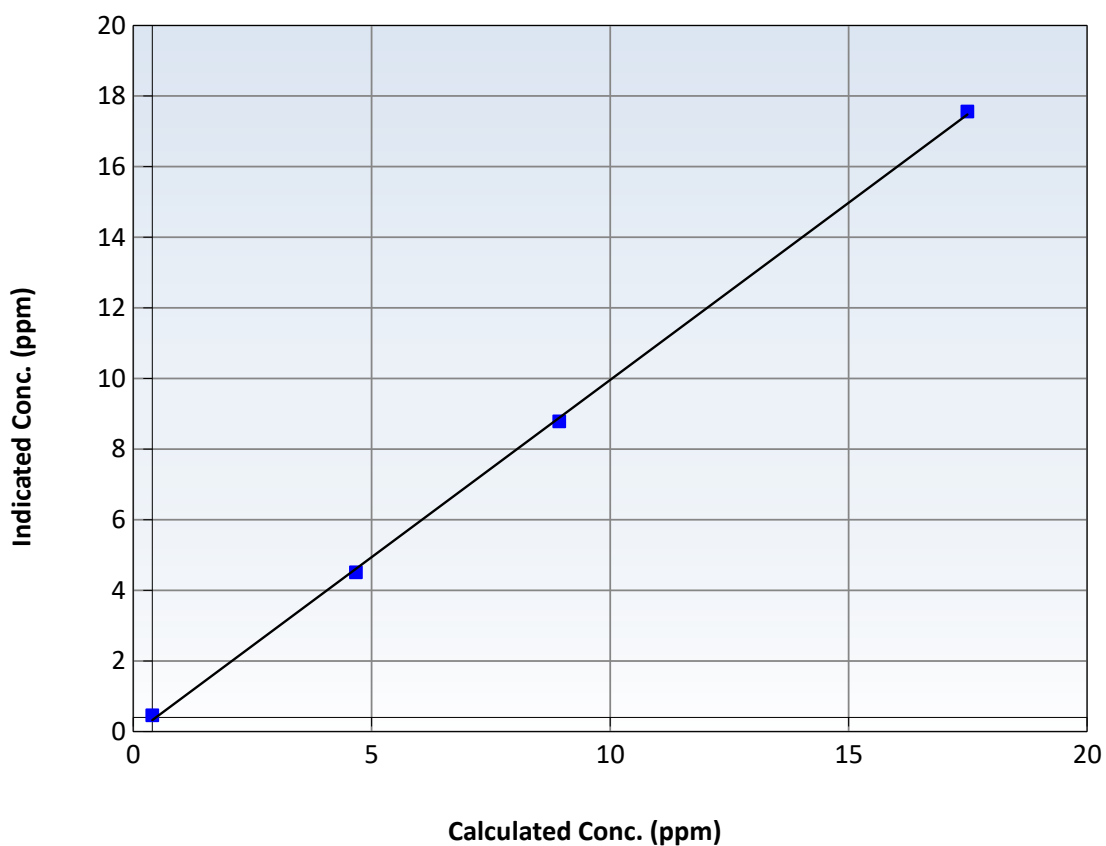
Station Information

Calibration Date:	June 2, 2026	Previous Calibration:	May 6, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	7:03	End Time (MST):	11:18
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1180540021

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.05	----	Correlation Coefficient	0.999721	≥ 0.995
17.09	17.16	0.9962	Slope	1.003634	$0.90 - 1.10$
8.54	8.38	1.0182	Intercept	-0.075796	± 1.5
4.27	4.11	1.0394			

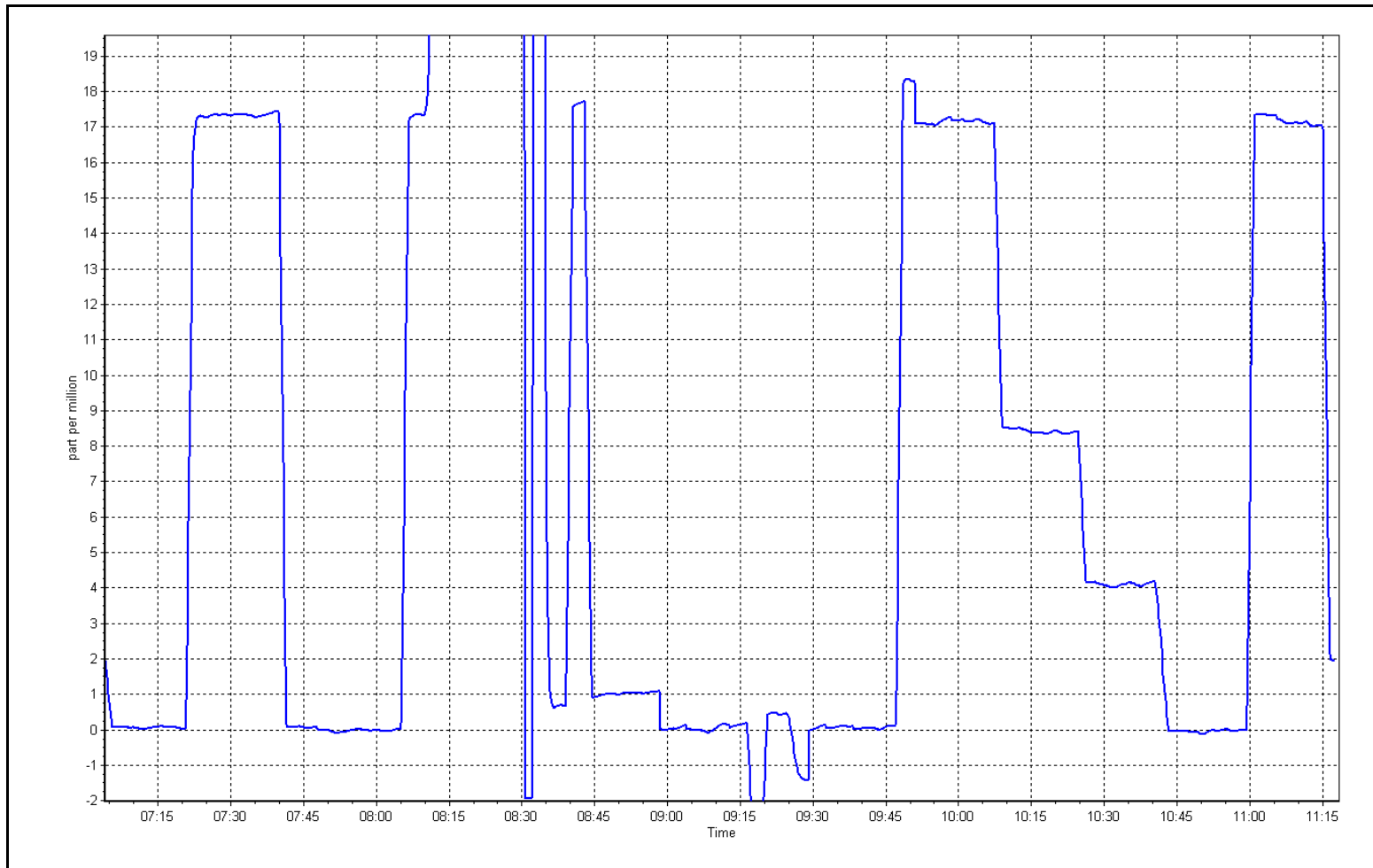
THC Calibration Curve



THC Calibration Plot

Date: June 2, 2026

Location: Surmont 2





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Surmont 2
Calibration Date: June 3, 2026
Start time (MST): 7:01
Reason: Maintenance

Station number: AMS 29
Last Cal Date: June 2, 2026
End time (MST): 9:31

Calibration Standards

Gas Cert Reference: CC356229
CH4 Cal Gas Conc. 503.7 ppm
C3H8 Cal Gas Conc. 204.8 ppm
Removed Gas Cert: NA
Removed CH4 Conc. 503.7 ppm
Removed C3H8 Conc. 204.8 ppm
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701

Cal Gas Expiry Date: October 9, 2032
CH4 Equiv Conc. 1066.9 ppm
Removed Gas Expiry: NA
CH4 Equiv Conc. 1066.9 ppm
Diff between cyl:
Serial Number: 5472
Serial Number: 1402

Analyzer Information

Analyzer make: Thermo 51i-LT
Analyzer Range: 0 - 20 ppm

Analyzer serial #: 1180540021

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003634	0.998891	Background:	2.42	1.98
Calibration intercept:	-0.075796	-0.004344	Coefficient:	3.910	3.876

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted
					Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.30	----
As found High point	4920	80.1	17.09	16.92	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	17.22	Previous response	17.08	*% change	0.8%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)
					<i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.03	----
High point	4920	80.1	17.09	17.08	1.001
Mid point	4960	40.0	8.54	8.53	1.000
Low point	4980	20.0	4.27	4.21	1.014
As left zero	5000	0.0	0.00	-0.03	----
As left span	4920	80.1	17.09	17.20	0.994
Average Correction Factor					1.005

Notes:

Hydrogen cylinder changed. Zero and Span adjusted.

Calibration Performed By:

Melissa Lemay



Wood Buffalo Environmental Association

THC Calibration Summary

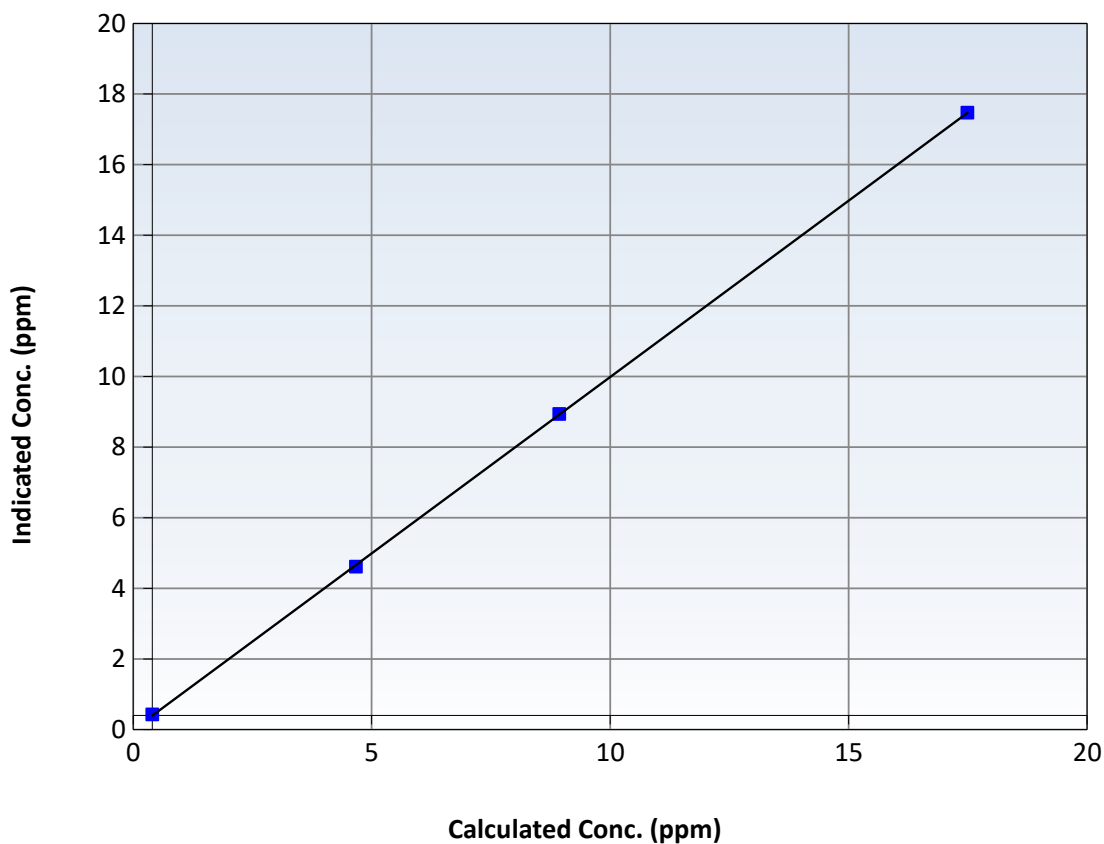
Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	June 2, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	7:01	End Time (MST):	9:31
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1180540021

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.03	----	Correlation Coefficient	0.999977	≥ 0.995
17.09	17.08	1.0010	Slope	0.998891	$0.90 - 1.10$
8.54	8.53	1.0003	Intercept	-0.004344	± 1.5
4.27	4.21	1.0139			

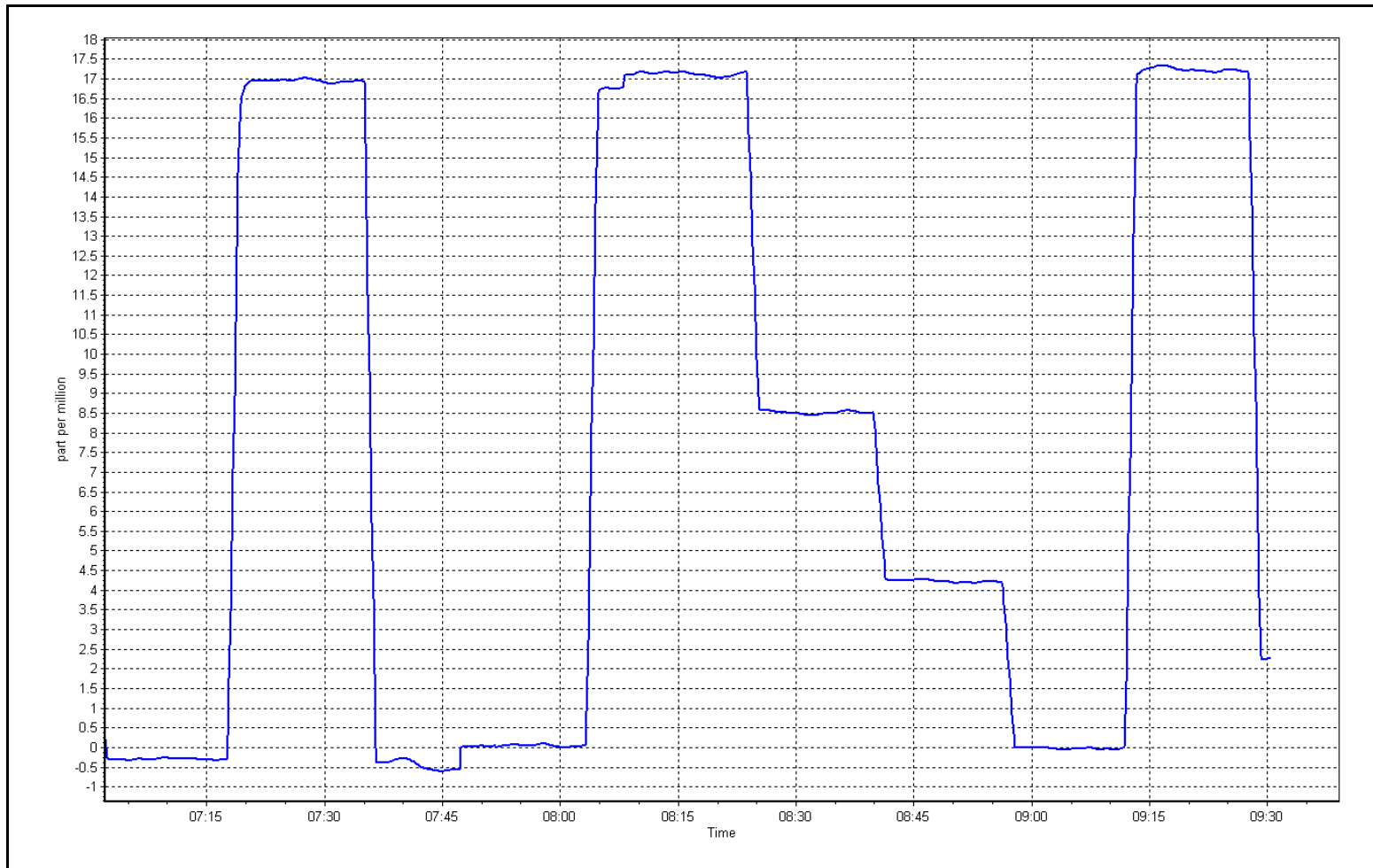
THC Calibration Curve



THC Calibration Plot

Date: June 3, 2026

Location: Surmont 2





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Surmont 2
Station number: AMS 29
Calibration Date: June 18, 2026
Last Cal Date: May 26, 2026
Start time (MST): 6:17
End time (MST): 10:09
Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC218007
NOX Cal Gas Conc: 60.20 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 60.20 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 60.00 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 60.00 ppm
NO gas Diff:
Serial Number: 5472
Serial Number: 1402

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0	0.0	0.0	0.0	0.0	0.0	0.0	----	----
AF High point	4933	66.7	803.1	800.4	2.7	808.0	802.6	5.5	0.9940	0.9973
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 802.3 ppb	NO = 799.1 ppb							*Percent Change	NO _x = 0.7%
Baseline Corr 1st pt	NO _x = 808.0 ppb	NO = 802.6 ppb							*Percent Change	NO = 0.4%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb								
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb								
As Found Statistics As found NO_x r²: As found NO r²: As found NO₂ r²: * = > +/-5% change initiates investigation NO_x = 0.7% NO = 0.4% Nx SI: NO SI: NO₂ SI:										

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1410661329

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.999880	1.005801
NO _x Cal Offset:	-0.708956	-0.688857
NO Cal Slope:	1.001114	1.005441
NO Cal Offset:	-2.248887	-2.088985
NO ₂ Cal Slope:	0.996516	1.003877
NO ₂ Cal Offset:	-0.137152	0.276351

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.971	0.971	NO bkgnd or offset:	8.9	8.9
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	9.0	9.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	154.9	154.9

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOX Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0	0.0	0.0	0.0	0.1	0.2	0.0	----	----
High point	4933	66.7	803.1	800.4	2.7	806.9	803.3	3.7	0.9953	0.9964
Mid point	4967	33.3	400.9	399.6	1.3	403.9	400.2	3.7	0.9926	0.9984
Low point	4983	16.7	201.1	200.4	0.7	199.6	196.0	3.6	1.0074	1.0225
As left zero	5000	0	0.0	0.0	0.0	0.2	0.2	0.1	----	----
As left span	4933	66.7	803.1	439.8	363.3	802.8	439.8	363.1	1.0004	1.0000
Average Correction Factor									0.9984	1.0058

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	799.0	442.0	359.7	361.1	0.9960	100.4%
Mid GPT point	799.0	632.3	169.4	170.8	0.9916	100.8%
Low GPT point	799.0	714.2	87.5	88.1	0.9928	100.7%
Average Correction Factor					0.9935	100.7%

Notes:

No maintenance or adjustments done.

Calibration Performed By:

Melissa Lemay



Wood Buffalo Environmental Association

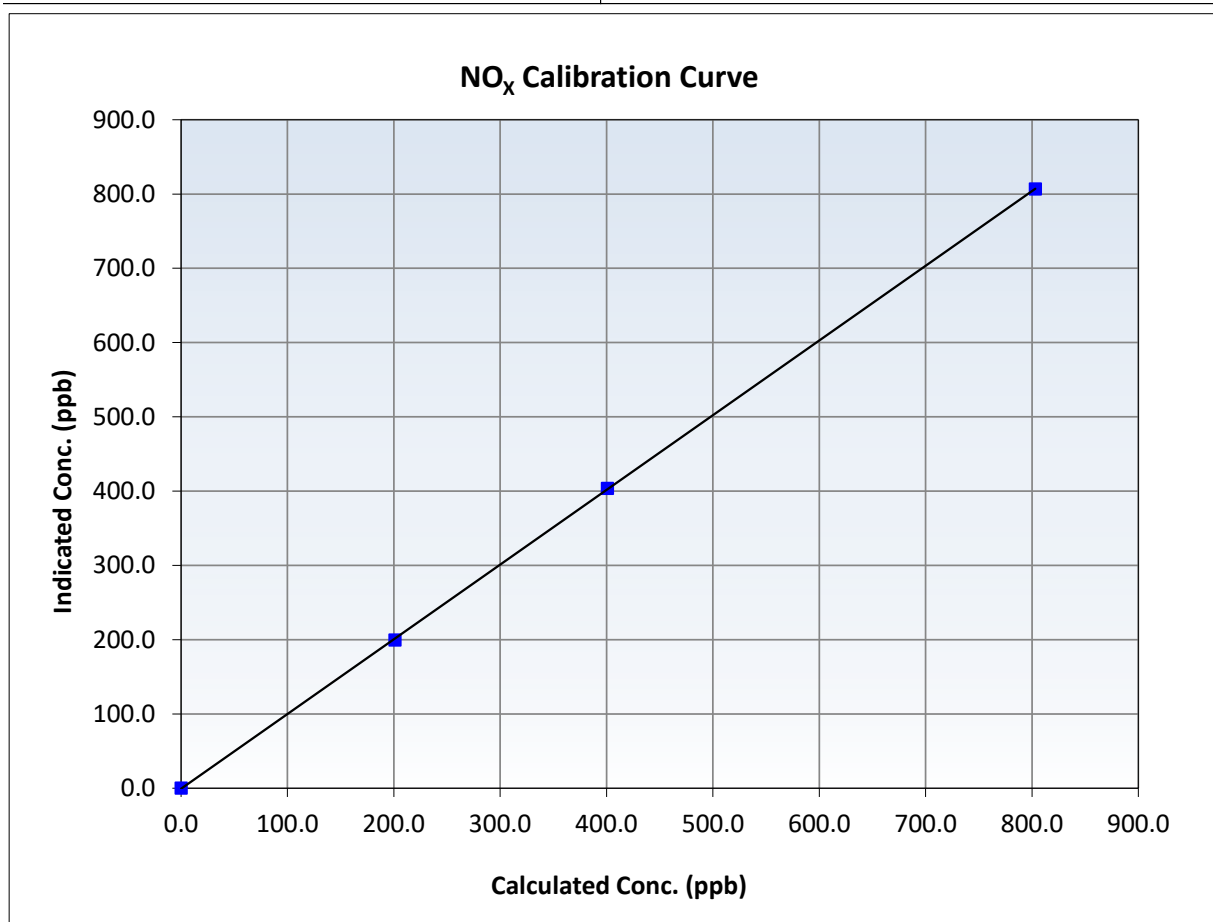
NO_x Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 26, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:17	End Time (MST):	10:09
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999982	≥0.995
803.1	806.9	0.9953	Slope	1.005801	0.90 - 1.10
400.9	403.9	0.9926	Intercept	-0.688857	+/-20
201.1	199.6	1.0074			





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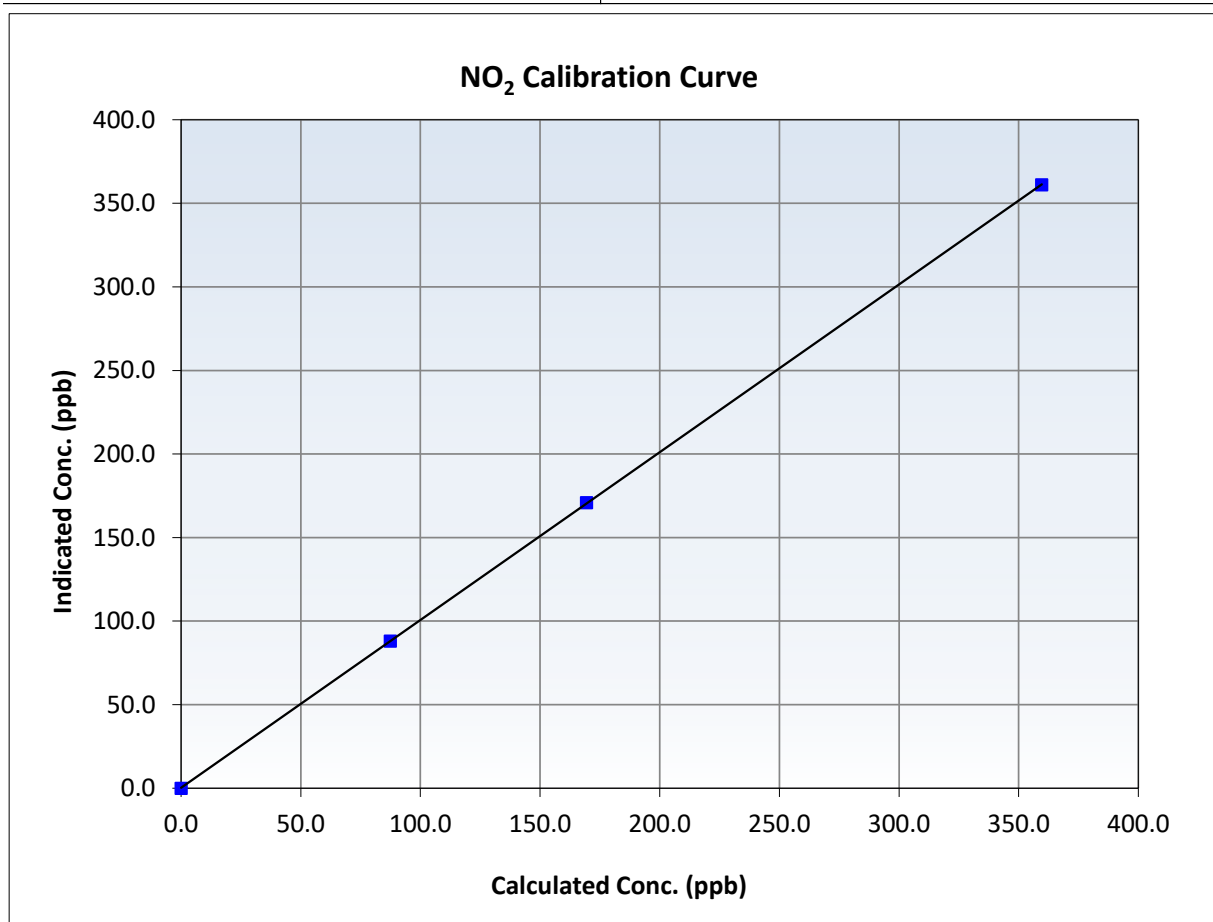
NO₂ Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 26, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:17	End Time (MST):	10:09
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999995	≥0.995
359.7	361.1	0.9960	Slope	1.003877	0.90 - 1.10
169.4	170.8	0.9916	Intercept	0.276351	+/-20
87.5	88.1	0.9928			





Wood Buffalo Environmental Association

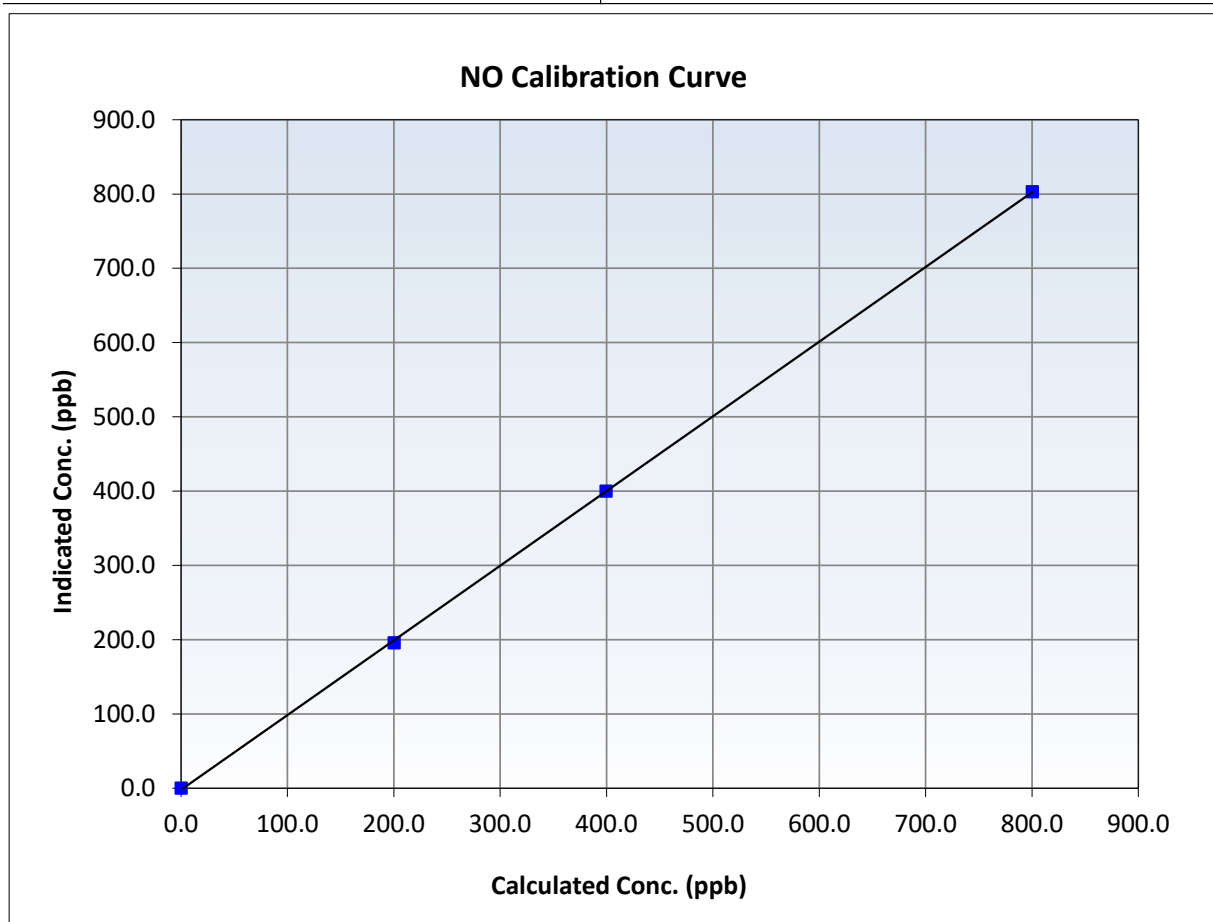
NO Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 26, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:17	End Time (MST):	10:09
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

Calibration Data

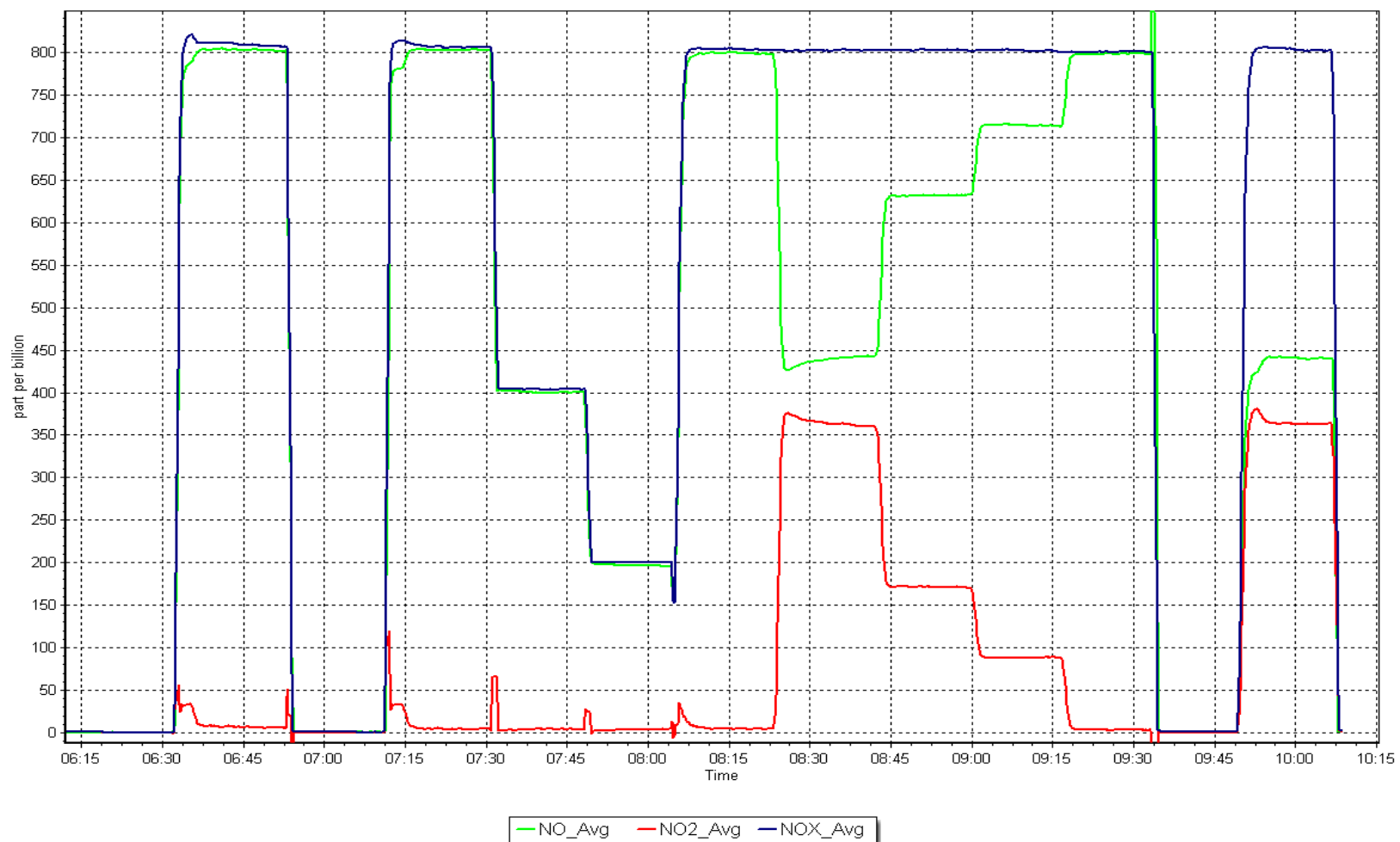
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999951	≥ 0.995
800.4	803.3	0.9964	Slope	1.005441	$0.90 - 1.10$
399.6	400.2	0.9984	Intercept	-2.088985	± 20
200.4	196.0	1.0225			



NO_x Calibration Plot

Date: June 18, 2026

Location: Surmont 2





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Surmont 2 Station number: AMS 29
Calibration Date: June 2, 2026 Last Cal Date: May 5, 2026
Start time (MST): 6:38 End time (MST): 7:03

Analyzer Make: API T640 S/N: 2236
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388753
Temp/RH standard: Alicat FP-25BT S/N: 388753

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	7	6.82	7	☐	+/- 2 °C
P (mmHg)	721.0	719.70	721.0	☐	+/- 10 mmHg
Flow (LPM)	5.02	4.978	5.02	☐	+/- 0.25 LPM
PW% (pump)	37	----	37	☐	>80%
Zero Verification	PM w/o HEPA: 1.2		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: May 5, 2026
Date Disposable Filter Changed: May 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: May 5, 2026
Date RH/T Sensor Cleaned: May 5, 2026

Notes: No adjustments done.

Calibration by: Melissa Lemay



Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Surmont 2 Station number: AMS 29
Calibration Date: June 18, 2026 Last Cal Date: June 2, 2026
Start time (MST): 6:01 End time (MST): 6:41

Analyzer Make: API T640 S/N: 2236
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388753
Temp/RH standard: Alicat FP-25BT S/N: 388753

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	12.7	13.1	12.7	☐	+/- 2 °C
P (mmHg)	711.8	711.10	711.8	☐	+/- 10 mmHg
Flow (LPM)	5.01	5.030	5.01	☐	+/- 0.25 LPM
PW% (pump)	36	----	36	☐	>80%
Zero Verification	PM w/o HEPA: _____	3.6	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: May 5, 2026
Date Disposable Filter Changed: May 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: _____ 0.0 <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: May 5, 2026
Date RH/T Sensor Cleaned: May 5, 2026

Notes: No as founds before Das Data deleted as T640 not communicating with data logger. After Das Data was deleted T640 would communicate again. No adjustments done.

Calibration by: Melissa Lemay



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

**AMS30
ELLS RIVER
JUNE 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Ells River Station number: AMS 30
Calibration Date: June 3, 2026 Last Cal Date: May 7, 2026
Start time (MST): 8:57 End time (MST): 12:10
Reason: Routine

Calibration Standards

Cal Gas Concentration: 48.75 ppm Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #: CC350110
Removed Cal Gas Conc: 48.75 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: API T700 Serial Number: 5707
Zero Air Gen Model: API T701H Serial Number: 358

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1008841397
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.007027	1.009011	Backgd or Offset:	10.8	10.8
Calibration intercept:	-1.035704	-1.355162	Coeff or Slope:	1.013	1.013

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4918	82.1	800.5	805.4	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	805.5	Previous response	805.0	*% change	0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4918	82.1	800.5	807.0	0.992
Mid point	4959	41.0	399.8	401.5	0.996
Low point	4979	20.5	199.9	198.6	1.007
As left zero	5000	0.0	0.0	0.1	----
As left span	4918	82.1	800.5	806.3	0.993
Average Correction Factor:					0.998

Notes: Inlet filter changed after as founds, no adjustment made.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

SO₂ Calibration Summary

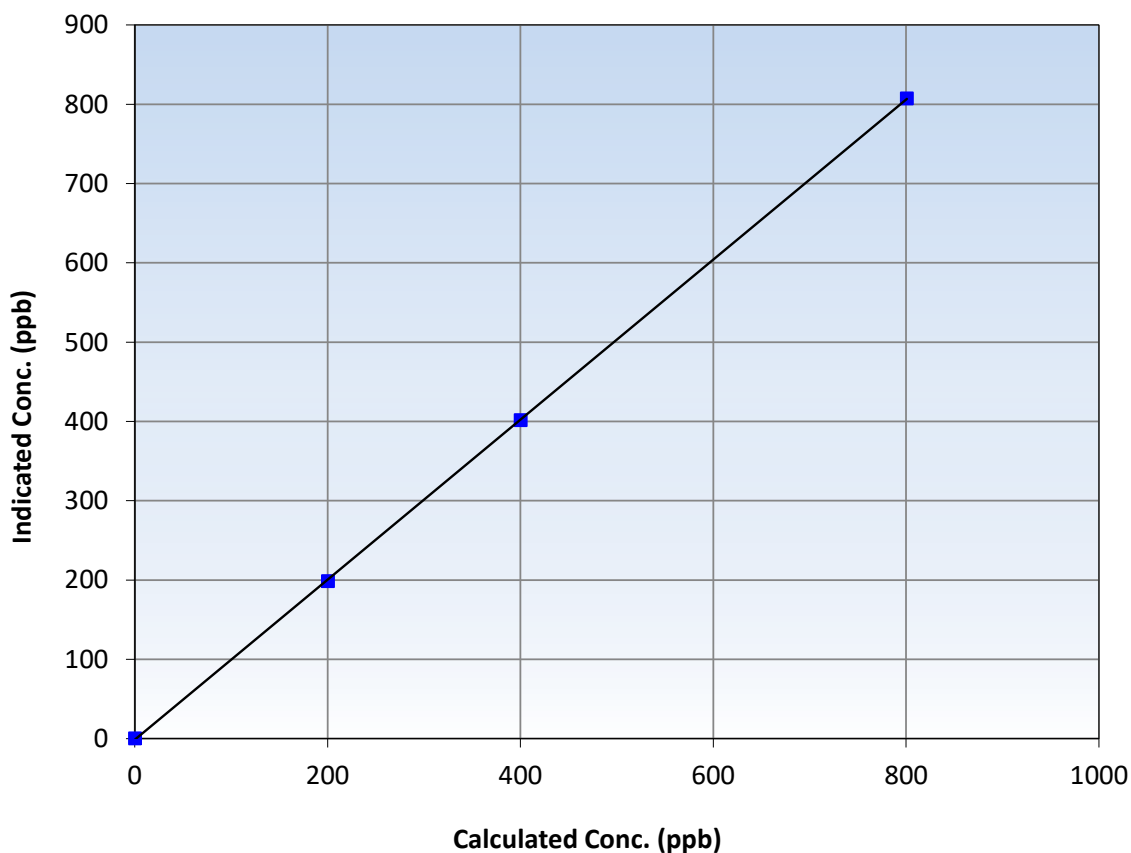
Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	May 7, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:57	End Time (MST):	12:10
Analyzer make:	Thermo 43i	Analyzer serial #:	1008841397

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999983	≥0.995
800.5	807.0	0.9919	Slope	1.009011	0.90 - 1.10
399.8	401.5	0.9956	Intercept	-1.355162	+/-30
199.9	198.6	1.0065			

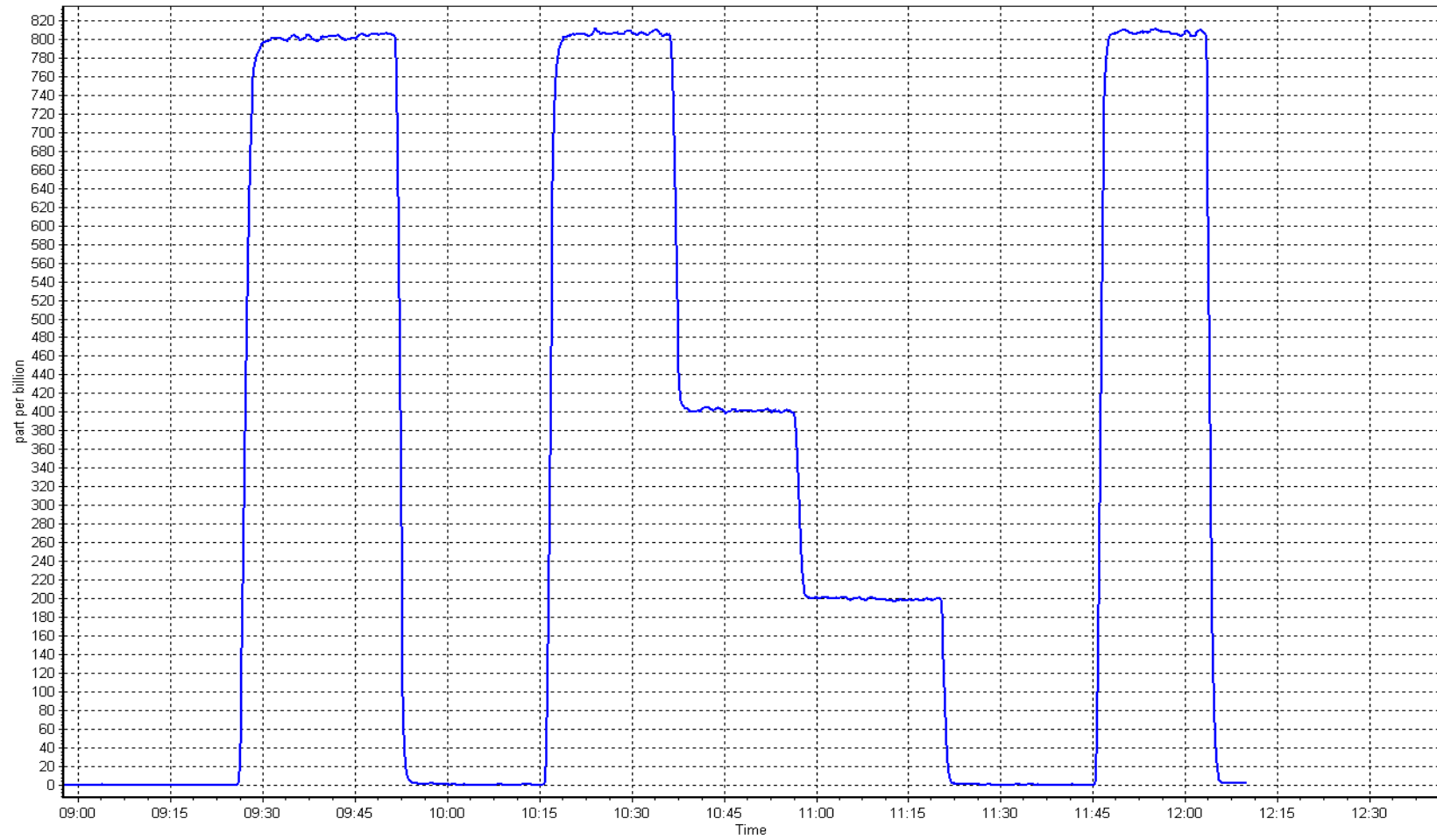
SO₂ Calibration Curve



SO2 Calibration Plot

Date: June 3, 2026

Location: Ells River





Wood Buffalo Environmental Association

TRS Calibration Report

Station Information

Station Name: Ells River
Calibration Date: June 4, 2026
Start time (MST): 8:20
Reason: Routine

Station number: AMS 30
Last Cal Date: May 13, 2026
End time (MST): 12:22

Calibration Standards

Cal Gas Concentration: 4.99 ppm
Cal Gas Cylinder #: CC505806
Removed Cal Gas Conc: 4.99 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: API T700
ZAG Make/Model: API 701H

Cal Gas Exp Date: November 15, 2026
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 5707
Serial Number: 358

Analyzer Information

Analyzer make: Thermo 43i-LTE
Converter make: CDN- 101
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1170050152
Converter serial #: 632
Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005475	1.000475	Backgd or Offset:	3.98	3.86
Calibration intercept:	-0.220486	-0.220485	Coeff or Slope:	1.264	1.232

TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4920	80.2	80.0	81.3	0.982
As found Mid point	4960	40.1	40.0	40.5	0.983
As found Low point	4980	20.0	20.0	20.0	0.988
New cylinder response					
Baseline Corr As found:	81.5	Prev response:	80.25	*% change:	1.5%
Baseline Corr 2nd AF pt:	40.7	AF Slope:	1.018751	AF Intercept:	-0.260191
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999997	* = > +/-5% change initiates investigation	

TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4920	80.2	80.0	79.9	1.002
Mid point	4960	40.1	40.0	39.7	1.008
Low point	4980	20.0	20.0	19.8	1.008
As left zero	5000	0.0	0.0	-0.1	----
As left span	4920	80.2	80.0	80.2	0.998
SO2 Scrubber Check	4918	82.0	820.0	0.2	----
Date of last scrubber change:	16-Dec-25			Ave Corr Factor	1.006
Date of last converter efficiency test:					

Notes: Inlet filter changed after as founds. Scrubber check passed. Span adjusted.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

TRS Calibration Summary

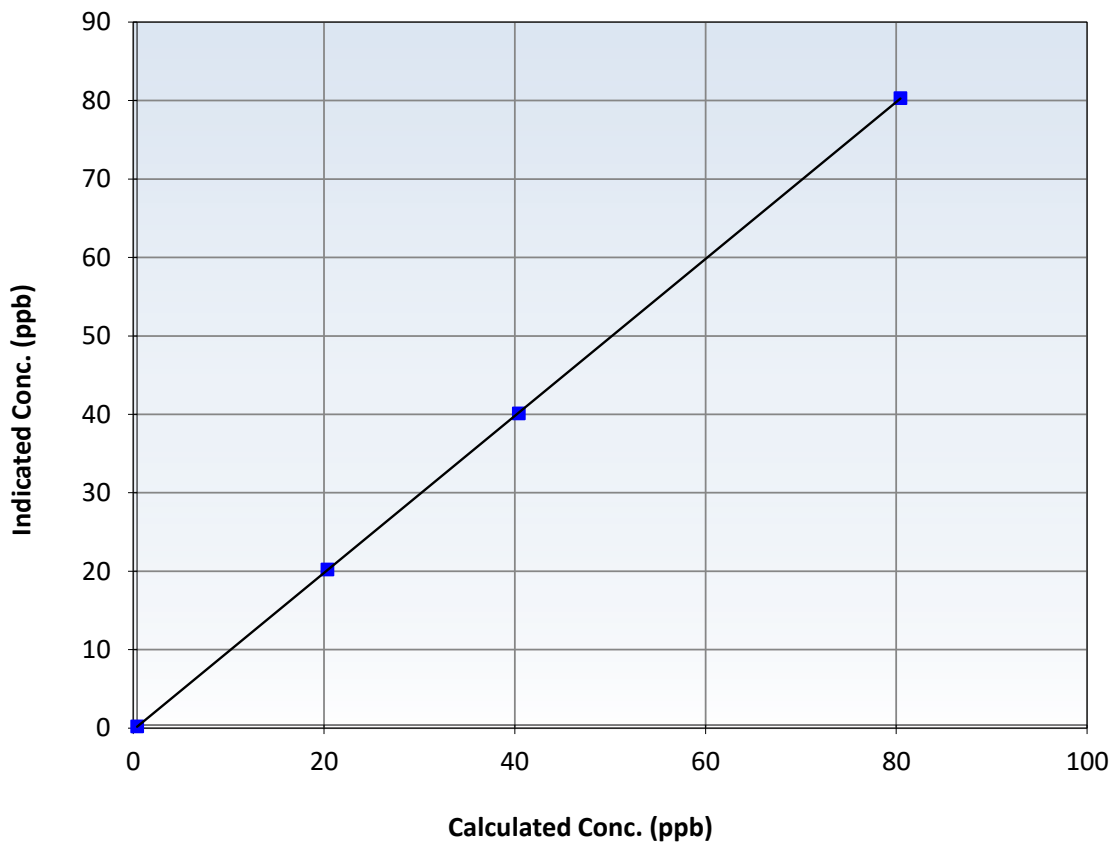
Station Information

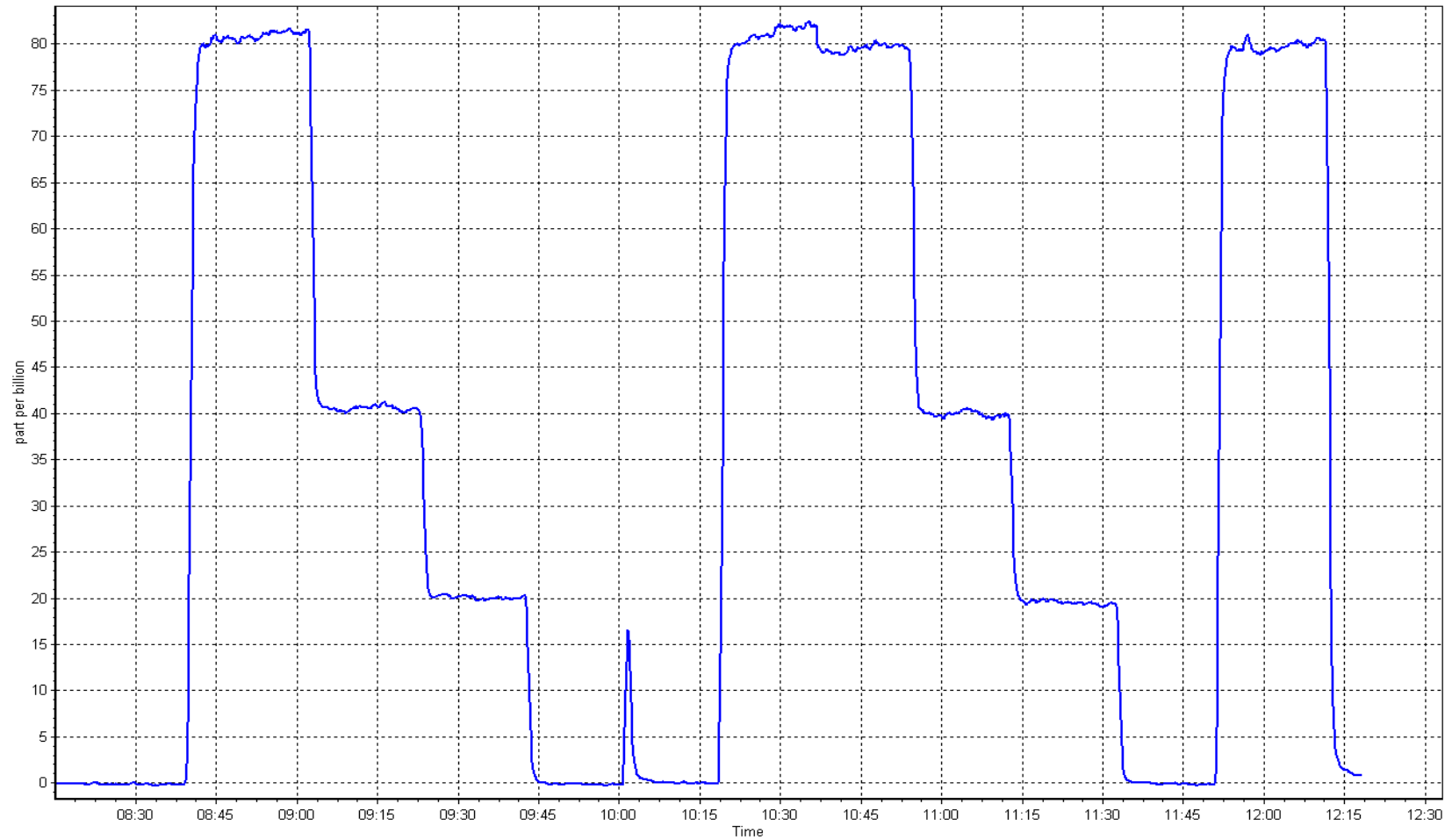
Calibration Date:	June 4, 2026	Previous Calibration:	May 13, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:20	End Time (MST):	12:22
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1170050152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999995		≥ 0.995
80.0	79.9	1.0017	Slope	1.000475		$0.90 - 1.10$
40.0	39.7	1.0080	Intercept	-0.220485		± 3
20.0	19.8	1.0081				

TRS Calibration Curve







Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Ells River
Calibration Date: June 2, 2026
Start time (MST): 8:40
Reason: Removal

Station number: AMS 30
Last Cal Date: May 22, 2026
End time (MST): 9:57

Calibration Standards

Gas Cert Reference: CC350110
CH₄ Cal Gas Conc. 496.6 ppm
C₃H₈ Cal Gas Conc. 207.2 ppm
Removed Gas Cert:
Removed CH₄ Conc. 496.6 ppm
Removed C₃H₈ Conc. 207.2 ppm
Diff between cyl (CH₄):
Calibrator Model: API T700
Zero Air Gen model: API T701H

Cal Gas Expiry Date: Monday, March 10, 2031
CH₄ Equiv Conc. 1066.4 ppm
Removed Gas Expiry:
CH₄ Equiv Conc. 1066.4 ppm
Diff between cyl (THC):
Diff between cyl (NM):
Serial Number: 5707
Serial Number: 358

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1180320037
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	4.89E-04		NMHC SP Ratio:	6.82E-05
CH ₄ Retention time:	17.0		NMHC Peak Area:	137221
Zero Chromatogram:	OFF	OFF	Flat Baseline:	ON ON

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.02	----
As found High point	4918	82.1	17.51	18.07	0.970
As found Mid point	4959	41.0	8.74	9.00	0.974
As found Low point	4979	20.5	4.37	4.39	1.002
New cylinder response					
Baseline Corr AF:	18.05	Prev response	17.34	*% change	4.0%
Baseline Corr 2nd AF:	8.98	AF Slope:	1.033492	AF Intercept:	-0.042462
Baseline Corr 3rd AF:	4.37	AF Correlation:	0.999931	* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

Notes:

Instrument removed after multipoint as founds



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.02	Limit = 0.90-1.10
As found High point	4918	82.1	9.36	9.38	1.000
As found Mid point	4959	41.0	4.67	4.71	0.996
As found Low point	4979	20.5	2.34	2.27	1.039
New cylinder response					
Baseline Corr AF:	9.36	Prev response	9.19	*% change	1.8%
Baseline Corr 2nd AF:	4.69	AF Slope:	1.003585	AF Intercept:	-0.009842
Baseline Corr 3rd AF:	2.25	AF Correlation:	0.999868	* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	Limit = 0.90-1.10
As found High point	4918	82.1	8.15	8.69	0.938
As found Mid point	4959	41.0	4.07	4.29	0.950
As found Low point	4979	20.5	2.04	2.12	0.961
New cylinder response					
Baseline Corr AF:	8.69	Prev response	8.15	*% change	6.2%
Baseline Corr 2nd AF:	4.29	AF Slope:	1.067302	AF Intercept:	-0.031820
Baseline Corr 3rd AF:	2.12	AF Correlation:	0.999933	* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) Limit = 0.95-1.05
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

Calibration Statistics

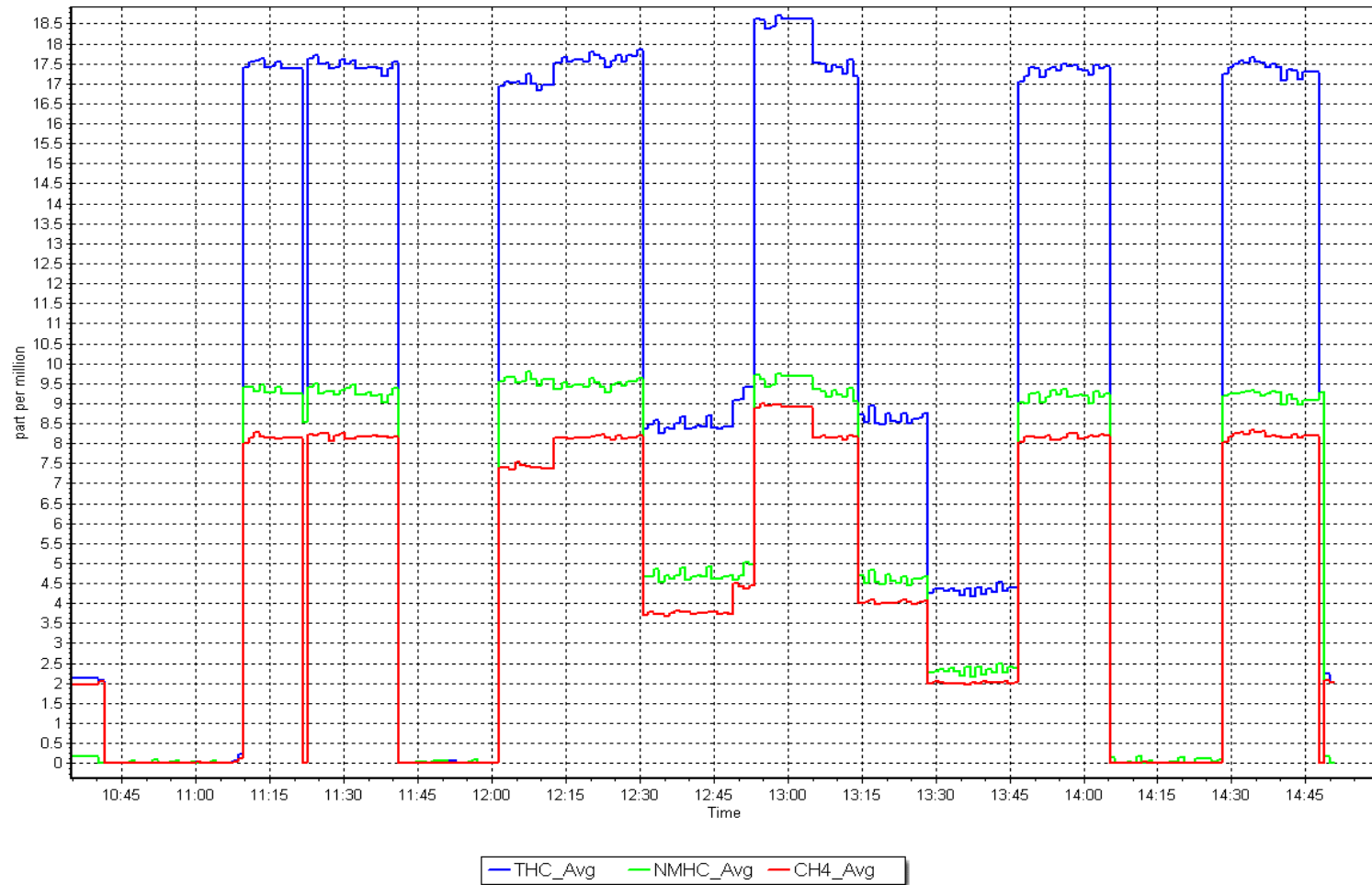
	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.989371	
THC Cal Offset:	0.012364	
CH ₄ Cal Slope:	1.001723	
CH ₄ Cal Offset:	-0.018741	
NMHC Cal Slope:	0.978507	
NMHC Cal Offset:	0.031505	

Calibration Performed By: Jason Brooks

NMHC Calibration Plot

Date: June 2, 2026

Location: Ells River





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Ells River
Calibration Date: June 3, 2026
Start time (MST): 8:57
Reason: Install

Station number: AMS 30
Last Cal Date: N/A
End time (MST): 12:10

Calibration Standards

Gas Cert Reference: CC350110
CH₄ Cal Gas Conc. 496.6 ppm
C₃H₈ Cal Gas Conc. 207.2 ppm
Removed Gas Cert:
Removed CH₄ Conc. 496.6 ppm
Removed C₃H₈ Conc. 207.2 ppm
Diff between cyl (CH₄):
Calibrator Model: API T700
Zero Air Gen model: API T701H

Cal Gas Expiry Date: Monday, March 10, 2031
CH₄ Equiv Conc. 1066.4 ppm
Removed Gas Expiry:
CH₄ Equiv Conc. 1066.4 ppm
Diff between cyl (THC):
Diff between cyl (NM):
Serial Number: 5707
Serial Number: 358

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1193585649
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:		3.35E-04	NMHC SP Ratio:	6.24E-05
CH ₄ Retention time:		17.0	NMHC Peak Area:	150083
Zero Chromatogram:		OFF	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.51	17.52	1.000
Mid point	4959	41.0	8.74	8.65	1.011
Low point	4979	20.5	4.37	4.30	1.016
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	17.51	17.49	1.001
Average Correction Factor					1.009

Notes:

Instrument installation



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.36	9.35	1.000
Mid point	4959	41.0	4.67	4.64	1.008
Low point	4979	20.5	2.34	2.32	1.008
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	9.36	9.32	1.004
Average Correction Factor					1.005

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.15	8.16	0.999
Mid point	4959	41.0	4.07	4.01	1.016
Low point	4979	20.5	2.04	1.99	1.025
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	8.15	8.16	0.999
Average Correction Factor					1.013

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:		1.001023
THC Cal Offset:		-0.048609
CH ₄ Cal Slope:		1.001865
CH ₄ Cal Offset:		-0.033746
NMHC Cal Slope:		1.000058
NMHC Cal Offset:		-0.014663

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

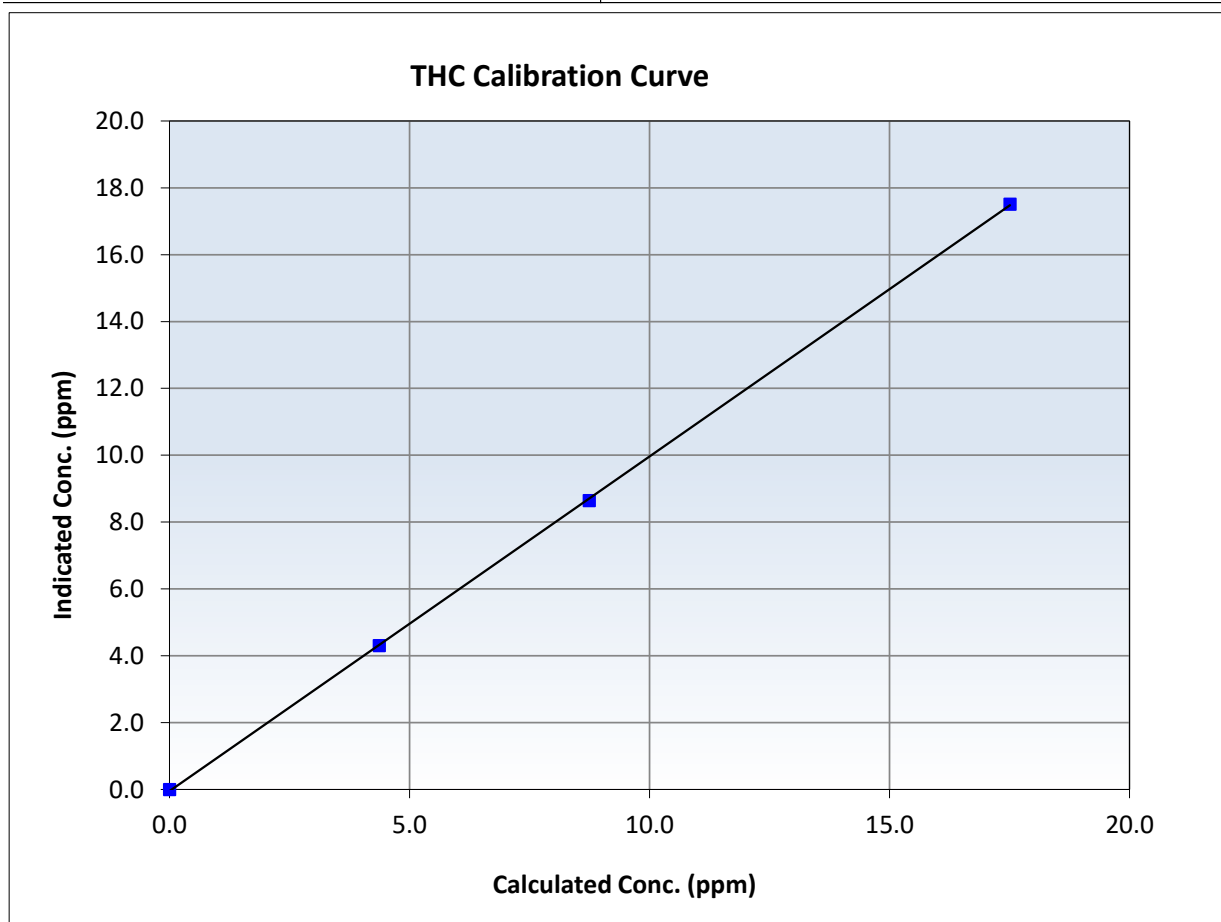
THC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	N/A
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:57	End Time (MST):	12:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585649

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999954		<i>≥0.995</i>
17.51	17.52	0.9997	Slope	1.001023		<i>0.90 - 1.10</i>
8.74	8.65	1.0114	Intercept	-0.048609		<i>+/-0.5</i>
4.37	4.30	1.0162				





Wood Buffalo Environmental Association

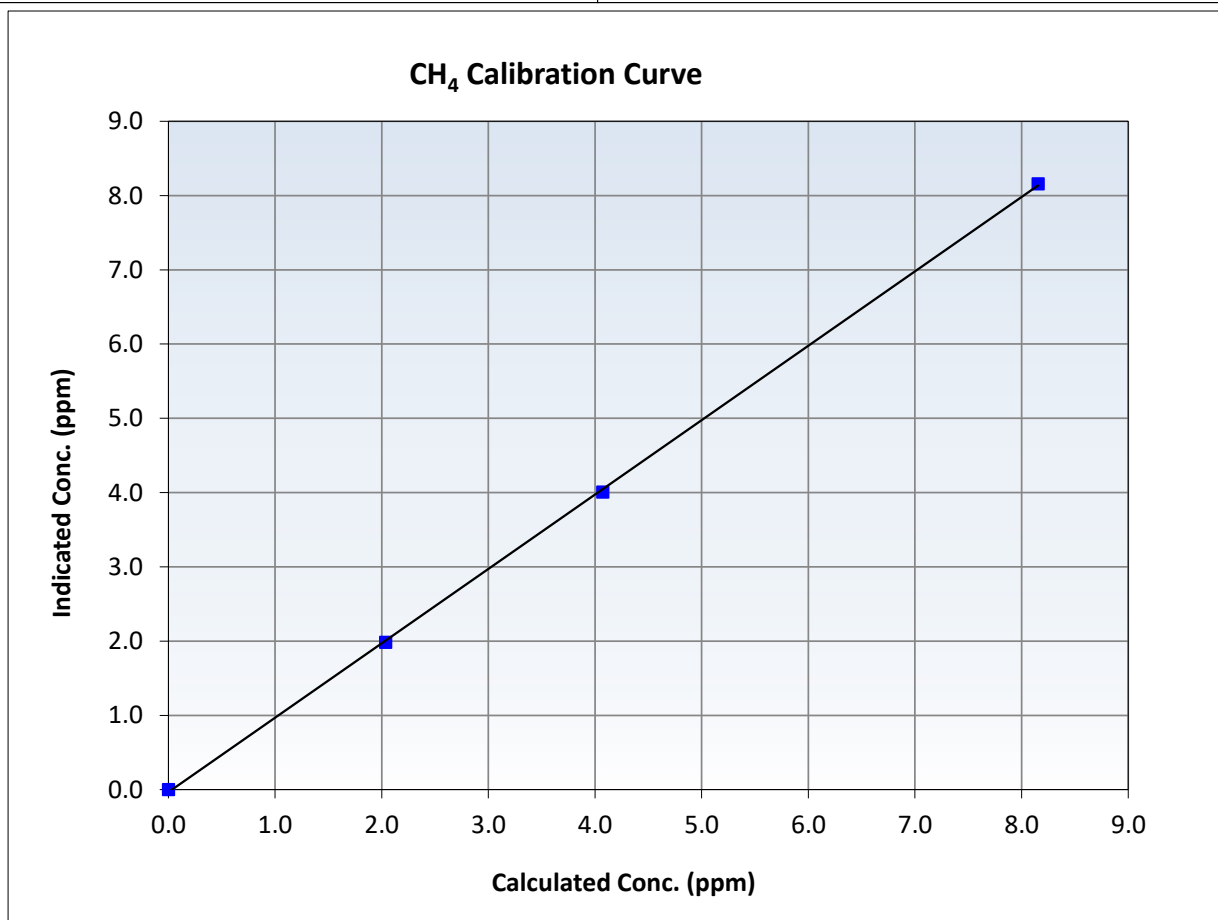
CH₄ Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	N/A
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:57	End Time (MST):	12:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585649

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999905	<i>≥0.995</i>
8.15	8.16	0.9994	Slope	1.001865	<i>0.90 - 1.10</i>
4.07	4.01	1.0157	Intercept	-0.033746	<i>+/-0.5</i>
2.04	1.99	1.0253			





Wood Buffalo Environmental Association

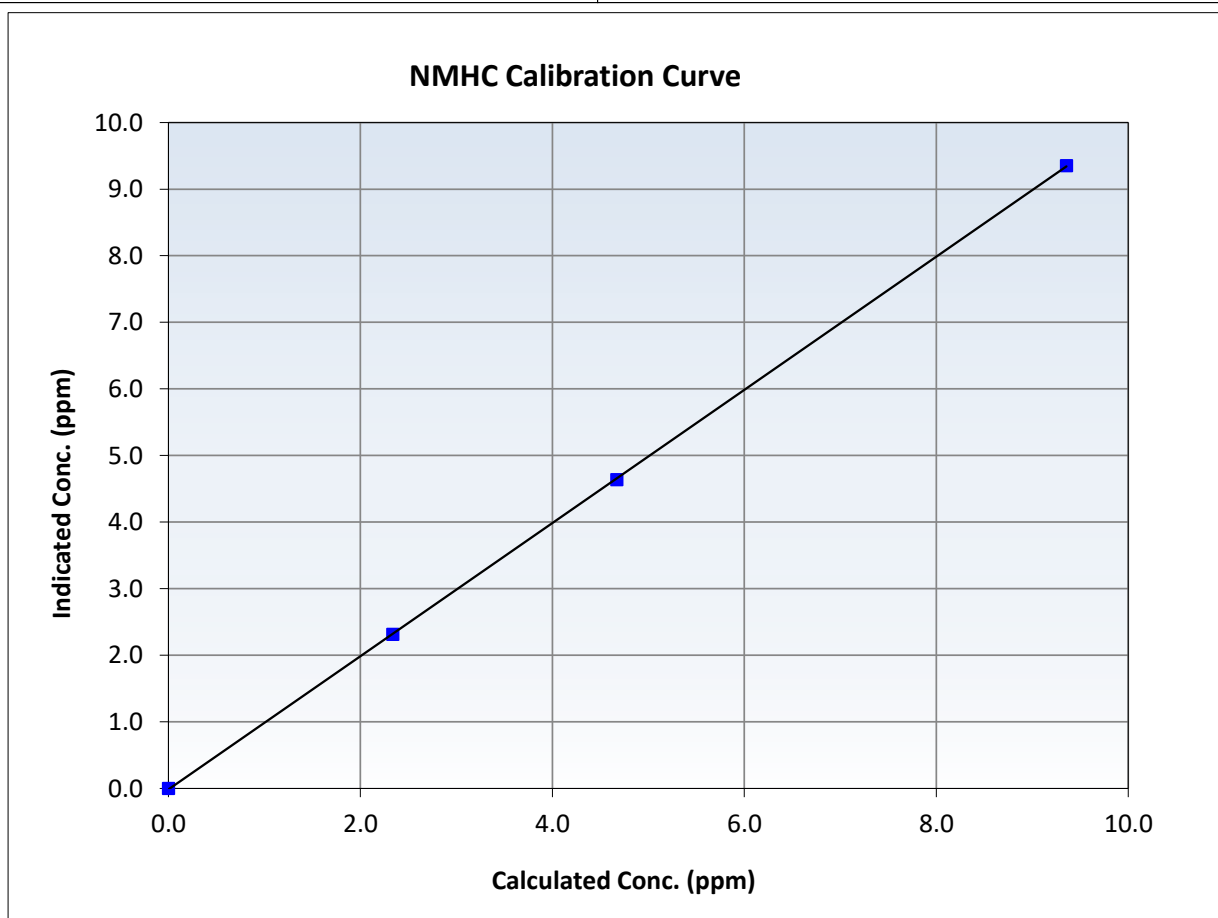
NMHC Calibration Summary

Station Information

Calibration Date:	June 3, 2026	Previous Calibration:	N/A
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:57	End Time (MST):	12:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585649

Calibration Data

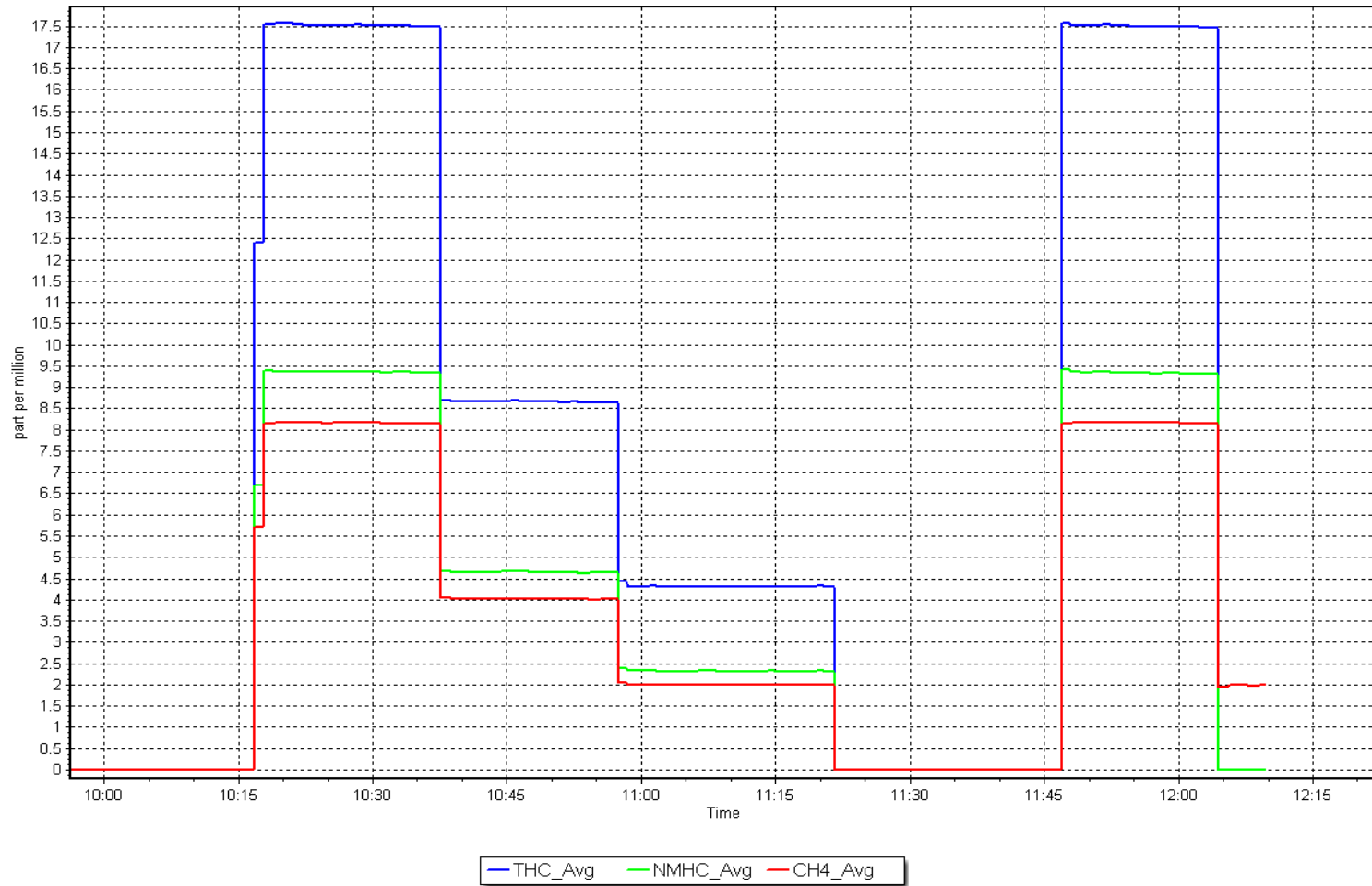
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			Limits
0.00	0.00	----	Correlation Coefficient	0.999982		≥ 0.995
9.36	9.35	1.0002	Slope	1.000058		$0.90 - 1.10$
4.67	4.64	1.0078	Intercept	-0.014663		± 0.5
2.34	2.32	1.0084				



NMHC Calibration Plot

Date: June 3, 2026

Location: Ells River





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Ells River
Station number: AMS 30
Calibration Date: June 10, 2026
Last Cal Date: May 11, 2026
Start time (MST): 10:15
End time (MST): 15:10
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0027487
NOX Cal Gas Conc: 59.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 59.30 ppm
NOX gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 59.10 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 59.10 ppm
NO gas Diff:
Serial Number: 5707
Serial Number: 358

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	0.2	-0.3	----	----
AF High point	4932	67.7	803.0	800.3	2.7	762.1	755.0	7.1	1.0535	1.0602
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO _x = 798.8 ppb	NO = 793.1 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = -4.8%
Baseline Corr 1st pt	NO _x = 762.2 ppb	NO = 754.8 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -5.1%
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found	NO _x r ² :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found	NO r ² :	NO SI:	NO Int:
			As found	NO ₂ r ² :	NO2 SI:	NO ₂ Int:

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 0710321429

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.994334	1.000371
NO _x Cal Offset:	0.340969	-0.278139
NO Cal Slope:	0.992218	0.998404
NO Cal Offset:	-0.941162	-1.480497
NO ₂ Cal Slope:	1.002159	1.004417
NO ₂ Cal Offset:	0.382135	0.330382

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.645	1.738	NO bkgnd or offset:	18.7	19.4
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	19.0	19.7
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	217.3	226.9

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.4	-0.3	----	----
High point	4932	67.7	803.0	800.3	2.7	803.2	798.6	4.5	0.9997	1.0021
Mid point	4966	33.8	400.9	399.5	1.4	400.5	396.0	4.5	1.0010	1.0089
Low point	4983	16.9	200.4	199.8	0.7	199.9	196.4	3.4	1.0027	1.0171
As left zero	5000	0.0	0.0	0.0	0.0	0.3	0.6	-0.3	----	----
As left span	4932	67.7	803.0	393.9	409.1	804.4	393.9	410.4	0.9982	1.0000
Average Correction Factor									1.0011	1.0094

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.3	----	----
High GPT point	792.1	388.0	406.8	408.7	0.9954	100.5%
Mid GPT point	792.1	591.1	203.7	205.0	0.9937	100.6%
Low GPT point	792.1	691.3	103.5	105.1	0.9849	101.5%
Average Correction Factor					0.9913	100.9%

Notes:

Sample inlet filter changed after as founds, span adjusted.

Calibration Performed By:

Param Kaur



Wood Buffalo Environmental Association

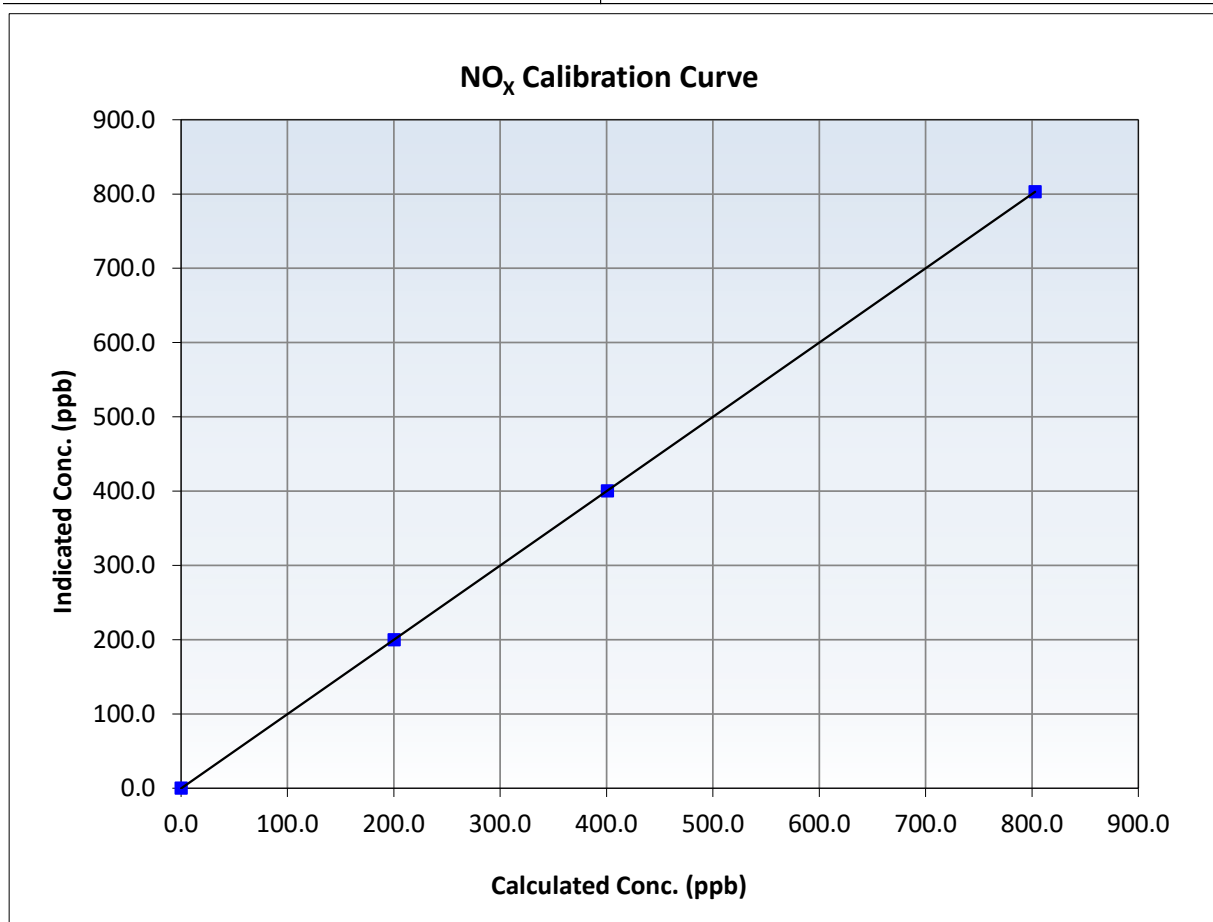
NO_x Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 11, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:15	End Time (MST):	15:10
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999999	≥0.995
803.0	803.2	0.9997	Slope	1.000371	0.90 - 1.10
400.9	400.5	1.0010	Intercept	-0.278139	+/-20
200.4	199.9	1.0027			





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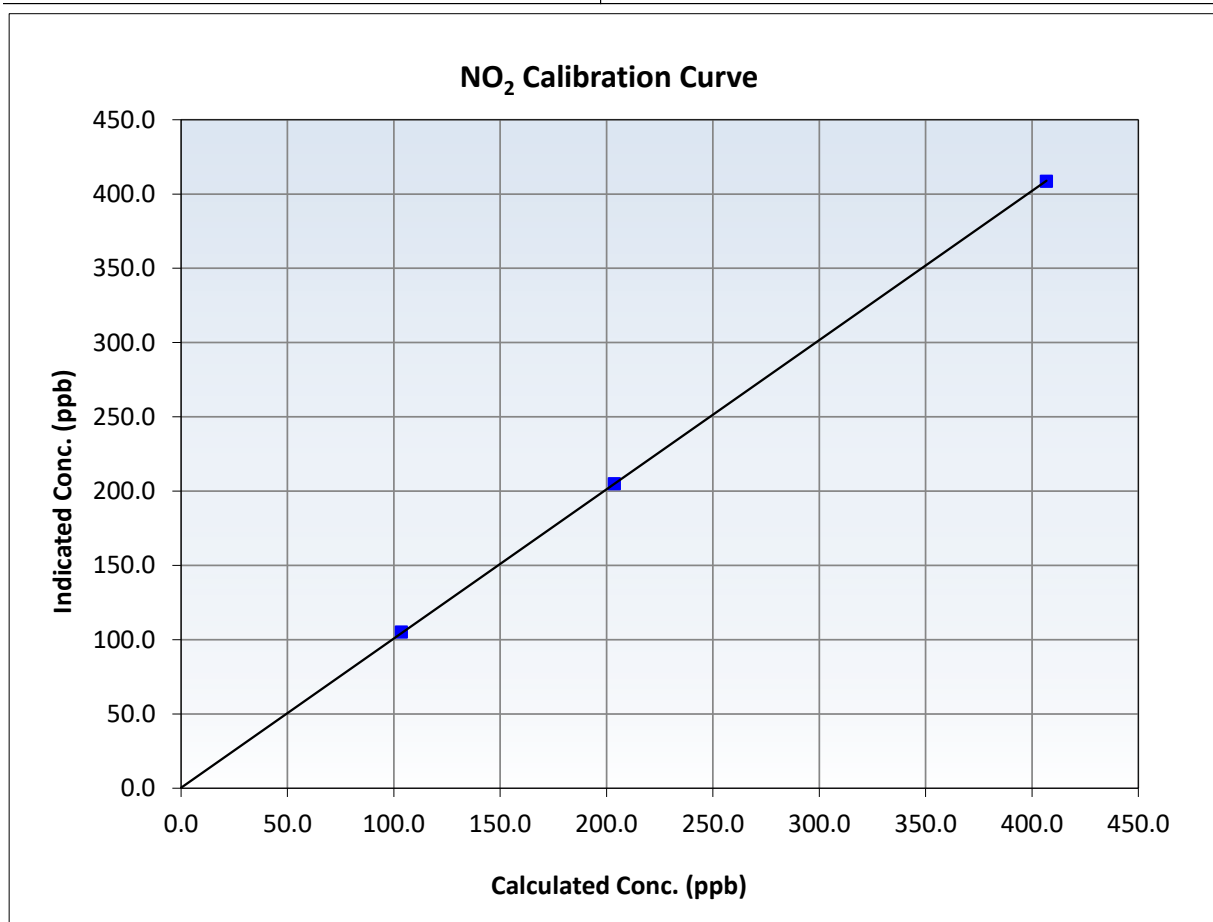
NO₂ Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 11, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:15	End Time (MST):	15:10
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999988	≥0.995
406.8	408.7	0.9954	Slope	1.004417	0.90 - 1.10
203.7	205.0	0.9937	Intercept	0.330382	+/-20
103.5	105.1	0.9849			





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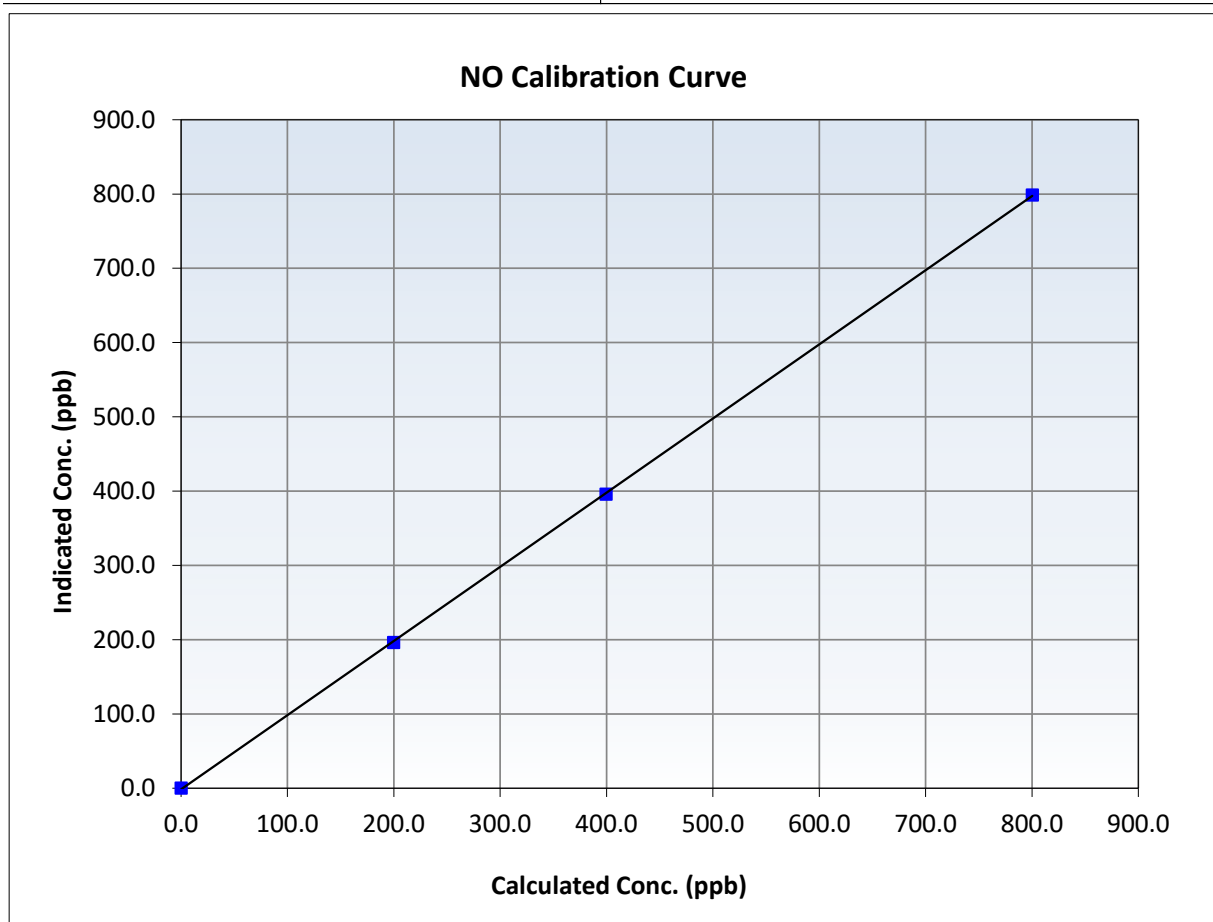
NO Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 11, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:15	End Time (MST):	15:10
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

Calibration Data

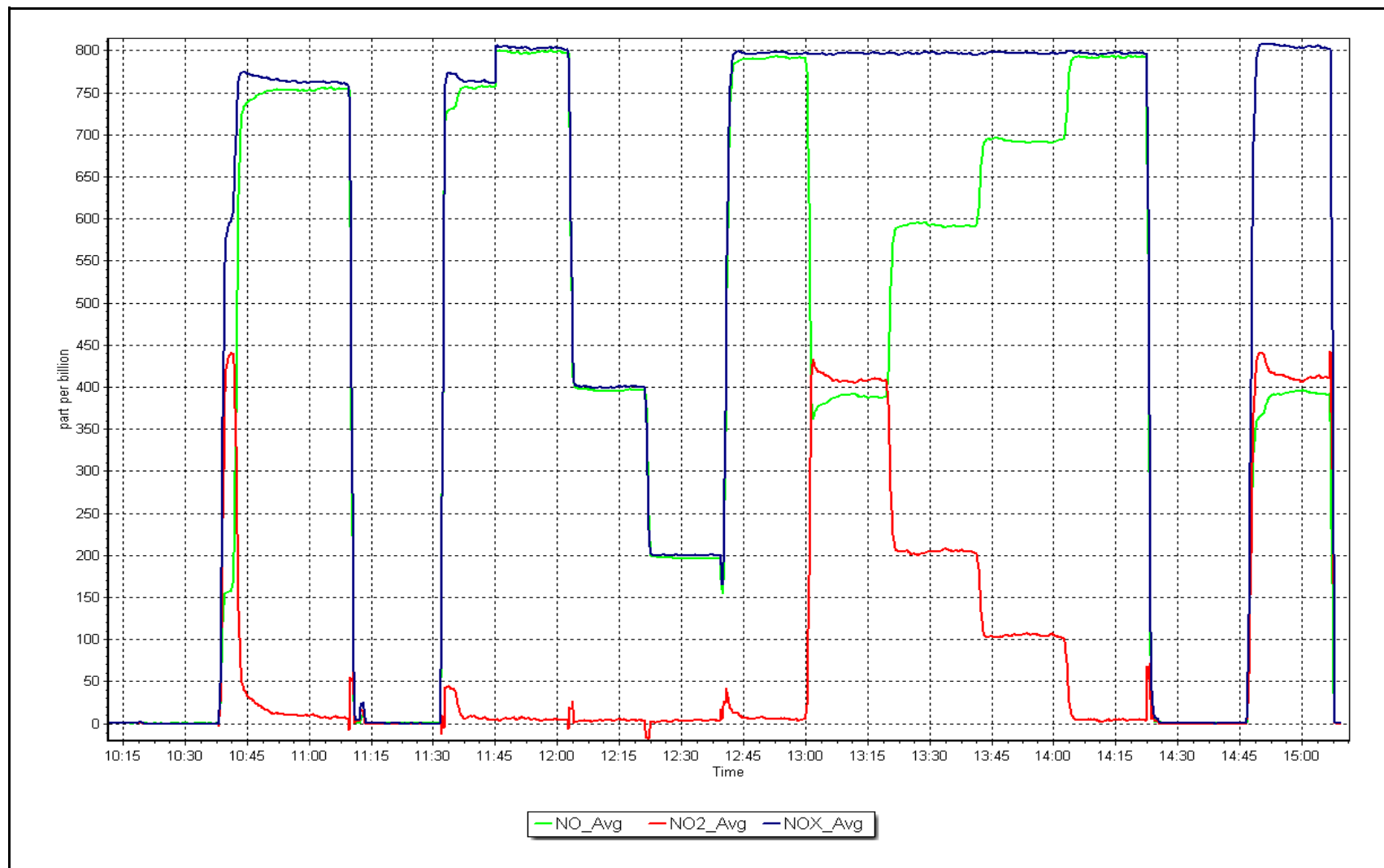
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999974	≥ 0.995
800.3	798.6	1.0021	Slope	0.998404	$0.90 - 1.10$
399.5	396.0	1.0089	Intercept	-1.480497	± 20
199.8	196.4	1.0171			



NO_x Calibration Plot

Date: June 10, 2026

Location: Ells River





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Ells River
Station number: AMS 30
Calibration Date: June 24, 2026
Last Cal Date: June 10, 2026
Start time (MST): 8:45
End time (MST): 10:35
Reason: Removal

Calibration Standards

NO Gas Cylinder #: DT0027487
NOX Cal Gas Conc: 59.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 59.30 ppm
NOX gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 59.10 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 59.10 ppm
NO gas Diff:
Serial Number: 5707
Serial Number: 358

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	0.4	-0.2	----	----
AF High point	4932	67.7	803.0	800.3	2.7	690.0	682.4	7.6	1.1641	1.1734
AF Mid point	4966	33.8	400.9	399.5	1.4	345.0	339.7	5.3	1.1627	1.1775
AF Low point	4983	16.9	200.4	199.8	0.7	172.7	168.4	4.3	1.1620	1.1891

New cyl resp

Previous Response	NO _x = 803.0 ppb	NO = 797.5 ppb	* = > +/-5% change initiates investigation		*Percent Change	NO _x = -16.4%
Baseline Corr 1st pt	NO _x = 689.8 ppb	NO = 682.0 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -16.9%
Baseline Corr 2nd pt	NO _x = 344.8 ppb	NO = 339.3 ppb	As found	NO _x r ² : 0.999999	Nx SI: 0.858986	Nx Int: 0.408
Baseline Corr 3rd pt	NO _x = 172.5 ppb	NO = 168.0 ppb	As found	NO r ² : 0.999987	NO SI: 0.853013	NO Int: -0.735
			As found	NO ₂ r ² : 1.000000	NO2 SI: 1.010806	NO ₂ Int: -0.200

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero	----	----	0.0	-0.2	----	----
As found high GPT point	680.6	332.4	350.9	354.5	0.9899	101.0%
As found mid GPT point	680.6					
As found low GPT point	680.6					



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 0710321429

Instrument Settings

	<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.738	1.738
NOX coeff or slope:	0.996	0.996
NO2 coeff or slope:	1.000	1.000

	<u>Start</u>	<u>Finish</u>
NO bkgnd or offset:	19.4	19.4
NOX bkgnd or offset:	19.7	19.7
Reaction cell Press:	226.9	226.9

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.000371	
NO _x Cal Offset:	-0.278139	
NO Cal Slope:	0.998404	
NO Cal Offset:	-1.480497	
NO ₂ Cal Slope:	1.004417	
NO ₂ Cal Offset:	0.330382	

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
-----------	---------------------------	-----------------------------	---	--	---	--	---------------------------------------	--	---	--

Cal zero
High point
Mid point
Low point
As left zero
As left span

Average Correction Factor

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	--	---------------------------------------	---	--	---	--

Cal zero
High GPT point
Mid GPT point
Low GPT point

Average Correction Factor

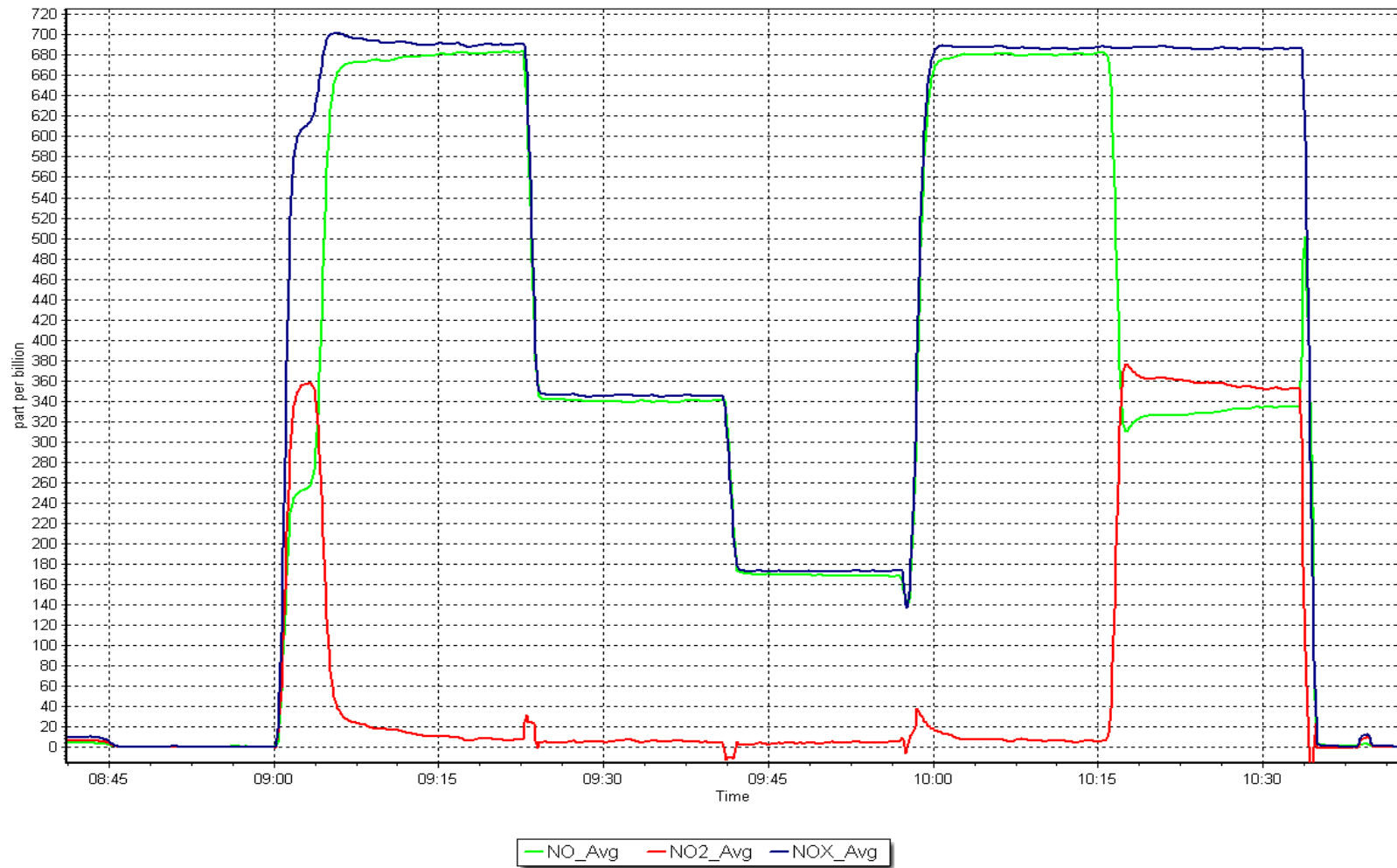
Notes: Removal calibration. Pump replacement was planned but, new pump did not resolve issue.

Calibration Performed By: Devin Russell

NO_x Calibration Plot

Date: June 24, 2026

Location: Ells River





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Ells River
Station number: AMS 30
Calibration Date: June 25, 2026
Last Cal Date: NA
Start time (MST): 10:00
End time (MST): 13:55
Reason: Install

Calibration Standards

NO Gas Cylinder #: DT0027487
NOX Cal Gas Conc: 59.30 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 59.30 ppm
NOX gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: January 9, 2032
NO Cal Gas Conc: 59.10 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 59.10 ppm
NO gas Diff:
Serial Number: 5707
Serial Number: 358

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero										
AF High point										
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = NA	ppb	NO = NA	ppb	* = > +/-5% change initiates investigation		*Percent Change		NO _x =	NA
Baseline Corr 1st pt	NO _x = NA	ppb	NO = NA	ppb	<u>As Found Statistics</u>		*Percent Change		NO =	NA
Baseline Corr 2nd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO _x r ² :	Nx SI:		Nx Int:	
Baseline Corr 3rd pt	NO _x = NA	ppb	NO = NA	ppb	As found	NO r ² :	NO SI:		NO Int:	
					As found	NO ₂ r ² :	NO2 SI:		NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Teledyne API T200
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 723

Instrument Settings

	<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.007	
NOX coeff or slope:	0.988	
NO2 coeff or slope:	1.000	

	<u>Start</u>	<u>Finish</u>
NO bkgnd or offset:	2.7	
NOX bkgnd or offset:	-1.8	
Reaction cell Press:	6.1	

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:		0.997176
NO _x Cal Offset:		1.943317
NO Cal Slope:		1.008852
NO Cal Offset:		-0.236287
NO ₂ Cal Slope:		0.979556
NO ₂ Cal Offset:		0.761916

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	-0.2	0.4	----	----
High point	4932	67.7	803.0	800.3	2.7	801.0	806.8	-5.6	1.0025	0.9919
Mid point	4966	33.8	400.9	399.5	1.4	404.9	403.8	1.0	0.9901	0.9894
Low point	4983	16.9	200.4	199.8	0.7	202.0	200.6	1.4	0.9923	0.9958
As left zero	5000	0.0	0.0	0.0	0.0	2.0	1.7	0.3	----	----
As left span	4932	67.7	803.0	800.3	2.7	799.7	406.4	393.3	1.0041	1.9691
Average Correction Factor									0.9949	0.9924

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.4	----	----
High GPT point	800.1	405.0	397.8	390.5	1.0187	98.2%
Mid GPT point	800.1	609.9	192.9	189.2	1.0196	98.1%
Low GPT point	800.1	710.1	92.7	92.4	1.0033	99.7%
Average Correction Factor					1.0139	98.6%

Notes:

Installed new instrument.

Calibration Performed By:

Jason Brooks



Wood Buffalo Environmental Association

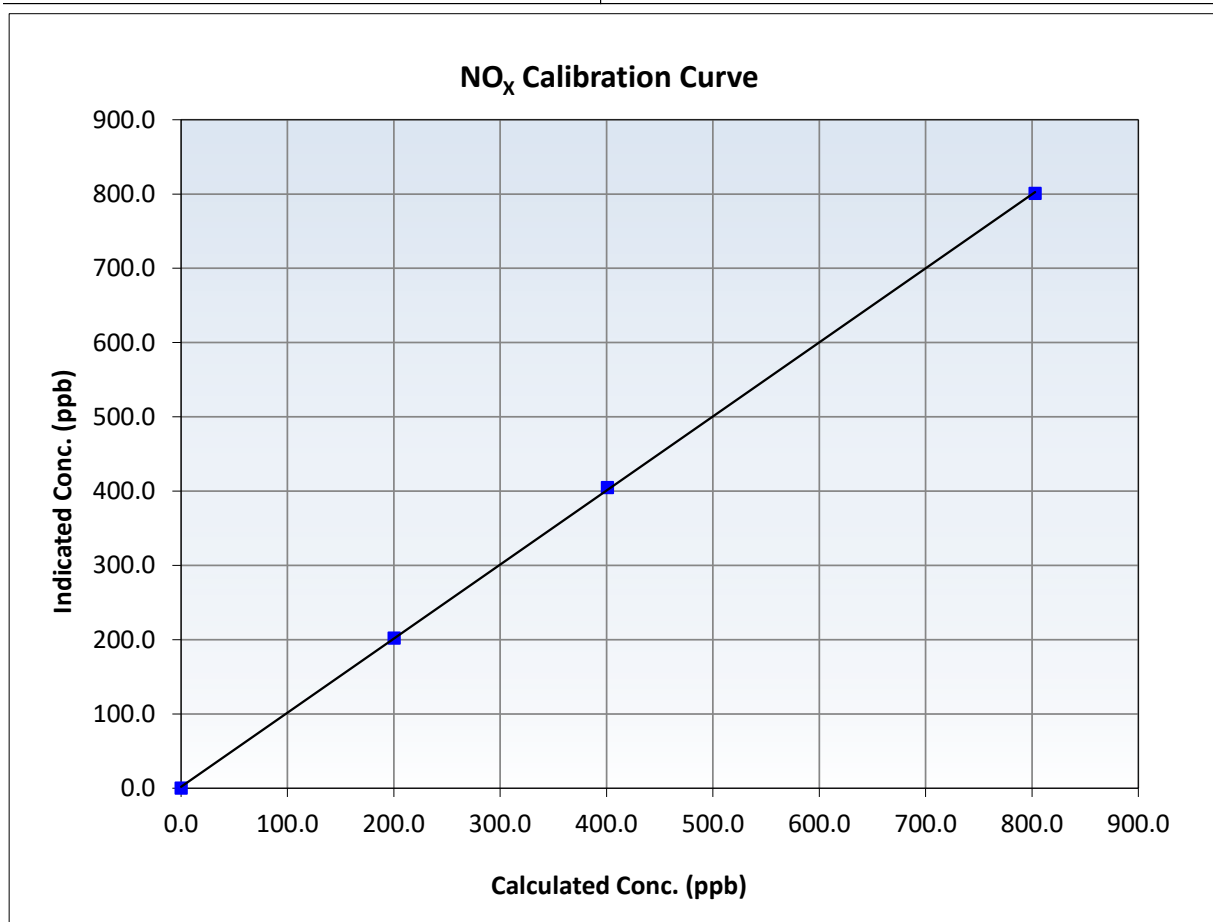
NO_x Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	NA
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:00	End Time (MST):	13:55
Analyzer make:	Teledyne API T200	Analyzer serial #:	723

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999954	≥0.995
803.0	801.0	1.0025	Slope	0.997176	0.90 - 1.10
400.9	404.9	0.9901	Intercept	1.943317	+/-20
200.4	202.0	0.9923			





Wood Buffalo Environmental Association

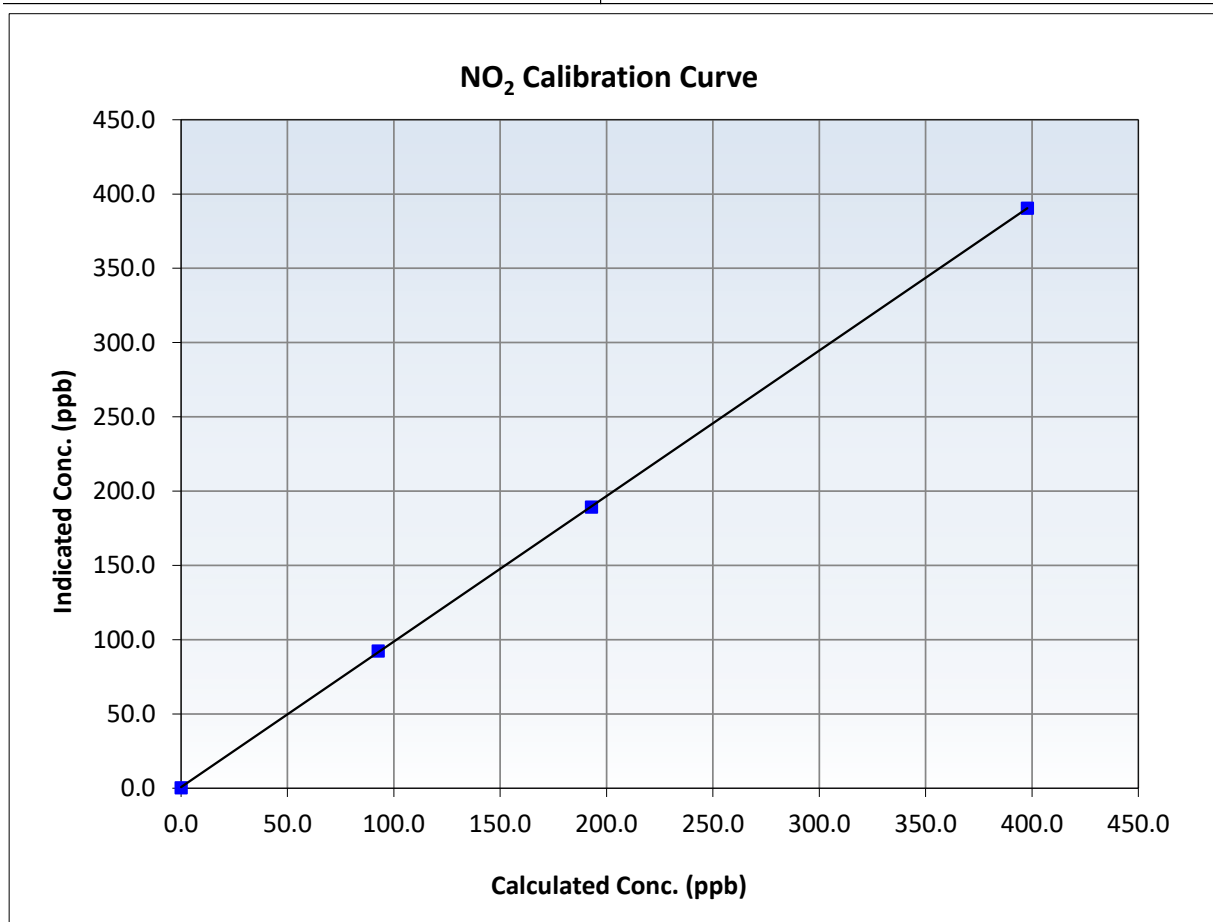
NO₂ Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	NA
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:00	End Time (MST):	13:55
Analyzer make:	Teledyne API T200	Analyzer serial #:	723

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999987	≥0.995
397.8	390.5	1.0187	Slope	0.979556	0.90 - 1.10
192.9	189.2	1.0196	Intercept	0.761916	+/-20
92.7	92.4	1.0033			





Wood Buffalo Environmental Association

NO Calibration Summary

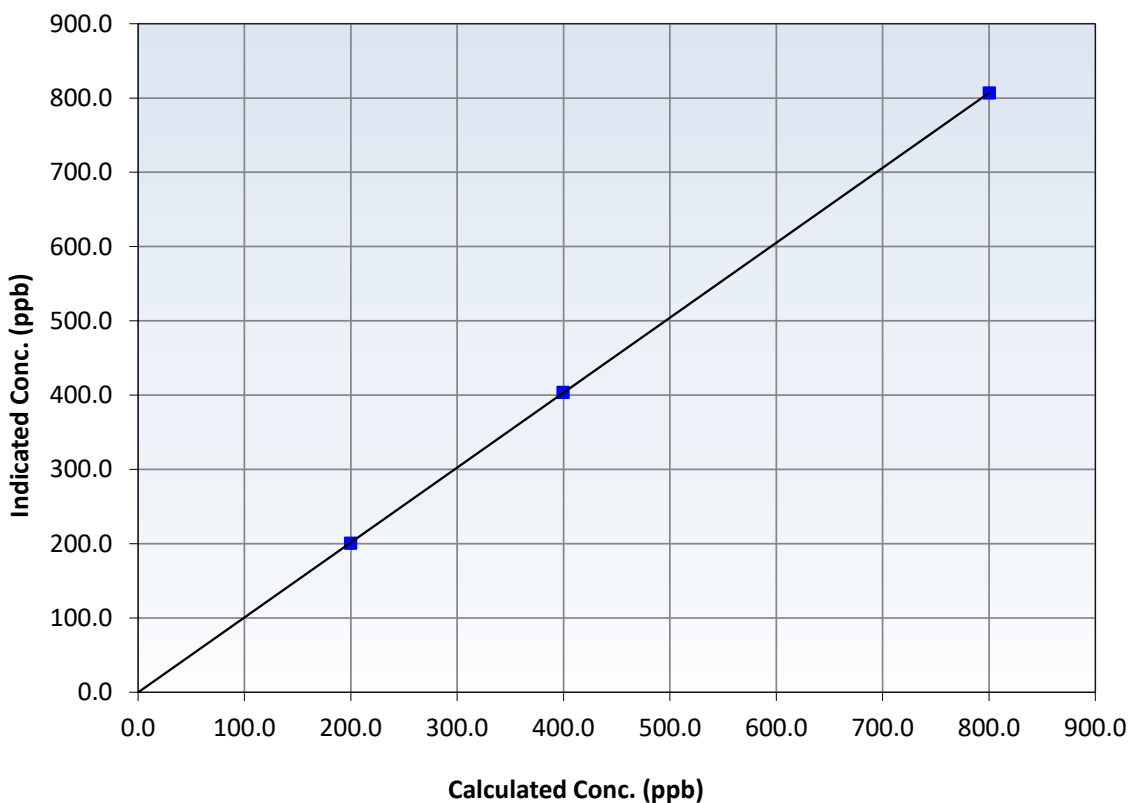
Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	NA
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:00	End Time (MST):	13:55
Analyzer make:	Teledyne API T200	Analyzer serial #:	723

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999996	≥ 0.995
800.3	806.8	0.9919	Slope	1.008852	$0.90 - 1.10$
399.5	403.8	0.9894	Intercept	-0.236287	± 20
199.8	200.6	0.9958			

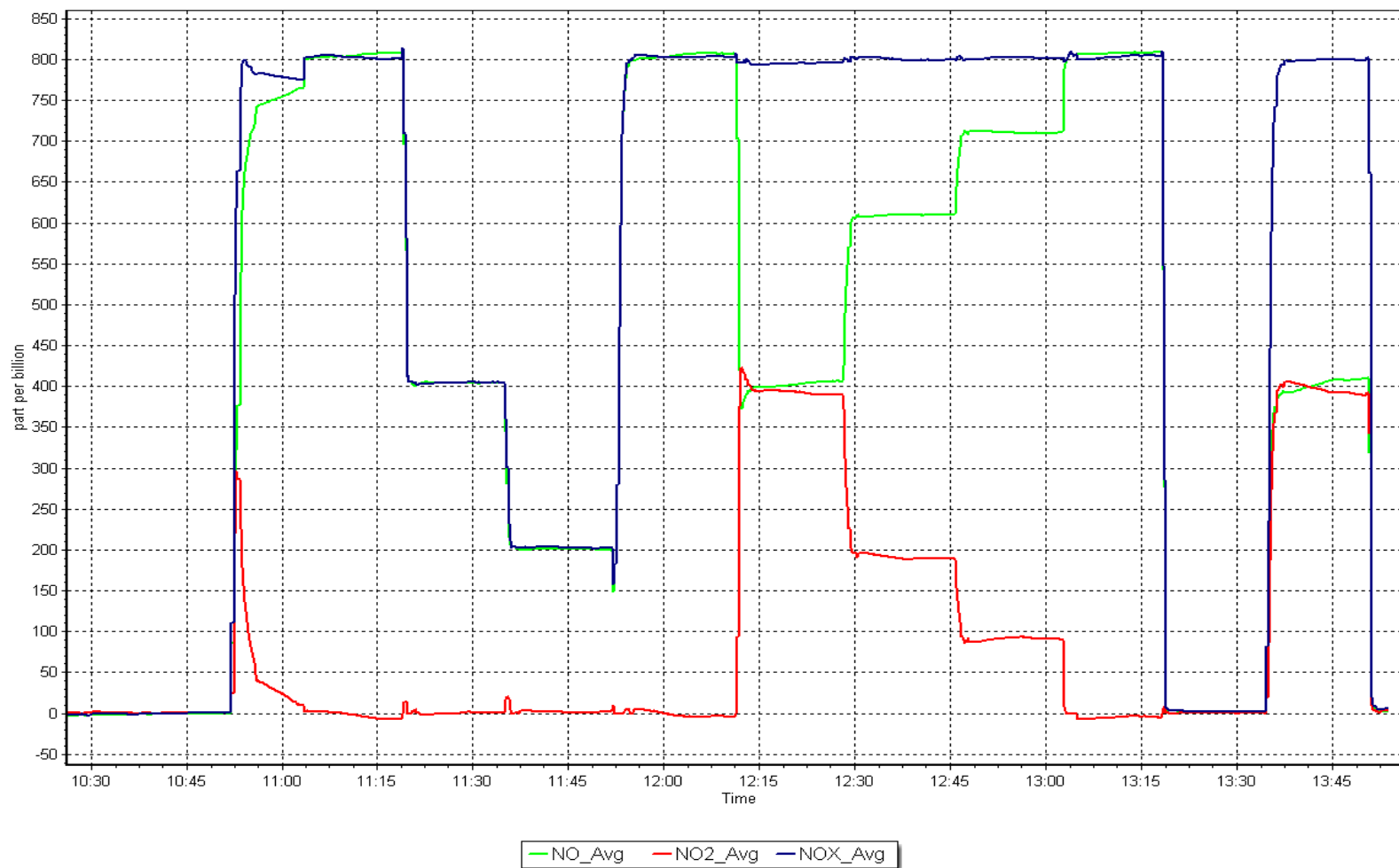
NO Calibration Curve



NO_x Calibration Plot

Date: June 25, 2026

Location: Ells River





Wood Buffalo Environmental Association

T640 PM_{2.5} CALIBRATION

Version-01-2024

Station Information

Station Name: Ells River Station number: AMS 30
Calibration Date: June 11, 2026 Last Cal Date: May 21, 2026
Start time (MST): 10:34 End time (MST): 10:56

Analyzer Make: API T640 S/N: 875
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745
Temp/RH standard: Alicat FP-25BT S/N: 388745

Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	10.30	10.13	10.30	☐	+/- 2 °C
P (mmHg)	729.60	731.41	729.60	☐	+/- 10 mmHg
Flow (LPM)	5.01	4.95	5.01	☐	+/- 0.25 LPM
PW% (pump)	32		32	☐	>80%
Zero Verification	PM w/o HEPA: 0.6		PM w/ HEPA: 0.0		<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean ☒ Alignment Factor On : ☒

Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: January 30, 2027
Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				☐	+/- 0.5

Date Optical Chamber Cleaned: May 21, 2026
Date Disposable Filter Changed: April 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: <0.2 ug/m3

Annual Maintenance

Date Sample Tube Cleaned: June 18, 2025
Date RH/T Sensor Cleaned: June 18, 2025

Notes: Temperature, flow, pressure and Pump PWM verified. No adjustments made. Leak check passed.

Calibration by: Param Kaur



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS31
BLACKROD
JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Blackrod Station number: AMS 31
Calibration Date: June 18, 2026 Last Cal Date: May 25, 2026
Start time (MST): 9:36 End time (MST): 12:36
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.25 ppm Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #: CC327023
Removed Cal Gas Conc: 50.25 ppm Rem Gas Exp Date: N/A
Removed Gas Cyl #: N/A Diff between cyl:
Calibrator Model: Teledyne T700 Serial Number: 1220
Zero Air Gen Model: Teledyne N701H Serial Number: 72

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1160290014
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998746	1.001979	Backgd or Offset:	41.1	39.8
Calibration intercept:	-0.061535	-0.442255	Coeff or Slope:	1.007	0.982

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4921	79.5	798.9	821.0	0.973
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	821.4	Previous response	797.8	*% change	2.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.5	----
High point	4921	79.5	798.9	800.0	0.999
Mid point	4960	39.8	400.0	400.4	0.999
Low point	4980	19.9	200.0	200.0	1.000
As left zero	5000	0.0	0.0	-0.4	----
As left span	4921	79.5	798.9	799.4	0.999
Average Correction Factor:					0.999

Notes: Sample inlet filter was changed after as founds. Adjusted span only.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

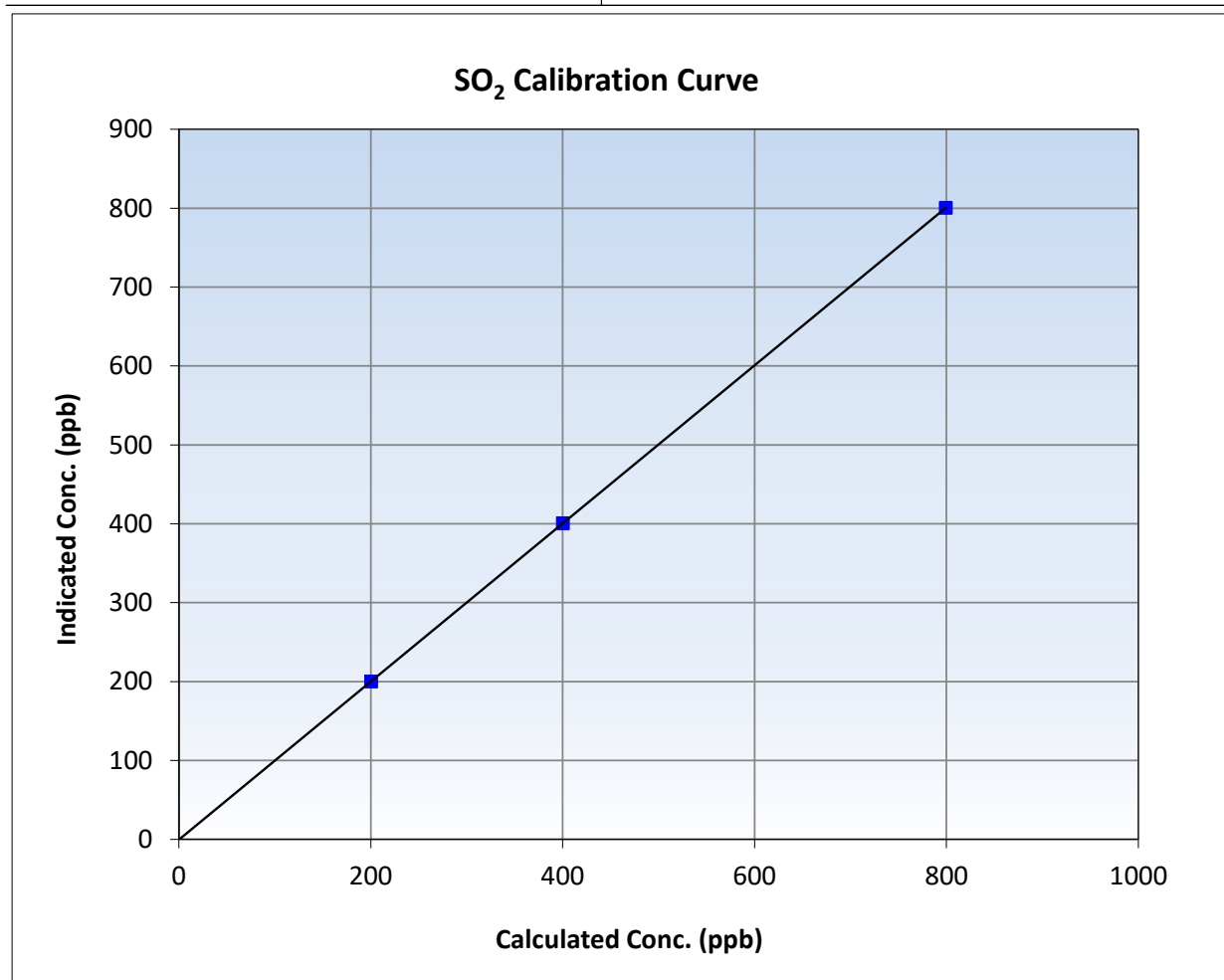
SO₂ Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 25, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:36	End Time (MST):	12:36
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290014

Calibration Data

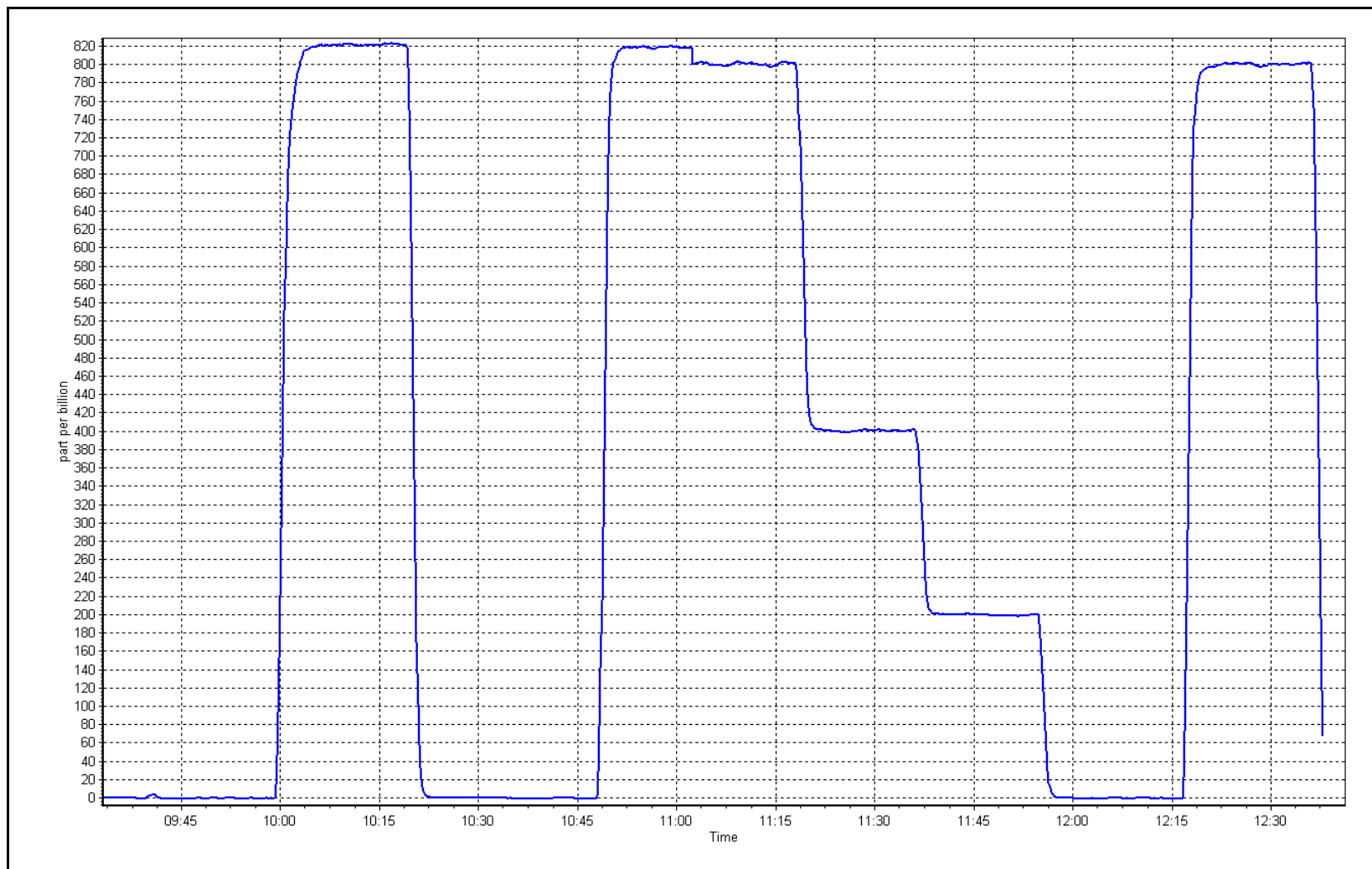
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.5	----	Correlation Coefficient	1.000000	≥0.995
798.9	800.0	0.9986	Slope	1.001979	0.90 - 1.10
400.0	400.4	0.9990	Intercept	-0.442255	+/-30
200.0	200.0	1.0000			



SO2 Calibration Plot

Date: June 18, 2026

Location: Blackrod





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Blackrod
Calibration Date: June 17, 2026
Start time (MST): 9:55
Reason: Routine

Station number: AMS 31
Last Cal Date: May 27, 2026
End time (MST): 13:56

Calibration Standards

Cal Gas Concentration: 5.42 ppm
Cal Gas Cylinder #: DT0016926
Removed Cal Gas Conc: 5.42 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API N701H

Cal Gas Exp Date: March 19, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 1220
Serial Number: 72

Analyzer Information

Analyzer make: Thermo 43iQTL
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 12228021056
Converter serial #: 2023-266
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.007479	1.001192	Backgd or Offset:	2.85
Calibration intercept:	-0.000550	0.019576	Coeff or Slope:	1.006

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4926	73.8	80.0	82.5	0.969
As found Mid point	4963	36.9	40.0	41.2	0.969
As found Low point	4982	18.5	20.1	20.0	0.998
New cylinder response					
Baseline Corr As found:	82.6	Prev response:	80.60	*% change:	2.4%
Baseline Corr 2nd AF pt:	41.3	AF Slope:	1.035049	AF Intercept:	-0.340899
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999933	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4926	73.8	80.0	80.1	0.999
Mid point	4963	36.9	40.0	40.1	0.998
Low point	4982	18.5	20.1	20.1	0.998
As left zero	5000	0.0	0.0	0.1	----
As left span	4926	73.8	80.0	80.2	0.998
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:		27-Aug-25		Ave Corr Factor	0.998
Date of last converter efficiency test:		October 9, 2025			

Notes: Sample inlet filter was changed after multipoint as founds. SO2 scrubber done and passed. Adjusted span only.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

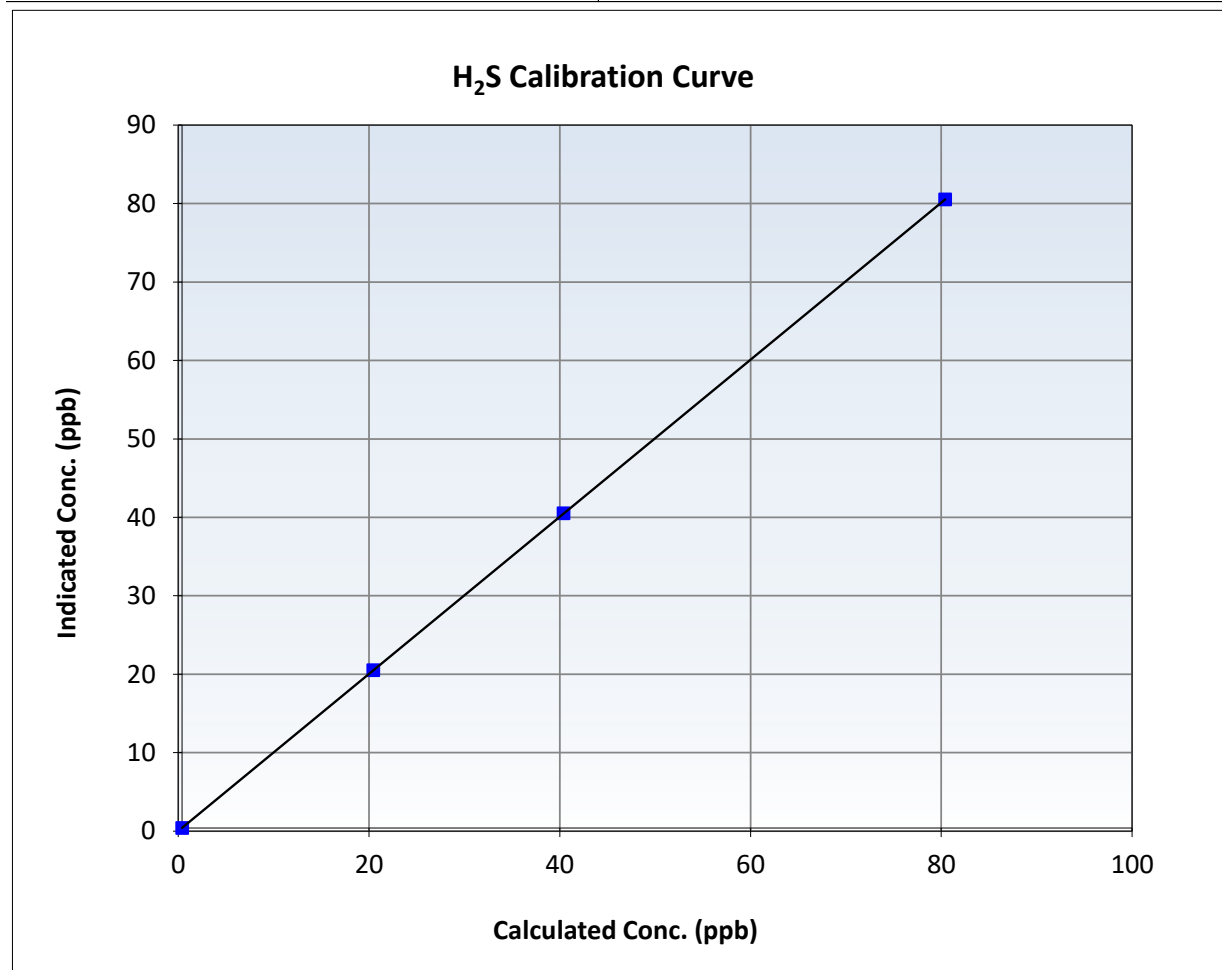
H₂S Calibration Summary

Station Information

Calibration Date:	June 17, 2026	Previous Calibration:	May 27, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:55	End Time (MST):	13:56
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12228021056

Calibration Data

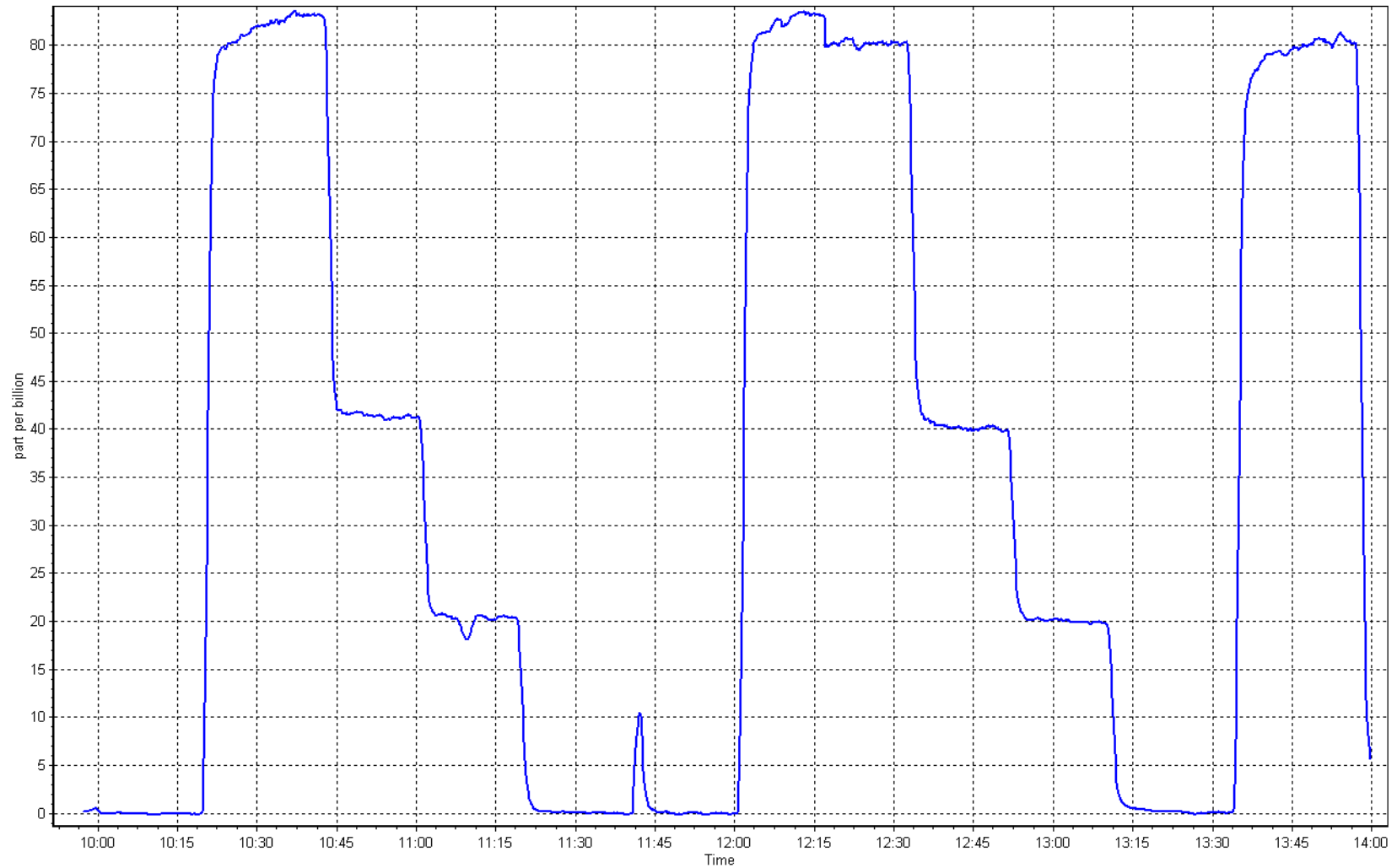
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000		≥0.995
80.0	80.1	0.9988	Slope	1.001192		0.90 - 1.10
40.0	40.1	0.9975	Intercept	0.019576		+/-3
20.1	20.1	0.9976				



H₂S Calibration Plot

Date: June 17, 2026

Location: Blackrod





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Blackrod Station number: AMS 31
Calibration Date: June 18, 2026 Last Cal Date: May 25, 2026
Start time (MST): 9:36 End time (MST): 12:36
Reason: Routine

Calibration Standards

Gas Cert Reference: CC327023 Cal Gas Expiry Date: March 10, 2031
CH4 Cal Gas Conc. 499.9 ppm CH4 Equiv Conc. 1058.2 ppm
C3H8 Cal Gas Conc. 203.0 ppm
Removed Gas Cert: NA Removed Gas Expiry: NA
Removed CH4 Conc. 499.9 ppm CH4 Equiv Conc. 1058.2 ppm
Removed C3H8 Conc. 203.0 ppm Diff between cyl:
Calibrator Make/Model: Teledyne T700 Serial Number: 1220
ZAG Make/Model: Teledyne API N701H Serial Number: 72

Analyzer Information

Analyzer make: Thermo 51i- LT Analyzer serial #: 1505164380
Analyzer Range: 0 - 20 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998200	1.004923	Background:	2.010	2.010
Calibration intercept:	0.005348	0.011088	Coefficient:	3.173	3.173

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.03	----
As found High point	4921	79.5	16.82	16.84	1.001
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	16.81	Previous response	16.80	*% change	0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	-0.02	----
High point	4921	79.5	16.82	16.90	0.995
Mid point	4960	39.8	8.42	8.50	0.991
Low point	4980	19.9	4.21	4.26	0.988
As left zero	5000	0.0	0.00	0.06	----
As left span	4921	79.5	16.82	17.02	0.988
Average Correction Factor					0.991

Notes: Sample inlet filter and H2 was changed after as founds. No adjustment made.

Calibration Performed By: Jan Castro



Wood Buffalo Environmental Association

THC Calibration Summary

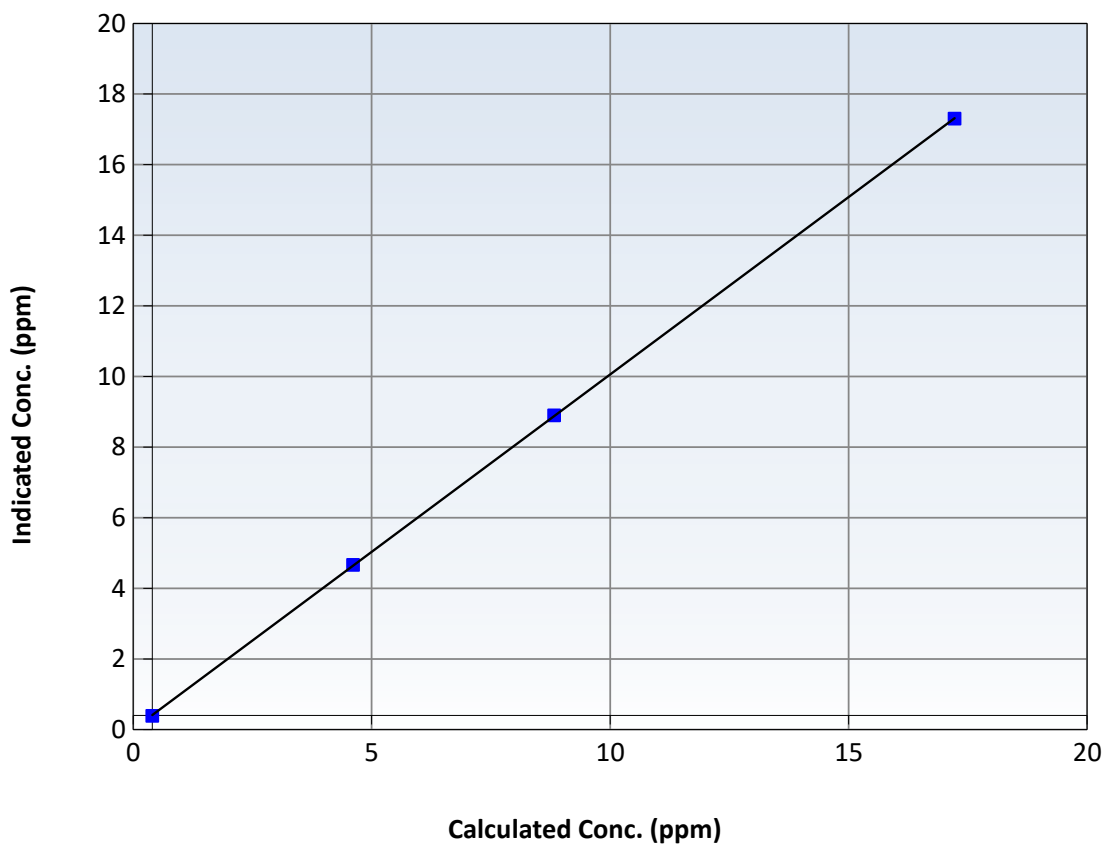
Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 25, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:36	End Time (MST):	12:36
Analyzer make:	Thermo 51i- LT	Analyzer serial #:	1505164380

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.02	----	Correlation Coefficient	0.999987	≥ 0.995
16.82	16.90	0.9954	Slope	1.004923	$0.90 - 1.10$
8.42	8.50	0.9911	Intercept	0.011088	± 1.5
4.21	4.26	0.9877			

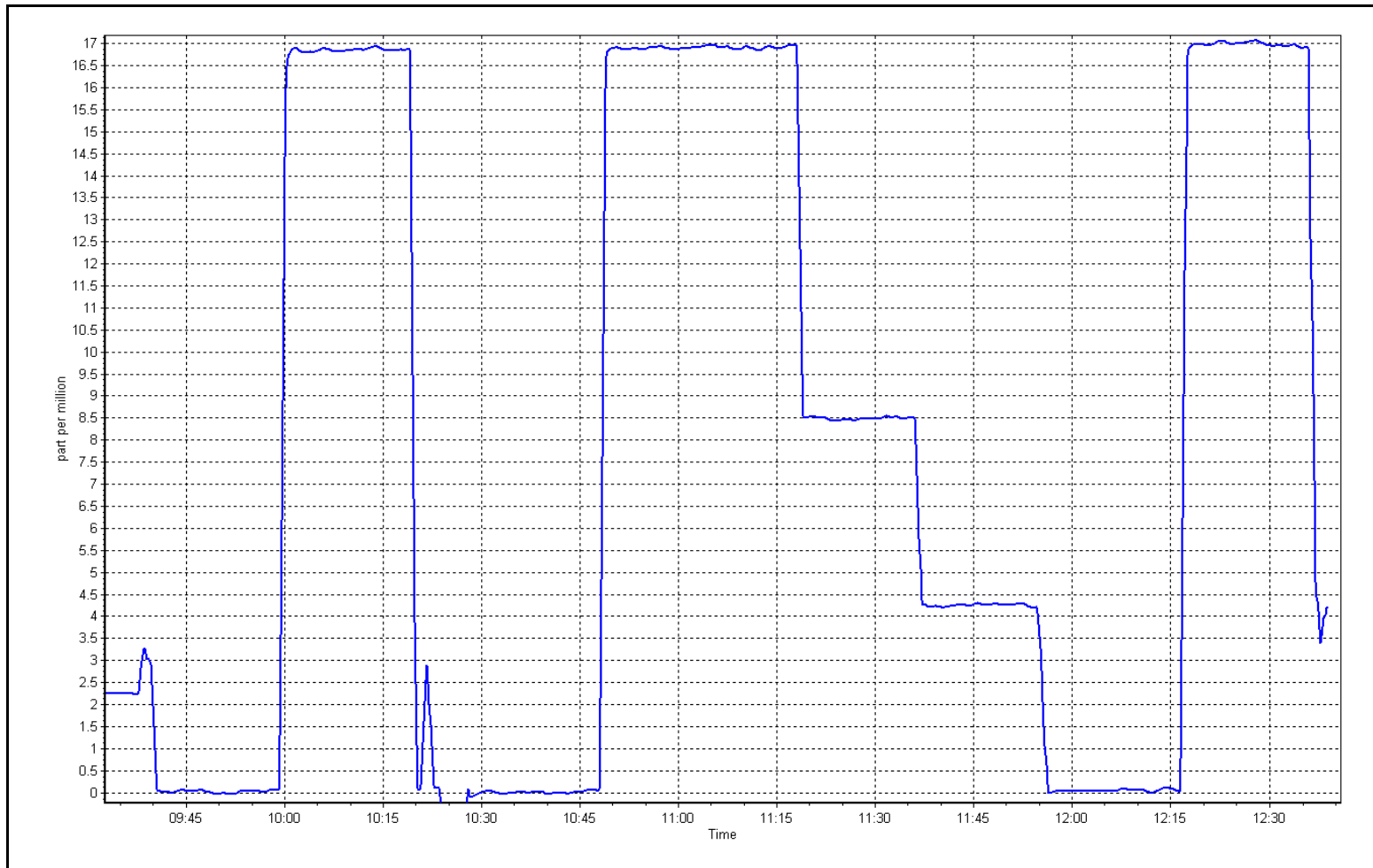
THC Calibration Curve



THC Calibration Plot

Date: June 18, 2026

Location: Blackrod





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1173480006

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.995188	0.995686
NO _x Cal Offset:	0.541158	0.641519
NO Cal Slope:	0.994631	0.995644
NO Cal Offset:	-0.560324	-0.540042
NO ₂ Cal Slope:	1.002369	1.001435
NO ₂ Cal Offset:	-0.637909	-0.065029

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.968	0.968	NO bkgnd or offset:	2.3	2.3
NOX coeff or slope:	0.995	0.995	NOX bkgnd or offset:	2.3	2.3
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	146.8	145.3

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.1	0.1	----	----
High point	4932	67.7	803.0	800.3	2.7	799.7	796.4	3.4	1.0041	1.0048
Mid point	4966	33.8	400.9	399.5	1.4	400.6	397.4	3.2	1.0007	1.0054
Low point	4983	16.9	200.4	199.8	0.7	200.4	197.4	2.9	1.0002	1.0120
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.1	0.1	----	----
As left span	4932	67.7	803.0	389.0	414.0	800.9	389.0	411.9	1.0026	1.0000
Average Correction Factor									1.0017	1.0074

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	795.6	391.0	407.3	407.9	0.9985	100.1%
Mid GPT point	795.6	591.6	206.7	206.9	0.9991	100.1%
Low GPT point	795.6	690.4	107.9	107.8	1.0010	99.9%
Average Correction Factor					0.9995	100.0%

Notes:

Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By:

Jan Castro



Wood Buffalo Environmental Association

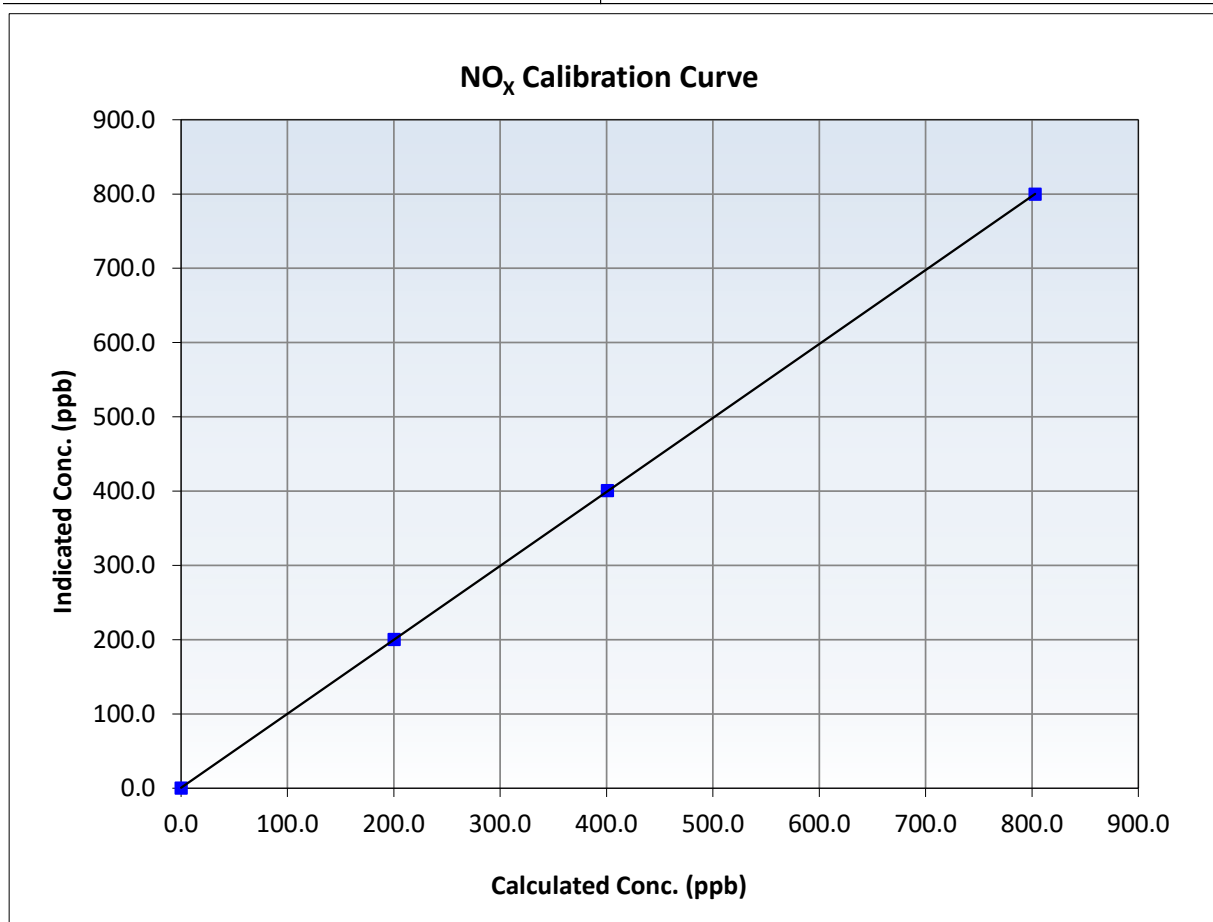
NO_x Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 26, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999997	≥0.995
803.0	799.7	1.0041	Slope	0.995686	0.90 - 1.10
400.9	400.6	1.0007	Intercept	0.641519	+/-20
200.4	200.4	1.0002			





Wood Buffalo Environmental Association

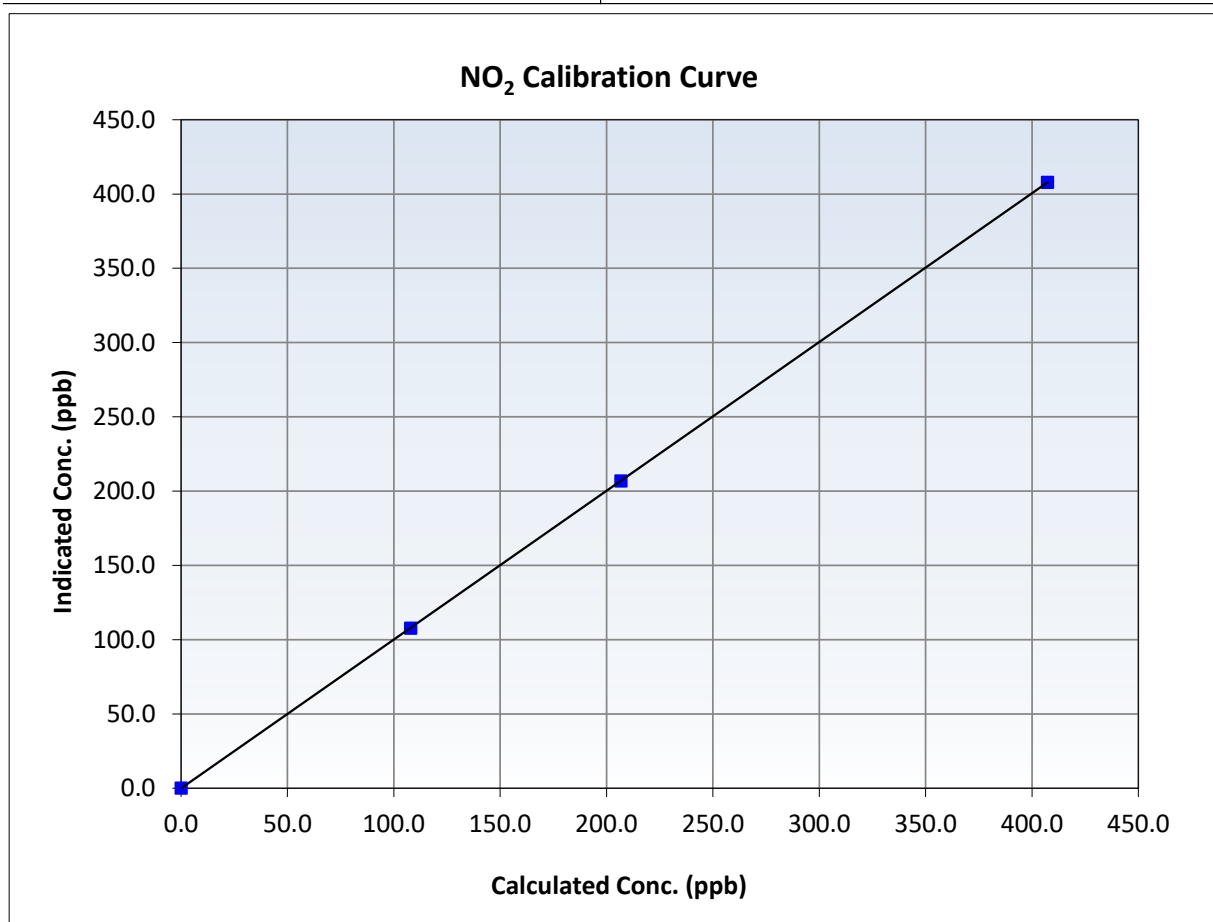
NO₂ Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 26, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999999	≥0.995
407.3	407.9	0.9985	Slope	1.001435	0.90 - 1.10
206.7	206.9	0.9991	Intercept	-0.065029	+/-20
107.9	107.8	1.0010			





Wood Buffalo Environmental Association

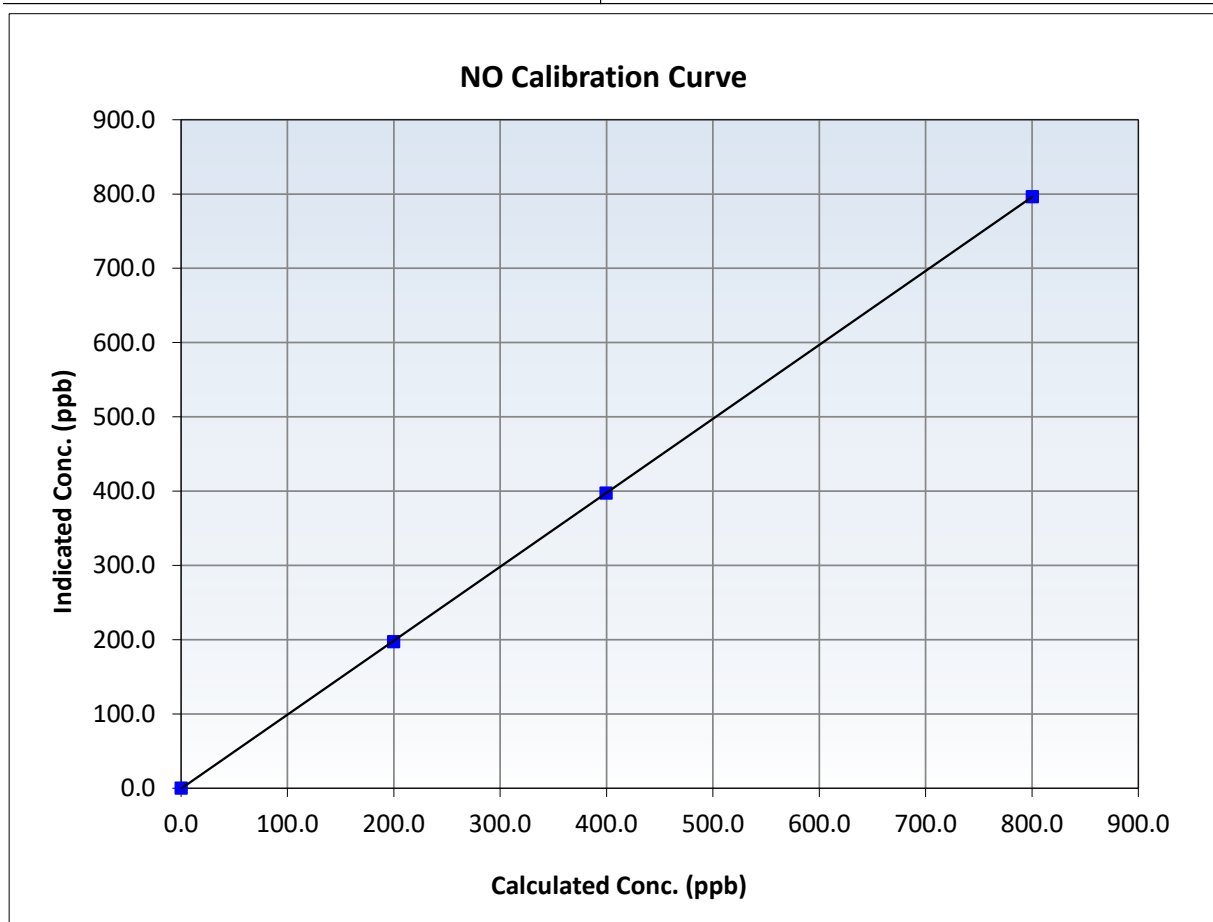
NO Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 26, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

Calibration Data

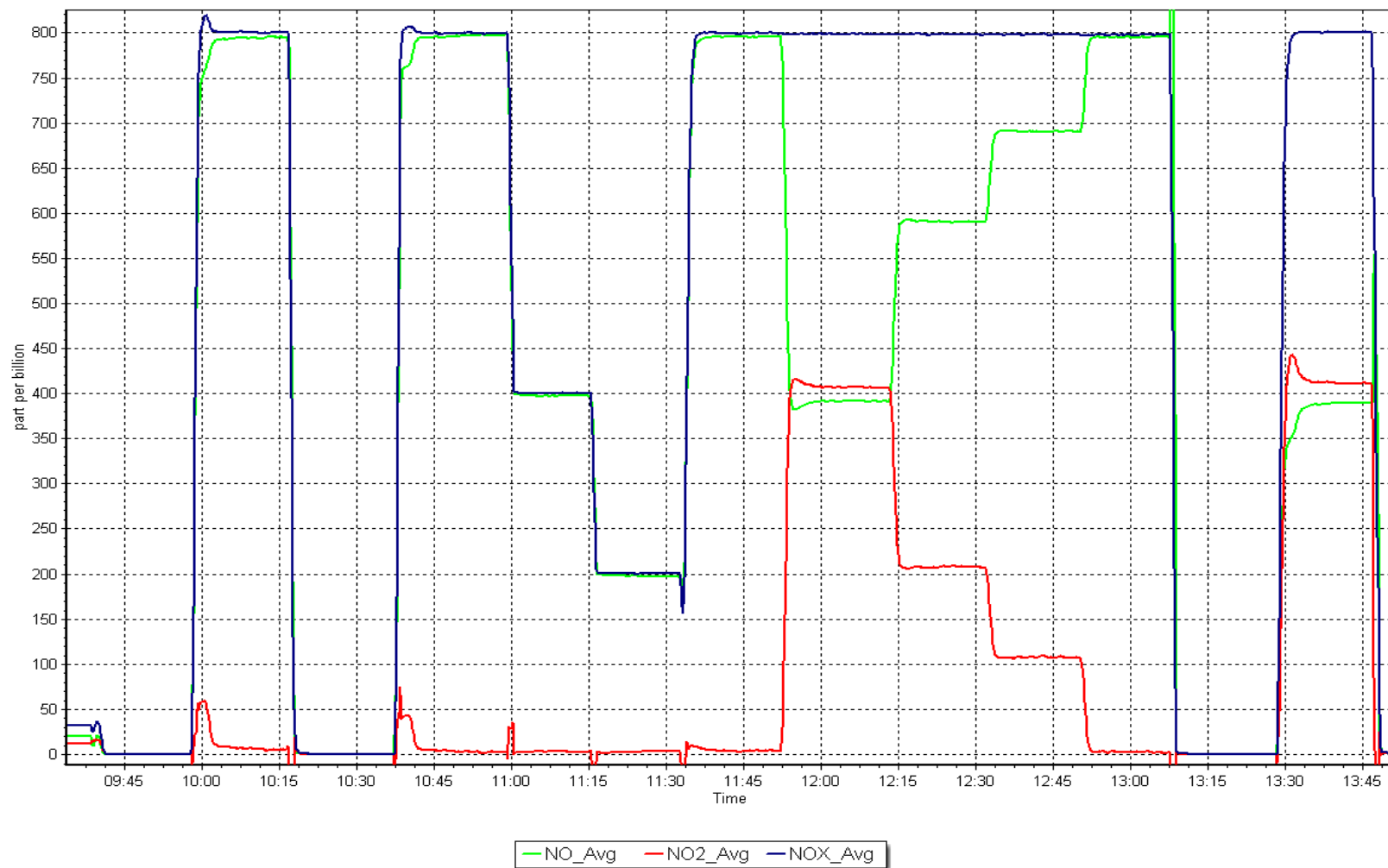
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		Limits
0.0	0.1	----	Correlation Coefficient	0.999996	≥ 0.995
800.3	796.4	1.0048	Slope	0.995644	0.90 - 1.10
399.5	397.4	1.0054	Intercept	-0.540042	+/-20
199.8	197.4	1.0120			



NO_x Calibration Plot

Date: June 16, 2026

Location: Blackrod





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS32 PIHEW POINT JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 31, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Pihew Point Station number: AMS 32
Calibration Date: June 18, 2026 Last Cal Date: May 6, 2026
Start time (MST): 9:42 End time (MST): 13:03
Reason: Routine

Calibration Standards

Cal Gas Concentration: 51.31 ppm Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #: SA150969A
Removed Cal Gas Conc: 51.31 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Model: Teledyne T700 Serial Number: 3804
Zero Air Gen Model: Teledyne T701H Serial Number: 692

Analyzer Information

Analyzer make: Thermo 43i-TLE Serial Number: 1180540019
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.006372	0.997962	Backgd or Offset:	5.24	5.10
Calibration intercept:	-0.691971	-0.972033	Coeff or Slope:	1.201	1.168

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4922	78.0	800.4	817.0	0.979
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	817.3	Previous response	804.8	*% change	1.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4922	78.0	800.4	798.1	1.003
Mid point	4961	39.0	400.2	398.4	1.005
Low point	4981	19.5	200.1	197.7	1.012
As left zero	5000	0.0	0.0	-0.1	----
As left span	4922	78.0	800.4	799.2	1.002
Average Correction Factor:					1.007

Notes: Changed the inlet filter after as founds. Adjusted span.

Calibration Performed By: Braiden Boutillier



Wood Buffalo Environmental Association

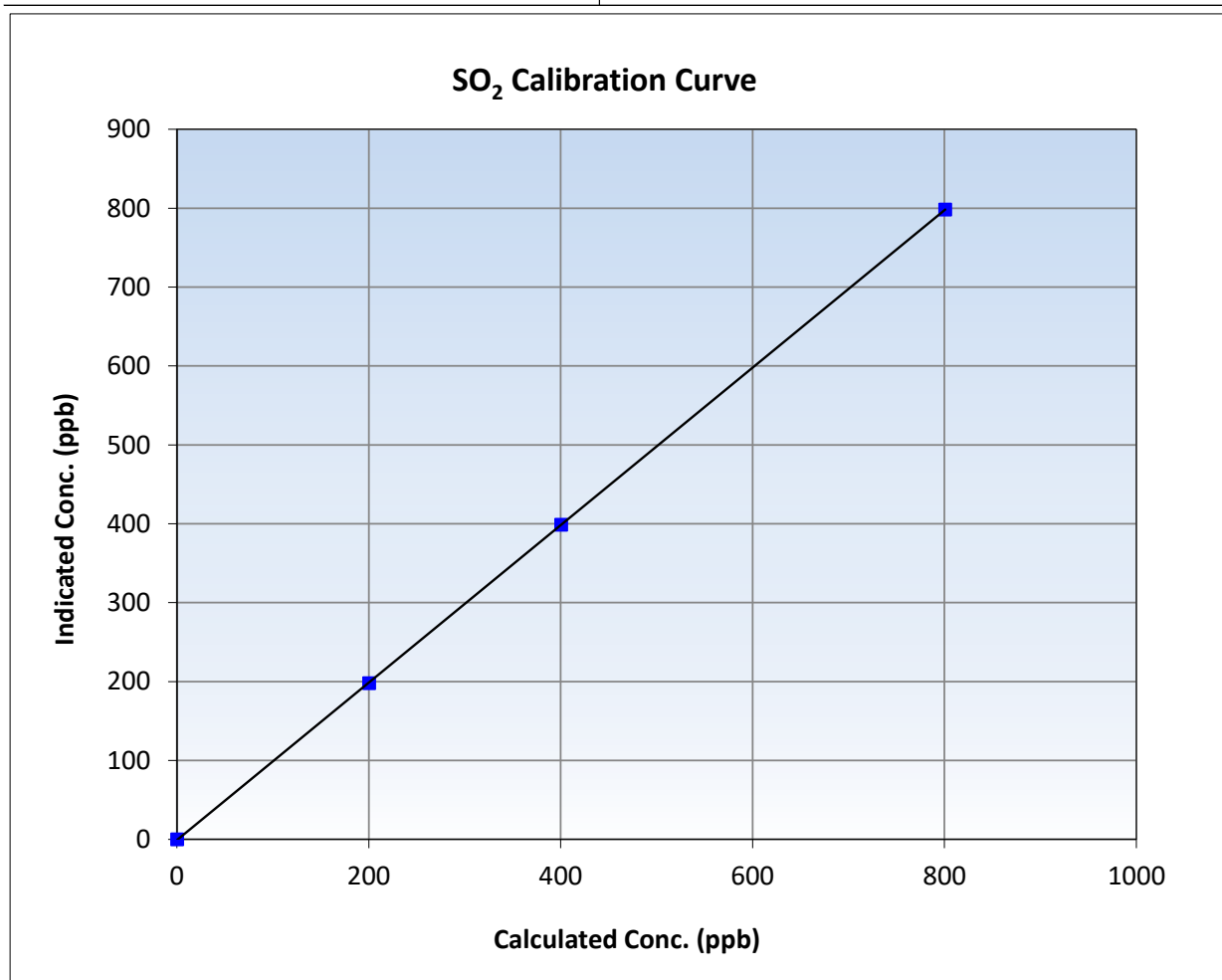
SO₂ Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 6, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	9:42	End Time (MST):	13:03
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1180540019

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999995	≥0.995
800.4	798.1	1.0029	Slope	0.997962	0.90 - 1.10
400.2	398.4	1.0046	Intercept	-0.972033	+/-30
200.1	197.7	1.0121			



SO2 Calibration Plot

Date: June 18, 2026

Location: Pihew Point





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Pihew Point
Calibration Date: June 10, 2026
Start time (MST): 8:55
Reason: Routine

Station number: AMS 32
Last Cal Date: May 22, 2026
End time (MST): 13:57

Calibration Standards

Cal Gas Concentration: 5.30 ppm
Cal Gas Cylinder #: DT0035169
Removed Cal Gas Conc: 5.30 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne T700
ZAG Make/Model: Teledyne T701H

Cal Gas Exp Date: March 19, 2027
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 3804
Serial Number: 692

Analyzer Information

Analyzer make: Thermo 43iQ-TLE
Converter make: Global G150
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1200025752
Converter serial #: 2024-288
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.009200	1.006486	Backgd or Offset:	1.60	1.59
Calibration intercept:	-0.102241	-0.182250	Coeff or Slope:	0.875	0.870

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4925	75.5	80.0	81.3	0.983
As found Mid point	4962	37.7	40.0	40.1	0.994
As found Low point	4981	18.9	20.0	20.2	0.987
New cylinder response					
Baseline Corr As found:	81.4	Prev response:	80.66	*% change:	0.9%
Baseline Corr 2nd AF pt:	40.2	AF Slope:	1.016919	AF Intercept:	-0.222441
Baseline Corr 3rd AF pt:	20.3	AF Correlation:	0.999961	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4925	75.5	80.0	80.4	0.995
Mid point	4962	37.7	40.0	40.0	0.999
Low point	4981	18.9	20.0	19.9	1.007
As left zero	5000	0.0	0.0	-0.1	----
As left span	4925	75.5	80.0	80.7	0.992
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	30-Jul-25		Ave Corr Factor		1.000
Date of last converter efficiency test:	NA				

Notes: Changed sample inlet filter after as founds. Adjusted span. Scrubber check was done after cal zero, passed.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

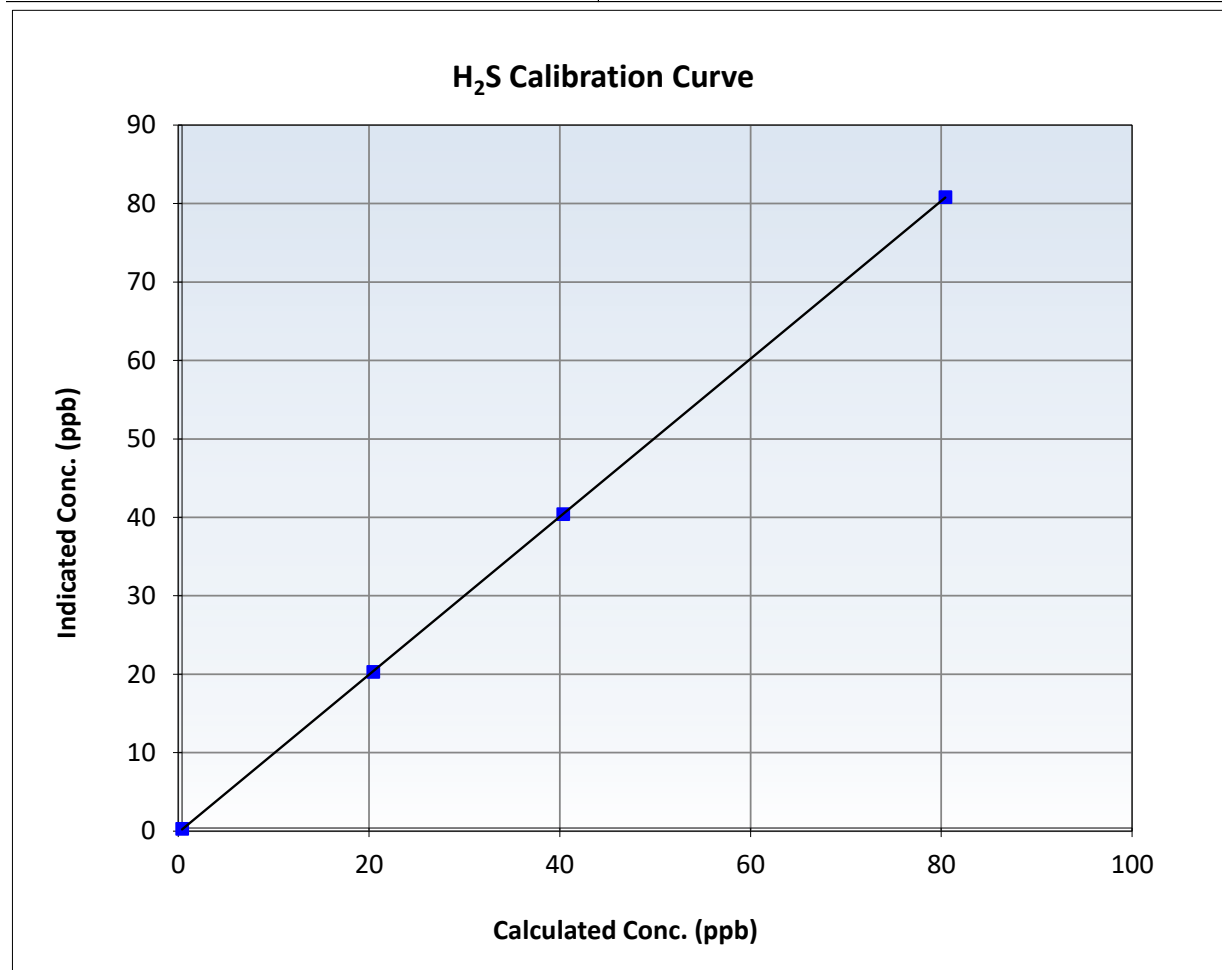
H₂S Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 22, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	8:55	End Time (MST):	13:57
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1200025752

Calibration Data

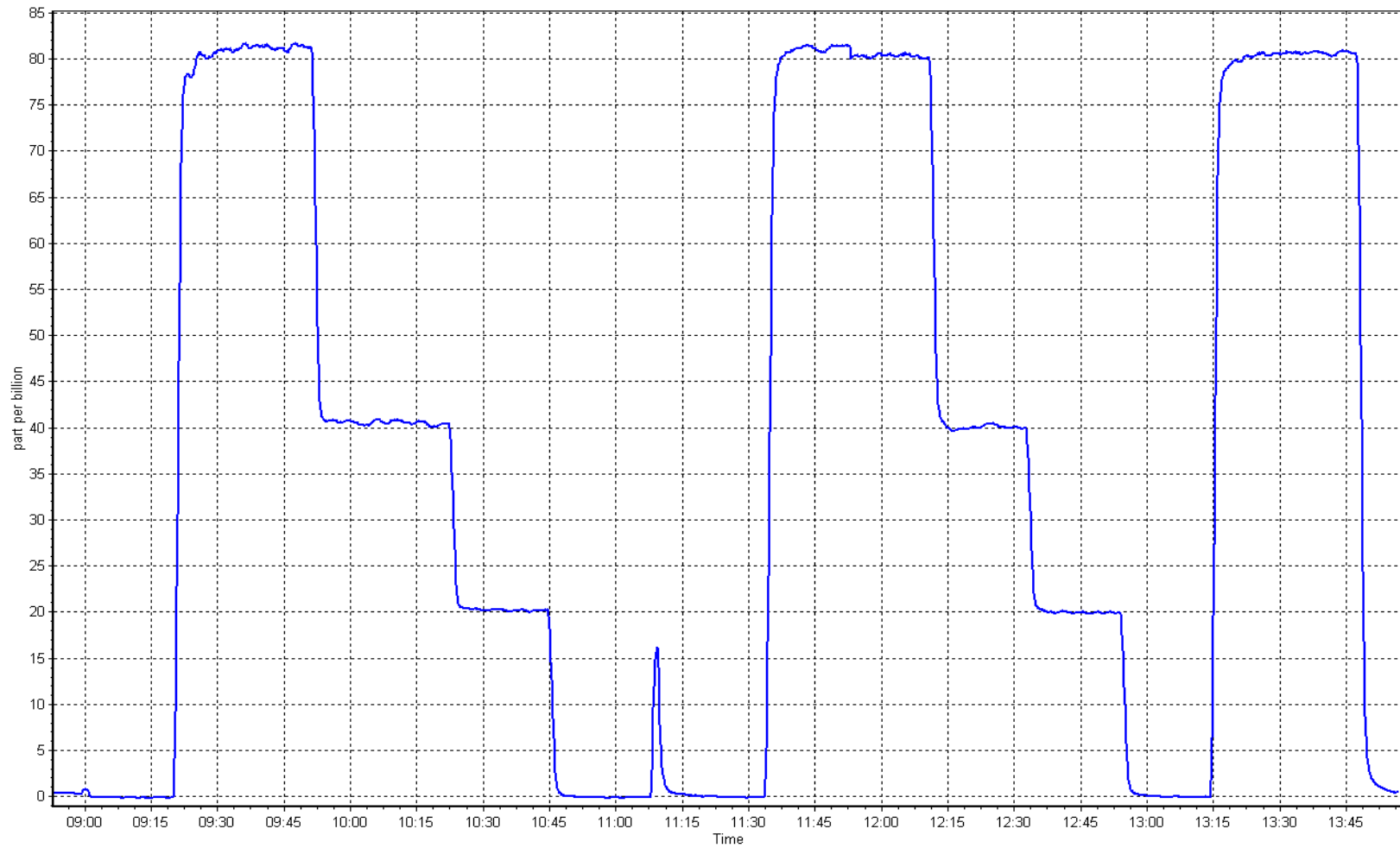
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999995		≥0.995
80.0	80.4	0.9953	Slope	1.006486		0.90 - 1.10
40.0	40.0	0.9991	Intercept	-0.182250		+/-3
20.0	19.9	1.0068				



H₂S Calibration Plot

Date: June 10, 2026

Location: Pihew Point





Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

Station Information

Station Name: Pihew Point
Calibration Date: June 18, 2026
Start time (MST): 9:42
Reason: Routine

Station number: AMS 32
Last Cal Date: May 21, 2026
End time (MST): 13:03

Calibration Standards

Gas Cert Reference:	SA150969A	Cal Gas Expiry Date:	October 9, 2032
CH ₄ Cal Gas Conc.	499.9 ppm	CH ₄ Equiv Conc.	1061.5 ppm
C ₃ H ₈ Cal Gas Conc.	204.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH ₄ Conc.	499.9 ppm	CH ₄ Equiv Conc.	1061.5 ppm
Removed C ₃ H ₈ Conc.	204.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH ₄):		Diff between cyl (NM):	
Calibrator Model:	Teledyne T700	Serial Number:	3804
Zero Air Gen model:	Teledyne T701H	Serial Number:	692

Analyzer Information

Analyzer make: Thermo 55i
THC Range: 0 - 20 ppm

Analyzer serial #: 1218153355
NMHC/CH₄ Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH ₄ SP Ratio:	2.70E-04	2.77E-04	NMHC SP Ratio:	4.67E-05
CH ₄ Retention time:	15.2	15.6	NMHC Peak Area:	187388
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	16.56	16.48	1.005
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.48	Prev response	16.54	*% change	-0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4922	78.0	16.56	16.51	1.003
Mid point	4961	39.0	8.28	8.23	1.006
Low point	4981	19.5	4.14	4.06	1.021
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	16.56	16.55	1.001
Average Correction Factor					1.010

Notes:

Changed sample inlet filter after as founds. Adjusted span.



Wood Buffalo Environmental Association

THC / CH₄ / NMHC Calibration Report

NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	8.76	8.95	0.979
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.95	Prev response	8.78	*% change	1.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4922	78.0	8.76	8.72	1.005
Mid point	4961	39.0	4.38	4.36	1.006
Low point	4981	19.5	2.19	2.13	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	8.76	8.74	1.002
Average Correction Factor					1.012

CH₄ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	7.80	7.54	1.035
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.54	Prev response	7.75	*% change	-2.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

CH₄ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4922	78.0	7.80	7.79	1.001
Mid point	4961	39.0	3.90	3.87	1.007
Low point	4981	19.5	1.95	1.92	1.014
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	7.80	7.81	0.998
Average Correction Factor					1.007

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999509	0.998363
THC Cal Offset:	-0.012235	-0.033436
CH ₄ Cal Slope:	0.995370	1.000250
CH ₄ Cal Offset:	-0.009723	-0.015122
NMHC Cal Slope:	1.002867	0.997153
NMHC Cal Offset:	-0.002512	-0.019113

Calibration Performed By: Braiden Boutillier



Wood Buffalo Environmental Association

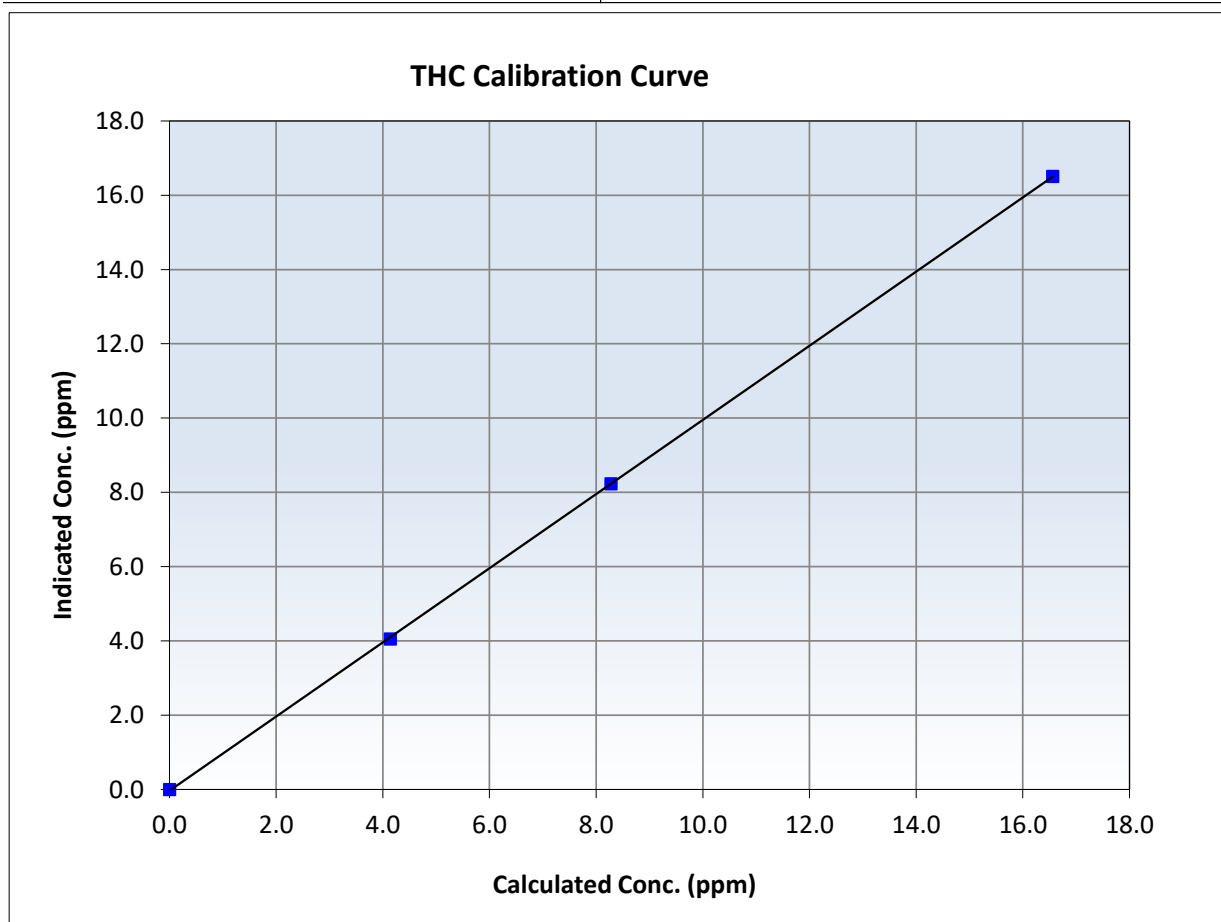
THC Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 21, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	9:42	End Time (MST):	13:03
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999979	≥ 0.995
16.56	16.51	1.0029	Slope	0.998363	$0.90 - 1.10$
8.28	8.23	1.0060	Intercept	-0.033436	± 0.5
4.14	4.06	1.0205			





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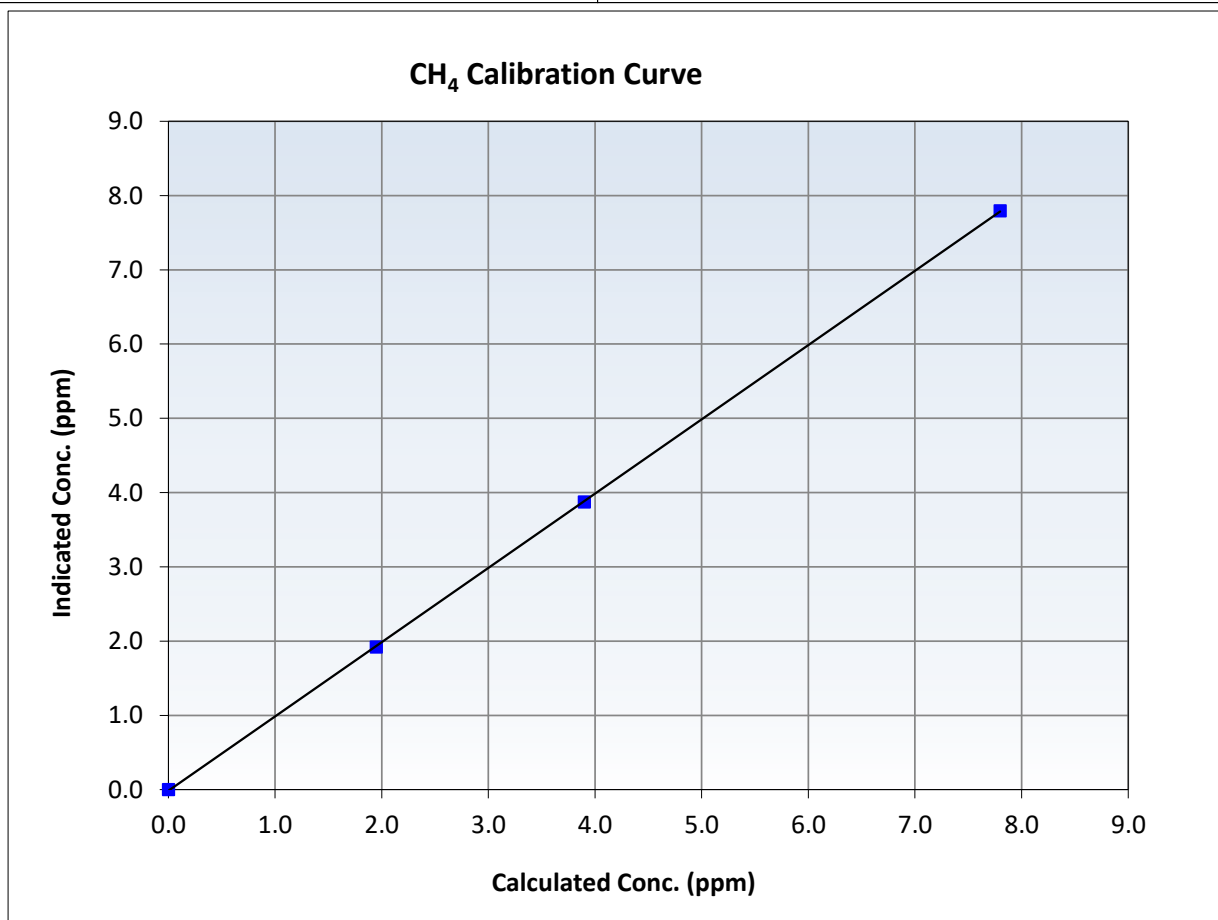
CH₄ Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 21, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	9:42	End Time (MST):	13:03
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999982	<i>≥0.995</i>
7.80	7.79	1.0006	Slope	1.000250	<i>0.90 - 1.10</i>
3.90	3.87	1.0065	Intercept	-0.015122	<i>+/-0.5</i>
1.95	1.92	1.0143			





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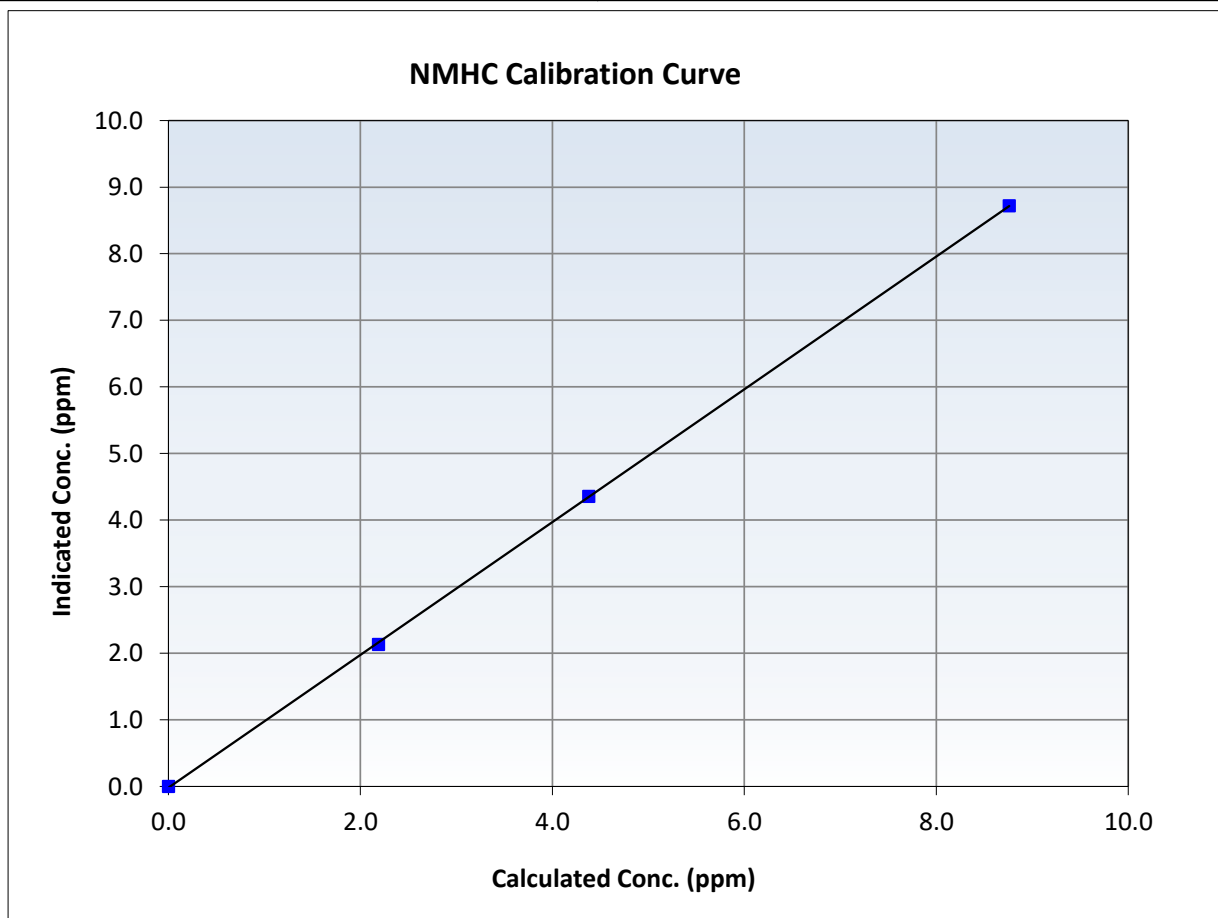
NMHC Calibration Summary

Station Information

Calibration Date:	June 18, 2026	Previous Calibration:	May 21, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	9:42	End Time (MST):	13:03
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

Calibration Data

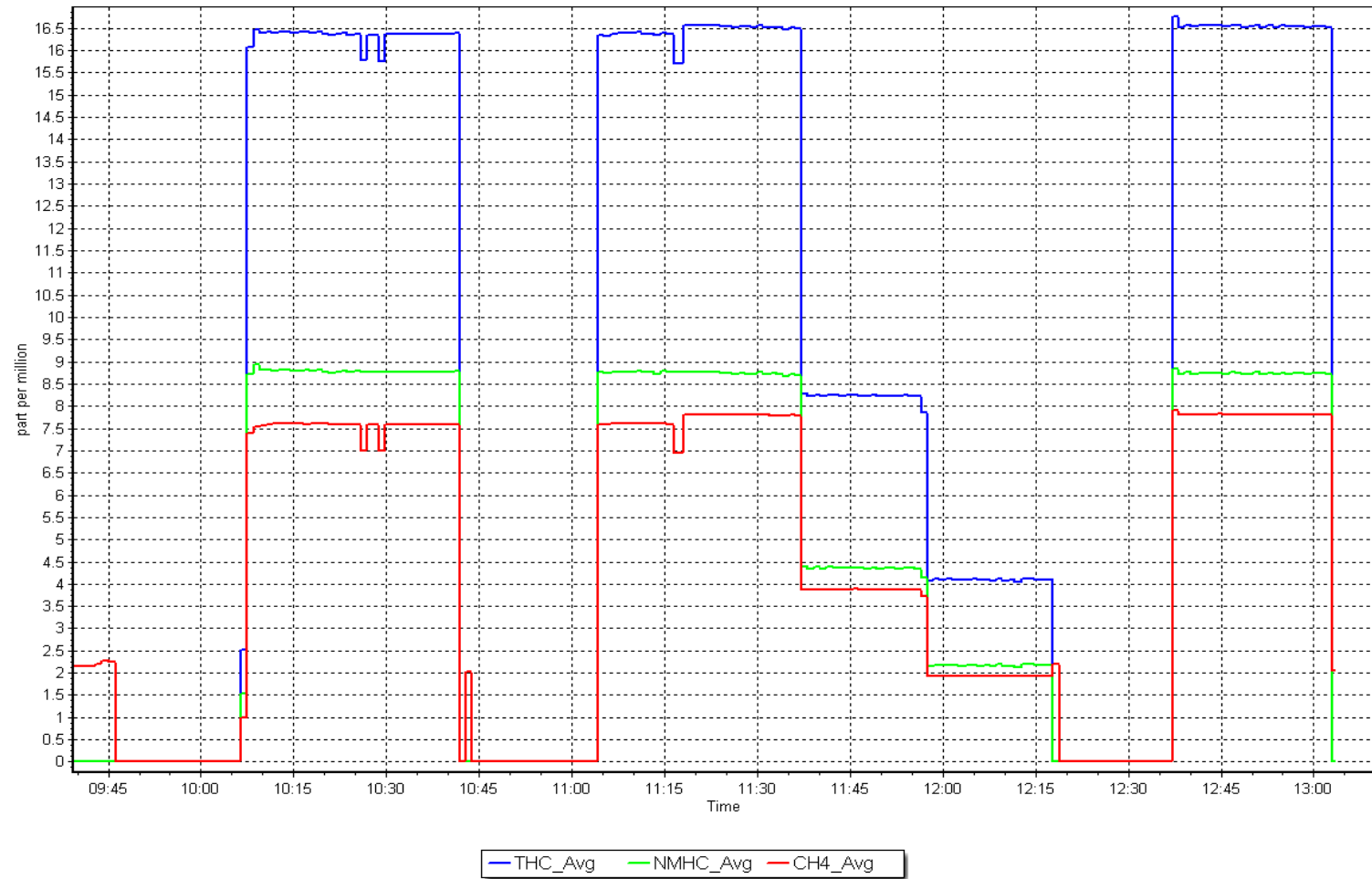
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999967	<i>≥0.995</i>
8.76	8.72	1.0046	Slope	0.997153	<i>0.90 - 1.10</i>
4.38	4.36	1.0055	Intercept	-0.019113	<i>+/-0.5</i>
2.19	2.13	1.0262			



NMHC Calibration Plot

Date: June 18, 2026

Location: Pihew Point





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS33 MONDAY CREEK JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Monday Creek
Calibration Date: June 9, 2026
Start time (MST): 11:50
Reason: Routine

Station number: AMS 33
Last Cal Date: May 25, 2026
End time (MST): 14:37

Calibration Standards

Cal Gas Concentration: 50.62 ppm
Cal Gas Cylinder #: EB0008522
Removed Cal Gas Conc: 50.62 ppm
Removed Gas Cyl #: NA
Calibrator Model: Teledyne T700
Zero Air Gen Model: Teledyne T701H

Cal Gas Exp Date: March 10, 2031
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 3253
Serial Number: 832

Analyzer Information

Analyzer make: Thermo 43i
Analyzer Range: 0- 1000 ppb

Serial Number: 1152430005

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.995447	1.003566	Backgd or Offset:	32.4	32.4
Calibration intercept:	0.441295	1.122476	Coeff or Slope:	0.981	0.981

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	79.1	800.8	804.4	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	804.4	Previous response	797.6	*% change	0.8%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4921	79.1	800.8	803.9	0.996
Mid point	4961	39.5	399.9	404.1	0.990
Low point	4980	19.8	200.5	202.4	0.990
As left zero	5000	0.0	0.0	0.4	----
As left span	4921	79.1	800.8	803.5	0.997
Average Correction Factor:					0.992

Notes: Sample inlet filter was changed after as founds. No adjustments made.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

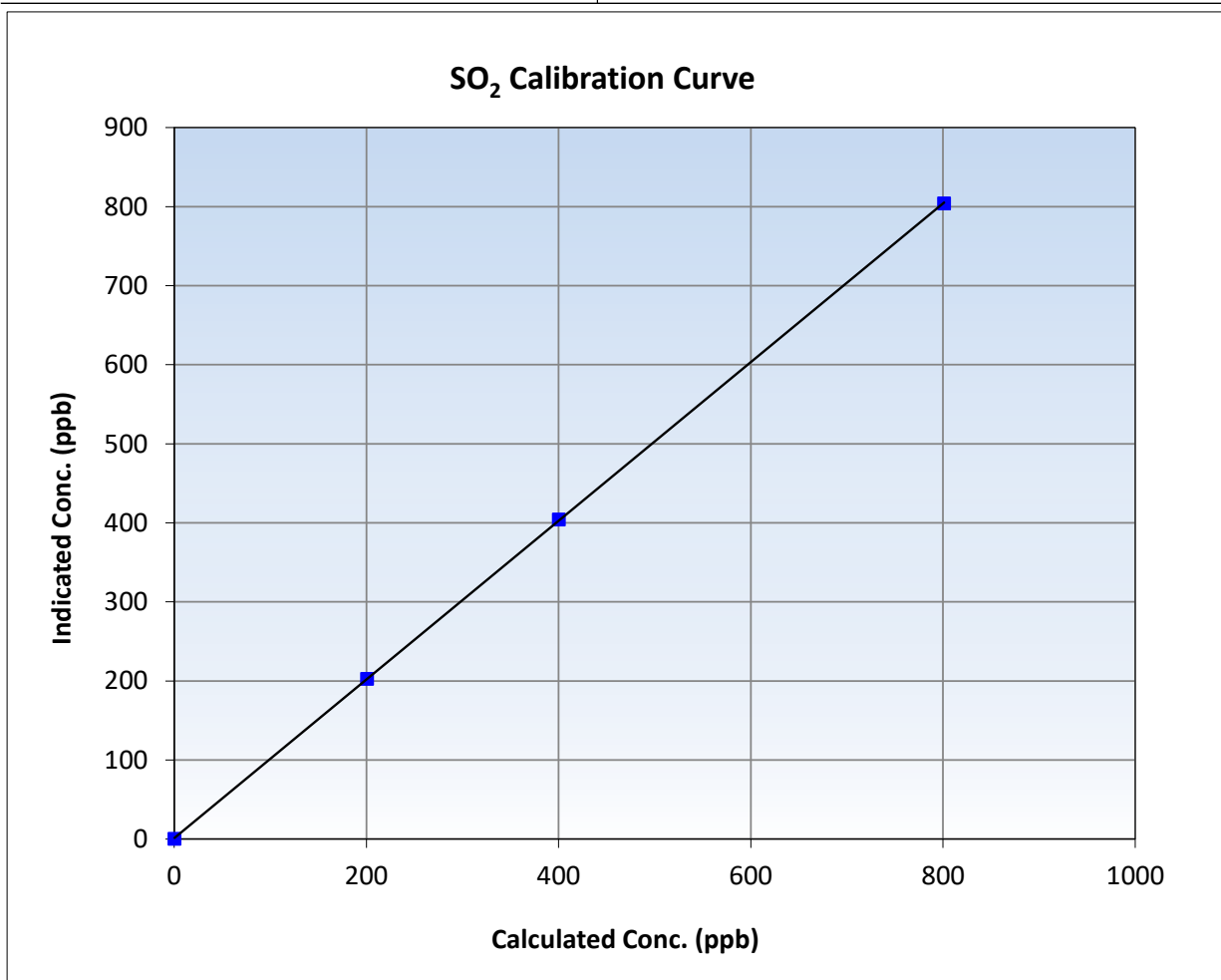
SO₂ Calibration Summary

Station Information

Calibration Date:	June 9, 2026	Previous Calibration:	May 25, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	11:50	End Time (MST):	14:37
Analyzer make:	Thermo 43i	Analyzer serial #:	1152430005

Calibration Data

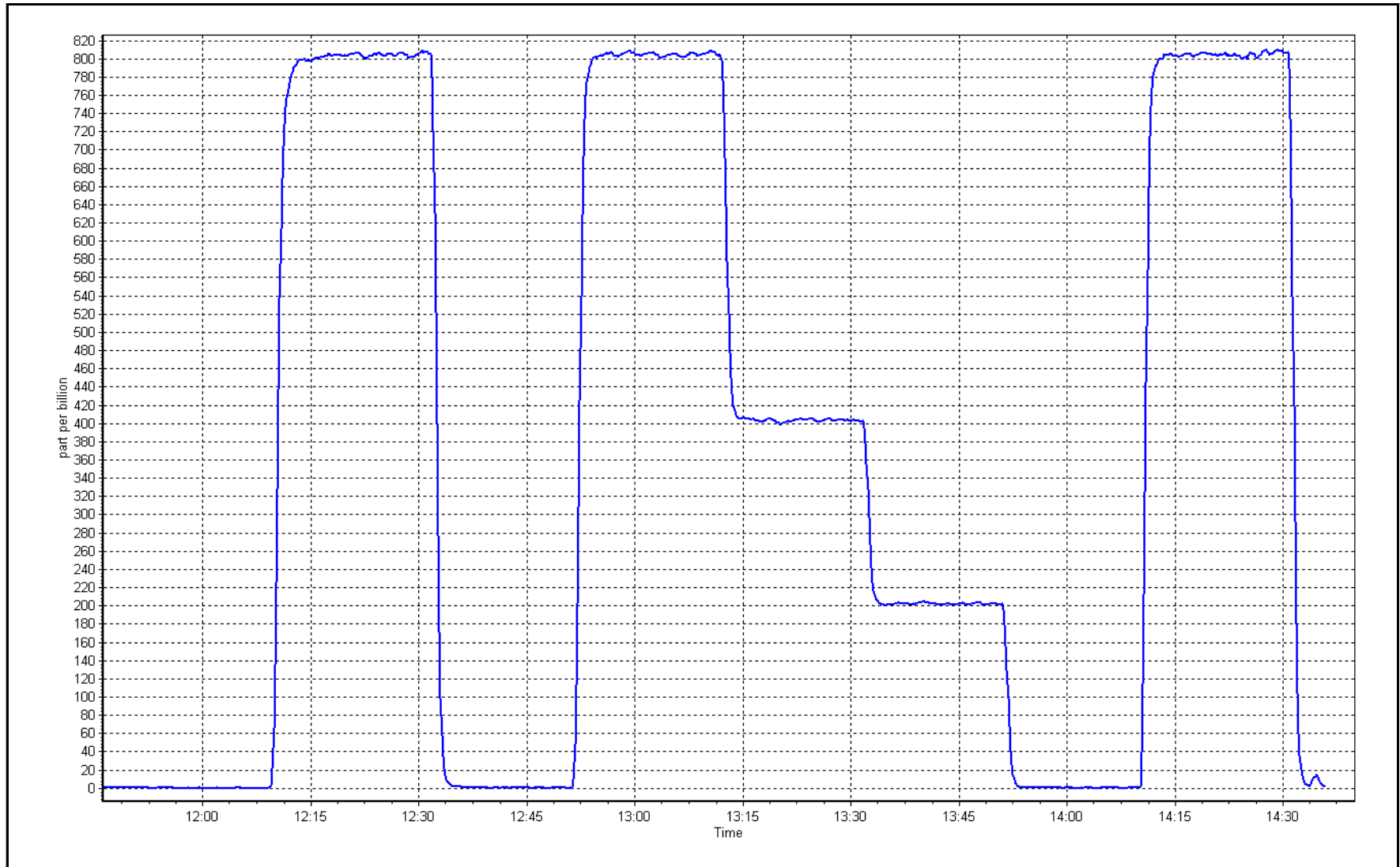
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999987	≥0.995
800.8	803.9	0.9961	Slope	1.003566	0.90 - 1.10
399.9	404.1	0.9895	Intercept	1.122476	+/-30
200.5	202.4	0.9904			



SO2 Calibration Plot

Date: June 9, 2026

Location: Monday Creek





Wood Buffalo Environmental Association

H2S Calibration Report

Station Information

Station Name: Monday Creek
Calibration Date: June 11, 2026
Start time (MST): 10:02
Reason: Routine

Station number: AMS 33
Last Cal Date: May 26, 2026
End time (MST): 14:16

Calibration Standards

Cal Gas Concentration: 5.05 ppm
Cal Gas Cylinder #: DT0014831
Removed Cal Gas Conc: 5.05 ppm
Removed Gas Cyl #: NA
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne T701H

Cal Gas Exp Date: November 15, 2026
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 3253
Serial Number: 832

Analyzer Information

Analyzer make: Thermo 43iQTL
Converter make: Global 150
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 12333331547
Converter serial #: 2022-196
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005855	1.001140	Backgd or Offset:	1.76	1.50
Calibration intercept:	-0.101604	0.038397	Coeff or Slope:	1.081	1.063

H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4921	79.2	80.0	83.0	0.960
As found Mid point	4960	39.6	40.0	41.4	0.959
As found Low point	4980	19.8	20.0	20.5	0.961
New cylinder response					
Baseline Corr As found:	83.3	Prev response:	80.36	*% change:	3.5%
Baseline Corr 2nd AF pt:	41.7	AF Slope:	1.041574	AF Intercept:	-0.301668
Baseline Corr 3rd AF pt:	20.8	AF Correlation:	0.999999	* = > +/-5% change initiates investigation	

H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4921	79.2	80.0	80.1	0.999
Mid point	4960	39.6	40.0	40.1	0.997
Low point	4980	19.8	20.0	20.1	0.995
As left zero	5000	0.0	0.0	0.2	----
As left span	4921	79.2	80.0	78.9	1.014
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:		11-Apr-24		Ave Corr Factor	0.997
Date of last converter efficiency test:		October 22, 2025			

Notes: Sample inlet filter was changed after the multi-point as founds. SO2 scrubber check passed.
Adjusted the zero and span.

Calibration Performed By: Rene Chamberland



Wood Buffalo Environmental Association

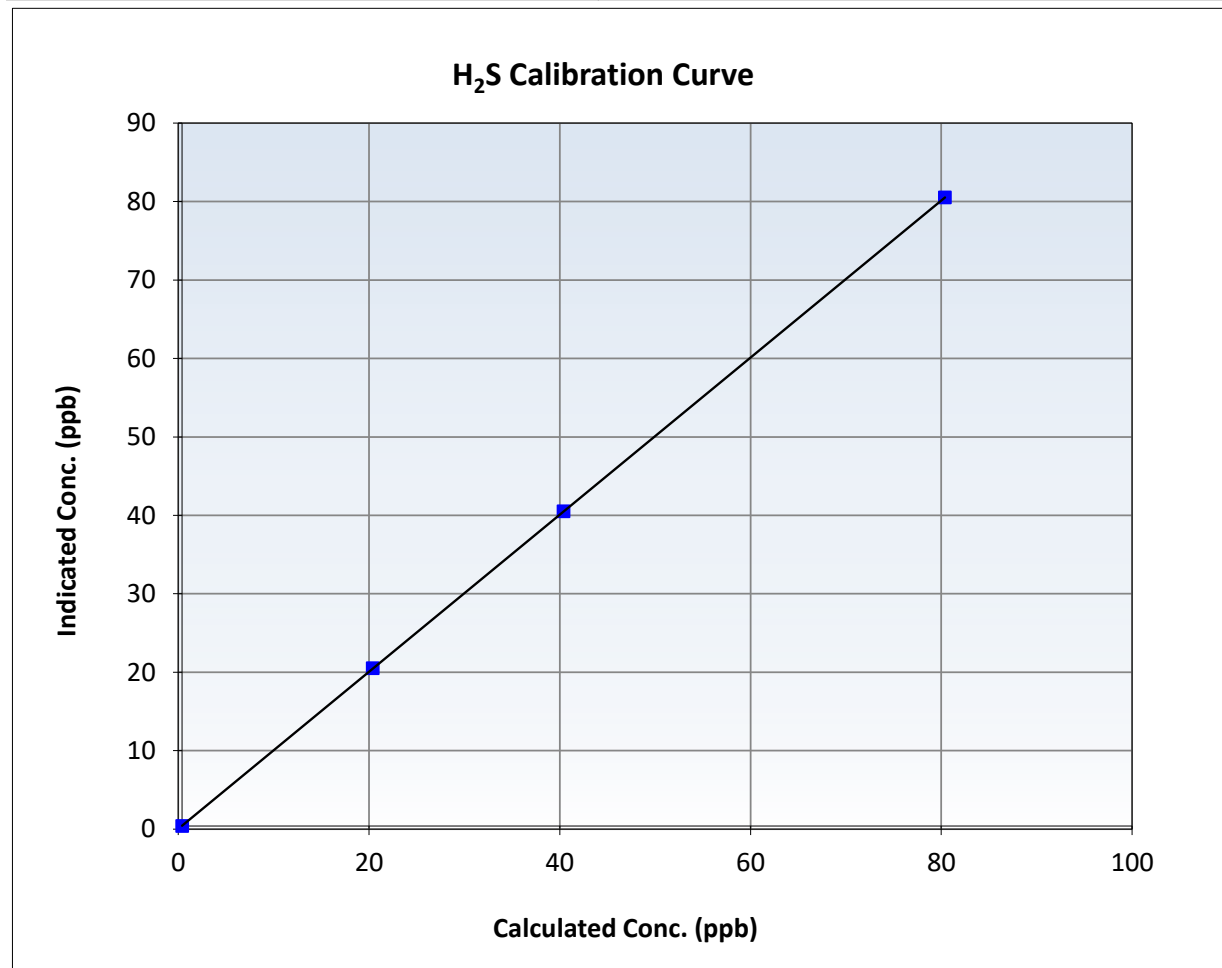
H₂S Calibration Summary

Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	May 26, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	10:02	End Time (MST):	14:16
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12333331547

Calibration Data

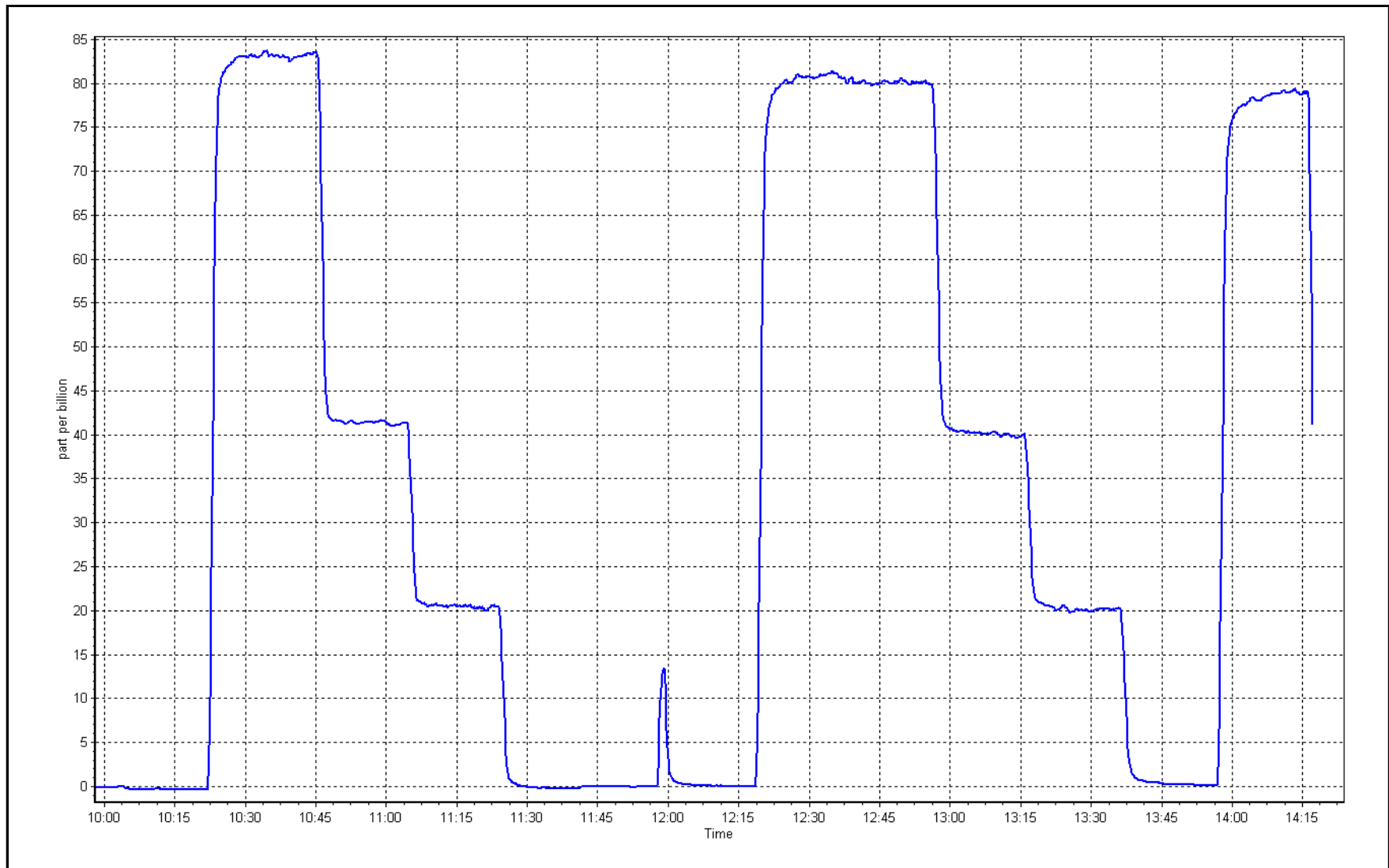
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999999		≥ 0.995
80.0	80.1	0.9986	Slope	1.001140		$0.90 - 1.10$
40.0	40.1	0.9975	Intercept	0.038397		± 3
20.0	20.1	0.9950				



H2S Calibration Plot

Date: June 11, 2026

Location: Monday Creek





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Monday Creek
Station number: AMS 33
Calibration Date: June 25, 2026
Last Cal Date: May 28, 2026
Start time (MST): 9:19
End time (MST): 13:35
Reason: Routine

Calibration Standards

NO Gas Cylinder #: CC755290
NOX Cal Gas Conc: 48.90 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 48.90 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701H
Cal Gas Expiry Date: March 11, 2031
NO Cal Gas Conc: 48.70 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 48.70 ppm
NO gas Diff:
Serial Number: 3253
Serial Number: 832

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
AF High point	4918	82.1	802.9	799.6	3.3	805.3	801.7	3.7	0.9969	0.9973
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 804.0 ppb	NO = 802.1 ppb	* = > +/-5% change initiates investigation			*Percent Change	NO _x = 0.2%			
Baseline Corr 1st pt	NO _x = 805.4 ppb	NO = 801.8 ppb	<u>As Found Statistics</u>			*Percent Change	NO = 0.0%			
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found NO _x r ² :			Nx SI:	Nx Int:			
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found NO r ² :			NO SI:	NO Int:			
			As found NO ₂ r ² :			NO2 SI:	NO ₂ Int:			

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1170050148

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	0.999838	1.000393
NO _x Cal Offset:	1.246401	0.926629
NO Cal Slope:	1.002844	1.003458
NO Cal Offset:	0.206279	0.066537
NO ₂ Cal Slope:	0.995820	0.994171
NO ₂ Cal Offset:	-0.434473	-1.067654

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.675	0.675	NO bkgnd or offset:	1.3	1.3
NOX coeff or slope:	0.985	0.985	NOX bkgnd or offset:	1.4	1.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	158.4	158.7

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	----	----
High point	4918	82.1	802.9	799.6	3.3	803.8	802.5	1.1	0.9989	0.9964
Mid point	4959	41.1	401.9	400.3	1.6	403.2	401.6	1.6	0.9969	0.9968
Low point	4980	20.5	200.5	199.7	0.8	202.6	200.6	2.0	0.9895	0.9953
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	----	----
As left span	4918	82.1	802.9	399.6	403.3	803.4	399.6	403.8	0.9994	1.0000
Average Correction Factor									0.9951	0.9962

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	802.0	395.7	409.6	406.6	1.0073	99.3%
Mid GPT point	802.0	601.6	203.7	201.1	1.0128	98.7%
Low GPT point	802.0	701.2	104.1	101.2	1.0285	97.2%
Average Correction Factor					1.0162	98.4%

Notes:

The sample inlet filter was changed after the as founds. No adjustments made.

Calibration Performed By:

Rene Chamberland



Wood Buffalo Environmental Association

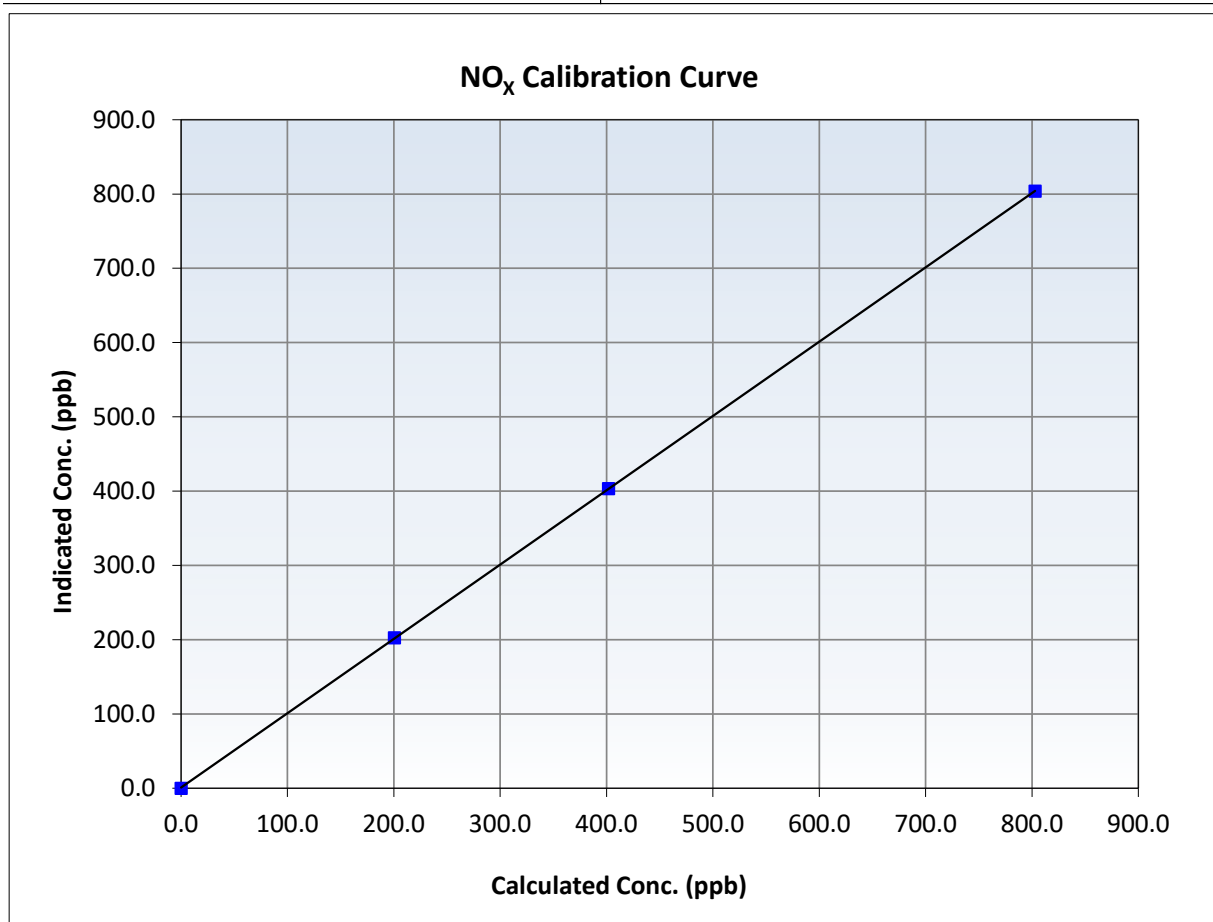
NO_x Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 28, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	9:19	End Time (MST):	13:35
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999994	≥0.995
802.9	803.8	0.9989	Slope	1.000393	0.90 - 1.10
401.9	403.2	0.9969	Intercept	0.926629	+/-20
200.5	202.6	0.9895			





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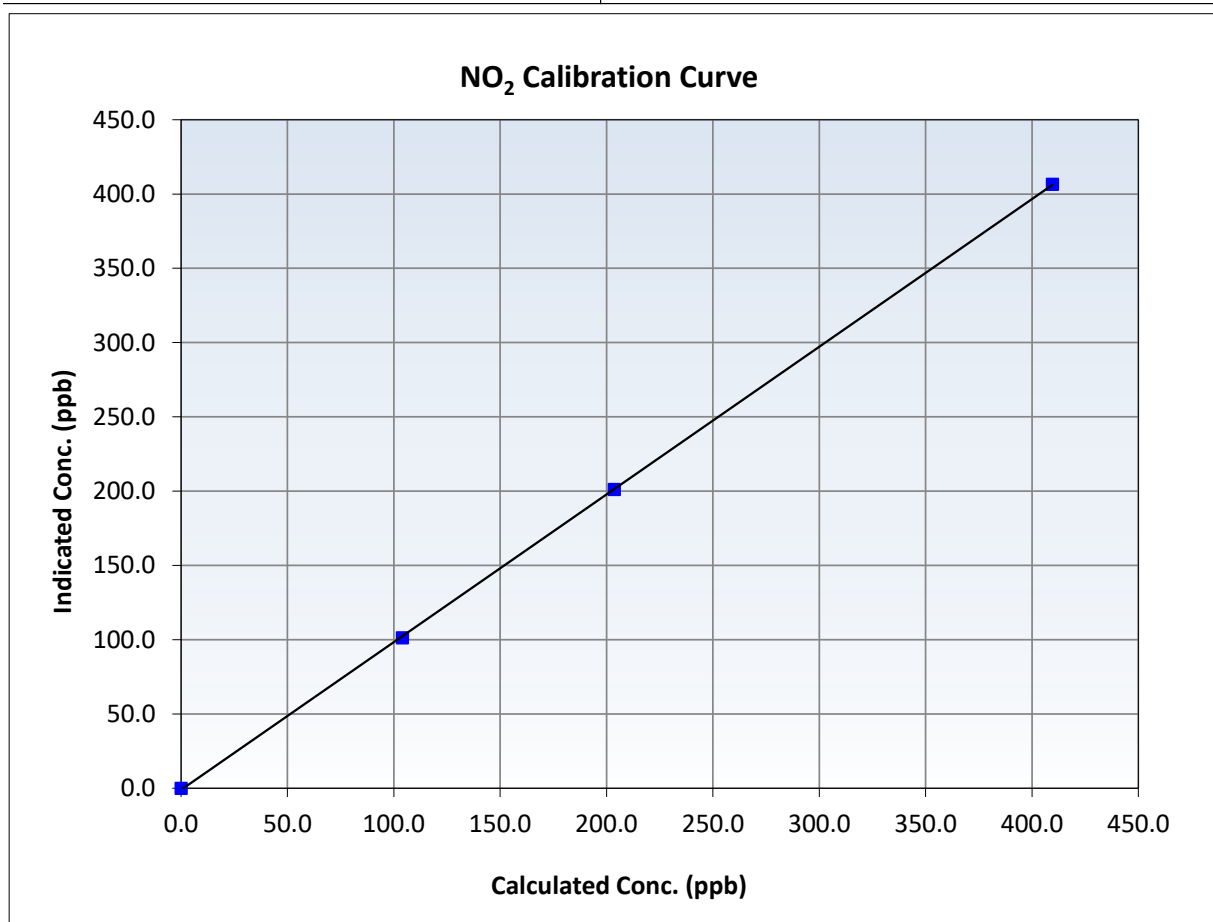
NO₂ Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 28, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	9:19	End Time (MST):	13:35
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999968	≥0.995
409.6	406.6	1.0073	Slope	0.994171	0.90 - 1.10
203.7	201.1	1.0128	Intercept	-1.067654	+/-20
104.1	101.2	1.0285			





Wood Buffalo Environmental Association

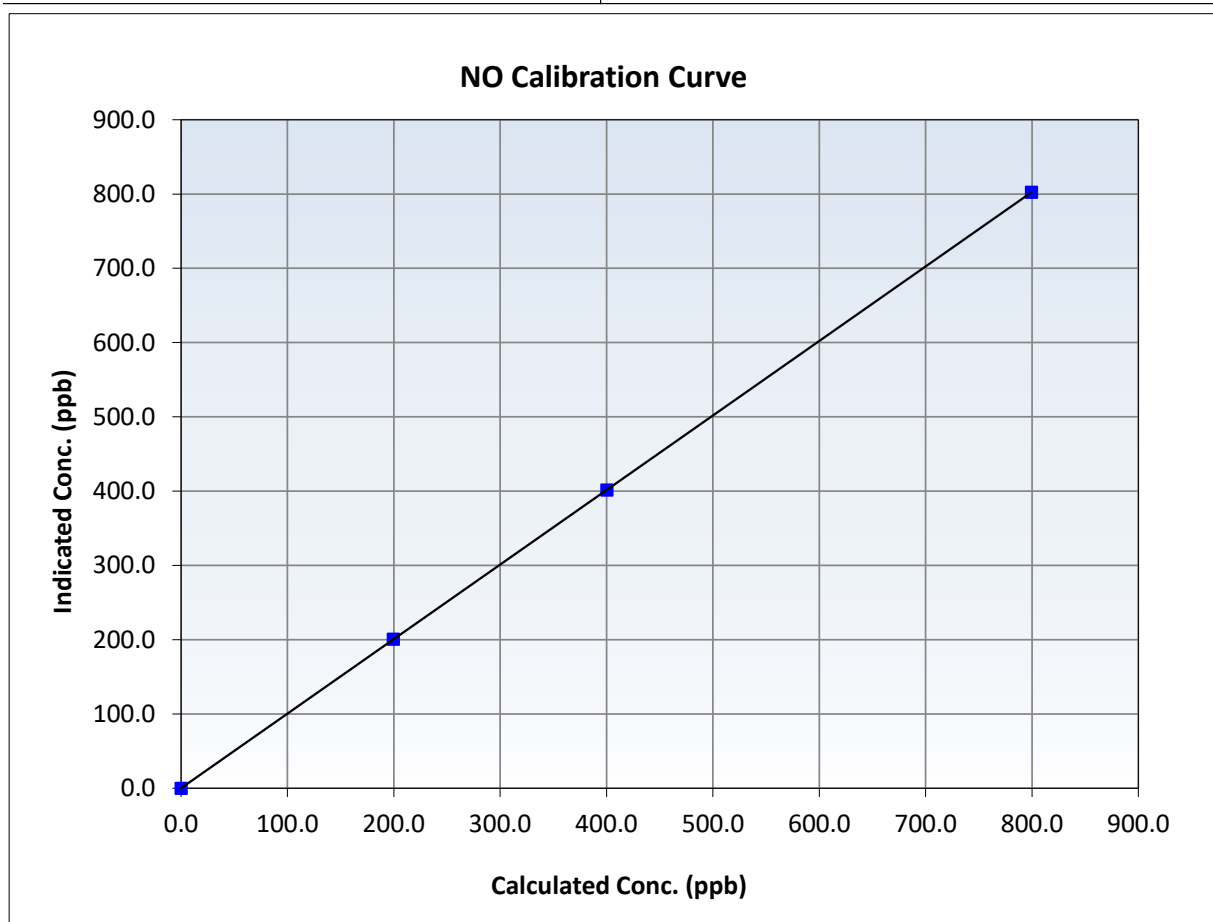
NO Calibration Summary

Station Information

Calibration Date:	June 25, 2026	Previous Calibration:	May 28, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	9:19	End Time (MST):	13:35
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

Calibration Data

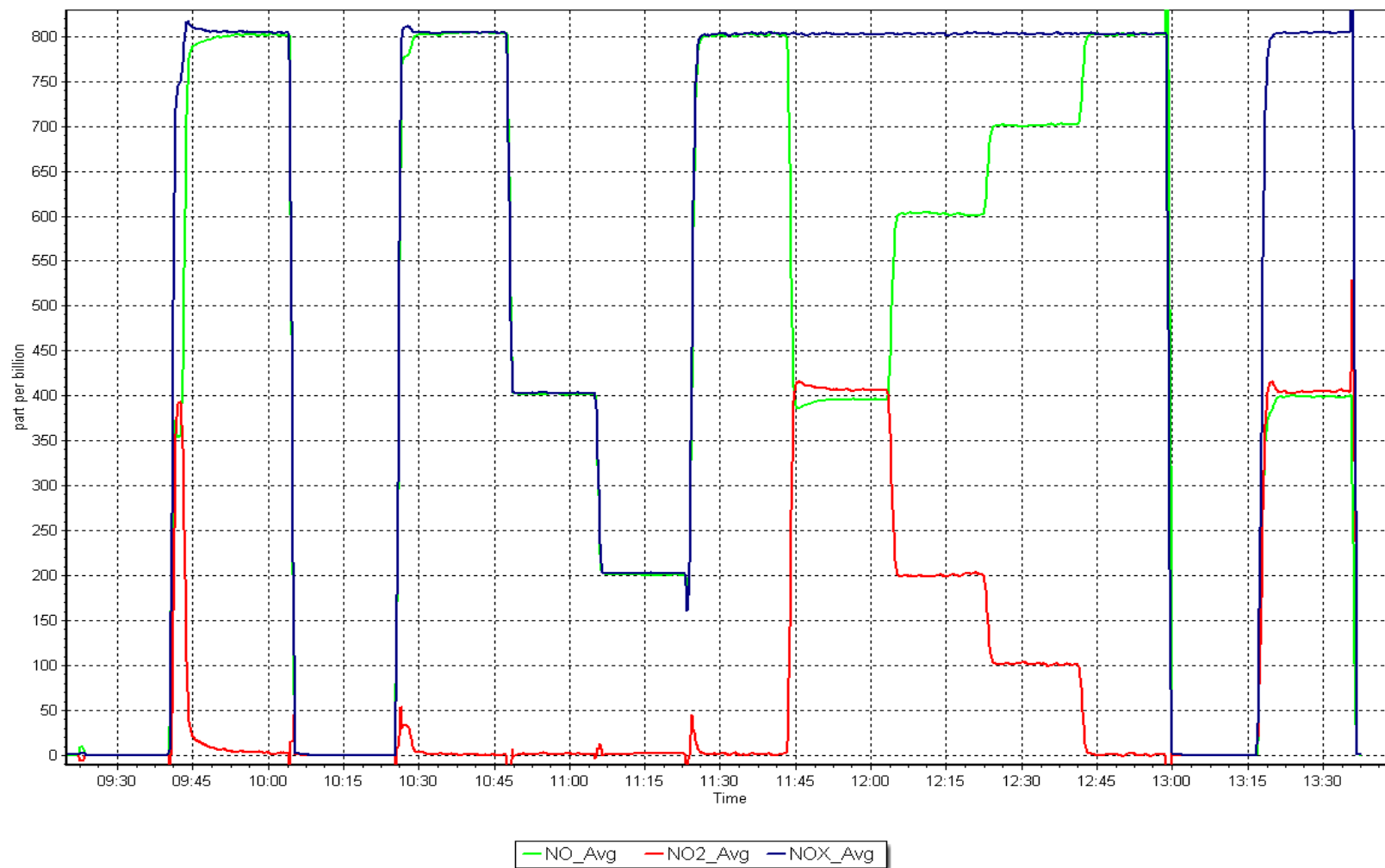
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000	≥ 0.995
799.6	802.5	0.9964	Slope	1.003458	0.90 - 1.10
400.3	401.6	0.9968	Intercept	0.066537	+/-20
199.7	200.6	0.9953			



NO_x Calibration Plot

Date: June 25, 2026

Location: Monday Creek





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS34 HANGINGSTONE EXPANSION JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Hangingstone Expansion Station number: AMS 34
Calibration Date: June 19, 2026 Last Cal Date: May 22, 2026
Start time (MST): 5:25 End time (MST): 8:08
Reason: Routine

Calibration Standards

Cal Gas Concentration: 49.37 ppm Cal Gas Exp Date: January 5, 2029
Cal Gas Cylinder #: CC303094
Removed Cal Gas Conc: 49.37 ppm Rem Gas Exp Date:
Removed Gas Cyl #: N/A Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 2659
Zero Air Gen Model: Teledyne API 701 Serial Number: 953

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 1173410001
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000328	1.006459	Backgd or Offset:	14.9	14.9
Calibration intercept:	-0.880053	-0.601310	Coeff or Slope:	1.143	1.143

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.5	----
As found High point	4919	81.0	799.8	804.3	0.995
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	803.8	Previous response	799.2	*% change	0.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.6	----
High point	4919	81.0	799.8	804.9	0.994
Mid point	4959	40.5	399.9	401.5	0.996
Low point	4980	20.3	200.4	199.8	1.003
As left zero	5000	0.0	0.0	0.6	----
As left span	4919	81.0	799.8	806.9	0.991
Average Correction Factor:					0.998

Notes: No maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

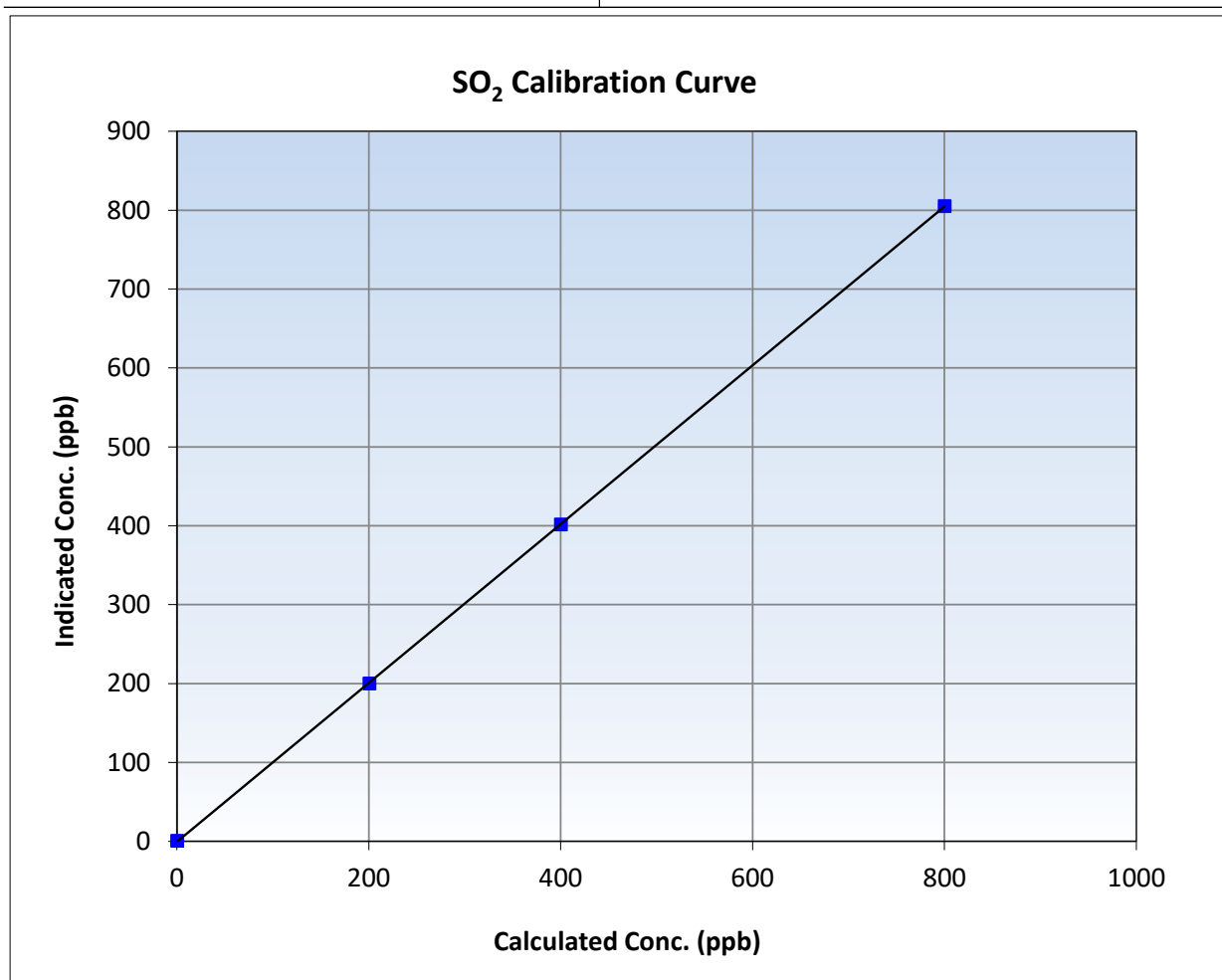
SO₂ Calibration Summary

Station Information

Calibration Date:	June 19, 2026	Previous Calibration:	May 22, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	5:25	End Time (MST):	8:08
Analyzer make:	Thermo 43i	Analyzer serial #:	1173410001

Calibration Data

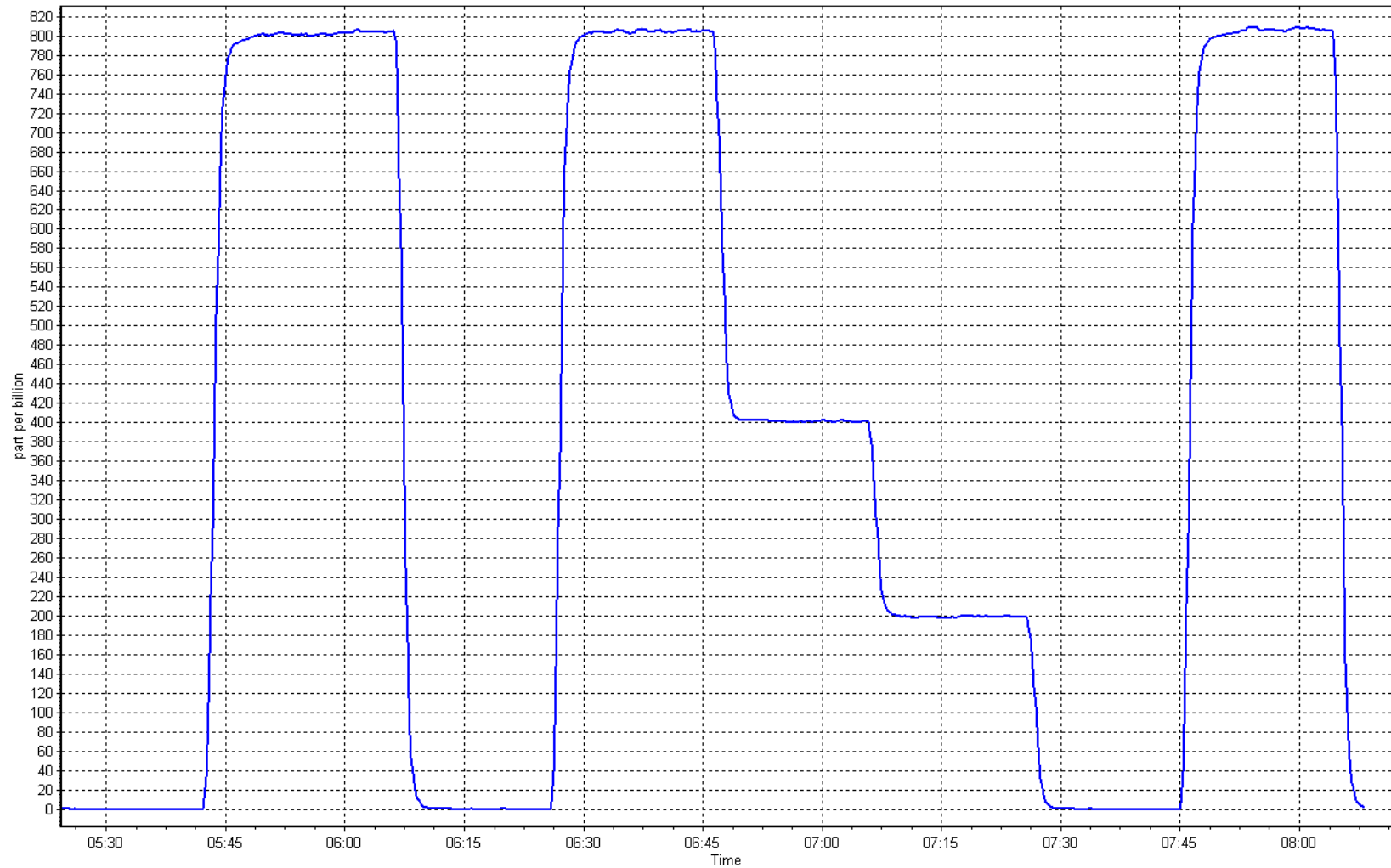
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.6	----	Correlation Coefficient	0.999990	≥0.995
799.8	804.9	0.9937	Slope	1.006459	0.90 - 1.10
399.9	401.5	0.9961	Intercept	-0.601310	+/-30
200.4	199.8	1.0032			



SO2 Calibration Plot

Date: June 19, 2026

Location: Hangingstone Expansion





Wood Buffalo Environmental Association

H₂S Calibration Report

Station Information

Station Name: Hangingstone Expansion Station number: AMS 34
Calibration Date: June 23, 2026 Last Cal Date: May 7, 2026
Start time (MST): 6:56 End time (MST): 11:32
Reason: Routine

Calibration Standards

Cal Gas Concentration: 5.139 ppm Cal Gas Exp Date: January 3, 2026
Cal Gas Cylinder #: CC511397
Removed Cal Gas Conc: 5.139 ppm Rem Gas Exp Date: N/A
Removed Gas Cyl #: N/A Diff between cyl:
Calibrator Make/Model: API T700 Serial Number: 2659
ZAG Make/Model: API T701 Serial Number: 953

Analyzer Information

Analyzer make: Thermo 43i-TLE Analyzer serial #: 1336160090
Converter make: Global G150 Converter serial #: 2025-299
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>	
Calibration slope:	1.008064	0.998631	Backgd or Offset:	4.54	4.21
Calibration intercept:	-0.179322	0.100808	Coeff or Slope:	1.442	1.402

H₂S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4922	77.8	80.0	83.4	0.957
As found Mid point	4961	38.9	40.0	41.2	0.966
As found Low point	4981	19.5	20.0	20.5	0.968
New cylinder response					
Baseline Corr As found:	83.6	Prev response:	80.43	*% change:	3.8%
Baseline Corr 2nd AF pt:	41.4	AF Slope:	1.045948	AF Intercept:	-0.380123
Baseline Corr 3rd AF pt:	20.7	AF Correlation:	0.999970	* = > +/-5% change initiates investigation	

H₂S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4922	77.8	80.0	79.9	1.001
Mid point	4961	38.9	40.0	40.2	0.995
Low point	4981	19.5	20.0	20.0	1.002
As left zero	5000	0.0	0.0	0.3	----
As left span	4922	77.8	80.0	78.8	1.015
SO2 Scrubber Check	4919	81.0	810.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	0.999
Date of last converter efficiency test:					

Notes: Sox scrubber checked after the calibrator zero. Zero and Span adjusted.

Calibration Performed By: Melissa Lemay



Wood Buffalo Environmental Association

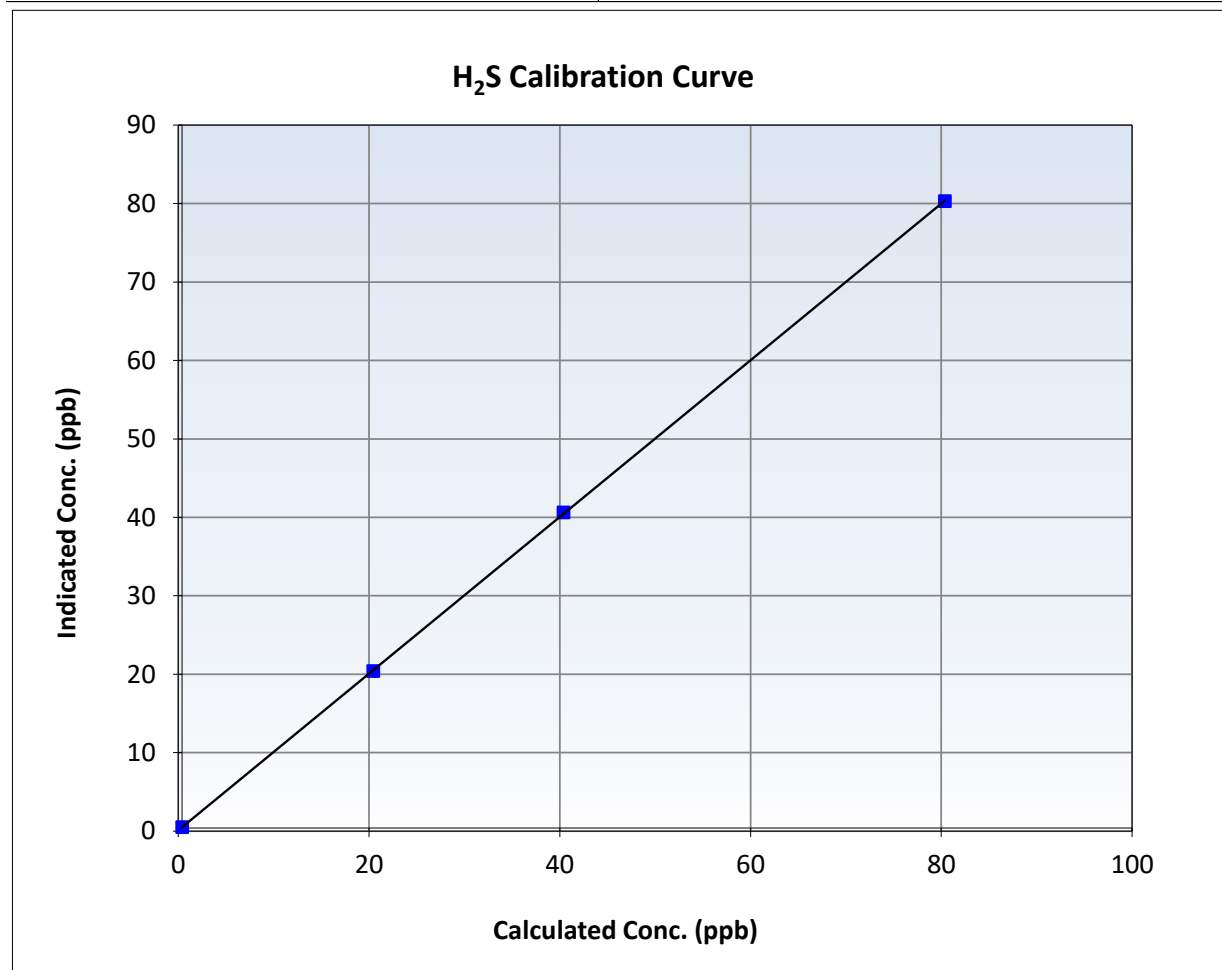
H₂S Calibration Summary

Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 7, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:56	End Time (MST):	11:32
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1336160090

Calibration Data

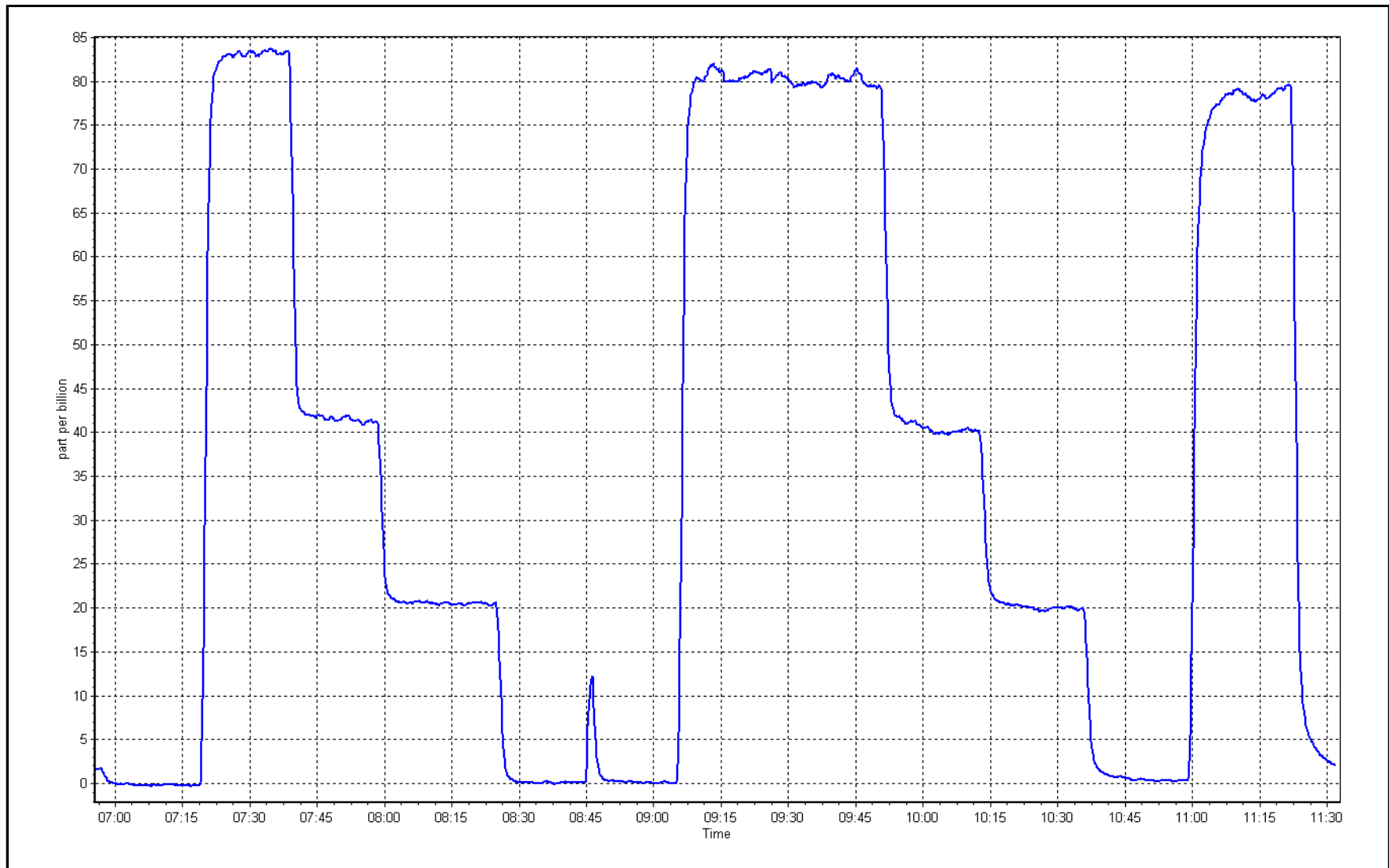
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999987		≥0.995
80.0	79.9	1.0008	Slope	0.998631		0.90 - 1.10
40.0	40.2	0.9946	Intercept	0.100808		+/-3
20.0	20.0	1.0020				



H₂S Calibration Plot

Date: June 23, 2026

Location: Hangingstone Expansion





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Hangingstone Expansion
Station number: AMS 34
Calibration Date: June 22, 2026
Last Cal Date: May 21, 2026
Start time (MST): 6:20
End time (MST): 10:49
Reason: Routine

Calibration Standards

NO Gas Cylinder #: T0F8P52
NOX Cal Gas Conc: 47.43 ppm
Removed Cylinder #: N/A
Removed Gas NOX Conc: 47.43 ppm
NOX gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API 701
Cal Gas Expiry Date: August 16, 2026
NO Cal Gas Conc: 47.43 ppm
Removed Gas Exp Date: N/A
Removed Gas NO Conc: 47.43 ppm
NO gas Diff:
Serial Number: 953
Serial Number: 2659

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	-0.2	0.2	----	----
AF High point	4915	84.4	800.7	800.7	0.0	805.9	801.0	4.7	0.9937	0.9994
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 800.3 ppb	NO = 798.1 ppb	* = > +/-5% change initiates investigation			*Percent Change	NO _x = 0.7%			
Baseline Corr 1st pt	NO _x = 805.8 ppb	NO = 801.2 ppb	<u>As Found Statistics</u>			*Percent Change	NO = 0.4%			
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb	As found NO _x r ² :			Nx SI:	Nx Int:			
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb	As found NO r ² :			NO SI:	NO Int:			
			As found NO ₂ r ² :			NO ₂ SI:	NO ₂ Int:			

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Teledyne API T200
NOX Range (ppb): 0-1000

Serial Number: 7029

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.077	1.060	NO bkgnd or offset:	0.2	0.2
NOX coeff or slope:	1.073	1.059	NOX bkgnd or offset:	0.4	0.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	4.6	4.6

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.000010	1.008445
NO _x Cal Offset:	-0.448005	-0.428071
NO Cal Slope:	0.998725	1.005448
NO Cal Offset:	-1.547973	-1.428031
NO ₂ Cal Slope:	1.006835	1.002224
NO ₂ Cal Offset:	1.350245	1.450359

Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	----	----
High point	4915	84.4	800.7	800.7	0.0	807.1	804.1	2.9	0.9921	0.9958
Mid point	4957	42.2	400.4	400.4	0.0	403.6	401.1	2.5	0.9920	0.9982
Low point	4978	21.1	200.2	200.2	0.0	200.7	198.1	2.6	0.9975	1.0106
As left zero	5000	0.0	0.0	0.0	0.0	0.1	0.1	0.0	----	----
As left span	4915	84.4	800.7	395.2	405.5	800.0	395.2	404.8	1.0009	1.0000
Average Correction Factor									0.9939	1.0015

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	798.7	393.9	404.8	406.3	0.9963	100.4%
Mid GPT point	798.7	591.9	206.8	209.8	0.9857	101.5%
Low GPT point	798.7	691.6	107.1	109.9	0.9745	102.6%
Average Correction Factor					0.9855	101.5%

Notes:

No Maintenance or adjustments done.

Calibration Performed By:

Melissa Lemay



Wood Buffalo Environmental Association

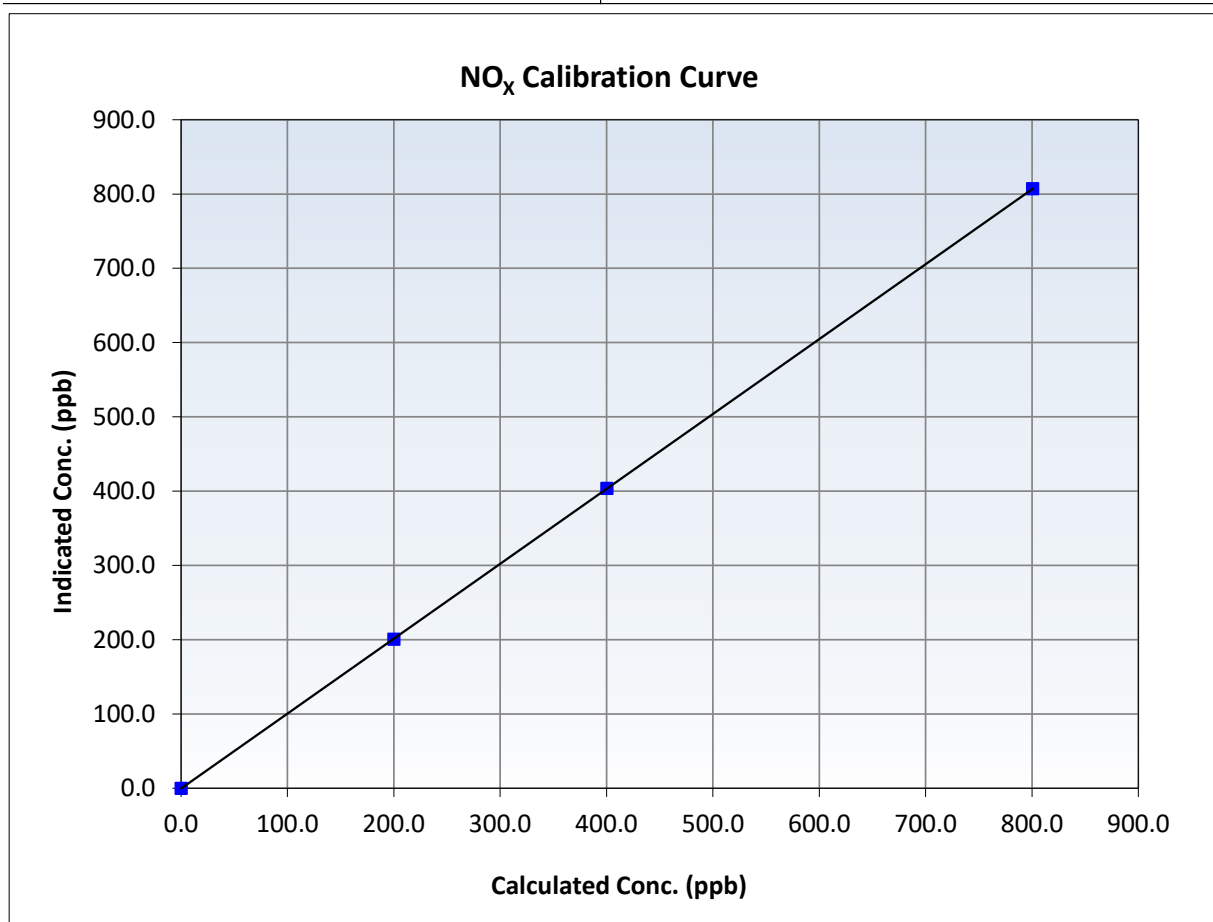
NO_x Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 21, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:49
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999998	≥0.995
800.7	807.1	0.9921	Slope	1.008445	0.90 - 1.10
400.4	403.6	0.9920	Intercept	-0.428071	+/-20
200.2	200.7	0.9975			





Wood Buffalo Environmental Association

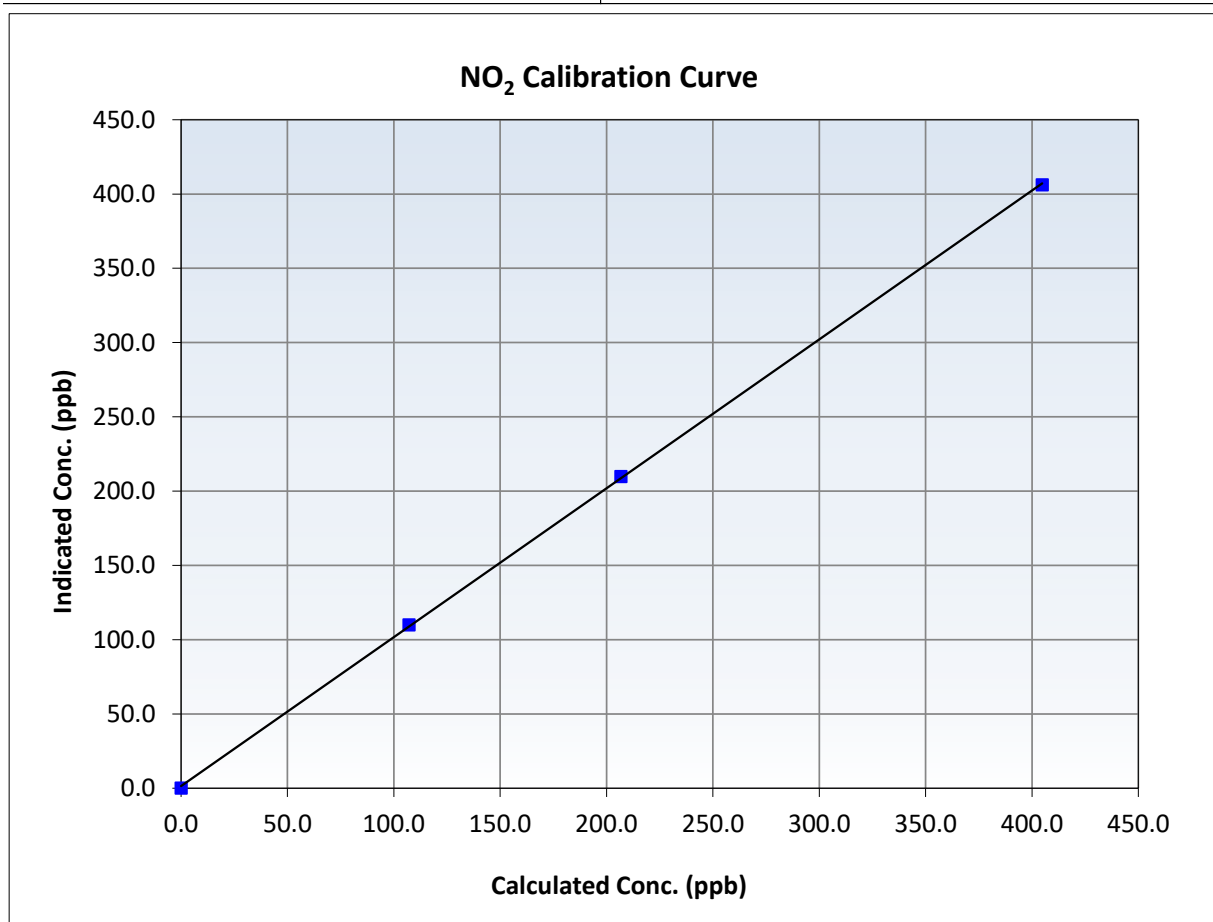
NO₂ Calibration Summary

Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 21, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:49
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999944	≥0.995
404.8	406.3	0.9963	Slope	1.002224	0.90 - 1.10
206.8	209.8	0.9857	Intercept	1.450359	+/-20
107.1	109.9	0.9745			





Wood Buffalo Environmental Association

NO Calibration Summary

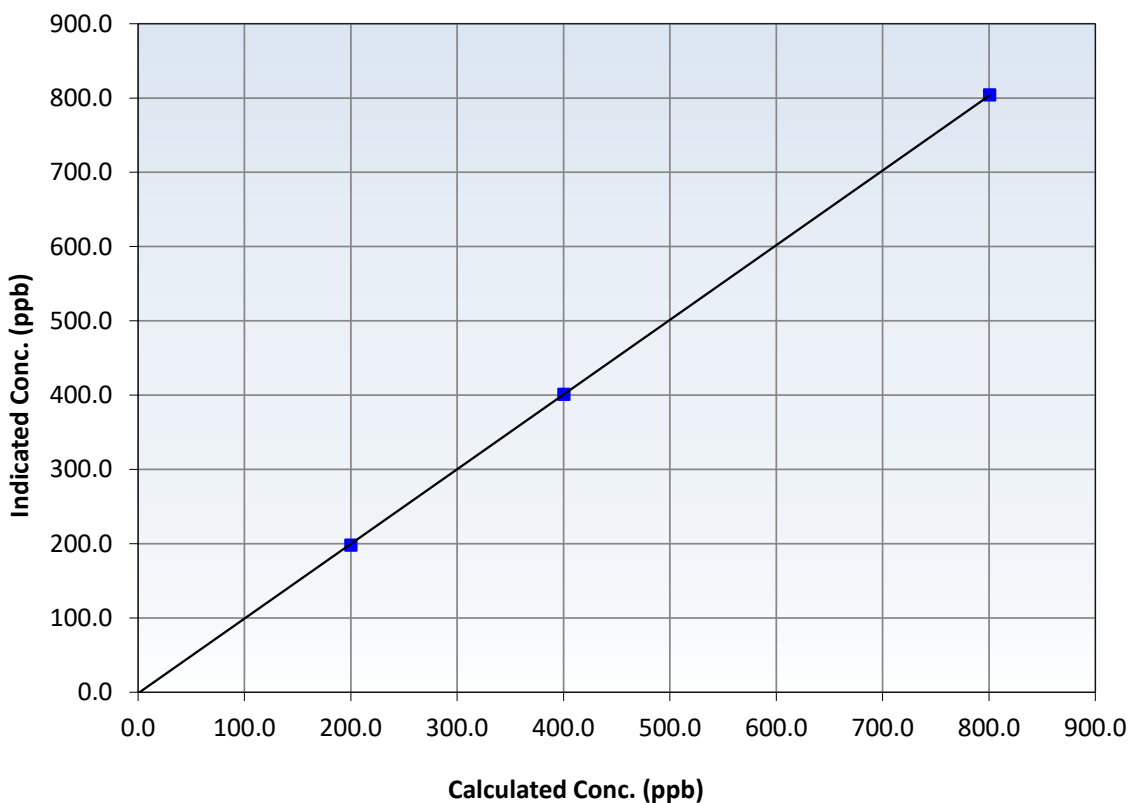
Station Information

Calibration Date:	June 22, 2026	Previous Calibration:	May 21, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:49
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999986	≥ 0.995
800.7	804.1	0.9958	Slope	1.005448	$0.90 - 1.10$
400.4	401.1	0.9982	Intercept	-1.428031	± 20
200.2	198.1	1.0106			

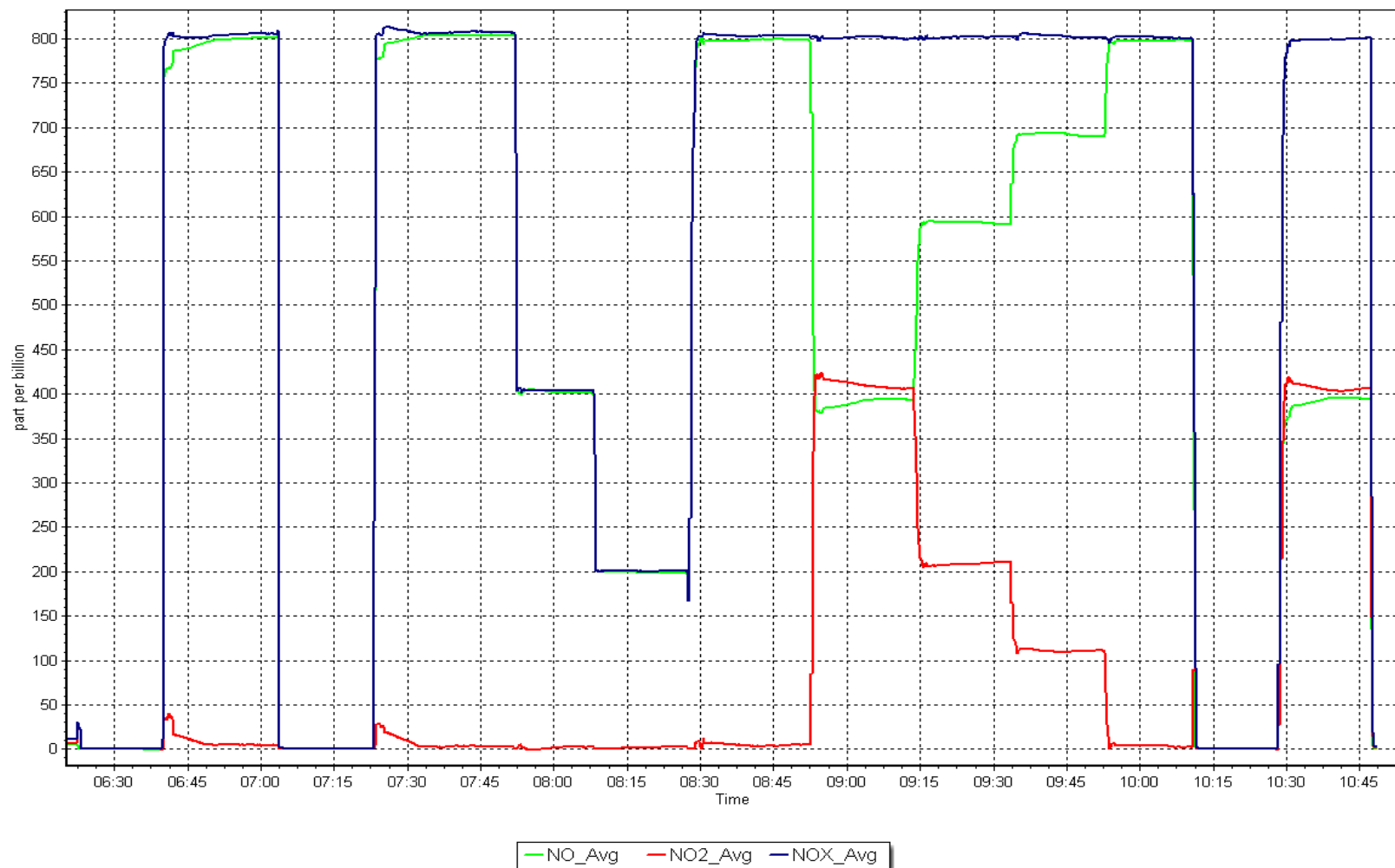
NO Calibration Curve



NO_x Calibration Plot

Date: June 22, 2026

Location: Hangingstone Expansion





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS505 SAWBONES BAY JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Sawbones Bay Station number: AMS 505
Calibration Date: June 24, 2026 Last Cal Date: May 13, 2026
Start time (MST): 10:18 End time (MST): 13:29
Reason: Routine

Calibration Standards

Cal Gas Concentration: 50.05 ppm Cal Gas Exp Date: April 9, 2033
Cal Gas Cylinder #: EB0063977
Removed Cal Gas Conc: 50.05 ppm Rem Gas Exp Date:
Removed Gas Cyl #: EB0063977 Diff between cyl:
Calibrator Model: Teledyne API T700 Serial Number: 3807
Zero Air Gen Model: Teledyne API T701H Serial Number: 260

Analyzer Information

Analyzer make: Thermo 43i Serial Number: 0710321323
Analyzer Range: 0 - 1000 ppb

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003553	1.006471	Backgd or Offset:	22.9	22.5
Calibration intercept:	0.523472	0.103426	Coeff or Slope:	1.111	1.111

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4920	79.8	798.8	801.0	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	801.1	Previous response	802.2	*% change	-0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4920	79.8	798.8	804.2	0.993
Mid point	4960	39.9	399.4	402.0	0.994
Low point	4980	20.0	200.2	201.4	0.994
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	79.8	798.8	804.7	0.993
Average Correction Factor:					0.994

Notes: Changed inlet filter after as founds. No adjustments made.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

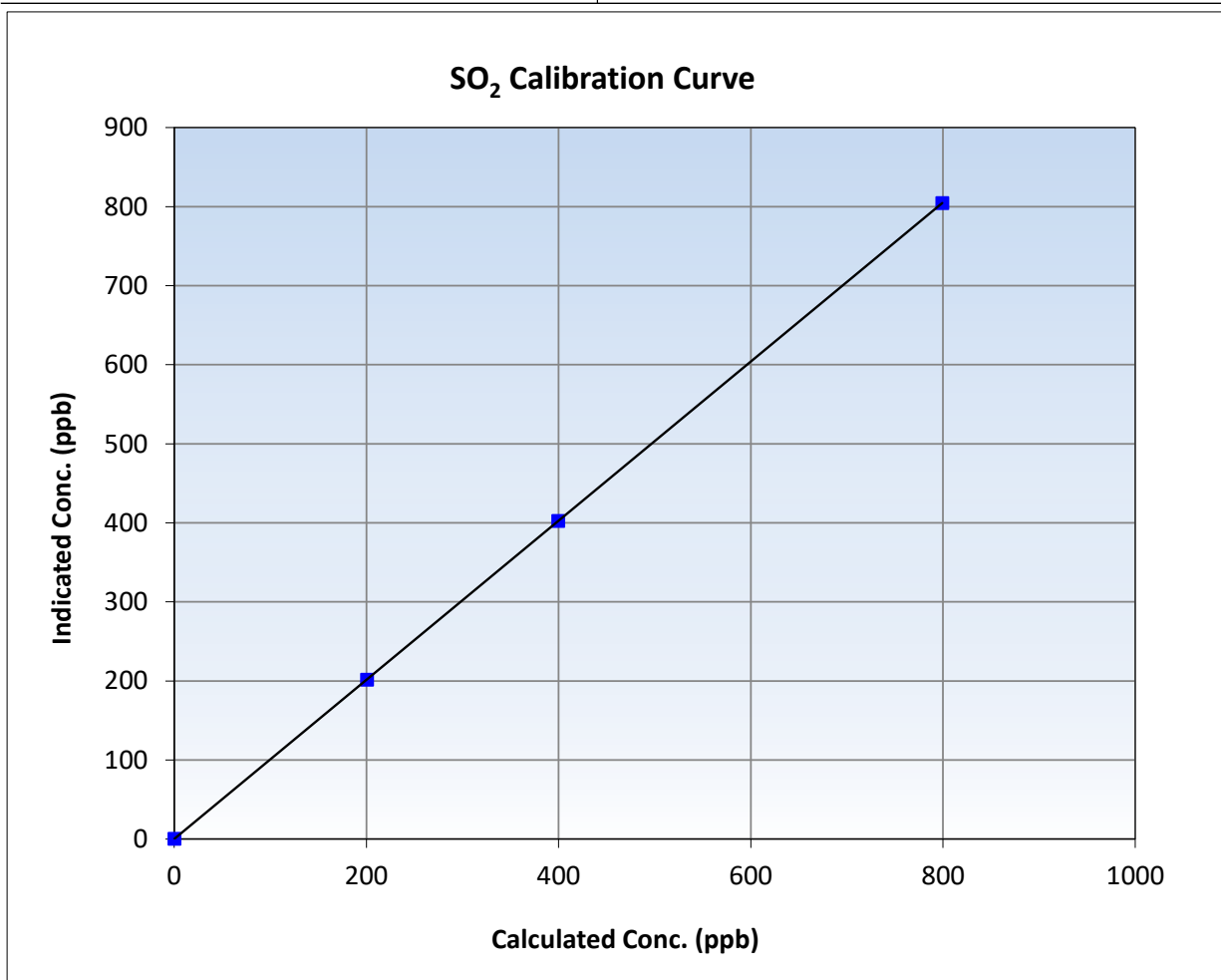
SO₂ Calibration Summary

Station Information

Calibration Date:	June 24, 2026	Previous Calibration:	May 13, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:18	End Time (MST):	13:29
Analyzer make:	Thermo 43i	Analyzer serial #:	0710321323

Calibration Data

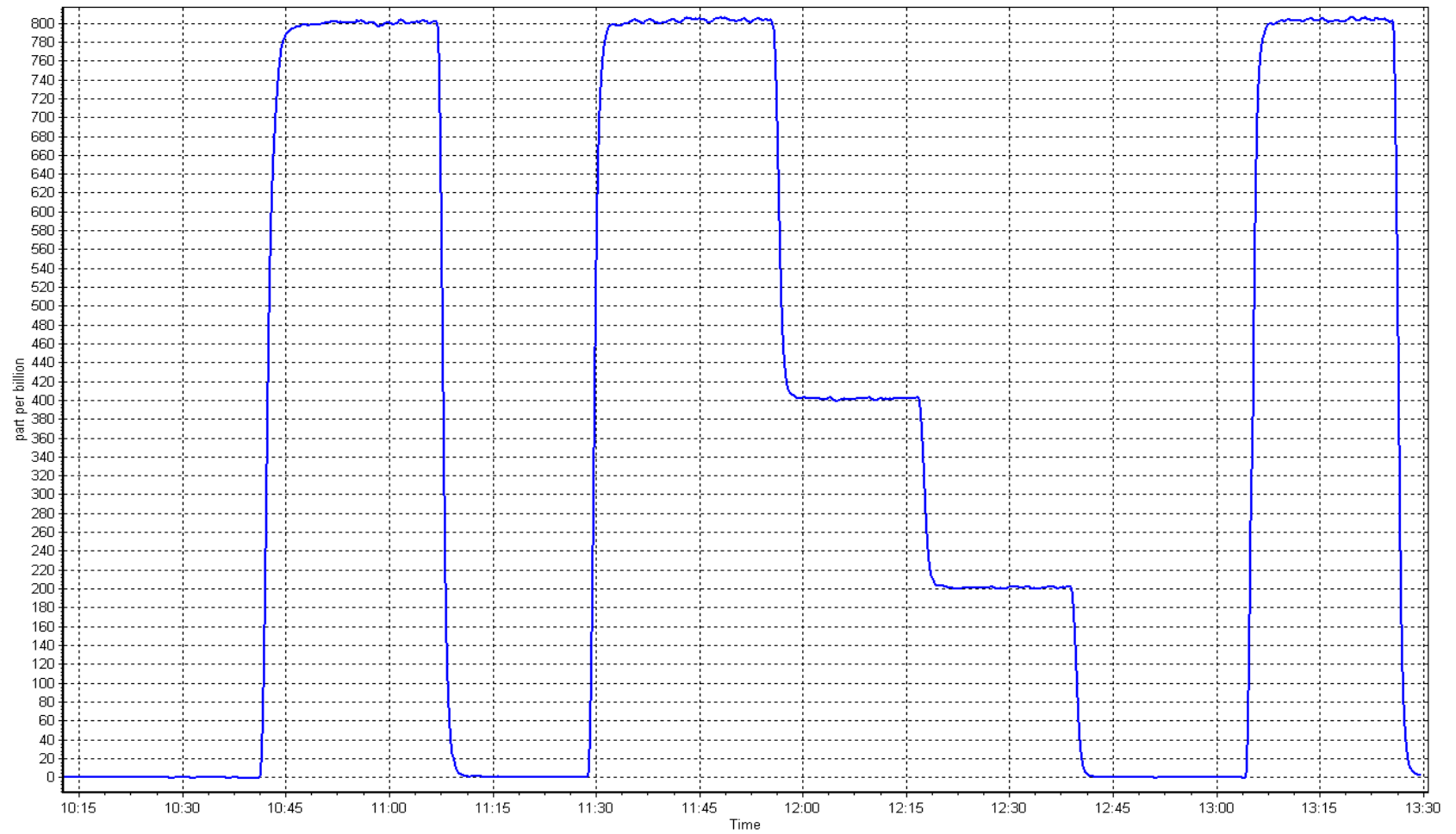
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	1.000000	≥0.995
798.8	804.2	0.9933	Slope	1.006471	0.90 - 1.10
399.4	402.0	0.9935	Intercept	0.103426	+/-30
200.2	201.4	0.9940			



SO2 Calibration Plot

Date: June 24, 2026

Location: Sawbones Bay





Wood Buffalo Environmental Association

H2S Calibration Report

Station Information

Station Name: Sawbones Bay Station number: AMS 505
Calibration Date: June 23, 2026 Last Cal Date: May 22, 2026
Start time (MST): 10:34 End time (MST): 15:38
Reason: Routine

Calibration Standards

Cal Gas Concentration: 5.26 ppm Cal Gas Exp Date: March 19, 2027
Cal Gas Cylinder #: DT0034141
Removed Cal Gas Conc: 5.26 ppm Rem Gas Exp Date: NA
Removed Gas Cyl #: NA Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 3807
ZAG Make/Model: Teledyne API T701H Serial Number: 260

Analyzer Information

Analyzer make: Thermo 43iQTL Analyzer serial #: 12113311965
Converter make: Global 150 Converter serial #: 2022-224
Analyzer Range: 0 - 100 ppb Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002745	0.994740	Backgd or Offset:	1.18	1.17
Calibration intercept:	-0.200000	-0.120000	Coeff or Slope:	1.071	1.071

H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4925	76.0	79.9	79.7	1.002
As found Mid point	4962	38.0	40.0	39.9	0.999
As found Low point	4981	19.0	20.0	20.0	0.994
New cylinder response					
Baseline Corr As found:	79.8	Prev response:	79.96	*% change:	-0.2%
Baseline Corr 2nd AF pt:	40.0	AF Slope:	0.997804	AF Intercept:	-0.023196
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999996	* = > +/-5% change initiates investigation	

H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4924	76.0	80.0	79.5	1.006
Mid point	4962	38.0	40.0	39.5	1.012
Low point	4981	19.0	20.0	19.7	1.015
As left zero	5000	0.0	0.0	0.0	----
As left span	4925	76.0	79.9	78.0	1.025
SO2 Scrubber Check	4920	79.8	798.0	-0.1	----
Date of last scrubber change:				Ave Corr Factor	1.011
Date of last converter efficiency test:					

Notes: Changed inlet filter after as founds. SO2 scrubber check done and passed. No adjustments made.

Calibration Performed By: Braiden Boutilier



Wood Buffalo Environmental Association

H2S Calibration Summary

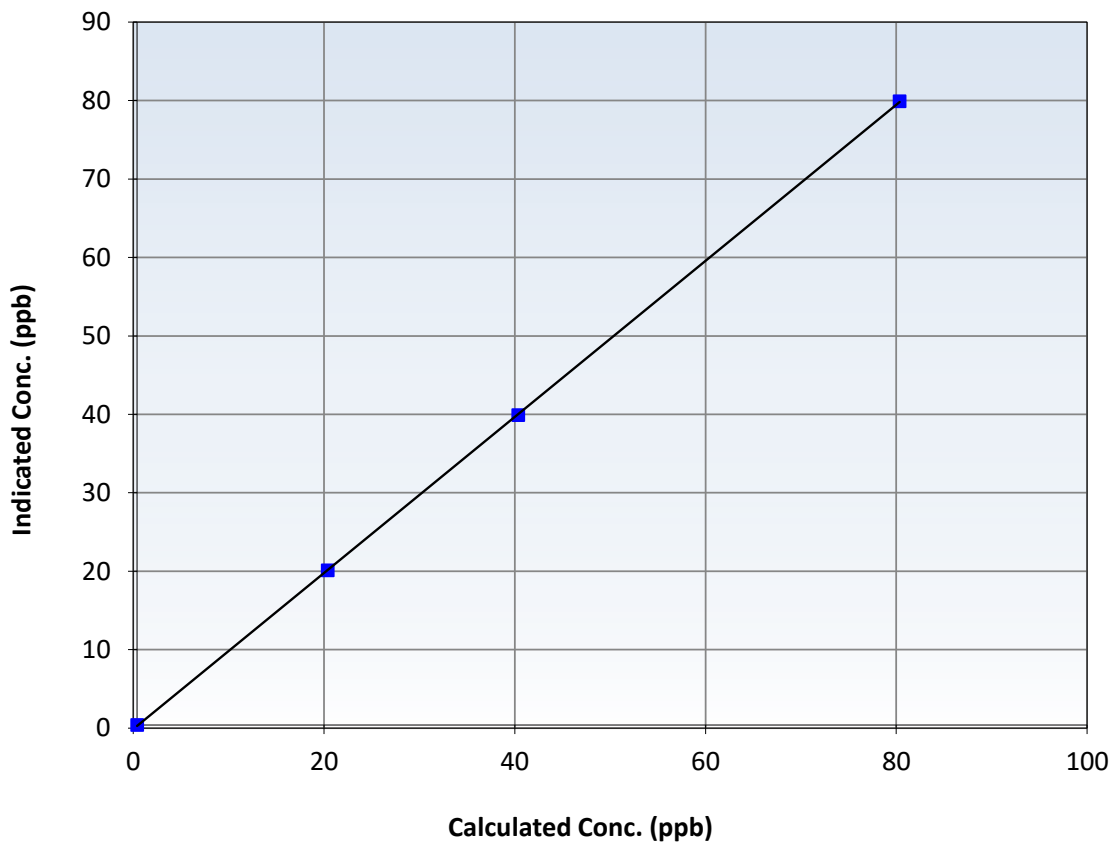
Station Information

Calibration Date:	June 23, 2026	Previous Calibration:	May 22, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:34	End Time (MST):	15:38
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12113311965

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999986	≥ 0.995
80.0	79.5	1.0057	Slope	0.994740	$0.90 - 1.10$
40.0	39.5	1.0121	Intercept	-0.120000	± 3
20.0	19.7	1.0146			

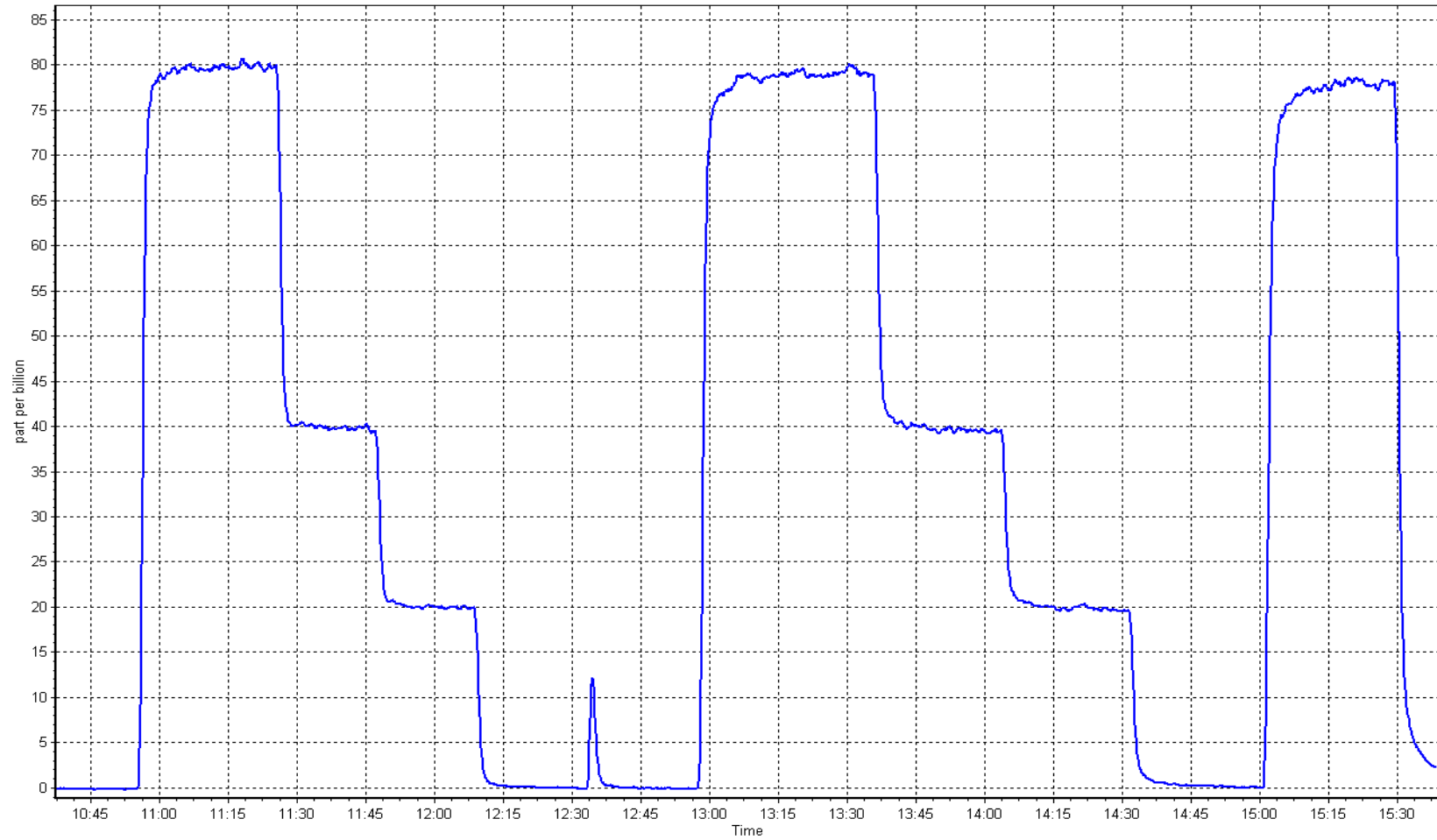
H₂S Calibration Curve



H2S Calibration Plot

Date: June 23, 2026

Location: Sawbones Bay





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Sawbones Bay
Station number: AMS 505
Calibration Date: June 16, 2026
Last Cal Date: May 28, 2026
Start time (MST): 10:32
End time (MST): 15:28
Reason: Routine

Calibration Standards

NO Gas Cylinder #: DT0009786
NOX Cal Gas Conc: 60.10 ppm
Removed Cylinder #: NA
Removed Gas NOX Conc: 60.10 ppm
NOX gas Diff:
Calibrator Model: API T700
ZAG make/model: API T701H
Cal Gas Expiry Date: January 5, 2032
NO Cal Gas Conc: 60.00 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 60.00 ppm
NO gas Diff:
Serial Number: 3807
Serial Number: 690

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NOx Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	2.3	2.5	-0.2	----	----
AF High point	4933	66.7	801.8	800.4	1.3	796.7	794.0	2.8	1.0093	1.0113
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO _x = 803.7 ppb	NO = 801.4 ppb				* = > +/-5% change initiates investigation		*Percent Change	NO _x = -1.2%	
Baseline Corr 1st pt	NO _x = 794.4 ppb	NO = 791.5 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -1.2%	
Baseline Corr 2nd pt	NO _x = NA ppb	NO = NA ppb				As found	NO _x r ² :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO _x = NA ppb	NO = NA ppb				As found	NO r ² :	NO SI:	NO Int:	
						As found	NO ₂ r ² :	NO ₂ SI:	NO ₂ Int:	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	Baseline Adjusted NO2 Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: API T200
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 4259

Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.957	0.960	NO bkgnd or offset:	-5.4	0.7
NOX coeff or slope:	0.956	0.959	NOX bkgnd or offset:	-4.4	1.1
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	3.8	3.7

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.000863	0.997811
NO _x Cal Offset:	1.229871	-0.049895
NO Cal Slope:	1.000745	0.998674
NO Cal Offset:	0.330016	-0.769920
NO ₂ Cal Slope:	0.996569	0.997178
NO ₂ Cal Offset:	0.467712	-0.461297

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.2	-0.2	0.0	----	----
High point	4933	66.7	801.8	800.4	1.3	799.7	798.7	1.1	1.0026	1.0022
Mid point	4967	33.3	400.2	399.6	0.7	400.0	398.6	1.5	1.0006	1.0024
Low point	4983	16.7	200.7	200.4	0.3	200.0	198.4	1.6	1.0037	1.0101
As left zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
As left span	4933	66.7	801.8	388.9	412.9	795.3	388.9	406.4	1.0082	1.0000
Average Correction Factor									1.0023	1.0049

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	797.1	389.6	408.8	407.4	1.0035	99.6%
Mid GPT point	797.1	608.5	189.9	188.8	1.0060	99.4%
Low GPT point	797.1	703.6	94.8	93.6	1.0132	98.7%
Average Correction Factor					1.0076	99.3%

Notes:

Changed inlet filter after as founds. Adjusted zero.

Calibration Performed By:

Braiden Boutilier



Wood Buffalo Environmental Association

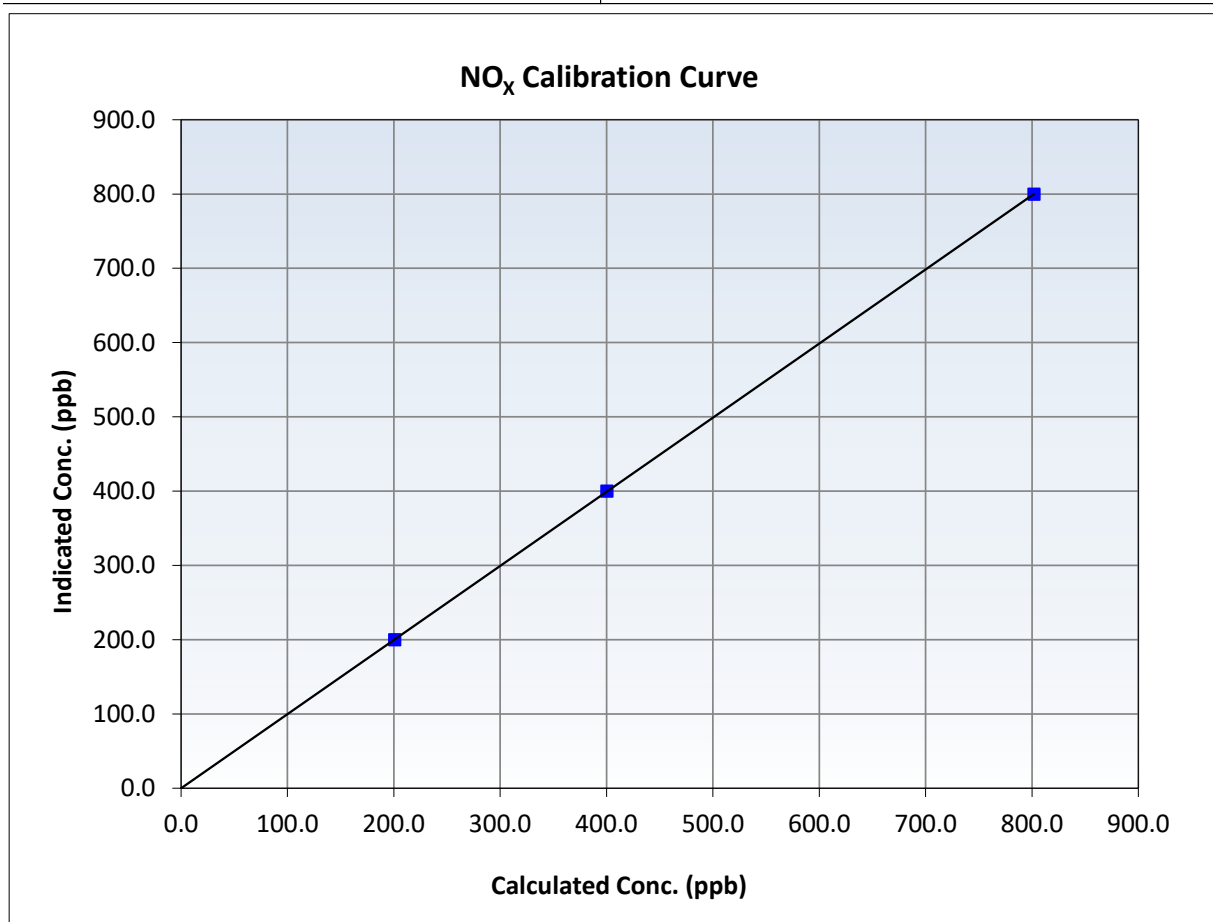
NO_x Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 28, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:32	End Time (MST):	15:28
Analyzer make:	API T200	Analyzer serial #:	4259

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999998	≥ 0.995
801.8	799.7	1.0026	Slope	0.997811	$0.90 - 1.10$
400.2	400.0	1.0006	Intercept	-0.049895	± 20
200.7	200.0	1.0037			





Wood Buffalo Environmental Association

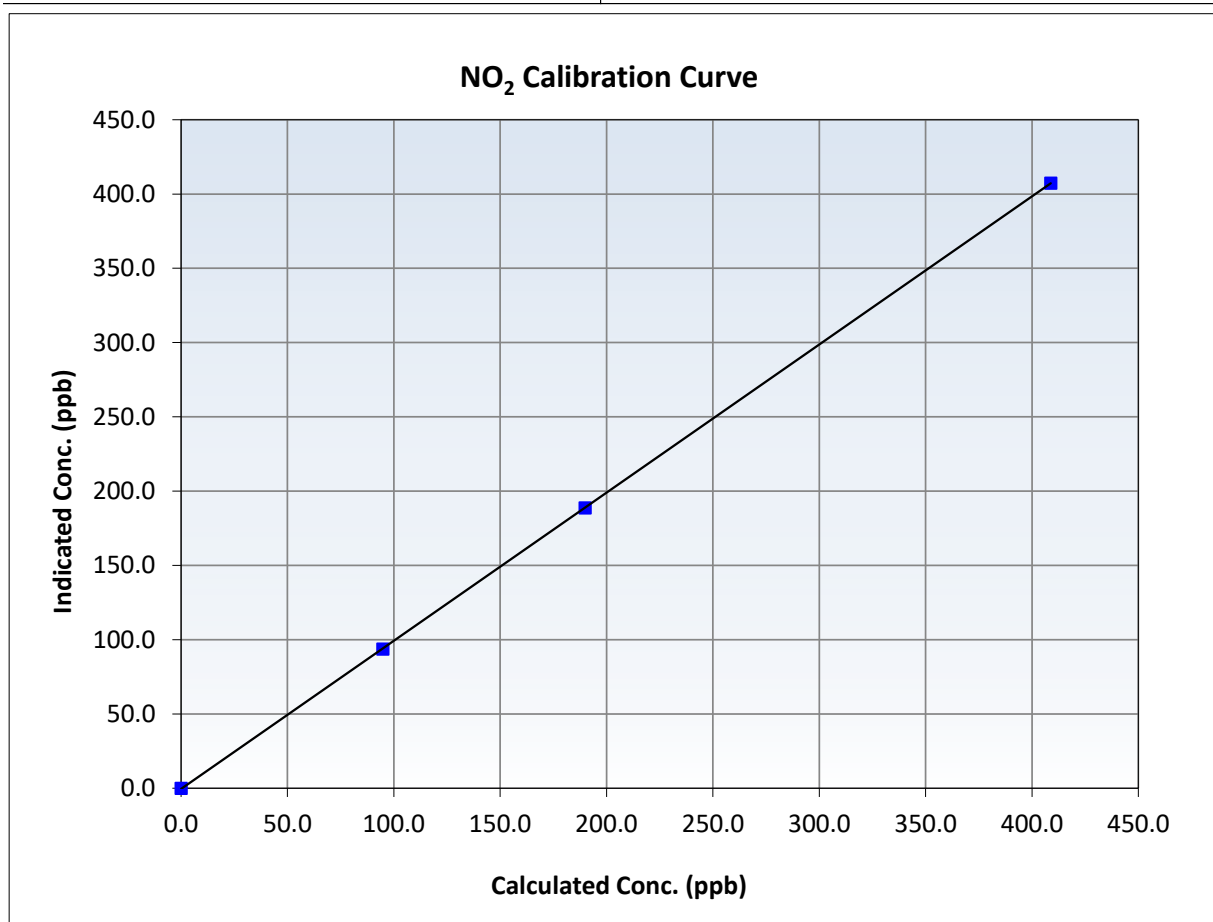
NO₂ Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 28, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:32	End Time (MST):	15:28
Analyzer make:	API T200	Analyzer serial #:	4259

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999994	≥ 0.995
408.8	407.4	1.0035	Slope	0.997178	$0.90 - 1.10$
189.9	188.8	1.0060	Intercept	-0.461297	± 20
94.8	93.6	1.0132			





Wood Buffalo Environmental Association

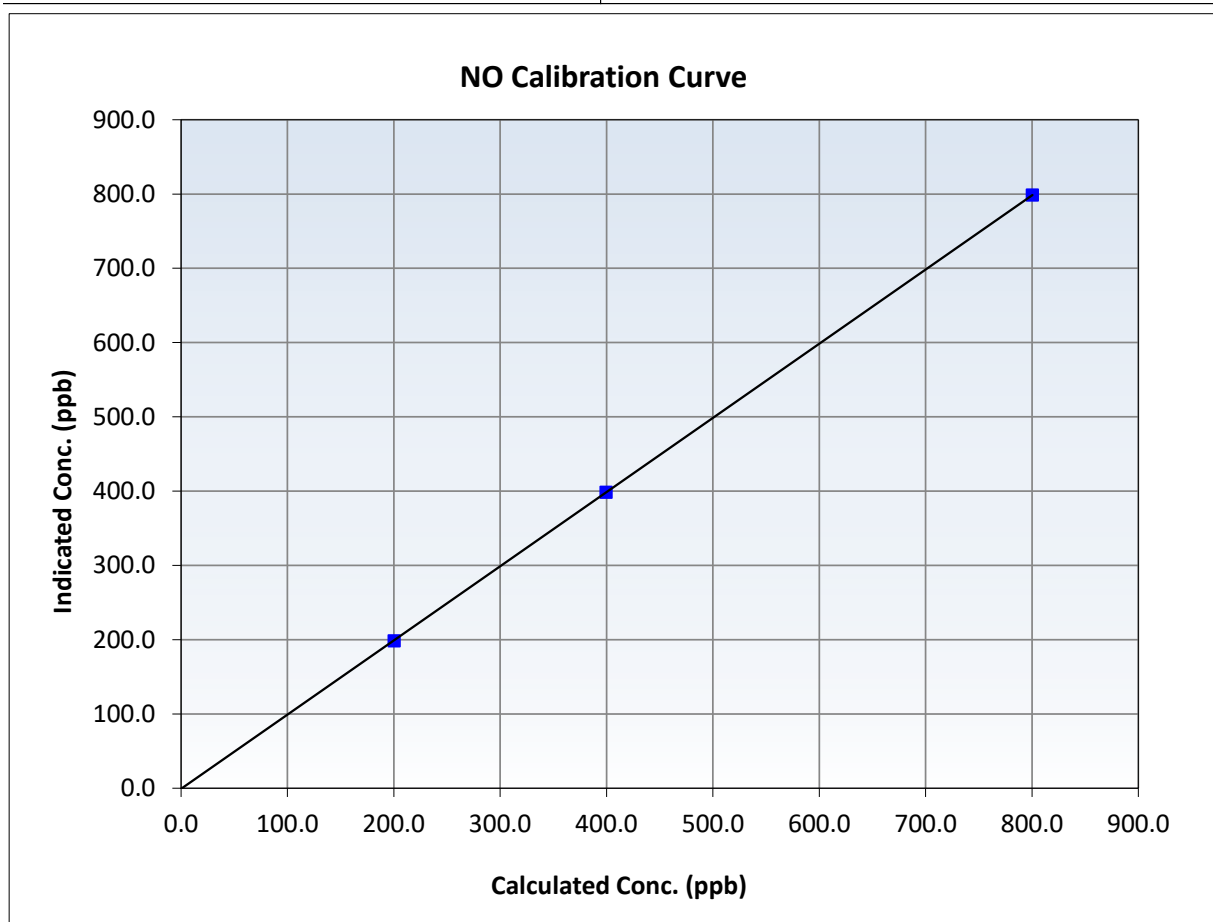
NO Calibration Summary

Station Information

Calibration Date:	June 16, 2026	Previous Calibration:	May 28, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:32	End Time (MST):	15:28
Analyzer make:	API T200	Analyzer serial #:	4259

Calibration Data

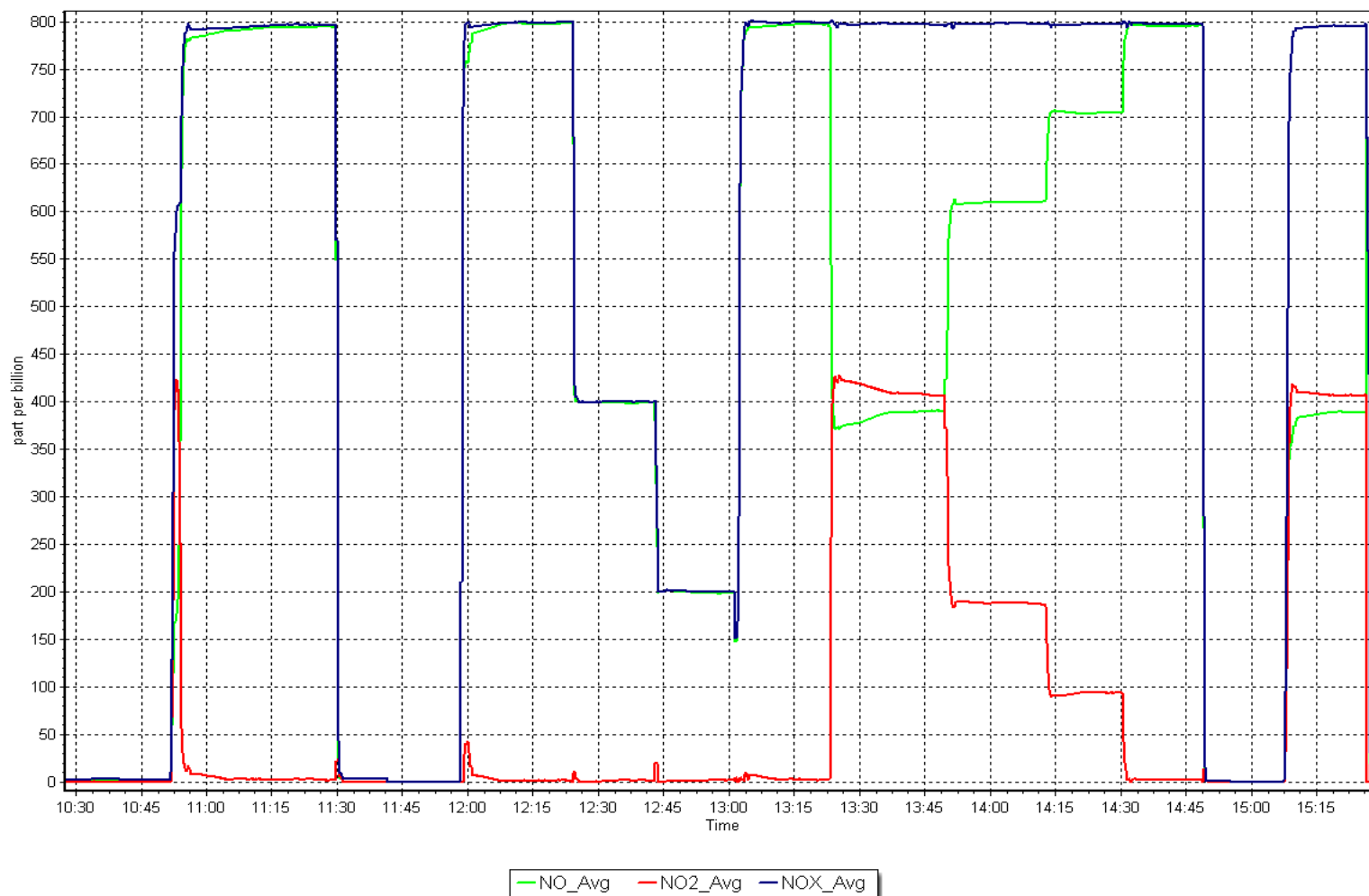
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999996	≥ 0.995
800.4	798.7	1.0022	Slope	0.998674	0.90 - 1.10
399.6	398.6	1.0024	Intercept	-0.769920	+/-20
200.4	198.4	1.0101			



NO_x Calibration Plot

Date: June 16, 2026

Location: Sawbones Bay





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS507
KIRBY SOUTH
JUNE 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

July 30, 2026



Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Kirby South
Calibration Date: June 10, 2026
Start time (MST): 9:58
Reason: Routine

Station number: AMS 507
Last Cal Date: May 14, 2026
End time (MST): 12:53

Calibration Standards

Cal Gas Concentration: 50.74 ppm
Cal Gas Cylinder #: CC255918
Removed Cal Gas Conc: 50.74 ppm
Removed Gas Cyl #:
Calibrator Model: Teledyne API T700
Zero Air Gen Model: Teledyne API T701H

Cal Gas Exp Date: October 9, 2032
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 2445
Serial Number: 880

Analyzer Information

Analyzer make: Thermo 43iQ-TLE
Analyzer Range: 0 - 1000 ppb

Serial Number: 1182340007

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000691	1.015468	Backgd or Offset:	31.8	31.8
Calibration intercept:	0.227979	-0.291975	Coeff or Slope:	1.119	1.119

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	78.8	799.7	812.4	0.984
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	812.5	Previous response	800.5	*% change	1.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4921	78.8	799.7	812.5	0.984
Mid point	4961	39.4	399.8	403.8	0.990
Low point	4980	19.7	199.9	203.6	0.982
As left zero	5000	0.0	0.0	0.0	----
As left span	4921	78.8	799.7	814.5	0.982
Average Correction Factor:					0.985

Notes: Inlet filter changed after as founds, no changes made.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

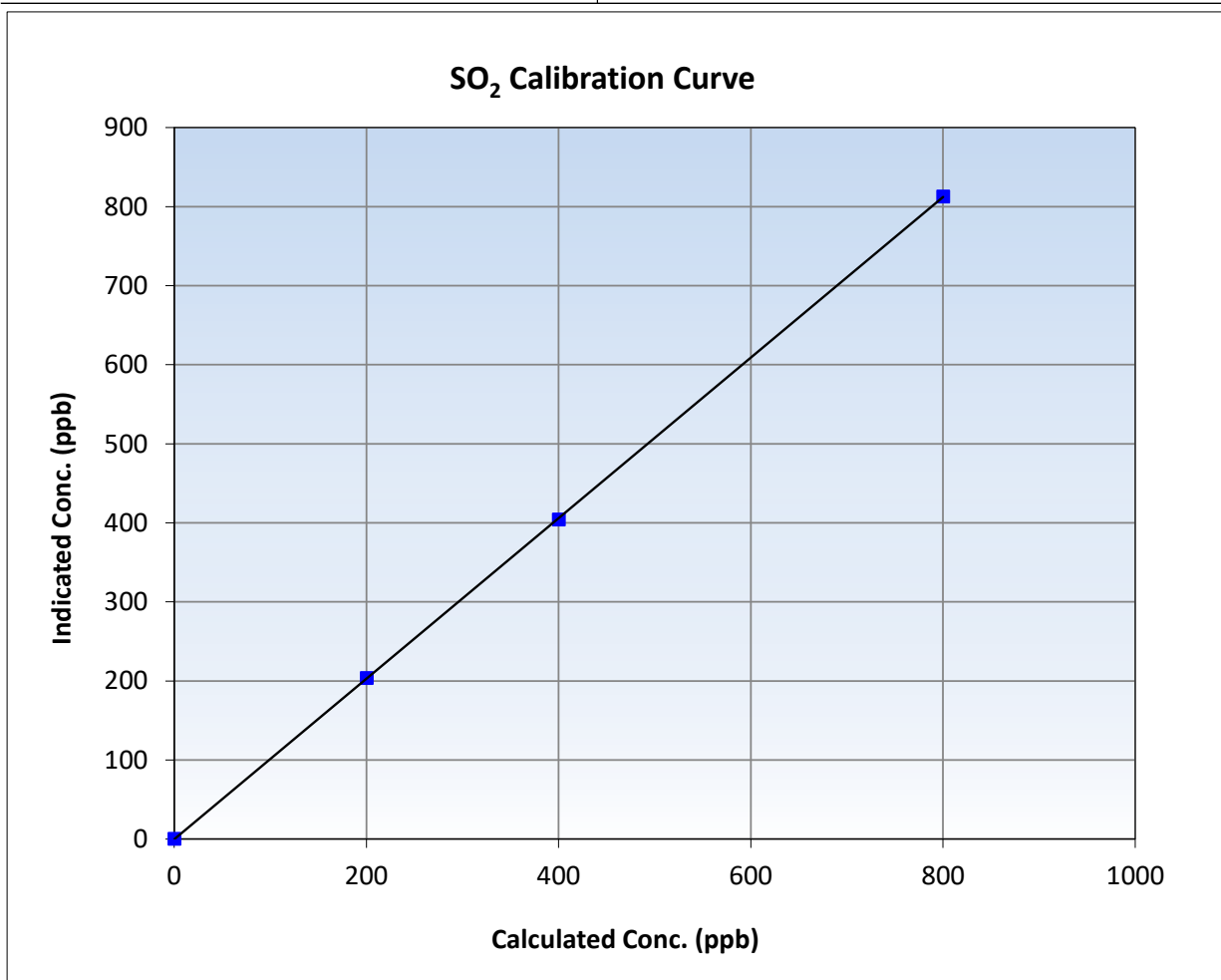
SO₂ Calibration Summary

Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 14, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	9:58	End Time (MST):	12:53
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1182340007

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999986	≥0.995
799.7	812.5	0.9842	Slope	1.015468	0.90 - 1.10
399.8	403.8	0.9901	Intercept	-0.291975	+/-30
199.9	203.6	0.9820			



SO2 Calibration Plot

Date: June 10, 2026

Location: Kirby South





Wood Buffalo Environmental Association

SO₂ Calibration Report

Station Information

Station Name: Kirby South
Calibration Date: June 26, 2026
Start time (MST): 10:03
Reason: Removal

Station number: AMS 507
Last Cal Date: June 10, 2026
End time (MST): 11:32

Calibration Standards

Cal Gas Concentration: 50.74 ppm
Cal Gas Cylinder #: CC255918
Removed Cal Gas Conc: 50.74 ppm
Removed Gas Cyl #:
Calibrator Model: Teledyne API T700
Zero Air Gen Model: Teledyne API T701H

Cal Gas Exp Date: October 9, 2032
Rem Gas Exp Date:
Diff between cyl:
Serial Number: 2445
Serial Number: 880

Analyzer Information

Analyzer make: Thermo 43iQ-TLE
Analyzer Range: 0 - 1000 ppb

Serial Number: 1182340007

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.015468		Backgd or Offset:	31.8	31.5
Calibration intercept:	-0.291975		Coeff or Slope:	1.119	1.119

SO₂ As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	78.8	799.7	814.5	0.982
As found Mid point	4961	39.4	399.8	406.0	0.985
As found Low point	4980	19.7	199.9	204.0	0.980
New cylinder response					
Baseline Corr As found:	814.5	Previous response	811.8	*% change	0.3%
Baseline Corr 2nd AF pt:	406.0	AF Slope:	1.018184	AF Intercept:	-0.091908
Baseline Corr 3rd AF pt:	204.0	AF Correlation:	0.999996	* = > +/-5% change initiates investigation	

SO₂ Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor:

Notes: Prepped instrument for removal

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

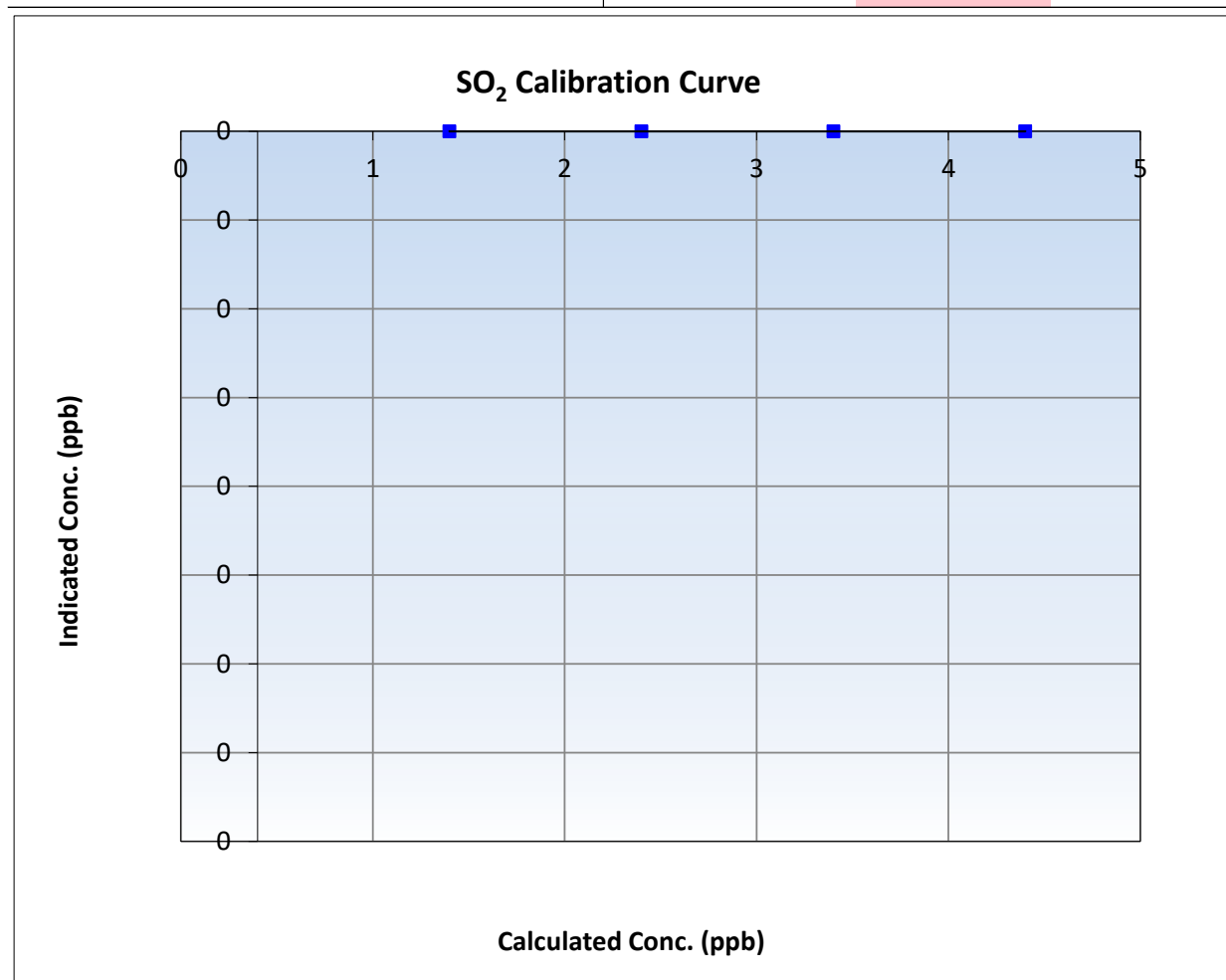
SO₂ Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	June 10, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:03	End Time (MST):	11:32
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1182340007

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
			Correlation Coefficient	≥0.995
			Slope	0.90 - 1.10
			Intercept	+/-30



SO2 Calibration Plot

Date: June 26, 2026

Location: Kirby South





Wood Buffalo Environmental Association

H2S Calibration Report

Station Information

Station Name: Kirby South
Calibration Date: June 26, 2026
Start time (MST): 11:39
Reason: Removal

Station number: AMS 507
Last Cal Date: May 21, 2026
End time (MST): 13:01

Calibration Standards

Cal Gas Concentration: 5.05 ppm
Cal Gas Cylinder #: DT0019762
Removed Cal Gas Conc: 5.05 ppm
Removed Gas Cyl #: n/a
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H

Cal Gas Exp Date: November 15, 2026
Rem Gas Exp Date: NA
Diff between cyl:
Serial Number: 2445
Serial Number: 880

Analyzer Information

Analyzer make: Thermo 43i-TLE
Converter make: Global
Analyzer Range: 0 - 100 ppb

Analyzer serial #: 1150840012
Converter serial #: 2022-197
Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.985813		Backgd or Offset:	1.71	1.72
Calibration intercept:	0.000000		Coeff or Slope:	1.072	1.072

H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	79.2	80.0	82.4	0.971
As found Mid point	4960	39.6	40.0	41.0	0.976
As found Low point	4980	19.8	20.0	20.1	0.995
New cylinder response					
Baseline Corr As found:	82.4	Prev response:	78.86	*% change:	4.3%
Baseline Corr 2nd AF pt:	41.0	AF Slope:	1.031960	AF Intercept:	-0.240000
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999958	* = > +/-5% change initiates investigation	

H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					
SO2 Scrubber Check					
Date of last scrubber change:		July 25, 2023		Ave Corr Factor	
Date of last converter efficiency test:		September 18, 2025		102.4%	efficiency

Notes: Prepped instrument for removal.

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

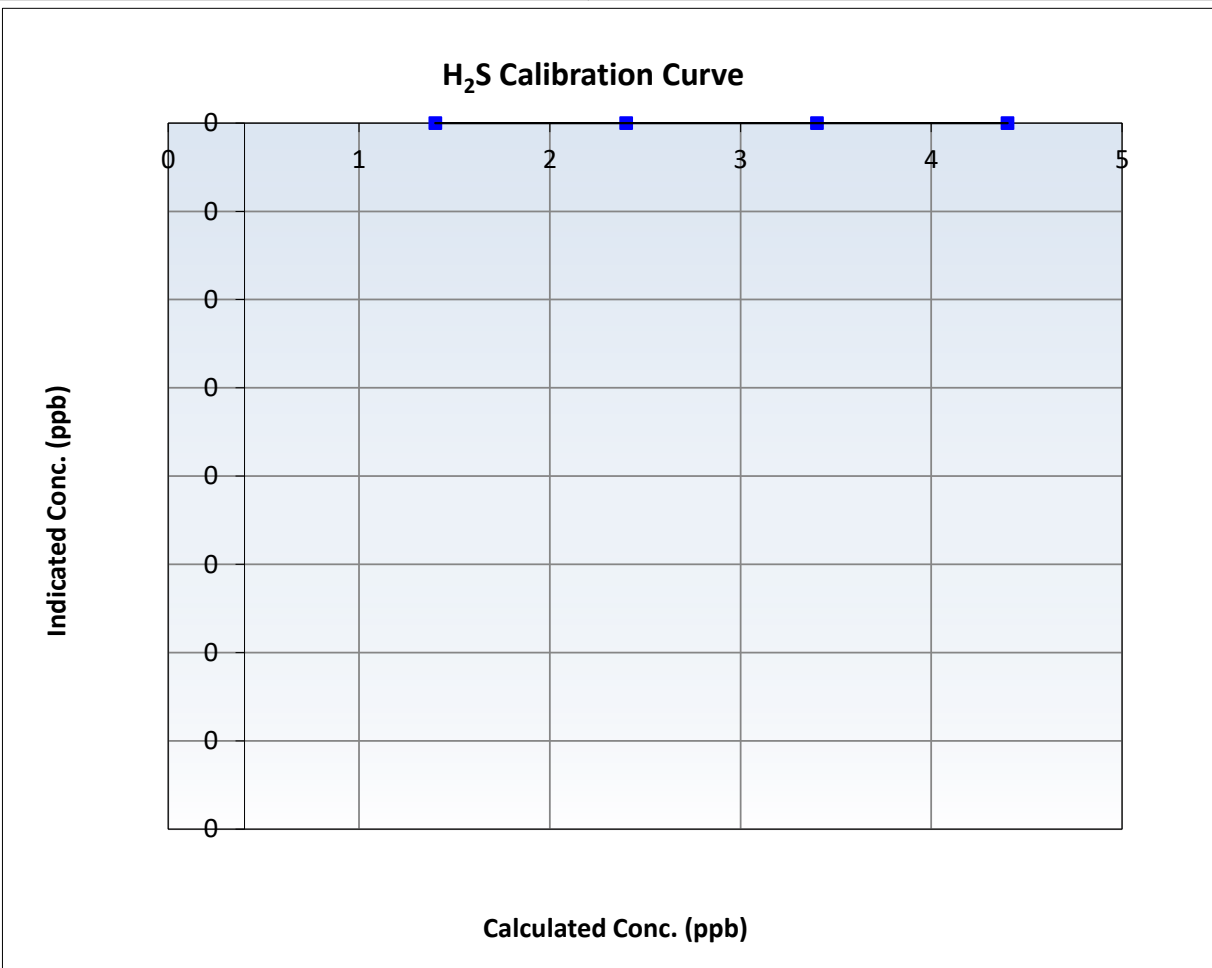
H2S Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	May 21, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	11:39	End Time (MST):	13:01
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1150840012

Calibration Data

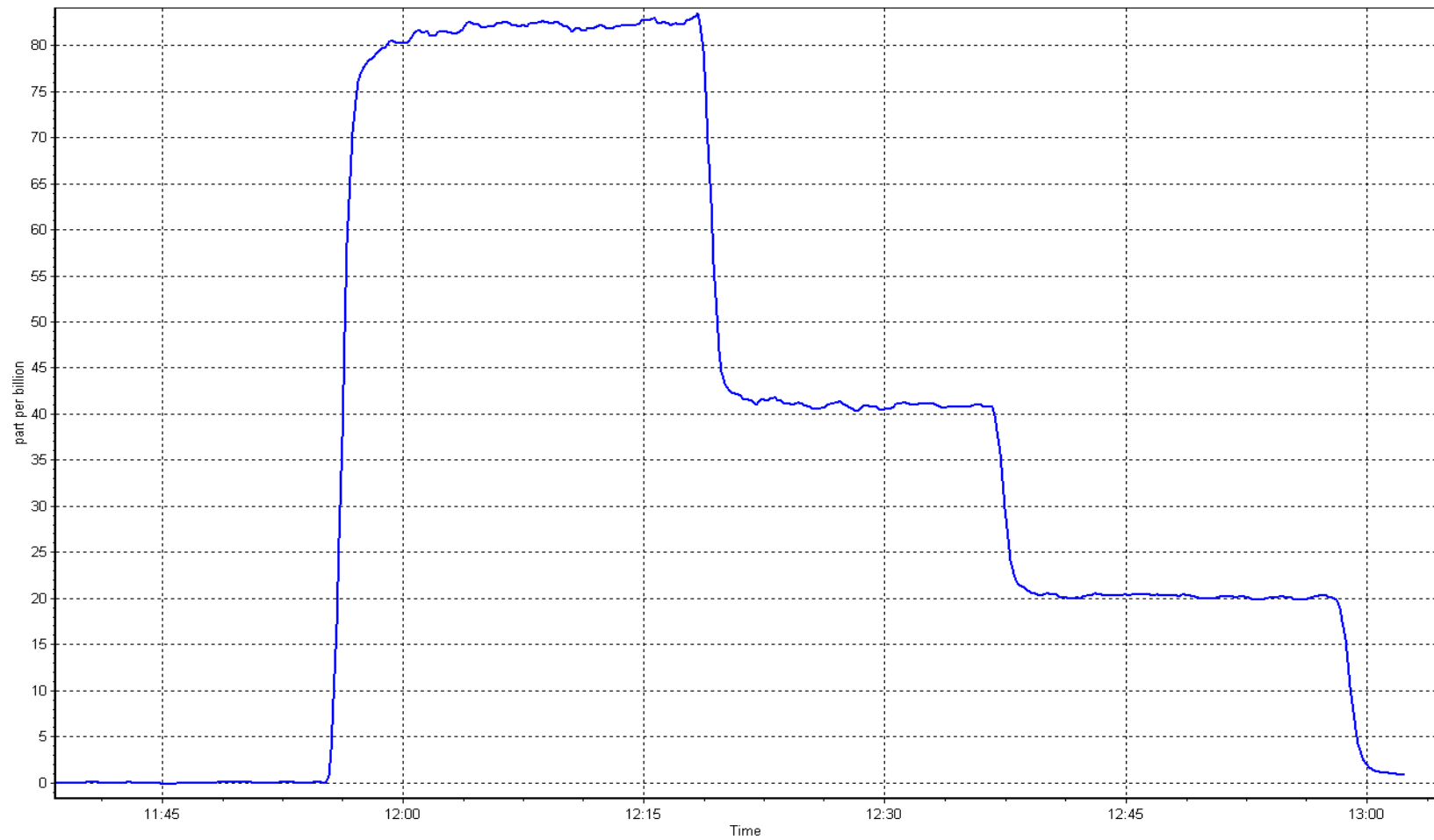
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
			Correlation Coefficient	≥ 0.995
			Slope	$0.90 - 1.10$
			Intercept	± 3



H2S Calibration Plot

Date: June 26, 2026

Location: Kirby South





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Kirby South
Calibration Date: June 10, 2026
Start time (MST): 9:58
Reason: Routine

Station number: AMS 507
Last Cal Date: May 14, 2026
End time (MST): 12:53

Calibration Standards

Gas Cert Reference: CC255918
CH4 Cal Gas Conc. 506.4 ppm
C3H8 Cal Gas Conc. 205.0 ppm
Removed Gas Cert:
Removed CH4 Conc. 506.4 ppm
Removed C3H8 Conc. 205.0 ppm
Calibrator Make/Model: Teledyne API T700
ZAG Make/Model: Teledyne API T701H

Cal Gas Expiry Date: October 9, 2032
CH4 Equiv Conc. 1070.2 ppm
Removed Gas Expiry:
CH4 Equiv Conc. 1070.2 ppm
Diff between cyl:
Serial Number: 2445
Serial Number: 880

Analyzer Information

Analyzer make: Thermo 51i-LT
Analyzer Range: 0 - 20 ppm

Analyzer serial #: 1182340005

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.009566	1.019080	Background:	1.98	1.98
Calibration intercept:	-0.057831	-0.078031	Coefficient:	3.313	3.313

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.03	----
As found High point	4921	78.8	16.87	17.09	0.985
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	17.12	Previous response	16.97	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	-0.03	
High point	4921	78.8	16.87	17.15	0.984
Mid point	4961	39.4	8.43	8.46	0.997
Low point	4980	19.7	4.22	4.19	1.007
As left zero	5000	0.0	0.00	-0.04	----
As left span	4921	78.8	16.87	17.11	0.986
Average Correction Factor					0.996

Notes:

Inlet filter changed after as founds, no changes made.

Calibration Performed By: Jason Brooks



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THC Calibration Summary

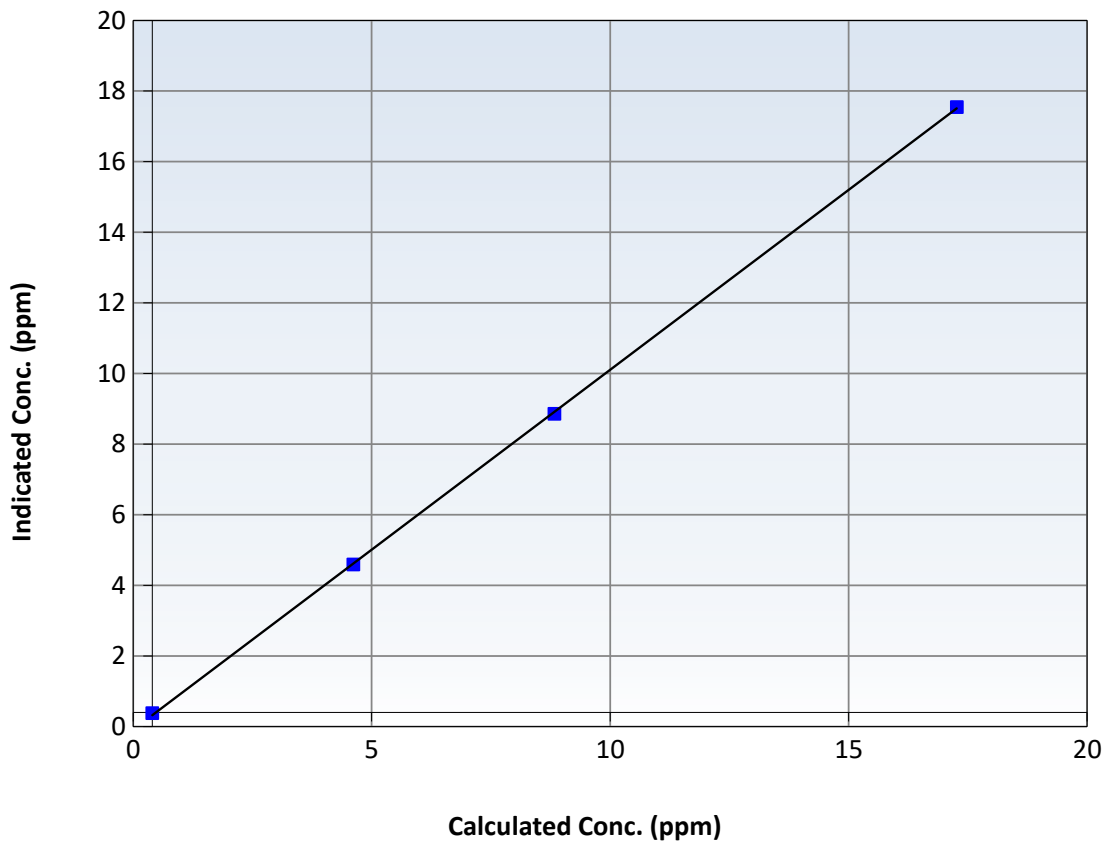
Station Information

Calibration Date:	June 10, 2026	Previous Calibration:	May 14, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	9:58	End Time (MST):	12:53
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1182340005

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.03	----	Correlation Coefficient	0.999947	≥ 0.995
16.87	17.15	0.9836	Slope	1.019080	$0.90 - 1.10$
8.43	8.46	0.9971	Intercept	-0.078031	± 1.5
4.22	4.19	1.0071			

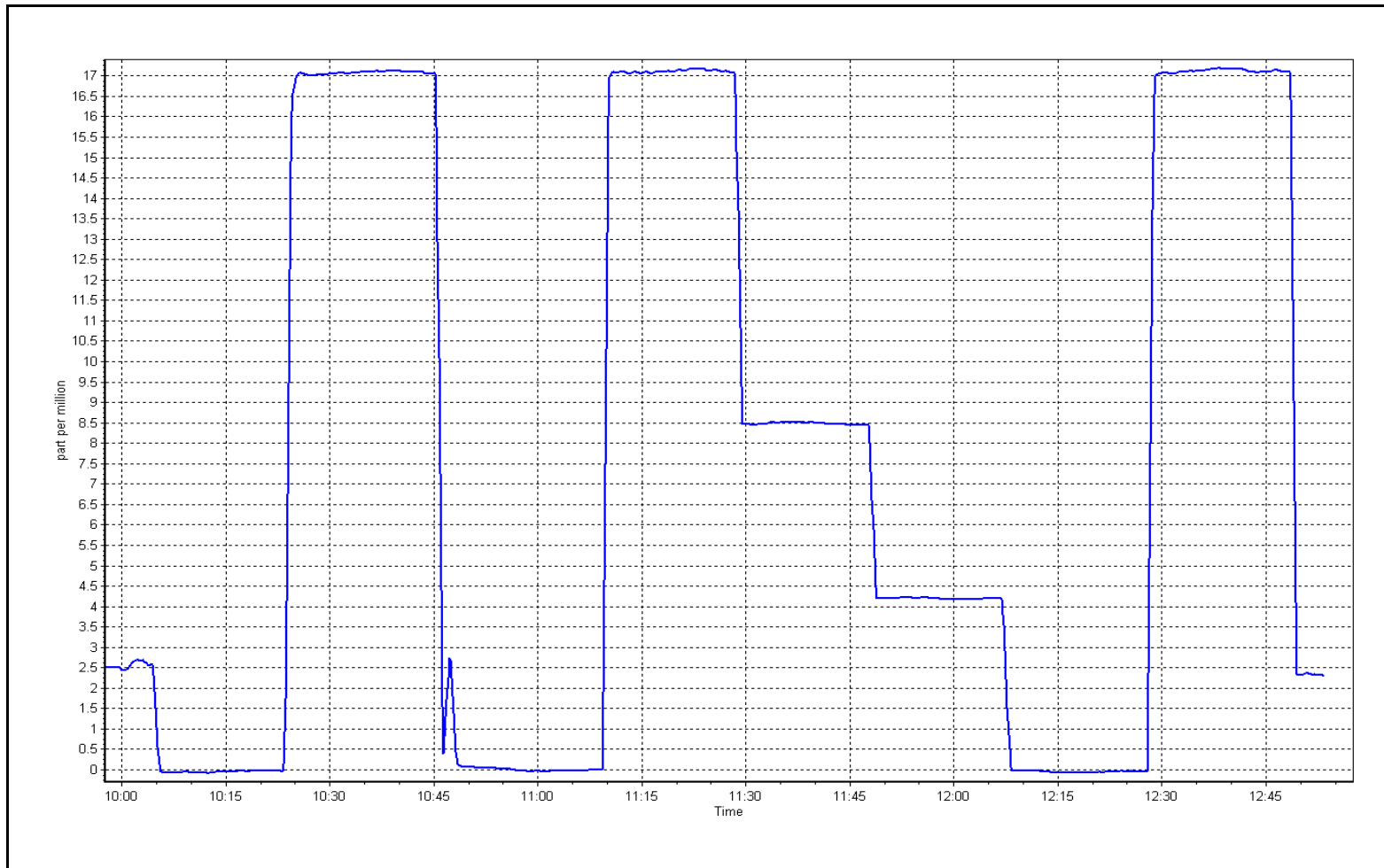
THC Calibration Curve



THC Calibration Plot

Date: June 10, 2026

Location: Kirby South





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Kirby South Station number: AMS 507
Calibration Date: June 11, 2026 Last Cal Date: June 10, 2026
Start time (MST): 11:12 End time (MST): 15:09
Reason: Cylinder Change

Calibration Standards

Gas Cert Reference: CC255918 Cal Gas Expiry Date: October 9, 2032
CH4 Cal Gas Conc. 506.4 ppm CH4 Equiv Conc. 1070.2 ppm
C3H8 Cal Gas Conc. 205.0 ppm
Removed Gas Cert: Removed Gas Expiry:
Removed CH4 Conc. 506.4 ppm CH4 Equiv Conc. 1070.2 ppm
Removed C3H8 Conc. 205.0 ppm Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 2445
ZAG Make/Model: Teledyne API T701H Serial Number: 880

Analyzer Information

Analyzer make: Thermo 51i-LT Analyzer serial #: 1182340005
Analyzer Range: 0 - 20 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.019080	1.000533	Background:	1.98	1.94
Calibration intercept:	-0.078031	-0.015432	Coefficient:	3.313	3.233

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.06	----
As found High point	4921	78.8	16.87	17.21	0.977
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	17.27	Previous response	17.11	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	
High point	4921	78.8	16.87	16.87	1.000
Mid point	4961	39.4	8.43	8.41	1.003
Low point	4980	19.7	4.22	4.19	1.008
As left zero	5000	0.0	0.00	0.02	----
As left span	4921	78.8	16.87	16.93	0.996
Average Correction Factor					1.003

Notes: Swapped hydrogen cylinder. Adjusted span.

Calibration Performed By: Braiden Boutilier



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THC Calibration Summary

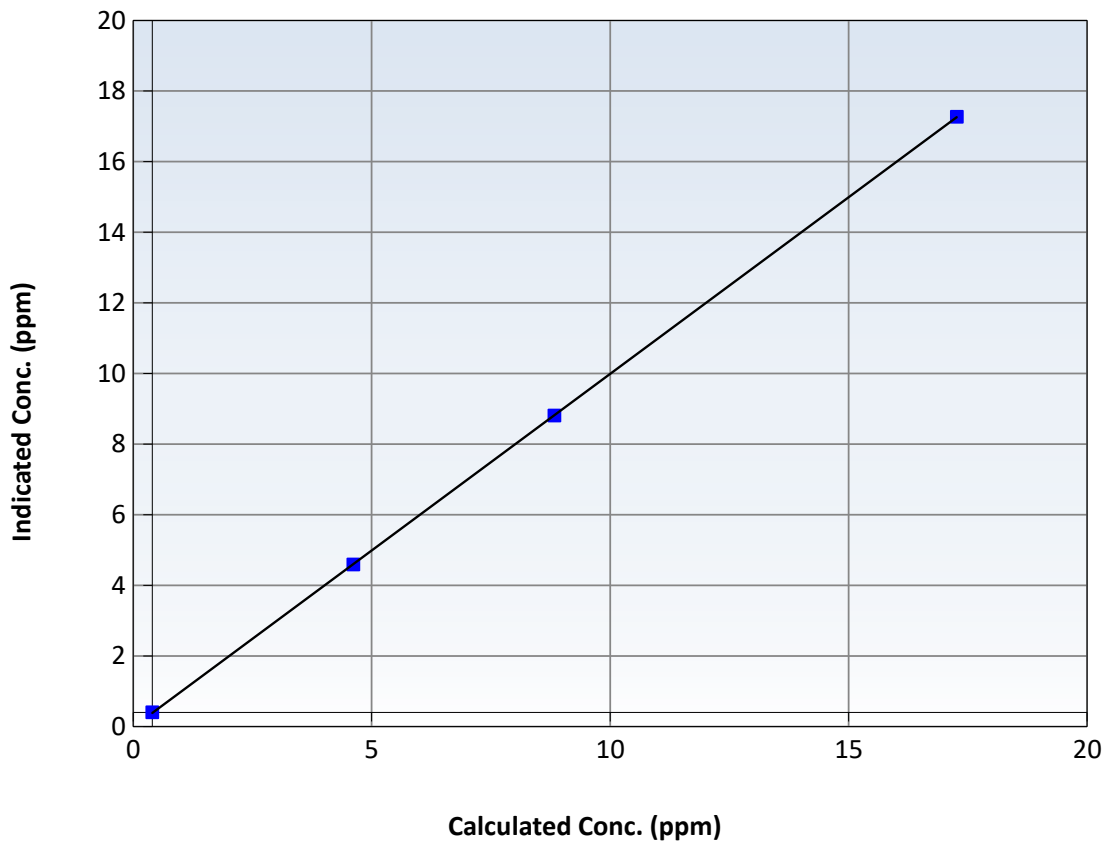
Station Information

Calibration Date:	June 11, 2026	Previous Calibration:	June 10, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	11:12	End Time (MST):	15:09
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1182340005

Calibration Data

Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999994	≥ 0.995
16.87	16.87	0.9998	Slope	1.000533	$0.90 - 1.10$
8.43	8.41	1.0026	Intercept	-0.015432	± 1.5
4.22	4.19	1.0076			

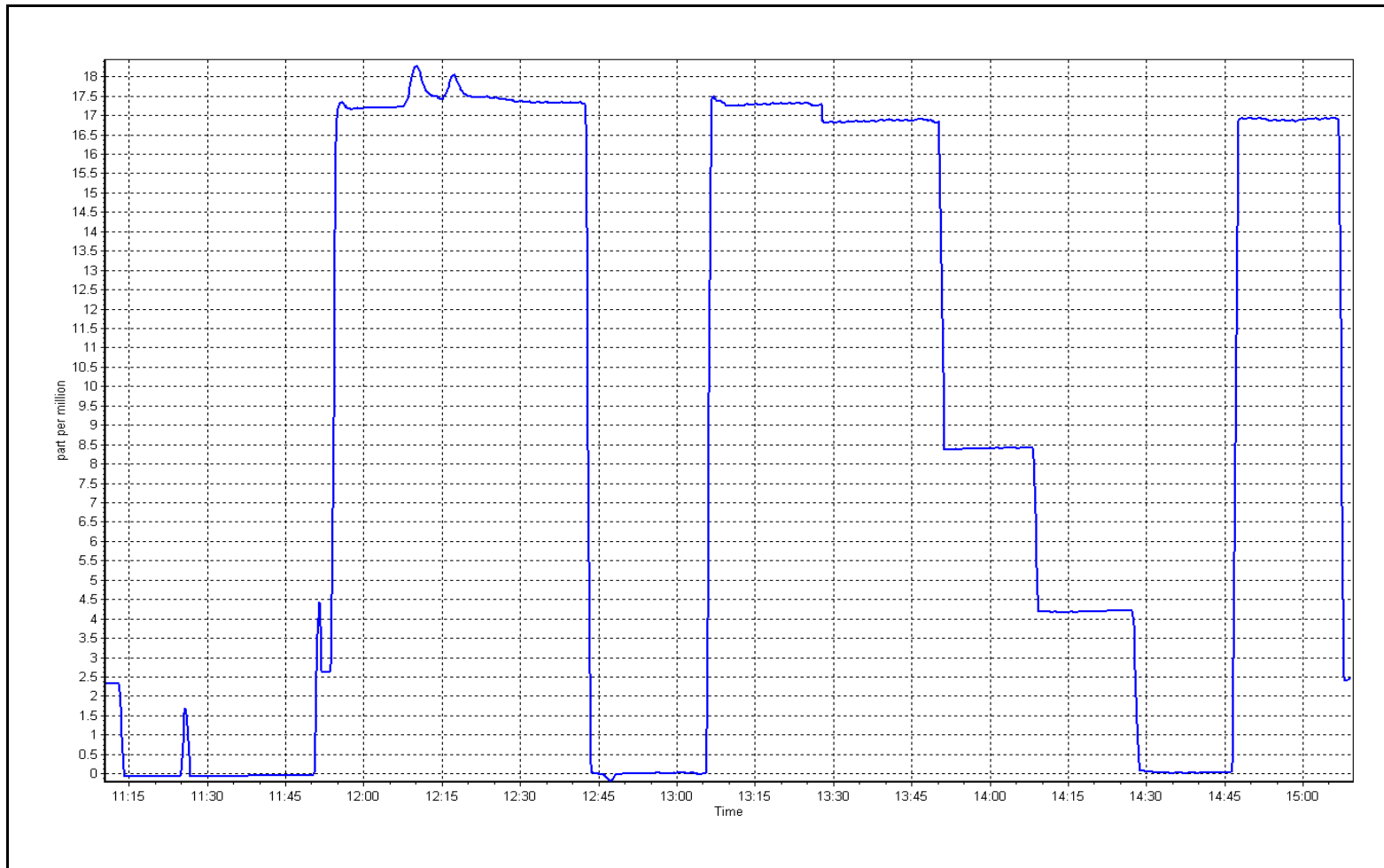
THC Calibration Curve



THC Calibration Plot

Date: June 11, 2026

Location: Kirby South





Wood Buffalo Environmental Association

THC Calibration Report

Station Information

Station Name: Kirby South Station number: AMS 507
Calibration Date: June 26, 2026 Last Cal Date: June 11, 2026
Start time (MST): 10:03 End time (MST): 11:32
Reason: Removal

Calibration Standards

Gas Cert Reference: CC255918 Cal Gas Expiry Date: October 9, 2032
CH4 Cal Gas Conc. 506.4 ppm CH4 Equiv Conc. 1070.2 ppm
C3H8 Cal Gas Conc. 205.0 ppm
Removed Gas Cert: Removed Gas Expiry:
Removed CH4 Conc. 506.4 ppm CH4 Equiv Conc. 1070.2 ppm
Removed C3H8 Conc. 205.0 ppm Diff between cyl:
Calibrator Make/Model: Teledyne API T700 Serial Number: 2445
ZAG Make/Model: Teledyne API T701H Serial Number: 880

Analyzer Information

Analyzer make: Thermo 51i-LT Analyzer serial #: 1182340005
Analyzer Range: 0 - 20 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000533		Background:	1.94	1.94
Calibration intercept:	-0.015432		Coefficient:	3.233	3.233

THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	-0.03	
As found High point	4921	78.8	16.87	16.73	1.006
As found Mid point	4961	39.4	8.43	8.31	1.011
As found Low point	4980	19.7	4.22	4.09	1.024
New cylinder response					
Baseline Corr As found:	16.76	Previous response	16.86	*% change	-0.6%
Baseline Corr 2nd AF pt:	8.34	AF Slope:	0.995072	AF Intercept:	-0.066632
Baseline Corr 3rd AF pt:	4.12	AF Correlation:	0.999978	* = > +/-5% change initiates investigation	

THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

Notes:

Prepped instrument for removal

Calibration Performed By: Jason Brooks



Wood Buffalo Environmental Association

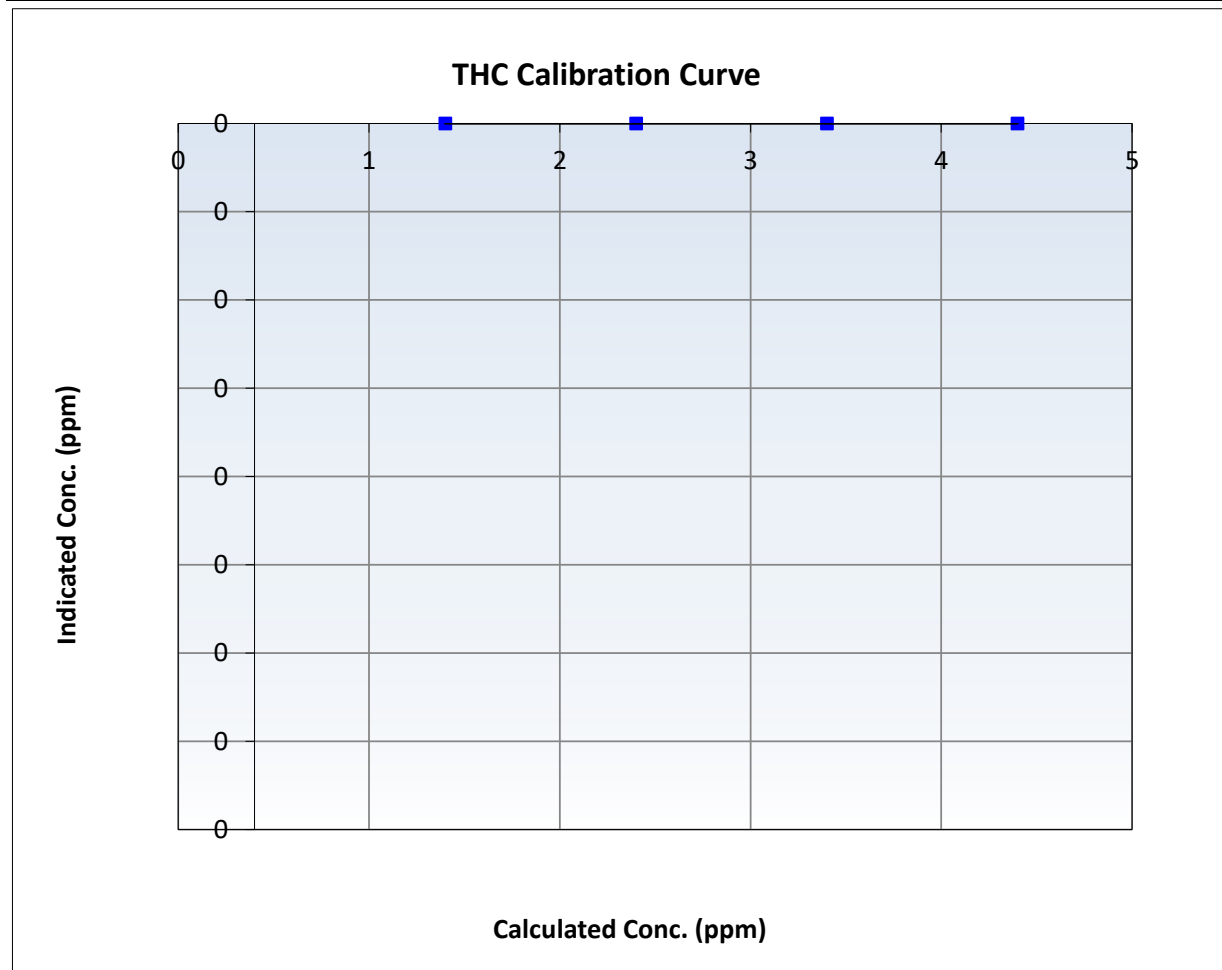
THC Calibration Summary

Station Information

Calibration Date:	June 26, 2026	Previous Calibration:	June 11, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:03	End Time (MST):	11:32
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1182340005

Calibration Data

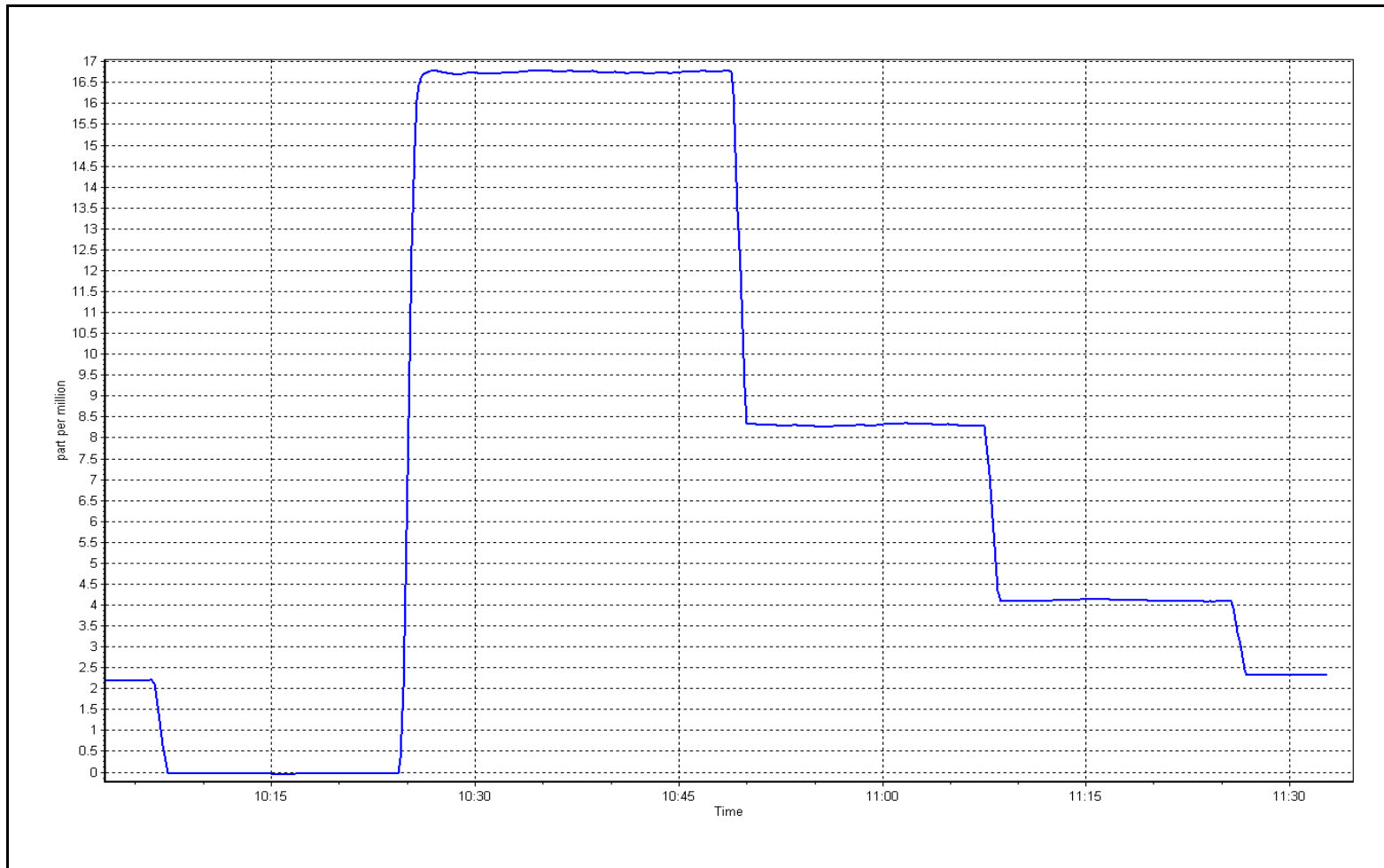
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
			Correlation Coefficient	≥ 0.995
			Slope	$0.90 - 1.10$
			Intercept	± 1.5



THC Calibration Plot

Date: June 26, 2026

Location: Kirby South





Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Station Information

Station Name: Kirby South
Station number: AMS 507
Calibration Date: June 29, 2026
Last Cal Date: May 25, 2026
Start time (MST): 11:23
End time (MST): 14:40
Reason: Removal

Calibration Standards

NO Gas Cylinder #: DT0019572
NO_x Cal Gas Conc: 60.00 ppm
Removed Cylinder #: NA
Removed Gas NO_x Conc: 60.00 ppm
NO_x gas Diff:
Calibrator Model: Teledyne API T700
ZAG make/model: Teledyne API T701H
Cal Gas Expiry Date: January 5, 2032
NO Cal Gas Conc: 59.90 ppm
Removed Gas Exp Date: NA
Removed Gas NO Conc: 59.90 ppm
NO gas Diff:
Serial Number: 2445
Serial Number: 880

As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO _x Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.5	0.0	-0.5	----	----
AF High point	4933	66.8	801.6	800.3	1.3	795.8	791.3	4.4	1.0067	1.0114
AF Mid point	4967	33.4	400.8	400.1	0.7	396.7	392.7	3.9	1.0091	1.0189
AF Low point	4983	16.7	200.4	200.1	0.3	197.2	193.7	3.4	1.0137	1.0329
New cyl resp										
Previous Response	NO _x = 801.6 ppb	NO = 798.8 ppb	* = > +/-5% change initiates investigation					*Percent Change	NO _x = -0.7%	
Baseline Corr 1st pt	NO _x = 796.3 ppb	NO = 791.3 ppb	<u>As Found Statistics</u>					*Percent Change	NO = -0.9%	
Baseline Corr 2nd pt	NO _x = 397.2 ppb	NO = 392.7 ppb	As found NO _x r ² : 0.999996					Nx SI: 0.993800	Nx Int: -1.234	
Baseline Corr 3rd pt	NO _x = 197.7 ppb	NO = 193.7 ppb	As found NO r ² : 0.999964					NO SI: 0.990104	NO Int: -2.234	
			As found NO ₂ r ² : 0.999918					NO ₂ SI: 0.989077	NO ₂ Int: 1.256	

As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	Baseline Adjusted NO ₂ Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero	----	----	0.0	-0.5	----	----
As found high GPT point	792.5	401.1	392.7	389.0	1.0096	99.0%
As found mid GPT point	792.5	626.2	167.6	167.9	0.9984	100.2%
As found low GPT point	792.5	710.4	83.4	85.4	0.9770	102.4%



Wood Buffalo Environmental Association

NO_x \ NO \ NO₂ Calibration Report

Analyzer Information

Analyzer Make: Thermo 42i
NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1173480006

Instrument Settings

	<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.725	0.725
NOX coeff or slope:	0.996	0.996
NO2 coeff or slope:	1.000	1.000

	<u>Start</u>	<u>Finish</u>
NO bkgnd or offset:	8.1	8.1
NOX bkgnd or offset:	8.8	8.8
Reaction cell Press:	142.6	143.8

Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO _x Cal Slope:	1.001698	
NO _x Cal Offset:	-1.353594	
NO Cal Slope:	1.000529	
NO Cal Offset:	-1.933627	
NO ₂ Cal Slope:	0.983671	
NO ₂ Cal Offset:	0.847410	

Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO _x concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO _x concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO ₂ concentration (ppb) (Ic)	NO _x Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
-----------	---------------------------	-----------------------------	---	--	---	--	---------------------------------------	--	---	--

Cal zero
High point
Mid point
Low point
As left zero
As left span

Average Correction Factor

GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO ₂ concentration (ppb) (Cc)	Indicated NO ₂ concentration (ppb) (Ic)	NO ₂ Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	--	---------------------------------------	---	--	---	--

Cal zero
High GPT point
Mid GPT point
Low GPT point

Average Correction Factor

Notes:

prepped instrument for removal

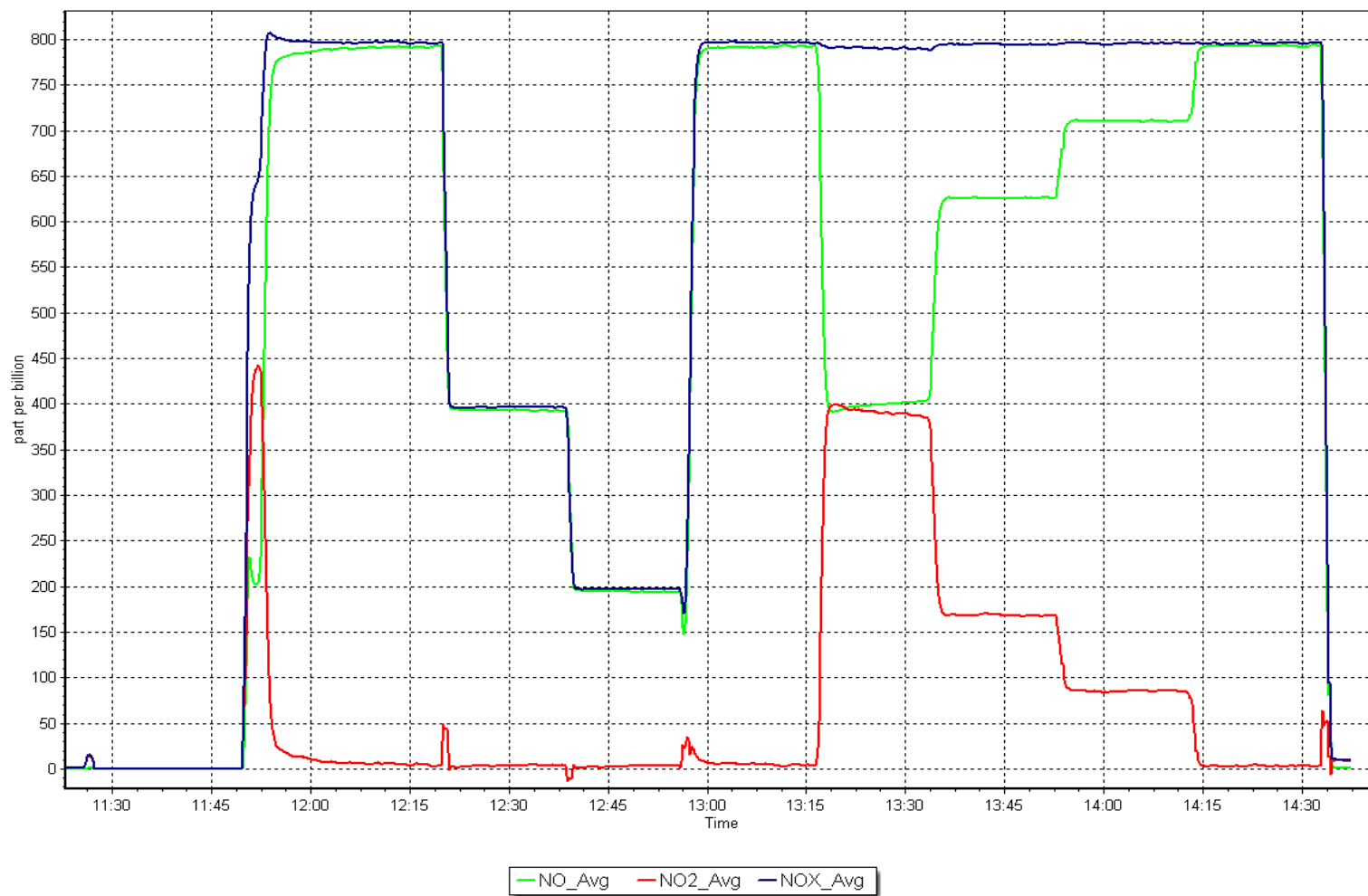
Calibration Performed By:

Jason Brooks

NO_x Calibration Plot

Date: June 29, 2026

Location: Kirby South





Wood Buffalo Environmental Association

Wind Speed/Direction Calibration Report

Station Information

Station Name:	Kirby South	Station Number:	AMS 507
Calibration Date:	June 29, 2026	Prev Cal Date:	July 9, 2025
Start Time (MST):	11:48	End Time (MST):	12:16
Tower Height (m):	10.0	Reason:	Removal

Wind Speed Calibration

Sensor make/model:	Met One 010C-1	Serial Number:	X16479
WS Calibrator:	MetOne 053	Serial Number:	CA 03988

Shaft RPM (Hz)	Calculated Speed (K/hr) (Cv)	Indicated Speed (K/hr) (Iv)	% Error <i>Limit = +/- 1.5%</i>
0	0.0	0.0	---
200	20.2	20.3	0.7%
400	39.4	39.4	0.1%
600	58.6	58.5	0.0%
800	77.8	77.8	0.1%

	<u>Start</u>	<u>Finish</u>	<u>Limits</u>
Correl Coeff (r^2)	0.999999	0.999998	≥ 0.9995
Calculated slope	0.998909	0.999865	$0.98 - 1.02$
Calculated intercept	0.030357	-0.045122	± 2

Wind Direction Calibration

Sensor make/model:	Met One 020D	Serial Number:	D13601
As Found Declination (deg east of True North):	<u>13</u>	As Left Declination (deg east of True North):	<u>13</u>
Solar noon (MST):	13:28	Calc Declination*:	13 Degrees
WD Calibrator:	Met One 040	* - calculated declination as per NOAA website	

Physical Direction (Degrees) (Cv)	Indicated Direction (Degrees) (Iv)	% Error (based on 360° FS) <i>Limit = +/- 1%</i>
10	7.4	-0.7%
90	86.6	-0.9%
180	176.7	-0.9%
270	269.8	-0.1%
350	350.3	0.1%

	<u>Start</u>	<u>Finish</u>	<u>Limits</u>
Correl Coeff (r^2)	0.999977	0.999972	≥ 0.9995
Calculated slope	0.995429	0.989502	$0.97 - 1.03$
Calculated intercept	0.501444	3.710399	± 5

Notes: Removal for station move.

Calibration Performed By: Jason Brooks



End of Report