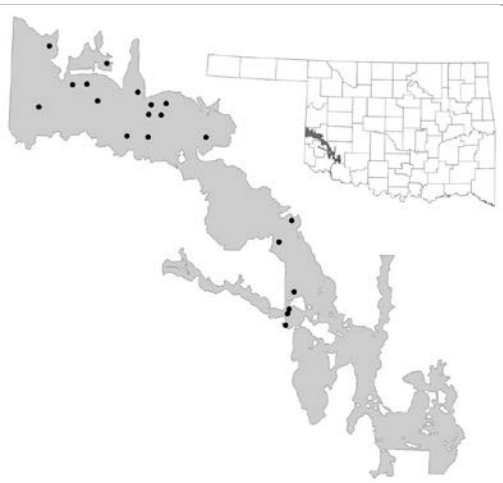
North Fork of the Red River Aquifer

Baseline Sample Period	Sampling Sites	Water Level Sites
July-August 2014	20	43



General	
Location	runs through Southwestern Oklahoma
Area (km^2)	1,734
Capacity (acre-feet)	3,7600,000
Primary Uses	Public Supply; Domestic; Industrial; Irrigation
Category	Alluvial & Terrace

Parameters — General Field

Parameter	Mean	SEM[i]	Minimum	25%	Median	75%	Maximum	Comments
Well Depth (ft)	71.91	5.69	29	48	67	79	210	n=46
Depth to Water (ft)	36.64	3.23	10.6	20.19	33.09	44.19	113.2	Below ground surface
Temperature (°C)	21.53	0.548	18.94	20.14	21.12	22.17	30.64	
Specific Conductance (µS/cm)	1341	247.0	508	630.5	862	1840	4834	
Dissolved Oxygen (mg/L)	5.62	0.562	0.89	4.16	6.41	7.35	9.5	
pH (units)	7.06	0.026	6.85	6.99	7.06	7.16	7.26	
Reduction Potential (mV)	418.8	10.38	315.6	392.7	425.9	447	501.7	
Alkalinity (mg/L)	224.9	10.49	134	198.5	232	252	331	
Hardness (mg/L)	487.1	68.55	187	264.5	342	793.8	1178	
Calculated Bicarbonate (mg/L)	276.8	12.93	165	244	285.5	310.3	408	
Total Dissolved Solids (mg/L)	895.1	178.7	295	379	542.5	1228	3520	SMCL: 500; 11 over

Parameters — Nutrient Constituents

Parameter	Mean	SEM[i]	Minimum	25%	Median	75%	Maximum	Comments
Nitrate & Nitrite (mg/L)	8.29	1.06	0.83	5.58	7.95	10.73	19.4	MCL: 10; 7 over
Total Dissolved	0.029	0.005	<0.005	0.015	0.023	0.042	0.103	

Parameters — Mineral Constituents

Parameter	Mean	SEM[i]	Minimum	25%	Median	75%	Maximum	Comments
Bromide (µg/L)	592.5	124.3	208	264.8	329	613.3	1960	
dissolved Calcium (mg/L)	121.1	14.97	53.2	71.8	94.9	172	312	
Chloride (mg/L)	137.9	57.45	<10	11.55	24.75	79.78	981	SMCL: 250; 3 over
Fluoride (mg/L)	0.295	0.043	<0.2	<0.2	0.28	0.415	0.74	MCL: 4; 0 over
dissolved Magnesium (mg/L)	34.6	5.73	10.3	17.03	23	46.93	81.6	
dissolved Potassium (mg/L)	2.56	0.429	<0.5	1.45	2.1	3.23	9.3	
dissolved Silica (mg/L)	23.22	2.15	9.95	13.88	24.85	27.35	43.7	
dissolved Sodium (mg/L)	114.2	45.58	4.4	23.9	37.35	102	905	
Sulfate (mg/L)	268.4	69.77	<10	38.35	142	383.3	1090	SMCL: 250; 7 over

Parameters	Metal & Trace Element Constituents	Parameter	Mean	SEM[i]	Minimum	25%	Median	75%	Maximum	Comments
		dissolved Arsenic (µg/L)	1.92	0.393	<1	<1	1.6	2.55	7.6	MCL: 10; 0 over
		dissolved Barium (µg/L)	131.4	30.14	10.8	38.55	89	173	577	MCL: 2000; 0 over
		dissolved Boron (µg/L)	192.9	69.98	32.6	57.18	97.55	177.8	1460	HA: 6000; 0 over
		dissolved Copper (µg/L)	All Values <5, except 3 (7.6, 27.7, 51.7)							MCL: 1300; 0 over
		dissolved Iron (µg/L)	All Values <20, except 1 (32.9)							SMCL: 300; 0 over
		dissolved Manganese (µg/L)	3.63	0.403	<5	<5	<5	5.53	7.6	SMCL: 50; 0 over. HA: 300; 0 over.
		dissolved Molybdenum (µg/L)	All Values <5, except 1 (12.8)							HA: 40; 0 over
		dissolved Selenium (µg/L)	All Values <10, except 2 (11.3, 19.9)							MCL: 50; 0 over
		dissolved Uranium (µg/L)	4.07	0.782	<1	1.63	3.4	5.1	12.9	MCL: 30; 0 over
		dissolved Vanadium (µg/L)	9.76	1.69	<5	<5	7.85	14.18	29.3	
		dissolved Zinc (µg/L)	15.51	5.16	<5	<5	4.25	16.2	91.7	SMCL: 5000; 0 over. HA: 2000; 0 over.

Parameters	Parameters Below Detectable Limits				
		Aluminum Ammonia Antimony	Beryllium Cadmium Chromium	Cobalt Lead Mercury	Nickel Silver

[i] Standard Error of the Mean