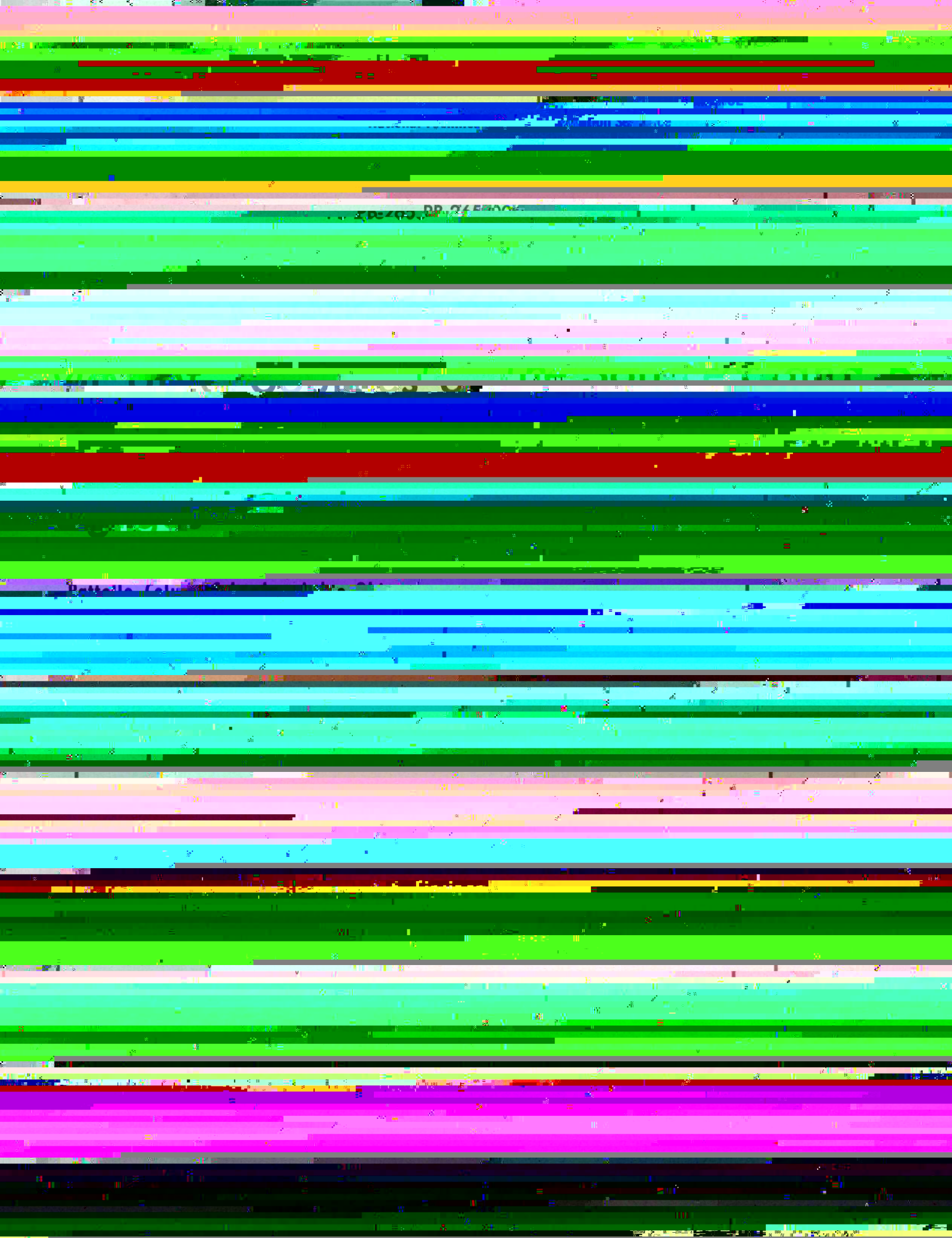


EPA-600/2-77-070

THE SOURCES AND BEHAVIOR OF [redacted]

by

B ATTELLE
Columbus Laboratories

[redacted]

FOREWORD

[redacted]

(Continued)

Page

Table 5. Metals Analysis of Sludge Samples from Domestic

LIST OF TABLES

[redacted]

THE SOURCES AND BEHAVIOR OF HEAVY

by

Columbus Laboratories

[redacted]

	NY			NY
Metal	(Bowery Bay)	Allegheny Co.	Muncie	(other Resid)

TABLE 3. SOURCES OF HEAVY METALS TO WASTEWATER IN LOS ANGELES

Cd	17	83
Zn	25	75
Cu	13	87
Cr	?	98
Ni	12	88
Ag	45	55

Unfortunately, this data cannot be directly interpreted as implying corresponding

INDUSTRIAL CONTRIBUTIONS TO TRACE METAL LOADS

plants were located near Toronto, Ontario, Canada. The Ashbridge Bay plant

[redacted]

TORONTO, CANADA(a)

[redacted]

[redacted]

RATES AND PARTICLE SIZE DISTRIBUTION

B. % Distribution by

	(lbs/curb mi/day)		(Each species = 100%)				
	Numerical Mean (m)	Avg. Deviation ± m	≤104	104 to 246	246 to 495	>495	Total
Cr	0.050	0.54	20	24	17	39	100

(12)

Population: 100,000 people

Land-use distribution:

Residential 75%

Commercial 5%

TABLE 11. AVERAGE CONCENTRATION OF METALS IN SOILS FROM 65

	Depth	
	0-2.5 cm	10-15 cm
As	8.4	8.2
Cd	2.3	2.1
Cu	33.2	30.9
Ni	34.8	30.3

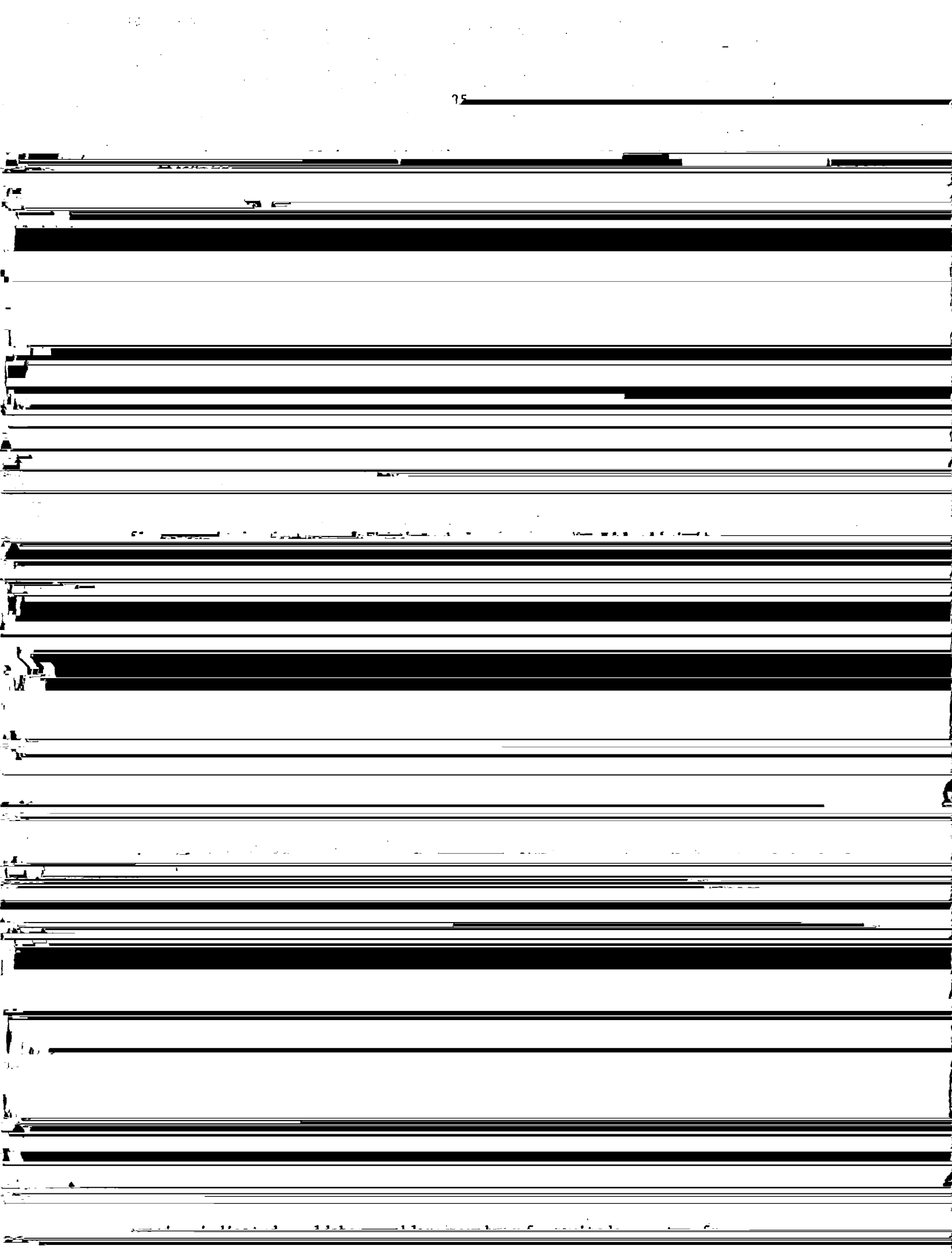
(17)

TABLE 14. AVERAGE. RANGE. AND STANDARD DEVIATION OF METAL

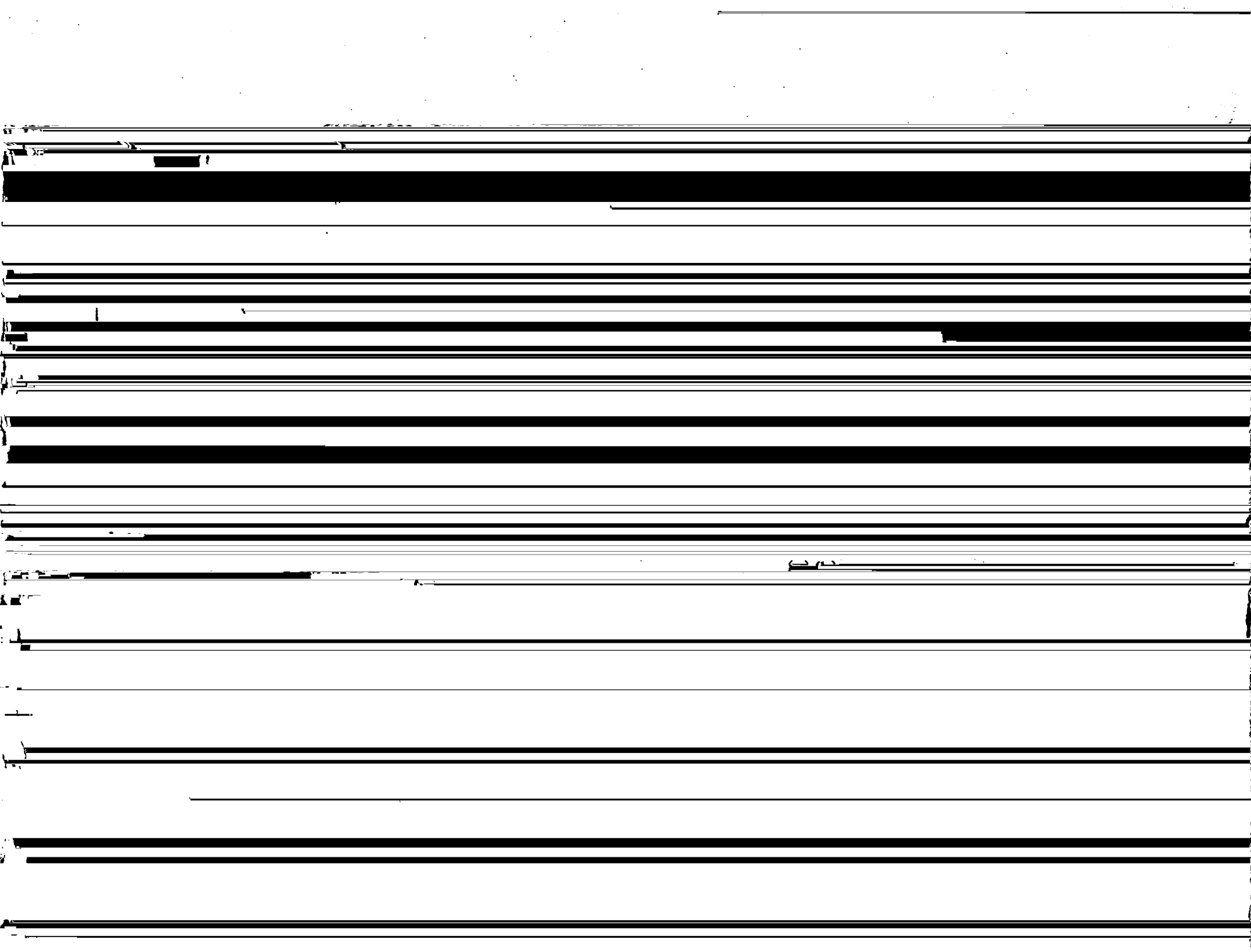
THIRD FORK CREEK DRAINAGE BASIN,
DURHAM. NORTH CAROLINA

Mean Standard Range (mg/l)

TABLE 16 COMPARISON OF [redacted]



The treatment of municipal and/or industrial wastes involves a



[redacted]

[redacted] TO TREATMENT PLANTS FOR AMERICAN CITIES (2)

[redacted]

City	Cadmium	Nickel	Zinc	Copper

TABLE 21 COMPARISON OF PREDICTED AND MEASURED VALUES

OF METALS INFLUENT TO THE MILWAUKEE, WISCONSIN
TREATMENT PLANTS

Measured Concentration, mg/l

HEAVY METAL CONCENTRATIONS[a]

Plant	Metal	Sample Point	Exceeded Limits on Low or High Side of Distribution[b]

[redacted]

REMOVAL EFFICIENCIES FOR TREATMENT PLANTS IN THE INTERSTATE

[redacted]

limit. In this case a concentration factor of only about 500 would cause

[redacted]

used as a soil conditioner has two distinct parts. On the one hand, there

uncertainties in the actual absorption rates of ingested Cd and the normal

Toxicity to the Plant

[redacted]

[redacted]

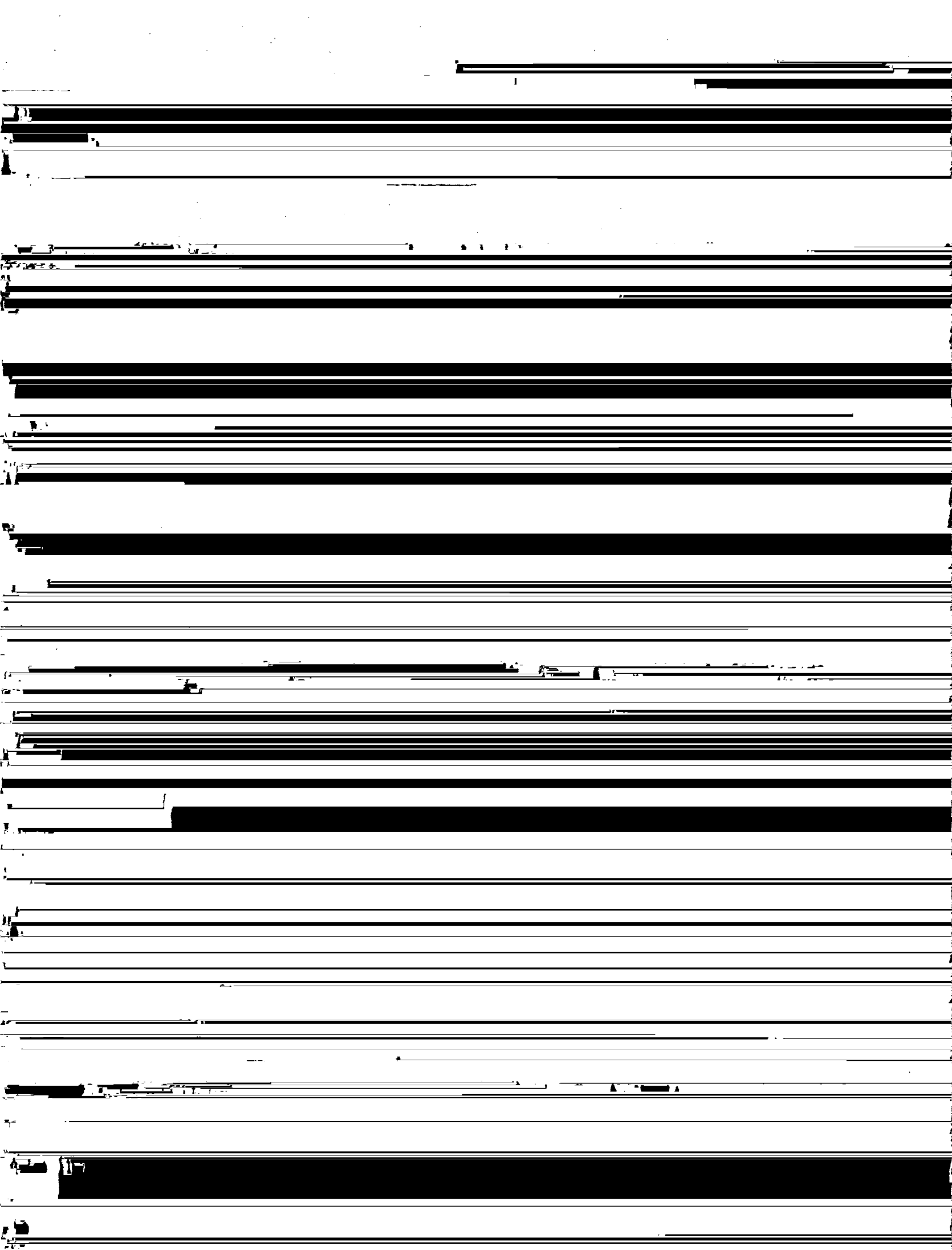
(36)

CONCLUSIONS

[redacted]

[redacted]

receiving streams and there is apparently no way to correlate the weighted



Soil and Vegetation with Cadmium. Nickel. Lead. and Zinc". Environ-

[redacted]