Appendix C

Tables

Table 4-4

Laboratory Report

Client ID: Ryken-Well-**S-1** Lab ID: CRH0590-01

Purgeable Organic Compounds by GC/MS (EPA 524.2):

Analyte (Reporting Units: µg/L)	**Reporting Limit**	**Sample Result**
Benzene	0.50	<0.50
Bromodichloromethane	1.0	<1.0
Bromoform	1.0	<1.0
Carbon tetrachloride	0.50	<0.50
Chlorobenzene	0.50	<0.50
Chloroform	1.0	<1.0
Dibromochloromethane	1.0	<1.0
1,2-Dichlorobenzene	0.50	<0.50
1,4-Dichlorobenzene	0.50	<0.50
1,1-Dichloroethane	0.50	<0.50
1,2-Dichloroethane	0.50	<0.50
1,1-Dichloroethene	0.50	<0.50
cis-1,2-Dichloroethene	0.50	<0.50
trans-1,2-Dichloroethene	0.50	<0.50
1,2-Dichloropropane	0.50	<0.50
cis-1,3-Dichloropropene	0.50	<0.50
trans-1,3-Dichloropropene	0.50	<0.50
1,3-Dichloropropene, Total	0.50	<0.50
Ethylbenzene	0.50	<0.50
Methylene chloride	0.50	<0.50
Styrene	0.50	<0.50
1,1,2,2-Tetrachloroethane	0.50	<0.50
Tetrachloroethene	0.50	<0.50
Toluene	0.50	<0.50
1,2,4-Trichlorobenzene	0.50	<0.50
1,1,1-Trichloroethane	0.50	<0.50
1,1,2-Trichloroethane	0.50	<0.50
Trichloroethene	0.50	<0.50
Trichlorofluoromethane (Freon 11)	5.0	<5.0
Trichlorotrifluoroethane (Freon 113)	10.0	<10.0
Vinyl chloride	0.50	<0.50
m,p-Xylenes	0.50	<0.50
o-Xylene	0.50	<0.50
Xylenes, Total	1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	3.0	<3.0
Trihalomethanes, Total	1.0	**<4.0**
Surrogate: 4-Bromofluorobenzene (70-130%)		*77%*
Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)		*90%*

Table 4-4

CDHS SRL 524 Modified Method for 1,2,3-Trichloropropane PT/GCMS

Analyte (Reporting Units: ng/L)	Reporting Limit	Sample Result
1,2,3-Trichloropropane (123-TCP)	5.0	<5.0

EDB and DBCP in water by GC/ECD (EPA 504.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
1,2-Dibromoethane (EDB)	0.020	<0.020
1,2-Dibromo-3-chloropropane	0.010	<0.010
Surrogate: 4-Bromofluorobenzene (65-154%)		*97%*

Organic Compounds by GC/MS (EPA 525.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Atrazine	0.50	<0.50
Benzo(a)pyrene	0.10	<0.10
Di(2-ethylhexyl)adipate	5.0	<5.0
Di(2-ethylhexyl)phthalate	3.0	<3.0
Hexachlorobenzene	0.50	<0.50
Hexachlorocyclopentadiene	1.0	<1.0
Molinate	2.0	<2.0
Simazine	1.0	<1.0
Thiobencarb	1.0	<1.0
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)		*93%*
Surrogate: Triphenylphosphate (70-130%)		*95%*
Surrogate: Perylene-d12 (70-130%)		*93%*

Table 4-4

Organohalide Pesticides and Commercial PCB Products (EPA 505)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Alachlor	1.0	<1.0
Endrin	0.10	<0.10
Heptachlor	0.010	<0.010
Heptachlor epoxide	0.010	<0.010
Lindane (gamma-BHC)	0.20	<0.20
Methoxychlor	10.0	<10.0
Chlordane	0.10	<0.10
Toxaphene	1.0	<1.0
Aroclor 1016	0.26	<0.26
Aroclor 1221	0.19	<0.19
Aroclor 1232	0.23	<0.23
Aroclor 1242	0.26	<0.26
Aroclor 1248	0.30	<0.30
Aroclor 1254	0.33	<0.33
Aroclor 1260	0.36	<0.36
PCBs as Decachlorobiphenyl (DCB)	0.50	<0.50

Chlorinated Acids (EPA 515.4)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Bentazon	2.0	<2.0
2,4-D	10.0	<10.0
Dalapon	10.0	<10.0
Dacthal acid metabolites	1.0	<1.0
Dicamba	1.5	<1.5
Dinoseb	2.0	<2.0
Pentachlorophenol	0.20	<0.20
Picloram	1.0	<1.0
2,4,5-TP (Silvex)	1.0	<1.0
Surrogate: 2,4-Dichlorophenylacetic acid (70-130%)		*108%*

Table 4-4

Carbamates/Carbamoxyloxime Pesticides by HPLC (EPA 531.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Aldicarb Sulfoxide	3.0	<3.0
Aldicarb Sulfone	2.0	<2.0
Oxamyl	20.0	<20.0
Methomyl	2.0	<2.0
3-Hydroxycarbofuran	3.0	<3.0
Aldicarb	3.0	<3.0
Carbofuran	5.0	<5.0
Carbaryl	5.0	<5.0

Endothall (EPA 548.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Endothall	45.0	<45.0

Glyphosate (EPA 547)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Glyphosate	25.0	<25.0

Diquat/Paraquat (EPA 549.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Diquat	4.0	<4.0
Paraquat	20.0	<20.0

Inorganics

Analyte	Reporting Limit	Sample Result
Color	1.0 Color Units	<1.0
Turbidity	0.10 NTU	0.19
Odor	1.0 T.O.N.	<1.0

Table 4-4

Field Tests

Analyte	Reporting Limit	Sample Result
Temperature	1.0 ^{o}C	24.0
pH	NA pH Units	5.8

Metals

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Hardness (as $CaCO_3$)	0.33	**320**
Calcium	0.10	**98**
Iron	0.040	<0.040
Magnesium	0.020	**17**
Potassium	0.50	**6.5**
Sodium	0.50	**400**
Mercury	0.00020	<0.00020
Uranium pCi/L (CA)	1.0 pCi/L	**8.0**

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Aluminum	10.0	<10.0
Antimony	2.0	<2.0
Arsenic	1.0	**9.1**
Barium	1.0	**28**
Beryllium	0.50	<0.50
Cadmium	1.0	<1.0
Chromium	2.0	**3.4**
Copper	2.0	**7.1**
Lead	1.0	<1.0
Manganese	1.0	**1.3**
Nickel	2.0	<2.0
Selenium	2.0	**5.3**
Silver	1.0	<1.0
Thallium	1.0	<1.0
Zinc	20.0	<20.0

Table 4-4

Inorganics

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Alkalinity as $CaCO_3$	2.0	**140**
Alkalinity as $CaCO_3$	2.0	**140**
Bicarbonate Alkalinity as $CaCO_3$	2.0	**140**
Carbonate Alkalinity as $CaCO_3$	2.0	<2.0
Hydroxide Alkalinity as $CaCO_3$	2.0	<2.0
Chloride	25.0	**690**
Total Cyanide	0.025	<0.025
Fluoride	0.10	**0.64**
Nitrate-N	0.15	**3.0**
Nitrate-NO_3	0.50	**13**
Nitrite-N	3.0	<3.0
Nitrate/Nitrite-N	0.26	**3.0**
Sulfate	10.0	**330**
Surfactants (MBAS)	0.10	<0.10
Total Dissolved Solids	10.0	**1700**
pH	0.100 pH Units	**7.86**
Perchlorate	4.0 µg/L	<4.0
Specific Conductance	1.0 µmhos/cm @ 25C	**2600**

Aggressive Index

Analyte (Reporting Units: SI Units)	Reporting Limit	Sample Result
Aggressive Index	0.010	**12**

EPA-5 1613B-Tetras

Analyte (Reporting Units: pg/L)	Reporting Limit	Sample Result
2,3,7,8-TCDD	5.0	<5.0
Surrogate: 13C-2,3,7,8-TCDD (25-141%)		*61%*

Table 4-4

EPA 900.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Gross Alpha	3.0	**14.4**

EPA 903.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Radium (total)	1.00	**0.24**

EPA 904 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Radium 228	1.00	**0.64**

EPA 906.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Tritium	500	**140**

EPA 100.2

Analyte (Reporting Units: MFL)	Reporting Limit	Sample Result
Asbestos by TEM	0.20	<0.20

Table 4-5

Laboratory Report

Client ID: Ryken-Well-**S-2** Lab ID: CRH0933-01

Purgeable Organic Compounds by GC/MS (EPA 524.2):

Analyte (Reporting Units: µg/L)	**Reporting Limit**	**Sample Result**
Benzene	0.50	<0.50
Bromodichloromethane	1.0	<1.0
Bromoform	1.0	<1.0
Carbon tetrachloride	0.50	<0.50
Chlorobenzene	0.50	<0.50
Chloroform	1.0	<1.0
Dibromochloromethane	1.0	<1.0
1,2-Dichlorobenzene	0.50	<0.50
1,4-Dichlorobenzene	0.50	<0.50
1,1-Dichloroethane	0.50	<0.50
1,2-Dichloroethane	0.50	<0.50
1,1-Dichloroethene	0.50	<0.50
cis-1,2-Dichloroethene	0.50	<0.50
trans-1,2-Dichloroethene	0.50	<0.50
1,2-Dichloropropane	0.50	<0.50
cis-1,3-Dichloropropene	0.50	<0.50
trans-1,3-Dichloropropene	0.50	<0.50
1,3-Dichloropropene, Total	0.50	<0.50
Ethylbenzene	0.50	<0.50
Methylene chloride	0.50	<0.50
Styrene	0.50	<0.50
1,1,2,2-Tetrachloroethane	0.50	<0.50
Tetrachloroethene	0.50	<0.50
Toluene	0.50	<0.50
1,2,4-Trichlorobenzene	0.50	<0.50
1,1,1-Trichloroethane	0.50	<0.50
1,1,2-Trichloroethane	0.50	<0.50
Trichloroethene	0.50	<0.50
Trichlorofluoromethane (Freon 11)	5.0	<5.0
Trichlorotrifluoroethane (Freon 113)	10.0	<10.0
Vinyl chloride	0.50	<0.50
m,p-Xylenes	0.50	<0.50
o-Xylene	0.50	<0.50
Xylenes, Total	1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	3.0	<3.0
Trihalomethanes, Total	1.0	**<4.0**
Surrogate: 4-Bromofluorobenzene (70-130%)		*77%*
Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)		*94%*

Table 4-5

CDHS SRL 524 Modified Method for 1,2,3-Trichloropropane PT/GCMS

Analyte (Reporting Units: ng/L)	Reporting Limit	Sample Result
1,2,3-Trichloropropane (123-TCP)	5.0	<5.0

EDB and DBCP in water by GC/ECD (EPA 504.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
1,2-Dibromoethane (EDB)	0.020	<0.020
1,2-Dibromo-3-chloropropane	0.010	<0.010
Surrogate: 4-Bromofluorobenzene (65-154%)		*11400%*

Organic Compounds by GC/MS (EPA 525.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Atrazine	0.50	<0.50
Benzo(a)pyrene	0.10	<0.10
Di(2-ethylhexyl)adipate	5.0	<5.0
Di(2-ethylhexyl)phthalate	3.0	<3.0
Hexachlorobenzene	0.50	<0.50
Hexachlorocyclopentadiene	1.0	<1.0
Molinate	2.0	<2.0
Simazine	1.0	<1.0
Thiobencarb	1.0	<1.0
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)		*97%*
Surrogate: Triphenylphosphate (70-130%)		*114%*
Surrogate: Perylene-d12 (70-130%)		*99%*

Table 4-5

Organohalide Pesticides and Commercial PCB Products (EPA 505)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Alachlor	1.0	<1.0
Endrin	0.10	<0.10
Heptachlor	0.010	<0.010
Heptachlor epoxide	0.010	<0.010
Lindane (gamma-BHC)	0.20	<0.20
Methoxychlor	10.0	<10.0
Chlordane	0.10	<0.10
Toxaphene	1.0	<1.0
Aroclor 1016	0.26	<0.26
Aroclor 1221	0.19	<0.19
Aroclor 1232	0.23	<0.23
Aroclor 1242	0.26	<0.26
Aroclor 1248	0.30	<0.30
Aroclor 1254	0.33	<0.33
Aroclor 1260	0.36	<0.36
PCBs as Decachlorobiphenyl (DCB)	0.50	<0.50

Chlorinated Acids (EPA 515.4)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Bentazon	2.0	<2.0
2,4-D	10.0	<10.0
Dalapon	10.0	<10.0
Dacthal acid metabolites	1.0	<1.0
Dicamba	1.5	<1.5
Dinoseb	2.0	<2.0
Pentachlorophenol	0.20	<0.20
Picloram	1.0	<1.0
2,4,5-TP (Silvex)	1.0	<1.0
Surrogate: 2,4-Dichlorophenylacetic acid (70-130%)		*111%*

Table 4-5

Carbamates/Carbamoxyloxime Pesticides by HPLC (EPA 531.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Aldicarb Sulfoxide	3.0	<3.0
Aldicarb Sulfone	2.0	<2.0
Oxamyl	20.0	<20.0
Methomyl	2.0	<2.0
3-Hydroxycarbofuran	3.0	<3.0
Aldicarb	3.0	<3.0
Carbofuran	5.0	<5.0
Carbaryl	5.0	<5.0

Glyphosate (EPA 547)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Glyphosate	25.0	<25.0

Diquat/Paraquat (EPA 549.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Diquat	4.0	<4.0
Paraquat	20.0	<20.0

Inorganics

Analyte	Reporting Limit	Sample Result
Color	1.0 Color Units	<1.0
Turbidity	0.10 NTU	<0.10
Odor	1.0 T.O.N.	<1.0

Field Tests

Analyte	Reporting Limit	Sample Result
Temperature	1.0 ^{o}C	24.0
pH	NA pH Units	6.4

Table 4-5

Metals

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Hardness (as $CaCO_3$)	0.33	**310**
Calcium	0.10	**100**
Iron	0.040	<0.040
Magnesium	0.020	**15**
Potassium	0.50	**8.2**
Sodium	0.50	**370**
Mercury	0.00020	<0.00020
Uranium pCi/L (CA)	1.0 pCi/L	**5.7**

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Aluminum	10.0	<10.0
Antimony	2.0	<2.0
Arsenic	1.0	**9.7**
Barium	1.0	**34**
Beryllium	0.50	<0.50
Cadmium	1.0	<1.0
Chromium	2.0	**4.8**
Copper	2.0	**2.2**
Lead	1.0	<1.0
Manganese	1.0	<1.0
Nickel	2.0	<2.0
Selenium	2.0	**5.0**
Silver	1.0	<1.0
Thallium	1.0	<1.0
Zinc	20.0	<20.0

Table 4-5

Inorganics

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Chromium VI	0.0010	**0.0047**
Alkalinity as $CaCO_3$	2.0	**120**
Alkalinity as $CaCO_3$	2.0	**120**
Bicarbonate Alkalinity as $CaCO_3$	2.0	**120**
Carbonate Alkalinity as $CaCO_3$	2.0	<2.0
Hydroxide Alkalinity as $CaCO_3$	2.0	<2.0
Chloride	10.0	**580**
Total Cyanide	0.025	<0.025
Fluoride	0.10	**0.56**
Nitrate-N	0.15	**1.6**
Nitrate-NO_3	0.50	**7.0**
Nitrite-N	3.0	<3.0
Nitrate/Nitrite-N	0.26	**1.6**
Sulfate	10.0	**260**
Surfactants (MBAS)	0.10	<0.10
Total Dissolved Solids	10.0	**1500**
pH	0.100 pH Units	**7.75**
Specific Conductance	1.0 µmhos/cm @ 25C	**2400**

Aggressive Index

Analyte (Reporting Units: SI Units)	Reporting Limit	Sample Result
Aggressive Index	0.010	**12**

EPA-5 1613B-Tetras

Analyte (Reporting Units: pg/L)	Reporting Limit	Sample Result
2,3,7,8-TCDD	5.0	<5.0
Surrogate: 13C-2,3,7,8-TCDD (25-141%)		*50%*

Table 4-5

EPA 900.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Gross Alpha	3.0	**2.1**

EPA 903.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Radium (total)	1.00	**0.19**

EPA 904 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Radium 228	1.00	**0.14**

EPA 906.0 MOD

Analyte (Reporting Units: pCi/L)	Reporting Limit	Sample Result
Tritium	500	**110**

EPA 100.2

Analyte (Reporting Units: MFL)	Reporting Limit	Sample Result
Asbestos by TEM	0.20	<0.20

Table 4-6

Laboratory Report

Client ID: Ryken-Well-**S-3** Lab ID: CRK1051-01

Inorganics

Analyte	Reporting Limit	Sample Result
Color	1.0 Color Units	<1.0

Field Tests

Analyte	Reporting Limit	Sample Result
Temperature	1.0 ^{o}C	24.9
pH	NA pH Units	7.35

Metals

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Silicon	0.050	**20**
Strontium	0.020	**2.5**
Mercury	0.00020	<0.00020

Analyte (Reporting Units: mg/L as Silica)	Reporting Limit	Sample Result
Silicon	0.11	**43**

Inorganics

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Carbon Dioxide	2.0	**3.5**
Chromium VI	0.0010	**0.0035**
Ammonia-N	0.50	<0.50
Biochemical Oxygen Demand	2.0	<2.0
Ferrous Iron	0.10	<0.10
Phosphate (PO_4)	0.15	**0.18**
Sulfate	10.0	**410**
Total Organic Carbon	0.10	**0.76**
Total Suspended Solids	10.0	<10.0

Table 4-7

Laboratory Report

Client ID: Wetlands Supply Well Lab ID: CRK0176-01

Purgeable Organic Compounds by GC/MS (EPA 524.2):

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Benzene	0.50	<0.50
Bromodichloromethane	1.0	<1.0
Bromoform	1.0	<1.0
Carbon tetrachloride	0.50	<0.50
Chlorobenzene	0.50	<0.50
Chloroform	1.0	<1.0
Dibromochloromethane	1.0	<1.0
1,2-Dichlorobenzene	0.50	<0.50
1,4-Dichlorobenzene	0.50	<0.50
1,1-Dichloroethane	0.50	<0.50
1,2-Dichloroethane	0.50	<0.50
1,1-Dichloroethene	0.50	<0.50
cis-1,2-Dichloroethene	0.50	<0.50
trans-1,2-Dichloroethene	0.50	<0.50
1,2-Dichloropropane	0.50	<0.50
cis-1,3-Dichloropropene	0.50	<0.50
trans-1,3-Dichloropropene	0.50	<0.50
1,3-Dichloropropene, Total	0.50	<0.50
Ethylbenzene	0.50	<0.50
Methylene chloride	0.50	<0.50
Styrene	0.50	<0.50
1,1,2,2-Tetrachloroethane	0.50	<0.50
Tetrachloroethene	0.50	<0.50
Toluene	0.50	<0.50
1,2,4-Trichlorobenzene	0.50	<0.50
1,1,1-Trichloroethane	0.50	<0.50
1,1,2-Trichloroethane	0.50	<0.50
Trichloroethene	0.50	<0.50
Trichlorofluoromethane (Freon 11)	5.0	<5.0
Trichlorotrifluoroethane (Freon 113)	10.0	<10.0
Vinyl chloride	0.50	<0.50
m,p-Xylenes	0.50	<0.50
o-Xylene	0.50	<0.50
Xylenes, Total	1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	3.0	<3.0
Trihalomethanes, Total	1.0	**<4.0**
Surrogate: 4-Bromofluorobenzene (70-130%)		*73%*
Surrogate: 1,2-Dichlorobenzene-d4 (70-130%)		*93%*

Table 4-7

EDB and DBCP in water by GC/ECD (EPA 504.1)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
1,2-Dibromoethane (EDB)	0.020	<0.020
1,2-Dibromo-3-chloropropane	0.010	<0.010
Surrogate: 4-Bromofluorobenzene (65-154%)		*118%*

Organic Compounds by GC/MS (EPA 525.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Atrazine	0.50	<0.50
Simazine	1.0	<1.0
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)		*110%*
Surrogate: Triphenylphosphate (70-130%)		*90%*
Surrogate: Perylene-d12 (70-130%)		*73%*

Organic Compounds by GC/MS (EPA 525.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Di(2-ethylhexyl)adipate	5.0	<5.0
Di(2-ethylhexyl)phthalate	3.0	<3.0
Hexachlorobenzene	0.50	<0.50
Hexachlorocyclopentadiene	1.0	<1.0
Molinate	2.0	<2.0
Thiobencarb	1.0	<1.0
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)		*91%*
Surrogate: Triphenylphosphate (70-130%)		*92%*
Surrogate: Perylene-d12 (70-130%)		*80%*

Organic Compounds by GC/MS (EPA 525.2)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Benzo(a)pyrene	0.10	<0.10
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)		*100%*
Surrogate: Triphenylphosphate (70-130%)		*100%*
Surrogate: Perylene-d12 (70-130%)		*86%*

Table 4-7

Organohalide Pesticides and Commercial PCB Products (EPA 505)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Alachlor	1.0	<1.0
Endrin	0.10	<0.10
Heptachlor	0.010	<0.010
Heptachlor epoxide	0.010	<0.010
Lindane (gamma-BHC)	0.20	<0.20
Methoxychlor	10.0	<10.0
Chlordane	0.10	<0.10
Toxaphene	1.0	<1.0
Aroclor 1016	0.26	<0.26
Aroclor 1221	0.19	<0.19
Aroclor 1232	0.23	<0.23
Aroclor 1242	0.26	<0.26
Aroclor 1248	0.30	<0.30
Aroclor 1254	0.33	<0.33
Aroclor 1260	0.36	<0.36
PCBs as Decachlorobiphenyl (DCB)	0.50	<0.50

Chlorinated Acids (EPA 515.4)

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Bentazon	2.0	<2.0
2,4-D	10.0	<10.0
Dalapon	10.0	<10.0
Dacthal acid metabolites	1.0	<1.0
Dicamba	1.5	<1.5
Dinoseb	2.0	<2.0
Pentachlorophenol	0.20	<0.20
Picloram	1.0	<1.0
2,4,5-TP (Silvex)	1.0	<1.0
Surrogate: 2,4-Dichlorophenylacetic acid (70-130%)		*94%*

Table 4-7

Carbamates/Carbamoxyloxime Pesticides by HPLC (EPA 531.1)

Analyte (Reporting Units: µg/L)	**Reporting Limit**	**Sample Result**
Aldicarb Sulfoxide	3.0	<3.0
Aldicarb Sulfone	2.0	<2.0
Oxamyl	20.0	<20.0
Methomyl	2.0	<2.0
3-Hydroxycarbofuran	3.0	<3.0
Aldicarb	3.0	<3.0
Carbofuran	5.0	<5.0
Carbaryl	5.0	<5.0

Endothall (EPA 548.1)

Analyte (Reporting Units: µg/L)	**Reporting Limit**	**Sample Result**
Endothall	45.0	<45.0

Glyphosate (EPA 547)

Analyte (Reporting Units: µg/L)	**Reporting Limit**	**Sample Result**
Glyphosate	25.0	<25.0

Inorganics

Analyte	**Reporting Limit**	**Sample Result**
Color	1.0 Color Units	<1.0
Turbidity	0.10 NTU	<0.10
pH	NA pH Units	**7.4**
Odor	1.0 T.O.N.	<1.0

Table 4-7

Field Tests

Analyte	Reporting Limit	Sample Result
Temperature	1.0 ^{o}C	25.0
pH	NA pH Units	7.3

Metals

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Hardness (as $CaCO_3$)	0.33	**920**
Calcium	0.10	**270**
Iron	0.040	**0.25**
Magnesium	0.020	**59**
Potassium	0.50	**7.9**
Sodium	1.0	**1400**
Strontium	0.020	**8.3**
Mercury	0.00020	<0.00020
Silicon (mg/L as Silica)	0.11	**35**
Uranium pCi/L (CA)	2.0 pCi/L	**15**

Analyte (Reporting Units: µg/L)	Reporting Limit	Sample Result
Aluminum	20.0	<20.0
Antimony	4.0	<4.0
Arsenic	2.0	**5.5**
Barium	2.0	**37**
Beryllium	1.0	<1.0
Cadmium	2.0	<2.0
Chromium	4.0	<4.0
Copper	4.0	**7.1**
Lead	2.0	**3.4**
Manganese	2.0	**2.5**
Nickel	4.0	<4.0
Selenium	4.0	**13**
Silver	2.0	<2.0
Thallium	2.0	<2.0
Zinc	40.0	<40.0

Table 4-7

Inorganics

Analyte (Reporting Units: mg/L)	Reporting Limit	Sample Result
Carbon Dioxide	2.0	**18**
Chromium VI	0.0010	<0.0010
Alkalinity as $CaCO_3$	2.0	**130**
Bicarbonate Alkalinity as $CaCO_3$	2.0	**130**
Carbonate Alkalinity as $CaCO_3$	2.0	<2.0
Hydroxide Alkalinity as $CaCO_3$	2.0	<2.0
Ammonia as Ammonium	0.60	<0.60
Biochemical Oxygen Demand	2.0	<2.0
Ferrous Iron	0.10	<0.10
Chloride	50.0	**2400**
Total Cyanide	0.025	<0.025
Fluoride	0.10	**0.98**
Nitrate-N	3.0	**11**
Nitrate-NO_3	10.0	**48**
Nitrite-N	0.15	<0.15
Nitrate/Nitrite-N	5.2	**11**
Phosphate (PO_4)	0.15	<0.15
Sulfate	10.0	**930**
Surfactants (MBAS)	0.10	<0.10
Total Dissolved Solids	10.0	**5500**
Total Organic Carbon	0.10	**0.47**
Total Suspended Solids	10.0	**10.0**
pH	0.100 pH Units	**7.63**
Perchlorate	2.0 µg/L	<2.0
Specific Conductance	1.0 µmhos/cm @ 25C	**8200**

Aggressive Index

Analyte (Reporting Units: SI Units)	Reporting Limit	Sample Result
Aggressive Index	0.010	**13**

EPA 100.2

Analyte (Reporting Units: MFL)	Reporting Limit	Sample Result
Asbestos by TEM	0.20	<0.20

Table 4-8

Silt Density Index test results: Ryken Well – Harper Lake

Test performed:

on 11/26/08

at 0954

by Darren E. Boshart

Enter the time to fill a 500 mL container into yellow cells after 0, 5, 10, and 15 minutes of flowing through filter

Elapsed Time (min)	Fill Time (min)	$\%P_{30}$	SDI
0	52.9		
5	51.1	-3.5%	**-0.7**
10	51.3	-3.1%	**-0.3**
15	50.1	-5.6%	**-0.4**

Table 4-9

Field Parameters

(Taken on 11/26/2008 by Darren E. Boshart)

Ryken Well - taken at 09:30

pH	Temp.	Chlorine (free)
7.35	24.9^{o}C	0.05 mg/L

Wetlands Supply Well - taken at 11:20

pH	Temp.	Chlorine (free)
7.27	23.5^{o}C	0.01 mg/L

Harper Lake area wells
Location Coordinates and Elevations

Name	Latitude (DMS)	Longitude (DMS)	Elevation (ft amsl)	Date	Time
Well A	35 00 53.344892638 N	117 19 55.447385220 W	2062.95	6/27/2008	09:16:03am
Well B	35 00 58.375509556 N	117 20 20.903273480 W	2078.291	6/27/2008	09:27:09am
Greenhouse (Well D)	35 00 38.763447145 N	117 19 11.526712210 W	2055.865	6/27/2008	09:40:58am
Hay Farm	35 00 39.602911916 N	117 18 38.676399950 W	2041.339	6/27/2008	09:01:54am
Well J	35 01 31.774671858 N	117 20 20.852583330 W	2059.913	6/27/2008	09:52:00am
Well L	35 00 43.666814655 N	117 20 54.332749910 W	2105.533	6/27/2008	10:30:04am
Well M	35 01 06.333353120 N	117 20 54.361564770 W	2095.164	6/27/2008	10:39:02am
Myrob Well	35 01 57.910079249 N	117 19 48.400351950 W	2044.936	6/27/2008	10:05:56am
Well N	35 01 18.592590522 N	117 20 54.594628970 W	2084.621	6/27/2008	10:47:22am
Well P	34 59 48.044001297 N	117 18 12.326365070 W	2093.158	6/27/2008	11:50:23am
Ryken Well	35 00 35.911558566 N	117 18 46.565793960 W	2048.658	9/25/2008	10:45:49am
Well U	35 00 39.862098497 N	117 19 47.825044190 W	2066.833	6/27/2008	11:19:14am
Uli-A	34 59 29.625579832 N	117 19 54.068042680 W	2137.637	7/8/2008	08:01:56am
Uli-B	34 59 39.219734533 N	117 19 55.855784140 W	2130.773	7/8/2008	08:06:29am
Well Y	35 00 37.757311661 N	117 19 33.553313890 W	2062.766	6/27/2008	11:31:24am
Well Z	34 58 58.426204129 N	117 19 47.055591360 W	2168.967	6/27/2008	12:04:32pm

Harper Lake area wells
Potentiometric Surface (ft amsl)

Well Name	6/6/2008	6/10/2008	6/11/2008	6/27/2008	6/30/2008	7/1/2008	7/7/2008	7/8/2008
Well A	1,908.18			1,907.64				
Well B	1,903.02			1,902.79				
Greenhouse (Well D)	1,903.51			1,902.35				
Hayfarm				1,899.64	1,901.86	1,899.84		
Well J	1,900.91			1,897.98		1,899.20		
Well L				1,904.17				
Well M	1,905.22			1,904.38		1,904.36		
Myrob				1,909.20		1,906.20		
Well N				1,900.70				
Well P			1,904.86	1,904.73				
Ryken					1,905.66			1,824.66
Well U			1,921.68	1,921.57				
ULI-A							1,912.37	
ULI-B							1,914.13	
Well Y			1,907.98	1,907.09				
Well Z		1,914.62		1,917.33				

Table 4-12

Harper Lake area wells
Potentiometric Surface (ft amsl)
(During Pump Test)

Date	Time	Ryken Well	Wetlands Supply Well	Greenhouse Well	Pump Status
7/16/2008	5:00	1,851.66			
7/28/2008	12:00	1,905.31			
8/7/2008	13:00	1,906.56			
8/11/2008	5:30	1,905.03			
8/11/2008	10:45	1,906.66			
8/11/2008	13:00		1,906.98		
8/11/2008	13:20	1,904.66			
8/13/2008	9:10		1,907.11		
8/13/2008	10:47	1,905.99			
8/13/2008	12:41		1,907.33		
8/13/2008	13:03			1,902.59	
8/14/2008	8:30		1,907.48		
8/14/2008	8:40			1,902.62	
8/14/2008	8:50	1,905.51			
8/14/2008	9:29				ON
8/14/2008	9:36	1,876.36			
8/14/2008	10:30	1,874.67			
8/14/2008	11:30	1,874.55			
8/14/2008	12:30	1,874.55			
8/15/2008	8:36		1,906.45		
8/15/2008	8:50			1,902.29	
8/15/2008	9:30	1,871.07			
8/15/2008	15:01			1,902.37	
8/15/2008	18:32			1,902.38	
8/16/2008	6:30		1,906.33		
8/16/2008	6:40			1,902.46	
8/16/2008	9:30	1,869.59			
8/16/2008	11:00			1,902.24	
8/16/2008	15:06			1,902.24	
8/16/2008	17:30	1,902.85			
8/16/2008	18:00				OFF
8/17/2008	9:50	1,884.83			ON
8/17/2008	13:30		1,906.78		
8/17/2008	13:35			1,902.66	
8/17/2008	17:23		1,906.69		
8/17/2008	17:30	1,872.01		1,902.39	
8/17/2008	21:30	1,871.79			
8/18/2008	5:45			1,902.12	
8/18/2008	6:05		1,906.38		
8/18/2000	9:20		1,906.28		
8/18/2008	9:30	1,870.97			
8/18/2008	9:32			1,902.11	
8/18/2008	11:07	1,900.54			OFF
8/18/2008	14:49	1,878.83			ON

Table 4-12

Date	Time	Ryken Well	Wetlands Supply Well	Greenhouse Well	Pump Status
8/19/2008	6:45	1,870.86			
8/19/2008	6:48			1,902.32	
8/19/2008	7:00		1,906.32		
8/19/2008	9:45	1,870.05			
8/19/2008	13:25		1,906.21		
8/19/2008	13:33			1,902.26	
8/19/2008	13:45	1,869.70			
8/19/2008	17:30		1,906.19		
8/19/2008	17:38			1,902.13	
8/20/2008	6:30		1,906.23		
8/20/2008	6:45	1,869.59		1,901.98	
8/20/2008	9:30	1,869.66			
8/20/2008	17:30	1,869.66	1,906.14		
8/20/2008	19:30		1,906.14		
8/20/2008	23:30		1,906.14		
8/21/2008	3:30	1,869.66	1,906.14		
8/21/2008	7:30	1,869.66	1,906.14		
8/21/2008	11:30	1,869.66	1,906.14		
8/21/2008	12:32	1,869.66	1,906.14		
8/21/2008	19:30	1,869.64	1,906.21		
8/21/2008	22:30		1,906.21		
8/22/2008	1:30	1,869.56	1,906.22		
8/22/2008	5:30	1,869.59	1,906.22		
8/22/2008	9:30	1,869.47	1,906.13		
8/22/2008	13:30	1,869.47	1,906.13		
8/22/2008	23:00		1,905.83		
8/23/2008	3:00		1,905.83		
8/23/2008	9:30	1,868.66			
8/24/2008	3:00	1,868.48	1,905.86		
8/24/2008	7:00	1,868.50	1,905.87		
8/24/2008	11:00	1,868.60			
8/25/2008	3:00	1,869.36	1,905.86		
8/25/2008	7:00	1,869.36	1,905.87		
8/25/2008	9:15	1,869.43			OFF
8/25/2008	9:16	1,898.76			
8/25/2008	9:20	1,899.16			
8/25/2008	9:25	1,899.59			
8/25/2008	9:31	1,900.54			
8/25/2008	9:45	1,901.35			
8/25/2008	10:03	1,901.65			
8/25/2008	10:35	1,901.97			
8/25/2008	11:05	1,902.02			
8/25/2008	22:05	1,904.91			
8/26/2008	9:30	1,905.51			