GROUNDWATER INVESTIGATION STEERING TEAM (GIST)

FUNCTION

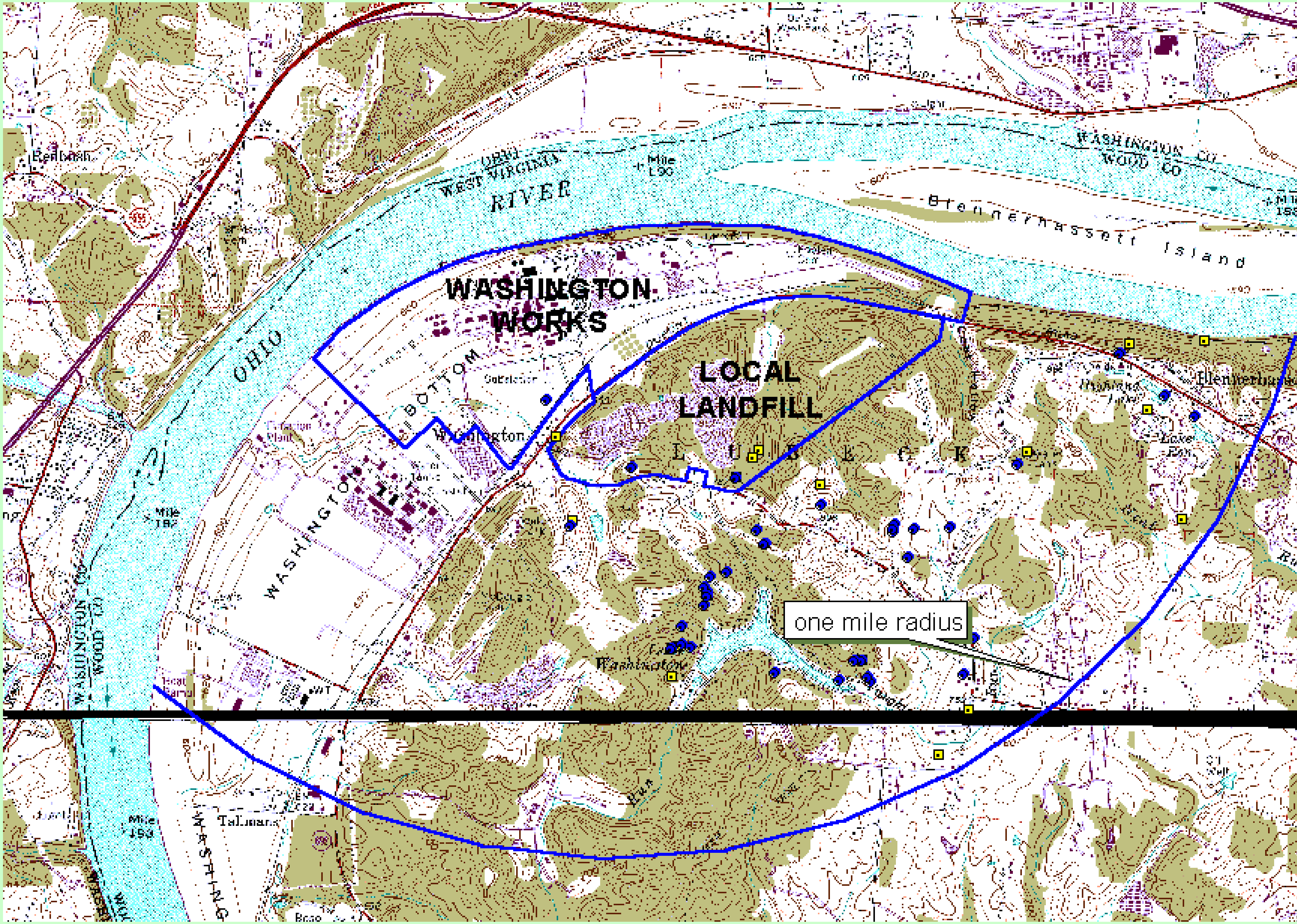
To determine the extent and concentration of C8 in both the groundwater and surface water

PRESENTATION OVERVIEW

- Water well use survey
- Public water supply survey
- Ohio River survey

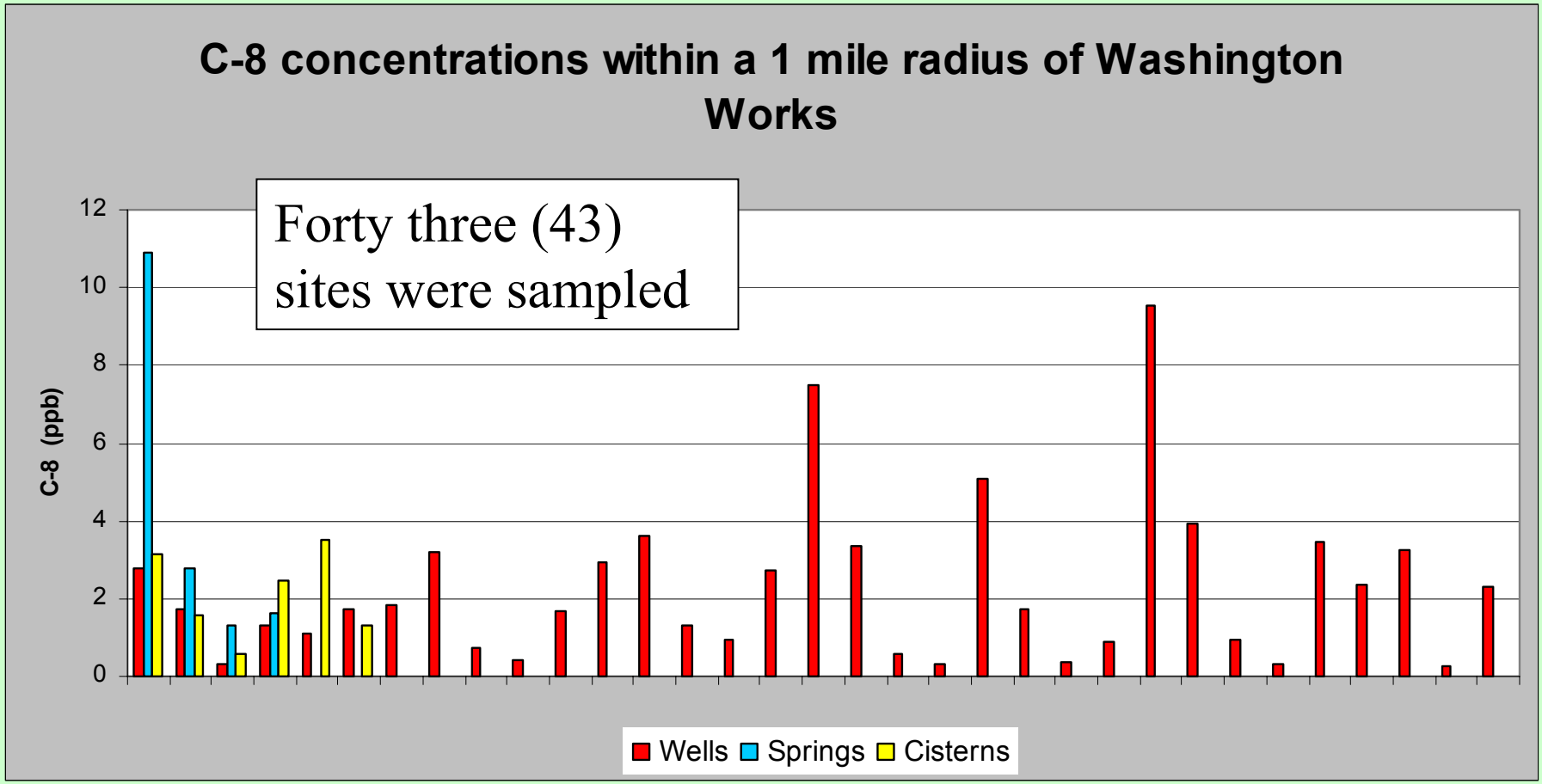
WATER WELL USE SURVEY

- **Washington Works Plant and Local Landfill**
  - One mile radius around plant
- **Dry Run Landfill**
  - One mile radius around landfill
- **Letart Landfill**
  - One mile radius around landfill



WASHINGTON WORKS
LOCAL LANDFILL
one mile radius
OHIO
WEST VIRGINIA
RIVER
OHIO
WASHINGTON CO
WOOD CO
Blennerhassett Island
BOTTOM
WASHINGTON
Washington
Substation
L U B E C K
Lake Washington
Lake Fox
Tallmans
Mile 190
WASHINGTON CO
WOOD CO

Residential Sampling (1-mile radius)		Dry Run	Letart	Local	Total
Hom	Number of homes contacted	75	48	311	434
	Number of homes surveyed	54	46	269	379
Wells	Number of wells found through survey	41	42	51	134
	Number of wells sampled in survey	35	30	33	98
	Number of wells sampled that are used for drinking water	13	11	6	30
Cisterns	Number of cisterns found through survey	17	4	17	38
	Number of cisterns sampled in survey	8	0	6	14
	Number of cisterns sampled that are used for drinking water	1	0	0	1
Springs	Number of springs found through survey	7	0	6	13
	Number of springs sampled in survey	7	0	4	11
	Number of springs sampled that are used for drinking water	1	0	0	1
Totals	Total number of samples	50	30	43	123
	Total number of collected samples used for drinking water	15	11	6	32


C-8 concentrations within a 1 mile radius of Washington Works
Forty three (43) sites were sampled
C-8 (ppb)
12
10
8
6
4
2
0
Wells
Springs
Cisterns

C-8 concentrations within a 1 mile radius of Washington Works

Concentration in wells

Range = high of 9.56 ppb to a low of 0.252 ppb;

Average = 2.257 ppb

Concentration in springs

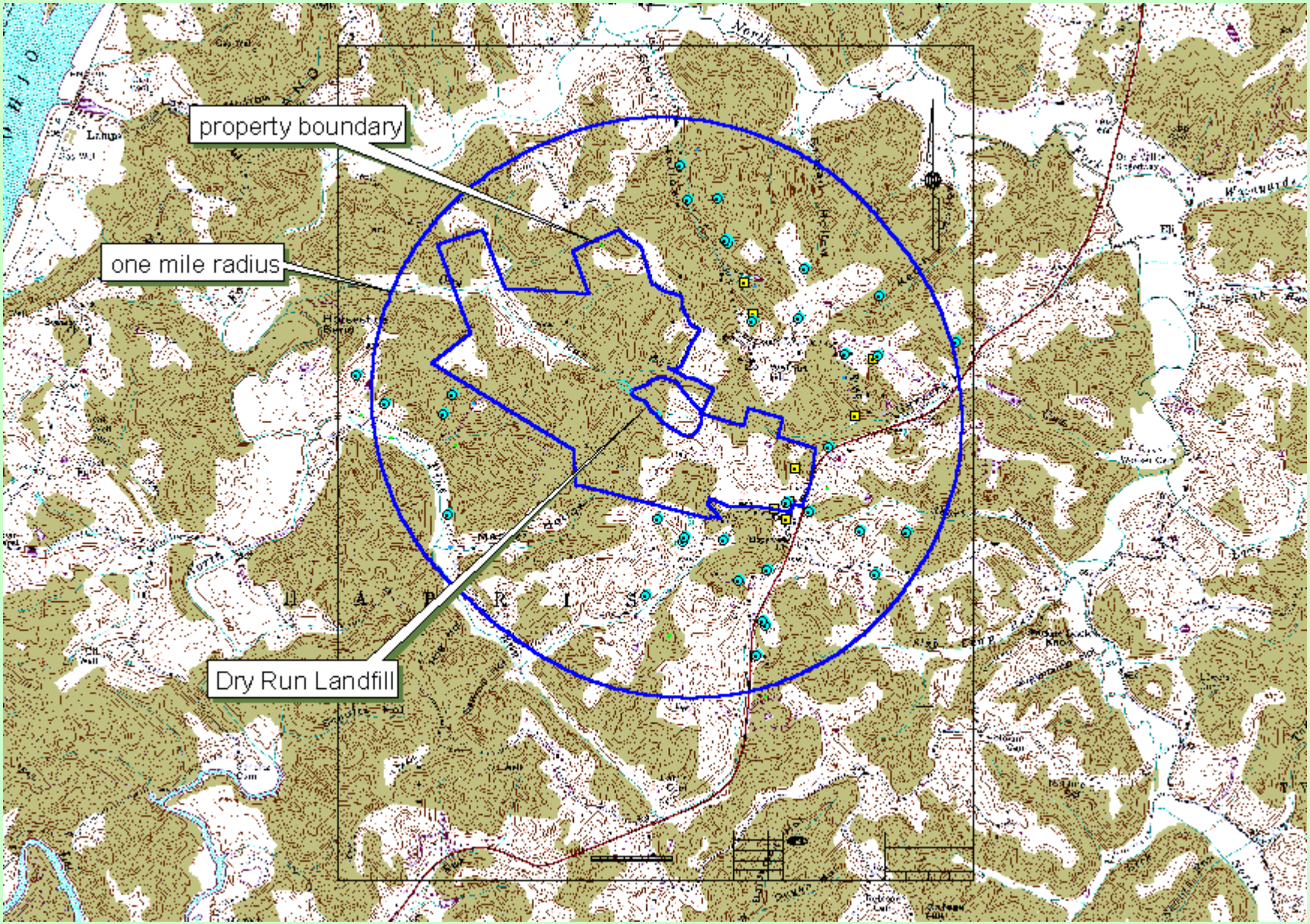
Range = high of 10.9 ppb to a low of 1.33 ppb;

Average = 4.165 ppb

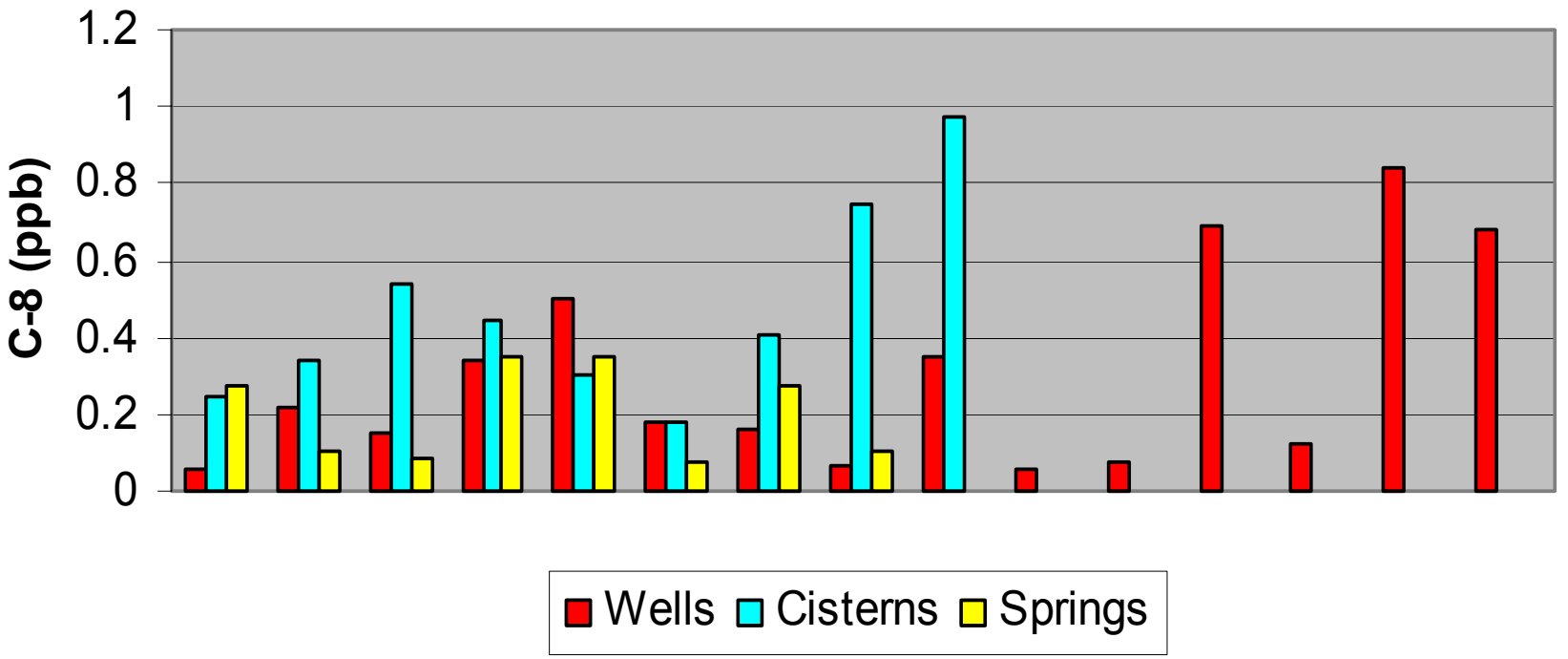
Concentration in cisterns

Range = high of 3.52 ppb to a low of 0.561 ppb;

Average = 2.099 ppb


property boundary
one mile radius
Dry Run Landfill

C-8 concentrations within a 1 mile radius of the Dry Run Landfill



Fifty (50) sites were sampled; Thirty two (32) sites showed concentrations of C-8

C-8 concentrations within a 1 mile radius of the Dry Run Landfill

Concentration in wells

Range = high of 0.839 ppb to a low of 0.0606 ppb;

Average = 0.119 ppb

Concentration in springs

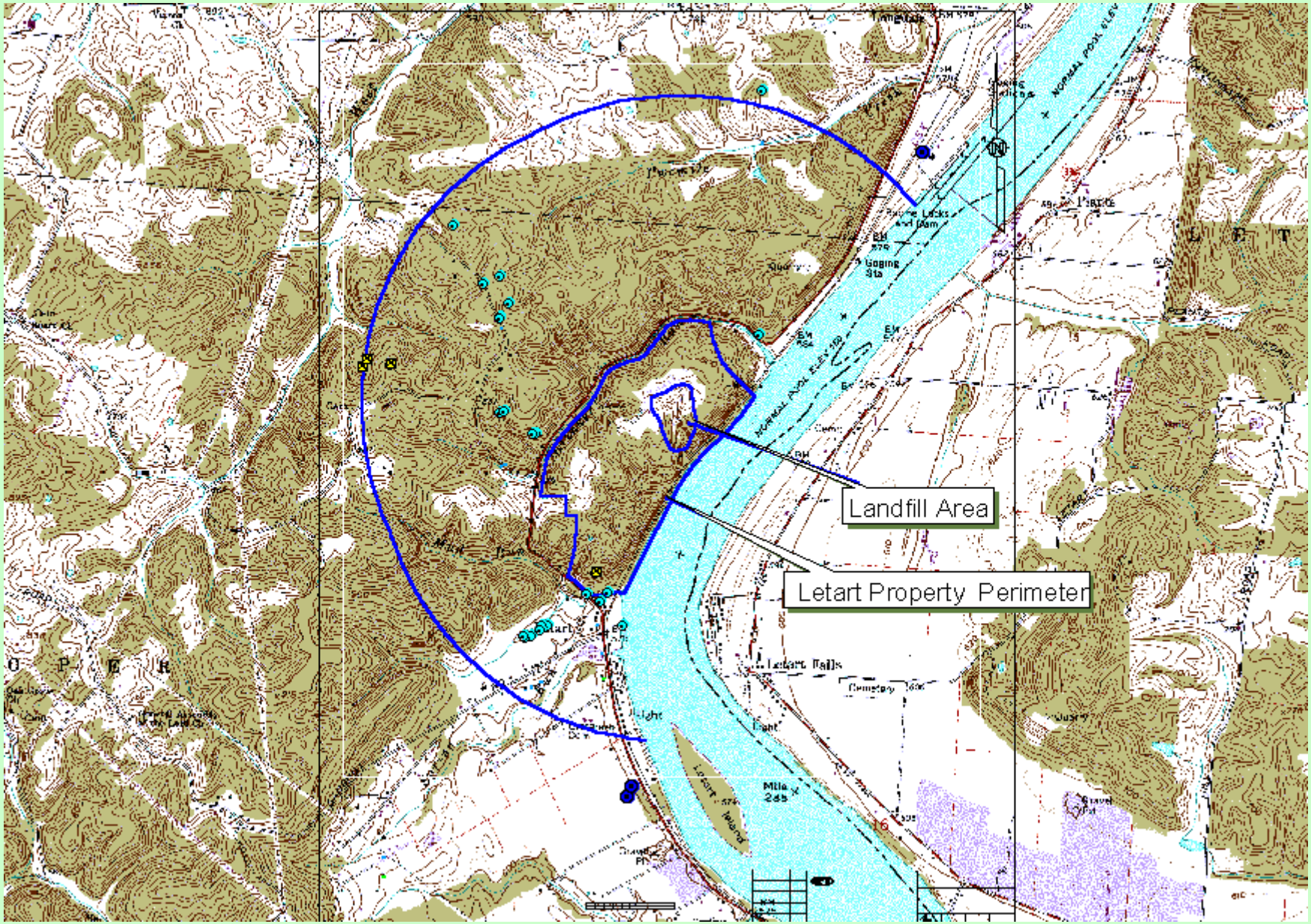
Range = high of 0.35 ppb to low of 0.0998 ppb;

Average = 0.201 ppb

Concentration in cisterns

Range = high of 0.974 ppb to a low of 0.175 ppb;

Average = 0.464 ppb

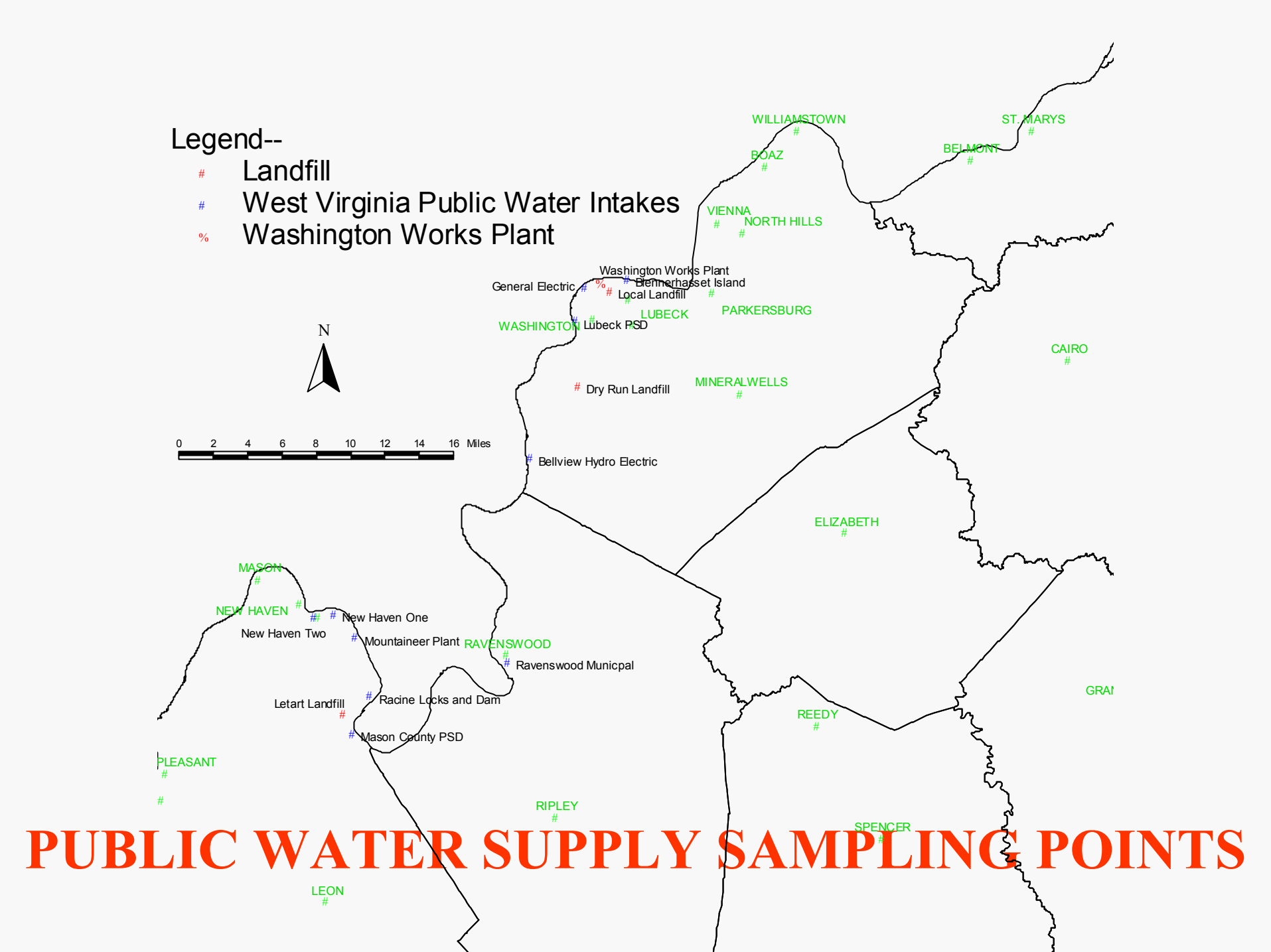

Landfill Area
Letart Property Perimeter

Detectable C-8 concentrations in the Letart Landfill area

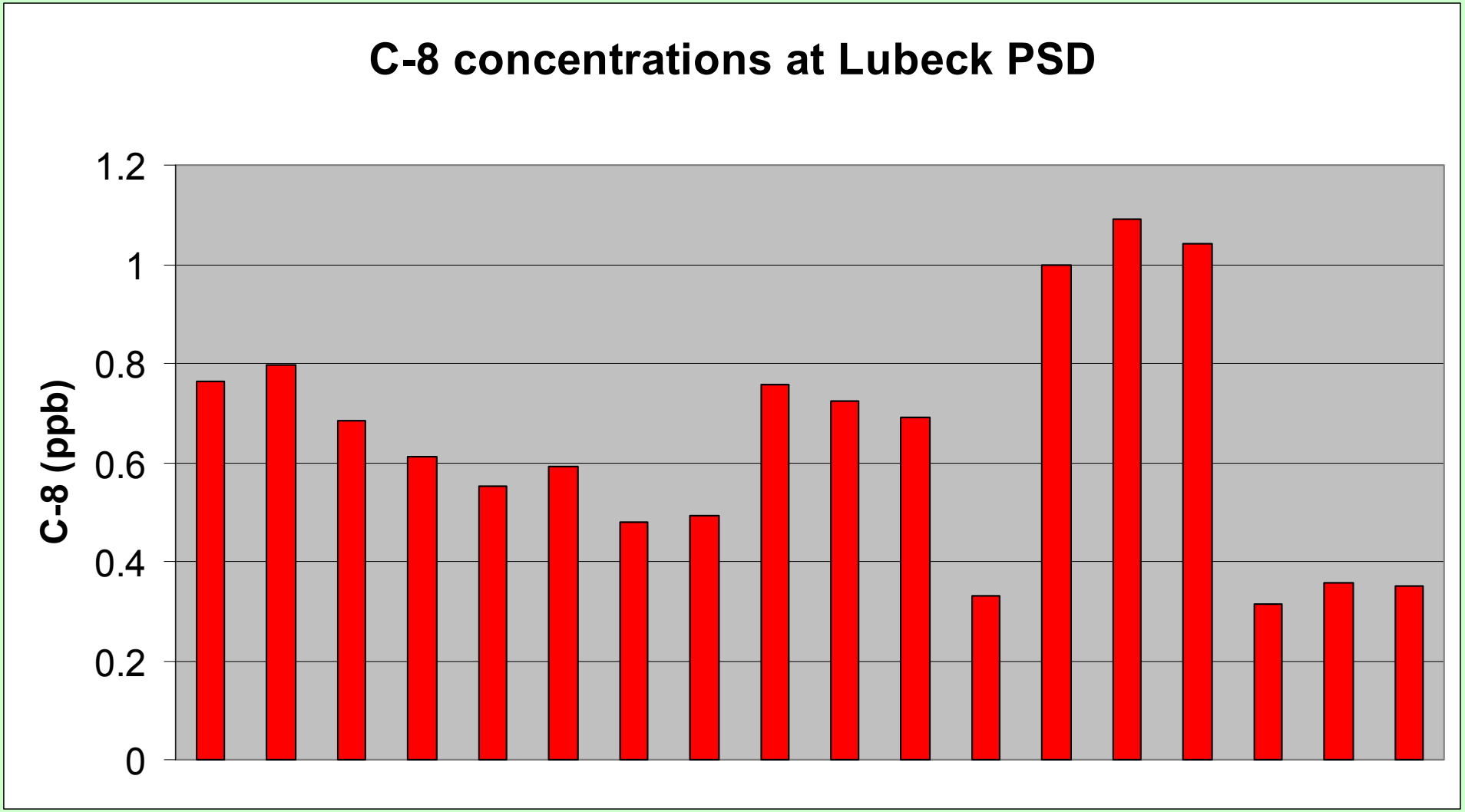
Thirty private wells in the Letart area were sampled;
C-8 was found in only two wells
at 0.139 ppb and 0.636 ppb

PUBLIC WATER SUPPLY SURVEY

Belleville Locks and Dam	1
Blennerhasset Island	4
General Electric	3
Lubeck PSD	19
Mason County PSD	6
Parkersburg PSD	8
Racine Locks and Dam	1
Ravenswood	8
TOTAL	50



PUBLIC WATER SUPPLY SAMPLING POINTS



Eighteen Samples were taken,

With one sample taken after treatment.

C-8 concentrations at Lubeck PSD

Six wells were sampled

Concentrations ranged from a high of 1.09 ppb to a low of 0.313 ppb;

Average = 0.646 ppb

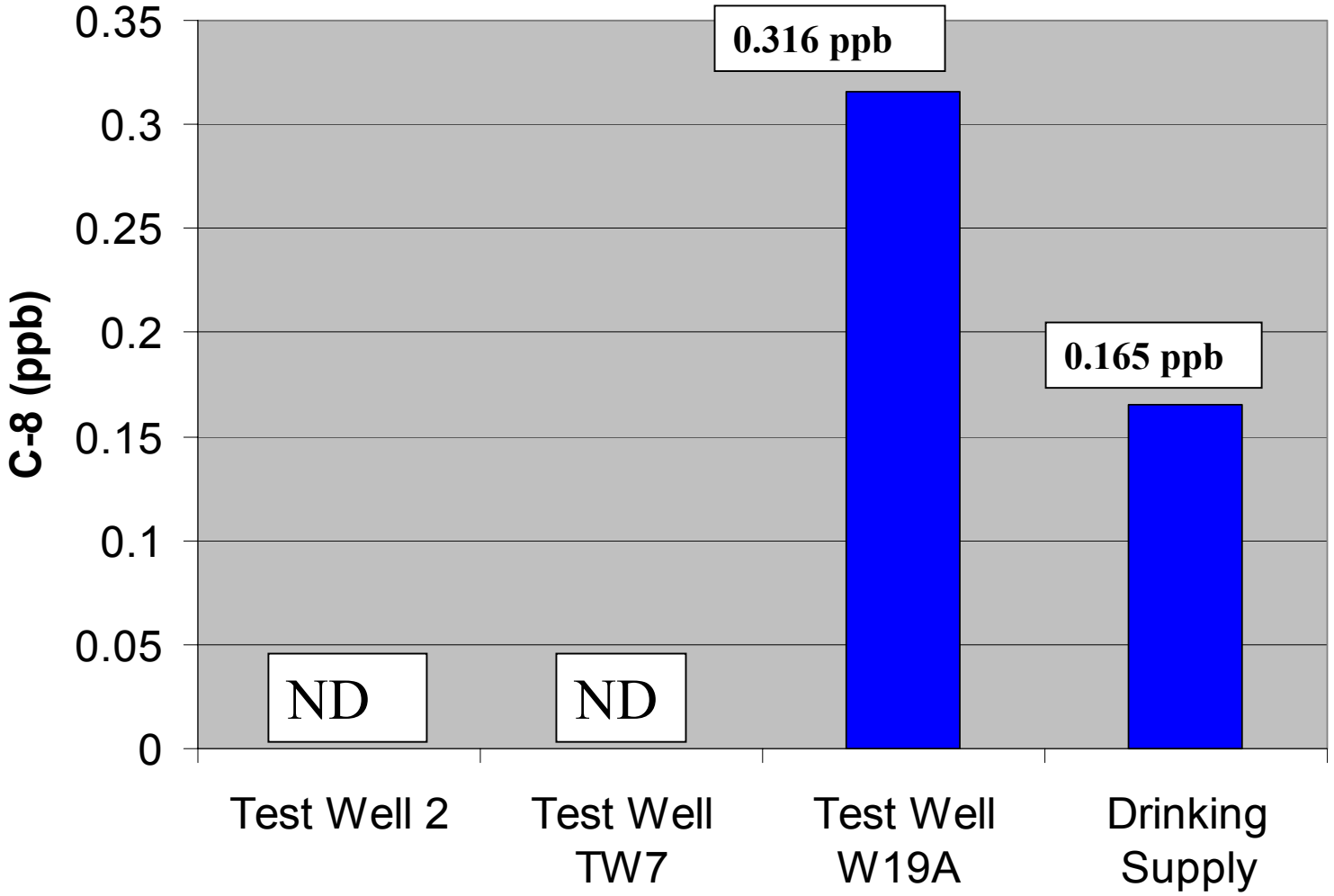
C-8 concentrations at Parkersburg PSD

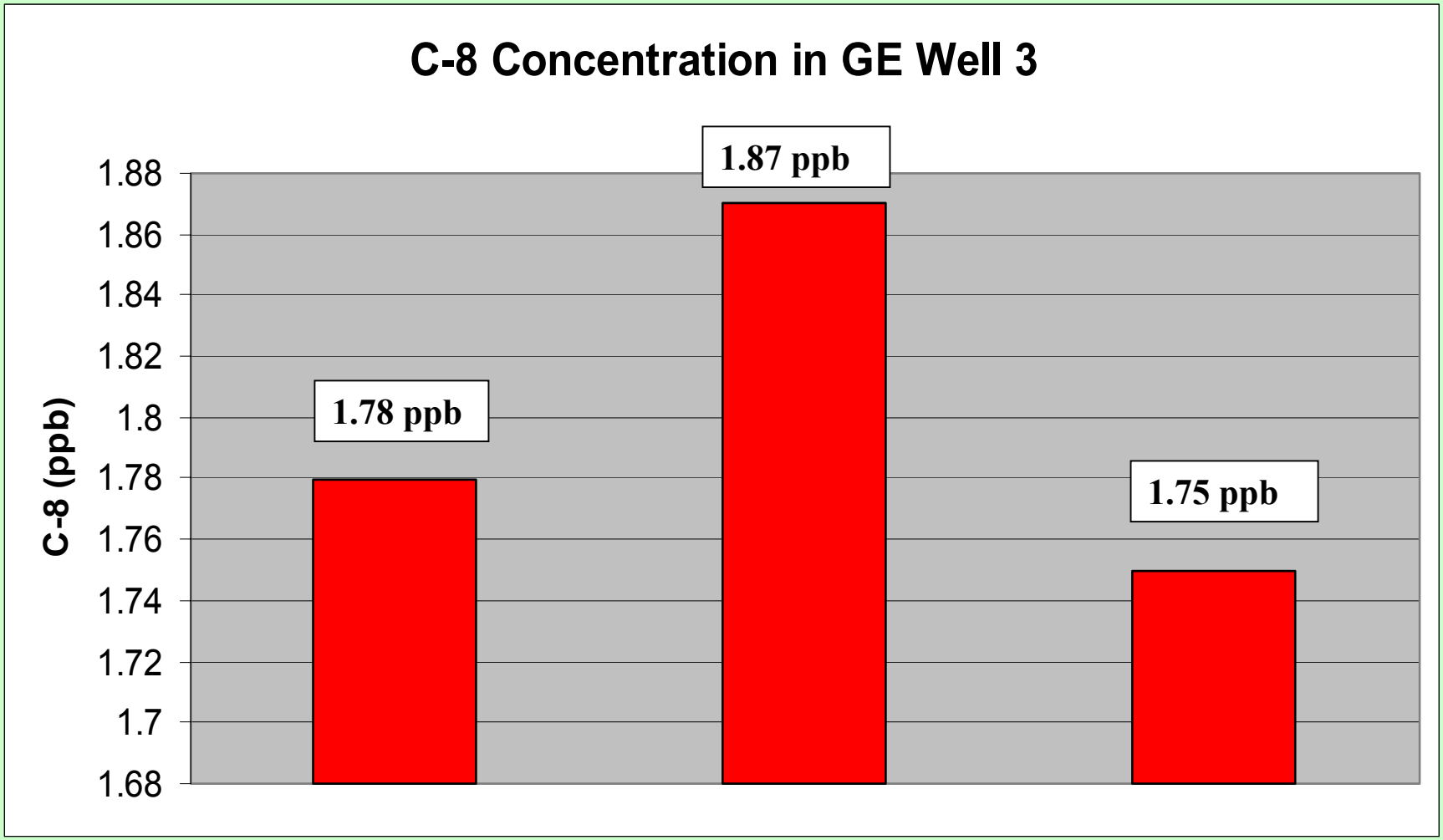
Five wells were sampled

All but one sample was a non-detect;

Detected concentration was at 0.069 ppb

C-8 Concentrations in Blennerhassett Island Wells





Range = high of 1.87 ppb (duplicate sample) to a low of 1.75 ppb; Average = 1.8 ppb

C-8 concentrations in the Ravenswood area

Eight City of Ravenswood wells were sampled;
Detectable levels of C-8 were not found in any well

Four samples were taken at the Mason County PSD;
Range = high of 0.102 ppb to a low of 0.0616 ppb;
The average concentration was 0.0796 ppb

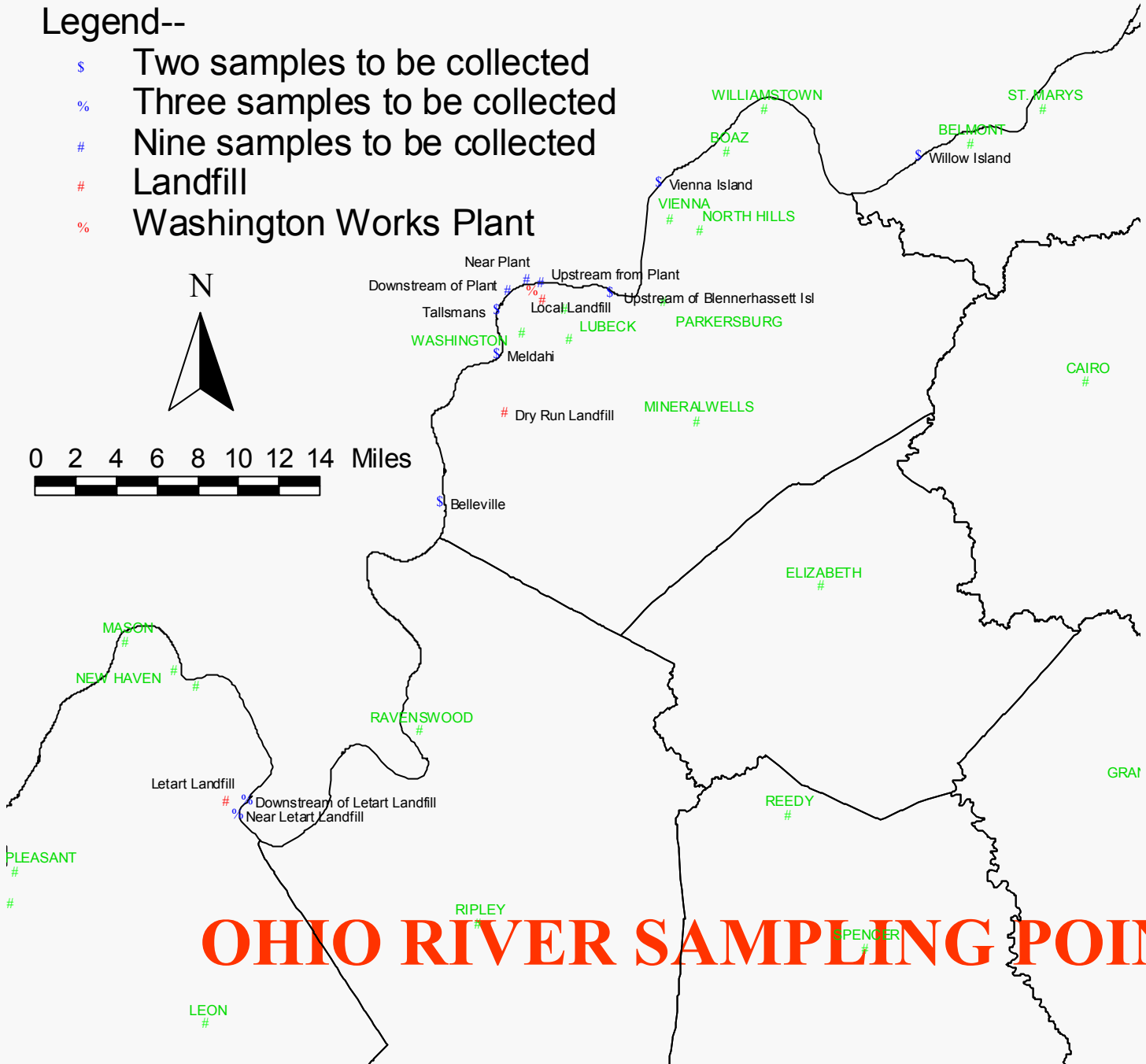
One sample was taken at the Racine Locks and Dam
C-8 was detected at 0.518 ppb

OHIO RIVER SURVEY

- **Washington Works**
  - Samples will be collected when the plant is discharging.
  - Three sets of samples will be collected above the plant: upstream of Blennerhassett Island, at Vienna Island, and at Willow Island.
  - Three sets of samples will be collected approximately upstream of the plant, at the discharge point, and directly downstream of the plant.
  - Four sets of samples will be collected below the plant: approximately at Tallmans, Meldahl, Belleville, and Murraysville.

OHIO RIVER SURVEY

- **Letart Landfill**
  - One set at approximately the Letart Landfill
  - One set below the Letart Landfill


Legend--
$ Two samples to be collected
% Three samples to be collected
# Nine samples to be collected
# Landfill
% Washington Works Plant
N
0 2 4 6 8 10 12 14 Miles
WILLIAMSTOWN
ST. MARYS
BOAZ
BELMONT
Willow Island
Vienna Island
VIENNA
NORTH HILLS
Near Plant
Downstream of Plant
Upstream from Plant
Upstream of Blennerhassett Isl
Tallsmans
Local Landfill
LUBECK
PARKERSBURG
WASHINGTON
Meldahl
CAIRO
Dry Run Landfill
MINERALWELLS
Belleville
ELIZABETH
MASON
NEW HAVEN
RAVENSWOOD
Letart Landfill
Downstream of Letart Landfill
Near Letart Landfill
REEDY
PLEASANT
RIPLEY
SPENCER
LEON
OHIO RIVER SAMPLING POINTS

WHAT'S NEXT

- Ohio River Sampling on May 10th, 2002
- Evaluation and Report of Finding of Off-Site Well Sampling on June 15th, 2002
- Plume Identification Work Plan Submittal to GIST on May 15th, 2002
- Conduct Plume Identification Field Work on August 25th, 2002
- Continue Monthly and Quarterly Sampling of Landfills and Plant (on-going)
- Assess Data and Issue Final Report on December 31st, 2002