


**KENTUCKY GEOLOGICAL SURVEY**  
Donald C. Haney, State Geologist and Director  
**UNIVERSITY OF KENTUCKY, LEXINGTON**

# **QUALITY OF PRIVATE GROUND-WATER SUPPLIES IN KENTUCKY**

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James S. Dinger  
O. Barton Davidson  
Richard E. Sergeant  
Joseph L. Taraba  
Thomas W. Ilvento  
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## BACKGROUND

About 3.7 million people live in Kentucky, of which 1.9 million (52 percent) live in urban areas (roughly defined as any community with 2,500 or more people) and 1.8 million (48 percent) live in rural areas (University of Kentucky, 1993). Figure 1 summarizes sources of drinking water for Kentucky residents. About 70 percent of Kentuckians get their daily supply of water from surface-water sources - lakes and streams; about 25 percent get their water from ground-water wells; and about 5 percent get their water from other sources - springs, cisterns, ponds, or hauled water.

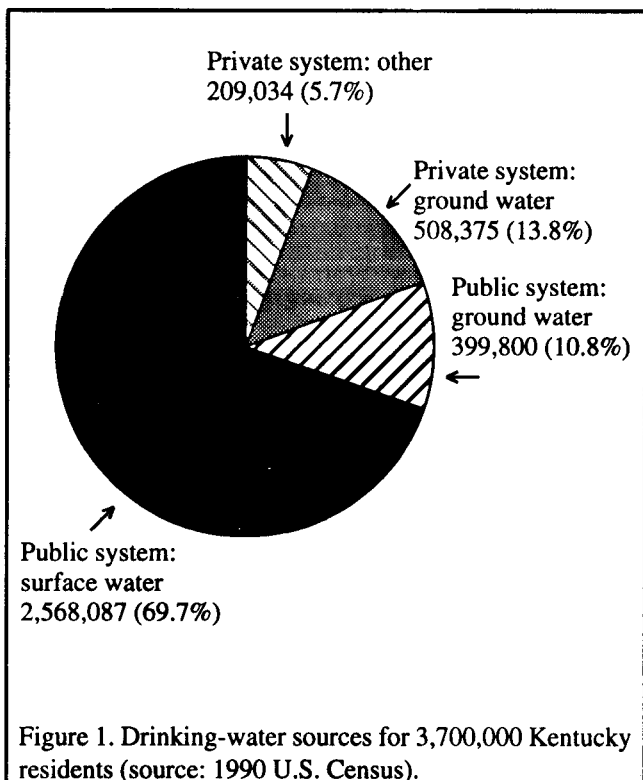
About 3 million Kentuckians (80 percent) get water from public systems. The remaining 720,000 people, or 40 percent of all rural Kentuckians, rely on private water systems. Over 200,000 private wells provide most of this water. Wells and springs also provide drinking water

for schools, restaurants, gasoline stations, livestock, and irrigation (Kentucky Department of Natural Resources and Environmental Protection, 1992).

Not all ground water is safe or pleasant to drink. In some areas, natural conditions render water unpalatable, if not hazardous to health. In other areas, human activities have contaminated ground water. Most studies of ground water have focused on areas of high vulnerability to pollution. Reports from such studies may have exaggerated the extent of ground-water contamination, adversely affecting the public's perception. In the absence of mandated routine testing for private water supplies, the information available is largely associated with testing in response to complaints. Such information is likely to be biased toward those private systems having water-quality problems. Information about "typical" private water supplies is scarce.

In general, much less is known about the quality of private water supplies than of public water supplies. Public water supplies are regulated by the Safe Drinking Water Act of 1974 to ensure that they are safe. Treatment plants utilizing surface water have more stringent testing requirements than those using ground water. Monitoring and testing by the Kentucky Division of Water provides information on the quality of drinking water for approximately 860 public water systems in Kentucky. Testing focuses on those chemical and biological constituents, such as metals and coliform bacteria, for which safe drinking water standards have been established.

Such testing is not required for private systems. The only testing requirement for private water systems is a bacteria test that must be completed when a well is initially installed (401 KAR 6:310, Section 10). Where pollutants in private water systems are found to be in excess of safe drinking-water standards, water treatment may be used to reduce concentration levels. Costs per household are very high, however, when compared to treatment costs for public systems. This high treatment cost is one of the reasons that protecting ground water from pollution is important.



At a time when surprisingly little information is available on ground-water quality, ground-water contamination has become one of the major environmental issues of the current decade, and will likely remain so into the next decade. Reliable information about water quality is necessary in order to develop plans for protecting ground water. The absence of accurate and broad perspectives on ground-water quality may lead to inappropriate and ineffective regulatory policies. Because ground water supplies a large percentage of rural drinking water and water for agricultural use in the State, rural landowners have become increasingly concerned about the quality of ground water.

## GROUND-WATER EDUCATION AND TESTING PROGRAM

The Ground Water Education and Testing Program began in the fall of 1989 through the cooperative efforts of the Kentucky Farm Bureau, Kentucky Division of Conservation, University of Kentucky Cooperative Extension Service, and Kentucky Geological Survey. A nine-county pilot program was initiated. Public meetings were held between April 16 and May 7, 1990, with 475 people attending. These local meetings were used to discuss water-quality issues, best management practices for protecting ground water, well construction, and a "Self-Help Check Guide Book" published by the American Farm Bureau. Water-sample test kits were distributed to well owners, and water-sampling procedures were discussed. Samples were later taken by well owners and submitted to the county coordinator.

A total of 888 water samples from the nine counties were collected and analyzed in the first phase of the study. The samples were tested for ammonia, nitrite-nitrogen, nitrate-nitrogen, chloride, sulfate, specific conductance (conductivity), alachlor, and triazine. All samples were chemically analyzed at the Heidelberg University Testing Laboratory in Heidelberg, Ohio. Conductivity was measured with a test probe. Alachlor and triazine were analyzed by immunoassay. Gas chromatography was also used, as a check on immunoassay results, to analyze about 10 percent of the alachlor and triazine samples in selected counties. The remaining constituents were analyzed by colorimetry. All samples were analyzed using standard methods approved by the U.S. Environmental Protection Agency.

The second phase of the well-water testing program was conducted in 37 additional counties. Public meetings and testing took place from February to April of 1991, and 2,032 water samples were tested, an average of about 55 per county, ranging from 182 samples in Perry County to 15 in Logan County.

The third phase of the program, from September to November 1991, provided 1,489 samples from 44 counties. The fourth and final phase in May and June of 1992 provided an additional 332 samples from remaining counties that expressed interest in the program. Twelve counties did not participate.

Participation in the program was voluntary and individual water test information is confidential. The success of the program resulted from the active leadership of local organizing committees consisting of and supported by local conservation districts, Soil Conservation Service district conservationists, the county Farm Bureau Organization, members of the county Cooperative Extension staff, local health departments, and other locally interested groups.

## SURVEY RESULTS

Data from the survey are summarized for: (1) the entire State, (2) each of the fifteen Area Development Districts (ADD's), and (3) each county (Fig. 2).

The survey answered four general questions: (1) What kind of well is it? (2) How is it used? (3) Where is the well in relation to crops, chemicals, livestock, waste, and other potential sources of pollution? and (4) What is the quality of the water based on ammonia, nitrite-nitrogen, nitrate-nitrogen, chloride, sulfate, conductivity (an indicator of dissolved solids), alachlor (Lasso), and triazine (atrazine, cyanazine, simazine)?

The 1990 census estimated about 207,000 domestic wells in Kentucky. Therefore, the survey sample of 4,859 wells represents about 2.3 percent of all wells. A total of 1,735 samples were tested for triazine, and 744 samples were tested for alachlor. One hundred eight of Kentucky's 120 counties are represented in the survey.

The survey represents ground-water data from wells and springs in all regions of Kentucky. Kentucky is divided into six major physiographic regions, shown in Figure 3. The Mississippi Embayment is also known as the Jackson Purchase Region, and the west-central Mississippian Plateau is also called the Pennyryle Plateau. These regions closely follow the generalized geology of Kentucky, also shown in Figure 4.

Ground-water quality is affected by the geology of an area and by human activities. Both of these factors are related to the physiographic region in which they occur. The gently sloping, fertile soils of the Jackson Purchase and Pennyryle Plateau regions produce most of Kentucky's food crops, and ground water in these areas may be affected by agricultural activities such as the mixing of chemicals near wells and the application of fertilizers. Ground water in the coal field regions of eastern and western Kentucky may

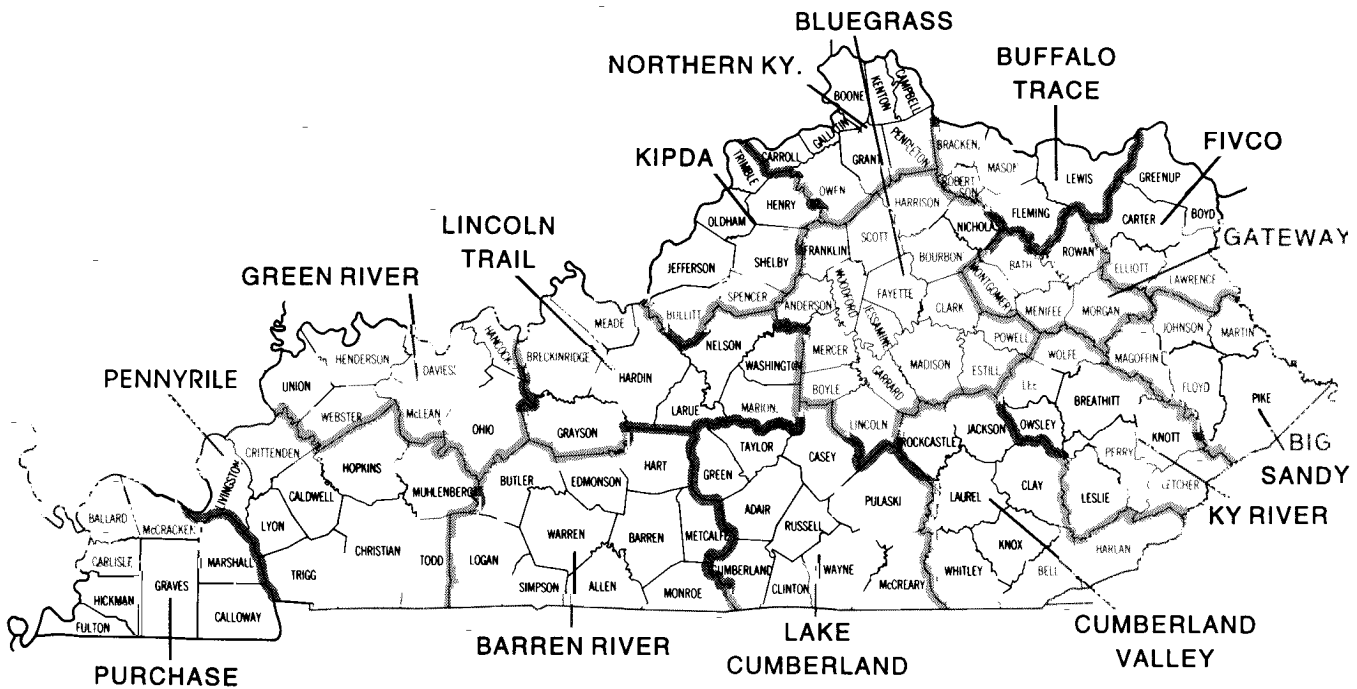


Figure 2. Locations of counties and Area Development Districts in Kentucky.

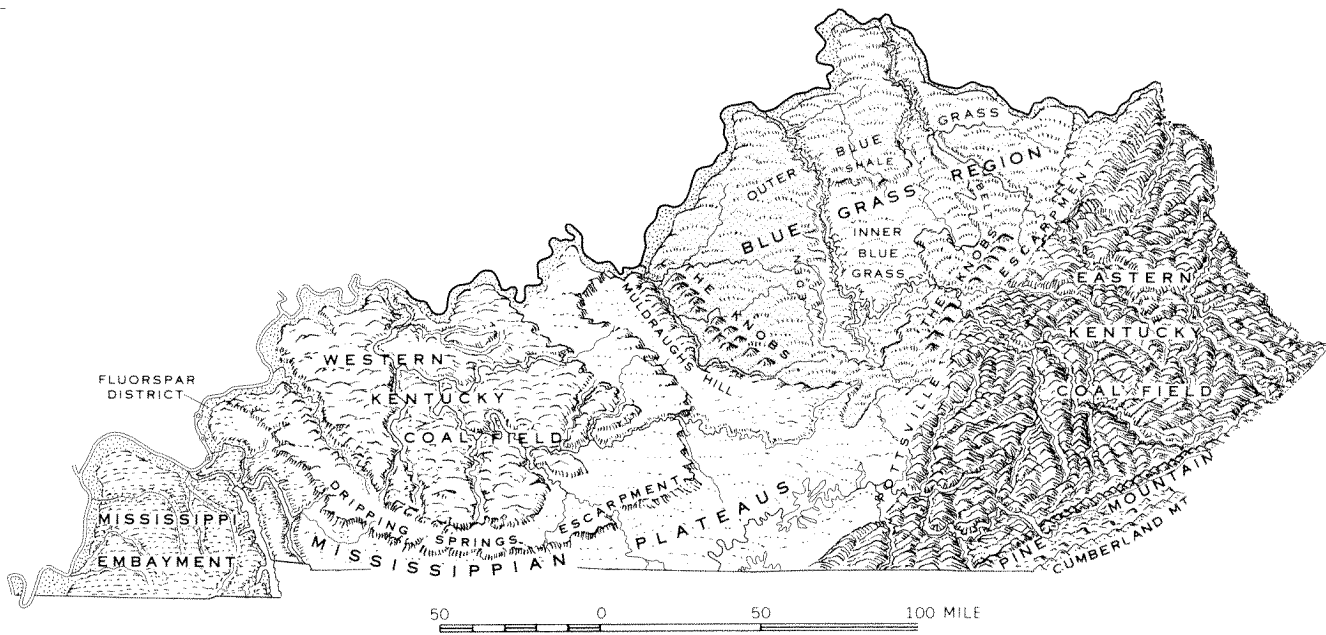


Figure 3. Physiographic regions of Kentucky.

and coal mining: for example, the oxidation products of sulfide minerals in the coals and associated strata.

Samples were taken in different seasons of the year (Table 1). A comparison of survey statistics between counties sampled during different seasons should be

made with the understanding that differences caused by seasonal effects may be present.

Preliminary data summaries for the Area Development Districts and the individual counties suggest regional differences in ground-water quality. Relation-



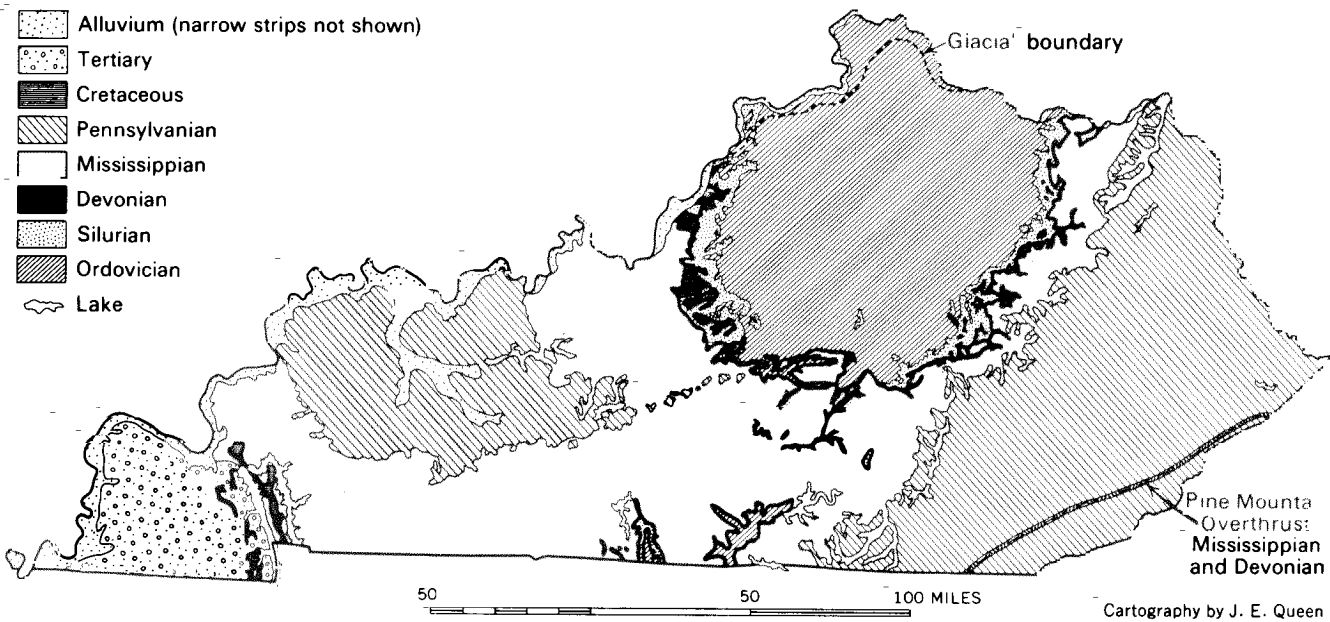


Figure 4. Generalized geologic map of Kentucky.

ships between the physical environment, human activities, types of wells, seasonal and other factors, and levels of contamination will be examined in detail in a later study.

### Statewide Summary

A summary of the Statewide testing program is shown in Table 2. About 85 percent of the sampled wells were drilled, to an average depth of about 100 feet (median depth of 90 feet). About seven out of eight wells provide household water. About one-third of the wells provide water for livestock, and about 10 percent provide for irrigation or other uses. Agricultural chemicals were mixed and diluted near 7.5 percent of the wells.

Most well owners provided information about the proximity of their wells to potential sources of pollution. Over two-thirds of the wells were within sight of crops, and almost one-half were within 200 feet of crops. Half the wells were within sight of a feedlot or livestock barn. Over half the wells were within 200 feet of a septic leach field. These responses indicate the rural setting of most of the wells.

Sample statistics of water-quality variables for all the wells are shown in Table 2. The median represents the value for which half the values are larger, and half are smaller. For example, half the samples had nitrate-nitrogen levels higher than 0.71 milligram per liter (mg/L), while half the samples had levels of nitrate-nitrogen less

than 0.71 mg/L. The fact that the median is significantly less than the average indicates that a few large values raised the average. More detail on the distribution of values is given in Table 3. For example, of all the wells sampled in the State, one out of four had nitrate-nitrogen levels greater than 2.96 mg/L (three out of four had lower levels), one out of 10 had levels greater than 6.72 mg/L, 1 out of 20 greater than 9.56 mg/L, and one out of 100 greater than 20.20 mg/L.

The Drinking Water Standards list Maximum Contaminant Levels (MCL). Those pertaining to the survey are shown in Table 4. The percentage of the samples that exceeded these levels, and the percentage that exceeded one-half these levels, are also given in Table 4. One-half of the MCL value has been suggested as a possible action level for the protection of ground water. The standards for chloride, sulfate, and conductivity (an indicator of dissolved solids) are based on taste considerations and not on health hazards.

As noted above, regional differences in the survey data are apparent and will be examined in more detail in a future study. Appendix A shows the average levels of measured variables for each county and how they compare to the rest of the State. Average ammonia levels in eastern Kentucky were high when compared to the rest of the State, for instance. Nitrate-nitrogen levels tended to be higher in the western Pennyrile counties. Actual percentile values of county averages are shown in Table 5.

Table 1.—Seasons in Which Counties Were Sampled.

	<i>Summer</i>	<i>Fall</i>	<i>Winter</i>	
Barren	Gallatin	Adair	Larue	Allen
Boone	Knox	Anderson	Trigg	Ballard
Bourbon	Laurel	Bath		Boyle
Breathitt	Nicholas	Bullitt		Butler
Breckinridge	Owen	Clinton		Caldwell
Campbell	Pendleton	Edmonson		Calloway
Carter	Rockcastle	Estill		Carlisle
Casey		Fleming		Carroll
Clark		Garrard		Christian
Clay		Harrison		Crittenden
Cumberland		Hart		Fayette
Daviess		Hopkins		Franklin
Elliott		Jefferson		Fulton
Floyd		McLean		Graves
Grayson		Morgan		Green
Greenup		Muhlenberg		Hancock
Henderson		Pike		Hardin
Jessamine		Rowan		Henry
Johnson		Russell		Hickman
Letcher		Simpson		Jackson
Lewis		Webster		Knott
Lincoln		Wolfe		Lawrence
Lyon		Woodford		Leslie
Madison				Livingston
Meade				Logan
Monroe				McCracken
Perry				McCreary
Pulaski				Marion
Spencer				Marshall
Todd				Menifee
Union				Mercer
				Metcalfe
				Montgomery
				Nelson
				Ohio
				Oldham
				Powell
				Scott
				Shelby
				Taylor
				Trimble
				Warren
				Washington
				Wayne
				Whitley

**Table 2.—Data for Entire State.**

**Number Supplies Tested: 4,859 (2.3% Of State Total)**

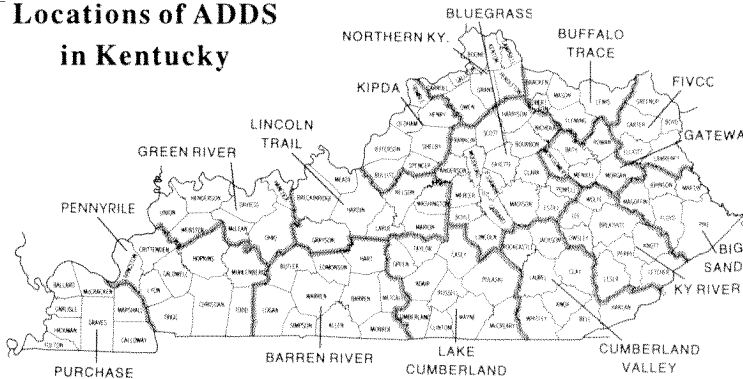
**Supply Types:**

	<i>Number Reported</i>
Drilled Well	3,369
Driven Well	122
Dug Well	432
Spring	44

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	104
Maximum Well Depth	755
Minimum Well Depth	6

**Locations of ADDS in Kentucky**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous</i>		
							<i>Landfill</i>	<i>Waste</i>	<i>Stream</i>
No. Responses	4727	4599	4410	4374	4419	4677	4376	4370	4587
Within 20'	13.2%	6.1%	0.1%	0.1%	3.4%	3.9%	0.0%	0.0%	4.2%
Within 200'	47.8%	28.2%	1.9%	0.6%	5.8%	57.8%	0.4%	0.1%	19.7%
Within Sight	71.8%	50.2%	7.4%	2.1%	7.8%	58.2%	1.6%	0.8%	42.2%

**Water Use:**

Domestic	88.0%
Livestock	34.6%
Irrigation	7.0%
Other	9.9%

Chemical Mixing Near Well? 7.5%

**Water Quality:**

*(Concentrations In Milligrams Per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.140	0.014	2.45	25.3	41.7	495
Median	0.006	0.002	0.71	6.4	13.7	405
Deviation	0.487	0.079	5.24	84.0	98.2	609
Maximum	12.144	4.315	150.00	1670.5	1376.6	18,390
Minimum	0.001	0.001	0.01	0.1	0.1	1

**Pesticides:**

*(Concentrations In Micrograms Per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	744	1735
Average	0.093	0.107
Median	0.020	0.020
Deviation	0.461	0.473
Maximum	7.25	12.90
Minimum	0.01	0.01

**Table 3.—Distribution of Sample Values.**

<i>Number Greater Than or Equal</i>	<i>Parameter Values</i>							
	<i>Ammonia (mg/L)</i>	<i>Nitrite Nitrogen (mg/L)</i>	<i>Nitrate Nitrogen (mg/L)</i>	<i>Chloride (mg/L)</i>	<i>Sulfate (mg/L)</i>	<i>Conductivity (µmho/cm)</i>	<i>Alachlor (µg/L)</i>	<i>Triazine (µg/L)</i>
1 in 2	0.006	0.002	0.71	6.4	13.6	405	0.020	0.020
1 in 4	0.040	0.010	2.96	17.7	38.8	576	0.030	0.040
1 in 10	0.440	0.028	6.72	46.4	88.2	849	0.080	0.160
1 in 20	0.726	0.051	9.56	87.6	151	1,203	0.210	0.470
1 in 100	1.760	0.203	20.20	362	493	2,718	1.820	1.540

### Summary by Area Development District

Area Development Districts, from a planning standpoint, and because of their reflection of regional differences, are appropriate regional units for evaluating the survey information. Survey data for the 15 ADD's are summarized in Appendix B. The graphs show how average levels of ground-water constituents in each district compare with the rest of the State. For example, average ammonia levels in the Big Sandy ADD were more than twice (237 percent) the Statewide average, and average nitrite-nitrogen levels in the KIPDA ADD were four times (405 percent) the State average.

### Summary by County

Survey data for individual counties were tabulated and average sample values were plotted on graphs to compare with regional and State values (Appendix C). For example, average triazine levels in Oldham County (seven wells) were over seven times higher than the Statewide average, and over seven times higher than the average for the KIPDA ADD. Average nitrate-nitrogen levels in the 16 wells tested in Logan County were over four times higher than the Statewide average and over three times higher than the average for the Barren River ADD, of which Logan County is a part.

**Table 4.—Maximum Contaminant Levels.**

<i>Parameter</i>	<i>Percent of Samples Exceeding</i>		
	<i>MCL</i>	<i>MCL</i>	<i>50% MCL</i>
<i>Nitrite-Nitrogen</i>	mg/L	0.04%	0.27%
<i>Nitrate-Nitrogen</i>	10 mg/L	4.6%	14.7%
<i>Chlorides</i>	250 mg/L	1.6%	3.4%
<i>Sulfates</i>	250 mg/L	2.8%	6.1%
<i>Conductivity<sup>1</sup></i>	780 µsiemens	12.0%	57.2%
<i>Alachlor</i>	2 µg/L	0.9%	1.6%
<i>Triazine</i>	3 µg/L	0.3%	1.0%

<sup>1</sup> This standard is based on a total dissolved solids (TDS) concentration of 500 mg/L, assuming that TDS=0.64 X conductivity, or conductivity=500/0.64=780.

**Table 5.—Sample Quintile Values of County Averages.**

<i>Percent Less Than or Equal</i>	<i>Parameter Values</i>							
	<i>Ammonia (mg/L)</i>	<i>Nitrite Nitrogen (mg/L)</i>	<i>Nitrate Nitrogen (mg/L)</i>	<i>Chloride (mg/L)</i>	<i>Sulfate (mg/L)</i>	<i>Conductivity (µmho/cm)</i>	<i>Alachlor (µg/L)</i>	<i>Triazine (µg/L)</i>
20	0.020	0.004	0.97	8.7	20.3	405	0.020	0.020
40	0.081	0.007	1.77	13.9	31.2	478	0.030	0.034
60	0.166	0.014	2.71	23.8	42.7	554	0.035	0.064
80	0.271	0.025	3.61	42.7	62.3	660	0.059	0.140
100	1.379	0.156	10.23	137.5	153.7	1,117	3.247	1.129

## **SUMMARY**

The samples in this survey were collected by volunteers. Variance in the time of sampling, types of sampling containers, and other factors may contribute to corresponding variance in measured values. Only a small fraction of the total number of wells in the State were included in the survey. The data represent most areas of Kentucky, however, and provide a starting point for evaluating local and regional ground-water quality based on the natural environment and human activities. It is hoped that this basic summary of data will provide a better understanding of the present quality of ground water in Kentucky, and guidance for further study and the development of rational ground-water management and protection activities.

## **ACKNOWLEDGMENTS**

The Ground-Water Education and Testing Program succeeded through the help of many organizations and individuals who volunteered their time. Thanks must go primarily to the many well owners whose interest and participation were vital. Thanks also to the personnel of

the local Conservation Districts, county Farm Bureaus, county Cooperative Extension Services, local Health Departments, the Kentucky Department of Agriculture, the University of Kentucky, the Kentucky Geological Survey, and the Heidelberg University Testing Laboratory. The program was funded in part by the 319 Nonpoint Source Water Quality program.

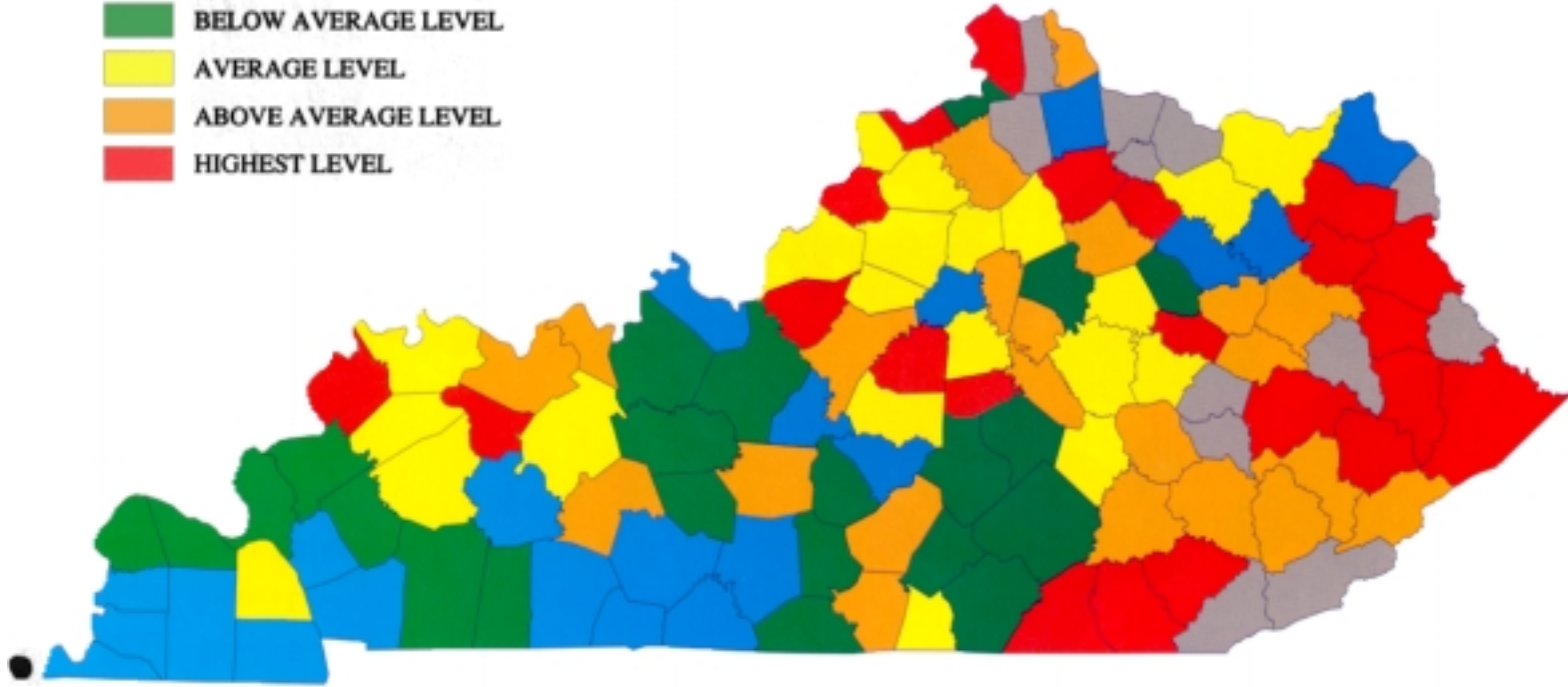
For the preparation of this report, special thanks go to Meg Smath for her editorial assistance and improvements, to Bob Holladay for his usual fine drafting and graphics work, and to Phil Conrad for the cover photo.

## **REFERENCES CITED**

- University of Kentucky, 1993, U.S. Census Bureau 1990 data: University of Kentucky Center for Business and Economic Research, College of Business and Economics.
- Kentucky Department of Natural Resources and Environmental Protection, Division of Water, 1992, Kentucky public water systems source/treatment information.

**APPENDIX A:  
Average Levels of Measured Variables  
for Each County**

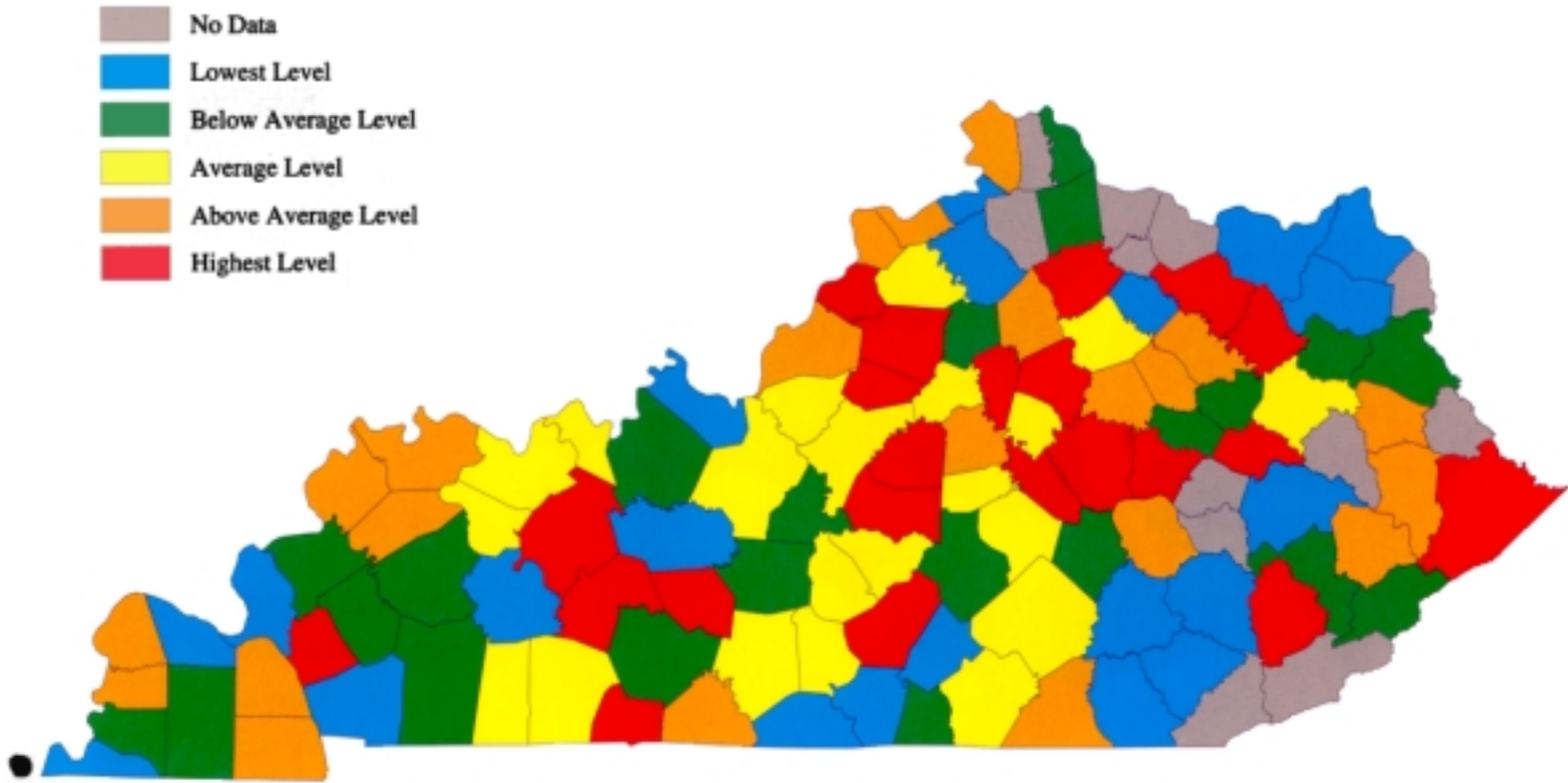
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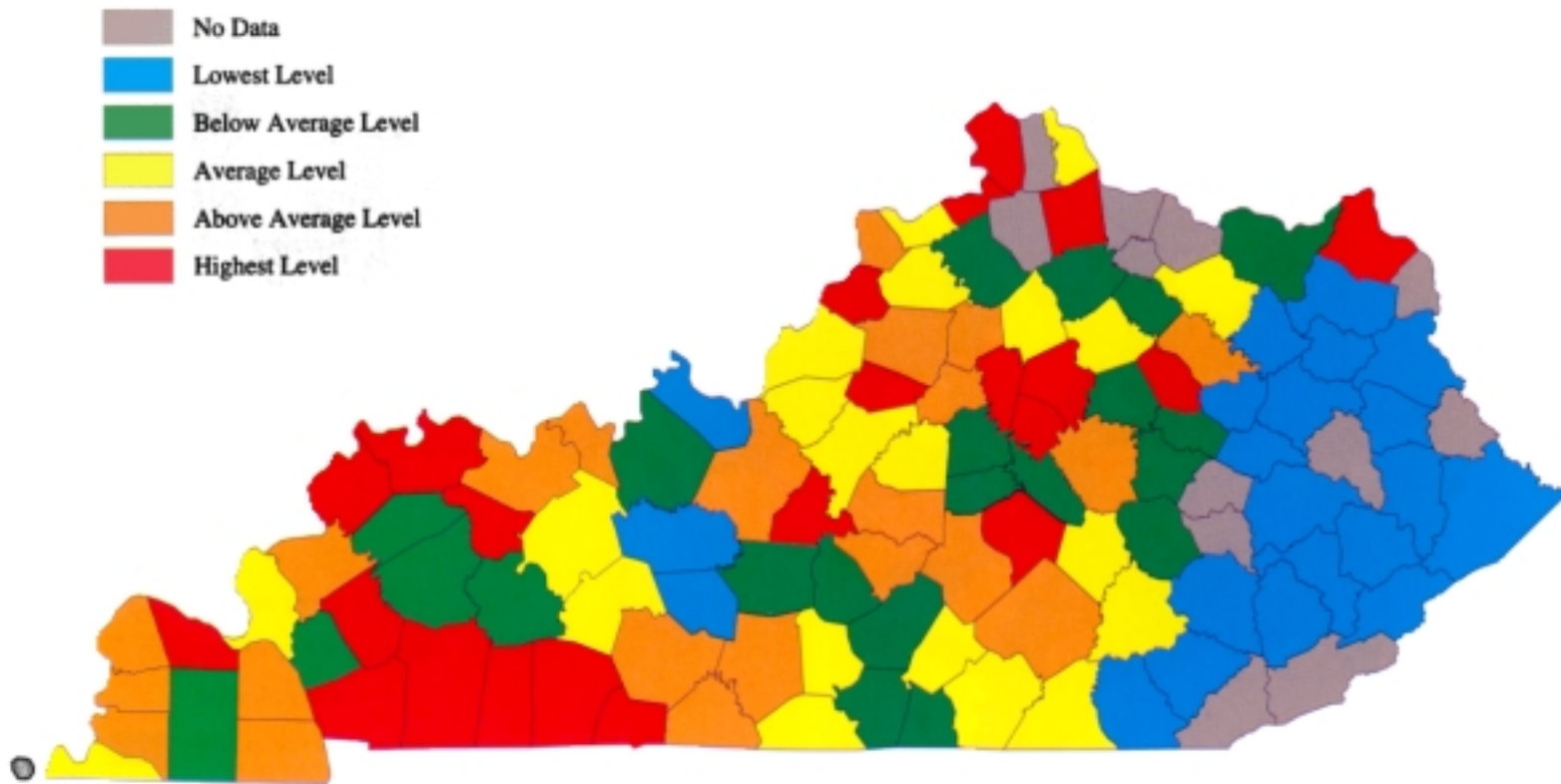
Appendix A

Average level of ammonia for each county and how each county's level compares to the rest of the State.



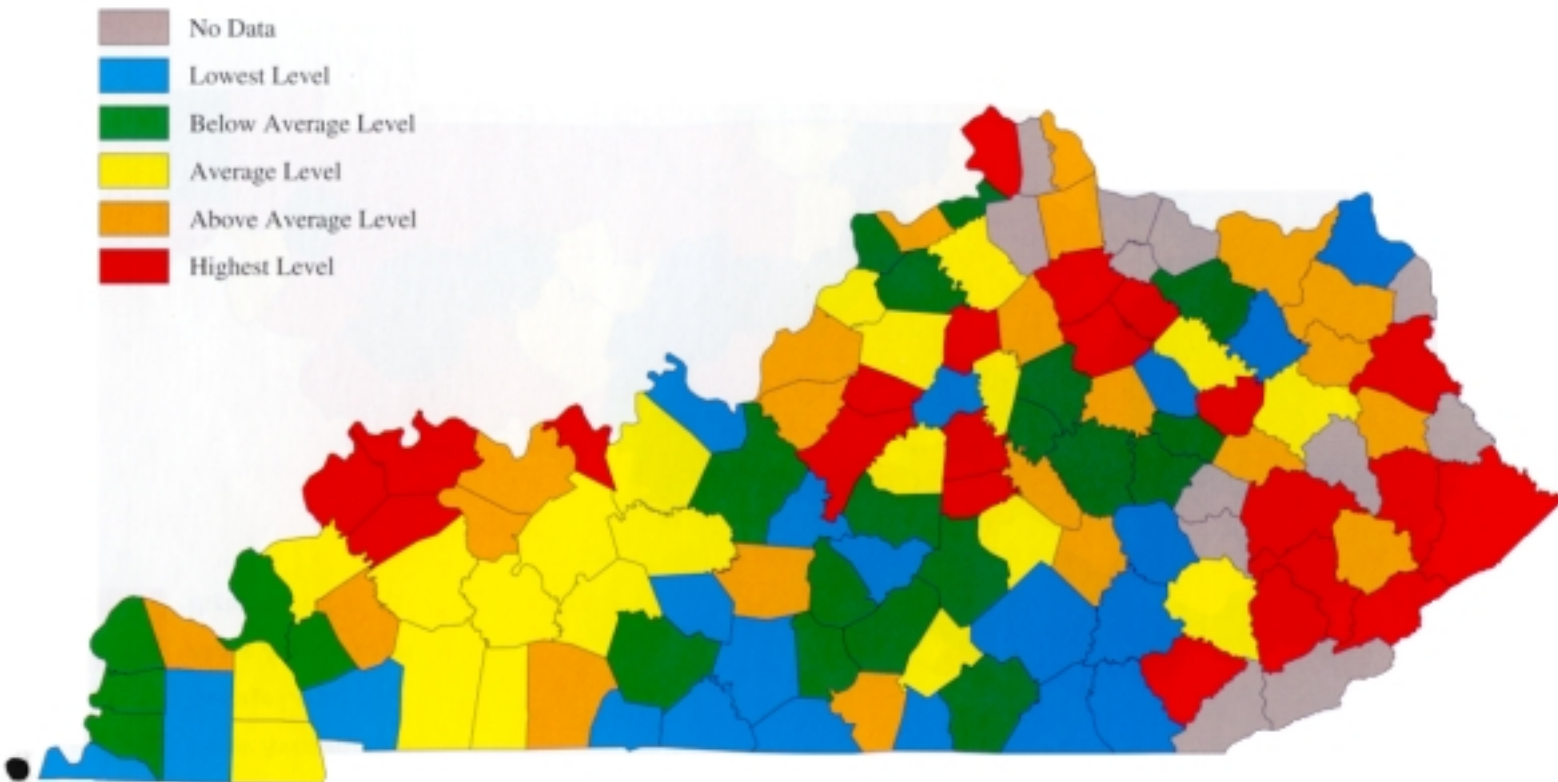


Average level of nitrite-nitrogen for each county and how each county's level compares to the rest of the State.

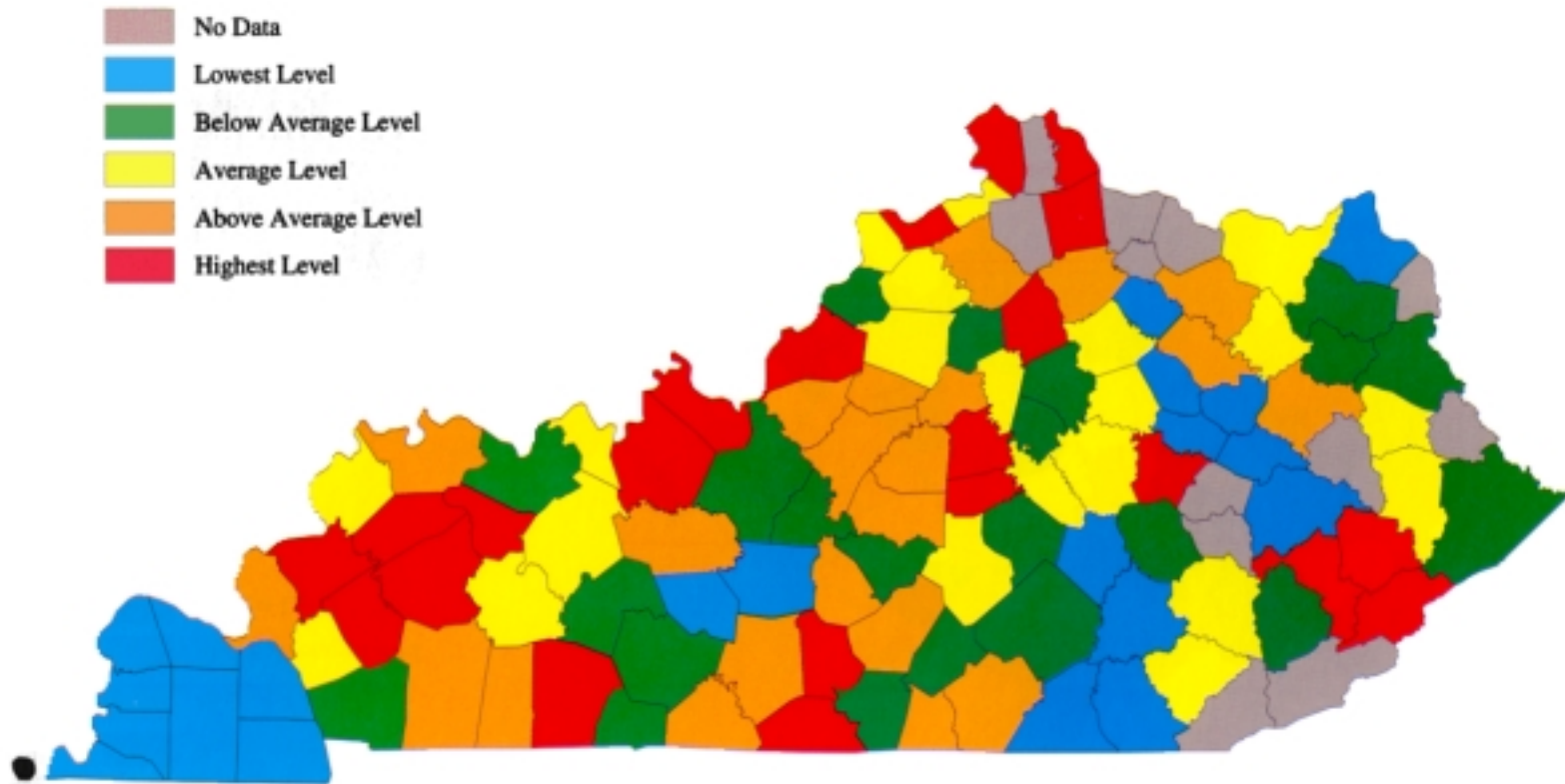


Appendix A

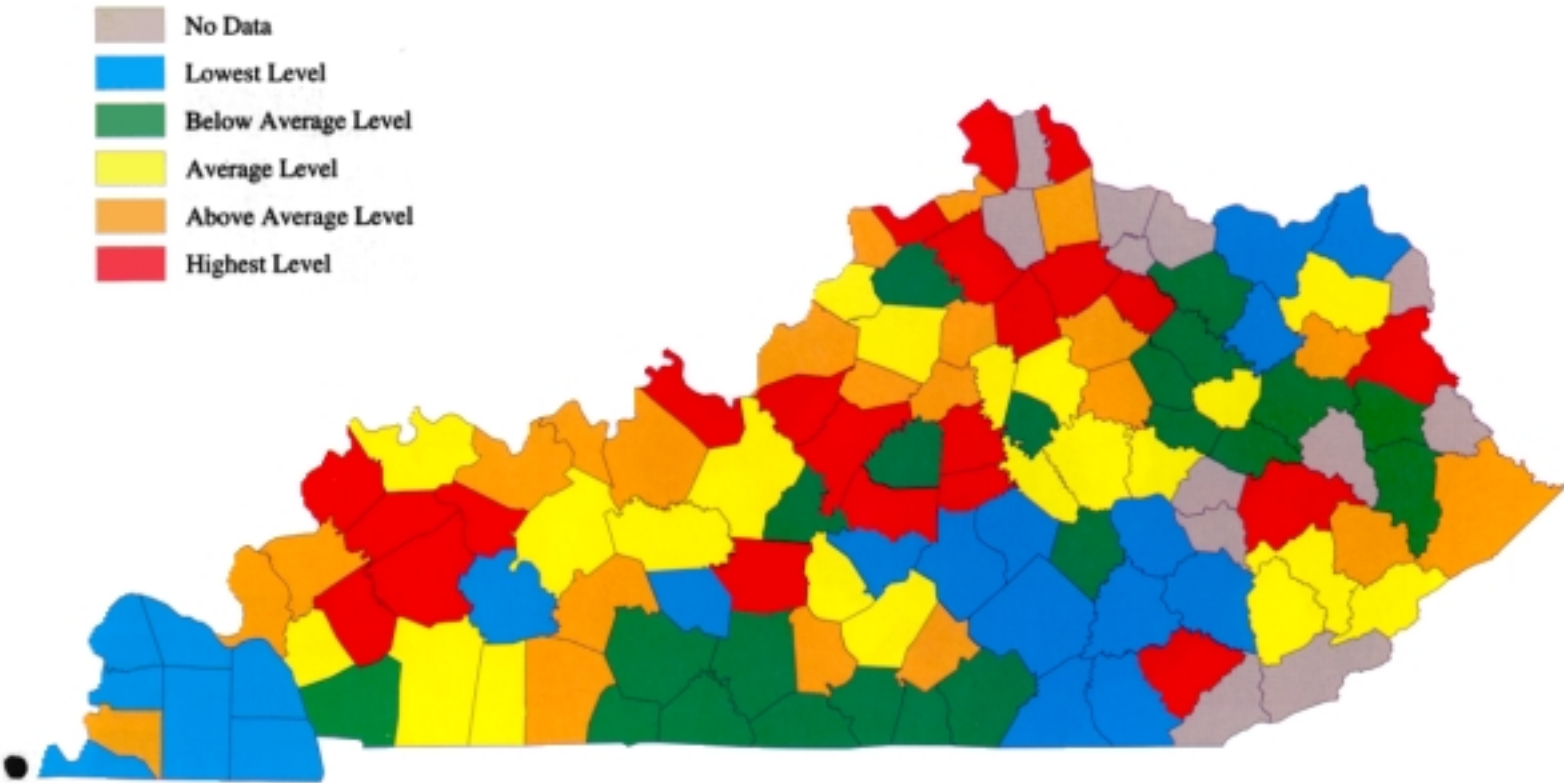
Average level of nitrate–nitrogen for each county and how each county’s level compares to the rest of the State.



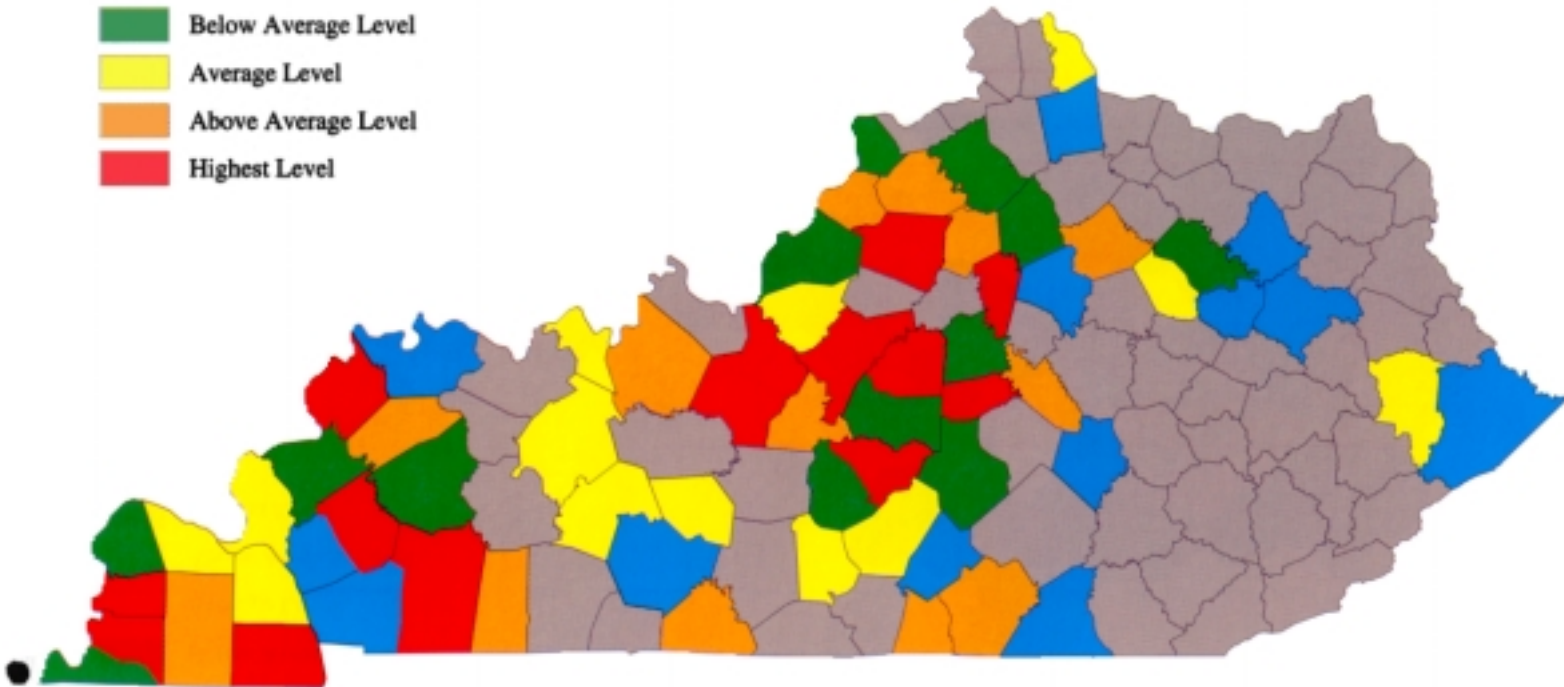
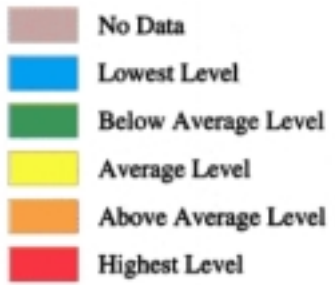
Average level of chloride for each county and how each county's level compares to the rest of the State.



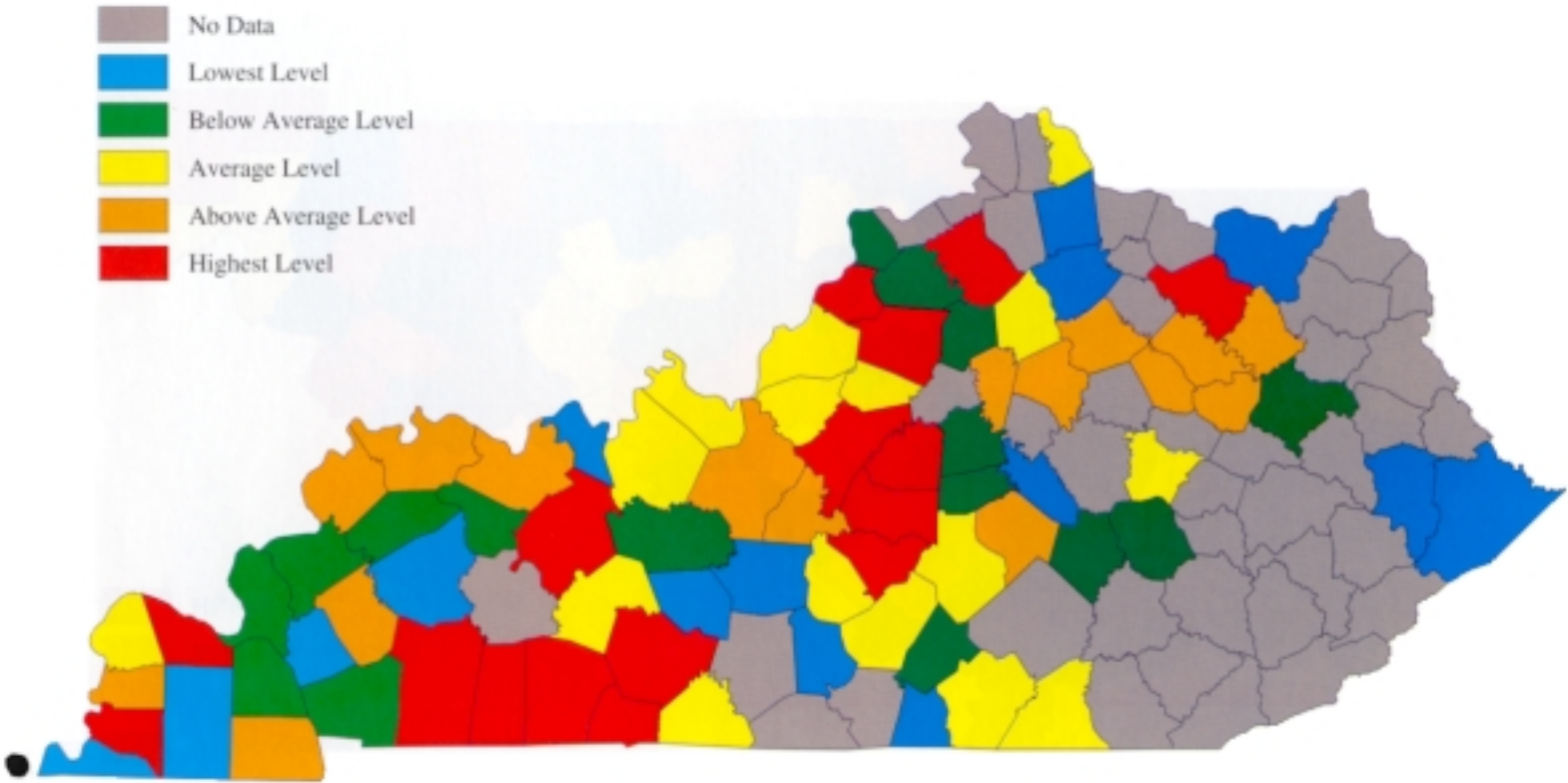
Average level of sulfate for each county and how each county's level compares to the rest of the State.



Average level of conductivity for each county and how each county's level compares to the rest of the State.



Average level ofalachlor for each county and how each county's level compares to the rest of the State.



Average level of triazine for each county and how each county's level compares to the rest of the State.

**APPENDIX B:**  
**Data for Each Area Development District**



**Region:** Barren River Area Development District

**Counties:** Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, Warren

**Number of Wells Tested:** 269 (1.6%)

**Supply Types:**

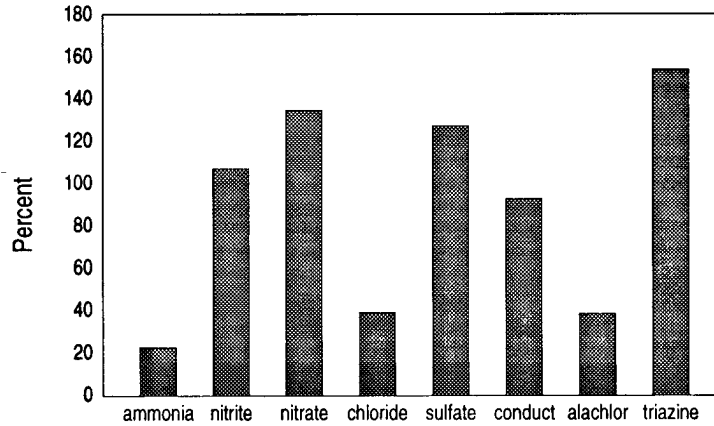
	<i>Number Reported</i>
Drilled Well	175
Driven Well	4
Dug Well	7
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	91
Maximum Well Depth	364
Minimum Well Depth	17

**Percent of State Average**

**Barren River ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	259	259	257	256	257	258	256	256	258
Within 20'	12.0%	6.2%	0.0%	0.0%	2.7%	4.3%	0.0%	0.0%	2.3%
Within 200'	45.2%	30.1%	0.4%	0.8%	6.6%	49.3%	0.8%	0.0%	11.6%
Within Sight	71.1%	58.7%	8.6%	2.8%	8.9%	50.5%	0.8%	0.0%	33.7%

**Water Use:**

Domestic	83.2%
Livestock	46.9%
Irrigation	9.8%
Other	12.9%

Chemical Mixing Near Well? 7.2%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.032	0.015	3.30	9.9	53.1	460
Median	0.002	0.005	1.96	4.8	13.6	393
Deviation	0.139	0.029	6.59	21.1	125.5	355
Maximum	1.724	0.311	93.08	209.4	964.2	3988
Minimum	0.001	0.001	0.01	0.7	0.1	24

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	32	131
Average	0.036	0.165
Median	0.030	0.030
Deviation	0.033	0.622
Maximum	0.20	6.00
Minimum	0.01	0.01

**Region:** Big Sandy Area Development District

**Counties:** Floyd, Johnson, Magoffin, Martin, Pike

**Number of Wells Tested:** 207 (0.6%)

**Supply Types:**

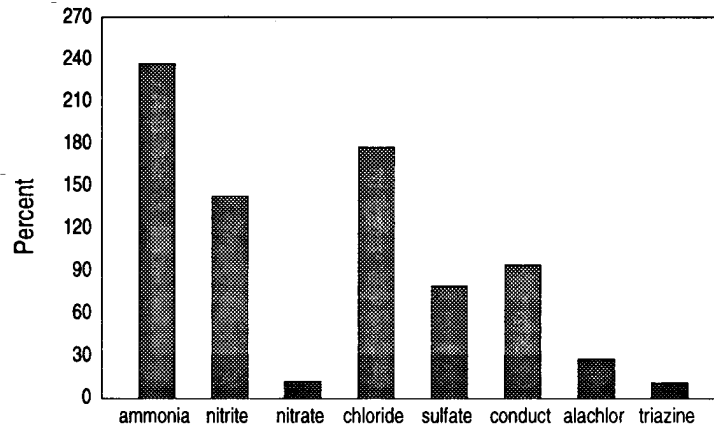
	<i>Number Reported</i>
Drilled Well	178
Driven Well	0
Dug Well	18
Spring	2

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	89
Maximum Well Depth	300
Minimum Well Depth	15

**Percent of State Average**

**Big Sandy ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	207	207	207	207	207	207	207	207	207
Within 20'	8.2%	1.9%	0.0%	0.0%	2.4%	4.3%	0.0%	0.0%	11.1%
Within 200'	30.4%	14.9%	1.0%	1.0%	2.4%	50.2%	0.0%	0.0%	49.3%
Within Sight	42.5%	27.0%	2.4%	1.5%	2.9%	50.2%	0.5%	0.5%	68.1%

**Water Use:**

Domestic	91.6%
Livestock	8.9%
Irrigation	6.4%
Other	18.3%

Chemical Mixing Near Well? 2.1%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.332	0.020	0.30	45.0	33.2	468
Median	0.234	0.001	0.06	7.7	12.7	345
Deviation	0.429	0.074	1.02	153.9	68.2	536
Maximum	2.767	0.827	10.80	1323.1	605.7	4385
Minimum	0.001	0.001	0.01	0.4	0.1	27

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	5	5
Average	0.026	0.012
Median	0.020	0.010
Deviation	0.009	0.004
Maximum	0.04	0.02
Minimum	0.02	0.01

**Region:** Bluegrass Area Development District

**Counties:** Anderson, Bourbon, Boyle, Clark, Estill, Fayette, Franklin, Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott, Woodford

**Number of Wells Tested:** 403 (6.1%)

**Supply Types:**

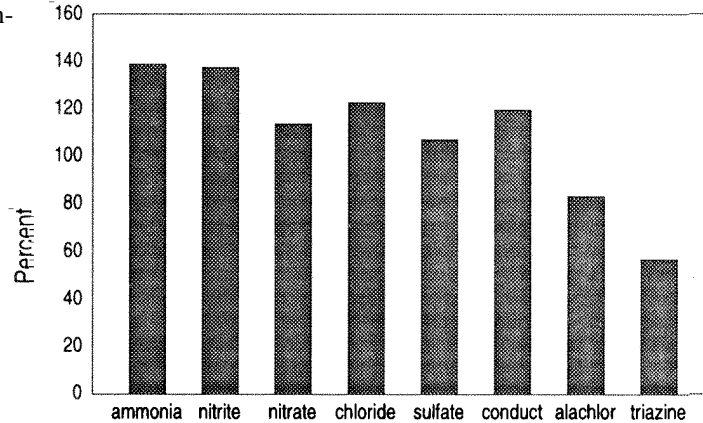
	<i>Number Reported</i>
Drilled Well	177
Driven Well	2
Dug Well	42
Spring	27

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	75
Maximum Well Depth	400
Minimum Well Depth	12

Percent of State Average

Bluegrass ADD



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	399	389	379	379	381	391	379	379	392
Within 20'	10.5%	7.7%	0.0%	0.0%	1.3%	1.8%	0.0%	0.0%	7.4%
Within 200'	41.8%	29.8%	0.8%	0.5%	3.1%	33.5%	0.5%	0.0%	22.7%
Within Sight	70.6%	59.6%	4.8%	1.6%	5.7%	33.5%	2.1%	0.0%	50.3%

**Water Use:**

Domestic	62.9%
Livestock	65.8%
Irrigation	11.0%
Other	8.4%

Chemical Mixing Near Well? 5.9%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.194	0.019	2.79	31.1	44.7	593
Median	0.007	0.003	1.01	7.9	32.4	522
Deviation	0.741	0.063	4.84	92.5	50.9	476
Maximum	10.785	0.797	47.92	957.3	610.7	6720
Minimum	0.001	0.001	0.01	0.4	0.1	7

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	94	194
Average	0.078	0.061
Median	0.030	0.030
Deviation	0.270	0.107
Maximum	2.18	0.75
Minimum	0.01	0.01

**Region:** Buffalo Trace Area Development District

**Counties:** Bracken, Fleming, Lewis, Mason, Robertson

**Number of Wells Tested:** 91(3.2%)

**Supply Types:**

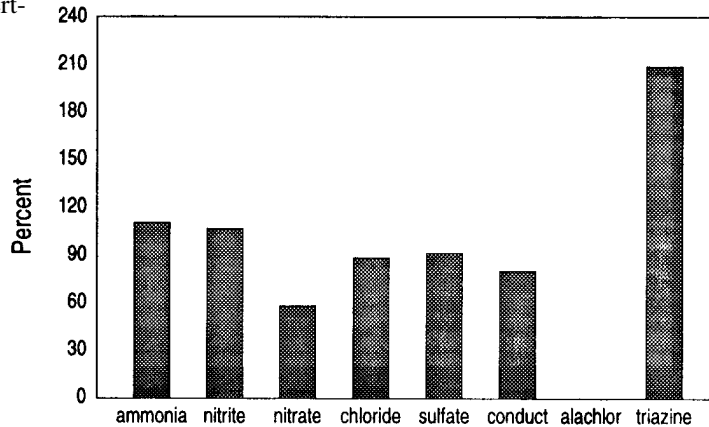
	<i>Number Reported</i>
Drilled Well	35
Driven Well	2
Dug Well	36
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	51
Maximum Well Depth	160
Minimum Well Depth	10

**Percent of State Average**

**Buffalo Trace ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	91	91	91	91	91	91	91	91	91
Within 20'	15.4%	12.1%	0.0%	0.0%	6.6%	8.8%	0.0%	0.0%	7.7%
Within 200'	62.7%	42.9%	0.0%	0.0%	8.8%	65.9%	1.1%	0.0%	44.0%
Within Sight	74.8%	59.4%	2.2%	2.2%	13.2%	65.9%	5.5%	0.0%	68.2%

**Water Use:**

Domestic	91.0%	Chemical Mixing Near Well? 6.9%
Livestock	29.2%	
Irrigation	5.6%	
Other	12.4%	

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.155	0.015	1.43	22.5	38.3	399
Median	0.008	0.001	0.32	3.8	29.4	331
Deviation	0.378	0.097	2.44	88.6	34.0	381
Maximum	2.111	0.921	12.50	793.9	128.5	2981
Minimum	0.001	0.001	0.02	0.7	1.4	46

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	15
Average		0.224
Median		0.080
Deviation		0.314
Maximum		0.95
Minimum		0.02

**Region:** Cumberland Valley Area Development District

**Counties:** Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle, Whitley

**Number of Wells Tested:** 98 (0.4%)

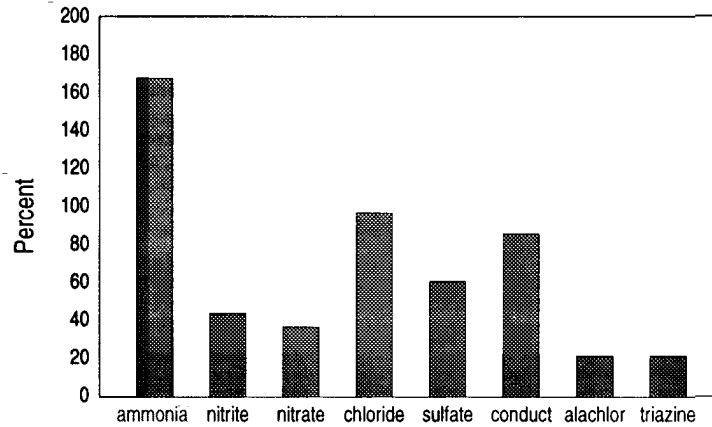
**Supply Types:**

	<i>Number Reported</i>
Drilled Well	71
Driven Well	
Dug Well	7
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	112
Maximum Well Depth	325
Minimum Well Depth	15

Percent of State Average  
Cumberland Valley ADD



**Supply Locations:**

	<i>Crops</i>	<i>Barn</i>	<i>Tank</i>	<i>Elevator</i>	<i>for Lawn</i>	<i>Leach</i>	<i>Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	63	52	20	20	30	69	21	20	64
Within 20'	7.9%	3.8%	0.0%	0.0%	30.0%	8.7%	0.0%	0.0%	6.3%
Within 200'	57.1%	40.3%	0.0%	0.0%	46.7%	89.9%	4.8%	0.0%	46.9%
Within Sight	93.6%	76.8%	5.0%	0.0%	46.7%	91.3%	4.8%	0.0%	86.0%

**Water Use:**

Domestic	93.3%	Chemical Mixing Near Well? 9.0%
Livestock	20.0%	
Irrigation	4.4%	
Other	8.9%	

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.235	0.006	0.91	24.6	25.4	426
Median	0.103	0.001	0.07	4.4	6.0	322
Deviation	0.316	0.012	2.36	71.5	67.1	453
Maximum	1.967	0.086	16.13	474.5	426.2	3308
Minimum	0.001	0.001	0.01	0.8	0.1	44

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	4	19
Average	0.020	0.023
Median	0.020	0.020
Deviation	0.000	0.024
Maximum	0.02	0.12
Minimum	0.02	0.01

**Region:** FIVCO Area Development District

**Counties:** Boyd, Carter, Elliott, Greenup, Lawrence

**Number of Wells Tested:** 139 (1.1 %)

**Supply Types:**

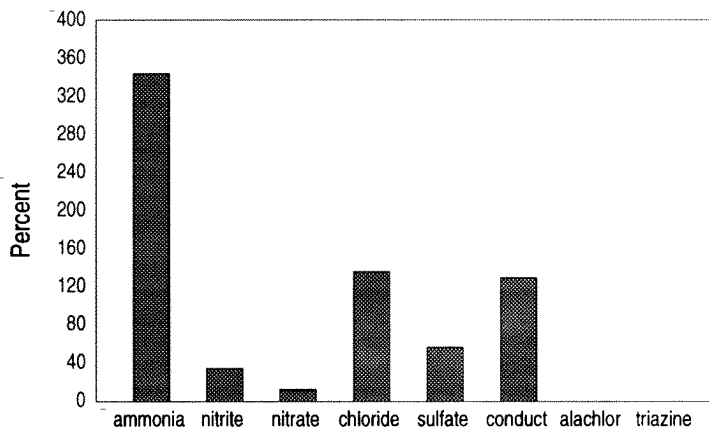
	<i>Number Reported</i>
Drilled Well	104
Driven Well	0
Dug Well	18
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	122
Maximum Well Depth	583
Minimum Well Depth	10

**Percent of State Average**

**FIVCO ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	136	135	131	131	131	135	131	131	138
Within 20'	14.7%	3.0%	0.0%	0.8%	1.5%	6.7%	0.0%	0.0%	8.0%
Within 200'	46.3%	17.1%	0.8%	1.6%	3.0%	54.1%	0.8%	0.0%	39.2%
Within Sight	62.5%	29.7%	0.8%	1.6%	3.8%	54.1%	0.8%	0.0%	57.3%

**Water Use:**

Domestic	90.4%
Livestock	14.0%
Irrigation	3.7%
Other	8.1%

Chemical Mixing Near Well? 7.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.482	0.005	0.31	34.4	23.6	641
Median	0.232	0.001	0.04	4.3	10.4	412
Deviation	0.833	0.020	1.08	100.4	34.0	1336
Maximum	6.179	0.235	8.27	773.2	197.6	13798
Minimum	0.001	0.001	0.01	0.7	0.1	33

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

**Region:** Gateway Area Development District

**Counties:** Bath, Menifee, Montgomery, Morgan, Rowan

**Number of Wells Tested:** 42(0.7%)

**Supply Types:**

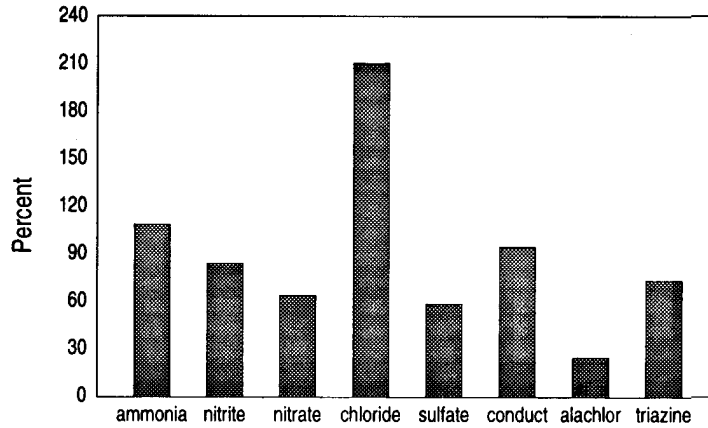
	<i>Number Reported</i>
Drilled Well	13
Driven Well	0
Dug Well	11
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	54
Maximum Well Depth	195
Minimum Well Depth	20

**Percent of State Average**

**Gateway ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	42	40	39	39	39	40	39	39	39
Within 20'	7.1%	7.5%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	7.7%
Within 200'	38.1%	30.0%	0.0%	0.0%	2.6%	50.0%	0.0%	0.0%	25.6%
Within Sight	61.9%	45.0%	0.0%	0.0%	5.2%	52.5%	0.0%	0.0%	43.5%

**Water Use:**

Domestic	85.0%
Livestock	20.0%
Irrigation	10.0%
Other	2.5%

Chemical Mixing Near Well? 5.9%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.152	0.012	1.57	53.3	24.5	470
Median	0.002	0.001	0.37	5.9	15.4	366
Deviation	0.330	0.017	2.55	116.8	25.5	463
Maximum	1.265	0.089	10.82	567.7	114.7	2363
Minimum	0.001	0.001	0.01	1.0	0.1	35

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	6	7
Average	0.023	0.079
Median	0.020	0.080
Deviation	0.005	0.037
Maximum	0.03	0.13
Minimum	0.02	0.02

**Region:** Green River Area Development District

**Counties:** Daviess, Hancock, Henderson, McLean, Ohio, Union, Webster

**Number of Wells Tested:** 384 (5.6%)

**Supply Types:**

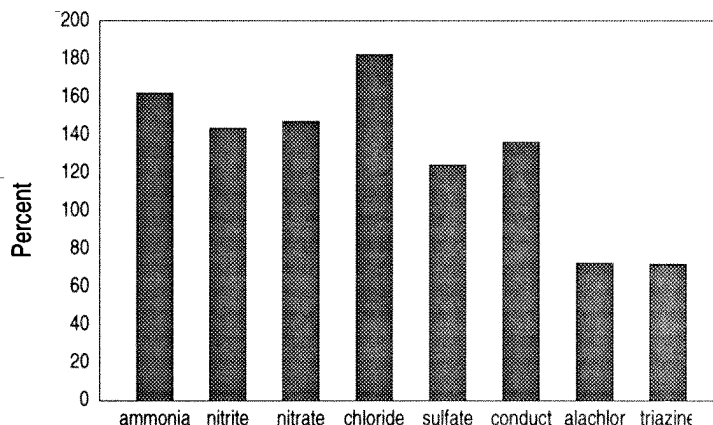
	<i>Number Reported</i>
Drilled Well	248
Driven Well	56
Dug Well	36
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	95
Maximum Well Depth	755
Minimum Well Depth	6

Percent of State Average

Green River ADD



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	384	384	384	384	384	384	383	384	384
Within 20'	19.3%	10.7%	0.0%	0.3%	4.9%	5.2%	0.0%	0.0%	1.6%
Within 200'	64.6%	29.7%	1.6%	1.1%	7.8%	61.7%	0.5%	0.0%	7.3%
Within Sight	87.5%	50.5%	6.0%	5.0%	10.4%	61.7%	1.3%	1.0%	30.0%

**Water Use:**

Domestic	86.1%
Livestock	27.5%
Irrigation	7.5%
Other	11.0%

Chemical Mixing Near Well? 10.0%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.227	0.020	3.61	46.2	51.9	675
Median	0.012	0.003	0.61	12.8	26.7	538
Deviation	0.571	0.056	7.30	145.2	80.7	589
Maximum	5.830	0.685	53.20	1670.5	642.5	4718
Minimum	0.001	0.001	0.01	0.6	0.1	51

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	21	233
Average	0.068	0.077
Median	0.020	0.020
Deviation	0.198	0.238
Maximum	0.93	1.64
Minimum	0.01	0.01



**Region:** Jackson Purchase Area Development District

**Counties:** Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall, McCracken

**Number Supplies Tested:** 840 (6.0%)

**Supply Types:**

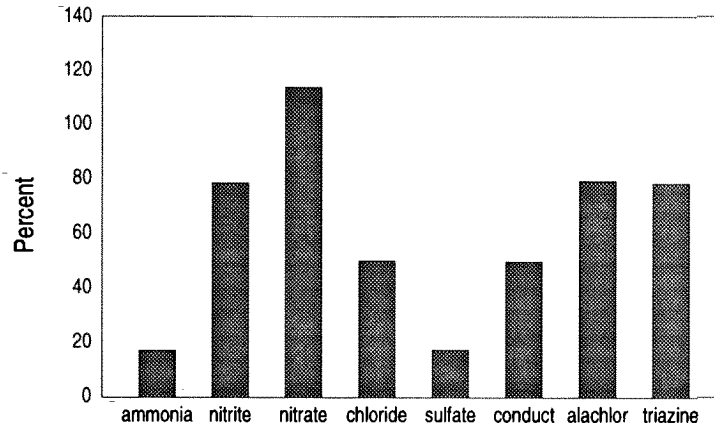
	<i>Number Reported</i>
Drilled Well	719
Driven Well	7
Dug Well	76
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	128
Maximum Well Depth	400
Minimum Well Depth	10

**Percent of State Average**

**Jackson Purchase ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	840	839	839	839	839	840	839	839	839
Within 20'	15.2%	4.9%	0.1%	0.2%	2.9%	3.0%	0.0%	0.0%	0.7%
Within 200'	56.0%	25.5%	2.1%	0.7%	4.1%	60.3%	0.5%	0.0%	6.8%
Within Sight	80.2%	44.1%	7.5%	1.9%	4.8%	60.8%	1.1%	0.6%	23.4%

**Water Use:**

Domestic	89.5%
Livestock	34.9%
Irrigation	7.8%
Other	6.3%

Chemical Mixing Near Well? 10.3%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.024	0.011	2.79	12.7	7.3	247
Median	0.003	0.003	1.31	4.8	2.8	123
Deviation	0.219	0.020	4.52	19.5	21.6	459
Maximum	4.586	0.268	46.17	238.8	341.7	5650
Minimum	0.001	0.001	0.01	0.1	0.1	1

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	196	419
Average	0.074	0.084
Median	0.020	0.020
Deviation	0.250	0.413
Maximum	2.20	6.50
Minimum	0.01	0.01

**Region:** Kentucky River Area Development District

**Counties:** Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

**Number of Wells Tested:** 472 (1.6%)

**Supply Types:**

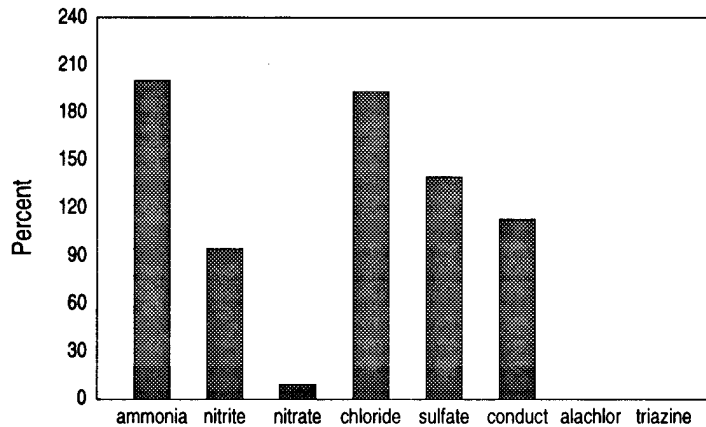
	<i>Number Reported</i>
Drilled Well	382
Driven Well	0
Dug Well	30
Spring	4

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	100
Maximum Well Depth	350
Minimum Well Depth	8

Percent of State Average

Kentucky River ADD



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	448	429	409	407	413	456	409	407	454
Within 20'	8.7%	3.0%	0.0%	0.0%	4.4%	4.6%	0.0%	0.0%	8.8%
Within 200'	26.3%	14.4%	1.0%	0.2%	7.3%	61.8%	0.2%	0.2%	50.0%
Within Sight	40.1%	23.7%	2.0%	0.9%	9.2%	62.7%	0.9%	0.4%	68.1%

**Water Use:**

Domestic	94.5%
Livestock	7.3%
Irrigation	3.1%
Other	14.5%

Chemical Mixing Near Well? 2.8%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.281	0.013	0.23	49.0	58.3	562
Median	0.144	0.002	0.10	16.4	11.6	434
Deviation	0.411	0.038	0.86	99.1	159.2	708
Maximum	5.067	0.554	15.62	945.7	1376.6	13045
Minimum	0.001	0.001	0.01	0.8	0.1	26

**Pesticides.**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

**Region:** KIPDA Area Development District

**Counties:** Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble

**Number of Wells Tested:** 163 (3.1 %)

**Supply Types:**

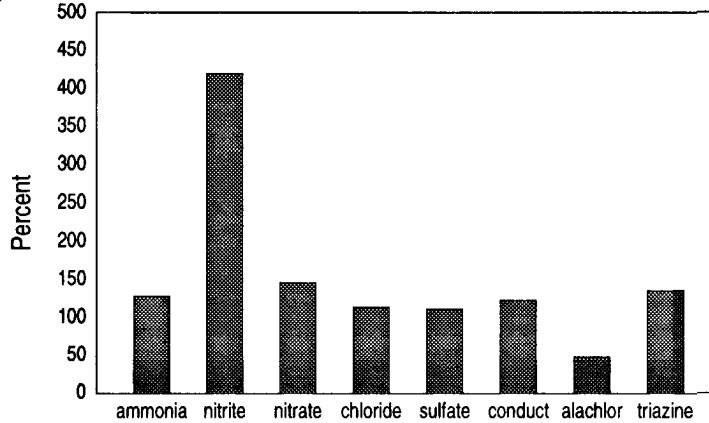
	<i>Number Reported</i>
Drilled Well	59
Driven Well	8
Dug Well	44
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	68
Maximum Well Depth	200
Minimum Well Depth	12

**Percent of State Average**

**KIPDAADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	162	161	158	158	159	162	159	158	161
Within 20'	8.6%	7.5%	0.0%	0.0%	1.9%	3.1%	0.0%	0.0%	6.8%
Within 200'	43.8%	36.1%	2.5%	0.0%	10.1%	58.7%	0.6%	0.6%	18.6%
Within Sight	71.6%	60.9%	9.5%	0.0%	16.4%	58.7%	5.0%	3.8%	45.3%

**Water Use:**

Domestic	74.5%
Livestock	34.8%
Irrigation	11.2%
Other	11.2%

Chemical Mixing Near Well? 5.2%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.181	0.059	3.60	28.9	46.7	613
Median	0.006	0.007	1.40	8.9	39.3	554
Deviation	0.640	0.355	12.06	94.0	37.2	425
Maximum	6.788	4.315	150.00	1049.4	270.5	3746
Minimum	0.001	0.001	0.01	0.8	0.1	45

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	74	87
Average	0.045	0.146
Median	0.030	0.010
Deviation	0.076	0.653
Maximum	0.63	5.81
Minimum	0.02	0.01

**Region:** Lake Cumberland Area Development District

**Counties:** Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

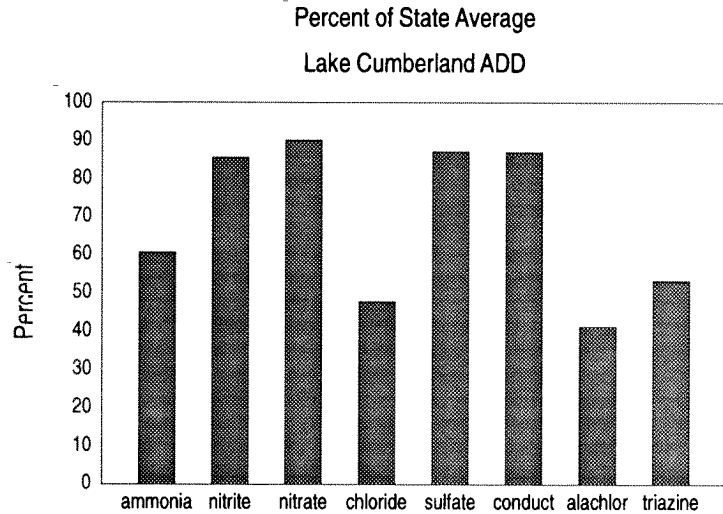
**Number of Wells Tested:** 654 (3.7%)

**Supply Types:**

	<i>Number Reported</i>
Drilled Well	390
Driven Well	9
Dug Well	24
Spring	5

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	78
Maximum Well Depth	521
Minimum Well Depth	13



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	647	642	625	624	624	642	625	624	628
Within 20'	11.7%	5.0%	0.5%	0.3%	1.6%	3.1%	0.0%	0.0%	3.2%
Within 200'	46.2%	31.8%	2.7%	0.8%	2.9%	54.3%	0.2%	0.2%	12.6%
Within Sight	71.2%	54.1%	8.6%	1.6%	4.0%	54.5%	1.8%	1.0%	32.5%

**Water Use:**

Domestic	92.6%
Livestock	41.3%
Irrigation	5.5%
Other	9.1%

Chemical Mixing Near Well? 6.9%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.085	0.012	2.21	12.1	36.4	431
Median	0.006	0.005	1.19	4.1	12.1	357
Deviation	0.540	0.043	3.96	46.6	85.7	775
Maximum	12.144	0.696	67.00	791.7	1067.2	18390
Minimum	0.001	0.001	0.01	0.3	0.1	8

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	89	201
Average	0.039	0.057
Median	0.030	0.020
Deviation	0.056	0.206
Maximum	0.48	2.52
Minimum	0.01	0.01

**Region:** Lincoln Trail Area Development District

**Counties:** Breckinridge, Grayson, Hardin, Larue, Marion, Meade, Nelson, Washington

**Number of Wells Tested:** 452 (2.7%)

**Supply Types:**

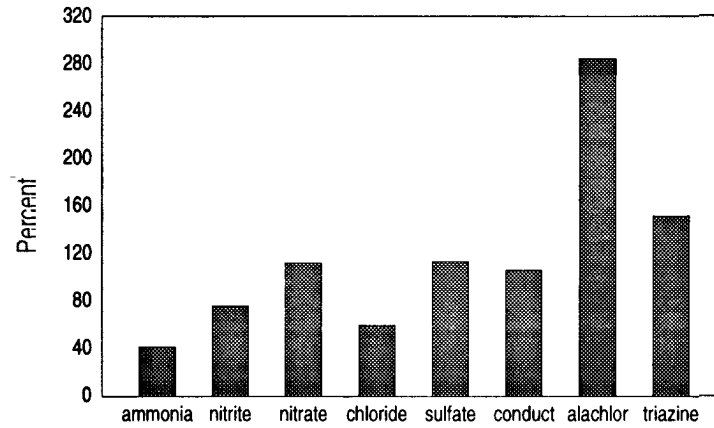
	<i>Number Reported</i>
Drilled Well	328
Driven Well	4
Dug Well	31
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	142
Maximum Well Depth	480
Minimum Well Depth	14

**Percent of State Average**

**Lincoln Trail ADD**



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	437	430	412	405	410	434	405	404	421
Within 20'	13.5%	7.0%	0.0%	0.0%	3.7%	3.0%	0.0%	0.0%	2.1%
Within 200'	49.7%	35.8%	3.6%	0.2%	5.7%	60.8%	0.2%	0.0%	10.7%
Within Sight	81.7%	67.4%	13.6%	1.7%	8.1%	60.8%	1.4%	0.7%	34.9%

**Water Use:**

Domestic	93.3%
Livestock	43.5%
Irrigation	5.5%
Other	7.8%

Chemical Mixing Near Well? 7.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.058	0.011	2.76	15.1	47.6	527
Median	0.002	0.001	1.07	4.8	15.3	458
Deviation	0.254	0.053	3.97	73.3	112.7	405
Maximum	3.433	0.918	33.17	1070.9	1105.9	3925
Minimum	0.001	0.001	0.01	0.4	0.1	15

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	114	235
Average	0.265	0.163
Median	0.030	0.030
Deviation	1.067	0.866
Maximum	7.25	12.90
Minimum	0.01	0.01

**Region:** Northern Kentucky Area Development District

**Counties:** Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, Pendleton

**Number of Wells Tested:** 163 (7.2%)

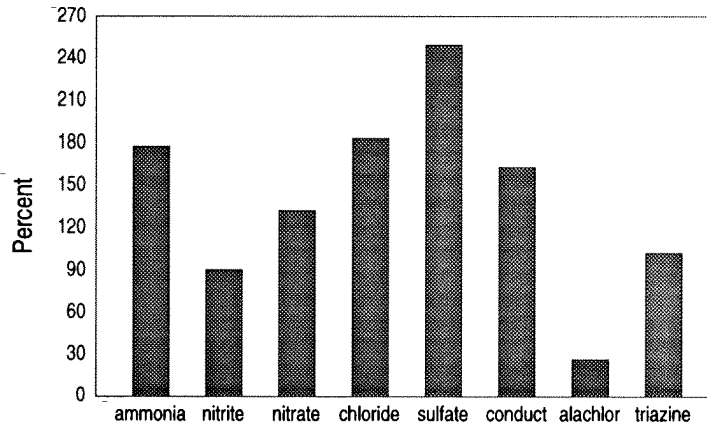
**Supply Types:**

	<i>Number Reported</i>
Drilled Well	109
Driven Well	15
Dug Well	15
Spring	6

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	83
Maximum Well Depth	250
Minimum Well Depth	6

Percent of State Average  
Northern Kentucky ADD



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Chemicals Elevator for Lawn</i>		<i>Septic Leach</i>	<i>Hazardous Landfill Waste Stream</i>		
Number of Responses	152	143	132	131	138	148	132	132	152
Within 20'	13.2%	9.8%	0.0%	0.0%	10.9%	2.7%	0.0%	0.0%	4.6%
Within 200'	40.8%	27.3%	2.3%	2.3%	13.1%	65.5%	0.8%	0.0%	23.0%
Within Sight	67.8%	49.7%	4.6%	3.1%	15.3%	66.9%	3.8%	3.8%	67.1%

**Water Use:**

Domestic	88.5%
Livestock	28.7%
Irrigation	14.0%
Other	11.5%

Chemical Mixing Near Well? 7.6%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.249	0.013	3.25	46.5	104.2	809
Median	0.006	0.001	1.33	14.8	65.6	631
Deviation	0.993	0.067	5.16	130.8	171.4	727
Maximum	9.247	0.630	31.71	1391.4	1287.7	6866
Minimum	0.001	0.001	0.01	0.2	0.1	30

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	4	6
Average	0.025	0.110
Median	0.025	0.030
Deviation	0.013	0.201
Maximum	0.04	0.52
Minimum	0.01	0.01

**Region:** Permyrile Area Development District

**Counties:** Caldwell, Christian, Crittenden, Hopkins, Livingston, Lyon, Muhlenberg, Todd, Trigg

**Number of Wells Tested:** 482 (4.8%)

**Supply Types:**

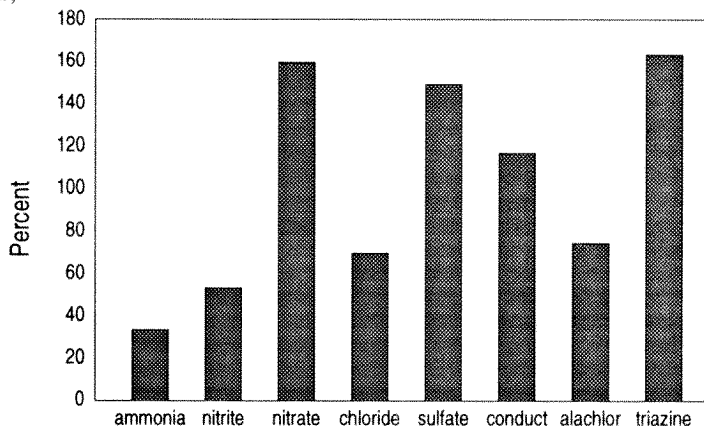
	<i>Number Reported</i>
Drilled Well	381
Driven Well	14
Dug Well	37
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	114
Maximum Well Depth	600
Minimum Well Depth	6

Percent of State Average

Pennyrile ADD



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Number of Responses	460	398	327	303	316	420	300	299	359
Within 20'	18.3%	6.8%	0.0%	0.0%	3.5%	4.5%	0.0%	0.0%	2.5%
Within 200'	55.7%	33.4%	2.4%	0.0%	7.3%	69.7%	0.0%	0.0%	12.2%
Within Sight	82.2%	61.8%	15.9%	5.0%	11.4%	70.4%	1.3%	0.3%	41.4%

**Water Use:**

Domestic	93.4%	Chemical Mixing Near Well?	10.5%
Livestock	40.9%		
Irrigation	6.0%		
Other	9.4%		

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.047	0.007	3.92	17.7	62.3	579
Median	0.001	0.001	2.45	8.1	20.5	471
Deviation	0.170	0.024	6.60	36.3	124.6	442
Maximum	2.157	0.301	96.58	443.3	954.4	4653
Minimum	0.001	0.001	0.01	0.7	0.1	40

**Pesticides.**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	105	183
Average	0.070	0.175
Median	0.010	0.020
Deviation	0.205	0.371
Maximum	1.18	2.00
Minimum	0.01	0.01

**APPENDIX C:**  
**Data for Each County**



County: Adair

Generalized Geology: Mississippian  
 Physiographic Region: Eastern Pennyroyal  
 Area Development District: Lake Cumberland

Number of Wells Tested: 41 (1.9%)

Supply Types:

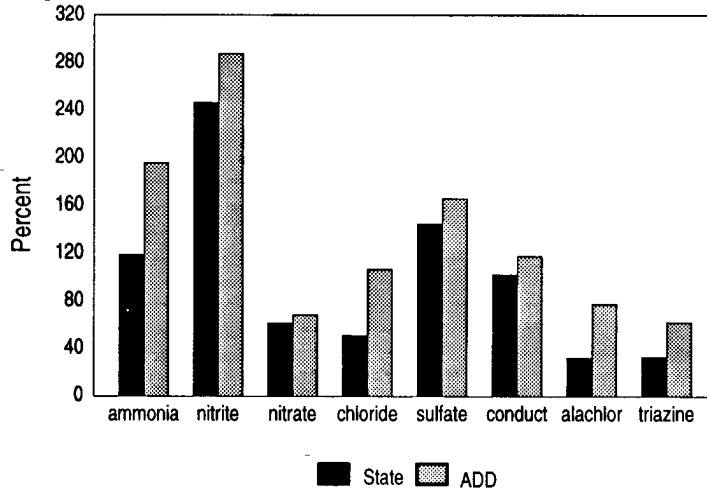
	Number Reported
Drilled Well	31
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	73
Maximum Well Depth	160
Minimum Well Depth	35

Percent of State and Regional Average

Adair County



Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals For Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
No. Responses	41	41	41	41	41	41	41	41	41
Within 20'	22.0%	4.9%	0.0%	0.0%	2.4%	7.3%	0.0%	0.0%	2.4%
Within 200'	51.3%	24.4%	4.9%	2.4%	4.8%	58.5%	0.0%	0.0%	9.7%
Within Sight	73.3%	46.4%	9.8%	4.8%	7.2%	58.5%	2.4%	0.0%	39.0%

Water Use:

Domestic	94.9%
Livestock	35.9%
Irrigation	2.6%
Other	12.8%

Chemical Mixing Near Well? 10.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.167	0.035	1.52	12.9	60.5	508
Median	0.001	0.024	0.76	6.0	27.3	449
Deviation	0.320	0.028	1.80	30.1	107.9	285
Maximum	1.100	0.149	6.65	190.9	550.3	1736
Minimum	BDL	0.023	0.02	1.8	1.0	115

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	41
Average	0.030	0.036
Median	0.030	0.020
Deviation	0.000	0.062
Maximum	0.03	0.30
Minimum	0.03	0.01

BDL = Below Detection Level

County: Allen

**Generalized Geology:** Mississippian  
**Physiographic Region:** Western Pennyroyal  
**Area Development District:** Barren River

**Number of Wells Tested:** 21 (1.4%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	8
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	77
Maximum Well Depth	100
Minimum Well Depth	54

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	11.8%	5.9%	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%
Within 200'	35.3%	17.7%	0.0%	0.0%	0.0%	35.3%	0.0%	0.0%	11.8%
Within Sight	70.6%	35.3%	5.9%	0.0%	0.0%	35.3%	0.0%	0.0%	29.4%

**Water Use:**

Domestic	50.0%
Livestock	45.0%
Irrigation	15.0%
Other	20.0%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.016	0.014	3.45	8.1	58.5	456
Median	0.007	0.011	1.75	7.3	22.5	412
Deviation	0.020	0.014	5.01	5.9	94.8	222
Maximum	0.075	0.060	21.49	22.2	410.8	1178
Minimum	BDL	BDL	0.06	0.7	2.0	36

**Pesticides:**

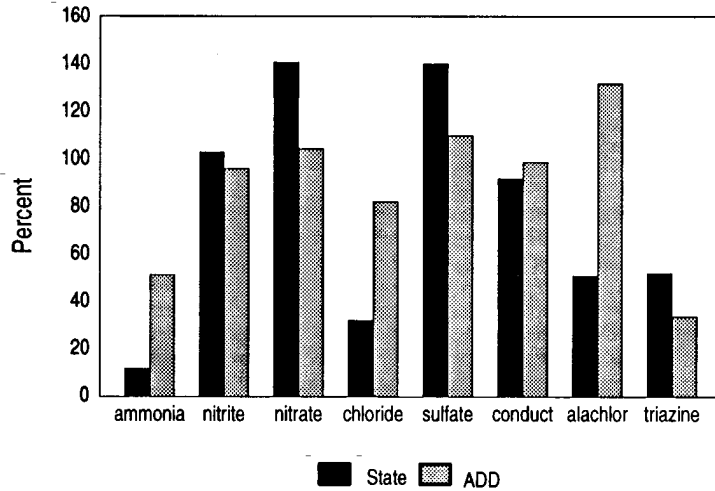
*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	16	17
Average	0.048	0.056
Median	0.040	0.020
Deviation	0.042	0.087
Maximum	0.20	0.32
Minimum	0.02	0.01

BDL = Below Detection Level

**Percent of State and Regional Average**

**Allen County**



County: Anderson

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 7 (2.8%)

Supply Types:

	Number reported
Drilled Well	2
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	72
Maximum Well Depth	100
Minimum Well Depth	40

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	28.6%	42.9%	0.0%	0.0%	0.0%	42.9%	0.0%	0.0%	0.0%
Within Sight	28.6%	57.2%	0.0%	0.0%	0.0%	42.9%	0.0%	0.0%	42.9%

Water Use:

Domestic	100.0%
Livestock	33.3%
Irrigation	16.7%
Other	16.7%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.006	0.011	3.45	7.8	58.5	647
Median	0.002	0.001	2.15	7.8	33.2	635
Deviation	0.011	0.019	3.33	3.4	69.2	129
Maximum	0.030	0.052	9.68	14.2	213.2	898
Minimum	BDL	BDL	0.11	3.7	18.8	475

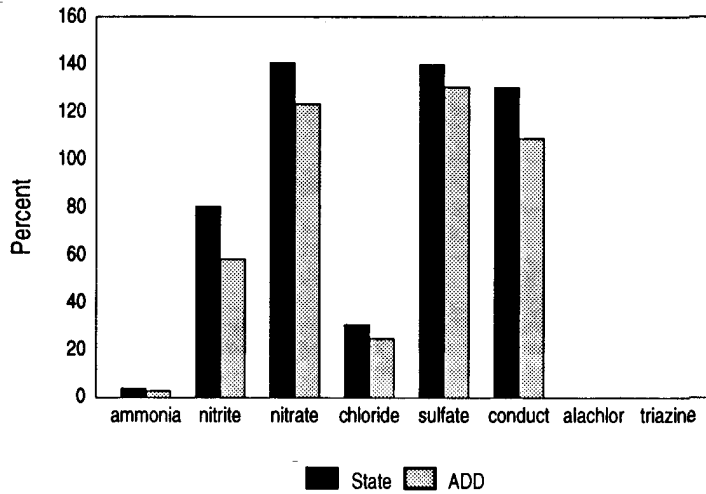
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Anderson County



BDL = Below Detection Level

County: Ballard

**Generalized Geology:** Alluvium, Tertiary  
**Physiographic Region:** Jackson Purchase Region  
**Area Development District:** Jackson Purchase Region

**Number of Wells Tested:** 111 (6.5%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	104
Driven Well	1
Dug Well	4
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	148
Maximum Well Depth	340
Minimum Well Depth	30

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	13.5%	10.9%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%
Within 200'	62.1%	30.9%	2.7%	0.0%	3.6%	67.6%	0.0%	0.0%	4.5%
Within Sight	81.0%	54.5%	11.8%	0.9%	3.6%	67.6%	0.0%	0.0%	20.0%

**Water Use:**

Domestic	91.8%
Livestock	43.6%
Irrigation	6.4%
Other	3.6%

Chemical Mixing Near Well? 8.4%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.046	0.020	3.35	12.1	5.1	198
Median	0.011	0.021	1.14	6.1	2.3	144
Deviation	0.355	0.019	5.15	13.6	9.2	135
Maximum	3.717	0.200	26.76	78.2	50.1	712
Minimum	BDL	BDL	0.04	0.9	0.1	28

**Pesticides:**

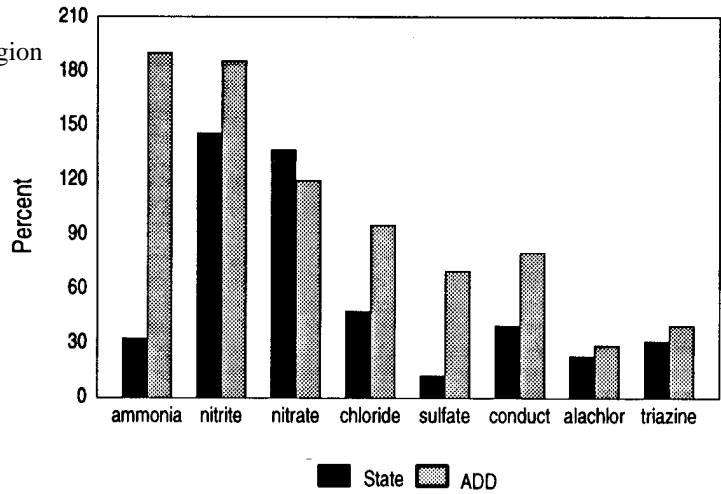
*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	14	69
Average	0.021	0.034
Median	0.020	0.010
Deviation	0.008	0.163
Maximum	0.04	1.36
Minimum	Below Detection Levels	

BDL = Below Detection Level

Percent of State and Regional Average

Ballard County



County: Barren

Generalized Geology: Mississippian  
 Physiographic Region: Pennyroyal  
 Area Development District: Barren River

Number of Wells Tested: 46 (3.2%)

Supply Types:

	Number reported
Drilled Well	31
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	89
Maximum Well Depth	200
Minimum Well Depth	18

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	6.5%	8.7%	0.0%	0.0%	4.3%	6.5%	0.0%	0.0%	2.2%
Within 200'	39.1%	39.1%	0.0%	0.0%	8.6%	52.2%	0.0%	0.0%	4.4%
Within Sight	65.2%	73.9%	4.3%	0.0%	12.9%	54.4%	0.0%	0.0%	26.1%

Water Use:

Domestic	83.7%
Livestock	53.5%
Irrigation	7.0%
Other	7.0%

Chemical Mixing Near Well? 11.9%

Water Quality:

(Concentrations in Milligrams per Liter)

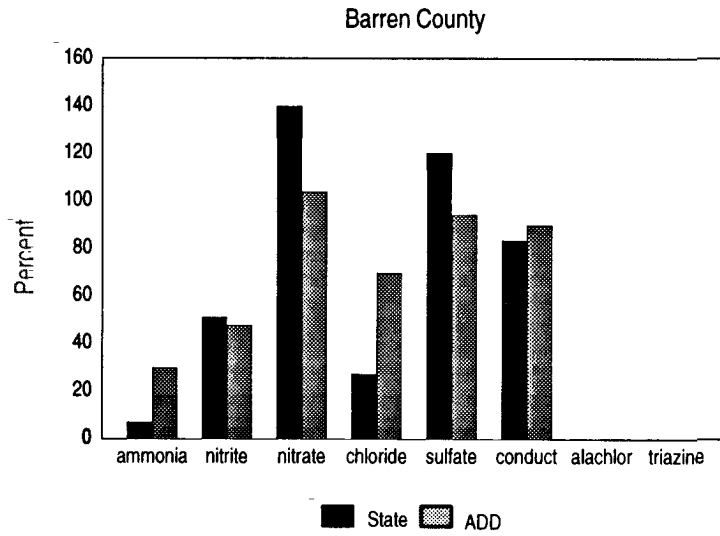
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.010	0.007	3.43	6.9	50.1	414
Median	0.002	0.007	2.17	4.6	10.7	373
Deviation	0.018	0.004	5.30	6.7	143.0	233
Maximum	0.116	0.016	33.40	32.9	930.1	1672
Minimum	BDL	0.001	0.06	1.5	1.8	139

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average



BDL = Below Detection Level

County: Bath

**Generalized Geology:** Ordovician, Devonian, Silurian  
**Physiographic Region:** Knobs-Outer Bluegrass Area  
**Development District:** Gateway

**Number of Wells Tested:** 8 (1.7%)

**Supply Types:**

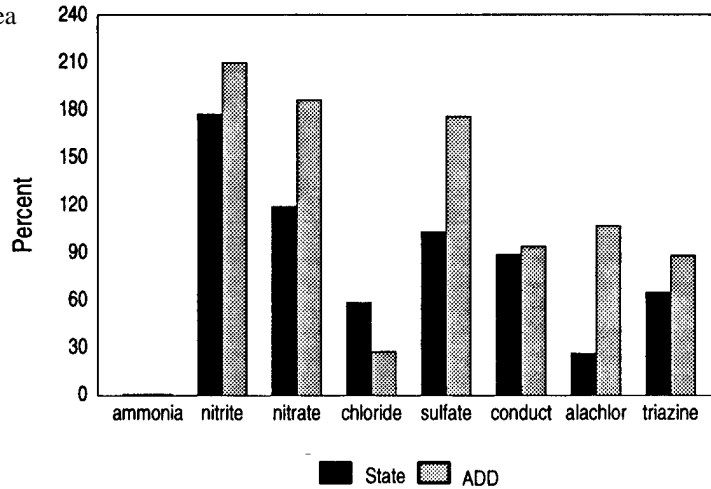
	<i>Number reported</i>
Drilled Well	0
Driven Well	0
Dug Well	2
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	26
Maximum Well Depth	30
Minimum Well Depth	22

Percent of State and Regional Average

Bath County



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Chemicals Elevators for Lawn</i>		<i>Septic Leach</i>	<i>Hazardous Landfill Waste Stream</i>		
Within 20'	0.0%	25.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%
Within 200'	25.0%	50.0%	0.0%	0.0%	12.5%	50.0%	0.0%	0.0%	12.5%
Within Sight	50.0%	62.5%	0.0%	0.0%	12.5%	50.0%	0.0%	0.0%	37.5%

**Water Use:**

Domestic	85.7%
Livestock	42.9%
Irrigation	14.3%
Other	0.0%

Chemical Mixing Near Well? 20.0%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.001	0.025	2.93	14.9	43.2	443
Median	0.001	0.024	2.71	8.6	38.8	504
Deviation	0.000	0.003	2.92	17.2	25.5	221
Maximum	0.001	0.033	7.28	53.0	95.0	726
Minimum	BDL	0.023	0.07	1.2	17.8	62

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	2	2
Average	0.025	0.070
Median	0.025	0.070
Deviation	0.007	0.028
Maximum	0.03	0.09
Minimum	0.02	0.05

BDL = Below Detection Level

**County:** Bell

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Cumberland Valley

**Number of Wells Tested:** None, Estimated 3,005 Domestic Wells in County

County: Boone

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Northern Kentucky

Number of Wells Tested: 59 (10.6%)

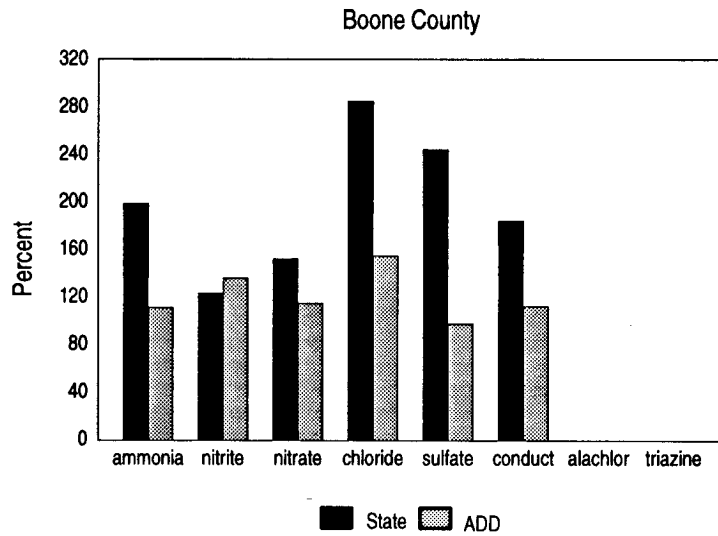
Supply Types:

	<i>Number reported</i>
Drilled Well	34
Driven Well	11
Dug Well	6
Spring	6

Well Depth Data:

	<i>Feet</i>
Average Well Depth	77
Maximum Well Depth	156
Minimum Well Depth	8

Percent of State and Regional Average



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	20.3%	3.4%	0.0%	0.0%	6.8%	1.7%	0.0%	0.0%	6.8%
Within 200'	45.7%	18.7%	3.4%	0.0%	8.5%	59.3%	1.7%	0.0%	23.7%
Within Sight	69.4%	35.6%	8.5%	1.7%	8.5%	61.0%	6.8%	1.7%	62.7%

Water Use:

Domestic	90.9%
Livestock	29.1%
Irrigation	16.4%
Other	14.5%

Chemical Mixing Near Well? 8.8%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.278	0.017	3.75	72.2	102.1	913
Median	0.005	0.001	1.70	12.2	68.7	633
Deviation	0.798	0.073	5.17	199.8	146.3	1055
Maximum	4.763	0.542	24.77	1391.4	985.2	6866
Minimum	BDL	BDL	0.03	2.1	3.9	30

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

BDL = Below Detection Level



County: Bourbon

Generalized Geology: Ordovician  
 Physiographic Region: Inner-Outer Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 73 (14.8%)

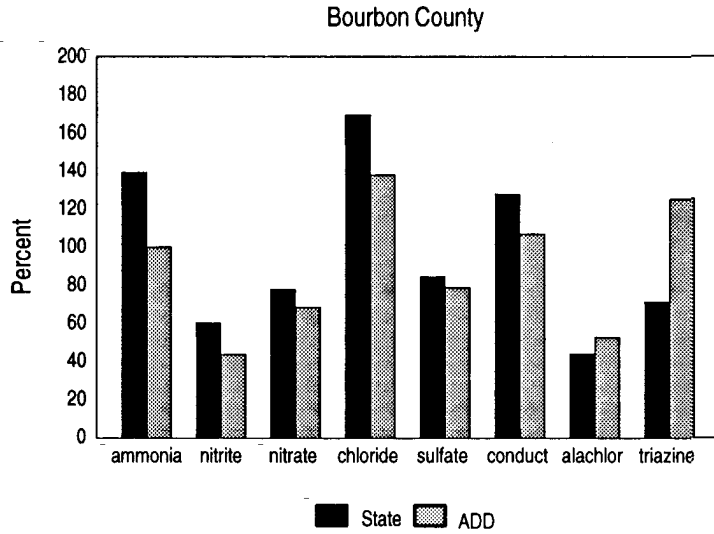
Supply Types:

	<i>Number reported</i>
Drilled Well	45
Driven Well	1
Dug Well	5
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	79
Maximum Well Depth	200
Minimum Well Depth	15

Percent of State and Regional Average



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	13.7%	9.6%	0.0%	0.0%	1.4%	1.4%	0.0%	0.0%	11.0%
Within 200'	35.6%	31.5%	1.4%	1.4%	2.8%	27.4%	1.4%	0.0%	38.4%
Within Sight	80.8%	72.6%	9.6%	1.4%	4.2%	27.4%	2.8%	0.0%	63.1%

Water Use:

Domestic	71.8%	Chemical Mixing Near Well? 3.1%
Livestock	84.5%	
Irrigation	11.3%	
Other	8.5%	

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.195	0.008	1.92	43.0	35.3	635
Median	0.009	0.001	0.88	6.7	32.4	527
Deviation	0.586	0.035	2.47	100.6	22.6	368
Maximum	4.610	0.277	10.93	494.0	99.1	2079
Minimum	BDL	BDL	BDL	0.9	0.1	132

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	23	61
Average	0.041	0.077
Median	0.030	0.030
Deviation	0.038	0.135
Maximum	0.17	0.75
Minimum	0.02	0.02

BDL = Below Detection Level

**County:** Boyd

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** FIVCO

**Number of Wells Tested:** None, Estimated 1,491 Domestic Wells in County

County: Boyle

Percent of State and Regional Average

**Generalized Geology:** Mississippian, Devonian, Ordovician  
**Physiographic Region:** Inner-Outer Bluegrass and Knobs  
**Area Development District:** Bluegrass

Number of Wells Tested: 32 (11.7%)

Supply Types:

	Number reported
Drilled Well	19
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	83
Maximum Well Depth	175
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	15.6%	12.5%	0.0%	0.0%	0.0%	6.3%	0.0%	0.0%	9.4%
Within 200'	65.6%	50.0%	3.1%	3.1%	0.0%	43.8%	0.0%	0.0%	12.5%
Within Sight	84.4%	78.1%	9.4%	9.4%	0.0%	43.8%	0.0%	0.0%	53.1%

Water Use:

Domestic	81.3%	Chemical Mixing Near Well? 13.8%
Livestock	50.0%	
Irrigation	6.3%	
Other	6.3%	

Water Quality:

(Concentrations in Milligrams per Liter)

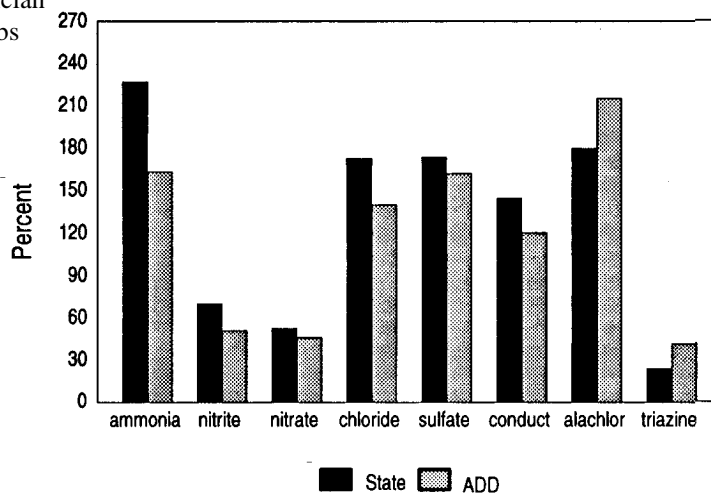
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.318	0.010	1.29	43.7	72.6	716
Median	0.010	0.004	0.16	13.7	50.0	575
Deviation	0.798	0.016	2.65	100.5	105.0	428
Maximum	4.003	0.063	10.15	547.3	610.7	2444
Minimum	BDL	0.001	0.05	2.0	6.4	314

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	24	25
Average	0.168	0.026
Median	0.020	0.020
Deviation	0.497	0.028
Maximum	2.18	0.15
Minimum	0.02	0.01

BDL = Below Detection Level



**County:** Bracken

**Generalized Geology:** Ordovician

**Physiographic Region:** Outer Bluegrass

**Area Development District:** Buffalo Trace

**Number of Wells Tested:** None, Estimated 161 Domestic Wells in County

County: Breathitt

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Kentucky River

Number of Wells Tested: 49 (1.3%)

Supply Types:

	Number reported
Drilled Well	42
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	Feet
Average Well Depth	83
Maximum Well Depth	187
Minimum Well Depth	23

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	14.3%	6.1%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	4.1%
Within 200'	24.5%	18.3%	0.0%	0.0%	2.0%	61.2%	0.0%	0.0%	42.9%
Within Sight	55.1%	30.5%	4.1%	2.0%	6.1%	63.2%	2.0%	2.0%	71.5%

Water Use:

Domestic	88.9%
Livestock	11.1%
Irrigation	2.2%
Other	13.3%

Chemical Mixing Near Well? 2.2%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.456	0.003	0.35	60.6	9.2	764
Median	0.356	0.002	0.19	20.2	5.1	419
Deviation	0.733	0.003	0.75	85.0	9.4	1826
Maximum	5.067	0.010	5.19	336.6	42.3	13045
Minimum	BDL	BDL	0.12	1.3	0.6	26

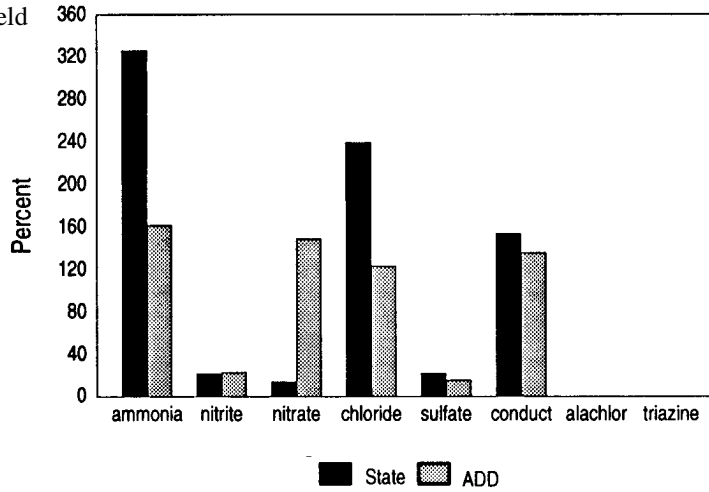
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Breathitt County



BDL = Below Detection Level

County: Breckinridge

Generalized Geology: Mississippian  
 Physiographic Region: Western  
 Pennyroyal Area Development District:  
 Lincoln Trail

Number of Wells Tested: 76 (2.6%)

Supply Types:

	Number reported
Drilled Well	48
Driven Well	0
Dug Well	6
Spring	0

Well Depth Data:

	Feet
Average Well Depth	160
Maximum Well Depth	440

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	15.8%	1.3%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	1.3%
Within 200'	50.0%	23.7%	5.3%	0.0%	2.6%	61.8%	0.0%	0.0%	17.1%
Within Sight	73.7%	55.3%	13.2%	1.3%	5.2%	61.8%	0.0%	0.0%	36.8%

Water Use:

Domestic	93.3%
Livestock	34.7%
Irrigation	4.0%
Other	2.7%

Chemical Mixing Near Well? 1.4%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.077	0.006	1.61	18.4	82.4	568
Median	0.001	0.001	0.48	6.9	42.2	530
Deviation	0.198	0.023	2.33	53.1	122.9	321
Maximum	0.998	0.186	12.22	458.9	868.6	2130
Minimum	BDL	BDL	0.06	1.0	0.1	15

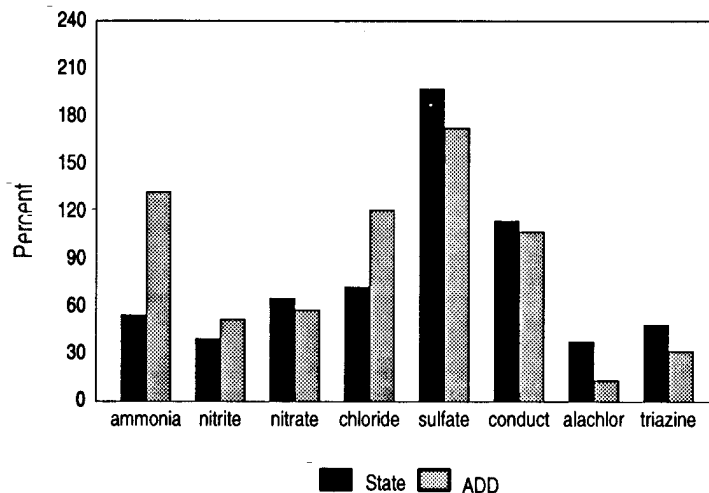
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	9	57
Average	0.036	0.052
Median	0.040	0.030
Deviation	0.016	0.110
Maximum	0.07	0.82
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average  
 Breckinridge County



County: Bullitt

Generalized Geology: Mississippian, Devonian, Silurian, Ordovician

Physiographic Region: Knobs

Area Development District: Kipda

Number of Wells Tested: 36 (1.9%)

Supply Types:

	Number reported
Drilled Well	28
Driven Well	
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	101
Maximum Well Depth	165
Minimum Well Depth	16

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	0.0%	2.8%	0.0%	0.0%	2.8%	5.6%	0.0%	0.0%	5.6%
Within 200'	33.3%	13.9%	5.6%	0.0%	11.1%	83.4%	0.0%	0.0%	16.7%
Within Sight	58.3%	38.9%	11.2%	0.0%	25.0%	83.4%	2.8%	0.0%	50.0%

Water Use:

Domestic	88.9%
Livestock	11.1%
Irrigation	5.6%
Other	11.1%

Chemical Mixing Near Well? 6.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.339	0.010	1.86	30.2	47.5	667
Median	0.007	0.001	1.06	6.8	37.2	574
Deviation	1.204	0.028	2.13	69.6	49.4	327
Maximum	6.788	0.161	7.68	359.1	270.5	1825
Minimum	BDL	BDL	0.01	1.5	0.1	239

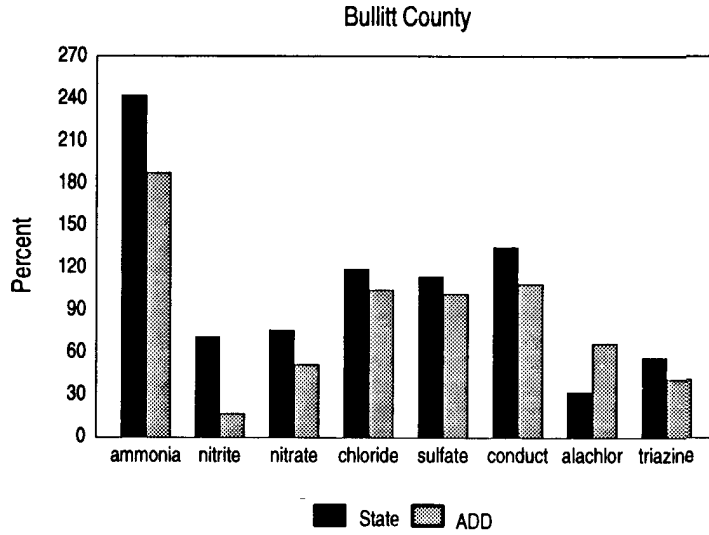
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	35	35
Average	0.030	0.061
Median	0.030	0.010
Deviation	0.015	0.197
Maximum	0.11	0.98
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Butler

**Generalized Geology:** Mississippian, Pennsylvanian, Alluvium

**Physiographic Region:** Western Pennroyal and Western Kentucky Coal Field

**Area Development District:** Barren River

**Number of Wells Tested:** 10 (1.4%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	3
Driven Well	
Dug Well	1
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	75
Maximum Well Depth	125
Minimum Well Depth	40

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	16.7%	16.7%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%
Within 200'	66.7%	50.0%	0.0%	0.0%	16.7%	50.0%	0.0%	0.0%	66.7%
Within Sight	100.0%	83.3%	16.7%	0.0%	16.7%	50.0%	0.0%	0.0%	66.7%

**Water Use:**

Domestic	60.0%
Livestock	30.0%
Irrigation	0.0%
Other	40.0%

Chemical Mixing Near Well? 16.7%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.240	0.056	2.29	23.8	24.2	554
Median	0.171	0.003	0.16	5.4	17.0	448
Deviation	0.240	0.112	5.06	38.3	21.4	267
Maximum	0.631	0.311	15.85	124.1	58.3	1165
Minimum	0.006	0.001	0.01	2.9	0.3	305

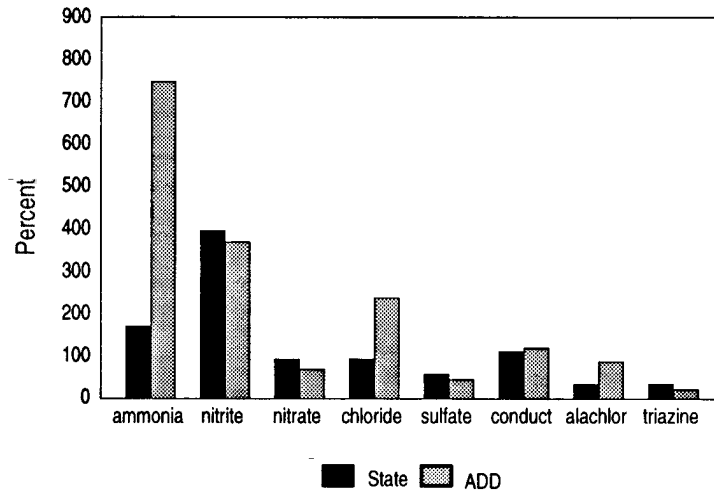
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	6	6
Average	0.032	0.037
Median	0.030	0.010
Deviation	0.015	0.061
Maximum	0.06	0.16
Minimum	0.02	0.01

**Percent of State and Regional Average**

**Butler County**





**County:** Caldwell

Percent of State and Regional Average

**Generalized Geology:** Mississippian, Pennsylvanian

**Physiographic Region:** Western Pennyroyal and Western Kentucky Coal Field

**Area Development District:** Pennyriple

**Number of Wells Tested:** 67 (5.7%)

**Supply Types:**

*Number reported*

Drilled Well	47
Driven Well	5
Dug Well	3
Spring	0

**Well Depth Data:**

*Feet*

Average Well Depth	127
Maximum Well Depth	350
Minimum Well Depth	10

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevators</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.4%	4.5%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	4.5%
Within 200'	52.2%	28.4%	0.0%	0.0%	0.0%	56.7%	0.0%	0.0%	17.9%
Within Sight	77.6%	53.8%	13.4%	4.5%	3.0%	56.7%	0.0%	0.0%	26.9%

**Water Use:**

Domestic	91.9%
Livestock	37.1%
Irrigation	14.5%
Other	3.2%

Chemical Mixing Near Well? 9.4%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

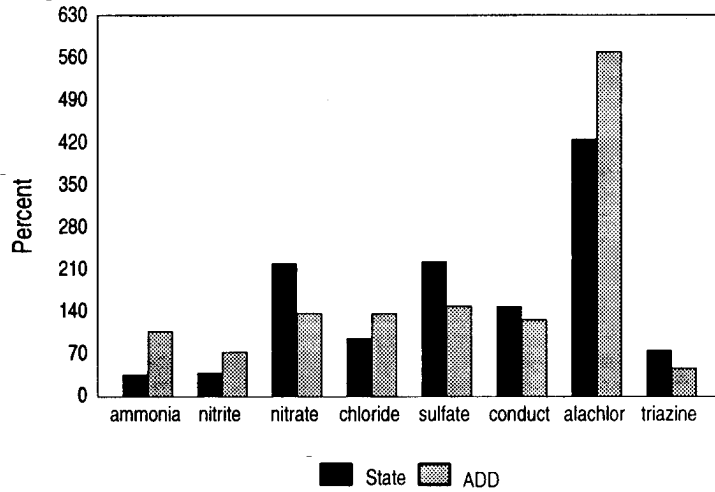
	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.051	0.006	5.40	24.4	93.5	739
Median	0.001	0.001	1.79	7.3	32.6	530
Deviation	0.136	0.011	14.90	46.9	163.7	645
Maximum	0.693	0.068	96.58	226.9	844.5	4653
Minimum	BDL	BDL	0.03	1.6	3.4	142

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	5	60
Average	0.398	0.082
Median	0.070	0.030
Deviation	0.524	0.145
Maximum	1.18	0.82
Minimum	0.01	0.01

BDL = Below Detection Level



County: Calloway

Generalized Geology: Tertiary, Cretaceous, Alluvium  
 Physiographic Region: Jackson Purchase Region  
 Area Development District: Jackson Purchase Region

Number of Wells Tested: 136 (2.6%)

Supply Types:

	Number reported
Drilled Well	92
Driven Well	1
Dug Well	32
Spring	0

Well Depth Data:

	Feet
Average Well Depth	94
Maximum Well Depth	280
Minimum Well Depth	10

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	17.6%	1.5%	0.0%	0.0%	1.5%	5.9%	0.0%	0.0%	1.5%
Within 200'	63.9%	24.3%	0.7%	1.5%	3.7%	72.1%	0.0%	0.0%	14.0%
Within Sight	84.5%	41.2%	2.2%	3.7%	5.9%	72.1%	0.7%	1.5%	30.9%

Water Use:

Domestic	91.8%
Livestock	28.4%
Irrigation	9.7%
Other	3.7%

Chemical Mixing Near Well? 6.8%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.008	0.023	2.78	18.6	9.5	154
Median	0.005	0.028	1.92	11.4	4.1	130
Deviation	0.011	0.012	3.03	18.4	31.9	145
Maximum	0.084	0.054	15.33	89.2	341.7	961
Minimum	BDL	BDL	0.04	BDL	BDL	11

Pesticides:

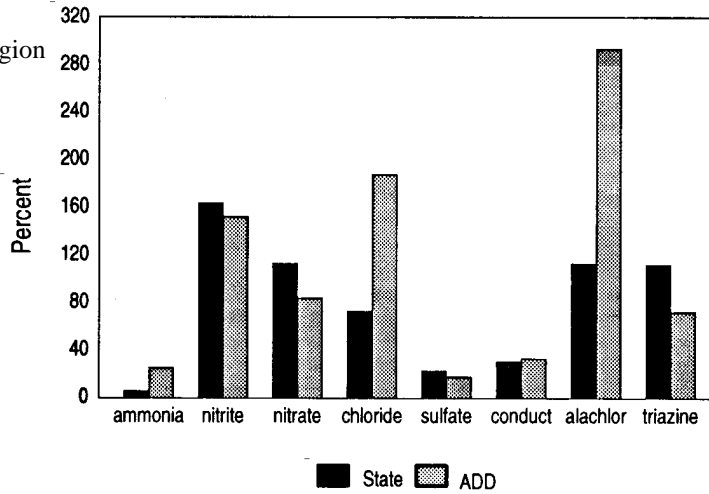
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	60	72
Average	0.106	0.120
Median	0.020	0.020
Deviation	0.328	0.292
Maximum	2.20	1.53
Minimum	Below Detection Levels	

BDL = Below Detection Level

Percent of State and Regional Average

Calloway County



County: Campbell

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Northern Kentucky

Number of Wells Tested: 50 (16.2%)

Supply Types:

	Number reported
Drilled Well	30
Driven Well	1
Dug Well	8
Spring	0

Well Depth Data:

	Feet
Average Well Depth	78
Maximum Well Depth	250
Minimum Well Depth	6

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	4.0%	12.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	6.0%
Within 200'	28.0%	26.0%	0.0%	6.0%	4.0%	64.0%	0.0%	0.0%	22.0%
Within Sight	50.0%	56.0%	0.0%	6.0%	4.0%	66.0%	0.0%	0.0%	60.0%

Water Use:

Domestic	80.0%
Livestock	30.0%
Irrigation	16.0%
Other	14.0%

Chemical Mixing Near Well? 10.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.254	0.006	2.03	42.0	150.6	847
Median	0.007	0.001	0.42	32.9	72.2	715
Deviation	0.867	0.016	5.62	82.9	253.4	553
Maximum	5.341	0.095	31.71	483.5	1287.7	2701
Minimum	BDL	BDL	BDL	0.2	1.7	35

Pesticides:

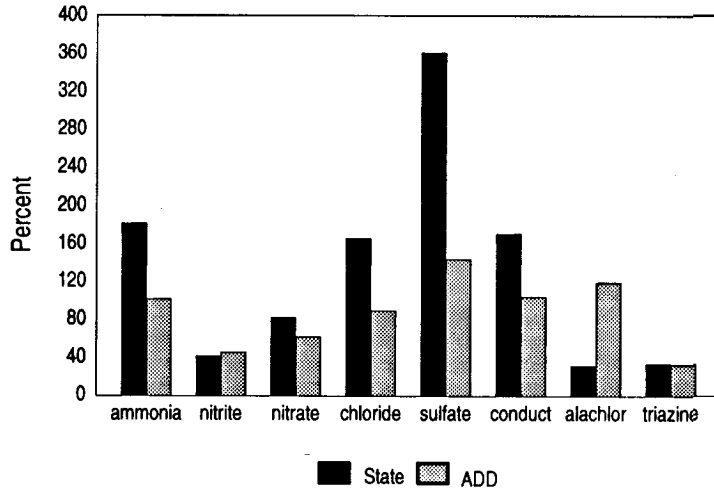
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	3
Average	0.030	0.037
Median	0.030	0.030
Deviation	0.000	0.012
Maximum	0.03	0.05
Minimum	0.03	0.03

BDL = Below Detection Level

Percent of State and Regional Average

Campbell County



County: Carlisle

Generalized Geology:

Physiographic Region:

Area Development District:

Number Supplies Tested: 58 (4.6%)

Supply Types:

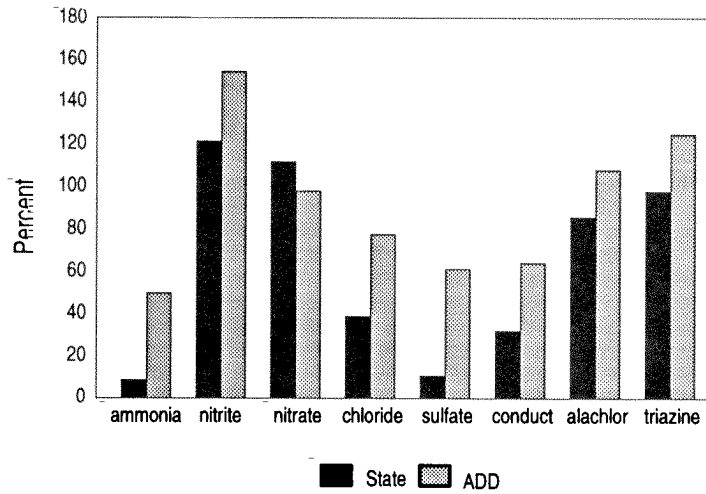
	<i>Number reported</i>
Drilled Well	55
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	151
Maximum Well Depth	400
Minimum Well Depth	37

Percent of State and Regional Average

Carlisle County



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.3%	6.9%	0.0%	0.0%	1.7%	1.7%	0.0%	0.0%	1.7%
Within 200'	48.2%	27.6%	3.4%	0.0%	1.7%	62.0%	0.0%	0.0%	12.0%
Within Sight	81.0%	50.0%	6.8%	0.0%	1.7%	62.0%	0.0%	0.0%	27.5%

Water Use:

Domestic	87.7%
Livestock	36.8%
Irrigation	1.8%
Other	5.3%

Chemical Mixing Near Well? 10.5%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.012	0.017	2.74	9.9	4.5	159
Median	0.001	0.012	1.41	3.9	1.6	107
Deviation	0.032	0.023	4.01	28.3	10.9	149
Maximum	0.215	0.125	22.92	210.1	74.8	840
Minimum	0.001	0.001	0.07	0.8	0.1	40

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	26	36
Average	0.080	0.105
Median	0.015	0.020
Deviation	0.210	0.299
Maximum	1.00	1.22
Minimum	0.01	0.01

County: Carroll

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Northern Kentucky

Number of Wells Tested: 34 (20.1 %)

Supply Types:

	Number reported
Drilled Well	31
Driven Well	3
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	95
Maximum Well Depth	125
Minimum Well Depth	50

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Septic Landfill	Hazardous Waste	Hazardous Stream
Within 20'	12.9%	12.0%	0.0%	0.0%	28.0%	3.4%	0.0%	0.0%	0.0%
Within 200'	48.4%	32.0%	0.0%	0.0%	36.0%	68.9%	0.0%	0.0%	22.6%
Within Sight	80.7%	52.0%	0.0%	0.0%	40.0%	68.9%	4.3%	17.4%	74.2%

Water Use:

Domestic	97.1%
Livestock	17.6%
Irrigation	8.8%
Other	8.8%

Chemical Mixing Near Well? 2.9%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.300	0.020	2.46	24.0	73.9	669
Median	0.003	0.001	1.67	21.2	64.6	579
Deviation	1.583	0.108	3.00	28.9	77.0	279
Maximum	9.247	0.630	11.81	152.9	493.7	1969
Minimum	BDL	BDL	0.03	1.7	BDL	341

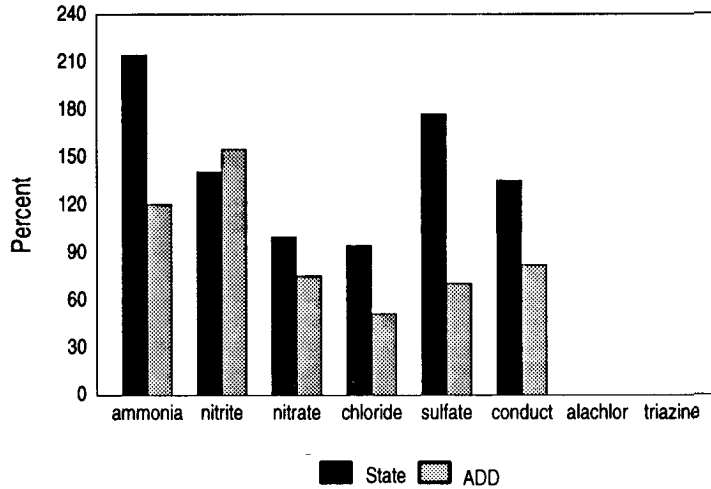
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Carroll County



BDL = Below Detection Level

County: Carter

**Generalized Geology:** Mississippian, Pennsylvanian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** FIVCO

**Number of Wells Tested:** 7 (0.3%)

**Supply Types:**

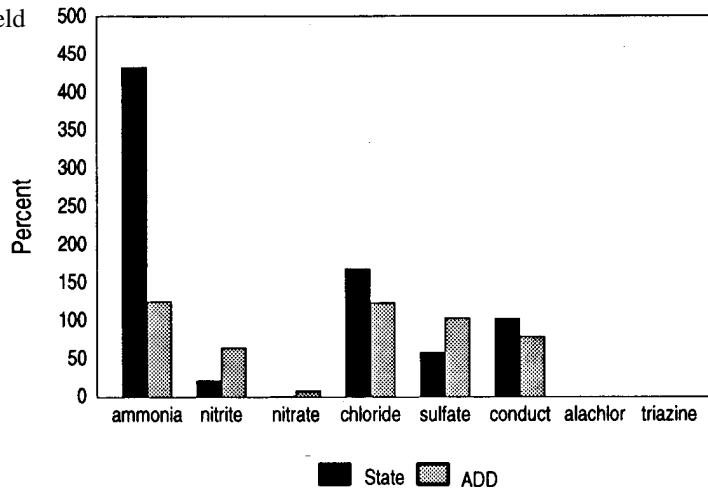
	<i>Number reported</i>
Drilled Well	7
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	115
Maximum Well Depth	347
Minimum Well Depth	50

Percent of State and Regional Average

Carter County



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	40.0%	25.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	14.3%
Within 200'	60.0%	75.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	28.6%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

**Water Use:**

Domestic	85.7%
Livestock	42.9%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 14.3%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.606	0.003	0.03	42.7	24.6	511
Median	0.113	0.001	0.02	9.5	21.2	420
Deviation	0.908	0.006	0.02	65.3	21.7	274
Maximum	2.494	0.016	0.05	179.8	54.2	1053
Minimum	0.009	BDL	BDL	0.9	BDL	179

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

BDL = Below Detection Level

County: Casey

Generalized Geology: Mississippian, Devonian, Ordovician  
 Physiographic Region: Eastern Pennyroyal and Knobs  
 Area Development District: Lake Cumberland

Number of Wells Tested: 69 (2.2%)

Supply Types:

	Number reported
Drilled Well	39
Driven Well	7
Dug Well	4
Spring	0

Well Depth Data:

	Feet
Average Well Depth	75
Maximum Well Depth	150
Minimum Well Depth	13

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	13.0%	2.9%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	4.3%
Within 200'	56.5%	33.3%	2.9%	0.0%	5.8%	59.4%	0.0%	0.0%	18.8%
Within Sight	75.3%	56.5%	8.7%	0.0%	8.7%	59.4%	4.3%	1.4%	31.8%

Water Use:

Domestic	97.0%
Livestock	29.9%
Irrigation	4.5%
Other	13.4%

Chemical Mixing Near Well? 7.9%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.065	0.007	3.02	9.8	34.9	329
Median	0.006	0.004	1.72	4.8	7.0	276
Deviation	0.252	0.013	3.73	13.0	87.3	223
Maximum	1.603	0.086	19.11	67.2	605.7	1305
Minimum	BDL	BDL	0.01	1.0	1.1	61

Pesticides:

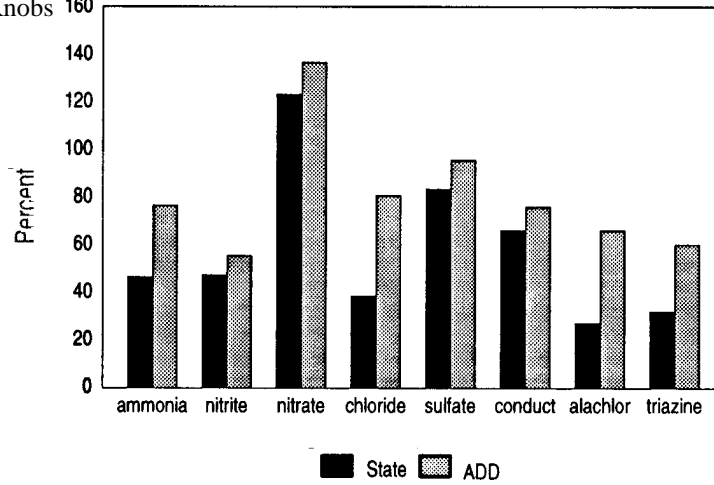
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	9	18
Average	0.026	0.034
Median	0.020	0.020
Deviation	0.014	0.037
Maximum	0.06	0.17
Minimum	0.01	0.02

BDL = Below Detection Level

Percent of State and Regional Average

Casey County



County: Christian

Generalized Geology: Mississippian, Pennsylvanian

Physiographic Region: Western Pennyroyal and Western Kentucky Coal Field

Area Development District: Pennyrile

Number of Wells Tested: 143 (5.7%)

Supply Types:

	Number reported
Drilled Well	120
Driven Well	1
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	105
Maximum Well Depth	300
Minimum Well Depth	19

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	20.3%	9.5%	0.0%	0.0%	7.2%	5.2%	0.0%	0.0%	2.3%
Within 200'	63.1%	46.6%	1.6%	0.0%	15.9%	74.8%	0.0%	0.0%	9.2%
Within Sight	93.5%	75.2%	12.5%	3.3%	23.1%	74.8%	3.3%	1.6%	43.7%

Water Use:

Domestic	95.0%
Livestock	43.3%
Irrigation	2.8%
Other	13.5%

Chemical Mixing Near Well? 20.9%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.059	0.005	4.39	19.0	42.9	529
Median	0.001	0.001	3.33	7.5	20.0	461
Deviation	0.236	0.022	3.96	49.9	88.6	383
Maximum	2.157	0.201	17.72	443.3	890.7	3451
Minimum	BDL	BDL	0.04	1.7	BDL	44

Pesticides:

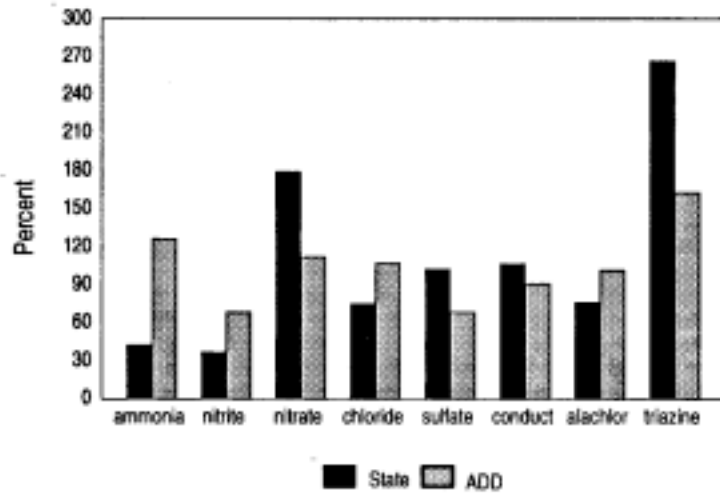
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	50	50
Average	0.071	0.285
Median	0.010	0.010
Deviation	0.215	0.497
Maximum	1.00	2.00
Minimum	Below Detection Levels	

BDL = Below Detection Level

Percent of State and Regional Average

Christian County





County: Clark

Generalized Geology: Ordovician, Devonian, Silurian  
 Physiographic Region: Bluegrass and Knobs Area  
 Development District: Bluegrass

Number of Wells Tested: 40 (7.7%)

Supply Types:

	Number reported
Drilled Well	18
Driven Well	0
Dug Well	6
Spring	0

Well Depth Data:

	Feet
Average Well Depth	80
Maximum Well Depth	175
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	5.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	12.5%
Within 200'	20.0%	17.5%	0.0%	0.0%	5.0%	42.5%	2.5%	0.0%	30.0%
Within Sight	67.5%	45.0%	0.0%	2.5%	12.5%	42.5%	5.0%	0.0%	50.0%

Water Use:

Domestic	67.5%
Livestock	55.0%
Irrigation	12.5%
Other	5.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.104	0.016	1.56	39.5	41.6	617
Median	0.003	0.012	0.82	5.8	35.4	541
Deviation	0.306	0.023	1.84	150.8	22.2	507
Maximum	1.857	0.134	7.18	957.3	107.3	3566
Minimum	BDL	BDL	0.07	0.8	9.5	231

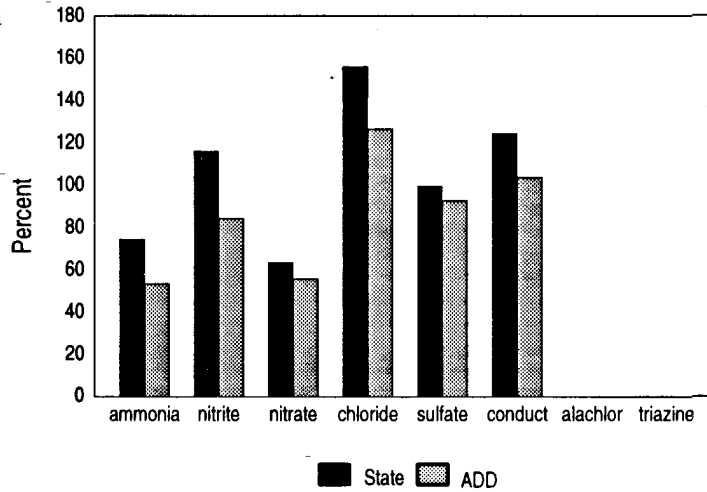
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Clark County



BDL = Below Detection Level

County: Clay

Generalized Geology: Pennsylvanian

Physiographic Region: Eastern Kentucky Coal Field

Area Development District: Cumberland Valley

Number of Wells Tested: 35 (0.9%)

Supply Types:

	Number reported
Drilled Well	29
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	Feet
Average Well Depth	106
Maximum Well Depth	325
Minimum Well Depth	15

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	20.0%	6.3%	0.0%	0.0%	100.0%	15.8%	0.0%	0.0%	8.3%
Within 200'	70.0%	62.6%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	58.3%
Within Sight	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	91.2%
Livestock	17.6%
Irrigation	11.8%
Other	14.7%

Chemical Mixing Near Well? 12.5%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.202	0.003	0.43	21.8	36.5	398
Median	0.099	0.001	0.01	5.5	8.6	357
Deviation	0.220	0.009	1.36	52.2	78.4	299
Maximum	0.853	0.052	5.90	286.3	325.9	1749
Minimum	0.011	BDL	0.01	1.1	0.1	58

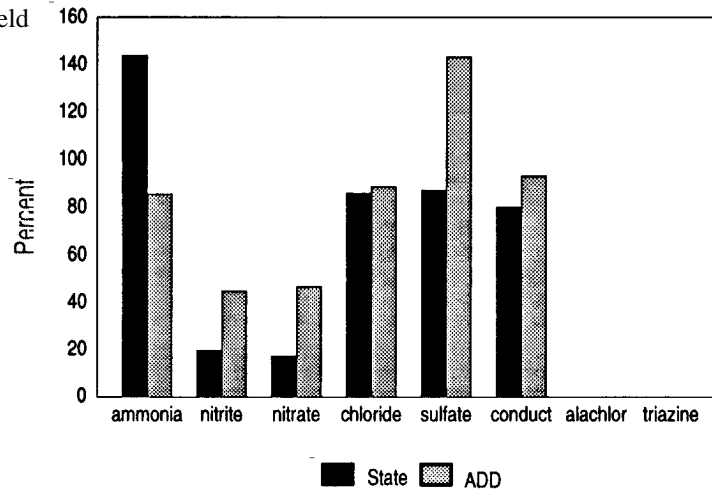
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Clay County



BDL = Below Detection Level

County: Clinton

Generalized Geology: Mississippian  
 Physiographic Region: Eastern Pennyroyal  
 Area Development District: Lake Cumberland

Number of Wells Tested: 55 (5.4%)

Supply Types:

	Number reported
Drilled Well	30
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	83
Maximum Well Depth	150
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	14.5%	3.6%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	1.8%
Within 200'	43.6%	36.3%	0.0%	0.0%	1.8%	52.7%	0.0%	0.0%	12.7%
Within Sight	69.1%	56.3%	5.5%	0.0%	1.8%	52.7%	0.0%	0.0%	40.0%

Water Use:

Domestic	94.3%
Livestock	56.6%
Irrigation	3.8%
Other	5.7%

Chemical Mixing Near Well? 9.6%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.141	0.005	1.58	6.4	44.8	463
Median	0.002	0.005	0.78	3.8	10.5	424
Deviation	0.479	0.002	2.83	7.2	119.8	244
Maximum	3.138	0.012	15.77	32.9	722.6	1459
Minimum	BDL	0.003	0.05	0.7	1.3	20

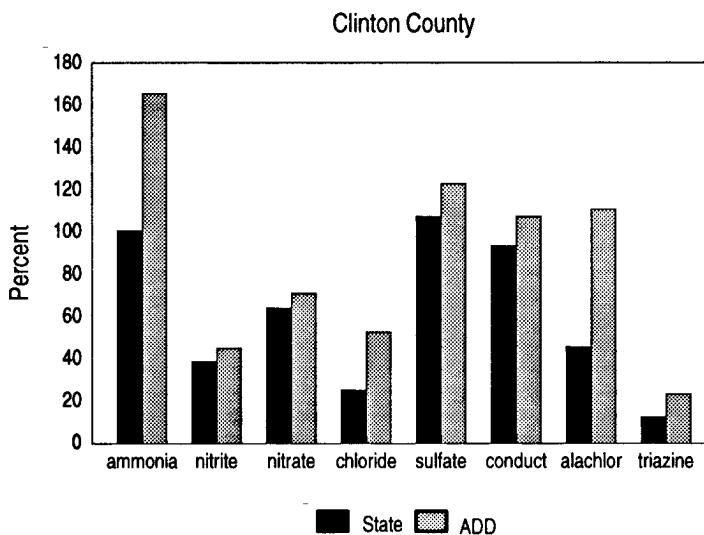
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	11	12
Average	0.043	0.013
Median	0.040	0.010
Deviation	0.018	0.005
Maximum	0.08	0.02
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Crittenden

Generalized Geology: Mississippian, Pennsylvanian, Alluvium

Physiographic Region: Western Pennyroyal, Western Kentucky Coal Field

Area Development District: Pennyrile

Number of Wells Tested: 56 (5.2%)

Supply Types:

	Number reported
Drilled Well	36
Driven Well	0
Dug Well	9
Spring	0

Well Depth Data:

	Feet
Average Well Depth	128
Maximum Well Depth	485
Minimum Well Depth	6

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	9.4%	3.7%	0.0%	0.0%	1.9%	3.7%	0.0%	0.0%	0.0%
Within 200'	32.0%	16.7%	0.0%	0.0%	1.9%	64.8%	0.0%	0.0%	3.7%
Within Sight	62.2%	46.3%	1.9%	0.0%	5.7%	64.8%	3.8%	0.0%	33.3%

Water Use:

Domestic	94.6%
Livestock	39.3%
Irrigation	8.9%
Other	5.4%

Chemical Mixing Near Well? 3.7%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.037	0.005	2.75	18.4	90.7	582
Median	0.001	0.001	1.04	10.6	25.4	468
Deviation	0.120	0.014	4.74	28.7	152.4	373
Maximum	0.817	0.091	27.10	173.9	826.6	1864
Minimum	BDL	BDL	0.04	0.7	0.2	40

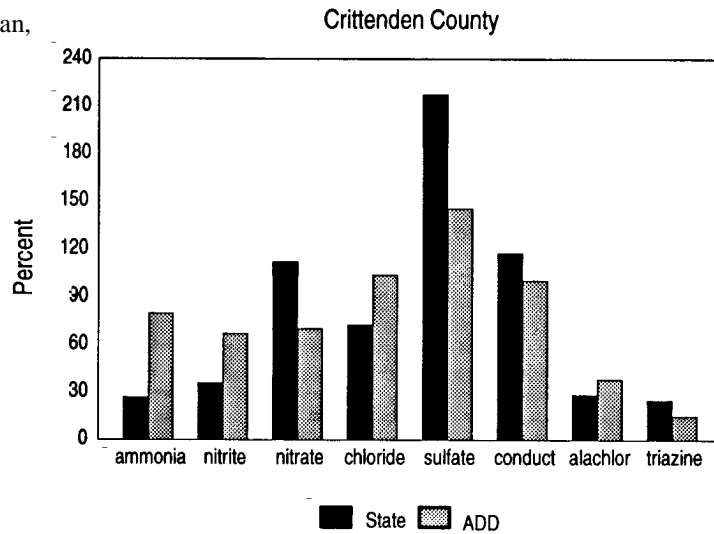
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	3	6
Average	0.027	0.027
Median	0.030	0.020
Deviation	0.006	0.012
Maximum	0.03	0.05
Minimum	0.02	0.02

BDL = Below Detection Level

Percent of State and Regional Average



**County:** Cumberland

**Generalized Geology:** Mississippian, Devonian, Ordovician

**Physiographic Region:** Eastern Pennyroyal

**Area Development District:** Lake Cumberland

**Number of Wells Tested:** 24 (4.6%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	16
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	53
Maximum Well Depth	117
Minimum Well Depth	17

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	8.3%	4.2%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	12.5%
Within 200'	45.8%	25.0%	4.2%	0.0%	0.0%	54.2%	0.0%	0.0%	16.7%
Within Sight	62.5%	62.5%	4.2%	0.0%	0.0%	54.2%	0.0%	0.0%	62.5%

**Water Use:**

Domestic	91.7%
Livestock	29.2%
Irrigation	16.7%
Other	12.5%

Chemical Mixing Near Well? 9.1%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.170	0.003	1.19	40.2	23.4	434
Median	0.001	0.001	0.55	2.9	17.7	318
Deviation	0.551	0.009	1.60	160.5	18.1	551
Maximum	2.486	0.045	7.07	791.7	67.1	2937
Minimum	BDL	BDL	0.05	1.1	3.8	82

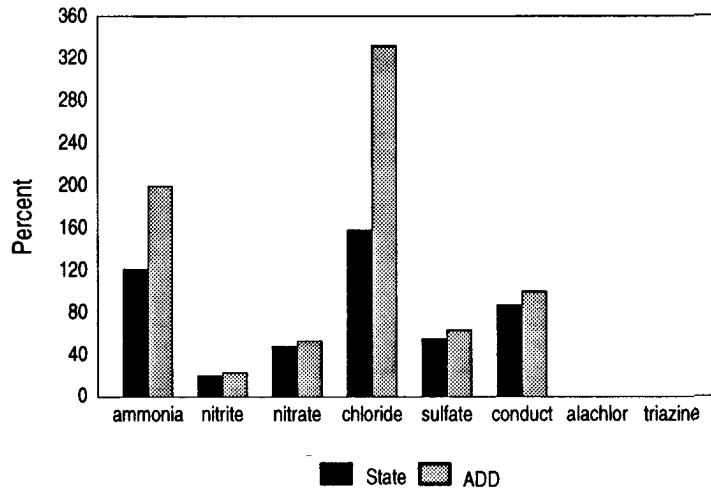
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

**Percent of State and Regional Average**

**Cumberland County**



BDL = Below Detection Level

County: Daviess

Generalized Geology: Alluvium, Pennsylvanian  
 Physiographic Region: Western Kentucky Coal Field  
 Area Development District: Green River

Number of Wells Tested: 45 (3.2%)

Supply Types:

	Number reported
Drilled Well	21
Driven Well	21
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	79
Maximum Well Depth	327
Minimum Well Depth	18

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	22.2%	6.7%	0.0%	2.2%	6.7%	8.9%	0.0%	0.0%	0.0%
Within 200'	82.2%	15.6%	2.2%	2.2%	11.1%	75.6%	0.0%	0.0%	8.9%
Within Sight	93.3%	31.2%	8.9%	15.5%	11.1%	75.6%	4.4%	4.4%	26.7%

Water Use:

Domestic	88.9%
Livestock	20.0%
Irrigation	15.6%
Other	15.6%

Chemical Mixing Near Well? 13.6%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.183	0.011	3.56	28.6	26.1	569
Median	0.001	0.001	1.00	8.4	20.3	437
Deviation	0.500	0.028	5.85	68.7	24.7	502
Maximum	2.738	0.147	30.72	349.1	104.7	2478
Minimum	BDL	BDL	0.02	2.1	1.1	58

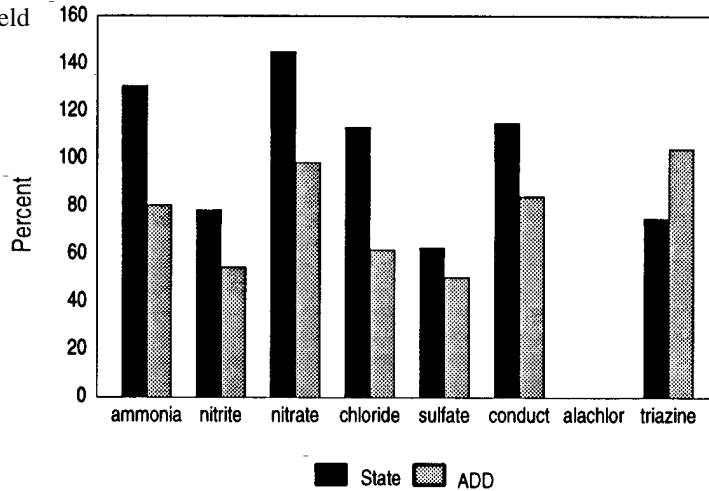
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	45
Average		0.080
Median		0.030
Deviation		0.238
Maximum		1.19
Minimum		0.02

Percent of State and Regional Average

Daviess County



BDL = Below Detection Level

County: Edmonson

**Generalized Geology:** Mississippian, Pennsylvani  
**Physiographic Region:** Eastern Pennyroyal,  
 Western Kentucky Coal Field  
**Area Development District:** Barren River

Number of Wells Tested: 10 (2.0%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	6
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	121
Maximum Well Depth	200
Minimum Well Depth	50

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	30.0%	0.0%	0.0%	0.0%	20.0%	40.0%	0.0%	0.0%	0.0%
Within Sight	50.0%	20.0%	0.0%	0.0%	20.0%	40.0%	0.0%	0.0%	20.0%

**Water Use:**

Domestic	80.0%	Chemical Mixing Near Well? 0.0%
Livestock	30.0%	
Irrigation	20.0%	
Other	0.0%	

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.045	0.036	0.93	3.2	13.3	224
Median	0.007	0.038	0.80	2.3	5.3	218
Deviation	0.080	0.008	0.95	2.6	19.4	180
Maximum	0.255	0.041	3.45	8.5	64.0	523
Minimum	0.001	0.014	0.18	0.7	0.4	24

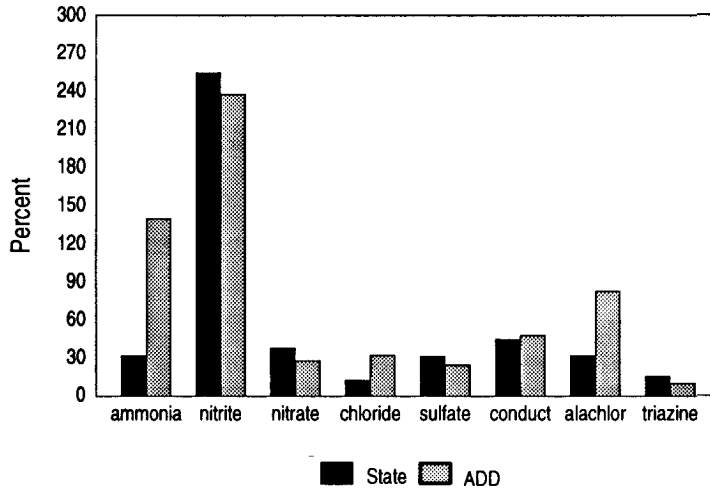
**Pesticides.**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	10
Average	0.030	0.017
Median	0.030	0.020
Deviation	0.000	0.005
Maximum	0.03	0.02
Minimum	0.03	0.01

Percent of State and Regional Average

Edmonson County



County: Elliott

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: FIVCO

Number of Wells Tested: 90 (5.0%)

Supply Types:

	<i>Number reported</i>
Drilled Well	63
Driven Well	0
Dug Well	13
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	114
Maximum Well Depth	305
Minimum Well Depth	10

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	12.2%	1.1%	0.0%	1.1%	1.1%	6.7%	0.0%	0.0%	7.8%
Within 200'	47.8%	15.5%	1.1%	2.2%	2.2%	53.4%	1.1%	0.0%	43.4%
Within Sight	65.6%	26.6%	1.1%	2.2%	3.3%	53.4%	1.1%	0.0%	59.0%

Water Use:

Domestic	86.7%
Livestock	12.2%
Irrigation	4.4%
Other	11.1%

Chemical Mixing Near Well? 8.3%

Water Quality:

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.395	0.005	0.29	29.7	20.6	624
Median	0.163	0.001	0.02	3.8	10.5	383
Deviation	0.731	0.025	1.01	87.7	27.2	1520
Maximum	6.179	0.235	8.27	557.4	126.8	13798
Minimum	BDL	BDL	BDL	0.7	0.7	33

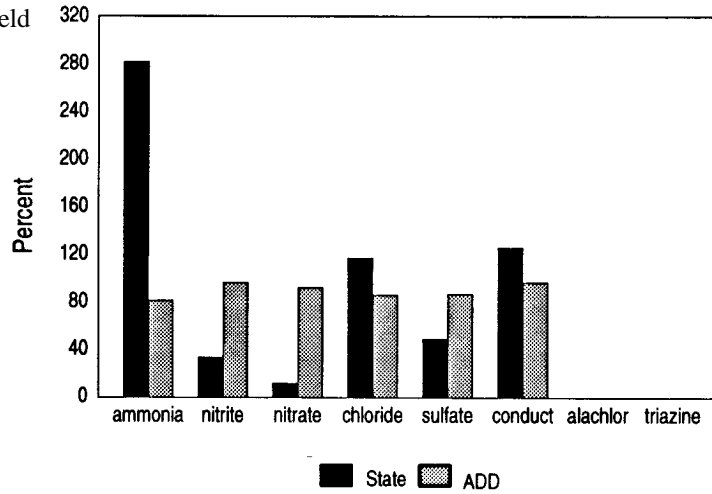
Pesticides:

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Elliott County



BDL = Below Detection Level



County: Estill

**Generalized Geology:** Mississippian, Silurian, Devonian, Pennsylvanian

**Physiographic Region:** Knobs

**Area Development District:** Bluegrass

**Number of Wells Tested:** 9 (2.4%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	
Driven Well	0
Dug Well	3
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	34
Maximum Well Depth	50
Minimum Well Depth	25

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%
Within 200'	33.0%	11.1%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	11.1%
Within Sight	66.0%	66.7%	11.1%	0.0%	0.0%	11.1%	11.1%	0.0%	66.7%

**Water Use:**

Domestic	55.6%	Chemical Mixing Near Well? 33.3%
Livestock	55.6%	
Irrigation	11.1%	
Other	22.2%	

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.109	0.032	1.64	13.3	72.1	514
Median	0.001	0.001	0.13	11.6	55.1	496
Deviation	0.229	0.092	2.66	10.7	74.8	225
Maximum	0.647	0.278	7.98	34.9	210.8	973
Minimum	BDL	BDL	0.10	1.0	2.1	196

**Pesticides:**

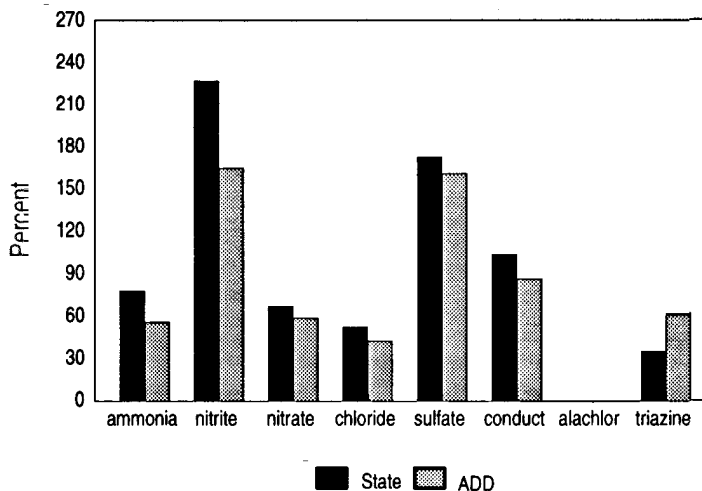
(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	9
Average		0.038
Median		0.020
Deviation		0.058
Maximum		0.19
Minimum		0.01

BDL = Below Detection Level

Percent of State and Regional Average

Estill County



County: Fayette

Generalized Geology: Ordovician  
 Physiographic Region: Inner Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 20 (10.1 %)

Supply Types:

	<i>Number reported</i>
Drilled Well	11
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	110
Maximum Well Depth	165
Minimum Well Depth	60

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	50.0%	14.3%	0.0%	0.0%	10.0%	27.3%	0.0%	0.0%	20.0%
Within Sight	55.6%	42.9%	11.1%	0.0%	20.0%	27.3%	0.0%	0.0%	46.7%

Water Use:

Domestic	61.1%	Chemical Mixing Near Well? 10.0%
Livestock	55.6%	
Irrigation	11.1%	
Other	0.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.032	0.026	6.90	9.0	27.7	531
Median	0.011	0.002	4.84	7.3	24.6	555
Deviation	0.044	0.072	7.11	5.1	18.8	141
Maximum	0.137	0.255	25.57	18.9	69.4	691
Minimum	0.009	0.001	0.15	2.5	6.5	170

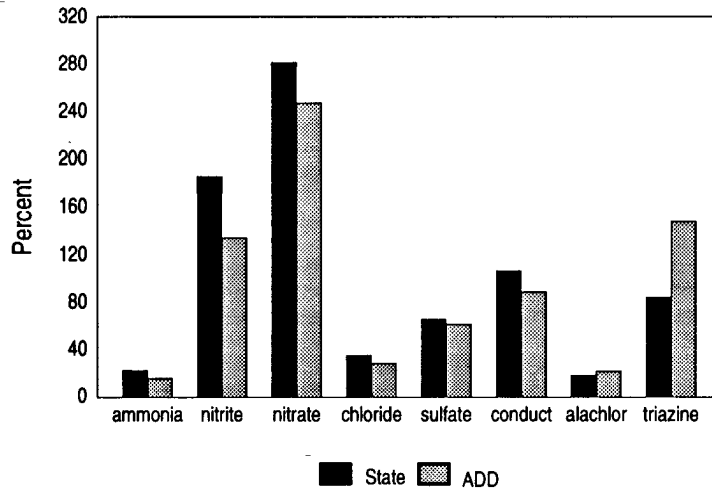
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	7	15
Average	0.017	0.091
Median	0.020	0.020
Deviation	0.008	0.140
Maximum	0.03	0.46
Minimum	0.01	0.01

Percent of State and Regional Average

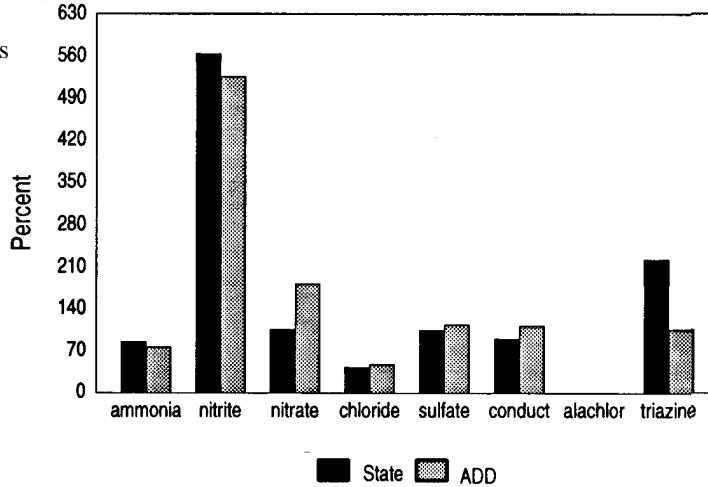
Fayette County



County: Fleming

Percent of State and Regional Average

Fleming County



**Generalized Geology:** Ordovician, Silurian, Devonian, Mississippian

**Physiographic Region:** Outer Bluegrass and Knobs

**Area Development District:** Buffalo Trace

**Number of Wells Tested:** 14 (2.5%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	1
Driven Well	0
Dug Well	7
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	25
Maximum Well Depth	25
Minimum Well Depth	25

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%
Within 200'	64.3%	57.1%	0.0%	0.0%	0.0%	78.6%	0.0%	0.0%	28.5%
Within Sight	85.7%	71.4%	0.0%	0.0%	0.0%	78.6%	0.0%	0.0%	42.8%

**Water Use:**

Domestic	61.5%	Chemical Mixing Near Well? 8.3%
Livestock	61.5%	
Irrigation	23.1%	
Other	0.0%	

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.119	0.079	2.61	10.9	43.9	450
Median	0.013	0.014	1.46	7.2	21.2	430
Deviation	0.213	0.242	3.65	14.1	46.0	229
Maximum	0.666	0.921	10.97	54.5	128.5	867
Minimum	0.003	0.009	0.05	1.6	8.2	77

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	14
Average		0.239
Median		0.080
Deviation		0.321
Maximum		0.95
Minimum		0.02

County: Floyd

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Big Sandy

Number of Wells Tested: 85 (1.4%)

Supply Types:

	Number reported
Drilled Well	69
Driven Well	0
Dug Well	10
Spring	0

Well Depth Data:

	Feet
Average Well Depth	64
Maximum Well Depth	210
Minimum Well Depth	15

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	9.4%	3.5%	0.0%	0.0%	3.5%	1.2%	0.0%	0.0%	12.9%
Within 200'	24.7%	14.1%	0.0%	1.2%	3.5%	30.6%	0.0%	0.0%	42.3%
Within Sight	37.6%	23.5%	1.2%	2.4%	4.7%	30.6%	1.2%	1.2%	61.1%

Water Use:

Domestic	88.9%
Livestock	7.4%
Irrigation	6.2%
Other	16.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.287	0.015	0.36	46.4	33.5	478
Median	0.203	0.001	0.03	9.0	14.2	351
Deviation	0.342	0.056	0.97	135.3	65.3	512
Maximum	1.451	0.446	6.79	1090.0	539.3	3793
Minimum	BDL	BDL	BDL	0.7	0.1	58

Pesticides:

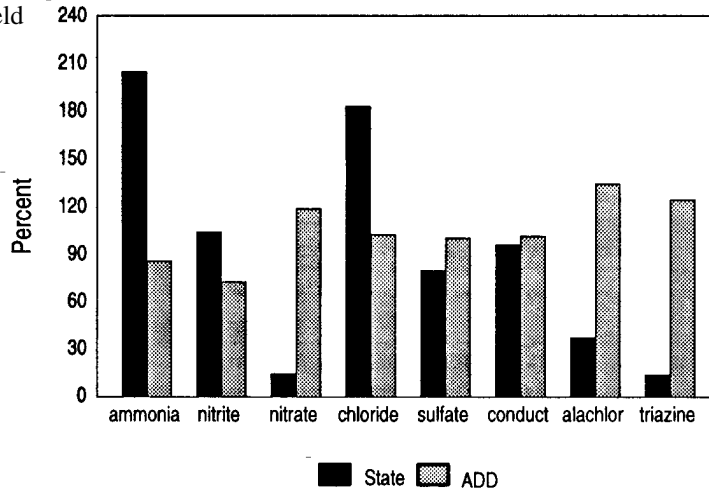
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	2	2
Average	0.035	0.015
Median	0.035	0.015
Deviation	0.007	0.007
Maximum	0.04	0.02
Minimum	0.03	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Floyd County



**County:** Franklin

**Generalized Geology:** Ordovician  
**Physiographic Region:** Inner and Outer Bluegrass  
**Area Development District:** Bluegrass

**Number of Wells Tested:** 12 (5.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	9
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	III
Maximum Well Depth	190
Minimum Well Depth	65

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%
Within 200'	41.7%	33.3%	0.0%	0.0%	0.0%	58.3%	0.0%	0.0%	25.0%
Within Sight	91.7%	75.0%	0.0%	0.0%	0.0%	58.3%	0.0%	0.0%	75.0%

**Water Use:**

Domestic	83.3%
Livestock	41.7%
Irrigation	8.3%
Other	8.3%

Chemical Mixing Near Well? 25.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.130	0.005	2.93	64.6	30.5	624
Median	0.004	0.001	2.38	8.3	32.5	656
Deviation	0.286	0.009	2.76	141.3	9.5	232
Maximum	0.973	0.027	7.52	499.4	39.5	998
Minimum	BDL	BDL	0.10	3.1	8.6	187

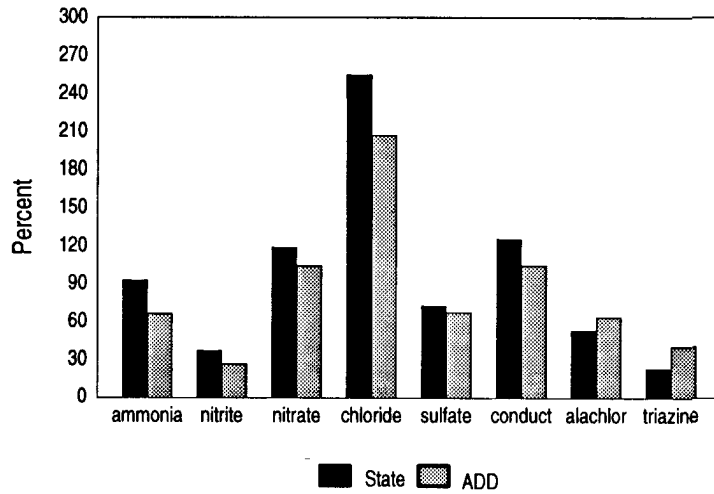
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	3	4
Average	0.050	0.025
Median	0.050	0.020
Deviation	0.020	0.017
Maximum	0.07	0.05
Minimum	0.03	0.01

Percent of State and Regional Average

Franklin County



BDL = Below Detection Level

County: Fulton

Percent of State and Regional Average

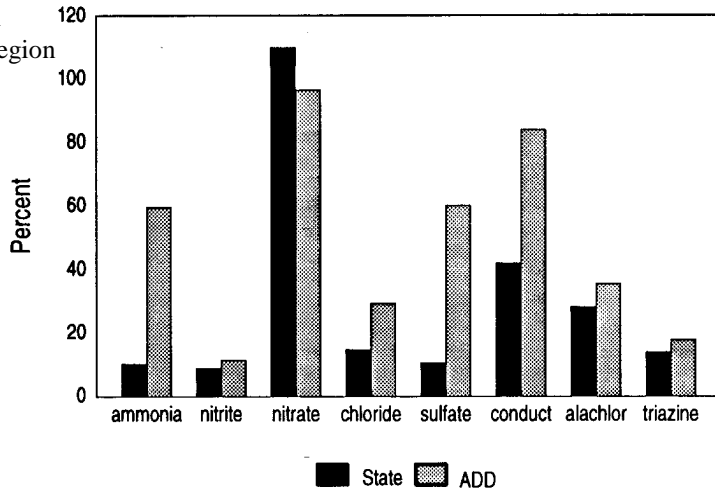
Generalized Geology: Tertiary, Alluvium  
 Physiographic Region: Jackson Purchase Region  
 Area Development District: Jackson Purchase Region

Fulton County

Number of Wells Tested: 44 (10.6%)

Supply Types:

	Number reported
Drilled Well	43
Driven Well	0
Dug Well	0
Spring	0



Well Depth Data:

	Feet
Average Well Depth	132
Maximum Well Depth	390
Minimum Well Depth	70

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	27.3%	9.1%	0.0%	0.0%	4.5%	4.5%	0.0%	0.0%	0.0%
Within 200'	77.3%	31.8%	2.3%	2.3%	4.5%	68.1%	0.0%	0.0%	0.0%
Within Sight	86.4%	43.2%	6.8%	2.3%	4.5%	68.1%	0.0%	0.0%	15.9%

Water Use:

Domestic	97.7%
Livestock	25.6%
Irrigation	2.3%
Other	7.0%

Chemical Mixing Near Well? 19.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.014	0.001	2.69	3.7	4.4	208
Median	0.001	0.001	1.63	2.1	1.3	162
Deviation	0.051	0.001	5.45	4.9	10.8	143
Maximum	0.274	0.010	35.75	29.9	69.9	581
Minimum	BDL	BDL	BDL	1.2	0.1	49

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	8	8
Average	0.026	0.015
Median	0.030	0.015
Deviation	0.005	0.005
Maximum	0.03	0.02
Minimum	0.02	0.01

BDL = Below Detection Level

County: Gallatin

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Northern Kentucky

Number of Wells Tested: 8 (4.2%)

Supply Types:

	Number reported
Drilled Well	8
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	115
Maximum Well Depth	150
Minimum Well Depth	50

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	14.3%	33.3%	0.0%	0.0%	66.7%	28.6%	0.0%	0.0%	0.0%
Within 200'	42.9%	100.0%	0.0%	0.0%	66.7%	100.0%	0.0%	0.0%	16.7%
Within Sight	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	100.0%
Livestock	25.0%
Irrigation	25.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.028	0.003	6.29	12.6	36.3	633
Median	0.027	0.001	4.63	3.9	32.5	603
Deviation	0.008	0.005	3.43	18.0	15.6	114
Maximum	0.043	0.016	13.38	52.0	64.9	820
Minimum	0.021	BDL	4.02	2.5	18.8	480

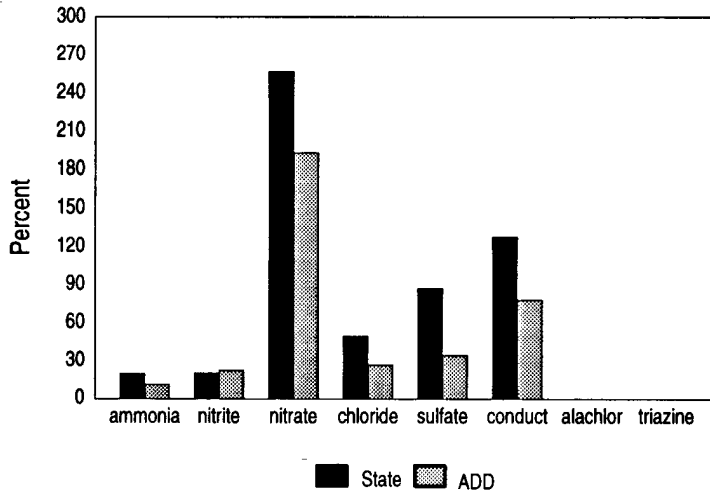
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Gallatin County



BDL = Below Detection Level

County: Garrard

**Generalized Geology:** Ordovician, Silurian, Devonian, Mississippian

**Physiographic Region:** Outer Bluegrass and Knobs

**Area Development District:** Bluegrass

**Number of Wells Tested:** 8 (3.3%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	2
Driven Well	0
Dug Well	2
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	49
Maximum Well Depth	100
Minimum Well Depth	14

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Hazardous Waste</i>	<i>Stream</i>
Within 20'	0.0%	12.5%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%
Within 200'	50.0%	50.0%	0.0%	0.0%	12.5%	25.0%	0.0%	0.0%	0.0%
Within Sight	62.5%	50.0%	0.0%	0.0%	12.5%	25.0%	0.0%	0.0%	50.0%

**Water Use:**

Domestic	50.0%
Livestock	62.5%
Irrigation	12.5%
Other	25.0%

Chemical Mixing Near Well? 16.7%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.263	0.054	1.07	36.1	40.4	547
Median	0.092	0.025	0.27	10.7	28.8	462
Deviation	0.391	0.073	1.88	77.2	43.3	404
Maximum	1.134	0.223	5.62	226.8	117.2	1389
Minimum	BDL	BDL	0.08	1.8	4.7	198

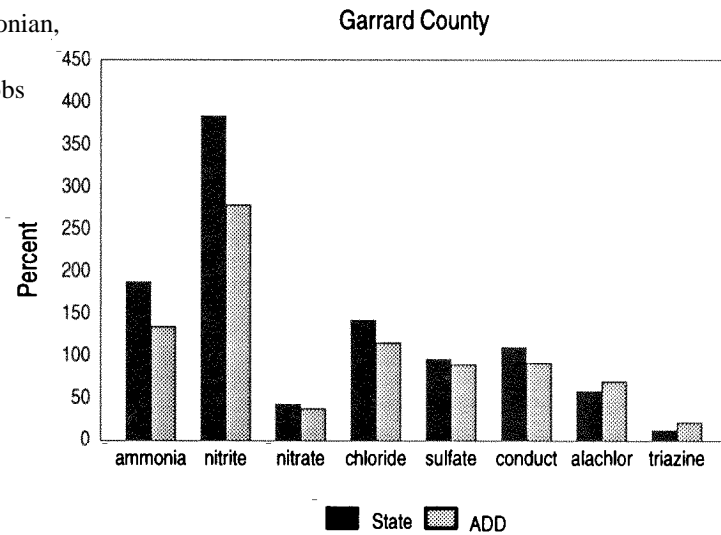
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	2	3
Average	0.055	0.013
Median	0.055	0.010
Deviation	0.050	0.006
Maximum	0.09	0.02
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average





**County:** Grant

**Generalized Geology:** Ordovician

**Physiographic Region:** Outer Bluegrass

**Area Development District:** Northern Kentucky

**Number of Wells Tested:** None, Estimated 262 Domestic Wells in County

County: Graves

Percent of State and Regional Average

Generalized Geology: Tertiary, Alluvium  
 Physiographic Region: Jackson Purchase Region  
 Area Development District: Jackson Purchase Region

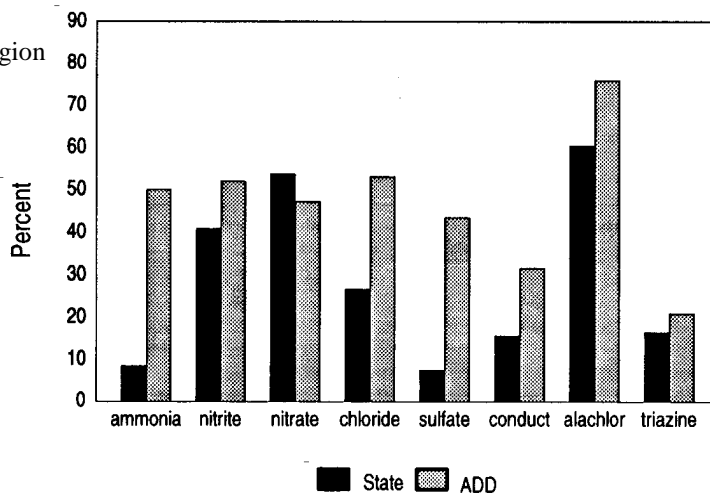
Number of Wells Tested: 180 (4.0%)

Supply Types:

	<i>Number reported</i>
Drilled Well	163
Driven Well	4
Dug Well	8
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	152
Maximum Well Depth	351
Minimum Well Depth	30



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	14.4%	2.2%	0.6%	0.6%	1.7%	2.2%	0.0%	0.0%	1.1%
Within 200'	49.4%	28.3%	2.3%	1.2%	2.8%	48.9%	0.6%	0.0%	6.1%
Within Sight	80.0%	49.4%	10.1%	3.4%	3.4%	48.9%	1.2%	0.0%	24.4%

Water Use:

Domestic	80.0%
Livestock	38.2%
Irrigation	11.2%
Other	5.9%

Chemical Mixing Near Well? 6.4%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.012	0.006	1.32	6.8	3.2	78
Median	0.001	0.001	0.61	2.6	2.2	49
Deviation	0.096	0.011	2.43	11.5	3.5	79
Maximum	1.288	0.117	19.53	80.7	27.2	504
Minimum	BDL	BDL	0.05	0.6	0.1	1

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	52	102
Average	0.056	0.018
Median	0.020	0.020
Deviation	0.216	0.018
Maximum	1.57	0.18
Minimum	Below Detection Levels	

BDL = Below Detection Level

County: Grayson

Generalized Geology: Mississippian, Pennsylvanian

Physiographic Region: Western Pennyroyal and Western Kentucky Coal Field

Area Development District: Lincoln Trail

Number of Wells Tested: 25 (0.8% of total)

Supply Types:

	Number reported
Drilled Well	16
Driven Well	0
Dug Well	2
Spring	0

Well Depth Data:

	Feet
Average Well Depth	212
Maximum Well Depth	402
Minimum Well Depth	21

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	48.0%	32.0%	0.0%	0.0%	0.0%	56.0%	0.0%	0.0%	12.0%
Within Sight	64.0%	72.0%	0.0%	0.0%	4.0%	56.0%	0.0%	0.0%	24.0%

Water Use:

Domestic	90.9%	Chemical Mixing Near Well? 0.0%
Livestock	27.3%	
Irrigation	0.0%	
Other	0.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.080	0.001	0.81	15.7	45.0	478
Median	0.001	0.001	0.34	5.7	32.4	395
Deviation	0.167	0.001	0.88	24.4	42.8	305
Maximum	0.610	0.006	3.13	86.4	151.0	1298
Minimum	BDL	BDL	0.14	1.5	2.0	69

Pesticides:

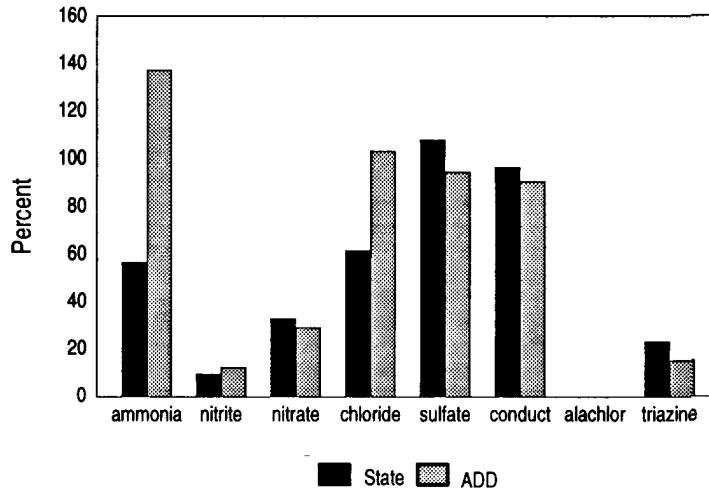
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	2
Average		0.025
Median		0.025
Deviation		0.007
Maximum		0.03
Minimum		0.02

BDL = Below Detection Level

Percent of State and Regional Average

Grayson County



County: Green

Generalized Geology: Mississippian  
 Physiographic Region: Eastern Pennyroyal  
 Area Development District: Lake Cumberland

Number of Wells Tested: 31 (3.3%)

Supply Types:

	Number reported
Drilled Well	20
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	91
Maximum Well Depth	160
Minimum Well Depth	30

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	0.0%	6.5%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%
Within 200'	29.0%	54.9%	3.2%	0.0%	3.2%	51.6%	0.0%	0.0%	3.2%
Within Sight	58.0%	61.4%	9.7%	0.0%	3.2%	51.6%	0.0%	0.0%	29.0%

Water Use:

Domestic	70.4%
Livestock	66.7%
Irrigation	3.7%
Other	3.7%

Chemical Mixing Near Well? 7.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.034	0.009	1.75	12.5	51.6	542
Median	0.011	0.004	0.32	5.0	11.5	440
Deviation	0.089	0.020	2.77	24.8	78.0	297
Maximum	0.394	0.113	10.73	126.9	282.1	1350
Minimum	0.005	BDL	0.06	0.9	3.3	53

Pesticides:

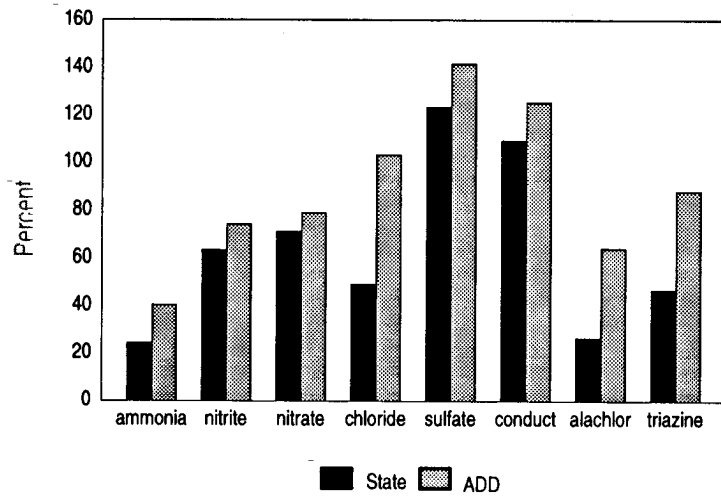
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	29	29
Average	0.025	0.050
Median	0.020	0.020
Deviation	0.010	0.084
Maximum	0.07	0.34
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Green County



County: Greenup

Generalized Geology: Pennsylvanian, Mississippian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: FIVCO

Number of Wells Tested: 1 (0.03%)

Supply Types:

	<i>Number reported</i>
Drilled Well	1
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

Not Reported

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Chemicals Elevator for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill Waste</i>	<i>Stream</i>
Not Reported							

Water Use:

Domestic	100.0%
Livestock	0.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.009	0.001	7.89	7.8	8.1	154
Median	0.009	0.001	7.89	7.8	8.1	154
Deviation	0.000	0.000	0.00	0.0	0.0	0
Maximum	0.009	0.001	7.89	7.8	8.1	154
Minimum	0.009	0.001	7.89	7.8	8.1	154

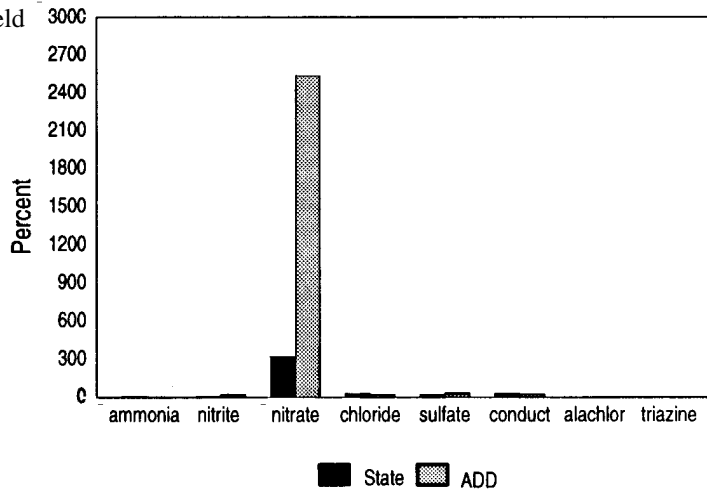
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Greenup County



County: Hancock

Generalized Geology: Alluvium, Pennsylvanian  
 Physiographic Region: Western Kentucky Coal Field  
 Area Development District: Green River

Number of Wells Tested: 27 (3.9%)

Supply Types:

	Number reported
Drilled Well	14
Driven Well	7
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	119
Maximum Well Depth	250
Minimum Well Depth	30

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	11.1%	3.7%	0.0%	0.0%	7.4%	3.7%	0.0%	0.0%	0.0%
Within 200'	48.1%	33.3%	0.0%	0.0%	7.4%	63.0%	0.0%	0.0%	3.7%
Within Sight	88.8%	55.5%	3.7%	0.0%	7.4%	63.0%	0.0%	0.0%	40.7%

Water Use:

Domestic	77.8%
Livestock	29.6%
Irrigation	14.8%
Other	7.4%

Chemical Mixing Near Well? 12.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.229	0.007	3.36	45.7	37.5	660
Median	0.006	0.003	0.53	11.4	32.1	509
Deviation	0.899	0.007	4.60	161.0	33.7	672
Maximum	4.588	0.019	17.07	831.6	131.2	3703
Minimum	BDL	BDL	BDL	2.1	2.5	59

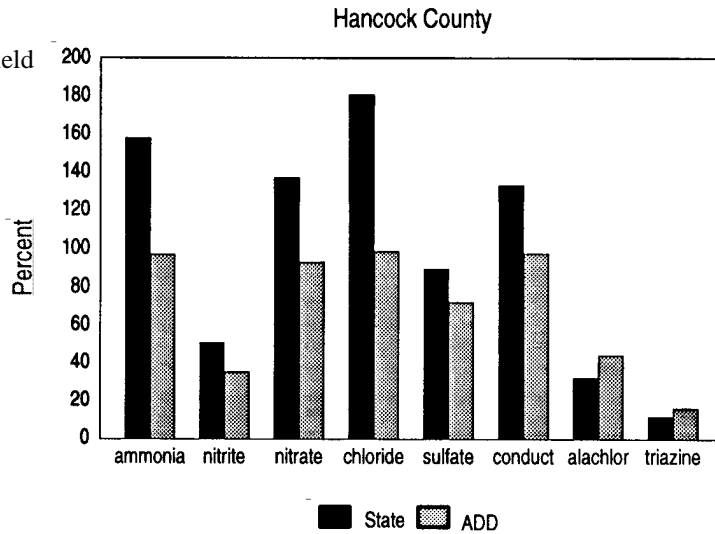
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	4	20
Average	0.030	0.012
Median	0.030	0.010
Deviation	0.000	0.006
Maximum	0.03	0.03
Minimum	0.03	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Hardin

Generalized Geology: Mississippian  
 Physiographic Region: Western Pennyroyal  
 Area Development District: Lincoln Trail

Number of Wells Tested: 156 (4.2%)

Supply Types:

	Number reported
Drilled Well	130
Driven Well	0
Dug Well	8
Spring	0

Well Depth Data:

	Feet
Average Well Depth	121
Maximum Well Depth	373
Minimum Well Depth	20

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	15.6%	6.7%	0.0%	0.0%	4.3%	5.0%	0.0%	0.0%	2.4%
Within 200'	58.2%	40.3%	6.8%	0.9%	7.8%	74.1%	0.0%	0.0%	11.2%
Within Sight	93.0%	80.6%	24.7%	2.7%	11.3%	74.1%	1.8%	0.0%	46.4%

Water Use:

Domestic	98.0%
Livestock	41.3%
Irrigation	5.3%
Other	10.0%

Chemical Mixing Near Well? 8.7%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.022	0.008	3.57	13.8	30.7	506
Median	0.001	0.001	1.75	4.0	6.9	412
Deviation	0.117	0.074	4.51	81.0	119.1	455
Maximum	1.030	0.918	24.52	1003.2	1024.5	3302
Minimum	BDL	BDL	BDL	0.4	0.1	125

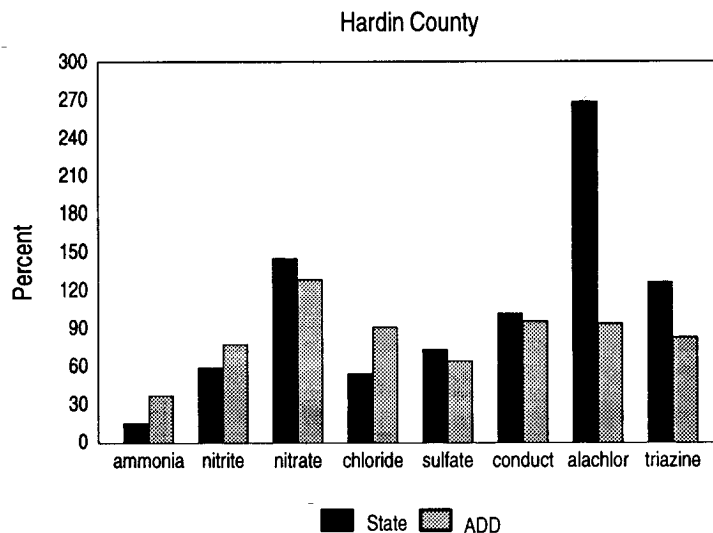
Pesticides.

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	74	96
Average	0.251	0.136
Median	0.030	0.035
Deviation	1.004	0.255
Maximum	7.25	1.72
Minimum	0.01	0.01

BDL = Below Detection Level

Percent of State and Regional Average



**County:** Harlan

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Cumberland Valley

**Number of Wells Tested:** None, Estimated 6,435 Domestic Wells in County



County: Harrison

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 10 (6.3%)

Supply Types:

	Number reported
Drilled Well	7
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	109
Maximum Well Depth	300
Minimum Well Depth	50

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	10.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	10.0%
Within 200'	20.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	30.0%
Within Sight	70.0%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	60.0%

Water Use:

Domestic	37.5%
Livestock	100.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 14.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	1.379	0.030	1.54	43.6	43.6	688
Median	0.348	0.023	0.01	39.2	34.7	593
Deviation	3.311	0.020	2.99	34.2	29.3	178
Maximum	10.785	0.083	9.22	105.4	95.1	983
Minimum	0.067	0.020	BDL	9.7	7.3	516

Pesticides:

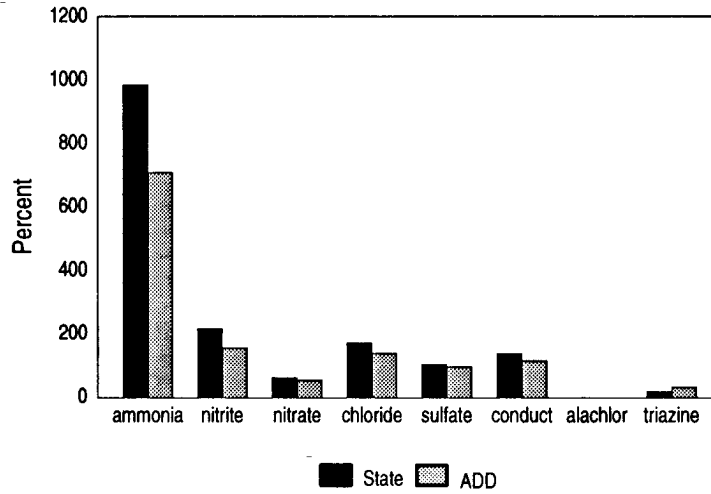
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	4
Average		0.020
Median		0.010
Deviation		0.020
Maximum		0.05
Minimum		0.01

BDL = Below Detection Level

Percent of State and Regional Average

Harrison County



County: Hart

**Generalized Geology:** Mississippian, Pennsylvanian  
**Physiographic Region:** Western Pennyroyal and Western Kentucky Coal Field  
**Area Development District:** Barren River

**Number of Wells Tested:** 10 (0.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	6
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	Feet
Average Well Depth	126
Maximum Well Depth	200
Minimum Well Depth	75

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%
Within 200'	40.0%	40.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	40.0%
Within Sight	70.0%	70.0%	10.0%	0.0%	0.0%	30.0%	0.0%	0.0%	70.0%

**Water Use:**

Domestic	100.0%
Livestock	80.0%
Irrigation	40.0%
Other	10.0%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.184	0.006	1.64	23.8	8.8	686
Median	0.010	0.006	0.77	3.4	5.3	351
Deviation	0.541	0.002	2.05	62.8	13.0	1166
Maximum	1.724	0.010	6.18	202.2	42.3	3988
Minimum	0.003	0.004	0.05	1.6	0.1	37

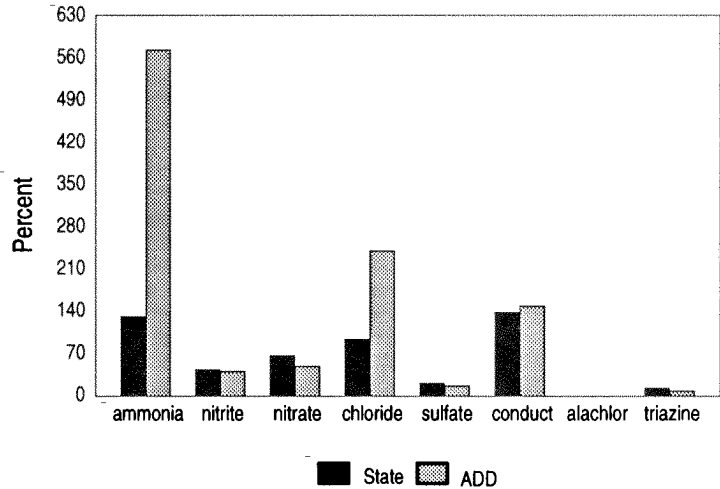
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	10
Average		0.014
Median		0.010
Deviation		0.013
Maximum		0.05
Minimum		0.01

**Percent of State and Regional Average**

**Hart County**



County: Henderson

**Generalized Geology:** Alluvium, Pennsylvanian  
**Physiographic Region:** Western Kentucky Coal Field  
**Area Development District:** Green River

**Number of Wells Tested:** 144 (8.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	95
Driven Well	24
Dug Well	14
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	76
Maximum Well Depth	250
Minimum Well Depth	10

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	18.8%	9.7%	0.0%	0.0%	6.9%	6.3%	0.0%	0.0%	2.1%
Within 200'	62.6%	30.5%	0.7%	2.1%	11.1%	65.3%	1.4%	0.0%	5.6%
Within Sight	84.8%	49.9%	2.1%	4.9%	14.6%	65.3%	1.4%	0.0%	29.9%

**Water Use:**

Domestic	86.2%
Livestock	25.4%
Irrigation	7.2%
Other	9.4%

Chemical Mixing Near Well? 12.5%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.087	0.023	4.30	42.8	46.5	509
Median	0.007	0.003	1.31	11.4	26.3	433
Deviation	0.194	0.056	7.84	174.0	66.8	481
Maximum	0.978	0.339	53.20	1670.5	441.5	4718
Minimum	BDL	BDL	0.06	0.6	0.4	51

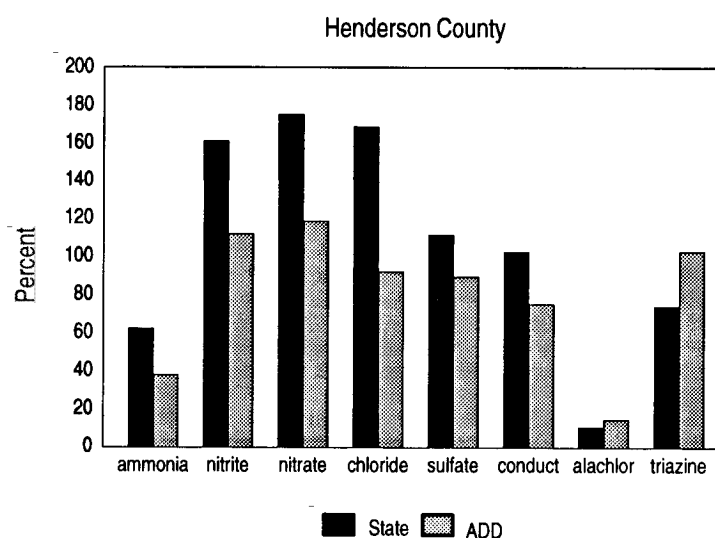
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	50
Average	0.01	0.079
Median	0.01	0.020
Deviation	0.00	0.212
Maximum	0.01	1.28
Minimum	0.01	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Henry

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: KIPDA

Number of Wells Tested: 16 (4.3%)

Supply Types:

	Number reported
Drilled Well	1
Driven Well	0
Dug Well	9
Spring	0

Well Depth Data:

	Feet
Average Well Depth	30
Maximum Well Depth	50
Minimum Well Depth	15

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	18.8%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%
Within 200'	62.6%	25.1%	6.7%	0.0%	13.3%	62.5%	0.0%	0.0%	20.0%
Within Sight	75.1%	56.4%	6.7%	0.0%	13.3%	62.5%	13.3%	13.3%	53.3%

Water Use:

Domestic	68.8%
Livestock	25.0%
Irrigation	37.5%
Other	0.0%

Chemical Mixing Near Well? 15.4%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.100	0.010	2.07	10.4	38.7	453
Median	0.011	0.006	0.75	6.4	39.5	491
Deviation	0.177	0.008	3.19	12.7	29.1	180
Maximum	0.572	0.026	10.27	52.7	92.9	760
Minimum	0.001	BDL	0.04	1.7	3.7	169

Pesticides:

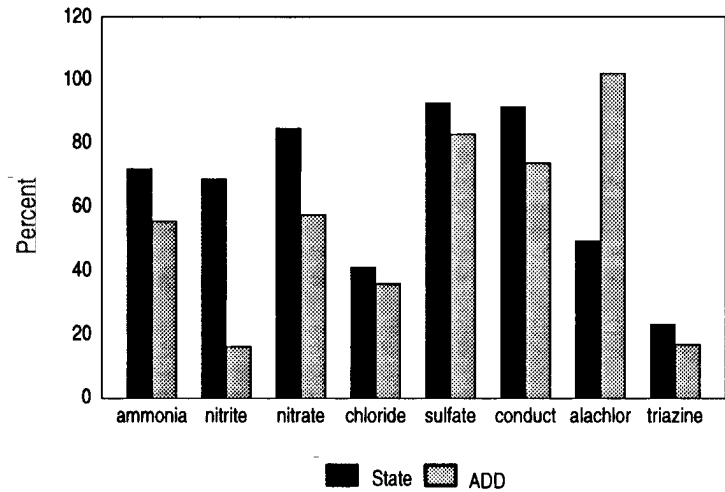
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	5	4
Average	0.046	0.025
Median	0.030	0.020
Deviation	0.029	0.017
Maximum	0.09	0.05
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Henry County



County: Hickman

Percent of State and Regional Average

Generalized Geology: Tertiary, Alluvium

Physiographic Region: Jackson Purchase Region

Area Development District: Jackson Purchase Region

Number of Wells Tested: 168 (12.6%)

Supply Types:

	Number reported
Drilled Well	153
Driven Well	1
Dug Well	2
Spring	0

Well Depth Data:

	Feet
Average Well Depth	141
Maximum Well Depth	340
Minimum Well Depth	34

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	16.7%	5.4%	0.0%	0.6%	3.6%	4.2%	0.0%	0.0%	0.6%
Within 200'	59.0%	20.9%	3.6%	0.6%	4.8%	54.2%	1.8%	0.0%	3.0%
Within Sight	79.2%	34.6%	6.6%	1.2%	4.8%	55.4%	2.4%	0.0%	14.9%

Water Use:

Domestic	93.0%
Livestock	32.5%
Irrigation	3.8%
Other	3.2%

Chemical Mixing Near Well? 15.6%

Water Quality:

(Concentrations in Milligrams per Liter)

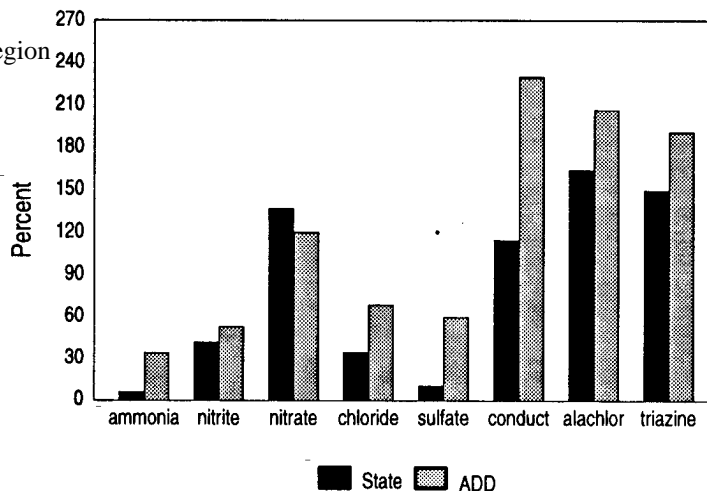
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.008	0.006	3.36	8.7	4.4	568
Median	0.005	0.002	1.90	4.0	2.4	198
Deviation	0.020	0.022	4.48	12.6	5.9	906
Maximum	0.209	0.215	37.50	82.0	34.0	5650
Minimum	BDL	BDL	0.10	1.3	0.1	25

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	13	62
Average	0.153	0.160
Median	0.020	0.010
Deviation	0.418	0.535
Maximum	1.54	3.33
Minimum	0.01	BDL

BDL = Below Detection Level

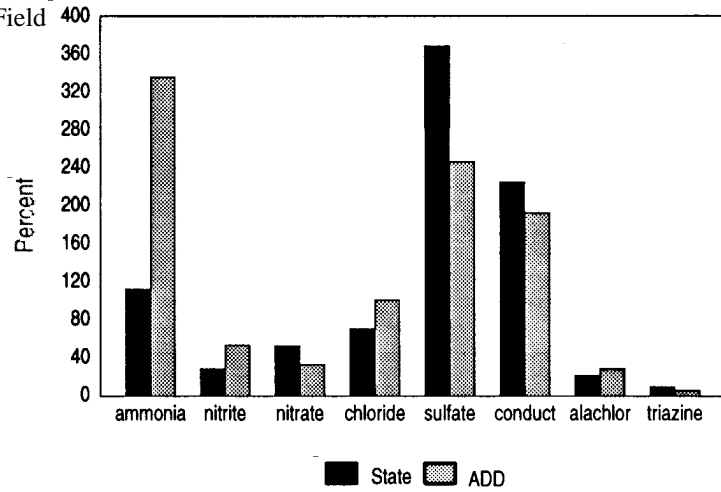


County: Hopkins

Percent of State and Regional Average

Hopkins County

**Generalized Geology:** Pennsylvanian, Alluvium  
**Physiographic Region:** Western Kentucky Coal Field  
**Area Development District:** Pennyriple



Number of Wells Tested: 11 (2.0%)

**Supply Types:**

	Number reported
Drilled Well	10
Driven Well	1
Dug Well	0
Spring	0

**Well Depth Data:**

	Feet
Average Well Depth	171
Maximum Well Depth	600
Minimum Well Depth	45

**Supply Locations:**

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	36.4%	36.4%	0.0%	0.0%	0.0%	54.5%	0.0%	0.0%	0.0%
Within Sight	72.8%	45.5%	0.0%	9.1%	9.1%	54.5%	0.0%	0.0%	45.5%

**Water Use:**

Domestic	100.0%	Chemical Mixing Near Well? 0.0%
Livestock	30.0%	
Irrigation	10.0%	
Other	30.0%	

**Water Quality:**

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.157	0.004	1.30	17.9	153.7	1117
Median	0.052	0.002	0.09	14.2	29.9	1103
Deviation	0.203	0.006	3.28	16.3	185.7	542
Maximum	0.598	0.020	11.06	61.2	423.7	1971
Minimum	BDL	0.001	0.08	4.0	3.6	189

**Pesticides:**

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	1
Average	0.020	0.010
Median	0.020	0.010
Deviation	0.000	0.000
Maximum	0.02	0.01
Minimum	0.02	0.01

BDL = Below Detection Level

County: Jackson

Percent of State and Regional Average

Jackson County

**Generalized Geology:** Pennsylvanian, Mississippian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** Cumberland Valley

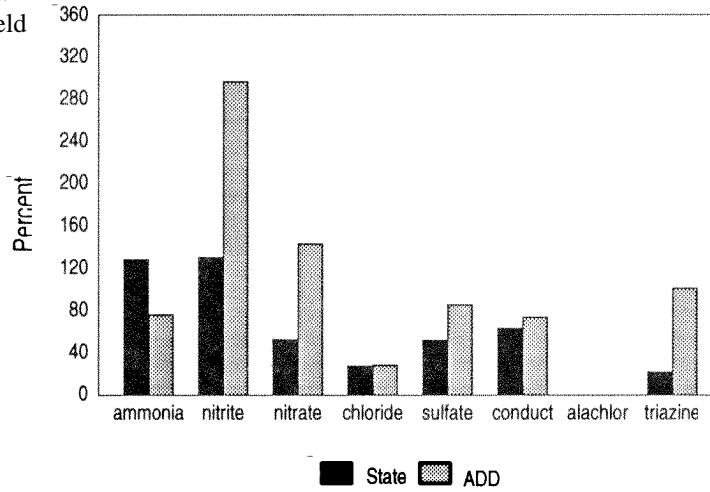
Number of Wells Tested: 20 (1.3%)

Supply Types:

	<i>Number reported</i>
Drilled Well	13
Driven Well	0
Dug Well	4
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	86
Maximum Well Depth	165
Minimum Well Depth	15



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	5.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	5.0%
Within 200'	55.0%	25.0%	0.0%	0.0%	20.0%	70.0%	0.0%	0.0%	35.0%
Within Sight	80.0%	40.0%	5.0%	0.0%	20.0%	70.0%	0.0%	0.0%	55.0%

Water Use:

Domestic	100.0%
Livestock	11.1%
Irrigation	0.0%
Other	5.6%

Chemical Mixing Near Well? 11.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.180	0.018	1.30	7.0	21.9	316
Median	0.049	0.011	0.12	1.6	11.3	262
Deviation	0.432	0.020	3.83	13.8	42.8	226
Maximum	1.967	0.086	16.13	57.7	199.0	910
Minimum	0.001	0.006	0.07	0.8	2.6	44

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	15
Average		0.023
Median		0.020
Deviation		0.027
Maximum		0.12
Minimum		0.01

County: Jefferson

**Generalized Geology:** Alluvium, Devonian, Silurian, Ordovician, Mississippian

**Physiographic Region:** Knobs

**Area Development District:** KIPDA

**Number of Wells Tested:** 36 (1.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	25
Driven Well	2
Dug Well	2
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	92
Maximum Well Depth	200
Minimum Well Depth	15

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	13.9%	5.6%	0.0%	0.0%	5.6%	5.6%	0.0%	0.0%	0.0%
Within 200'	33.3%	33.4%	0.0%	0.0%	27.8%	80.6%	0.0%	2.8%	11.1%
Within Sight	61.1%	64.0%	11.1%	0.0%	36.1%	80.6%	5.6%	11.1%	50.0%

**Water Use:**

Domestic	86.1%
Livestock	33.3%
Irrigation	11.1%
Other	16.7%

Chemical Mixing Near Well? 5.7%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.164	0.023	2.19	31.8	65.0	655
Median	0.005	0.003	1.37	18.4	58.6	605
Deviation	0.334	0.049	2.61	49.2	38.8	250
Maximum	1.262	0.229	9.54	272.2	182.6	1759
Minimum	BDL	0.001	0.14	1.8	8.9	320

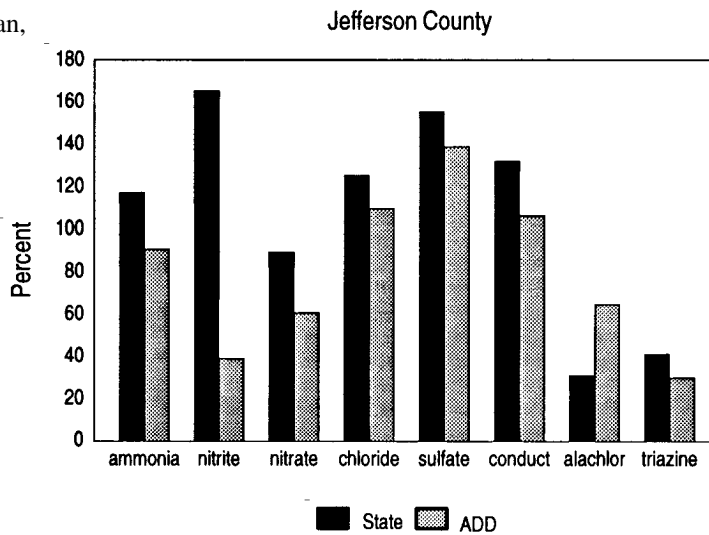
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	14	25
Average	0.029	0.044
Median	0.025	0.010
Deviation	0.013	0.088
Maximum	0.06	0.35
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average





Quality of Private Ground-Water Supplies in Kentucky

County: Jessamine

Generalized Geology: Ordovician  
 Physiographic Region: Inner Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 18 (7.9%)

Supply Types:

	Number reported
Drilled Well	4
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	Feet
Average Well Depth	80
Maximum Well Depth	150
Minimum Well Depth	18

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	5.6%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	44.5%	27.8%	0.0%	0.0%	5.6%	22.2%	0.0%	0.0%	16.7%
Within Sight	66.7%	50.0%	0.0%	0.0%	16.7%	22.2%	5.6%	0.0%	33.3%

Water Use:

Domestic	81.3%	Chemical Mixing Near Well? 0.0%
Livestock	68.8%	
Irrigation	6.3%	
Other	0.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.222	0.008	3.78	9.8	30.9	440
Median	0.001	0.003	3.81	3.7	24.9	377
Deviation	0.858	0.024	3.06	18.8	22.7	220
Maximum	3.656	0.103	10.75	81.9	94.5	988
Minimum	BDL	BDL	0.02	0.4	1.0	7

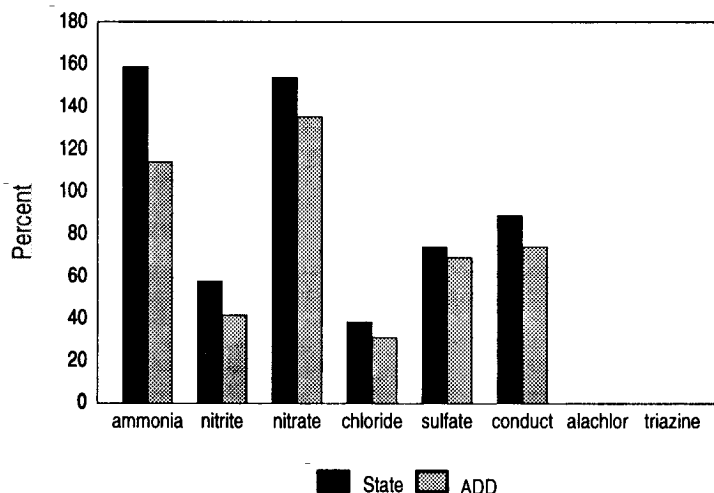
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Jessamine County



BDL = Below Detection Level

County: Johnson

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Big Sandy

Number of Wells Tested: 92 (2.2%)

Supply Types:

	<i>Number reported</i>
Drilled Well	82
Driven Well	0
Dug Well	7
Spring	2

Well Depth Data:

	<i>Feet</i>
Average Well Depth	112
Maximum Well Depth	300
Minimum Well Depth	20

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	9.8%	1.1%	0.0%	0.0%	1.1%	6.5%	0.0%	0.0%	13.0%
Within 200'	35.9%	17.4%	1.1%	1.1%	1.1%	63.0%	0.0%	0.0%	54.3%
Within Sight	50.0%	33.7%	2.2%	1.1%	1.1%	63.0%	0.0%	0.0%	70.6%

Water Use:

Domestic	92.4%
Livestock	12.0%
Irrigation	6.5%
Other	18.5%

Chemical Mixing Near Well? 3.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.359	0.021	0.31	27.2	35.7	407
Median	0.199	0.001	0.09	4.9	8.3	321
Deviation	0.510	0.096	1.19	122.1	79.4	436
Maximum	2.767	0.827	10.80	1147.9	605.7	3790
Minimum	BDL	BDL	0.04	0.4	BDL	27

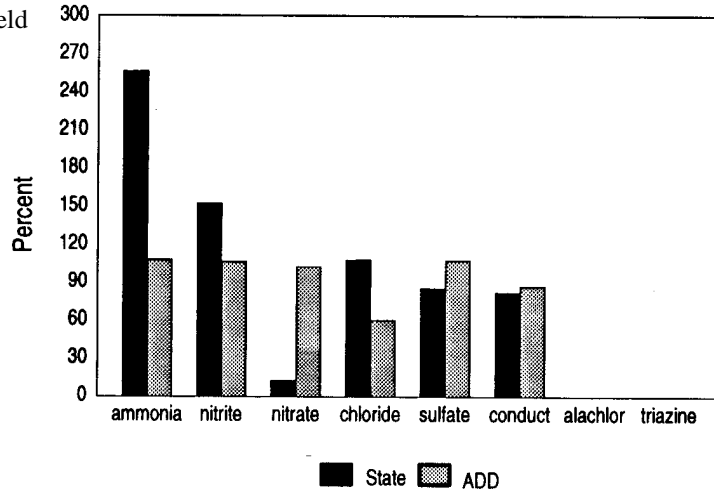
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Johnson County



BDL = Below Detection Level

**County:** Kenton

**Generalized Geology:** Ordovician

**Physiographic Region:** Outer Bluegrass

**Area Development District:** Northern Kentucky

**Number of Wells Tested:** None, Estimated 329 Domestic Wells in County

County: Knott

**Generalized Geology:** Pennsylvanian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** Kentucky River

**Number of Wells Tested:** 104 (1.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	93
Driven Well	0
Dug Well	2
Spring	1

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	112
Maximum Well Depth	310
Minimum Well Depth	17

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	3.8%	1.9%	0.0%	0.0%	4.9%	6.8%	0.0%	0.0%	7.8%
Within 200'	18.2%	13.6%	1.9%	1.0%	7.8%	60.2%	0.0%	1.0%	51.9%
Within Sight	29.7%	25.3%	2.9%	2.0%	8.8%	61.2%	0.0%	1.0%	70.5%

**Water Use:**

Domestic	97.1%
Livestock	6.7%
Irrigation	2.9%
Other	14.4%

Chemical Mixing Near Well? 4.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.346	0.021	0.05	36.9	69.7	555
Median	0.318	0.013	0.01	24.6	7.7	489
Deviation	0.325	0.018	0.15	41.9	233.4	370
Maximum	1.942	0.089	0.73	226.8	1376.6	2277
Minimum	BDL	BDL	BDL	1.2	BDL	70

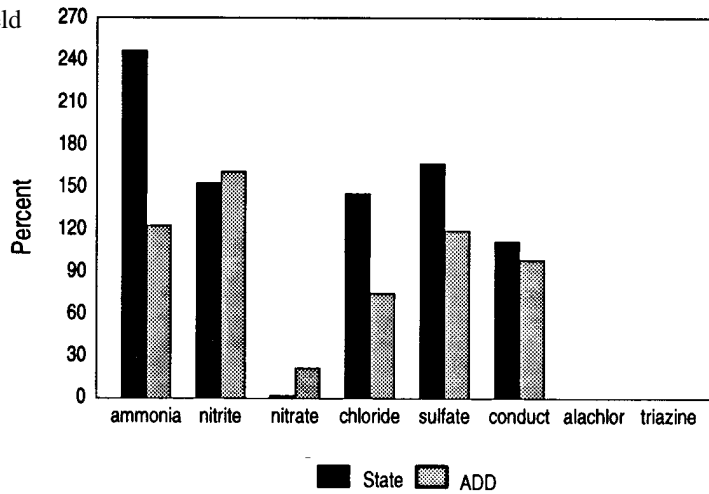
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

**Percent of State and Regional Average**

**Knott County**



BDL = Below Detection Level

County: Knox

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Cumberland Valley

Number of Wells Tested: 16 (0.4%)

Supply Types:

	Number reported
Drilled Well	12
Driven Well	1
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	102
Maximum Well Depth	200
Minimum Well Depth	35

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%
Within 200'	33.3%	14.3%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	42.9%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	100.0%
Livestock	20.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 6.7%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.377	0.003	0.26	75.7	35.4	796
Median	0.272	0.001	0.07	7.2	0.5	427
Deviation	0.331	0.004	0.55	147.1	108.9	882
Maximum	0.972	0.013	2.24	474.5	426.2	3308
Minimum	0.007	BDL	0.05	1.8	0.1	173

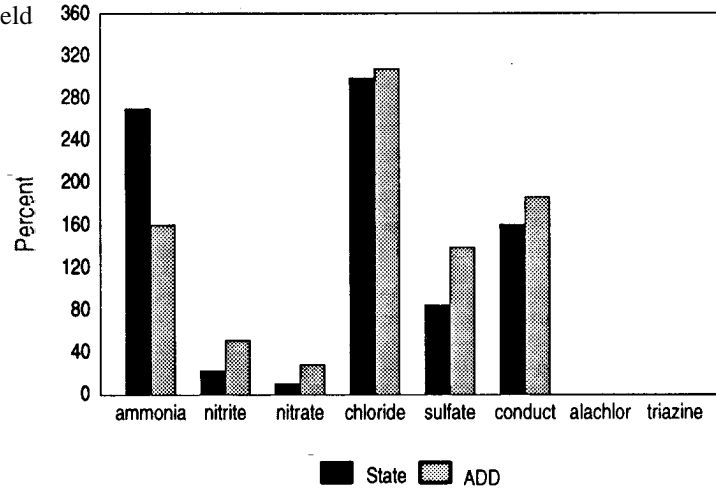
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Knox County



BDL = Below Detection Level

County: Larue

Generalized Geology: Mississippian, Devonian  
 Physiographic Region: Western Pennyroyal  
 Area Development District: Lincoln Trail

Number of Wells Tested: 86 (4.4%)

Supply Types:

	<i>Number reported</i>
Drilled Well	72
Driven Well	3
Dug Well	0
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	109
Maximum Well Depth	300
Minimum Well Depth	26

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	8.1%	10.5%	0.0%	0.0%	4.7%	2.3%	0.0%	0.0%	3.5%
Within 200'	45.3%	39.6%	1.2%	0.0%	7.0%	52.3%	0.0%	0.0%	10.5%
Within Sight	79.0%	64.0%	7.0%	1.2%	9.3%	52.3%	1.2%	2.3%	36.1%

Water Use:

Domestic	95.0%
Livestock	58.8%
Irrigation	2.5%
Other	8.8%

Chemical Mixing Near Well? 9.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.016	0.006	4.41	8.3	24.8	414
Median	0.002	0.002	2.97	4.9	7.8	387
Deviation	0.048	0.017	4.94	9.0	67.7	167
Maximum	0.247	0.133	33.17	44.8	494.7	1190
Minimum	BDL	BDL	0.03	0.4	2.3	183

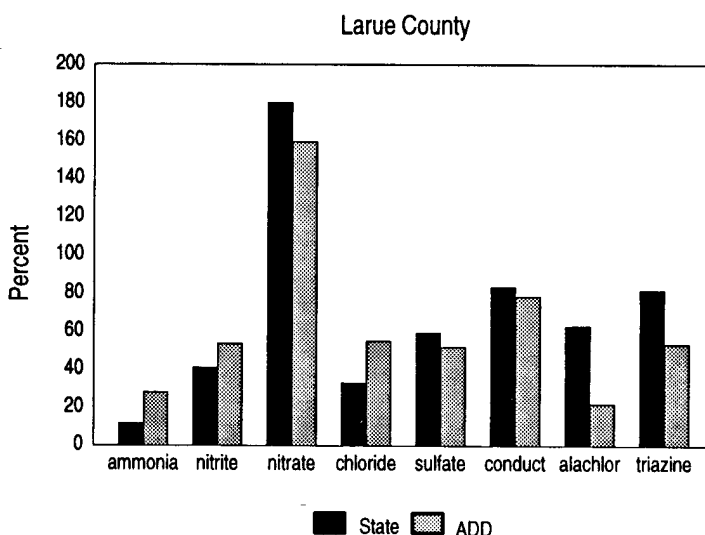
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	21	27
Average	0.059	0.087
Median	0.010	0.040
Deviation	0.085	0.176
Maximum	0.28	0.93
Minimum	0.01	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Laurel

Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** Cumberland Valley

Number of Wells Tested: 9 (0.5%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	6
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	175
Maximum Well Depth	300
Minimum Well Depth	60

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	16.7%	0.0%	0.0%	0.0%	50.0%	12.5%	0.0%	0.0%	0.0%
Within 200'	50.0%	50.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	50.0%
Within Sight	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%

**Water Use:**

Domestic	71.4%	Chemical Mixing Near Well? 0.0%
Livestock	28.6%	
Irrigation	0.0%	
Other	14.3%	

**Water Quality:**

(Concentrations in Milligrams per Liter)

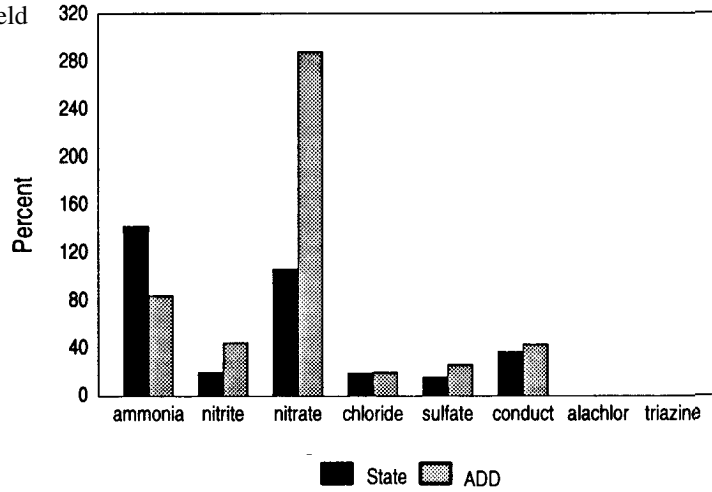
	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.199	0.003	2.61	4.9	6.7	185
Median	0.016	0.001	1.68	4.6	5.4	135
Deviation	0.364	0.004	3.14	2.3	8.3	129
Maximum	0.886	0.013	8.29	8.3	21.8	429
Minimum	0.015	0.001	0.01	1.9	0.1	60

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Laurel County



County: Lawrence

Percent of State and Regional Average

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: FIVCO

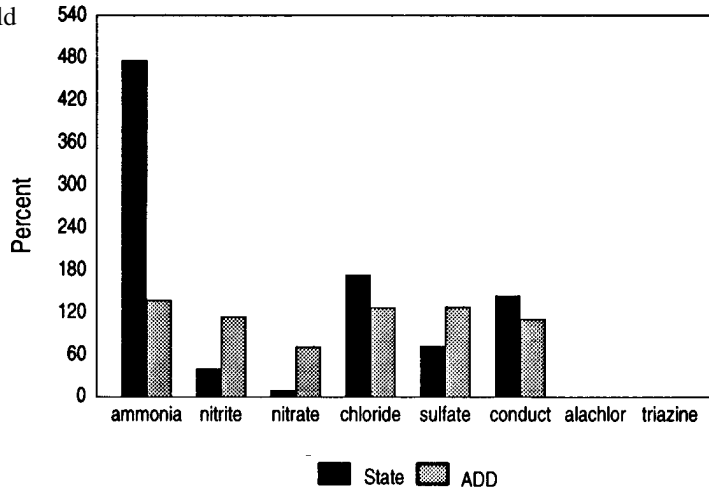
Number of Wells Tested: 41 (1.2%)

Supply Types:

	<i>Number reported</i>
Drilled Well	33
Driven Well	0
Dug Well	5
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	140
Maximum Well Depth	583
Minimum Well Depth	20



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	17.1%	4.9%	0.0%	0.0%	2.4%	4.9%	0.0%	0.0%	7.3%
Within 200'	41.5%	14.7%	0.0%	0.0%	4.8%	51.2%	0.0%	0.0%	31.7%
Within Sight	51.3%	29.3%	0.0%	0.0%	4.8%	51.2%	0.0%	0.0%	46.3%

Water Use:

Domestic	100.0%	Chemical Mixing Near Well? 2.8%
Livestock	13.2%	
Irrigation	2.6%	
Other	2.6%	

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.665	0.006	0.22	43.9	30.4	713
Median	0.363	0.004	0.06	4.8	6.9	573
Deviation	1.011	0.005	0.55	130.1	46.9	996
Maximum	5.617	0.032	2.68	773.2	197.6	6192
Minimum	0.006	0.002	0.01	1.0	0.3	41

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0



**County:** Lee

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Kentucky River

**Number of Wells Tested:** None, Estimated 781 Domestic Wells in County

County: Leslie

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Kentucky River

Number of Wells Tested: 43 (1.2%)

Supply Types:

	<i>Number reported</i>
Drilled Well	36
Driven Well	0
Dug Well	2
Spring	0

Well Depth Data:

	<i>feet</i>
Average Well Depth	90
Maximum Well Depth	150
Minimum Well Depth	30

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	7.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	16.3%
Within 200'	14.0%	0.0%	0.0%	0.0%	0.0%	39.5%	0.0%	0.0%	44.2%
Within Sight	16.3%	0.0%	0.0%	0.0%	0.0%	39.5%	0.0%	0.0%	65.1%

Water Use:

Domestic	95.0%
Livestock	0.0%
Irrigation	5.0%
Other	17.5%

Chemical Mixing Near Well? 8.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.179	0.033	0.56	59.5	25.1	487
Median	0.030	0.024	0.08	18.2	8.7	371
Deviation	0.228	0.036	2.39	89.9	71.3	334
Maximum	0.723	0.234	15.62	444.1	420.6	1596
Minimum	BDL	0.002	0.07	1.5	0.1	107

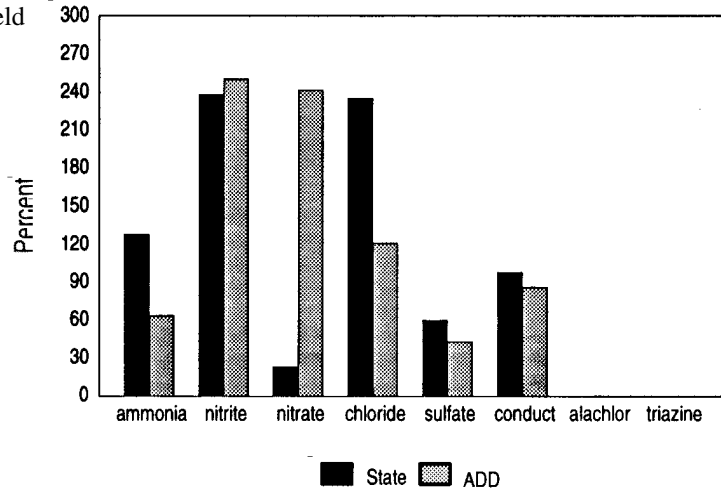
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Leslie County



BDL = Below Detection Level

County: Letcher

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Kentucky River

Number of Wells Tested: 65 (0.9%)

Supply Types:

	<i>Number reported</i>
Drilled Well	53
Driven Well	0
Dug Well	6
Spring	3

Well Depth Data:

	<i>Feet</i>
Average Well Depth	101
Maximum Well Depth	270
Minimum Well Depth	18

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	19.5%	17.4%	0.0%	0.0%	12.5%	8.0%	0.0%	0.0%	18.4%
Within 200'	75.6%	69.6%	0.0%	0.0%	37.5%	100.0%	0.0%	0.0%	81.6%
Within Sight	97.6%	91.3%	33.3%	0.0%	75.0%	100.0%	50.0%	0.0%	100.0%

Water Use:

Domestic	89.2%
Livestock	15.4%
Irrigation	3.1%
Other	13.8%

Chemical Mixing Near Well? 4.8%

Water Quality:

(Concentrations in Milligrams per Liter)

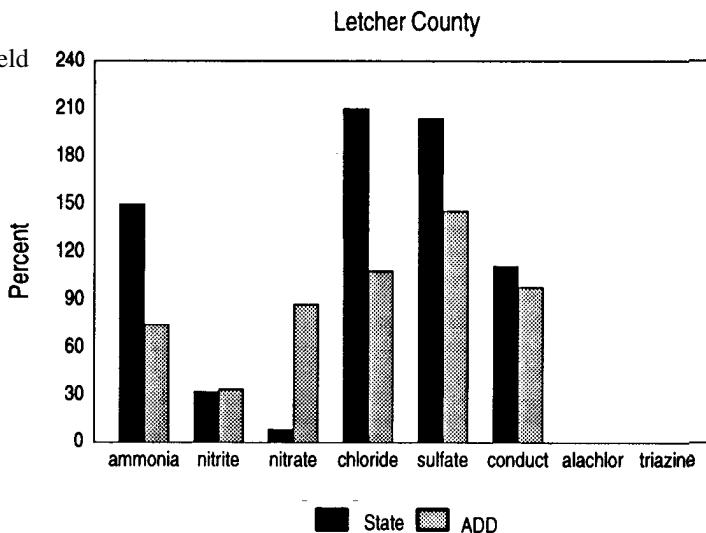
	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.210	0.005	0.20	53.1	85.1	552
Median	0.039	0.001	0.01	18.1	32.6	472
Deviation	0.298	0.018	0.67	127.4	112.7	360
Maximum	1.129	0.130	3.76	945.7	468.0	1817
Minimum	0.007	0.001	0.01	0.8	0.1	37

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average



County: Lewis

**Generalized Geology:** Silurian, Devonian, Mississippian, Ordovician  
**Physiographic Region:** Knobs  
**Area Development District:** Buffalo Trace

**Number of Wells Tested:** 77 (4.3%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	34
Driven Well	2
Dug Well	29
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	52
Maximum Well Depth	160
Minimum Well Depth	10

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	18.2%	13.0%	0.0%	0.0%	7.8%	10.4%	0.0%	0.0%	7.8%
Within 200'	62.4%	40.3%	0.0%	0.0%	10.4%	63.6%	1.3%	0.0%	46.8%
Within Sight	72.8%	57.2%	2.6%	2.6%	15.6%	63.6%	6.5%	0.0%	72.8%

**Water Use:**

Domestic	96.1%	Chemical Mixing Near Well? 6.7%
Livestock	23.7%	
Irrigation	2.6%	
Other	14.5%	

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.161	0.003	1.22	24.6	37.3	390
Median	0.008	0.001	0.22	3.6	30.6	324
Deviation	0.402	0.015	2.11	96.1	31.6	403
Maximum	2.111	0.135	12.50	793.9	121.7	2981
Minimum	BDL	BDL	0.02	0.7	1.4	46

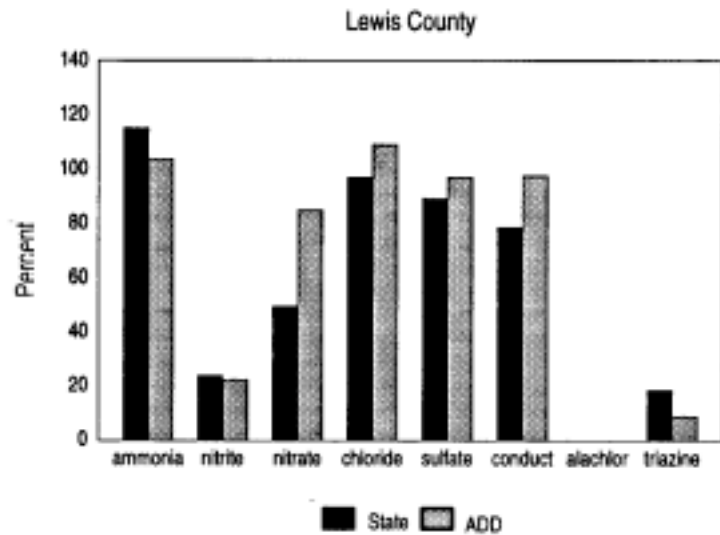
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	1
Average		0.020
Median		0.020
Deviation		0.000
Maximum		0.02
Minimum		0.02

BDL = Below Detection Level

Percent of State and Regional Average



County: Lincoln

**Generalized Geology:** Mississippian, Ordovician, Devonian, Silurian  
**Physiographic Region:** Eastern Pennyroyal, Knobs, and Outer Bluegrass  
**Area Development District:** Bluegrass

**Number of Wells Tested:** 33 (2.8%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	8
Driven Well	0
Dug Well	5
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	44
Maximum Well Depth	100
Minimum Well Depth	12

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	15.2%	9.1%	0.0%	0.0%	3.0%	9.1%	0.0%	0.0%	6.1%
Within 200'	39.4%	33.3%	0.0%	0.0%	3.0%	33.3%	0.0%	0.0%	12.2%
Within Sight	66.7%	66.7%	6.1%	0.0%	9.1%	33.3%	3.0%	0.0%	27.4%

**Water Use:**

Domestic	79.3%
Livestock	55.2%
Irrigation	0.0%
Other	6.9%

Chemical Mixing Near Well? 3.4%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.063	0.013	6.18	16.4	29.5	404
Median	0.001	0.006	3.97	5.6	17.9	380
Deviation	0.221	0.017	9.70	42.2	26.8	242
Maximum	1.185	0.075	47.92	242.9	103.3	1237
Minimum	BDL	BDL	0.06	1.4	5.5	97

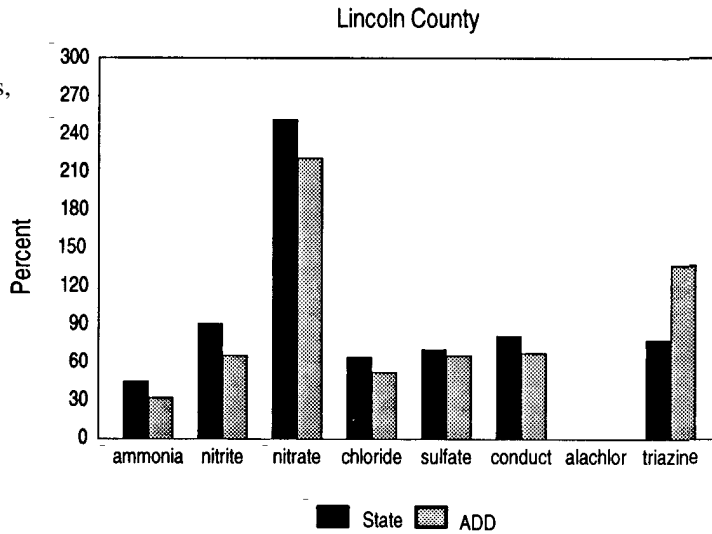
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	33
Average		0.084
Median		0.040
Deviation		0.105
Maximum		0.38
Minimum		0.02

BDL = Below Detection Level

Percent of State and Regional Average



County: Livingston

Generalized Geology: Mississippian, Cretaceous, Alluvium

Physiographic Region: Western Pennyroyal

Area Development District: Pennyriple

Number of Wells Tested: 40 (3.1 %)

Supply Types:

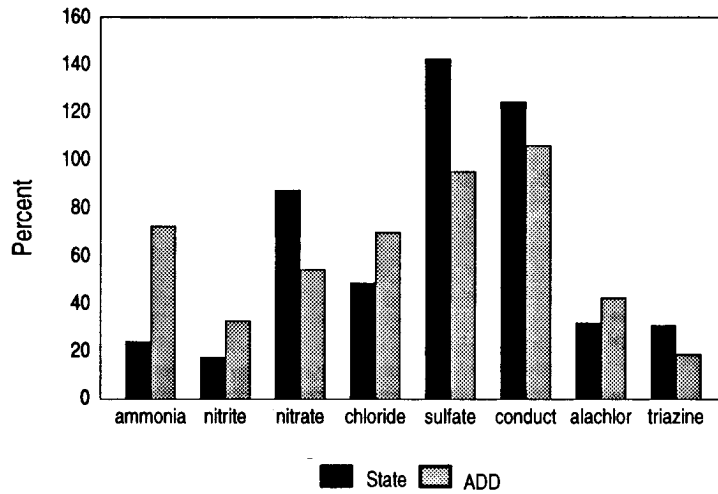
	Number reported
Drilled Well	31
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	Feet
Average Well Depth	162
Maximum Well Depth	405
Minimum Well Depth	18

Percent of State and Regional Average

Livingston County



Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	12.5%	2.5%	0.0%	0.0%	5.0%	5.0%	0.0%	0.0%	2.5%
Within 200'	30.0%	30.0%	0.0%	0.0%	5.0%	40.0%	0.0%	0.0%	10.0%
Within Sight	57.5%	42.5%	0.0%	0.0%	5.0%	45.0%	0.0%	0.0%	37.5%

Water Use:

Domestic	84.2%
Livestock	60.5%
Irrigation	10.5%
Other	5.3%

Chemical Mixing Near Well? 5.4%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.034	0.002	2.14	12.4	59.5	616
Median	0.001	0.001	0.56	6.5	17.6	487
Deviation	0.101	0.003	3.50	14.9	106.4	576
Maximum	0.477	0.016	12.24	71.0	469.8	3631
Minimum	BDL	BDL	BDL	0.9	1.1	61

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	3	3
Average	0.030	0.033
Median	0.030	0.020
Deviation	0.000	0.023
Maximum	0.03	0.06
Minimum	0.03	0.02

BDL = Below Detection Level

County: Logan

Generalized Geology: Mississippian, Pennsylvanian  
 Physiographic Region: Western Pennyroyal Area  
 Development District: Barren River

Number of Wells Tested: 16 (0.8%)

Supply Types:

	Number reported
Drilled Well	12
Driven Well	1
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	70
Maximum Well Depth	104
Minimum Well Depth	20

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	18.8%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	62.6%	12.5%	0.0%	6.7%	6.7%	46.7%	6.7%	0.0%	13.3%
Within Sight	81.4%	50.0%	12.5%	26.7%	6.7%	46.7%	6.7%	0.0%	53.3%

Water Use:

Domestic	81.3%
Livestock	50.0%
Irrigation	6.3%
Other	12.5%

Chemical Mixing Near Well? 6.7%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.007	0.011	10.23	25.7	65.1	603
Median	0.001	0.001	4.85	8.4	16.2	477
Deviation	0.011	0.020	23.15	54.0	116.1	489
Maximum	0.041	0.065	93.08	209.4	406.5	2240
Minimum	BDL	BDL	0.36	1.6	3.7	133

Pesticides:

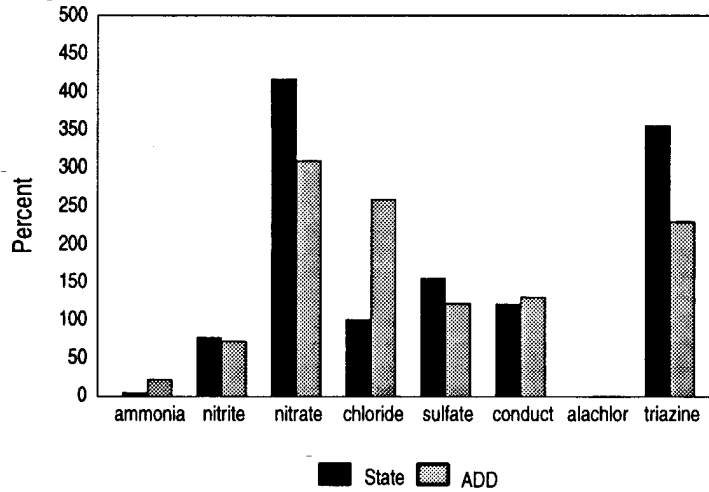
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	15
Average		0.381
Median		0.160
Deviation		0.878
Maximum		3.50
Minimum		0.01

BDL = Below Detection Level

Percent of State and Regional Average

Logan County



County: Lyon

**Generalized Geology:** Mississippian, Cretaceous  
**Physiographic Region:** Western Pennyroyal  
**Area Development District:** Pennyrile

**Number of Wells Tested:** 21 (2.4%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	18
Driven Well	0
Dug Well	2
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	173
Maximum Well Depth	300
Minimum Well Depth	25

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	4.8%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	4.8%
Within 200'	19.1%	9.5%	0.0%	0.0%	0.0%	76.2%	0.0%	0.0%	19.1%
Within Sight	47.7%	28.5%	4.8%	0.0%	0.0%	76.2%	0.0%	0.0%	42.9%

**Water Use:**

Domestic	100.0%	Chemical Mixing Near Well? 0.0%
Livestock	23.8%	
Irrigation	0.0%	
Other	0.0%	

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.008	0.042	1.18	9.9	32.6	492
Median	0.001	0.038	0.74	6.1	10.3	458
Deviation	0.014	0.042	1.42	12.8	58.0	138
Maximum	0.050	0.211	5.74	59.1	197.9	804
Minimum	BDL	BDL	0.06	1.5	2.6	322

**Pesticides:**

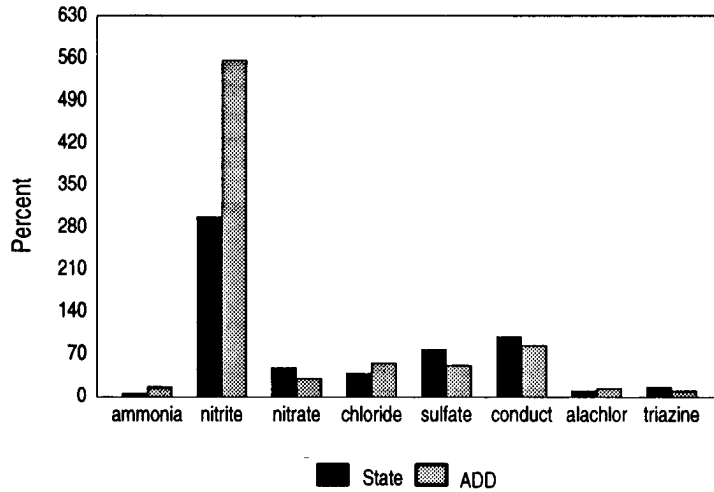
*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	11
Average	0.01	0.018
Median	0.01	0.020
Deviation	0.00	0.004
Maximum	0.01	0.02
Minimum	0.01	0.01

BDL = Below Detection Level

**Percent of State and Regional Average**

**Lyon County**





County: Madison

Generalized Geology: Ordovician, Devonian, Silurian, Mississippian

Physiographic Region: Outer Bluegrass and Knobs

Area Development District: Bluegrass

Number of Wells Tested: 54 (8.4%)

Supply Types:

	Number reported
Drilled Well	5
Driven Well	0
Dug Well	6
Spring	27

Well Depth Data:

	Feet
Average Well Depth	43
Maximum Well Depth	120
Minimum Well Depth	14

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Hazardous Waste	Stream
Within 20'	5.6%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%
Within 200'	38.9%	26.0%	0.0%	0.0%	5.6%	5.6%	0.0%	0.0%	14.9%
Within Sight	64.8%	51.9%	0.0%	0.0%	5.6%	5.6%	0.0%	0.0%	33.3%

Water Use:

Domestic	26.9%
Livestock	75.0%
Irrigation	7.7%
Other	11.5%

Chemical Mixing Near Well? 4.8%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.138	0.027	3.51	9.1	33.8	503
Median	0.008	0.011	1.84	5.4	22.9	389
Deviation	0.469	0.059	6.60	12.9	38.1	875
Maximum	3.330	0.365	46.77	72.3	278.3	6720
Minimum	BDL	BDL	0.10	1.1	0.9	36

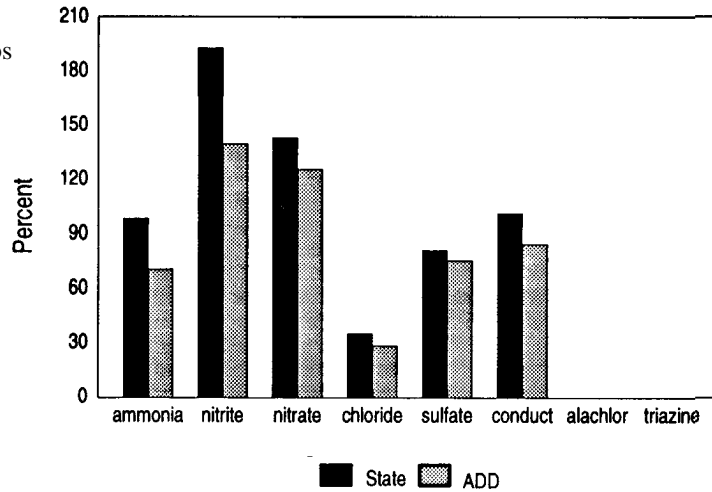
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Madison County



BDL = Below Detection Level

**County:** Magoffin

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Big Sandy

**Number of Wells Tested:** None, Estimated 2,771 Domestic Wells in County

County: Marion

Generalized Geology: Mississippian, Devonian, Silurian, Ordovician

Physiographic Region: Knobs

Area Development District: Lincoln Trail

Number of Wells Tested: 2 (0.6%)

Supply Types:

	Number reported
Drilled Well	0
Driven Well	0
Dug Well	
Spring	0

Well Depth Data:

	Feet
Average Well Depth	50
Maximum Well Depth	50
Minimum Well Depth	50

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	100.0%	50.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	50.0%

Water Use:

Domestic	50.0%
Livestock	0.0%
Irrigation	0.0%
Other	50.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.158	0.095	2.99	12.5	54.4	736
Median	0.158	0.095	2.99	12.5	54.4	736
Deviation	0.194	0.130	2.51	0.2	45.8	0
Maximum	0.295	0.187	4.76	12.6	86.8	736
Minimum	0.020	0.003	1.21	12.3	22.0	736

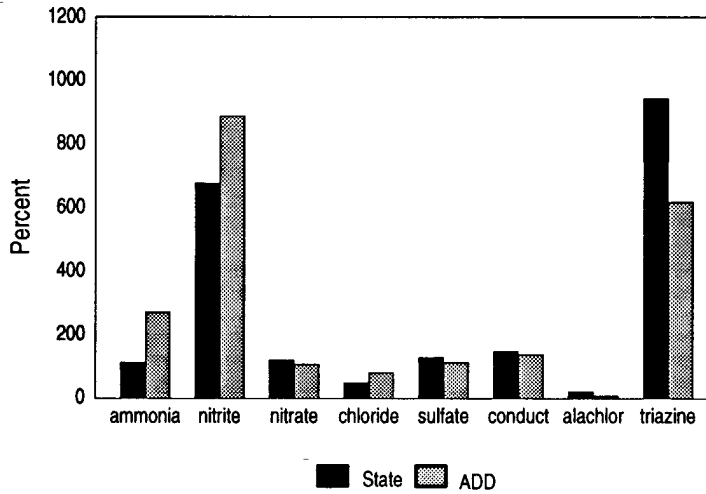
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	1
Average	0.020	1.010
Median	0.020	1.010
Deviation	0.000	0.000
Maximum	0.02	1.01
Minimum	0.02	1.01

Percent of State and Regional Average

Marion County



County: Marshall

Percent of State and Regional Average

Generalized Geology: Tertiary, Cretaceous, Alluvium, Mississippian

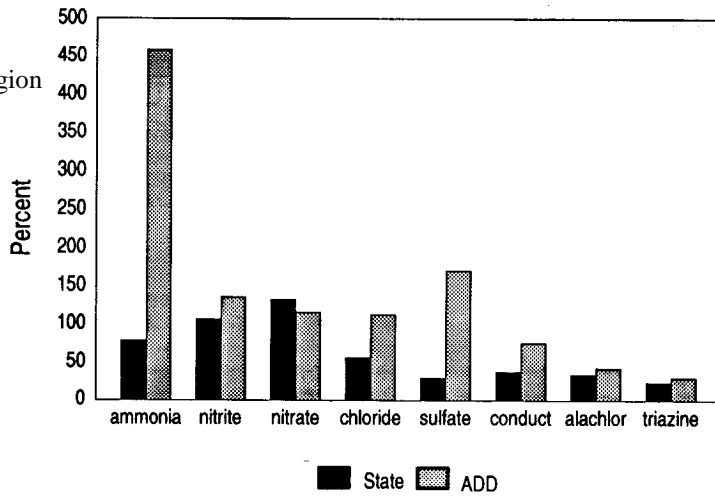
Physiographic Region: Jackson Purchase Region

Area Development District: Jackson Purchase Region

Number of Wells Tested: 46 (1.8%)

Supply Types:

	Number reported
Drilled Well	31
Driven Well	0
Dug Well	1
Spring	0



Well Depth Data:

	Feet
Average Well Depth	87
Maximum Well Depth	392
Minimum Well Depth	15

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	13.0%	2.2%	0.0%	0.0%	8.7%	0.0%	0.0%	0.0%	0.0%
Within 200'	39.1%	15.2%	0.0%	0.0%	10.9%	52.2%	0.0%	0.0%	4.3%
Within Sight	69.5%	43.5%	19.6%	2.2%	13.1%	52.2%	0.0%	0.0%	30.4%

Water Use:

Domestic	92.5%
Livestock	42.5%
Irrigation	7.5%
Other	17.5%

Chemical Mixing Near Well? 14.6%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.110	0.015	3.25	14.4	12.5	188
Median	0.003	0.004	0.92	9.4	5.1	176
Deviation	0.675	0.042	7.56	15.5	22.7	133
Maximum	4.586	0.268	46.17	70.0	122.6	607
Minimum	BDL	BDL	0.05	0.6	0.1	27

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	15	18
Average	0.032	0.026
Median	0.030	0.015
Deviation	0.020	0.028
Maximum	0.10	0.11
Minimum	0.02	0.01

BDL = Below Detection Level

**County:** Martin

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Big Sandy

**Number of Wells Tested:** None, Estimated 2,042 Domestic Wells in County

**County:** Mason

**Generalized Geology:** Ordovician

**Physiographic Region:** Outer Bluegrass

**Area Development District:** Buffalo Trace

**Number of Wells Tested:** None, Estimated 249 Domestic Wells in County

County: McCracken

Generalized Geology: Tertiary, Alluvium  
 Physiographic Region: Jackson Purchase Region  
 Area Development District: Jackson Purchase Region  
 Number of Wells Tested: 97 (4.5%)

Supply Types:

	Number reported
Drilled Well	78
Driven Well	0
Dug Well	19
Spring	0

Well Depth Data:

	Feet
Average Well Depth	99
Maximum Well Depth	385
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	11.3%	5.2%	0.0%	0.0%	4.1%	3.1%	0.0%	0.0%	0.0%
Within 200'	48.4%	24.8%	1.0%	0.0%	4.1%	66.0%	0.0%	0.0%	8.2%
Within Sight	77.3%	40.3%	2.0%	0.0%	5.1%	68.1%	2.1%	3.1%	26.8%

Water Use:

Domestic	90.5%
Livestock	31.6%
Irrigation	13.7%
Other	14.7%

Chemical Mixing Near Well? 9.6%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.040	0.003	3.80	28.1	20.1	296
Median	0.001	0.001	1.85	21.4	6.0	254
Deviation	0.187	0.006	5.82	33.5	43.4	272
Maximum	1.358	0.021	38.41	238.8	293.4	1833
Minimum	BDL	BDL	0.03	1.6	0.1	34

Pesticides:

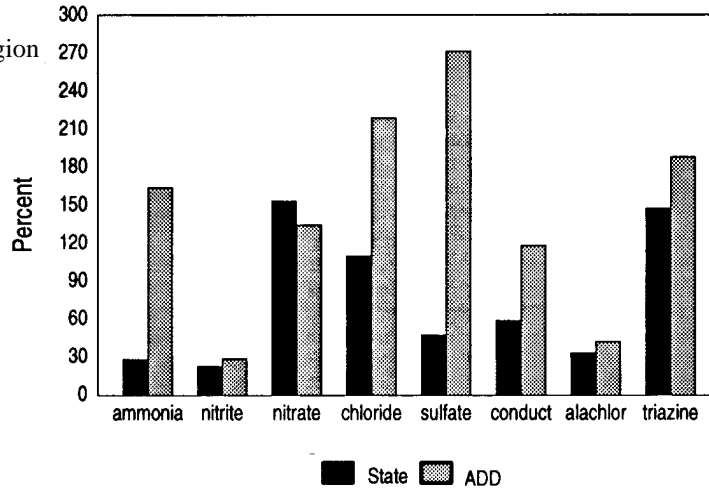
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	8	52
Average	0.031	0.158
Median	0.020	0.020
Deviation	0.029	0.899
Maximum	0.10	6.50
Minimum	0.01	0.01

BDL = Below Detection Level

Percent of State and Regional Average

McCracken County



County: McCreary

**Generalized Geology:** Pennsylvanian, Mississippian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** Lake Cumberland

**Number of Wells Tested:** 43 (4.3%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	24
Driven Well	1
Dug Well	1
Spring	2

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	94
Maximum Well Depth	220
Minimum Well Depth	25

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Chemicals</i>		<i>Septic Leach</i>	<i>Hazardous</i>		
				<i>Elevator</i>	<i>for Lawn</i>		<i>Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	16.7%	7.3%	0.0%	0.0%	2.7%	2.4%	0.0%	0.0%	5.4%
Within 200'	38.1%	17.1%	0.0%	0.0%	5.4%	64.3%	0.0%	2.7%	8.1%
Within Sight	45.2%	29.3%	2.7%	5.4%	8.1%	64.3%	5.4%	5.4%	21.6%

**Water Use:**

Domestic	75.6%
Livestock	12.2%
Irrigation	9.8%
Other	19.5%

Chemical Mixing Near Well? 2.9%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.345	0.023	1.89	7.1	17.1	154
Median	0.033	0.001	1.18	4.1	7.1	100
Deviation	1.845	0.083	2.43	7.8	22.4	156
Maximum	12.144	0.534	10.82	34.4	80.1	628
Minimum	BDL	BDL	0.01	0.7	0.4	8

**Pesticides:**

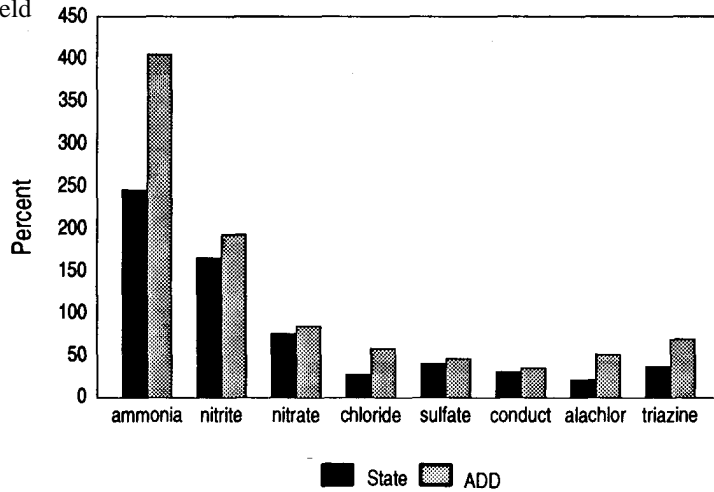
*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	10
Average	0.020	0.040
Median	0.020	0.030
Deviation	0.000	0.032
Maximum	0.02	0.13
Minimum	0.02	0.02

BDL = Below Detection Level

**Percent of State and Regional Average**

**McCreary County**





County: McLean

Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian, Alluvium  
**Physiographic Region:** Western Kentucky Coal Field  
**Area Development District:** Green River

Number of Wells Tested: 18 (3.5%)

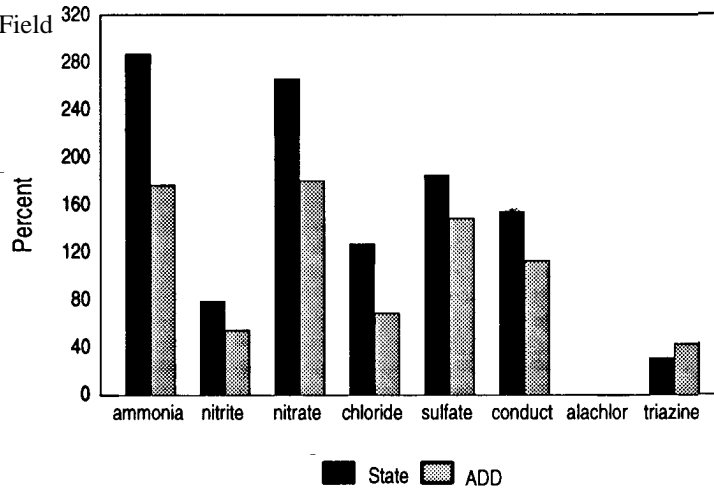
**Supply Types:**

	<i>Number reported</i>
Drilled Well	12
Driven Well	0
Dug Well	6
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	128
Maximum Well Depth	755
Minimum Well Depth	20

McLean County



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	27.8%	11.1%	0.0%	0.0%	11.1%	5.6%	0.0%	0.0%	0.0%
Within 200'	66.7%	22.2%	0.0%	0.0%	16.7%	77.8%	0.0%	0.0%	0.0%
Within Sight	88.9%	44.4%	5.6%	5.6%	16.7%	77.8%	0.0%	0.0%	16.7%

**Water Use:**

Domestic	83.3%
Livestock	5.6%
Irrigation	11.1%
Other	16.7%

Chemical Mixing Near Well? 5.9%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.402	0.011	6.53	32.2	77.4	764
Median	0.008	0.010	3.36	25.4	63.4	726
Deviation	1.082	0.004	7.78	29.1	84.8	423
Maximum	4.616	0.023	23.49	96.7	286.3	1858
Minimum	0.001	0.002	0.04	3.5	0.1	141

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	15
Average		0.033
Median		0.020
Deviation		0.043
Maximum		0.16
Minimum		0.01

County: Meade

Generalized Geology: Mississippian, Alluvium  
 Physiographic Region: Western Pennyroyal  
 Area Development District: Lincoln Trail

Number of Wells Tested: 55 (1.7%)

Supply Types:

	<i>Number reported</i>
Drilled Well	52
Driven Well	0
Dug Well	
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	226
Maximum Well Depth	480
Minimum Well Depth	30

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	9.1%	10.9%	0.0%	0.0%	7.3%	1.8%	0.0%	0.0%	0.0%
Within 200'	45.5%	40.0%	3.6%	0.0%	9.1%	67.3%	0.0%	0.0%	0.0%
Within Sight	81.9%	58.2%	12.7%	0.0%	9.1%	67.3%	0.0%	0.0%	5.5%

Water Use:

Domestic	94.5%
Livestock	50.9%
Irrigation	3.6%
Other	5.5%

Chemical Mixing Near Well? 11.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.018	0.002	0.92	4.5	81.5	661
Median	0.001	0.001	0.18	1.6	36.0	533
Deviation	0.057	0.005	1.75	8.4	165.8	483
Maximum	0.357	0.026	8.22	58.3	1105.9	3096
Minimum	BDL	BDL	0.14	0.8	5.3	267

Pesticides:

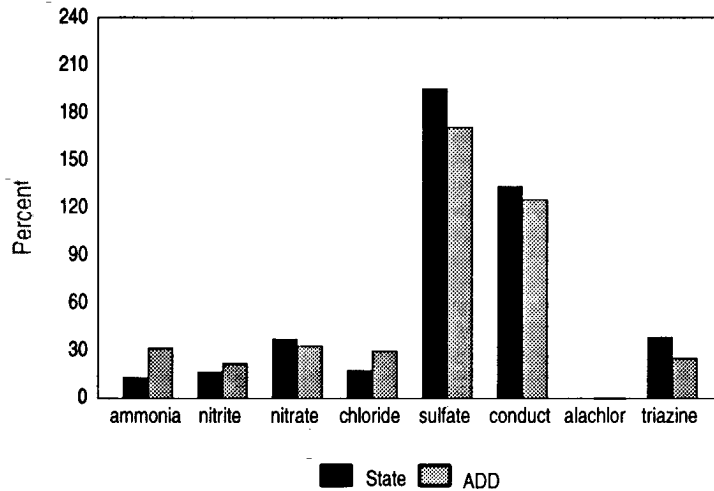
(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	24
Average		0.041
Median		0.020
Deviation		0.081
Maximum		0.41
Minimum		0.01

BDL = Below Detection Level

Percent of State and Regional Average

Meade County



County: Menifee

Generalized Geology: Mississippian, Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Gateway

Number of Wells Tested: 27 (4.1 %)

Supply Types:

	Number reported
Drilled Well	12
Driven Well	0
Dug Well	9
Spring	0

Well Depth Data:

	Feet
Average Well Depth	50
Maximum Well Depth	178
Minimum Well Depth	20

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	11.1%	3.7%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	11.1%
Within 200'	44.4%	29.6%	0.0%	0.0%	0.0%	51.8%	0.0%	0.0%	33.3%
Within Sight	66.6%	40.7%	0.0%	0.0%	3.7%	55.5%	0.0%	0.0%	51.8%

Water Use:

Domestic	88.5%
Livestock	11.5%
Irrigation	11.5%
Other	3.8%

Chemical Mixing Near Well? 4.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.213	0.007	0.66	75.8	17.4	498
Median	0.010	0.001	0.28	5.0	11.4	328
Deviation	0.389	0.018	0.84	141.2	16.4	566
Maximum	1.265	0.089	2.78	567.7	69.7	2363
Minimum	BDL	BDL	0.06	1.0	1.7	35

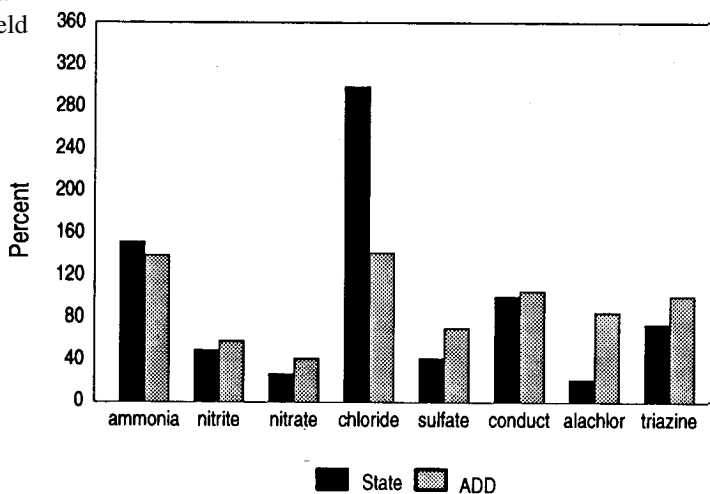
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	1
Average	0.020	0.080
Median	0.020	0.080
Deviation	0.000	0.000
Maximum	0.02	0.08
Minimum	0.02	0.08

Percent of State and Regional Average

Menifee County



BDL = Below Detection Level

County: Mercer

Generalized Geology: Ordovician  
 Physiographic Region: Inner-Outer Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 29 (8.4%)

Supply Types:

	Number reported
Drilled Well	20
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	Feet
Average Well Depth	70
Maximum Well Depth	400
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	10.3%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.3%
Within 200'	41.3%	31.0%	3.4%	0.0%	0.0%	41.4%	0.0%	0.0%	27.5%
Within Sight	58.6%	58.6%	10.3%	0.0%	3.4%	41.4%	3.4%	0.0%	62.0%

Water Use:

Domestic	71.4%
Livestock	60.7%
Irrigation	28.6%
Other	0.0%

Chemical Mixing Near Well? 7.1%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.143	0.018	1.51	47.9	91.2	759
Median	0.003	0.001	0.26	12.9	84.7	710
Deviation	0.334	0.080	3.72	156.0	56.1	559
Maximum	1.551	0.424	19.65	839.1	244.2	3481
Minimum	BDL	BDL	BDL	1.6	13.6	362

Pesticides:

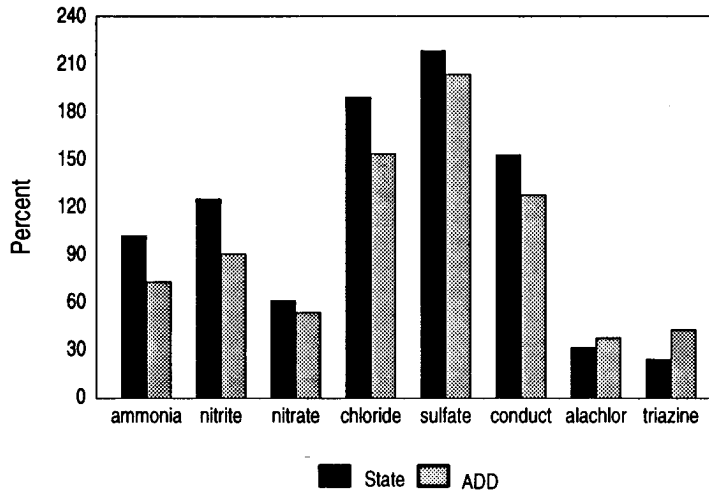
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	23	24
Average	0.030	0.026
Median	0.030	0.020
Deviation	0.015	0.015
Maximum	0.09	0.07
Minimum	0.02	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Mercer County



County: Metcalfe

Generalized Geology: Mississippian, Devonian

Physiographic Region: Pennyroyal

Area Development District: Barren River

Number of Wells Tested: 19 (1.1%)

Supply Types:

	<i>Number reported</i>
Drilled Well	17
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	63
Maximum Well Depth	108
Minimum Well Depth	18

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.5%	5.3%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%
Within 200'	47.3%	52.7%	0.0%	0.0%	5.3%	63.2%	0.0%	0.0%	15.8%
Within Sight	84.1%	84.3%	5.3%	0.0%	10.6%	63.2%	0.0%	0.0%	57.9%

Water Use:

Domestic	88.9%
Livestock	27.8%
Irrigation	11.1%
Other	5.6%

Chemical Mixing Near Well? 11.8%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.032	0.011	2.00	12.0	119.4	654
Median	0.006	0.009	0.80	5.6	62.4	624
Deviation	0.091	0.005	2.14	12.2	148.4	323
Maximum	0.398	0.022	6.78	40.8	535.3	1534
Minimum	BDL	0.006	0.06	0.9	6.6	241

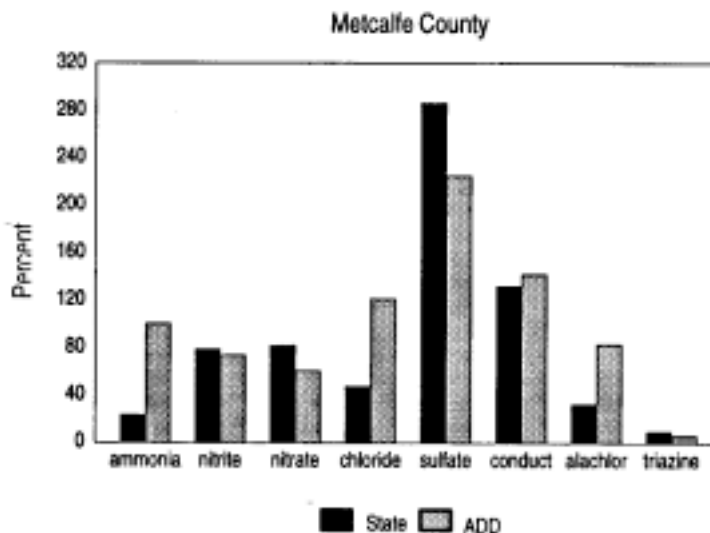
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	2	3
Average	0.030	0.010
Median	0.030	0.010
Deviation	0.000	0.000
Maximum	0.03	0.01
Minimum	0.03	0.01

BDL = Below Detection Level

Percent of State and Regional Average



County: Monroe

Generalized Geology: Mississippian, Devonian  
 Physiographic Region: Pennyroyal Area  
 Development District: Barren River

Number of Wells Tested: 66 (3.6%)

Supply Types:

	Number reported
Drilled Well	36
Driven Well	2
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	93
Maximum Well Depth	200
Minimum Well Depth	32

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	12.1%	4.5%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	3.0%
Within 200'	31.8%	24.2%	0.0%	0.0%	3.0%	42.4%	0.0%	0.0%	10.6%
Within Sight	57.6%	56.0%	13.6%	0.0%	4.5%	45.4%	0.0%	0.0%	27.3%

Water Use:

Domestic	96.8%
Livestock	46.0%
Irrigation	6.3%
Other	6.3%

Chemical Mixing Near Well? 3.6%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.024	0.003	2.47	6.5	71.9	405
Median	0.001	0.001	1.86	4.5	15.7	366
Deviation	0.118	0.011	2.62	6.6	170.2	306
Maximum	0.743	0.069	10.81	40.1	964.2	1901
Minimum	BDL	BDL	BDL	1.2	0.3	111

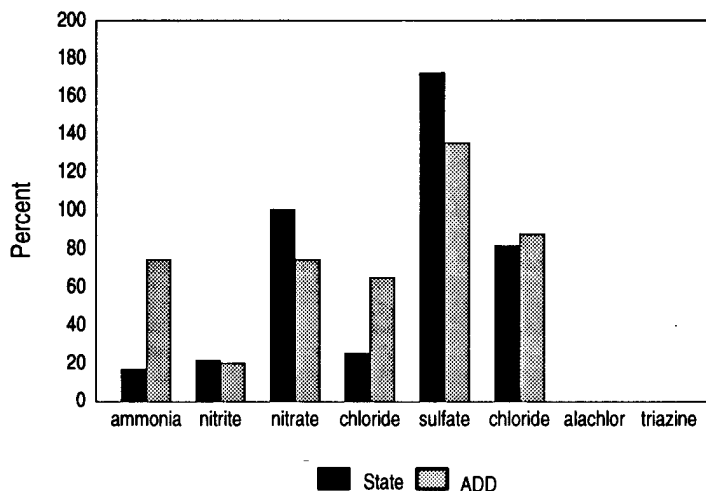
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Monroe County



BDL = Below Detection Level

County: Montgomery

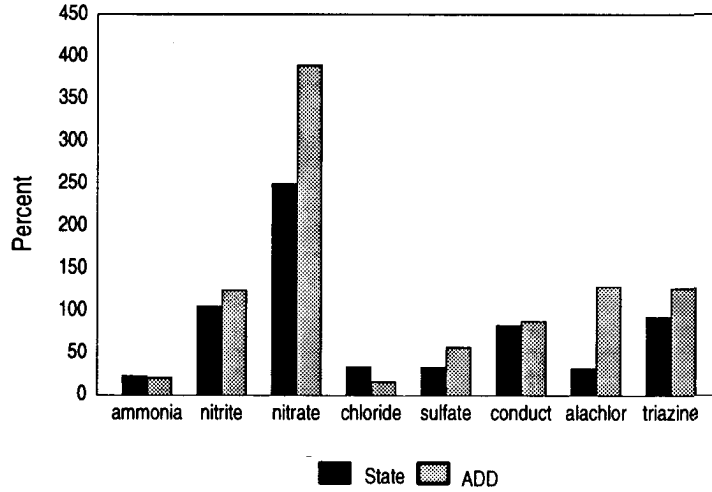
Generalized Geology: Ordovician, Silurian, Devonian,  
 Mississippian Physiographic Region: Outer  
 Bluegrass and Knobs  
 Area Development District: Gateway

Number of Wells Tested: 4 (1.7%)

Supply Types:  
 Not Reported

Well Depth Data:  
 Not Reported

Percent of State and Regional Average  
 Montgomery County



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	25.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%
Within Sight	75.0%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%

Water Use:

Domestic	50.0%	Chemical Mixing Near Well? 0.0%
Livestock	50.0%	
Irrigation	0.0%	
Other	0.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.032	0.015	6.14	8.7	14.1	414
Median	0.042	0.014	6.69	8.2	4.7	411
Deviation	0.020	0.007	4.52	2.1	22.1	66
Maximum	0.042	0.024	10.82	11.6	47.0	484
Minimum	0.001	0.008	0.36	6.7	0.1	350

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	2
Average	0.030	0.100
Median	0.030	0.100
Deviation	0.000	0.042
Maximum	0.03	0.13
Minimum	0.03	0.07

County: Morgan

Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian Physiographic  
**Region:** Eastern Kentucky Coal Field Area  
**Development District:** Gateway

Number of Wells Tested: 2 (0.1%)

**Supply Types:**

	Number reported
Drilled Well	
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	Feet
Average Well Depth	195
Maximum Well Depth	195
Minimum Well Depth	195

**Supply Locations:**

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste Stream	
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%
Within Sight	50.0%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%

**Water Use:**

Domestic	100.0%
Livestock	0.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

(Concentrations in Milligrams per Liter)

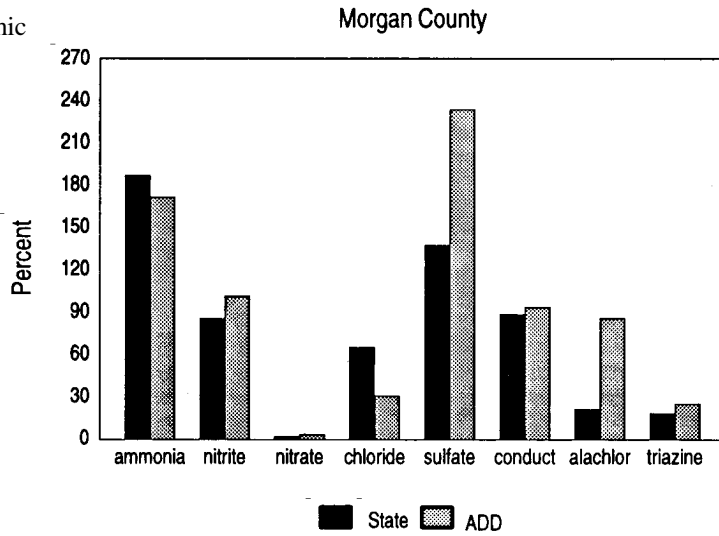
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.262	0.012	0.06	16.5	57.4	439
Median	0.262	0.012	0.06	16.5	57.4	439
Deviation	0.368	0.016	0.06	21.6	81.0	95
Maximum	0.522	0.023	0.10	31.8	114.7	506
Minimum	BDL	BDL	BDL	1.2	0.1	372

**Pesticides:**

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	1
Average	0.020	0.020
Median	0.020	0.020
Deviation	0.000	0.000
Maximum	0.02	0.02
Minimum	0.02	0.02

BDL = Below Detection Level





County: Muhlenberg

Generalized Geology: Pennsylvanian, Alluvium  
 Physiographic Region: Western Kentucky Coal Field  
 Area Development District: Pennyrite

Number of Wells Tested: 3 (0.7%)

Supply Tyypes:

	Number reported
Drilled Well	3
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	67
Maximum Well Depth	80
Minimum Well Depth	50

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	33.3%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%
Within 200'	33.3%	0.0%	0.0%	0.0%	33.3%	100.0%	0.0%	0.0%	0.0%
Within Sight	33.3%	0.0%	0.0%	0.0%	33.3%	100.0%	0.0%	0.0%	0.0%

Water Use:

Domestic	100.0%
Livestock	0.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.008	BDL	1.00	22.0	41.0	392
Median	0.003	BDL	0.15	18.7	29.8	465
Deviation	0.011	0.000	1.48	21.9	37.0	226
Maximum	0.021	BDL	2.70	45.4	82.3	573
Minimum	BDL	BDL	0.14	2.0	10.8	139

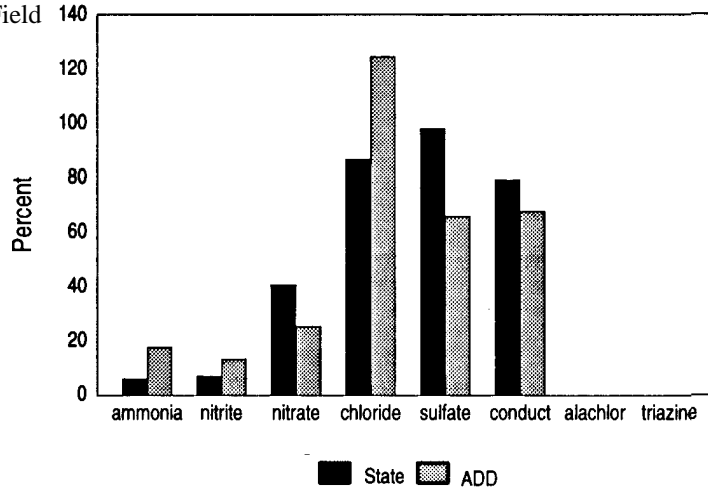
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Muhlenberg County



BDL = Below Detection Level

County: Nelson

**Generalized Geology:** Ordovician, Silurian, Devonian, Mississippian

**Physiographic Region:** Outer Bluegrass and Knobs

**Area Development District:** Lincoln Trail

**Number of Wells Tested:** 29 (3.2%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	9
Driven Well	
Dug Well	3
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	103
Maximum Well Depth	200
Minimum Well Depth	18

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.3%	13.8%	0.0%	0.0%	0.0%	10.3%	0.0%	0.0%	3.4%
Within 200'	27.5%	31.0%	0.0%	0.0%	0.0%	37.9%	3.4%	0.0%	10.3%
Within Sight	72.3%	55.1%	6.9%	0.0%	0.0%	37.9%	10.3%	3.4%	48.2%

**Water Use:**

Domestic	86.2%	Chemical Mixing Near Well? 4.3%
Livestock	37.9%	
Irrigation	20.7%	
Other	20.7%	

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.205	0.012	2.28	54.2	53.1	673
Median	0.010	0.009	0.78	5.8	25.5	510
Deviation	0.686	0.018	3.67	199.0	83.0	710
Maximum	3.433	0.090	13.47	1070.9	444.6	3925
Minimum	0.001	BDL	0.01	1.0	4.3	105

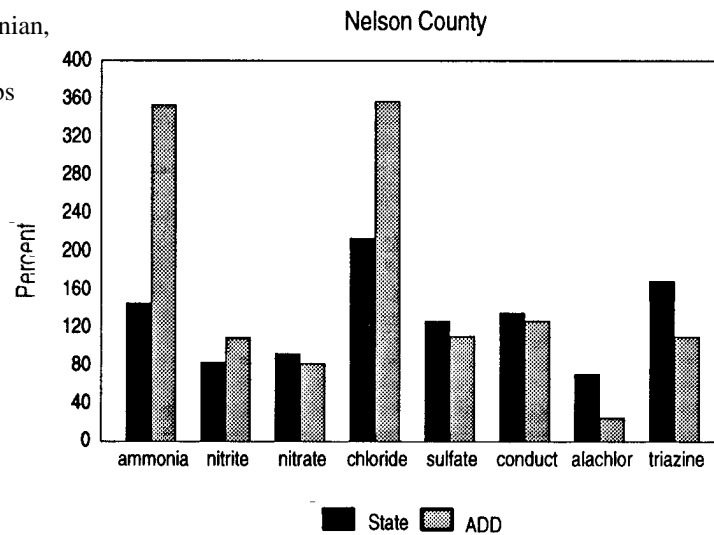
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	6	8
Average	0.067	0.181
Median	0.050	0.060
Deviation	0.057	0.254
Maximum	0.18	0.75
Minimum	0.02	0.02

BDL = Below Detection Level

Percent of State and Regional Average



County: Nicholas

Generalized Geology: Ordovician

Physiographic Region: Outer Bluegrass

Area Development District: Bluegrass

Number of Wells Tested: 4 (1.3%)

Supply Types:

	<i>Number reported</i>
Drilled Well	1
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	31
Maximum Well Depth	45
Minimum Well Depth	15

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	75.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	66.7%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	75.0%
Livestock	0.0%
Irrigation	0.0%
Other	25.0%

Chemical Mixing Near Well? 25.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.360	0.001	1.27	137.5	15.8	877
Median	0.003	0.001	1.33	4.1	17.2	417
Deviation	0.715	0.000	1.16	268.9	12.4	1004
Maximum	1.433	0.001	2.40	540.9	28.5	2380
Minimum	0.002	0.001	0.02	0.9	0.4	295

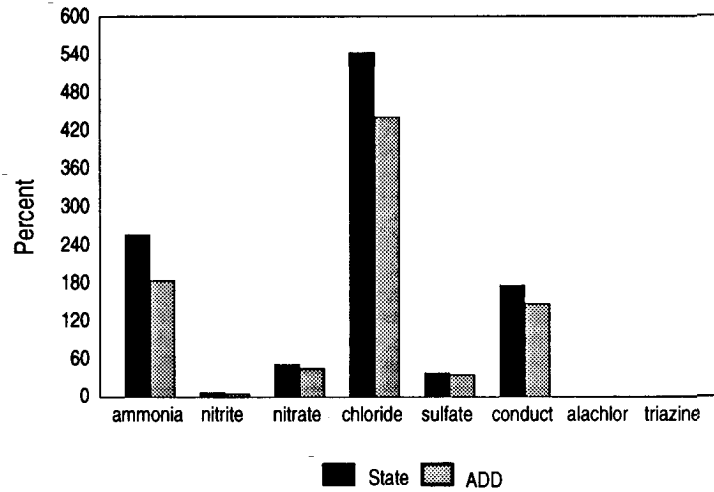
Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Nicholas County



County: Ohio

**Generalized Geology:** Pennsylvanian, Alluvium  
**Physiographic Region:** Western Kentucky Coal Field  
**Area Development District:** Green River

**Number of Wells Tested:** 24 (2.5%)

**Supply Types:**

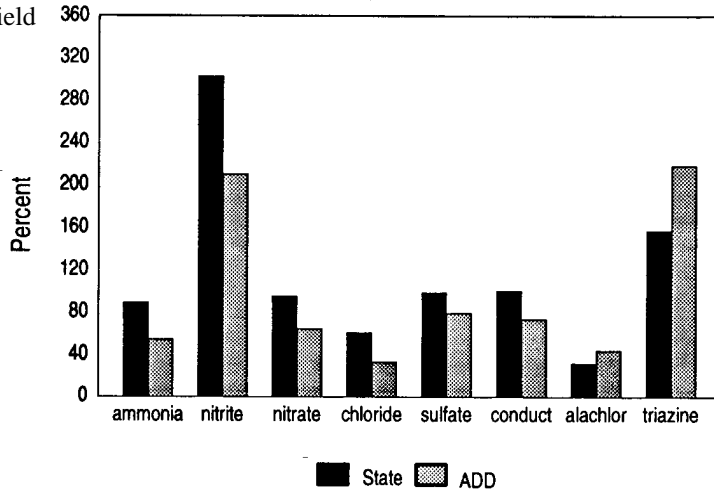
	<i>Number reported</i>
Drilled Well	15
Driven Well	0
Dug Well	4
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	92
Maximum Well Depth	200
Minimum Well Depth	15

Percent of State and Regional Average

Ohio County



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	16.7%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%
Within 200'	54.2%	37.5%	0.0%	0.0%	4.2%	45.8%	0.0%	0.0%	8.4%
Within Sight	87.5%	66.7%	0.0%	0.0%	4.2%	45.8%	0.0%	0.0%	41.7%

**Water Use:**

Domestic	66.7%
Livestock	37.5%
Irrigation	0.0%
Other	25.0%

Chemical Mixing Near Well? 4.8%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.125	0.042	2.34	15.5	41.4	499
Median	0.048	0.032	0.28	7.2	22.9	418
Deviation	0.165	0.048	3.85	18.3	66.5	366
Maximum	0.625	0.231	12.71	68.5	329.5	1198
Minimum	BDL	BDL	BDL	1.3	2.3	62

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	24
Average	0.030	0.169
Median	0.030	0.020
Deviation	0.000	0.442
Maximum	0.03	1.64
Minimum	0.03	0.01

BDL = Below Detection Level

County: Oldham

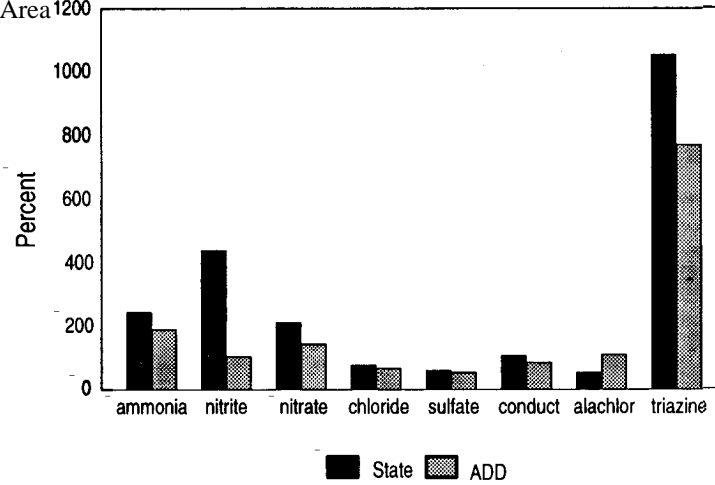
Percent of State and Regional Average

Generalized Geology: Silurian, Devonian, Ordovician,  
 Alluvium Physiographic Region: Knobs Region Area  
 Development District: KIPDA

Number of Wells Tested: 10 (2.9%)

Supply Types:  
 Not Reported

Well Depth Data:  
 Not Reported



Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	60.0%	30.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%
Within Sight	80.0%	80.0%	40.0%	0.0%	10.0%	30.0%	0.0%	0.0%	0.0%

Water Use:

Domestic	60.0%	Chemical Mixing Near Well? 10.0%
Livestock	80.0%	
Irrigation	0.0%	
Other	10.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.345	0.062	5.22	19.5	25.4	535
Median	0.009	0.005	3.05	10.6	12.8	544
Deviation	0.676	0.132	5.95	18.6	21.4	159
Maximum	1.766	0.414	15.52	61.8	62.6	790
Minimum	BDL	0.001	BDL	4.9	6.5	308

Pesticides.

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	4	7
Average	0.050	1.129
Median	0.045	0.130
Deviation	0.022	2.135
Maximum	0.08	5.81
Minimum	0.03	0.01

BDL = Below Detection Level

County: Owen

Generalized Geology: Ordovician

Physiographic Region: Outer Bluegrass

Area Development District: Northern Kentucky

Number of Wells Tested: 3 (0.8%)

Supply Types:

	Number reported
Drilled Well	1
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	43
Maximum Well Depth	43
Minimum Well Depth	43

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	66.7%
Livestock	66.7%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 50.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.232	0.002	1.66	18.9	48.6	705
Median	0.017	0.002	2.29	19.7	62.1	804
Deviation	0.378	0.001	1.29	12.8	42.6	179
Maximum	0.669	0.002	2.51	31.3	82.9	813
Minimum	0.011	0.001	0.17	5.8	0.9	498

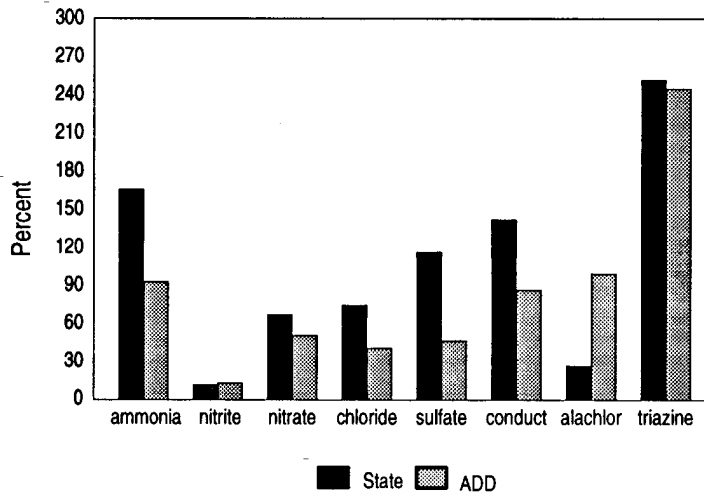
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	2	2
Average	0.025	0.270
Median	0.025	0.270
Deviation	0.021	0.354
Maximum	0.04	0.52
Minimum	0.01	0.02

Percent of State and Regional Average

Owen County



**County:** Owsley

**Generalized Geology:** Pennsylvanian

**Physiographic Region:** Eastern Kentucky Coal Field

**Area Development District:** Kentucky River

**Number of Wells Tested:** None, Estimated 904 Domestic Wells in County

County: Pendleton

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Northern Kentucky

Number of Wells Tested: 9 (6.5%)

Supply Types:

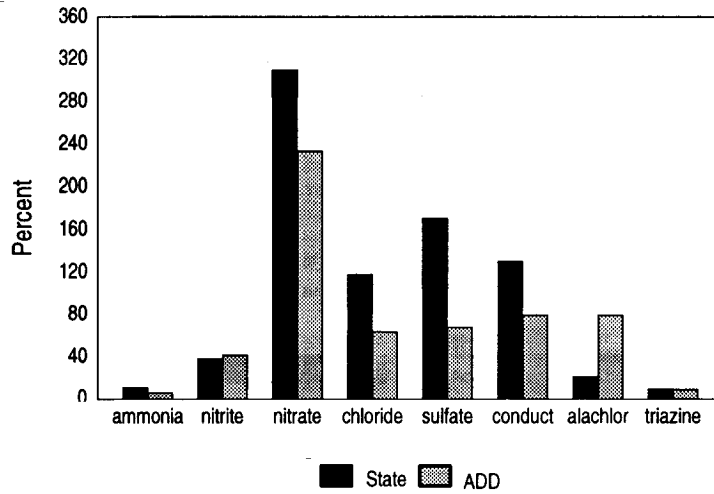
	<i>Number reported</i>
Drilled Well	5
Driven Well	0
Dug Well	1
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	79
Maximum Well Depth	105
Minimum Well Depth	23

Percent of State and Regional Average

Pendleton County



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	25.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	50.0%	60.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	20.0%
Within Sight	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%

Water Use:

Domestic	85.7%
Livestock	57.1%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.015	0.005	7.59	29.9	71.3	648
Median	0.015	0.002	3.40	22.2	28.7	572
Deviation	0.001	0.008	8.41	28.4	115.6	279
Maximum	0.018	0.023	23.19	85.4	351.1	1104
Minimum	0.014	0.001	0.05	3.6	7.7	355

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	1
Average	0.020	0.010
Median	0.020	0.010
Deviation	0.000	0.000
Maximum	0.02	0.01
Minimum	0.02	0.01



County: Perry

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Kentucky River

Number of Wells Tested: 181 (3.1 %)

Supply Types:

	Number reported
Drilled Well	133
Driven Well	0
Dug Well	15
Spring	0

Well Depth Data:

	Feet
Average Well Depth	88
Maximum Well Depth	350
Minimum Well Depth	8

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	6.6%	1.1%	0.0%	0.0%	6.6%	3.3%	0.0%	0.0%	7.2%
Within 200'	21.0%	8.3%	0.6%	0.0%	9.9%	57.4%	0.6%	0.0%	45.9%
Within Sight	30.9%	13.8%	0.6%	0.6%	11.0%	58.0%	0.6%	0.0%	60.3%

Water Use:

Domestic	95.3%
Livestock	4.7%
Irrigation	3.5%
Other	14.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

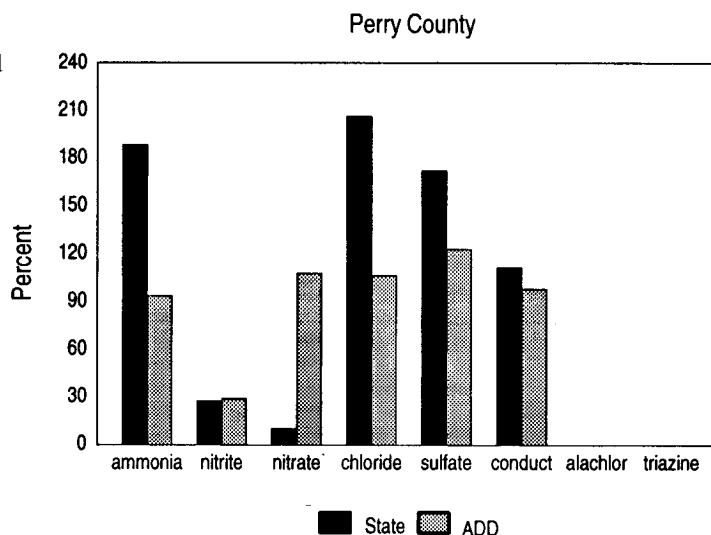
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.264	0.004	0.25	52.2	71.9	552
Median	0.074	0.001	0.14	11.3	20.7	442
Deviation	0.408	0.009	0.42	108.9	165.8	457
Maximum	3.214	0.056	3.30	804.8	1278.9	3064
Minimum	BDL	BDL	0.03	0.8	1.5	54

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average



BDL = Below Detection Level

County: Pike

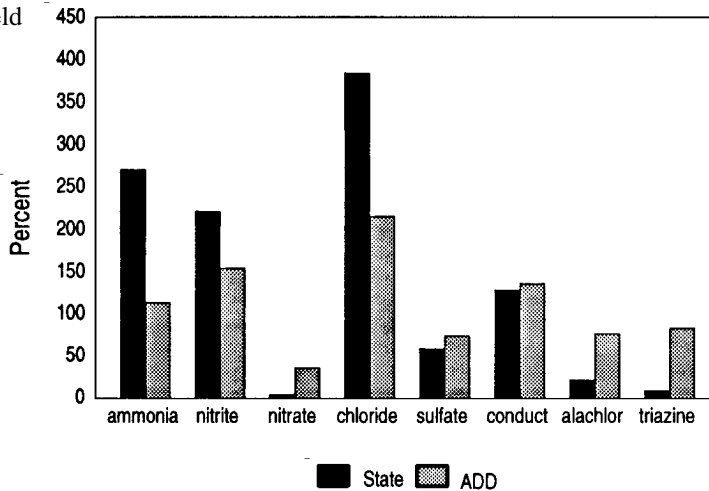
Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian  
**Physiographic Region:** Eastern Kentucky Coal Field  
**Area Development District:** Big Sandy

**Number of Wells Tested:** 30 (0.2%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	28
Driven Well	0
Dug Well	
Spring	0



**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	84
Maximum Well Depth	210
Minimum Well Depth	34

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Hazardous Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	3.3%	6.7%	0.0%	0.0%	0.0%
Within 200'	30.0%	10.0%	3.3%	0.0%	3.3%	66.7%	0.0%	0.0%	53.3%
Within Sight	33.3%	16.7%	6.6%	0.0%	3.3%	66.7%	0.0%	0.0%	80.0%

**Water Use:**

Domestic	96.6%
Livestock	3.4%
Irrigation	6.9%
Other	24.1%

Chemical Mixing Near Well? 3.8%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.378	0.031	0.11	97.2	24.6	639
Median	0.314	0.039	0.01	20.7	14.3	425
Deviation	0.372	0.015	0.39	257.4	26.0	817
Maximum	1.347	0.053	2.09	1323.1	86.8	4385
Minimum	BDL	BDL	BDL	1.8	BDL	72

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	3	3
Average	0.020	0.010
Median	0.020	0.010
Deviation	0.000	0.000
Maximum	0.02	0.01
Minimum	0.02	0.01

BDL = Below Detection Level

County: Powell

**Generalized Geology:** Devonian, Mississippian, Pennsylvanian  
**Physiographic Region:** Knobs and Eastern Kentucky Coal Field  
**Area Development District:** Bluegrass

**Number of Wells Tested:** 6 (1.1 %)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	3
Driven Well	1
Dug Well	2
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	53
Maximum Well Depth	140
Minimum Well Depth	20

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	100.0%	33.3%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	50.0%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

**Water Use:**

Domestic	83.3%
Livestock	16.7%
Irrigation	0.0%
Other	33.3%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

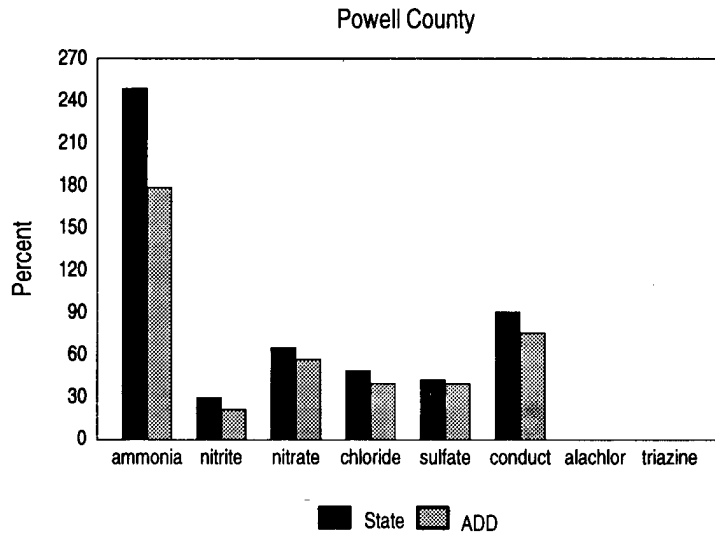
	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.349	0.004	1.60	12.5	17.9	451
Median	0.167	0.001	0.21	12.4	10.4	485
Deviation	0.448	0.008	2.72	8.9	22.2	119
Maximum	1.097	0.020	6.96	24.8	57.5	573
Minimum	0.004	0.001	.15	1.1	0.1	236

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average



County: Pulaski

**Generalized Geology:** Mississippian, Pennsylvanian, Devonian

**Physiographic Region:** Eastern Pennyroyal

**Area Development District:** Lake Cumberland

**Number of Wells Tested:** 93 (3.4%)

Supply Types:

	<i>Number reported</i>
Drilled Well	36
Driven Well	1
Dug Well	9
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	59
Maximum Well Depth	100
Minimum Well Depth	14

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	14.0%	6.5%	1.1%	1.1%	0.0%	2.2%	0.0%	0.0%	2.2%
Within 200'	50.6%	26.9%	2.2%	2.2%	1.1%	44.1%	0.0%	0.0%	4.4%
Within Sight	75.3%	52.7%	8.7%	3.3%	1.1%	45.2%	0.0%	2.2%	15.2%

**Water Use:**

Domestic	92.4%
Livestock	51.9%
Irrigation	6.3%
Other	6.3%

Chemical Mixing Near Well? 9.3%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.032	0.014	2.95	8.4	25.1	340
Median	0.001	0.001	1.43	4.3	10.1	292
Deviation	0.133	0.050	7.25	15.6	50.2	351
Maximum	0.977	0.409	67.00	125.7	355.3	3241
Minimum	BDL	BDL	0.05	1.2	0.6	27

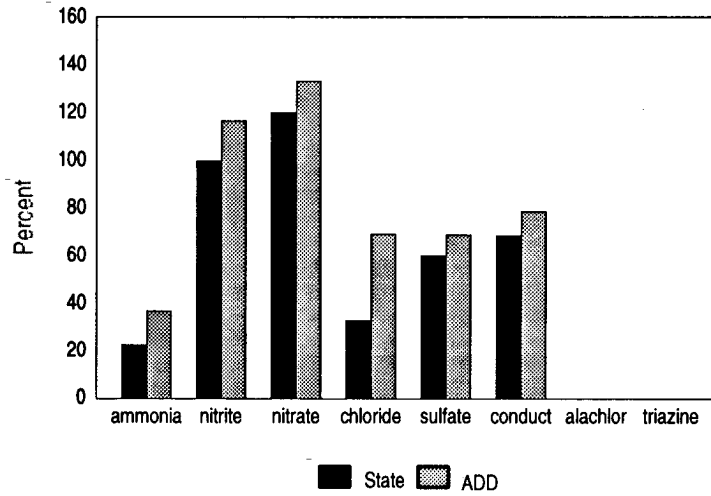
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

Percent of State and Regional Average

Pulaski County



BDL = Below Detection Level

**County:** Robertson

**Generalized Geology:** Ordovician

**Physiographic Region:** Outer Bluegrass

**Area Development District:** Buffalo Trace

**Number of Wells Tested:** None, Estimated 79 Domestic Wells in County

County: Rockcastle

**Generalized Geology:** Mississippian, Pennsylvanian, Devonian

**Physiographic Region:** Eastern Pennyroyal and Eastern Kentucky Coal Field

**Area Development District:** Cumberland Valley

**Number of Wells Tested:** 8 (1.2%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	1
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	90
Maximum Well Depth	90
Minimum Well Depth	90

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%
Within 200'	25.0%	0.0%	0.0%	0.0%	0.0%	75.0%	100.0%	0.0%	100.0%
Within Sight	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%

**Water Use:**

Domestic	100.0%
Livestock	50.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.092	0.006	2.48	24.1	11.0	448
Median	0.041	0.007	1.95	5.0	0.1	372
Deviation	0.144	0.002	2.45	51.8	27.7	358
Maximum	0.448	0.008	6.71	151.9	79.1	1279
Minimum	0.040	0.001	0.01	3.1	0.1	83

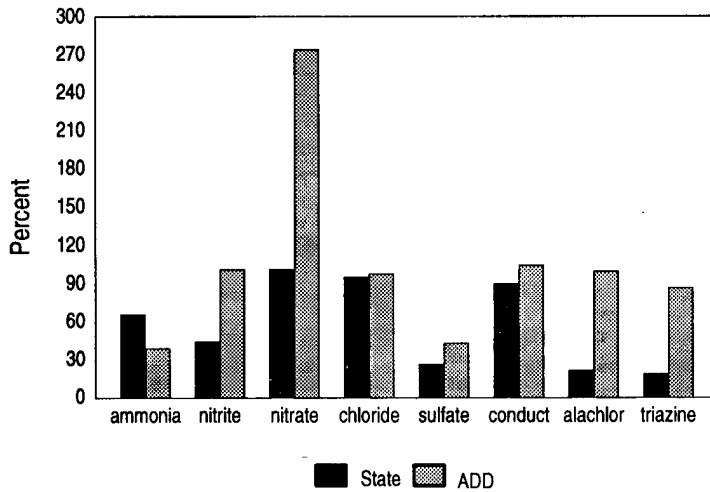
**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	4	4
Average	0.020	0.020
Median	0.020	0.020
Deviation	0.000	0.008
Maximum	0.02	0.03
Minimum	0.02	0.01

**Percent of State and Regional Average**

**Rockcastle County**



County: Rowan

Generalized Geology: Mississippian, Devonian, Pennsylvanian

Physiographic Region: Knobs

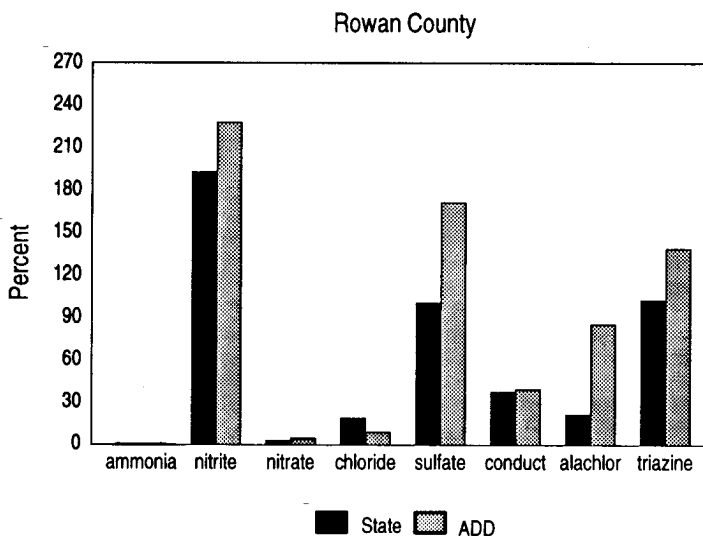
Area Development District: Gateway

Number of Wells Tested: 1 (0.1%)

Supply Types:  
Not Reported

Well Depth Data:  
Not Reported

Percent of State and Regional Average



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within Sight	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Water Use:

Domestic	100.0%
Livestock	0.0%
Irrigation	0.0%
Other	0.0%

Chemical Mixing Near Well? Not Reported

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.001	0.027	0.07	4.8	42.1	187
Median	0.001	0.027	0.07	4.8	42.1	187
Deviation	0.000	0.000	0.00	0.0	0.0	0
Maximum	0.001	0.027	0.07	4.8	42.1	187
Minimum	0.001	0.027	0.07	4.8	42.1	187

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	1
Average	0.020	0.110
Median	0.020	0.110
Deviation	0.000	0.000
Maximum	0.02	0.11
Minimum	0.02	0.11

County: Russell

Generalized Geology: Mississippian, Devonian  
 Physiographic Region: Eastern Pennyroyal  
 Area Development District: Lake Cumberland

Number of Wells Tested: 87 (2.6%)

Supply Types:

	Number reported
Drilled Well	70
Driven Well	0
Dug Well	2
Spring	0

Well Depth Data:

	Feet
Average Well Depth	66
Maximum Well Depth	200
Minimum Well Depth	21

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	8.0%	1.1%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	2.3%
Within 200'	47.1%	31.0%	2.3%	0.0%	2.2%	63.2%	0.0%	0.0%	11.5%
Within Sight	74.7%	48.2%	8.0%	0.0%	3.3%	63.2%	0.0%	0.0%	34.5%

Water Use:

Domestic	96.5%
Livestock	24.7%
Irrigation	0.0%
Other	8.2%

Chemical Mixing Near Well? 7.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.080	0.004	2.12	22.9	27.3	615
Median	0.001	0.001	1.27	4.0	10.4	318
Deviation	0.302	0.011	2.94	81.8	50.7	1976
Maximum	2.381	0.100	16.75	559.5	342.4	18390
Minimum	BDL	BDL	0.03	0.9	0.5	25

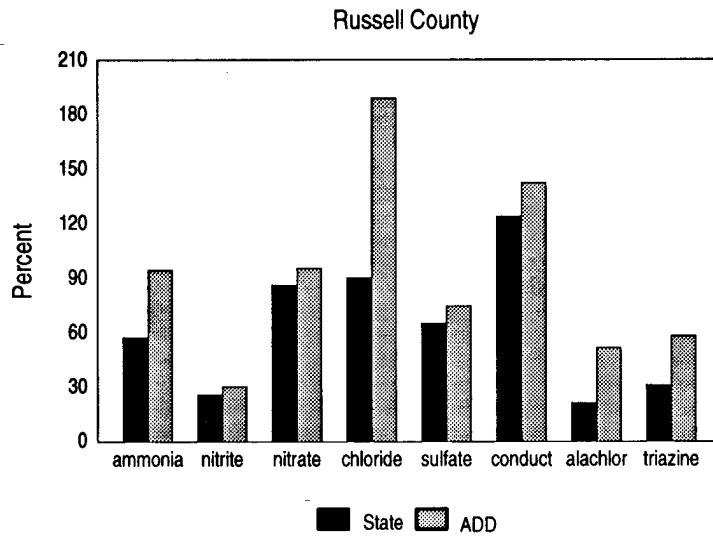
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	6
Average	0.020	0.033
Median	0.020	0.020
Deviation	0.000	0.033
Maximum	0.02	0.10
Minimum	0.02	0.02

BDL = Below Detection Level

Percent of State and Regional Average





County: Scott

Generalized Geology: Ordovician  
 Physiographic Region: Inner-Outer Bluegrass  
 Area Development District: Bluegrass

Number of Wells Tested: 26 (8.0%)

Supply Types:

	Number reported
Drilled Well	13
Driven Well	0
Dug Well	4
Spring	0

Well Depth Data:

	Feet
Average Well Depth	86
Maximum Well Depth	208
Minimum Well Depth	16

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	32.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%
Within 200'	48.0%	37.5%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	36.0%
Within Sight	64.0%	54.2%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	64.0%

Water Use:

Domestic	50.0%
Livestock	72.7%
Irrigation	9.1%
Other	13.6%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.084	0.023	2.46	30.7	65.7	683
Median	0.016	0.001	0.72	8.1	44.2	669
Deviation	0.132	0.056	3.20	43.1	82.2	217
Maximum	0.391	0.232	10.31	168.5	439.4	1346
Minimum	BDL	BDL	0.02	1.9	13.0	265

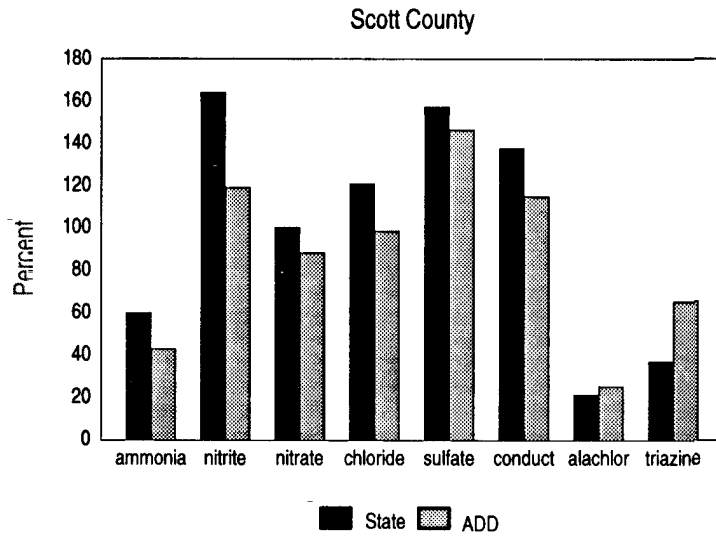
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	1	1
Average	0.020	0.040
Median	0.020	0.040
Deviation	0.000	0.000
Maximum	0.02	0.04
Minimum	0.02	0.04

BDL = Below Detection Level

Percent of State and Regional Average



County: Shelby

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: KIPDA

Number of Wells Tested: 10 (3.1 %)

Supply Types:

	<i>Number reported</i>
Drilled Well	
Driven Well	0
Dug Well	4
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	56
Maximum Well Depth	100
Minimum Well Depth	24

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.0%	10.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	20.0%
Within 200'	50.0%	60.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	30.0%
Within Sight	80.0%	70.0%	10.0%	0.0%	0.0%	30.0%	0.0%	0.0%	40.0%

Water Use:

Domestic	70.0%
Livestock	80.0%
Irrigation	0.0%
Other	10.0%

Chemical Mixing Near Well? 0.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.159	0.143	3.35	21.1	41.8	514
Median	0.013	0.014	2.20	16.2	35.1	577
Deviation	0.389	0.392	3.36	17.1	31.1	164
Maximum	1.253	1.259	8.21	55.2	108.3	726
Minimum	BDL	0.007	0.06	4.4	10.5	206

Pesticides:

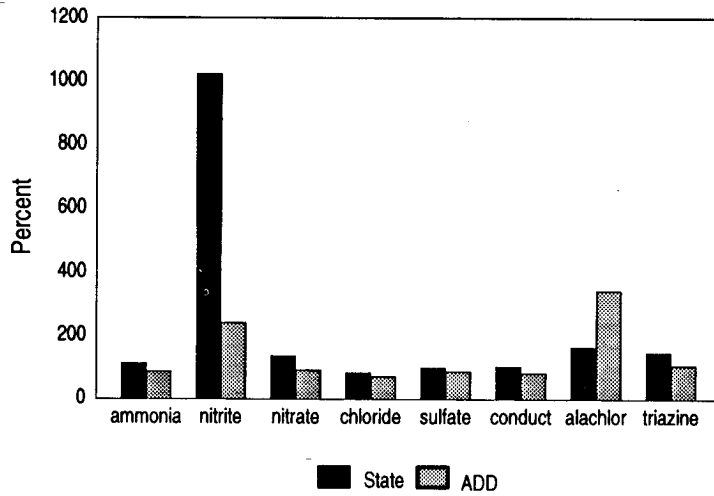
(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	8	8
Average	0.155	0.158
Median	0.050	0.030
Deviation	0.206	0.225
Maximum	0.63	0.56
Minimum	0.03	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Shelby County



County: Simpson

Percent of State and Regional Average

Generalized Geology: Mississippian  
 Physiographic Region: Western Pennyroyal  
 Area Development District: Barren River

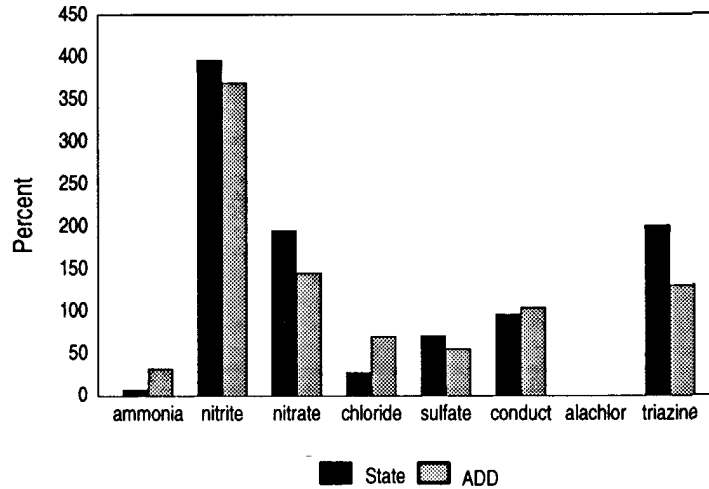
Number of Wells Tested: 25 (11.4%)

Supply Types:

	<i>Number reported</i>
Drilled Well	20
Driven Well	0
Dug Well	2
Spring	0

Well Depth Data:

	<i>feet</i>
Average Well Depth	75
Maximum Well Depth	200
Minimum Well Depth	17



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	32.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	0.0%	4.0%
Within 200'	60.0%	28.0%	0.0%	4.0%	0.0%	56.0%	0.0%	0.0%	12.0%
Within Sight	92.0%	40.0%	16.0%	8.0%	0.0%	56.0%	0.0%	0.0%	32.0%

Water Use:

Domestic	83.3%
Livestock	37.5%
Irrigation	8.3%
Other	37.5%

Chemical Mixing Near Well? 8.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.010	0.056	4.80	7.0	29.5	477
Median	0.005	0.052	4.65	4.6	9.0	444
Deviation	0.028	0.011	3.29	6.0	52.6	148
Maximum	0.146	0.092	11.21	23.2	232.0	755
Minimum	BDL	0.048	BDL	2.1	2.2	229

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	25
Average		0.215
Median		0.050
Deviation		0.346
Maximum		1.27
Minimum		0.01

BDL = Below Detection Level

County: Spencer

Generalized Geology: Ordovician  
 Physiographic Region: Outer Bluegrass  
 Area Development District: KIPDA

Number of Wells Tested: 37 (19.7%)

Supply Types:

	<i>Number reported</i>
Drilled Well	2
Driven Well	0
Dug Well	23
Spring	0

Well Depth Data:

	<i>feet</i>
Average Well Depth	30
Maximum Well Depth	100
Minimum Well Depth	12

Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	10.8%	10.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.5%
Within 200'	37.8%	48.6%	2.7%	0.0%	0.0%	35.1%	2.7%	0.0%	24.3%
Within Sight	75.6%	62.1%	2.7%	0.0%	0.0%	35.1%	5.4%	0.0%	40.5%

Water Use:

Domestic	60.0%
Livestock	40.0%
Irrigation	8.6%
Other	17.1%

Chemical Mixing Near Well? 0.0%

Water Quality:

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.084	0.156	7.28	46.0	43.2	656
Median	0.001	0.012	1.49	5.6	36.8	518
Deviation	0.287	0.710	24.57	178.2	26.3	764
Maximum	1.567	4.315	150.00	1049.4	104.2	3746
Minimum	BDL	BDL	0.11	0.8	5.4	45

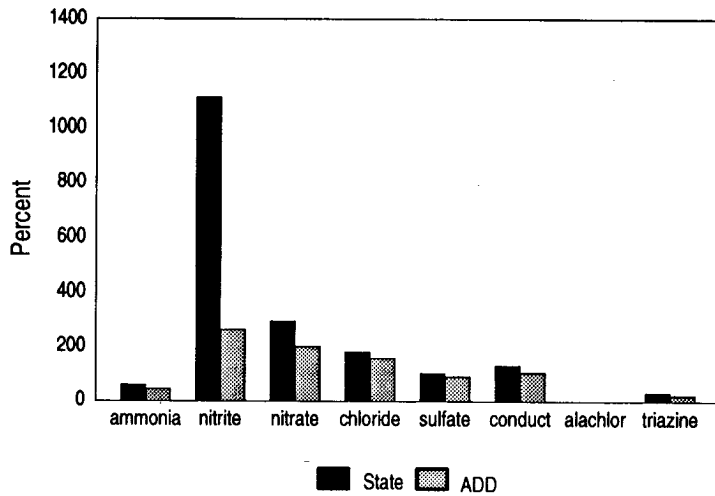
Pesticides:

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	3
Average		0.035
Median		0.035
Deviation		0.021
Maximum		0.05
Minimum		0.02

BDL = Below Detection Level

Percent of State and Regional Average  
 Spencer County



County: Taylor

Percent of State and Regional Average

Generalized Geology: Mississippian, Devonian

Physiographic Region: Eastern Pennyroyal

Area Development District: Lake Cumberland

Number of Wells Tested: 26 (2.3%)

Supply Types:

	Number reported
Drilled Well	15
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	70
Maximum Well Depth	110
Minimum Well Depth	30

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	15.0%	12.5%	0.0%	50.0%	50.0%	6.7%	0.0%	0.0%	0.0%
Within 200'	45.0%	56.2%	33.3%	50.0%	50.0%	100.0%	0.0%	0.0%	50.0%
Within Sight	100.0%	100.0%	66.7%	50.0%	50.0%	100.0%	66.7%	50.0%	100.0%

Water Use:

Domestic	96.2%	Chemical Mixing Near Well? 4.0%
Livestock	30.8%	
Irrigation	3.8%	
Other	11.5%	

Water Quality:

(Concentrations in Milligrams per Liter)

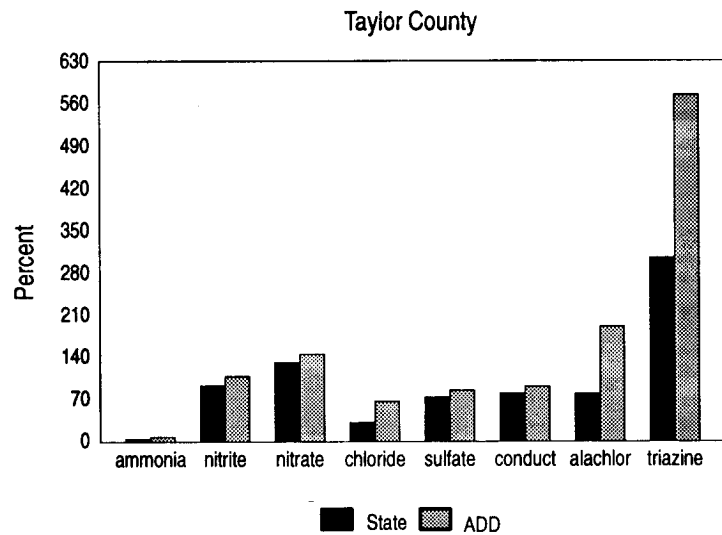
	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.007	0.013	3.22	8.1	30.9	393
Median	0.005	0.004	2.69	5.4	11.6	385
Deviation	0.008	0.033	4.15	8.3	43.7	145
Maximum	0.045	0.148	20.86	35.4	168.5	713
Minimum	BDL	0.001	0.28	1.2	0.1	144

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	8	9
Average	0.074	0.328
Median	0.015	0.030
Deviation	0.164	0.826
Maximum	0.48	2.52
Minimum	0.01	0.01

BDL = Below Detection Level



County: Todd

Generalized Geology: Mississippian,  
Pennsylvanian Physiographic Region: Western  
Pennyroyal Area Development District: Pennyriple

Number of Wells Tested: 121 (8.7%)

Supply Types:

	Number reported
Drilled Well	102
Driven Well	6
Dug Well	8
Spring	0

Well Depth Data:

	Feet
Average Well Depth	84
Maximum Well Depth	185
Minimum Well Depth	15

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	30.8%	14.3%	0.0%	0.0%	6.1%	5.6%	0.0%	0.0%	3.6%
Within 200'	81.3%	48.1%	14.6%	0.0%	24.3%	93.2%	0.0%	0.0%	19.7%
Within Sight	100.0%	89.7%	62.5%	31.0%	30.4%	94.3%	0.0%	0.0%	73.3%

Water Use:

Domestic	92.5%
Livestock	39.2%
Irrigation	4.2%
Other	9.2%

Chemical Mixing Near Well? 8.5%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.043	0.009	4.39	16.6	59.6	533
Median	0.001	0.003	4.04	9.9	20.6	451
Deviation	0.156	0.032	3.45	23.3	133.4	355
Maximum	1.154	0.301	13.24	143.8	954.4	2899
Minimum	BDL	BDL	0.03	2.1	0.5	103

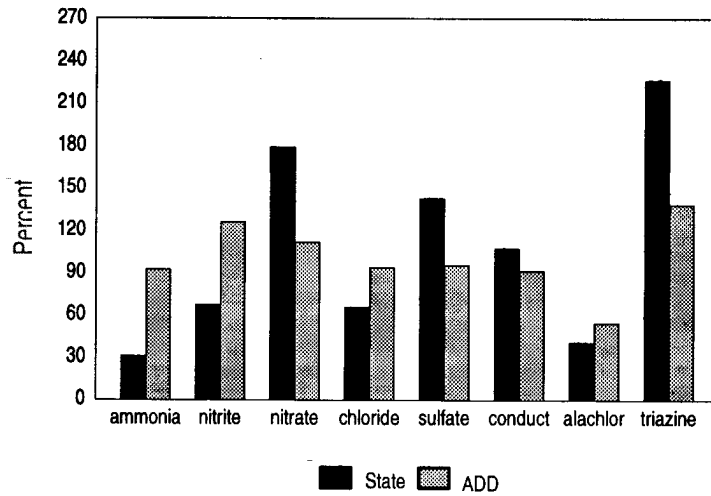
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	41	51
Average	0.038	0.243
Median	0.010	0.050
Deviation	0.100	0.445
Maximum	0.50	2.00
Minimum	Below Detection Levels	

Percent of State and Regional Average

Todd County



BDL = Below Detection Level

County: Trigg

**Generalized Geology:** Mississippian, Cretaceous  
**Physiographic Region:** Western Pennyroyal  
**Area Development District:** Pennyryle

**Number of Wells Tested:** 20 (2.7%)

**Supply Types:**

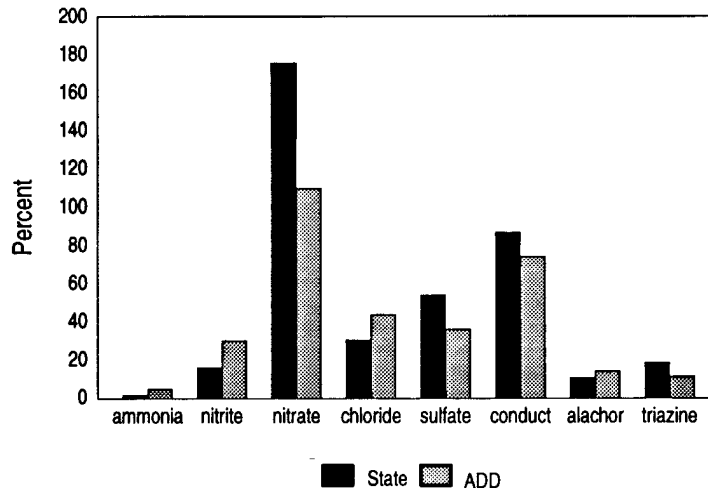
	<i>Number reported</i>
Drilled Well	14
Driven Well	1
Dug Well	1
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	114
Maximum Well Depth	222
Minimum Well Depth	15

Percent of State and Regional Average

Trigg County



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	15.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	45.0%	5.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	15.0%
Within Sight	75.0%	45.0%	15.0%	0.0%	5.0%	50.0%	0.0%	0.0%	25.0%

**Water Use:**

Domestic	93.8%
Livestock	43.8%
Irrigation	0.0%
Other	25.0%

Chemical Mixing Near Well? 0.0%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.002	0.002	4.31	7.8	22.6	431
Median	0.001	0.002	2.86	4.9	12.1	466
Deviation	0.006	0.002	3.69	8.2	22.7	149
Maximum	0.026	0.006	13.44	37.8	84.2	671
Minimum	BDL	BDL	0.14	2.1	2.4	56

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	1	1
Average	0.010	0.020
Median	0.010	0.020
Deviation	0.000	0.000
Maximum	0.01	0.02
Minimum	0.01	0.02

BDL = Below Detection Level

County: Trimble

Generalized Geology: Silurian, Ordovician

Physiographic Region: Outer Bluegrass

Area Development District: KIPDA

Number of Wells Tested: 18 (12.2%)

Supply Types:

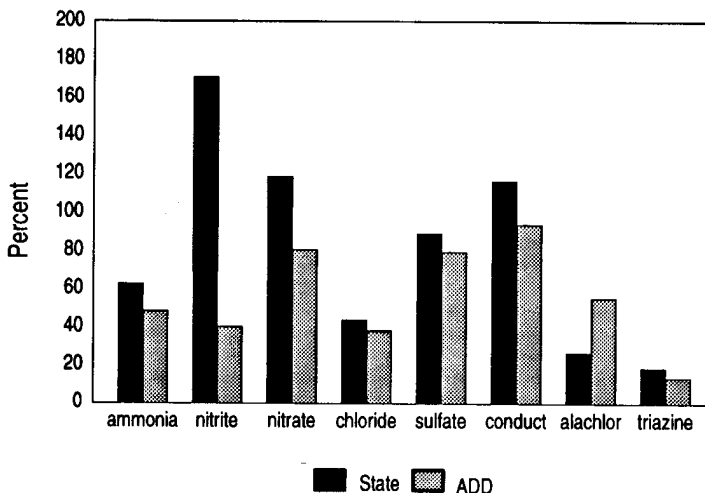
	<i>Number reported</i>
Drilled Well	2
Driven Well	5
Dug Well	5
Spring	0

Well Depth Data:

	<i>Feet</i>
Average Well Depth	50
Maximum Well Depth	92
Minimum Well Depth	15

Percent of State and Regional Average

Trimble County



Supply Locations:

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Chemicals Elevator for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	5.9%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%
Within 200'	70.6%	62.5%	0.0%	0.0%	0.0%	0.0%	0.0%	29.4%
Within Sight	100.0%	87.5%	0.0%	0.0%	6.7%	41.2%	6.7%	0.0%

Water Use:

Domestic	66.7%
Livestock	33.3%
Irrigation	16.7%
Other	0.0%

Chemical Mixing Near Well? 6.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.088	0.024	2.91	11.2	37.2	577
Median	0.002	0.025	1.75	7.8	27.6	569
Deviation	0.245	0.014	2.60	10.1	30.0	177
Maximum	1.053	0.054	8.25	39.6	143.4	1096
Minimum	0.001	0.001	0.05	1.1	7.6	169

Pesticides:

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	8	6
Average	0.025	0.020
Median	0.025	0.015
Deviation	0.005	0.013
Maximum	0.03	0.04
Minimum	0.02	0.01



County: Union

Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian, Alluvium  
**Physiographic Region:** Western Kentucky Coal Field  
**Area Development District:** Green River

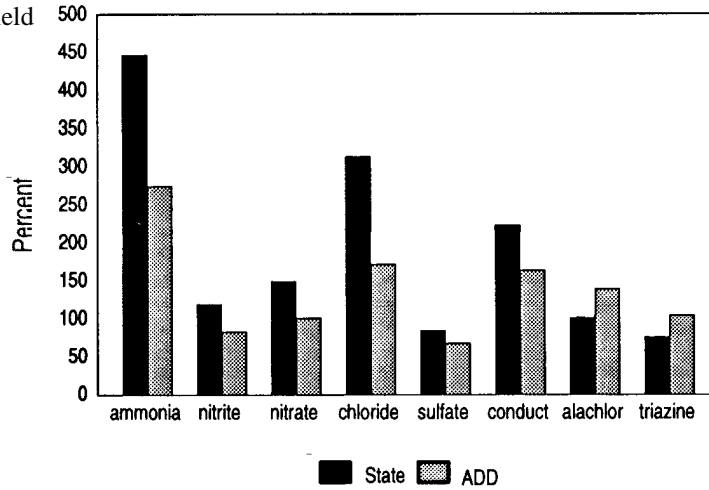
Number of Wells Tested: 68 (10.7%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	60
Driven Well	4
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	138
Maximum Well Depth	280
Minimum Well Depth	30



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	25.0%	14.7%	0.0%	0.0%	2.9%	5.9%	0.0%	0.0%	2.9%
Within 200'	70.6%	36.8%	5.9%	0.0%	2.9%	51.5%	0.0%	0.0%	10.3%
Within Sight	88.2%	63.3%	17.7%	4.4%	8.8%	51.5%	1.5%	1.5%	35.3%

**Water Use:**

Domestic	89.2%
Livestock	44.6%
Irrigation	1.5%
Other	6.2%

Chemical Mixing Near Well? 11.1%

**Water Quality:**

(Concentrations in Milligrams per Liter)

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.624	0.017	3.66	79.3	35.1	1105
Median	0.419	0.004	0.29	29.2	17.5	949
Deviation	0.857	0.038	10.36	146.1	41.8	640
Maximum	5.830	0.220	49.45	937.0	226.6	3693
Minimum	BDL	BDL	BDL	1.7	1.4	95

**Pesticides:**

(Concentrations in Micrograms per Liter)

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	12	65
Average	0.094	0.081
Median	0.020	0.020
Deviation	0.263	0.236
Maximum	0.93	1.54
Minimum	BDL	0.01

BDL = Below Detection Level

County: Warren

Generalized Geology: Mississippian, Pennsylvanian  
 Physiographic Region: Western Pennyroyal Area  
 Development District: Barren River

Number of Wells Tested: 46 (10.8%)

Supply Types:

	Number reported
Drilled Well	36
Driven Well	0
Dug Well	3
Spring	0

Well Depth Data:

	Feet
Average Well Depth	114
Maximum Well Depth	364
Minimum Well Depth	25

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	9.1%	9.1%	0.0%	0.0%	9.3%	4.5%	0.0%	0.0%	0.0%
Within 200'	61.4%	34.1%	2.4%	0.0%	14.0%	59.0%	2.4%	0.0%	6.8%
Within Sight	77.3%	61.4%	2.4%	2.4%	18.7%	59.0%	2.4%	0.0%	27.3%

Water Use:

Domestic	78.6%
Livestock	54.8%
Irrigation	9.5%
Other	11.9%

Chemical Mixing Near Well? 9.3%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.014	0.007	2.85	9.4	30.7	433
Median	0.001	0.002	2.27	5.0	11.1	404
Deviation	0.047	0.012	2.29	15.4	87.0	235
Maximum	0.232	0.064	10.01	90.8	542.3	1626
Minimum	BDL	BDL	0.13	1.2	0.1	104

Pesticides:

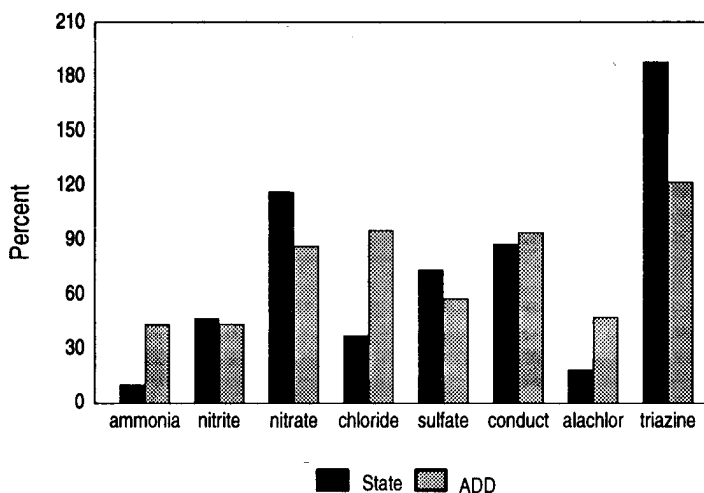
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	7	45
Average	0.017	0.201
Median	0.020	0.030
Deviation	0.005	0.889
Maximum	0.02	6.00
Minimum	0.01	0.01

BDL = Below Detection Level

Percent of State and Regional Average

Warren County



County: Washington

Generalized Geology: Ordovician, Silurian, Devonian  
 Physiographic Region: Outer Bluegrass  
 Area Development District: Lincoln Trail

Number of Wells Tested: 23 (4.6%)

Supply Types:

	Number reported
Drilled Well	
Driven Well	0
Dug Well	10
Spring	0

Well Depth Data:

	Feet
Average Well Depth	34
Maximum Well Depth	100
Minimum Well Depth	18

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	17.4%	4.3%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	4.3%
Within 200'	47.8%	34.7%	0.0%	0.0%	4.3%	26.1%	0.0%	0.0%	13.0%
Within Sight	78.2%	73.8%	8.7%	8.7%	8.7%	26.1%	0.0%	0.0%	26.0%

Water Use:

Domestic	66.7%	Chemical Mixing Near Well? 5.0%
Livestock	42.9%	
Irrigation	14.3%	
Other	0.0%	

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.273	0.083	2.12	14.4	49.8	449
Median	0.010	0.056	0.95	10.7	33.4	452
Deviation	0.589	0.088	2.61	13.0	56.6	237
Maximum	2.083	0.410	7.78	51.2	260.4	807
Minimum	BDL	0.045	BDL	1.0	0.1	78

Pesticides:

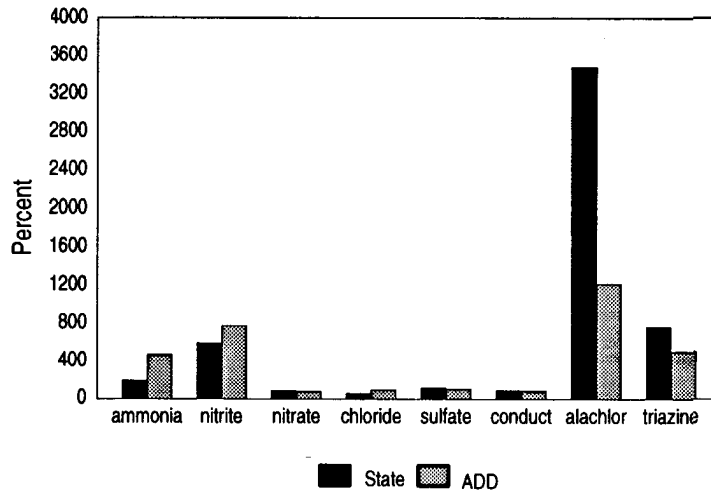
(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	3	20
Average	3.247	0.824
Median	2.510	0.025
Deviation	3.641	2.871
Maximum	7.20	12.90
Minimum	0.03	0.02

BDL = Below Detection Level

Percent of State and Regional Average

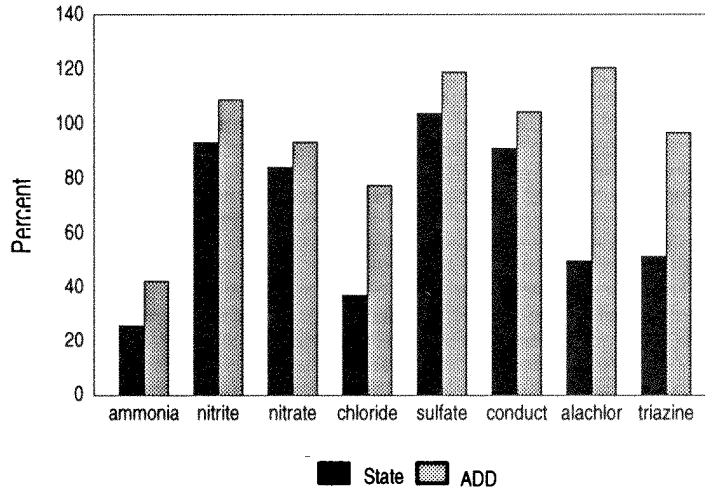
Washington County



County: Wayne

Percent of State and Regional Average

Wayne County



**Generalized Geology:** Mississippian, Pennsylvanian  
**Physiographic Region:** Eastern Pennyroyal  
**Area Development District:** Lake Cumberland

**Number of Wells Tested:** 185 (9.9%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	109
Driven Well	0
Dug Well	7
Spring	3

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	93
Maximum Well Depth	521
Minimum Well Depth	15

**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	9.7%	5.9%	1.1%	0.0%	1.1%	4.3%	0.0%	0.0%	3.2%
Within 200'	44.3%	32.4%	3.3%	0.5%	2.2%	47.5%	0.5%	0.0%	16.2%
Within Sight	72.4%	56.7%	10.3%	1.0%	3.3%	47.5%	1.6%	0.0%	33.5%

**Water Use:**

Domestic	94.9%
Livestock	51.4%
Irrigation	7.3%
Other	6.8%

Chemical Mixing Near Well? 4.6%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.036	0.013	2.07	9.4	43.4	451
Median	0.008	0.007	1.15	3.5	14.9	403
Deviation	0.172	0.055	3.26	26.0	110.3	293
Maximum	2.186	0.696	33.50	235.8	1067.2	3090
Minimum	BDL	BDL	BDL	0.3	0.8	72

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	29	76
Average	0.047	0.055
Median	0.030	0.010
Deviation	0.046	0.162
Maximum	0.25	1.36
Minimum	0.02	0.01

BDL = Below Detection Level

County: Webster

Generalized Geology: Pennsylvanian, Alluvium  
 Physiographic Region: Western Kentucky Coal Field  
 Area Development District: Green River

Number of Wells Tested: 58 (5.4%)

Supply Types:

	Number reported
Drilled Well	31
Driven Well	0
Dug Well	11
Spring	0

Well Depth Data:

	Feet
Average Well Depth	92
Maximum Well Depth	330
Minimum Well Depth	6

Supply Locations:

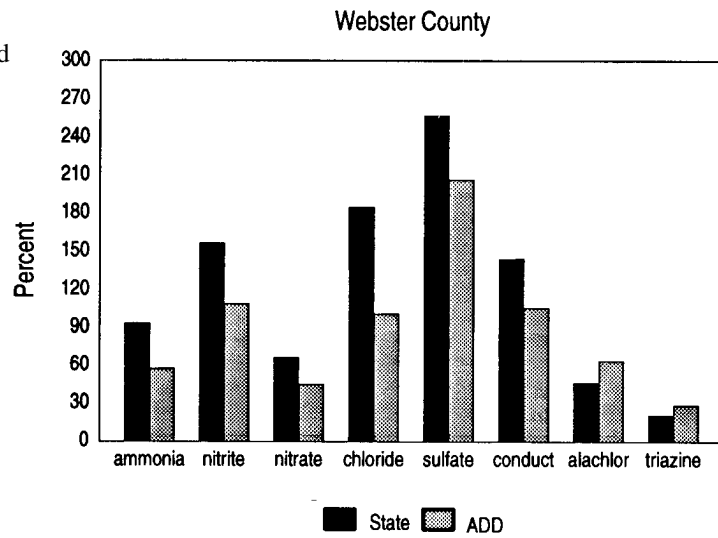
	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	13.8%	8.6%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%
Within 200'	60.4%	27.6%	0.0%	0.0%	1.7%	55.1%	0.0%	0.0%	10.3%
Within Sight	88.0%	44.8%	3.4%	1.7%	3.4%	55.1%	0.0%	1.7%	20.6%

Water Use:

Domestic	93.0%
Livestock	21.1%
Irrigation	7.0%
Other	10.5%

Chemical Mixing Near Well? 1.8%

Percent of State and Regional Average



Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.131	0.022	1.63	46.8	107.4	714
Median	0.015	0.002	0.40	18.8	41.4	592
Deviation	0.245	0.096	2.98	150.7	145.3	667
Maximum	1.226	0.685	18.31	1125.6	642.5	4156
Minimum	BDL	BDL	0.03	1.2	3.9	72

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	3	14
Average	0.043	0.022
Median	0.040	0.010
Deviation	0.015	0.021
Maximum	0.06	0.08
Minimum	0.03	0.01

BDL = Below Detection Level

County: Whitley

Percent of State and Regional Average

**Generalized Geology:** Pennsylvanian Physiographic  
**Region:** Eastern Kentucky Coal Field Area  
**Development District:** Cumberland Valley

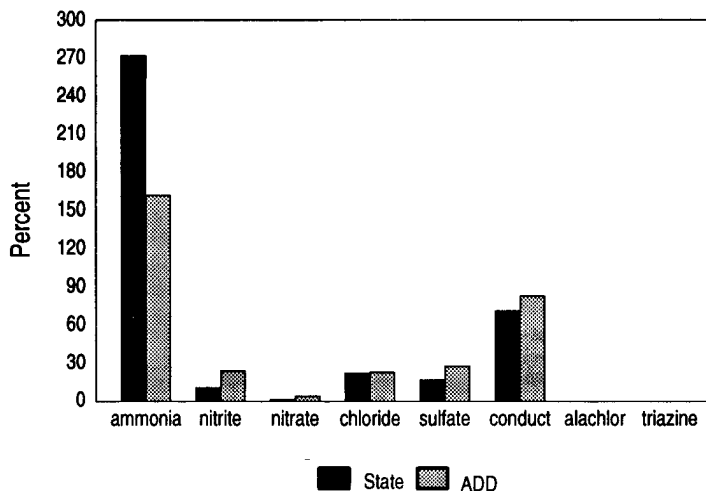
**Number of Wells Tested:** 10 (0.2%)

**Supply Types:**

	<i>Number reported</i>
Drilled Well	10
Driven Well	0
Dug Well	0
Spring	0

**Well Depth Data:**

	<i>Feet</i>
Average Well Depth	184
Maximum Well Depth	315
Minimum Well Depth	68



**Supply Locations:**

	<i>Crops</i>	<i>Feedlot Barn</i>	<i>Waste Tank</i>	<i>Fertilizer Elevator</i>	<i>Chemicals for Lawn</i>	<i>Septic Leach</i>	<i>Hazardous Landfill</i>	<i>Waste</i>	<i>Stream</i>
Within 20'	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
Within 200'	71.4%	80.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	16.7%
Within Sight	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%

**Water Use:**

Domestic	90.0%
Livestock	20.0%
Irrigation	0.0%
Other	10.0%

Chemical Mixing Near Well? 11.1%

**Water Quality:**

*(Concentrations in Milligrams per Liter)*

	<i>Ammonia</i>	<i>Nitrite Nitrogen</i>	<i>Nitrate Nitrogen</i>	<i>Chloride</i>	<i>Sulfate</i>	<i>Conductivity</i>
Average	0.381	0.002	0.040	5.7	7.1	354
Median	0.435	0.001	0.010	5.2	0.4	401
Deviation	0.312	0.001	0.075	5.2	16.5	110
Maximum	0.897	0.005	0.25	19.1	52.6	469
Minimum	0.001	0.001	0.01	0.9	0.1	120

**Pesticides:**

*(Concentrations in Micrograms per Liter)*

	<i>Alachlor</i>	<i>Triazine</i>
Number of Samples	0	0

County: Wolfe

Generalized Geology: Pennsylvanian  
 Physiographic Region: Eastern Kentucky Coal Field  
 Area Development District: Kentucky River

Number of Wells Tested: 30 (1.8%)

Supply Types:

	Number reported
Drilled Well	27
Driven Well	0
Dug Well	2
Spring	0

Well Depth Data:

	Feet
Average Well Depth	157
Maximum Well Depth	310
Minimum Well Depth	20

Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	16.7%	6.7%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	3.3%
Within 200'	40.0%	26.7%	3.3%	0.0%	0.0%	63.3%	0.0%	0.0%	36.6%
Within Sight	63.3%	50.0%	3.3%	0.0%	0.0%	66.7%	0.0%	0.0%	53.3%

Water Use:

Domestic	100.0%
Livestock	10.3%
Irrigation	0.0%
Other	17.2%

Chemical Mixing Near Well? 4.0%

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.174	0.049	0.16	28.9	7.5	437
Median	0.056	0.001	0.01	2.0	3.0	358
Deviation	0.252	0.129	0.43	137.0	9.8	514
Maximum	1.007	0.554	2.32	753.9	36.3	3082
Minimum	BDL	BDL	BDL	0.8	0.1	42

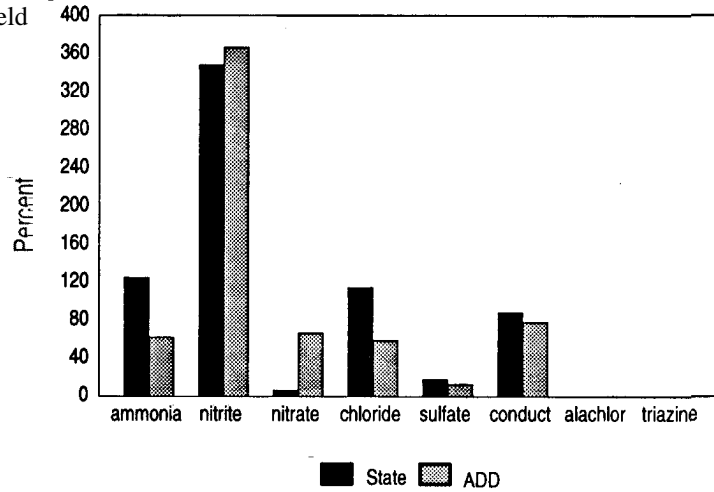
Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	0	0

Percent of State and Regional Average

Wolfe County



BDL = Below Detection Level

County: Woodford

Percent of State and Regional Average

Generalized Geology: Ordovician  
 Physiographic Region: Inner Bluegrass  
 Area Development District: Bluegrass

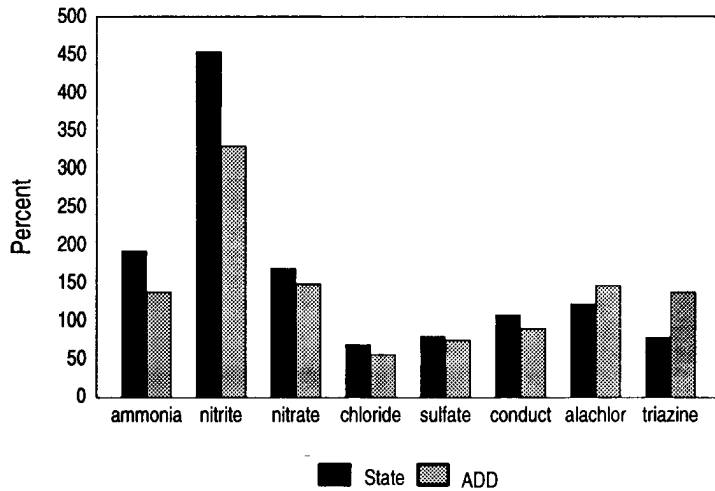
Number of Wells Tested: 22 (9.1 %)

Supply Types:

	Number reported
Drilled Well	9
Driven Well	0
Dug Well	0
Spring	0

Well Depth Data:

	Feet
Average Well Depth	88
Maximum Well Depth	140
Minimum Well Depth	40



Supply Locations:

	Crops	Feedlot Barn	Waste Tank	Fertilizer Elevator	Chemicals for Lawn	Septic Leach	Hazardous Landfill	Waste	Stream
Within 20'	9.1%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Within 200'	59.1%	27.2%	0.0%	0.0%	4.5%	40.9%	0.0%	0.0%	0.0%
Within Sight	77.3%	40.8%	4.5%	4.5%	4.5%	40.9%	0.0%	0.0%	31.8%

Water Use:

Domestic	40.9%	Chemical Mixing Near Well?	0.0%
Livestock	86.4%		
Irrigation	27.3%		
Other	9.1%		

Water Quality:

(Concentrations in Milligrams per Liter)

	Ammonia	Nitrite Nitrogen	Nitrate Nitrogen	Chloride	Sulfate	Conductivity
Average	0.270	0.064	4.16	17.6	33.7	538
Median	0.008	0.006	2.03	12.4	24.9	526
Deviation	0.919	0.187	4.53	16.3	21.6	99
Maximum	4.359	0.797	13.36	66.0	110.4	809
Minimum	BDL	0.001	0.03	2.7	13.1	306

Pesticides:

(Concentrations in Micrograms per Liter)

	Alachlor	Triazine
Number of Samples	11	15
Average	0.115	0.085
Median	0.030	0.020
Deviation	0.271	0.146
Maximum	0.93	0.50
Minimum	0.02	0.01

BDL = Below Detection Level