

Water Security Agency

Land Location:	SE-14-09-38-25W2	NTS Map:	73A/05
UTM Coordinates:	Z13 464729 E 5789800 N	RM No.:	371
Ground Elevation:		Source:	
Date Sampled:	14-Oct-72	Time Sampled:	
Sample Location:		Sampled by:	
Well name:	SWA Bruno	Contractor:	
Well owner:	Water Security Agency		
Address:	111 Fairford Street East Moose Jaw, SK S6H 7X9	Tel:	
Sample Depth:	180.1	Date Drilled:	
Depth to Water:		Pump Setting:	
Well Diameter:		Pumping Rate:	
WWRD #		Construction method:	
Analysis No.:		Formation:	Empress Group
Laboratory:		Aquifer name:	Hatfield Valley aquifer

Constituent	Concentration	Constituent	Concentration
Major Ions		Metals	
Calcium (Ca)	319	Aluminum (Al)	
Magnesium (Mg)	120	Antimony (Sb)	
Sodium (Na)	192	As (arsenic) (µg/L)	
Potassium (K)	11	Barium (Ba)	
Carbonate (CO3)		Beryllium (Be)	
Bicarbonate (HCO3)	460	Boron (B)	
Sulphate (SO4)	1330	Cadmium (Cd)	
Chloride (Cl)	19	Chromium (Cr)	
Fluoride (F)		Cobalt (Co)	
Nitrate - Nitrate (NO3, NO2 + NO3)	<1	Copper (Cu)	
Total Iron (Fe)	9.7	Lead (Pb)	
Manganese (Mn)		Molybdenum (Mo)	
pH (pH units)	7.24	Nickel (Ni)	
Conductivity (uS/cm)	2530	Selenium (Se)	
Sum of Ions	2451	Silver (Ag)	
Total Dissolved Solids (TDS)		Strontium (Sr)	
Error in Balance (%)		Thallium (Tl)	
Hardness (as CaCO3)	1288	Tin (Sn)	
Total Alkalinity (as CaCO3)	377	Titanium (Ti)	
Dissolved Organic Carbon (DOC)		Uranium (U) (µg/L)	
Turbidity (NTU)		Vanadium (V)	
Perchlorate		Zinc (Zn)	
Iodine (I)			

All values in mg/L, unless indicated otherwise

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Land Location:	SE-14-09-38-25W2	NTS Map:	73A/05
UTM Coordinates:	Z13 464729 E 5789800 N	RM No.:	371
Ground Elevation:		Source:	
Date Sampled:	9-Jan-76	Time Sampled:	
Sample Location:		Sampled by:	
Well name:	SWA Bruno	Contractor:	
Well owner:	Water Security Agency		
Address:	111 Fairford Street East Moose Jaw, SK S6H 7X9	Tel:	
Sample Depth:	180.1	Date Drilled:	
Depth to Water:		Pump Setting:	
Well Diameter:		Pumping Rate:	
WWRD #		Construction method:	
Analysis No.:		Formation:	Empress Group
Laboratory:		Aquifer name:	Hatfield Valley aquifer

Constituent	Concentration	Constituent	Concentration
Major Ions		Metals	
Calcium (Ca)	336	Aluminum (Al)	
Magnesium (Mg)	115	Antimony (Sb)	
Sodium (Na)	201	As (arsenic) (µg/L)	
Potassium (K)	11	Barium (Ba)	
Carbonate (CO3)		Beryllium (Be)	
Bicarbonate (HCO3)	466	Boron (B)	
Sulphate (SO4)	1340	Cadmium (Cd)	
Chloride (Cl)	27	Chromium (Cr)	
Fluoride (F)	0.11	Cobalt (Co)	
Nitrate - Nitrate (NO3, NO2 + NO3)	0.02	Copper (Cu)	
Total Iron (Fe)	9.5	Lead (Pb)	
Manganese (Mn)	0.2	Molybdenum (Mo)	
pH (pH units)	7.36	Nickel (Ni)	
Conductivity (uS/cm)	2360	Selenium (Se)	
Sum of Ions	2496	Silver (Ag)	
Total Dissolved Solids (TDS)		Strontium (Sr)	
Error in Balance (%)		Thallium (Tl)	
Hardness (as CaCO3)	1310	Tin (Sn)	
Total Alkalinity (as CaCO3)	382	Titanium (Ti)	
		Uranium (U) (µg/L)	
Dissolved Organic Carbon (DOC)		Vanadium (V)	
Turbidity (NTU)		Zinc (Zn)	
Perchlorate			
Iodine (I)			

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Land Location:	SE-14-09-38-25W2	NTS Map:	73A/05
UTM Coordinates:	Z13 464729 E 5789800 N	RM No.:	371
Ground Elevation:		Source:	
Date Sampled:	20-Aug-84	Time Sampled:	
Sample Location:		Sampled by:	
Well name:	SWA Bruno	Contractor:	
Well owner:	Water Security Agency		
Address:	111 Fairford Street East Moose Jaw, SK S6H 7X9	Tel:	
Sample Depth:	180.1	Date Drilled:	
Depth to Water:		Pump Setting:	
Well Diameter:		Pumping Rate:	
WWRD #		Construction method:	
Analysis No.:		Formation:	Empress Group
Laboratory:		Aquifer name:	Hatfield Valley aquifer

Constituent	Concentration	Constituent	Concentration
Major Ions		Metals	
Calcium (Ca)	321	Aluminum (Al)	
Magnesium (Mg)	117	Antimony (Sb)	
Sodium (Na)	180	As (arsenic) (µg/L)	
Potassium (K)	10	Barium (Ba)	
Carbonate (CO3)		Beryllium (Be)	
Bicarbonate (HCO3)	442	Boron (B)	
Sulphate (SO4)	1230	Cadmium (Cd)	
Chloride (Cl)	19	Chromium (Cr)	
Fluoride (F)	0.29	Cobalt (Co)	
Nitrate - Nitrate (NO3, NO2 + NO3)	0.02	Copper (Cu)	
Total Iron (Fe)	9.1	Lead (Pb)	
Manganese (Mn)	0.17	Molybdenum (Mo)	
pH (pH units)	7.41	Nickel (Ni)	
Conductivity (uS/cm)	2670	Selenium (Se)	
Sum of Ions	2319	Silver (Ag)	
Total Dissolved Solids (TDS)		Strontium (Sr)	
Error in Balance (%)		Thallium (Tl)	
Hardness (as CaCO3)	1290	Tin (Sn)	
Total Alkalinity (as CaCO3)	362	Titanium (Ti)	
		Uranium (U) (µg/L)	
Dissolved Organic Carbon (DOC)		Vanadium (V)	
Turbidity (NTU)		Zinc (Zn)	
Perchlorate			
Iodine (I)			

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Land Location:	SE-14-09-38-25W2	NTS Map:	73A/05
UTM Coordinates:	Z13 464729 E 5789800 N	RM No.:	371
Ground Elevation:		Source:	
Date Sampled:	15-Nov-05	Time Sampled:	
Sample Location:		Sampled by:	
Well name:	SWA Bruno	Contractor:	
Well owner:	Water Security Agency		
Address:	111 Fairford Street East Moose Jaw, SK S6H 7X9	Tel:	
Sample Depth:	180.1	Date Drilled:	
Depth to Water:		Pump Setting:	
Well Diameter:		Pumping Rate:	
WWRD #		Construction method:	
Analysis No.:		Formation:	Empress Group
Laboratory:		Aquifer name:	Hatfield Valley aquifer

Constituent	Concentration	Constituent	Concentration
Major Ions		Metals	
Calcium (Ca)	332	Aluminum (Al)	0.0024
Magnesium (Mg)	126	Antimony (Sb)	< 0.0002
Sodium (Na)	202	As (arsenic) (µg/L)	0.014
Potassium (K)	12	Barium (Ba)	0.04
Carbonate (CO3)	<1	Beryllium (Be)	< 0.0001
Bicarbonate (HCO3)	488	Boron (B)	0.44
Sulphate (SO4)	1280	Cadmium (Cd)	< 0.0005
Chloride (Cl)	16	Chromium (Cr)	< 0.005
Fluoride (F)	0.14	Cobalt (Co)	0.0011
Nitrate - Nitrate (NO3, NO2 + NO3)	<0.04	Copper (Cu)	< 0.0002
Total Iron (Fe)	9.5	Lead (Pb)	< 0.0001
Manganese (Mn)	0.33	Molybdenum (Mo)	0.0074
pH (pH units)	7.82	Nickel (Ni)	0.0008
Conductivity (uS/cm)	2580	Selenium (Se)	< 0.0001
Sum of Ions	2456	Silver (Ag)	< 0.0001
Total Dissolved Solids (TDS)	2230	Strontium (Sr)	1.9
Error in Balance (%)		Thallium (Tl)	< 0.0002
Hardness (as CaCO3)	1350	Tin (Sn)	< 0.0001
Total Alkalinity (as CaCO3)	400	Titanium (Ti)	
		Uranium (U) (µg/L)	0.0004
Dissolved Organic Carbon (DOC)		Vanadium (V)	0.0001
Turbidity (NTU)	112	Zinc (Zn)	< 0.005
Perchlorate			
Iodine (I)			

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