



Water-Data Report 2010

452256093141802 Local number MW-AD2 33N23W05BACB 02

0000761593

Sand and gravel aquifers (glaciated regions)

Glacial Surficial Sand and/or Gravel

Anoka County, MN

LOCATION.--Lat 45°22'56.25", long 93°14'18.21" referenced to North American Datum of 1983, in SW ¼ NE ¼ NW ¼ sec.5, T.33 N., R.23 W., Anoka County, MN, Hydrologic Unit 07010207.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 75 ft. Upper casing diameter 2 in; top of first opening 69 ft, bottom of last opening 75 ft. Well is 2 inches in diameter. Well depth is 75 ft. Casing is black iron. Screen is stainless steel and 2 inches in diameter.

COOPERATION.--Water-quality samples were collected by the USGS and by Braun Intertec in conjunction with the Metropolitan Council Environmental Services.

REMARKS.--The concentration of waste compounds and human health pharmaceuticals in water from the shallow aquifer around East Bethel are not well known. Knowledge of the pre-existing water quality conditions is important in assessing the change in concentrations over time. This sampling and analyses will provide a baseline of the water quality of the shallow aquifer regarding human health pharmaceuticals and waste water compounds.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 1 of 9

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified; U, analyzed for but not detected]

Date	Sample start time	Medium name	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Flow rate, instantaneous, gallons per minute (00059)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Water level, depth below measuring point, feet (61055)
10-29-2009	1330	Groundwater	735	11.0	5.4	.75	8.3	360	14.2	18.63

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Date	Sample purpose (71999)	Sampling method (82398)	ANC,	Hydrogen	1,4-Di	Bromacil,	Camphor,	Carbaryl,	Carbazole,
			water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (90410)		chloro benzene, water, filtered, recover able, μg/L (34572)			water, filtered, recover able, μg/L (04029)	
10-29-2009	Routine	Submersible pump	148	U	< 0.040	< .4	.1	< 0.38	< 0.030

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Date	Chlor	DEET,	Diazinon,	Metalaxyl,	Metola	p-Cresol,	Prometon,	Thiabenda	1,7-	1-Methyl
	pyrifos, water, filtered, recover able, μg/L (38933)	water, filtered, recover able, μg/L (62082)	water, filtered, recover able, μg/L (39572)	water, filtered, recover able, μg/L (50359)	chlor, water, filtered, recover able, μg/L (39415)	water, filtered, recover able, μg/L (62084)	water, filtered, recover able, μg/L (04037)	zole, water, filtered, recoverabl e, microgram s per liter (62801)	anthine, water, filtered, recoverabl e, microgram s per liter (62030)	naphtha lene, water, filtered, recover able, μg/L (62054)
10-29-2009	< .2	E .2	< .2	< .1	< .1	1.00	< .1	< .060	< .100	M

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Date	2,6-Dimethyl naphthalene, water, filtered, recoverable, μg/L (62055)	2-Methylnaphthalene, water, filtered, recoverable, μg/L (62056)	3-beta-Coprostanol, water, filtered, recoverable, μg/L (62057)	3-Methyl-1H-indole, water, filtered, recoverable, μg/L (62058)	4-Cumyl phenol, water, filtered, recoverable, μg/L (62060)	4-n-Octyl phenol, water, filtered, recoverable, μg/L (62061)	4-Nonyl phenol (sum of all isomers), water, filtered, recoverable, μg/L (62085)	4-Nonyl phenol diethyl oxylate (sum of all isomers), water, filtered, recoverable, μg/L (62083)	4-tert-Octyl phenol diethyl oxylate, water, filtered, recoverable, μg/L (61705)	4-tert-Octyl phenol monoethoxy late, water, filtered, recoverable, μg/L (61706)
10-29-2009	< .1	M	< 2	< 0.036	M	< 0.16	< 2	< 5	M	M

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Date	4-tert-Octyl phenol, water, filtered, recoverable, μg/L (62062)	5-Methyl-1H-benzotriazole, water, filtered, recoverable, μg/L (62063)	9,10-Anthraquinone, water, filtered, recoverable, μg/L (62066)	Acetaminophen, water, filtered, recoverable, micrograms per liter (62000)	Acetophenone, water, filtered, recoverable, μg/L (62064)	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, μg/L (62065)	Albuterol, water, filtered, recoverable, micrograms per liter (62020)	Anthracene, water, filtered, recoverable, μg/L (34221)	Benzo[a]pyrene, water, filtered, recoverable, μg/L (34248)	Benzo phenone, water, filtered, recoverable, μg/L (62067)
10-29-2009	M	< 1	< .2	< .120	2.5	< 0.028	< .080	< 0.028	< .1	.1

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Date	beta-Sitos terol, water, filtered, recover able, μg/L (62068)	beta- Stigmas tanol, water, filtered, recover able, μg/L (62086)	Caffeine, water, filtered, recover able, μg/L (50305)	Carbamaze pine, water, filtered, recoverabl e, microgram s per liter (62793)	Choles terol, water, filtered, recover able, μg/L (62072)	Codeine, water, filtered, recoverabl e, microgram s per liter (62003)	Cotinine, water, filtered, recover able, μg/L (62005)	Dehydronif edipine, water, filtered, recoverabl e, microgram s per liter (62004)	Diltiazem, water, filtered, recoverabl e, microgram s per liter (62008)	Diphenhyd ramine, water, filtered, recoverabl e, microgram s per liter (62796)
10-29-2009	< 4	< 3	.1	< .060	< 2	< .046	< .038	< .080	< .060	< .036

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Date	D- Limonene, water, filtered, recover able, μg/L (62073)	Fluoran thene, water, filtered, recover able, μg/L (34377)	Hexa hydro hexa methyl cyclo penta benzo pyran, water, filtered, recover able, μg/L (62075)	Indole, water, filtered, recover able, μg/L (62076)	Isobor neol, water, filtered, recover able, μg/L (62077)	Iso phorone, water, filtered, recover able, μg/L (34409)	Iso propyl benzene, water, filtered, recover able, μg/L (62078)	Iso quinoline, water, filtered, recover able, μg/L (62079)	Menthol, water, filtered, recover able, μg/L (62080)	Methyl sali cylate, water, filtered, recover able, μg/L (62081)
10-29-2009	< .1	< 0.024	< .1	< .1	< .2	E .1	M	< 0.046	< .3	< 0.044

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Date	Naph thalene, water, filtered, recover able, μg/L (34443)	Phenan threne, water, filtered, recover able, μg/L (34462)	Phenol, water, filtered, recover able, μg/L (34466)	Pyrene, water, filtered, recover able, μg/L (34470)	Sulfameth oxazole, water, filtered, recoverabl e, microgram s per liter (62021)	Tetra chloro ethene, water, filtered, recover able, μg/L (34476)	Tribromo methane, water, filtered, recover able, μg/L (34288)	Tributyl phosphate, water, filtered, recover able, μg/L (62089)	Triclosan, water, filtered, recover able, μg/L (62090)	Triethyl citrate, water, filtered, recover able, μg/L (62091)
10-29-2009	< 0.040	< 0.032	.8	< 0.042	< .160	< .1	< .1	M	< 0.20	< .4

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Date	Trimethoprim, water, filtered, recoverable, micrograms per liter (62023)	Triphenyl phosphate, water, filtered, recoverable, μg/L (62092)	Tris(2-butoxy ethyl) phosphate, water, filtered, recoverable, μg/L (62093)	Tris(2-chloro ethyl) phosphate, water, filtered, recoverable, μg/L (62087)	Tris(di chloro iso propyl) phosphate, water, filtered, recoverable, μg/L (62088)	Warfarin, water, filtered, recoverable, micrograms per liter (62024)
10-29-2009	< .034	< .1	E .2	E .1	M	< .080