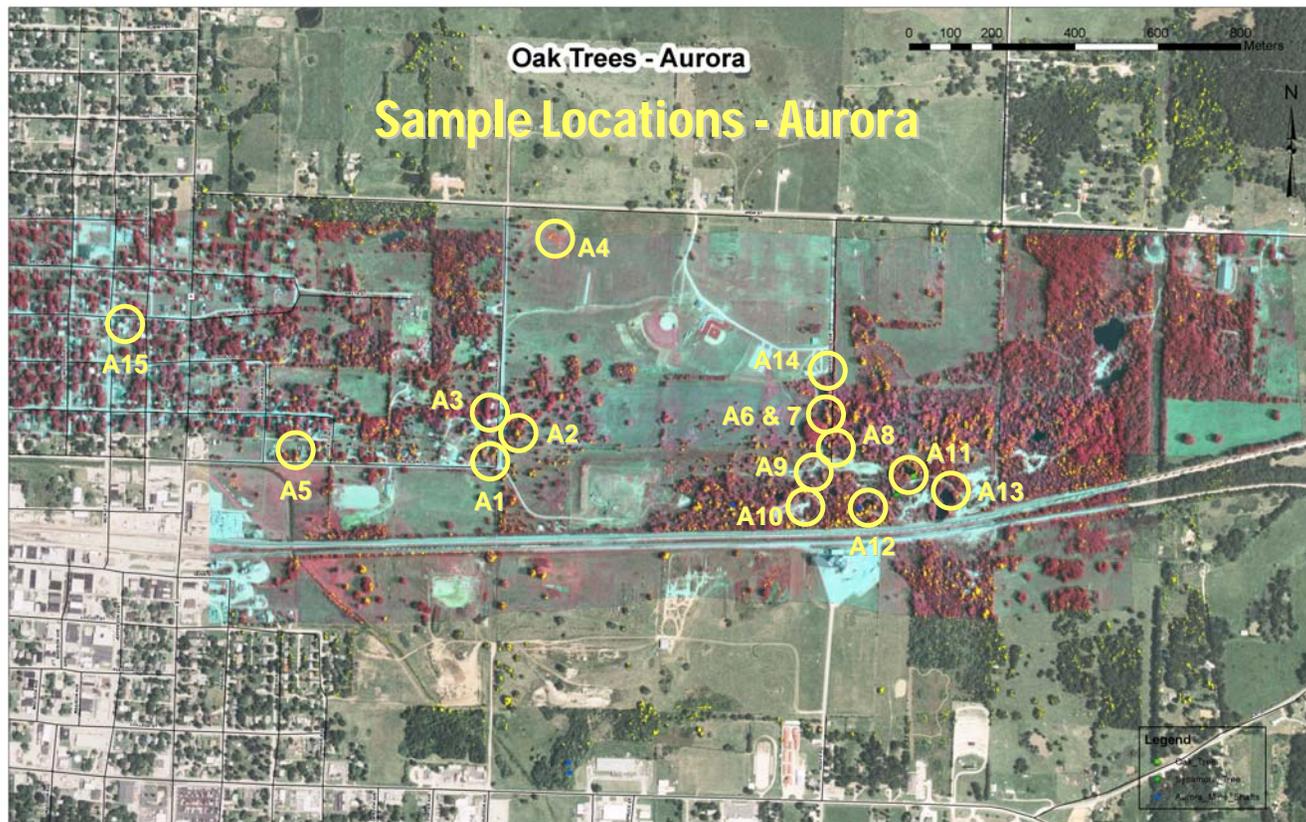


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General comments

- Oak and Sycamore used for signature development were in densely forested areas where tree types were mixed. While it appears that the two signatures identify different sets of species, there was no consistently identifiable species in either analysis. Without precise locations and an isolated sample of a species, it will be difficult to develop an accurate signature.
- We concentrated primarily on Oak and Sycamore in Aurora, with a minimal focus on Cedar. However, it became apparent in Baldwin Park that Cedar may be the most affected by zinc, and a better year-round tree for characterization. The focus in Granby became Cedar.
- Cedar trees appeared to be dwarfed in the Baldwin Park mining area.
- Ponds in Baldwin Park mining area had no apparent aquatic life or algae, and a strange dark color.



Oak and Sycamore Sample Locations (SL) - Aurora and Baldwin Park

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Residential Area and Western Edge of Baldwin Park

SL A1 (Imagery indicated Sycamore)

Black Walnut, Elm & Maple on corner of residential area.

No Oak or Sycamore.

Grass A1 - Plantago

XRF 20070509 (ug/cm²)

#10 Single Pb ND / Zn 3.93

#11 Stacked Pb ND / Zn 8.89

Soil

XRF 20070509 (ppm)

#6 Soil in ditch Pb 333 / Zn 4700

#7 Yard under trees Pb 124.89 / Zn 2790

#8 Edge of pavement Pb 165 / Zn 3740

#9 Pavement Pb 38 / Zn 741

Photo A1



SL A2 (Imagery indicated Oak)

Black/Red Oak, Black Walnut & Black Cherry.

Leaves A2 - Black Oak

XRF 20070509 (ug/cm²)

#12 Live leaf top Pb ND / Zn ND

#13 Live leaf bottom Pb ND / Zn ND

#14 Dead leaf top Pb ND / Zn 4.5

#15 Dead leaf bottom Pb ND / Zn 5.21

#16 Dead leaves stacked Pb ND / Zn 12.71

Soil mode (ppm)

#17 Dead leaves stacked Pb ND / Zn 125.05

Leaves A3 - Black Walnut

XRF 20070509 (ug/cm²)

#18 Live leaf Pb ND / Zn ND

Photo A2 & 3



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SL A3 (Imagery indicated Sycamore)
Elm tree versus Sycamore
No soil or leaf samples taken.

SL A4 (Imagery indicated Sycamore)
Milkweed in field
Leaves A4 - Milkweed
XRF 20070509 (ug/cm²)
#20 Stack of leaves Pb ND / Zn ND
Photo A4



SL A5 (Imagery indicated Oak)
Several Sycamore trees in yard near street.
Leaves A5 - Sycamore
[Lat 36.977655445 Long -93.714769083]
XRF 20070509 (ug/cm²)
#21 Live leaves Pb ND / Zn ND
Photo A5



Baldwin Park

SL A6 & 7 (Imagery indicated Oak)
Maple and Sycamore near road leading to mining area.
Leaves A6 - Sycamore
[Lat 36.978377297 Long -93.700213093]
XRF 20070509 (ug/cm²)
#39 Live leaf top Pb ND / Zn ND
#40 Dead leaf top Pb ND / Zn 7.19

Soil

XRF 20070509 (ppm)
#26 Soil near Sycamore Pb 663.45 / Zn 6057.2
Leaves A7 - Maple
XRF 20070509 (ug/cm²)
#41 Live leaf top Pb ND / Zn ND
#42 Live leaves stacked Pb ND / Zn 4.6
#43 Dead leaf top Pb ND / Zn 3.32

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Soil

XRF 20070509 (ppm)
#25 Soil near Maple Pb 284.7 / Zn 2016.4

SL A8

Grass near edge of un-vegetated mine waste

Grass A8 - Plantago

XRF 20070509 (ug/cm²)
#44 Live grass stacked Pb ND / Zn 10.88

SL A9 (Imagery indicated Sycamore)

Sycamore tree as plotted

Leaves A9 - Sycamore

[Lat 36.977408357 Long -93.700480127]

XRF 20070509 (ug/cm²)
#45 Live leaves stacked Pb ND / Zn 2.37
#48 Dead leaves stacked Pb ND / Zn 2.12

Soil mode (ppm)

#46 Live leaves stacked Pb ND / Zn 15.44
#47 Dead leaves stacked Pb ND / Zn 35.71

Soil

XRF 20070509 (ppm)
#27 Soil near Sycamore Pb 867.5 / Zn 14,421.0
#28 Soil near Sycamore Pb 55.34 / Zn 4,410.7
#29 Retest Soil near Sycamore
Pb 70.07 / Zn 1,581.4

Photo A6



SL A10

Cedar tree stand. Trees appeared to have stunted growth.

Needles A10 - Cedar

[Lat 36.976713136 Long -93.700924285]

XRF 20070509 (ug/cm²)
#49 Live needles stacked Pb ND / Zn 8.53
#50 Dead needles stacked Pb ND / Zn 13.84

Soil

XRF 20070509 (ppm)
#30 Soil near Cedar Pb 566.72 / Zn 5,913.8

SL A11

Siliques weed near pond.

Grass A11- Siliques

XRF 20070509 (ug/cm²)
#51 Live leaves stacked Pb ND / Zn 9.33

Soil

XRF 20070509 (ppm)
#31 Soil near Siliques Pb 426.92 / Zn 5,523.8

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SL A12 (Imagery indicated Oak)
Contaminated Sycamore near Pond in mining area.
Ponds in Baldwin Park mining area had no apparent aquatic life or algae, and a strange dark color.
No samples taken
Photo A7



SL A13
Bermuda grass around pond in mining area.
Grass A13- Bermuda
XRF 20070509 (ug/cm²)
#52 Live grass stacked Pb ND / Zn 33.31
#33 In-situ grass Pb 13.53 / Zn 404.13
Soil mode (ppm)
#53 Live grass stacked Pb ND / Zn 268.45

Soil
XRF 20070509 (ppm)
#12 Soil in grass area Pb 375.06 / Zn 15,429.0
Photo A8



SL A14
Poa grass near park pavilion.
Grass A14- Poa
XRF 20070509 (ug/cm²)
#55 Live grass stacked Pb ND / Zn 15.59
Soil mode (ppm)
#54 Live grass stacked Pb ND / Zn 107.47

Residential Area West of Baldwin Park

SL A15
Large isolated Cedar tree in residential area. Soil presumed to be low in lead and zinc. Potential use for non-contaminated cedar signature.
Needles A15- Cedar
[4092967.01281 N 435956.69151 E][Lat 36.980643 Long -93.719594]
XRF 20070509 (ug/cm²)
#56 Live needles stacked Pb ND / Zn 3.95

ATTACHMENT 13 - AURORA SURVEY NOTES MAY 9, 2007

	SOIL	Pb	Zn	Avg ZN	LEAVES	Pb	Zn	Avg ZN	Ratio Leaf - Soil
<u>RESIDENTIAL - NON CONTAMINATED AREA</u>									
Grass A1 - Plantago					#10 Single	ND	3.93	6.410	0.002
XRF 20070509 (ug/cm2)					#11 Stacked	ND	8.89		
Soil	#6 Soil in ditch	333.00	4,700.00	2992.750					
XRF 20070509 (ppm)	#7 Yard under trees	124.89	2,790.00						
	#8 Edge of pavement	165.00	3,740.00						
	#9 Pavement	38.00	741.00						
Leaves A2 - Black Oak					#12 Live leaf top	ND	ND	7.47	
XRF 20070509 (ug/cm2)					#13 Live leaf bottom	ND	ND		
					#14 Dead leaf top	ND	4.50		
					#15 Dead leaf bottom	ND	5.21		
					#16 Dead leaves stacked	ND	12.71		
Leaves A3 - Black Walnut					#18 Live leaf	ND	ND		
XRF 20070509 (ug/cm2)									
Leaves A4 - Milkweed					#20 Stack of leaves	ND	ND		
XRF 20070509 (ug/cm2)									
Leaves A5 - Sycamore					#21 Live leaves	ND	ND		
XRF 20070509 (ug/cm2)									
Needles A15- Cedar					#56 Live needles stacked	ND	3.95	3.95	
XRF 20070509 (ug/cm2)									
<u>BALDWIN PARK MINING AREA - CONTAMINATED AREA</u>									
Leaves A6 - Sycamore					#39 Live leaf top	ND	ND	7.190	0.001
XRF 20070509 (ug/cm2)					#40 Dead leaf top	ND	7.19		
Soil	#26 Soil near Sycamore	663.45	6,057.20	6057.200					
XRF 20070509 (ppm)									

Summary of XRF Readings

ATTACHMENT 13 - AURORA SURVEY NOTES MAY 9, 2007

	SOIL	Pb	Zn	Avg ZN	LEAVES	Pb	Zn	Avg ZN	Ratio Leaf - Soil
Leaves A7 - Maple					#41 Live leaf top	ND	ND	3.960	0.002
XRF 20070509 (ug/cm2)					#42 Live leaves stacked	ND	4.60		
					#43 Dead leaf top	ND	3.32		
Soil	#25 Soil near Maple	284.70	2,016.40	2016.400					
XRF 20070509 (ppm)									
Leaves A9 - Sycamore					#45 Live leaves stacked	ND	2.37	2.245	0.000
XRF 20070509 (ug/cm2)					#48 Dead leaves stacked	ND	2.12		
Soil	#27 Soil near Sycamore	867.50	14,421.00	6804.367					
XRF 20070509 (ppm)	#28 Soil near Sycamore	55.34	4,410.70						
	#29 Retest Soil near Sycamore	70.07	1,581.40						
Needles A10 - Cedar					#49 Live needles stacked	ND	8.53	11.185	0.002
XRF 20070509 (ug/cm2)					#50 Dead needles stacked	ND	13.84		
Soil	#30 Soil near Cedar	566.72	5,913.80	5913.800					
XRF 20070509 (ppm)									
Grass A11- Siliques					#51 Live leaves stacked	ND	9.33	9.330	0.002
XRF 20070509 (ug/cm2)									
Soil	#31 Soil near Siliques	426.92	5,523.80	5523.800					
XRF 20070509 (ppm)									
Grass A13- Bermuda					#52 Live grass stacked	ND	33.31	33.310	0.002
XRF 20070509 (ug/cm2)					#33 In-situ grass	13.53	404.13		
Soil	#12 Soil in grass area	375.06	15,429.00	15429.000					
XRF 20070509 (ppm)									
Grass A14- Poa					#55 Live grass stacked	ND	15.59	15.59	
XRF 20070509 (ug/cm2)									

Summary of XRF Readings (cont.)