

# **Fox Creek**

## **AIR QUALITY MONITORING July 2016 Monthly Report**

**Prepared by:**

**West Central Airshed Society  
Drayton Valley, Alberta**











































































# Calibration Summary

Parameter NO

Air Monitoring Network Fox Creek



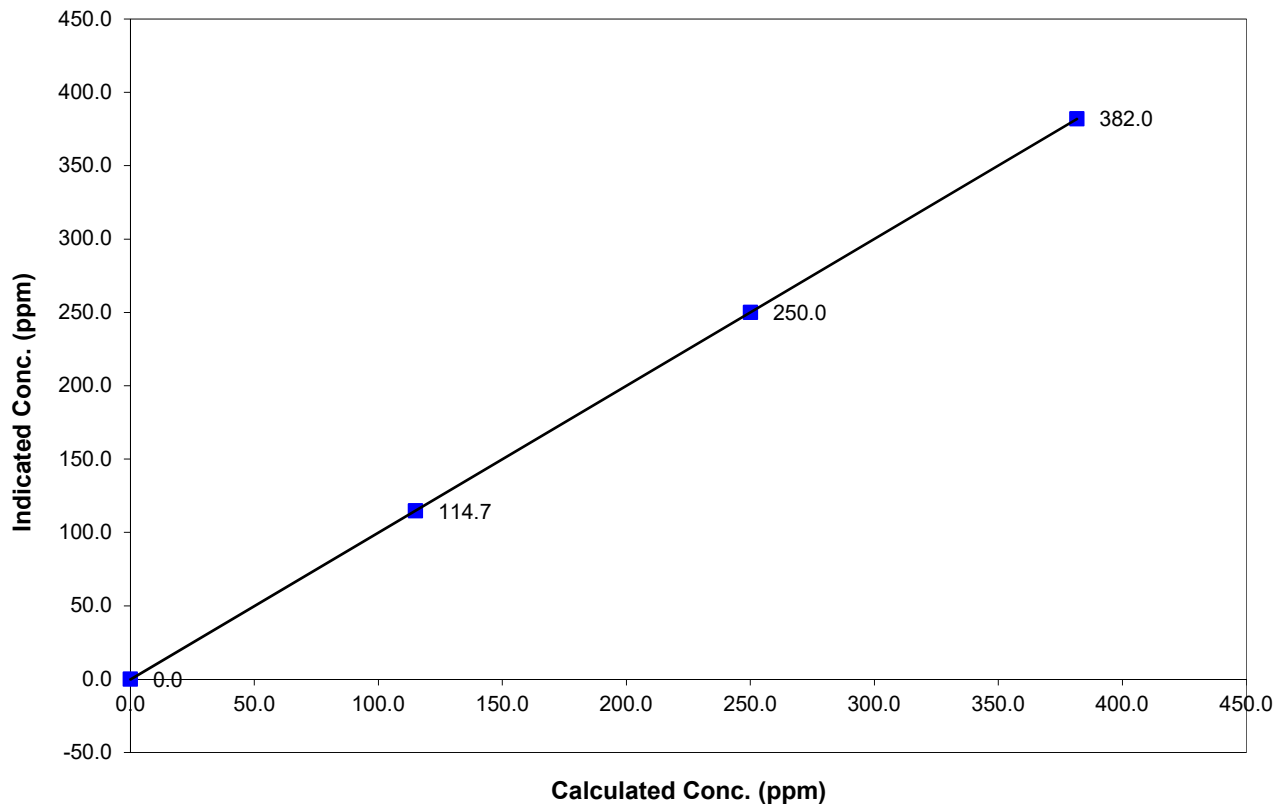
## Station Information

Calibration Date	June 13, 2016	Previous Calibration	May 25, 2016
Station Number	Pam12	Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	15:05
Analyzer make	42C	Analyzer serial #	60475327

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
381.7	382.0	0.9993	Correlation Coefficient	0.999998
250.1	250.0	1.0005		
115.0	114.7	1.0029	Slope	0.999177
			Intercept	0.201308

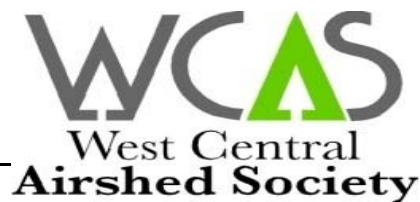
## NO Calibration Curve



## Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network Fox Creek



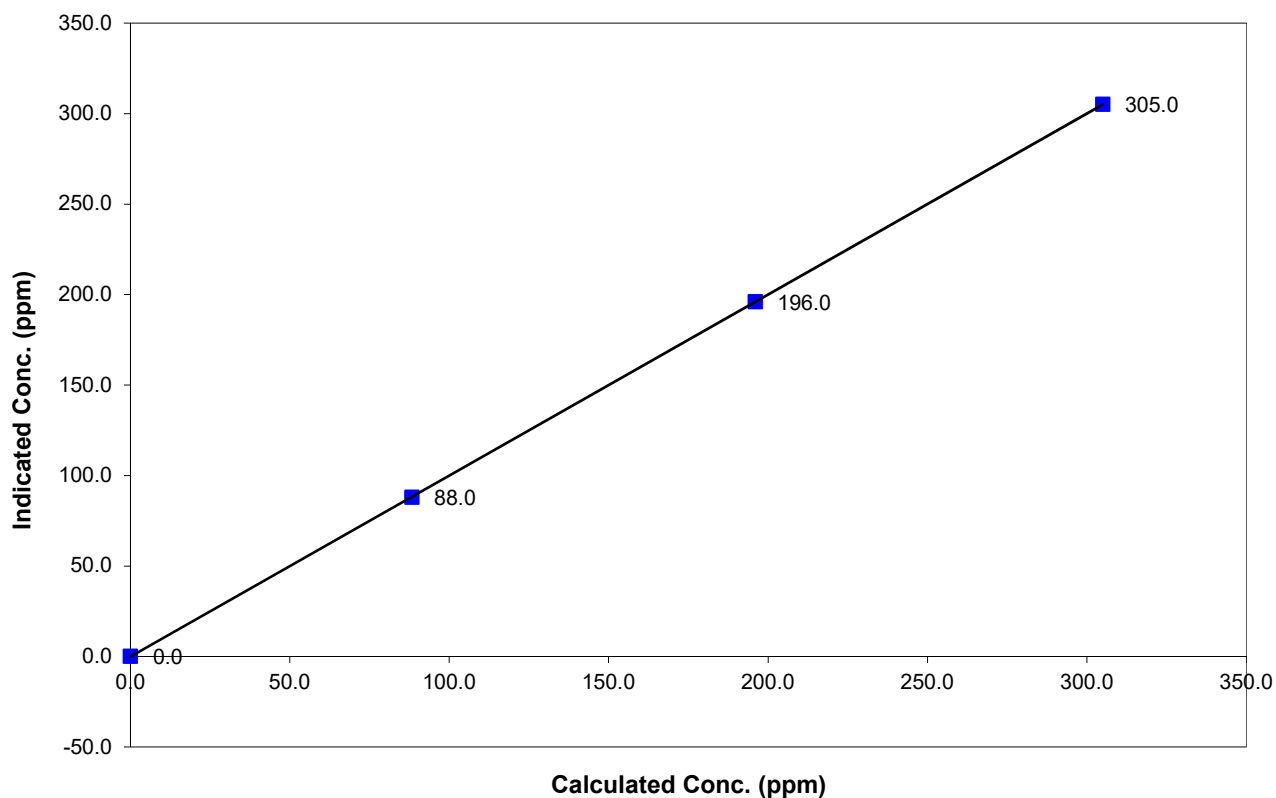
### Station Information

Calibration Date	June 13, 2016	Previous Calibration	May 25, 2016
Station Number		Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	15:05
Analyzer make	42C	Analyzer serial #	60475327

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
305.0	305.0	1.0000	Correlation Coefficient	0.999999
196.0	196.0	1.0000		
88.3	88.0	1.0037	Slope	0.999632
			Intercept	0.135642

### NO<sub>2</sub> Calibration Curve



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network Fox Creek



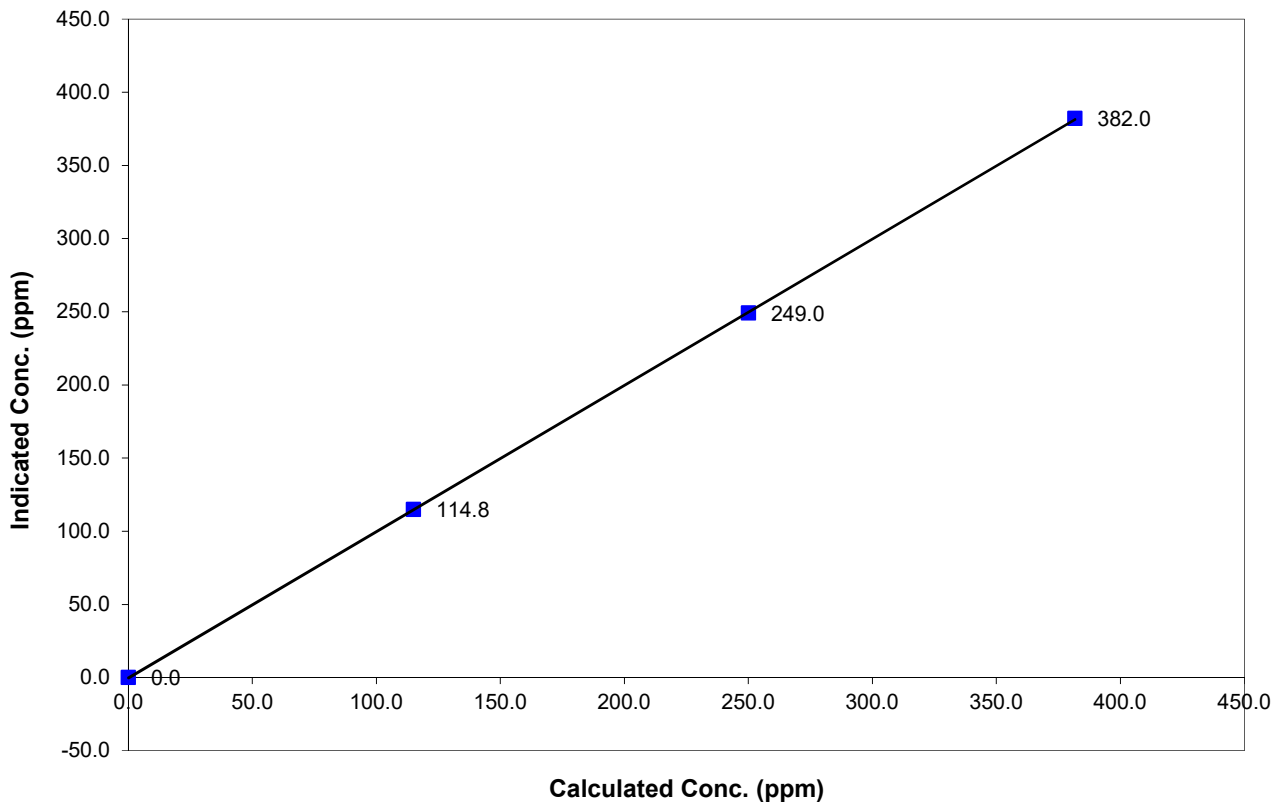
## Station Information

Calibration Date	June 13, 2016	Previous Calibration	May 25, 2016
Station Number	Pam1 2	Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	15:05
Analyzer make	42C	Analyzer serial #	60475327

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
381.7	382.0	0.9993	Correlation Coefficient	0.999987
250.1	249.0	1.0045		
115.0	114.8	1.0020	Slope	1.000025
			Intercept	0.268062

## NOx Calibration Curve



# Calibration Report



Parameter                     SO2                      
 Air Monitoring Network                     Fox Creek                    

## Station Information

Calibration Date	June 13, 2016	Previous Calibration	May 23, 2016
Station Number	Paml2	Station Location	Fox Creek
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Calibration	<input type="checkbox"/> Removal
			Fox Creek

Start Time (MST)	11:00	End Time (MST)	18:00
Barometric Pressure	27.20 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Sabio 2010	Serial Number	SX17611
Cal Gas Concentration	24600	Cal Gas Verified	Apr 1/ 16

DACS make		DACS serial No.	
DACS voltage range		DACS channel #	

	Before		After
Calculated slope	0.990853	Calculated slope	1.001015
Calculated intercept	0.916518	Calculated intercept	0.463967

Analyzer make	Teco 431	Analyzer serial #	0700419950
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	before		after	
Concentration range	500	ppb	500	ppb
Background	14.1	ppb	12.4	ppb
Coefficient	0.883		0.782	
Intensity A		Hz		Hz
Intensity B		Hz		Hz
Pressure		mmHg		mmHg
Sample Flow A		Lpm		Lpm
Sample Flow B		Lpm		Lpm

## Calibration Data

Dilution air flow rate (cc/min)		Source Gas Flow	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	5000	0.0	0.0	0.00	N/A
P1	5398	83.7	376.0	376.00	1.0000
P2	5403	54.6	247.0	245.00	1.0082
P3	5403	25.0	113.0	112.40	1.0053
AFZ	5000	0.0	0.0	-0.20	0.0000
AFS	5381	83.6	376.0	387.00	0.9716
Average Correction Factor					1.0045

Calculated value of As Found Response:                     384.6 ppm                          Percent Change of As Found:                     2.3%                    

	before calibration		after calibration	
Auto zero	0.20	ppb	0.00	ppb
Auto span	277.00	ppb	268.00	ppb

Notes: \_\_\_\_\_  
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Calibration Performed By:                     Greg Swain

# Calibration Summary

Parameter                     SO2                      
 Air Monitoring Network                                     Fox Creek                                    

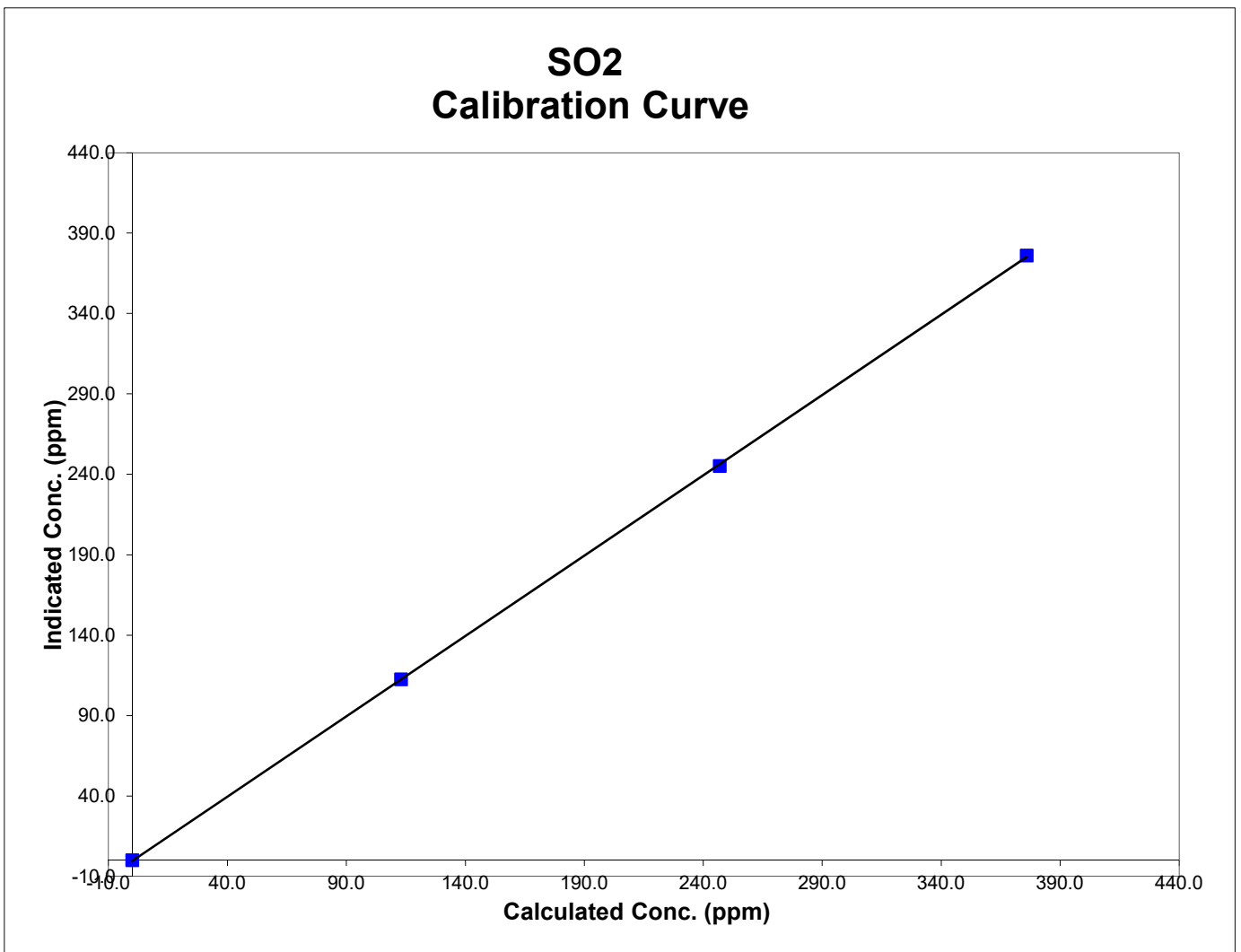


## Station Information

Calibration Date	June 13, 2016	Previous Calibration	May 23, 2016
Station Number	Paml2	Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	14:00
Analyzer make/model	Teco 431	Analyzer serial #	0700419950

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
376.0	376.0	1.0000	Correlation Coefficient	0.999968
247.0	245.0	1.0082		
113.0	112.4	1.0053		
0.0	0.0	N/A		
			Slope	1.001015
			Intercept	0.463967



# Calibration Report



Parameter                 H2S                  
 Air Monitoring Network   Fox Creek  

## Station Information

Calibration Date	June 17,2016	Previous Calibration	June 13,2016
Station Number	Paml2	Station Location	Fox Creek
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Calibration	<input type="checkbox"/> Removal
			Fox Creek

Start Time (MST)	11:00	End Time (MST)	14:00
Barometric Pressure	27.24 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Sabio 2010	Serial Number	5200311
Cal Gas Concentration	4.54 ppm SV15550	Cal Gas Verified	April 1, 2016

DACS make		DACS serial No.	
DACS voltage range		DACS channel #	1

	<b>Before</b>		<b>After</b>
Calculated slope	0.997304	Calculated slope	1.002686
Calculated intercept	-0.048195	Calculated intercept	-0.106051

Analyzer make	TecoTeco 45C	Analyzer serial #	0630718527
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	before		after	
Concentration range	100	ppb	100	ppb
Background	15.9	ppb	15	ppb
Coefficient	0.919		1.002	
Intensity A	*	Hz	*	Hz
Intensity B	*	Hz	*	Hz
Pressure	*	mmHg	*	mmHg
Sample Flow A	*	Lpm	*	Lpm
Sample Flow B	*	Lpm	*	Lpm

## Calibration Data

Dilution air flow rate (cc/min)		Source Gas Flow	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	5000	0.0	0.0	0.00	N/A
P1	5062	76.1	67.2	67.00	1.0036
P2	5062	51.0	45.3	45.50	0.9956
P3	5043	25.7	23.0	23.10	0.9957
AFZ	5000	0.0	0.0	0.10	0.0000
AFS	5062	76.1	67.2	62.00	1.0845
Average Correction Factor					0.9983

Calculated value of As Found Response: **61.7 ppm**      Percent Change of As Found: **-8.3%**

	before calibration		after calibration	
Auto zero	-0.20	ppb	0.20	ppb
Auto span	84.30	ppb	60.80	ppb

Notes:           New H2S perm tube installed .            
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Calibration Performed By:           Jeff McClintock

## Calibration Summary



Parameter H2S

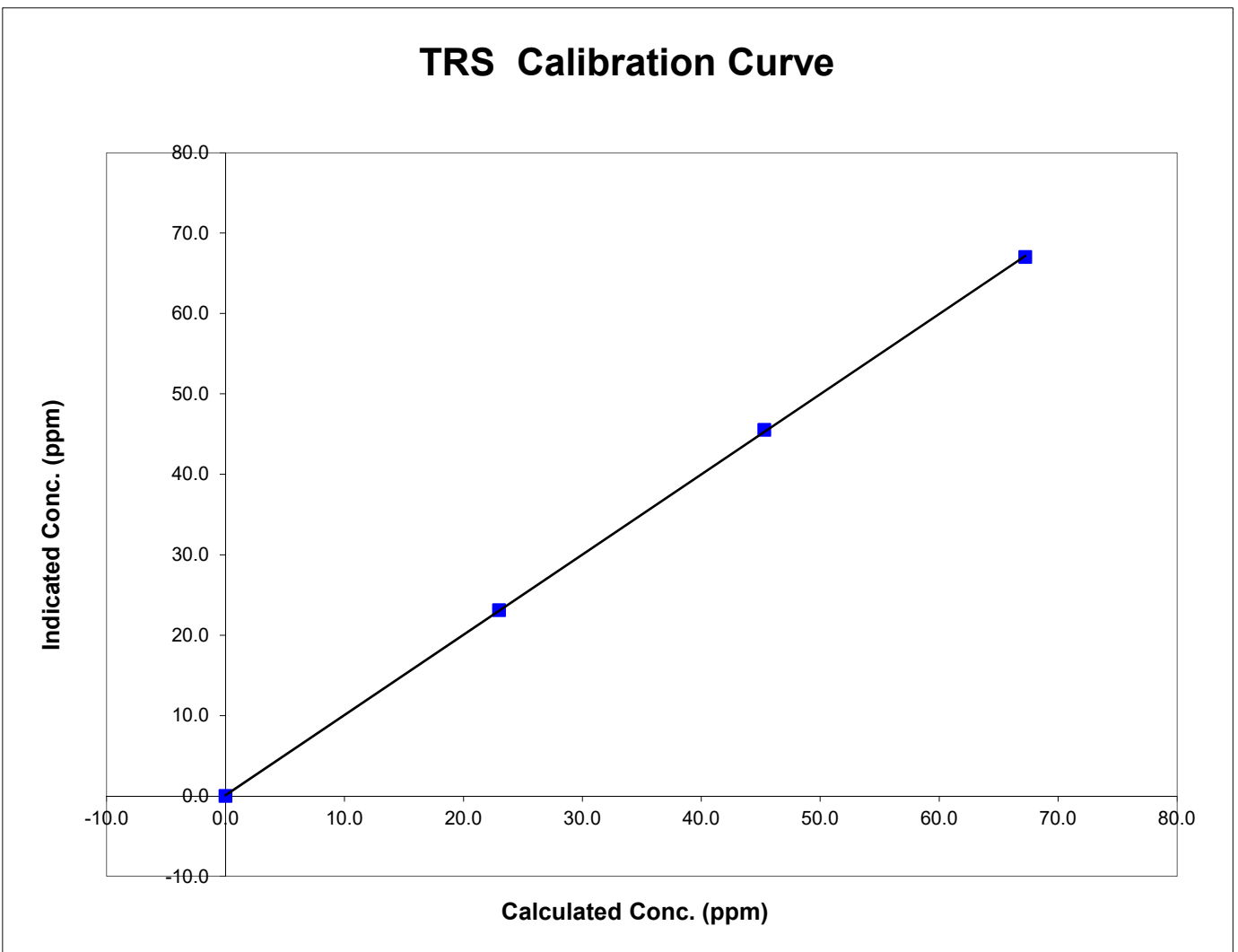
Air Monitoring Network Fox Creek

### Station Information

Calibration Date	June 17,2016	Previous Calibration	June 13,2016
Station Number	PamI2	Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	14:00
Analyzer make/model	TecoTeco 45C	Analyzer serial #	0630718527

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
67.2	67.0	1.0036	Correlation Coefficient	0.999965
45.3	45.5	0.9956		
23.0	23.1	0.9957		
0.0	0.0	N/A		
			Slope	1.002686
			Intercept	-0.106051









**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT**

**END OF REPORT  
JULY 2016**