

Environment Canada -Laboratories
Pacific Environmental Science Centre
2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 4

00:54 17-Apr-97

FINAL REPORT

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028695

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR OUTSELL WELL SAMPLE

Parameter Analyzed		Units	971364-001
ALKALINITY		mg/l	159
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.7
FLUORIDE		mg/l	0.13
NITRATE-NITROGEN		mg/l	0.027
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	332
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.001
	BE	mg/l	<.001
	CA	mg/l	40.9
	CD	mg/l	<.005
	CO	mg/l	.011
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.016
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	19.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.49
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.093
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	140
/TOTAL	HT	mg/l	140
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	40.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.633
	K	mg/l	.2
	MG	mg/l	9.2

Parameter Analyzed	Units	971364-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.019
MO	mg/l	<.01
NA	mg/l	19.6
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.37
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	12.5
SN	mg/l	<.06
SR	mg/l	.092
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.006
NITROGEN/AMMONIA	mg/l	<.002
/TOTAL	mg/l	.08
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	7.25
PHOSPHORUS/O-PO4	mg/l	.003
RESIDUE/FILTERABLE	mg/l	220
/TOTAL	mg/l	200
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0945
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
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00:53 17-Apr-97

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028694

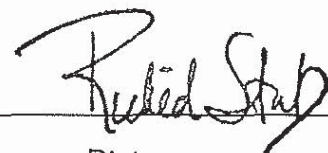
Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed		Units	971363-001
ALKALINITY		mg/l	22.3
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	6.27
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	0.276
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	19.0
CONDUCTIVITY		uS/cm	116
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.11
	AS	mg/l	<.05
	B	mg/l	.02
	BA	mg/l	.004
	BE	mg/l	<.001
	CA	mg/l	10.2
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.108
	K	mg/l	.6
	MG	mg/l	3
	MN	mg/l	.026
	MO	mg/l	<.01
	NA	mg/l	7.4
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	6.35
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.64
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.007
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	37.7
/TOTAL	HT	mg/l	38.4
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.19
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	10
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.67
	K	mg/l	.5
	MG	mg/l	3

Parameter Analyzed	Units	971363-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.034
	MO mg/l	<.01
	NA mg/l	7.4
	NI mg/l	<.02
	P mg/l	<.1
	PB mg/l	<.06
	S mg/l	6.32
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	9.5
	SN mg/l	<.06
	SR mg/l	.07
	TI mg/l	.05
	V mg/l	<.01
	ZN mg/l	.006
NITROGEN/AMMONIA	mg/l	.008
/TOTAL	mg/l	.52
OXYGEN DEMAND/CHEMICAL	mg/l	203
PH	Rel.U.	6.98
PHOSPHORUS/O-PO4	mg/l	<.001
RESIDUE/FILTERABLE	mg/l	110
/TOTAL	mg/l	100
BC SAMPLING AGENCY	EMSCode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0955
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
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04:36 18-Apr-97

FINAL REPORT

Identification: BELLHOUSE POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028697

Logged in: 20-Mar-97 (1 sample)

Completed: 17-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
CA (2000)

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR BELLHOUSE POND SAMPLE

Parameter Analyzed		Units	971366-001
ALKALINITY		mg/l	49.8
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	16
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	1.06
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	8.8
CONDUCTIVITY		uS/cm	143
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.15
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	9.7
	CD	mg/l	<.005
	CO	mg/l	.005
	CR	mg/l	.009
	CU	mg/l	<.005
	FE	mg/l	.109
	K	mg/l	1.7
	MG	mg/l	3.2
	MN	mg/l	.011
	MO	mg/l	<.01
	NA	mg/l	11.8
	NI	mg/l	<.02
	P	mg/l	.2
	PB	mg/l	<.05
	S	mg/l	2.95
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.97
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.003
	V	mg/l	<.01
	ZN	mg/l	.005
.HARDNESS/CA+MG	HC	mg/l	37.4
/TOTAL	HT	mg/l	38.3
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.61
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.01
	BE	mg/l	<.001
	CA	mg/l	9.8
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	1.03
	K	mg/l	1.8
	MG	mg/l	3.4

RESULTS FOR BELLHOUSE POND SAMPLE

Parameter Analyzed	Units	971366-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.032
MO	mg/l	<.01
NA	mg/l	11.9
NI	mg/l	<.02
P	mg/l	.3
PB	mg/l	<.06
S	mg/l	3.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	10.2
SN	mg/l	<.06
SR	mg/l	.072
TI	mg/l	.067
V	mg/l	<.01
ZN	mg/l	.008
NITROGEN/AMMONIA		
/TOTAL	mg/l	.11
OXYGEN DEMAND/CHEMICAL	mg/l	57
PH	Rel.U.	7.06
PHOSPHORUS/O-PO4	mg/l	.163
RESIDUE/FILTERABLE	mg/l	140
/TOTAL	mg/l	140
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0850
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
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04:34 18-Apr-97

FINAL REPORT

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

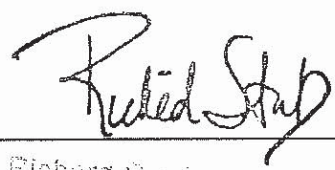
Submission RefId: 10028695

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Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard S. J. J.
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR OUTSELL WELL SAMPLE

Parameter Analyzed		Units	971364-001
ALKALINITY		mg/l	159
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.7
FLUORIDE		mg/l	0.13
NITRATE-NITROGEN		mg/l	0.027
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	332
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.001
	BE	mg/l	<.001
	CA	mg/l	40.9
	CD	mg/l	<.005
	CO	mg/l	.011
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.016
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	19.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.49
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.093
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	140
/TOTAL	HT	mg/l	140
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	40.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.633
	K	mg/l	.2
	MG	mg/l	9.2

Parameter Analyzed	Units	971364-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.019
	MO mg/l	<.01
	NA mg/l	19.6
	NI mg/l	<.02
	P mg/l	<.1
	PB mg/l	<.06
	S mg/l	3.37
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	12.5
	SN mg/l	<.06
	SR mg/l	.092
	TI mg/l	<.002
	V mg/l	<.01
	ZN mg/l	.006
NITROGEN/AMMONIA	mg/l	<.002
/TOTAL	mg/l	.08
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	7.25
PHOSPHORUS/O-PO4	mg/l	.003
RESIDUE/FILTERABLE	mg/l	220
/TOTAL	mg/l	200
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0945
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
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04:34 18-Apr-97

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028694

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Stout
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed		Units	971363-001
ALKALINITY		mg/l	22.3
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	6.27
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	0.276
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	19.0
CONDUCTIVITY		uS/cm	116
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.11
	AS	mg/l	<.05
	B	mg/l	.02
	BA	mg/l	.004
	BE	mg/l	<.001
	CA	mg/l	10.2
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.108
	K	mg/l	.6
	MG	mg/l	3
	MN	mg/l	.026
	MO	mg/l	<.01
	NA	mg/l	7.4
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	6.35
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.64
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.007
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	37.7
/TOTAL	HT	mg/l	38.4
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.19
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	10
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.67
	K	mg/l	.5
	MG	mg/l	3

Parameter Analyzed	Units	971363-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.034
MO	mg/l	<.01
NA	mg/l	7.4
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	6.32
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	9.5
SN	mg/l	<.06
SR	mg/l	.07
TI	mg/l	.05
V	mg/l	<.01
ZN	mg/l	.006
NITROGEN/AMMONIA		
/TOTAL	mg/l	.008
OXYGEN DEMAND/CHEMICAL	mg/l	.52
PH	Rel.U.	203
PHOSPHORUS/O-PO4	mg/l	6.98
RESIDUE/FILTERABLE	mg/l	<.001
/TOTAL	mg/l	110
	mg/l	100
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0955
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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V7H 1V2 (604)924-2500

Lab Reference #
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04:35 18-Apr-97

FINAL REPORT

Identification: BURDGE WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028696

Logged in: 20-Mar-97 (1 sample)

Completed: 16-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by:


Richard O'Neil
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR BURDGE WELL SAMPLE

Parameter Analyzed		Units	971365-001
ALKALINITY		mg/l	170
ANIONS/IC - BROMIDE		mg/l	0.06
CHLORIDE		mg/l	9.7
FLUORIDE		mg/l	0.09
NITRATE-NITROGEN		mg/l	<0.002
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	357
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	53.8
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.056
	K	mg/l	.2
	MG	mg/l	4.8
	MN	mg/l	.116
	MO	mg/l	<.01
	NA	mg/l	19.6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.44
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12
	SN	mg/l	<.05
	SR	mg/l	.083
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.041
.HARDNESS/CA+MG	HC	mg/l	154
/TOTAL	HT	mg/l	154
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	52.3
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	.023
	FE	mg/l	.1
	K	mg/l	<.1
	MG	mg/l	4.8

Parameter Analyzed	Units	971365-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.118
MO	mg/l	<.01
NA	mg/l	19.2
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.36
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11.9
SN	mg/l	<.06
SR	mg/l	.083
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.036
NITROGEN/AMMONIA	mg/l	.017
/TOTAL	mg/l	.03
OXYGEN DEMAND/CHEMICAL	mg/l	23
PH	Rel.U.	7.69
PHOSPHORUS/O-PO4	mg/l	.002
RESIDUE/FILTERABLE	mg/l	240
/TOTAL	mg/l	230
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0925
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 7

01:11 02-May-97

F I N A L R E P O R T

Identification: BELLHOUSE WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

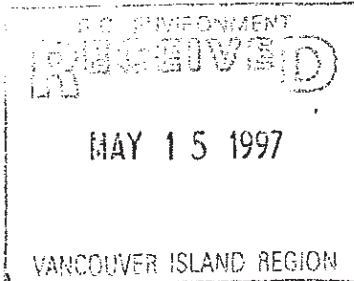
Submission RefId: 10028698

Logged in: 20-Mar-97 (1 sample)

Completed: 01-May-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA



Authorized by: _____

Richard Strub
QA Officer

Notes:

[1] --"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971367-001
ALKALINITY		mg/l	27.5
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	3.4
FLUORIDE		mg/l	0.04
NITRATE-NITROGEN		mg/l	0.607
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	4.3
CONDUCTIVITY		uS/cm	86
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.29
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.003
	BE	mg/l	<.001
	CA	mg/l	7.5
	CD	mg/l	<.005
	CO	mg/l	.007
	CR	mg/l	.008
	CU	mg/l	.38
	FE	mg/l	.124
	K	mg/l	.5
	MG	mg/l	2.5
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	1.46
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	10.3
	SN	mg/l	<.05
	SR	mg/l	.046
	TI	mg/l	.008
	V	mg/l	<.01
	ZN	mg/l	.037
	HC	mg/l	29
	HT	mg/l	31
	AG	mg/l	<.01
	AL	mg/l	1.32
	AS	mg/l	<.06
	B	mg/l	<.01
	BA	mg/l	.016
	BE	mg/l	<.001
	CA	mg/l	7.3
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	.395
	FE	mg/l	.442
	K	mg/l	.4
	MG	mg/l	2.5

.HARDNESS/CA+MG

/TOTAL

/TOTAL (WATER-ICP)

Parameter Analyzed	Units	971367-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.006
MO	mg/l	<.01
NA	mg/l	6
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	1.53
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11.4
SN	mg/l	<.06
SR	mg/l	.047
TI	mg/l	.05
V	mg/l	<.01
ZN	mg/l	.034
NITROGEN/AMMONIA		
/TOTAL	mg/l	.014
OXYGEN DEMAND/CHEMICAL	mg/l	1.1
PH	Rel.U.	207
PHOSPHORUS/O-PO4	mg/l	6.40
RESIDUE/FILTERABLE	mg/l	.004
/TOTAL	mg/l	100
	mg/l	90
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0840
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	5

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Lab Reference #
9 7 1 3 6 6

02:00 22-Apr-97

FINAL REPORT

Identification: BELLHOUSE POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

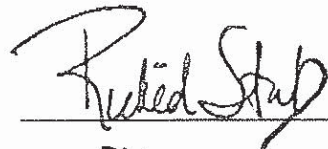
Submission RefId: 10028697

Logged in: 20-Mar-97 (1 sample)

Completed: 17-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971366-001
ALKALINITY		mg/l	49.8
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	16
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	1.06
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	8.8
CONDUCTIVITY		uS/cm	143
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.15
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	9.7
	CD	mg/l	<.005
	CO	mg/l	.005
	CR	mg/l	.009
	CU	mg/l	<.005
	FE	mg/l	.109
	K	mg/l	1.7
	MG	mg/l	3.2
	MN	mg/l	.011
	MO	mg/l	<.01
	NA	mg/l	11.8
	NI	mg/l	<.02
	P	mg/l	.2
	PB	mg/l	<.05
	S	mg/l	2.95
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.97
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.003
	V	mg/l	<.01
	ZN	mg/l	.005
.HARDNESS/CA+MG	HC	mg/l	37.4
/TOTAL	HT	mg/l	38.3
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.61
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.01
	BE	mg/l	<.001
	CA	mg/l	9.8
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	1.03
	K	mg/l	1.8
	MG	mg/l	3.4

RESULTS FOR BELLHOUSE POND SAMPLE

Parameter Analyzed	Units	971366-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.032
MO	mg/l	<.01
NA	mg/l	11.9
NI	mg/l	<.02
P	mg/l	.3
PB	mg/l	<.06
S	mg/l	3.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	10.2
SN	mg/l	<.06
SR	mg/l	.072
TI	mg/l	.067
V	mg/l	<.01
ZN	mg/l	.008
NITROGEN/AMMONIA		
/TOTAL	mg/l	.11
OXYGEN DEMAND/CHEMICAL	mg/l	1.9
PH	Rel.U.	57
PHOSPHORUS/O-PO4	mg/l	7.06
RESIDUE/FILTERABLE	mg/l	.163
/TOTAL	mg/l	140
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0850
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
9 7 1 3 6 6

02:27 23-Apr-97

F I N A L R E P O R T

Identification: BELLHOUSE POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028697

Logged in: 20-Mar-97 (1 sample)

Completed: 17-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by:


Richard Strickland
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971366-001
ALKALINITY		mg/l	49.8
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	16
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	1.06
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	8.8
CONDUCTIVITY		uS/cm	143
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.15
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	9.7
	CD	mg/l	<.005
	CO	mg/l	.005
	CR	mg/l	.009
	CU	mg/l	<.005
	FE	mg/l	.109
	K	mg/l	1.7
	MG	mg/l	3.2
	MN	mg/l	.011
	MO	mg/l	<.01
	NA	mg/l	11.8
	NI	mg/l	<.02
	P	mg/l	.2
	PB	mg/l	<.05
	S	mg/l	2.95
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.97
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.003
	V	mg/l	<.01
	ZN	mg/l	.005
.HARDNESS/CA+MG	HC	mg/l	37.4
/TOTAL	HT	mg/l	38.3
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.61
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.01
	BE	mg/l	<.001
	CA	mg/l	9.8
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	1.03
	K	mg/l	1.8
	MG	mg/l	3.4

Parameter Analyzed	Units	971366-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.032
	MO mg/l	<.01
	NA mg/l	11.9
	NI mg/l	<.02
	P mg/l	.3
	PB mg/l	<.06
	S mg/l	3.06
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	10.2
	SN mg/l	<.06
	SR mg/l	.072
	TI mg/l	.067
	V mg/l	<.01
	ZN mg/l	.008
NITROGEN/AMMONIA	mg/l	.11
/TOTAL	mg/l	1.9
OXYGEN DEMAND/CHEMICAL	mg/l	57
PH	Rel.U.	7.06
PHOSPHORUS/O-PO4	mg/l	.163
RESIDUE/FILTERABLE	mg/l	140
/TOTAL	mg/l	140
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0850
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
9 7 1 3 6 6

03:39 24-Apr-97

FINAL REPORT

Identification: BELLHOUSE POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028697

Logged in: 20-Mar-97 (1 sample)

Completed: 17-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

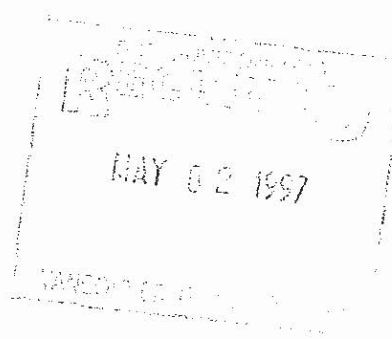
Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



Parameter Analyzed		Units	971366-001
ALKALINITY		mg/l	49.8
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	16
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	1.06
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	8.8
CONDUCTIVITY		uS/cm	143
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.15
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	9.7
	CD	mg/l	<.005
	CO	mg/l	.005
	CR	mg/l	.009
	CU	mg/l	<.005
	FE	mg/l	.109
	K	mg/l	1.7
	MG	mg/l	3.2
	MN	mg/l	.011
	MO	mg/l	<.01
	NA	mg/l	11.8
	NI	mg/l	<.02
	P	mg/l	.2
	PB	mg/l	<.05
	S	mg/l	2.95
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.97
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.003
	V	mg/l	<.01
	ZN	mg/l	.005
.HARDNESS/CA+MG	HC	mg/l	37.4
/TOTAL	HT	mg/l	38.3
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.61
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.01
	BE	mg/l	<.001
	CA	mg/l	9.8
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	1.03
	K	mg/l	1.8
	MG	mg/l	3.4

RESULTS FOR BELLHOUSE POND SAMPLE

Parameter Analyzed	Units	971366-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.032
MO	mg/l	<.01
NA	mg/l	11.9
NI	mg/l	<.02
P	mg/l	.3
PB	mg/l	<.06
S	mg/l	3.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	10.2
SN	mg/l	<.06
SR	mg/l	.072
TI	mg/l	.067
V	mg/l	<.01
ZN	mg/l	.008
NITROGEN/AMMONIA		
/TOTAL	mg/l	.11
OXYGEN DEMAND/CHEMICAL	mg/l	1.9
PH	Rel.U.	57
PHOSPHORUS/O-PO4	mg/l	7.06
RESIDUE/FILTERABLE	mg/l	.163
/TOTAL	mg/l	140
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0850
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 5

01:59 22-Apr-97

FINAL REPORT

Identification: BURDGE WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028696

Logged in: 20-Mar-97 (1 sample)

Completed: 16-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR BURDGE WELL SAMPLE

Parameter Analyzed		Units	971365-001
ALKALINITY		mg/l	170
ANIONS/IC - BROMIDE		mg/l	0.06
CHLORIDE		mg/l	9.7
FLUORIDE		mg/l	0.09
NITRATE-NITROGEN		mg/l	<0.002
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	357
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	53.8
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.056
	K	mg/l	.2
	MG	mg/l	4.8
	MN	mg/l	.116
	MO	mg/l	<.01
	NA	mg/l	19.6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.44
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12
	SN	mg/l	<.05
	SR	mg/l	.083
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.041
.HARDNESS/CA+MG	HC	mg/l	154
/TOTAL	HT	mg/l	154
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	52.3
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	.023
	FE	mg/l	.1
	K	mg/l	<.1
	MG	mg/l	4.8

RESULTS FOR BURDGE WELL SAMPLE

Parameter Analyzed	Units	971365-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.118
MO	mg/l	<.01
NA	mg/l	19.2
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.36
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11.9
SN	mg/l	<.06
SR	mg/l	.083
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.036
NITROGEN/AMMONIA	mg/l	.017
/TOTAL	mg/l	.03
OXYGEN DEMAND/CHEMICAL	mg/l	23
PH	Rel.U.	7.69
PHOSPHORUS/O-PO4	mg/l	.002
RESIDUE/FILTERABLE	mg/l	240
/TOTAL	mg/l	230
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0925
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 5

02:26 23-Apr-97

FINAL REPORT

Identification: BURDGE WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028696

Logged in: 20-Mar-97 (1 sample)

Completed: 16-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971365-001
ALKALINITY		mg/l	170
ANIONS/IC - BROMIDE		mg/l	0.06
CHLORIDE		mg/l	9.7
FLUORIDE		mg/l	0.09
NITRATE-NITROGEN		mg/l	<0.002
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	357
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	53.8
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.056
	K	mg/l	.2
	MG	mg/l	4.8
	MN	mg/l	.116
	MO	mg/l	<.01
	NA	mg/l	19.6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.44
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12
	SN	mg/l	<.05
	SR	mg/l	.083
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.041
.HARDNESS/CA+MG	HC	mg/l	154
/TOTAL	HT	mg/l	154
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	52.3
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	.023
	FE	mg/l	.1
	K	mg/l	<.1
	MG	mg/l	4.8

RESULTS FOR BURDGE WELL SAMPLE

Parameter Analyzed	Units	971365-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.118
MO	mg/l	<.01
NA	mg/l	19.2
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.36
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11.9
SN	mg/l	<.06
SR	mg/l	.083
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.036
NITROGEN/AMMONIA		
/TOTAL	mg/l	.017
OXYGEN DEMAND/CHEMICAL	mg/l	.03
PH	Rel.U.	23
PHOSPHORUS/O-PO4	mg/l	7.69
RESIDUE/FILTERABLE	mg/l	.002
/TOTAL	mg/l	240
	mg/l	230
BC SAMPLING AGENCY	EMSCode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0925
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

Environment Canada -Laboratories
Pacific Environmental Science Centre
2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 5

03:38 24-Apr-97

FINAL REPORT

Identification: BURDGE WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028696

Logged in: 20-Mar-97 (1 sample)

Completed: 16-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

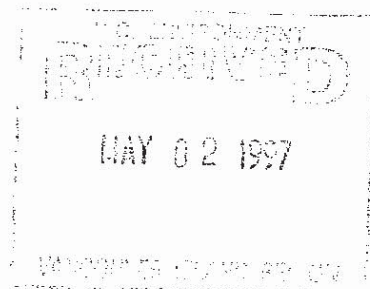
Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



Parameter Analyzed		Units	971365-001
ALKALINITY		mg/l	170
ANIONS/IC - BROMIDE		mg/l	0.06
CHLORIDE		mg/l	9.7
FLUORIDE		mg/l	0.09
NITRATE-NITROGEN		mg/l	<0.002
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	357
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	53.8
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.056
	K	mg/l	.2
	MG	mg/l	4.8
	MN	mg/l	.116
	MO	mg/l	<.01
	NA	mg/l	19.6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.44
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12
	SN	mg/l	<.05
	SR	mg/l	.083
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.041
.HARDNESS/CA+MG	HC	mg/l	154
/TOTAL	HT	mg/l	154
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	52.3
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	.023
	FE	mg/l	.1
	K	mg/l	<.1
	MG	mg/l	4.8

Parameter Analyzed	Units	971365-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.118
MO	mg/l	<.01
NA	mg/l	19.2
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.36
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11.9
SN	mg/l	<.06
SR	mg/l	.083
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.036
NITROGEN/AMMONIA		
/TOTAL	mg/l	.017
OXYGEN DEMAND/CHEMICAL	mg/l	.03
PH	mg/l	23
PHOSPHORUS/O-PO4	Rel.U.	7.69
RESIDUE/FILTERABLE	mg/l	.002
/TOTAL	mg/l	240
	mg/l	230
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0925
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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2645 Dollarton Hwy.
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V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 3

01:58 22-Apr-97

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028694

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed		Units	971363-001
ALKALINITY		mg/l	22.3
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	6.27
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	0.276
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	19.0
CONDUCTIVITY		uS/cm	116
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.11
	AS	mg/l	<.05
	B	mg/l	.02
	BA	mg/l	.004
	BE	mg/l	<.001
	CA	mg/l	10.2
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.108
	K	mg/l	.6
	MG	mg/l	3
	MN	mg/l	.026
	MO	mg/l	<.01
	NA	mg/l	7.4
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	6.35
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.64
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.007
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	37.7
/TOTAL	HT	mg/l	38.4
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.19
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	10
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.67
	K	mg/l	.5
	MG	mg/l	3

Parameter Analyzed	Units	971363-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.034
	MO mg/l	<.01
	NA mg/l	7.4
	NI mg/l	<.02
	P mg/l	<.1
	PB mg/l	<.06
	S mg/l	6.32
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	9.5
	SN mg/l	<.06
	SR mg/l	.07
	TI mg/l	.05
	V mg/l	<.01
	ZN mg/l	.006
NITROGEN/AMMONIA	mg/l	.008
/TOTAL	mg/l	.52
OXYGEN DEMAND/CHEMICAL	mg/l	203
PH	Rel.U.	6.98
PHOSPHORUS/O-PO4	mg/l	<.001
RESIDUE/FILTERABLE	mg/l	110
/TOTAL	mg/l	100
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0955
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Lab Reference #
9 7 1 3 6 3

02:25 23-Apr-97

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028694

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971363-001
ALKALINITY		mg/l	22.3
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	6.27
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	0.276
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	19.0
CONDUCTIVITY		uS/cm	116
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.11
	AS	mg/l	<.05
	B	mg/l	.02
	BA	mg/l	.004
	BE	mg/l	<.001
	CA	mg/l	10.2
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.108
	K	mg/l	.6
	MG	mg/l	3
	MN	mg/l	.026
	MO	mg/l	<.01
	NA	mg/l	7.4
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	6.35
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.64
	SN	mg/l	<.05
	SR	mg/l	.069
	TI	mg/l	.007
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	37.7
/TOTAL	HT	mg/l	38.4
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.19
	AS	mg/l	<.06
	B	mg/l	.01
	BA	mg/l	.005
	BE	mg/l	<.001
	CA	mg/l	10
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.67
	K	mg/l	.5
	MG	mg/l	3

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed	Units	971363-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.034
	MO mg/l	<.01
	NA mg/l	7.4
	NI mg/l	<.02
	P mg/l	<.1
	PB mg/l	<.06
	S mg/l	6.32
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	9.5
	SN mg/l	<.06
	SR mg/l	.07
	TI mg/l	.05
	V mg/l	<.01
	ZN mg/l	.006
NITROGEN/AMMONIA	mg/l	.008
/TOTAL	mg/l	.52
OXYGEN DEMAND/CHEMICAL	mg/l	203
PH	Rel.U.	6.98
PHOSPHORUS/O-PO4	mg/l	<.001
RESIDUE/FILTERABLE	mg/l	110
/TOTAL	mg/l	100
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0955
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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Pacific Environmental Science Centre
2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 3

03:36 24-Apr-97

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028694

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

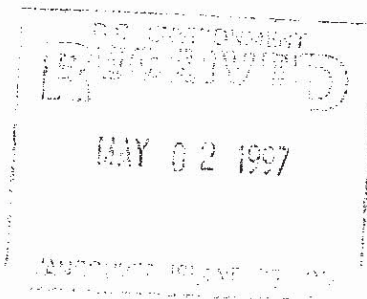
Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed	Units	971363-001
ALKALINITY	mg/l	22.3
ANIONS/IC - BROMIDE	mg/l	<0.05
CHLORIDE	mg/l	6.27
FLUORIDE	mg/l	0.06
NITRATE-NITROGEN	mg/l	0.276
NITRITE-NITROGEN	mg/l	<0.005
SULPHATE	mg/l	19.0
CONDUCTIVITY	uS/cm	116
METALS/DISS. (WATER-ICP SCAN)		
AG	mg/l	<.01
AL	mg/l	.11
AS	mg/l	<.05
B	mg/l	.02
BA	mg/l	.004
BE	mg/l	<.001
CA	mg/l	10.2
CD	mg/l	<.005
CO	mg/l	<.005
CR	mg/l	<.005
CU	mg/l	<.005
FE	mg/l	.108
K	mg/l	.6
MG	mg/l	3
MN	mg/l	.026
MO	mg/l	<.01
NA	mg/l	7.4
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.05
S	mg/l	6.35
SB	mg/l	<.05
SE	mg/l	<.05
SI	mg/l	7.64
SN	mg/l	<.05
SR	mg/l	.069
TI	mg/l	.007
V	mg/l	<.01
ZN	mg/l	.008
.HARDNESS/CA+MG	mg/l	37.7
/TOTAL	mg/l	38.4
/TOTAL (WATER-ICP)		
AG	mg/l	<.01
AL	mg/l	1.19
AS	mg/l	<.06
B	mg/l	.01
BA	mg/l	.005
BE	mg/l	<.001
CA	mg/l	10
CD	mg/l	<.006
CO	mg/l	<.006
CR	mg/l	<.006
CU	mg/l	<.006
FE	mg/l	.67
K	mg/l	.5
MG	mg/l	3

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed		Units	971363-001
METALS/TOTAL (WATER-ICP)	MN	mg/l	.034
	MO	mg/l	<.01
	NA	mg/l	7.4
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.06
	S	mg/l	6.32
	SB	mg/l	<.06
	SE	mg/l	<.06
	SI	mg/l	9.5
	SN	mg/l	<.06
	SR	mg/l	.07
	TI	mg/l	.05
	V	mg/l	<.01
	ZN	mg/l	.006
NITROGEN/AMMONIA			
/TOTAL		mg/l	.008
OXYGEN DEMAND/CHEMICAL		mg/l	.52
PH		Rel.U.	203
PHOSPHORUS/O-PO4		mg/l	6.98
RESIDUE/FILTERABLE		mg/l	<.001
/TOTAL		mg/l	110
		mg/l	100
BC SAMPLING AGENCY		EMScore	10
COLLECTION START DATE		y/m/d	97/03/18
TIME		hhmm	0955
UPPER DEPTH		metres	0.5
TEMPERATURE ON ARRIVAL		deg.C	6

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Pacific Environmental Science Centre
2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 4

01:59 22-Apr-97

FINAL REPORT

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028695

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971364-001
ALKALINITY		mg/l	159
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.7
FLUORIDE		mg/l	0.13
NITRATE-NITROGEN		mg/l	0.027
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	332
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.001
	BE	mg/l	<.001
	CA	mg/l	40.9
	CD	mg/l	<.005
	CO	mg/l	.011
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.016
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	19.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.49
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.093
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	140
/TOTAL	HT	mg/l	140
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	40.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.633
	K	mg/l	.2
	MG	mg/l	9.2

Parameter Analyzed	Units	971364-001
METALS/TOTAL (WATER-ICP)	MN mg/l	.019
	MO mg/l	<.01
	NA mg/l	19.6
	NI mg/l	<.02
	P mg/l	<.1
	PB mg/l	<.06
	S mg/l	3.37
	SB mg/l	<.06
	SE mg/l	<.06
	SI mg/l	12.5
	SN mg/l	<.06
	SR mg/l	.092
	TI mg/l	<.002
	V mg/l	<.01
	ZN mg/l	.006
NITROGEN/AMMONIA	mg/l	<.002
/TOTAL	mg/l	.08
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	7.25
PHOSPHORUS/O-PO4	mg/l	.003
RESIDUE/FILTERABLE	mg/l	220
/TOTAL	mg/l	200
BC SAMPLING AGENCY	EMSCode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0945
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

Environment Canada -Laboratories
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2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 4

02:26 23-Apr-97

FINAL REPORT

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028695

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by:



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

Parameter Analyzed		Units	971364-001
ALKALINITY		mg/l	159
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.7
FLUORIDE		mg/l	0.13
NITRATE-NITROGEN		mg/l	0.027
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	332
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.001
	BE	mg/l	<.001
	CA	mg/l	40.9
	CD	mg/l	<.005
	CO	mg/l	.011
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.016
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	19.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.49
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.093
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	140
/TOTAL	HT	mg/l	140
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	40.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.633
	K	mg/l	.2
	MG	mg/l	9.2

Parameter Analyzed	Units	971364-001
METALS/TOTAL (WATER-ICP)		
MN	mg/l	.019
MO	mg/l	<.01
NA	mg/l	19.6
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
S	mg/l	3.37
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	12.5
SN	mg/l	<.06
SR	mg/l	.092
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.006
NITROGEN/AMMONIA	mg/l	<.002
/TOTAL	mg/l	.08
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	7.25
PHOSPHORUS/O-PO4	mg/l	.003
RESIDUE/FILTERABLE	mg/l	220
/TOTAL	mg/l	200
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	97/03/18
TIME	hhmm	0945
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	6

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V7H 1V2 (604)924-2500

Lab Reference #
9 7 1 3 6 4

03:37 24-Apr-97

F I N A L R E P O R T

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: WYETH, M
NANAIMO
ENV SEC NANAIMO
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 10028695

Logged in: 20-Mar-97 (1 sample)

Completed: 15-Apr-97 (85 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by:

Richard Strul

Richard Strul
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.

MAY 02 1997

RESULTS FOR OUTSELL WELL SAMPLE

Parameter Analyzed		Units	971364-001
ALKALINITY		mg/l	159
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.7
FLUORIDE		mg/l	0.13
NITRATE-NITROGEN		mg/l	0.027
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	332
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.001
	BE	mg/l	<.001
	CA	mg/l	40.9
	CD	mg/l	<.005
	CO	mg/l	.011
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.016
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.003
	MO	mg/l	<.01
	NA	mg/l	19.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	S	mg/l	3.49
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.093
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	140
/TOTAL	HT	mg/l	140
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	40.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.633
	K	mg/l	.2
	MG	mg/l	9.2

RESULTS FOR OUTSELL WELL SAMPLE

Parameter Analyzed		Units	971364-001
METALS/TOTAL (WATER-ICP)	MN	mg/l	.019
	MO	mg/l	<.01
	NA	mg/l	19.6
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.06
	S	mg/l	3.37
	SB	mg/l	<.06
	SE	mg/l	<.06
	SI	mg/l	12.5
	SN	mg/l	<.06
	SR	mg/l	.092
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.006
NITROGEN/AMMONIA		mg/l	<.002
/TOTAL		mg/l	.08
OXYGEN DEMAND/CHEMICAL		mg/l	<10
PH		Rel.U.	7.25
PHOSPHORUS/O-PO4		mg/l	.003
RESIDUE/FILTERABLE		mg/l	220
/TOTAL		mg/l	200
BC SAMPLING AGENCY		EMScore	10
COLLECTION START DATE		y/m/d	97/03/18
TIME		hhmm	0945
UPPER DEPTH		metres	0.5
TEMPERATURE ON ARRIVAL		deg.C	6

**Galiano Landfill, Galiano Island PR-5559
(Closed October 31, 1991)**

Site 3 Bellhouse Well	Feb-16-	Jul-13-	Oct-17-	Mar-20-	Nov-19-	Water Quality Criteria	
	94	95	95	96	96	Drinking	FW Aquatic
						Water	Life
S3- Conductivity (uS/cm)	160	152	159	121	123	700	
S3- Residue: filterable (mg/L)				118	120	500	
S3- COD (mg/L)				15	<10		
S3- Chloride, dissolved (mg/L)	10.9	20.5	11.4	8.9	5.1	250	
S3- Sodium, dissolved (mg/L)	9.07	10.6	9.15	8.3	8.1	200	
S3- Sulphate (mg/L)				6.9	5.9	500	100
S3- Calcium (mg/L)	13	14.8	13.2	10.4	11		4-8

Site 4 Burdge Well	Feb-16-	Jul-13-	Oct-17-	Mar-20-	Nov-19-	Water Quality Criteria	
	94	95	95	96	96	Drinking	FW Aquatic
						Water	Life
S4- Conductivity (uS/cm)	351	336	374	398	373	700	
S4- Residue: filterable (mg/L)				240	240	500	
S4- COD (mg/L)				11	130		
S4- Chloride, dissolved (mg/L)		10.5	8.8	11.1	10	250	
S4- Sodium, dissolved (mg/L)		18.6	17	20.7	18.9	200	
S4- Sulphate (mg/L)				10.9	11	500	100
S4- Calcium (mg/L)		57	52.8	61.2	55.2		4-8

Site 5 Outsell Well	Feb-16-	Jul-13-	Oct-17-	Mar-20-	Nov-19-	Water Quality Criteria	
	94	95	95	96	96	Drinking	FW Aquatic
						Water	Life
S5- Conductivity (uS/cm)	329	353	398	353	333	700	
S5- Residue: filterable (mg/L)				200	210	500	
S5- COD (mg/L)				<10	<10		
S5- Chloride, dissolved (mg/L)	9.7	9.4	9.7	9.6	8.8	250	
S5- Sodium, dissolved (mg/L)		21	18.2	21.5	19.2	200	
S5- Sulphate (mg/L)				9	10	500	100
S5- Calcium (mg/L)		48.5	48.6	39.7	41.1		4-8

Site 3A Bellhouse Pond			Oct-17-	Mar-20-	Nov-19-	Water Quality Criteria	
			95	96	96	Drinking	FW Aquatic
						Water	Life
S3A- Conductivity (uS/cm)			347	163	180	700	
S3A- Residue: filterable (mg/L)				149	150	500	
S3A- COD (mg/L)				21	11		
S3A- Chloride, dissolved (mg/L)			31.4	21.8	25	250	
S3A- Sodium, dissolved (mg/L)			17.3	14.1	14.9	200	
S3A- Sulphate (mg/L)				11	11.7	500	100
S3A- Calcium (mg/L)			34.3	11.9	13.6		4-8

Site 5A Outsell Pond			Oct-17-	Mar-20-	Nov-19-	Water Quality Criteria	
			95	96	96	Drinking	FW Aquatic
						Water	Life
S5A- Conductivity (uS/cm)			135	134	159	700	
S5A- Residue: filterable (mg/L)				120	130	500	
S5A- COD (mg/L)				19	171		
S5A- Chloride, dissolved (mg/L)			9.3	10.3	11.3	250	
S5A- Sodium, dissolved (mg/L)			8.39	8.81	9.6	200	
S5A- Sulphate (mg/L)				17	22	500	100
S5A- Calcium (mg/L)			10.9	12.6	14.4		4-8

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Lab Reference #
9 6 6 6 0 7

23:56 17-Dec-96

FINAL REPORT

Identification: OUTSELL POND

Type of Sample: Fresh Water (General)

Submitted by: SPIDEL, A
NANAIMO
MUN & ENV SAFETY
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 20000416

Logged in: 21-Nov-96 (1 sample)

Completed: 17-Dec-96 (82 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

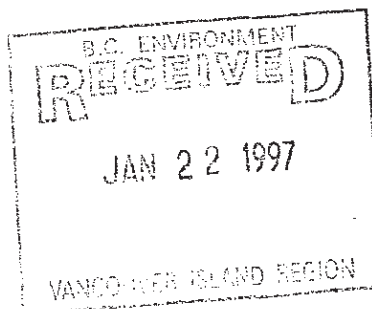
Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



Parameter Analyzed		Units	966607-001
ALKALINITY		mg/l	29.4
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	11.3
FLUORIDE		mg/l	0.06
NITRATE-NITROGEN		mg/l	0.585
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	22
CONDUCTIVITY		uS/cm	159
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.02
	BA	mg/l	.004
	BE	mg/l	<.001
	CA	mg/l	13
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.103
	K	mg/l	.6
	MG	mg/l	4
	MN	mg/l	.016
	MO	mg/l	<.01
	NA	mg/l	8.5
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	7.81
	SN	mg/l	<.05
	SR	mg/l	.087
	TI	mg/l	.002
	V	mg/l	<.01
	ZN	mg/l	.006
.HARDNESS/CA+MG	HC	mg/l	49
/TOTAL	HT	mg/l	49.5
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.4
	AS	mg/l	<.06
	B	mg/l	<.01
	BA	mg/l	.007
	BE	mg/l	<.001
	CA	mg/l	14.4
	CD	mg/l	<.006
	CO	mg/l	.007
	CR	mg/l	.01
	CU	mg/l	<.006
	FE	mg/l	.821
	K	mg/l	.7
	MG	mg/l	4.4
	MN	mg/l	.025

RESULTS FOR OUTSELL POND SAMPLE

Parameter Analyzed	Units	966607-001
METALS/TOTAL (WATER-ICP)		
MO	mg/l	<.01
NA	mg/l	9.6
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	10.5
SN	mg/l	<.06
SR	mg/l	.095
TI	mg/l	.051
V	mg/l	<.01
ZN	mg/l	.004
NITROGEN/AMMONIA	mg/l	.01
/TOTAL	mg/l	.86
OXYGEN DEMAND/CHEMICAL	mg/l	171
PH	Rel.U.	6.93
PHOSPHORUS/O-PO4	mg/l	<.001
RESIDUE/FILTERABLE	mg/l	130
/NON-FILTERABLE	mg/l	8
/TOTAL	mg/l	130
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	96/11/19
TIME	hhmm	0751
TEMPERATURE ON ARRIVAL	deg.C	7

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V7H 1V2 (604)924-2500

Lab Reference #
9 6 6 6 0 9

01:22 13-Dec-96

FINAL REPORT

Identification: OUTSELL WELL

Type of Sample: Fresh Water (General)

Submitted by: SPIDEL, A
NANAIMO
MUN & ENV SAFETY
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 20000418

Logged in: 21-Nov-96 (1 sample)

Completed: 12-Dec-96 (82 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

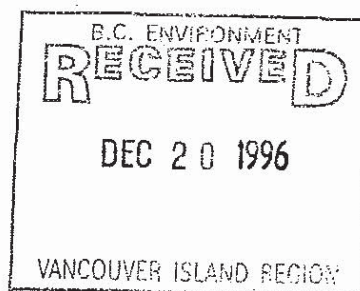
Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



RESULTS FOR OUTSELL WELL SAMPLE

Parameter Analyzed		Units	966609-001
ALKALINITY		mg/l	153
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	8.8
FLUORIDE		mg/l	0.12
NITRATE-NITROGEN		mg/l	0.032
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	10
CONDUCTIVITY		uS/cm	333
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.04
	BA	mg/l	.002
	BE	mg/l	.001
	CA	mg/l	38.5
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.089
	K	mg/l	.3
	MG	mg/l	9.3
	MN	mg/l	.022
	MO	mg/l	<.01
	NA	mg/l	17.7
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.5
	SN	mg/l	<.05
	SR	mg/l	.091
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.009
.HARDNESS/CA+MG	HC	mg/l	134
/TOTAL	HT	mg/l	135
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.03
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	41.1
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	.015
	CU	mg/l	<.006
	FE	mg/l	.185
	K	mg/l	.3
	MG	mg/l	9.8
	MN	mg/l	.027

RESULT FOR OUTSELL WELL SAM E

Parameter Analyzed	Units	96609-001
METALS/TOTAL (WATER-ICP)		
MO	mg/l	<.01
NA	mg/l	19.2
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	12.9
SN	mg/l	<.06
SR	mg/l	.095
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.015
NITROGEN/AMMONIA	mg/l	.004
/TOTAL	mg/l	.07
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	7.09
PHOSPHORUS/O-PO4	mg/l	.006
RESIDUE/FILTERABLE	mg/l	210
/NON-FILTERABLE	mg/l	<5
/TOTAL	mg/l	210
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	96/11/19
TIME	hhmm	0840
TEMPERATURE ON ARRIVAL	deg.C	7

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Lab Reference #
9 6 6 6 0 8

01:21 13-Dec-96

FINAL REPORT

Identification: BURGE WELL

Type of Sample: Fresh Water (General)

Submitted by: SPIDEL, A
NANAIMO
MUN & ENV SAFETY
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 20000417

Logged in: 21-Nov-96 (1 sample)

Completed: 12-Dec-96 (83 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: 

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



RESULTS FOR BURGE WELL SAMPLE

Parameter Analyzed		Units	966608-001
ALKALINITY		mg/l	174
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	10
FLUORIDE		mg/l	0.1
NITRATE-NITROGEN		mg/l	<0.002
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	11
CONDUCTIVITY		uS/cm	373
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	<.05
	AS	mg/l	<.05
	B	mg/l	.05
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	53.5
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	.005
	CU	mg/l	<.005
	FE	mg/l	.021
	K	mg/l	<.1
	MG	mg/l	4.7
	MN	mg/l	.121
	MO	mg/l	<.01
	NA	mg/l	18
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	12.3
	SN	mg/l	<.05
	SR	mg/l	.081
	TI	mg/l	<.002
	V	mg/l	<.01
	ZN	mg/l	.055
.HARDNESS/CA+MG	HC	mg/l	153
/TOTAL	HT	mg/l	153
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	<.06
	AS	mg/l	<.06
	B	mg/l	.04
	BA	mg/l	<.001
	BE	mg/l	.001
	CA	mg/l	55.2
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.525
	K	mg/l	<.1
	MG	mg/l	4.8
	MN	mg/l	.13

RESULTS FOR BURGE WELL SAMPLE

Parameter Analyzed	Units	966608-001
METALS/TOTAL (WATER-ICP)		
MO	mg/l	<.01
NA	mg/l	18.9
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	12.4
SN	mg/l	<.06
SR	mg/l	.082
TI	mg/l	<.002
V	mg/l	<.01
ZN	mg/l	.069
NITROGEN/AMMONIA	mg/l	.024
/TOTAL	mg/l	.03
OXYGEN DEMAND/CHEMICAL	mg/l	130
PH	Rel.U.	7.63
PHOSPHORUS/O-PO4	mg/l	.002
RESIDUE/FILTERABLE	mg/l	240
/NON-FILTERABLE	mg/l	<5
/TOTAL	mg/l	310
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	96/11/19
TIME	hhmm	0812
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	7

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Lab Reference #

9 6 6 6 0 5

00:16 14-Dec-96

FINAL REPORT

Identification: BELLHOUSE WELL

Type of Sample: Fresh Water (General)

Submitted by: SPIDEL, A
NANAIMO
MUN & ENV SAFETY
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 20000414

Logged in: 21-Nov-96 (1 sample)

Completed: 13-Dec-96 (83 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

Analyzed for: INORGANICS, METALS, FIELD DATA

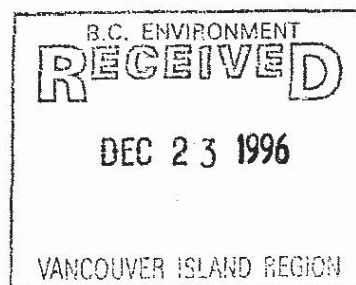
Authorized by: _____



Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



RESULTS FOR BELLHOUSE WELL SAMPLE

Parameter Analyzed		Units	966605-001
ALKALINITY		mg/l	38.2
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	5.1
FLUORIDE		mg/l	0.09
NITRATE-NITROGEN		mg/l	1.38
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	5.9
CONDUCTIVITY		uS/cm	123
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.13
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.002
	BE	mg/l	<.001
	CA	mg/l	10.5
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	.078
	FE	mg/l	.064
	K	mg/l	.4
	MG	mg/l	3.7
	MN	mg/l	.002
	MO	mg/l	<.01
	NA	mg/l	7.3
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	11.8
	SN	mg/l	<.05
	SR	mg/l	.06
	TI	mg/l	.005
	V	mg/l	<.01
	ZN	mg/l	.029
.HARDNESS/CA+MG	HC	mg/l	41.2
/TOTAL	HT	mg/l	42
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	.56
	AS	mg/l	<.06
	B	mg/l	<.01
	BA	mg/l	<.001
	BE	mg/l	<.001
	CA	mg/l	11
	CD	mg/l	<.006
	CO	mg/l	<.006
	CR	mg/l	.017
	CU	mg/l	.129
	FE	mg/l	.222
	K	mg/l	.5
	MG	mg/l	3.9
	MN	mg/l	.005

RESULT FOR BELLHOUSE WELL SAMPLE

Parameter Analyzed	Units	966605-001
METALS/TOTAL (WATER-ICP)		
MO	mg/l	<.01
NA	mg/l	8.1
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	12.6
SN	mg/l	<.06
SR	mg/l	.063
TI	mg/l	.027
V	mg/l	<.01
ZN	mg/l	.059
NITROGEN/AMMONIA	mg/l	.004
/TOTAL	mg/l	1.6
OXYGEN DEMAND/CHEMICAL	mg/l	<10
PH	Rel.U.	6.08
PHOSPHORUS/O-PO4	mg/l	.007
RESIDUE/FILTERABLE	mg/l	120
/NON-FILTERABLE	mg/l	<5
/TOTAL	mg/l	120
BC SAMPLING AGENCY	EMScode	10
COLLECTION START DATE	y/m/d	96/11/19
TIME	hhmm	0657
UPPER DEPTH	metres	0.5
TEMPERATURE ON ARRIVAL	deg.C	7

Environment Canada - Laboratories
Pacific Environmental Science Centre
2645 Dollarton Hwy.
North Vancouver, B.C.
V7H 1V2 (604)924-2500

Lab Reference #

9 6 6 6 0 6

00:17 14-Dec-96

FINAL REPORT

Identification: BELLHOUSE POND

Type of Sample: Fresh Water (General)

Submitted by: SPIDEL, A
NANAIMO
MUN & ENV SAFETY
EP NANAIMO
BCMELP VAN. IS.

Submission RefId: 20000415

Logged in: 21-Nov-96 (1 sample)

Completed: 13-Dec-96 (83 results)

Charged to: 7001-16
+CA WASTE - VAN ISLAND

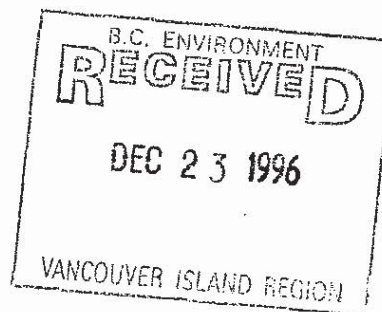
Analyzed for: INORGANICS, METALS, FIELD DATA

Authorized by: Richard Strub

Richard Strub
QA Officer

Notes:

[1] -"anions/ic" are analyses performed by ion chromatography. Nitrate and nitrite concentrations are expressed as nitrogen.



RESULTS FOR BELLHOUSE POND SAMPLE

Parameter Analyzed		Units	966606-001
ALKALINITY		mg/l	27.9
ANIONS/IC - BROMIDE		mg/l	<0.05
CHLORIDE		mg/l	25
FLUORIDE		mg/l	0.04
NITRATE-NITROGEN		mg/l	0.609
NITRITE-NITROGEN		mg/l	<0.005
SULPHATE		mg/l	11.7
CONDUCTIVITY		uS/cm	180
METALS/DISS. (WATER-ICP SCAN)	AG	mg/l	<.01
	AL	mg/l	.22
	AS	mg/l	<.05
	B	mg/l	.01
	BA	mg/l	.006
	BE	mg/l	<.001
	CA	mg/l	12.7
	CD	mg/l	<.005
	CO	mg/l	<.005
	CR	mg/l	<.005
	CU	mg/l	<.005
	FE	mg/l	.184
	K	mg/l	.8
	MG	mg/l	4.1
	MN	mg/l	.018
	MO	mg/l	<.01
	NA	mg/l	14
	NI	mg/l	<.02
	P	mg/l	<.1
	PB	mg/l	<.05
	SB	mg/l	<.05
	SE	mg/l	<.05
	SI	mg/l	9.66
	SN	mg/l	<.05
	SR	mg/l	.088
	TI	mg/l	.009
	V	mg/l	<.01
	ZN	mg/l	.008
.HARDNESS/CA+MG	HC	mg/l	48.4
/TOTAL	HT	mg/l	49.8
/TOTAL (WATER-ICP)	AG	mg/l	<.01
	AL	mg/l	1.2
	AS	mg/l	<.06
	B	mg/l	<.01
	BA	mg/l	.006
	BE	mg/l	<.001
	CA	mg/l	13.6
	CD	mg/l	<.006
	CO	mg/l	.006
	CR	mg/l	<.006
	CU	mg/l	<.006
	FE	mg/l	.72
	K	mg/l	1
	MG	mg/l	4.3
	MN	mg/l	.023

Parameter Analyzed	Units	966606-001
METALS/TOTAL (WATER-ICP)		
MO	mg/l	<.01
NA	mg/l	14.9
NI	mg/l	<.02
P	mg/l	<.1
PB	mg/l	<.06
SB	mg/l	<.06
SE	mg/l	<.06
SI	mg/l	11
SN	mg/l	<.06
SR	mg/l	.09
TI	mg/l	.042
V	mg/l	<.01
ZN	mg/l	.009
NITROGEN/AMMONIA		
/TOTAL	mg/l	.026
OXYGEN DEMAND/CHEMICAL	mg/l	1.1
PH	Rel.U.	11
PHOSPHORUS/O-PO4	mg/l	6.98
RESIDUE/FILTERABLE	mg/l	.004
/NON-FILTERABLE	mg/l	150
/TOTAL	mg/l	<5
BC SAMPLING AGENCY	EMScore	10
COLLECTION START DATE	y/m/d	96/11/19
TIME	hhmm	0715
UPPER DEPTH	metres	0.1
TEMPERATURE ON ARRIVAL	deg.C	7

Gilman 12 2259

G. Bellhouse			Bellhouse Pond			Burdge House			Outsell House			Outsell Pond		
17-Feb-94	17-Oct-95	Mar-20-96	17-Feb-94	17-Oct-95	Mar-20-96	17-Feb-94	17-Oct-95	Mar-20-96	17-Feb-94	17-Oct-95	Mar-20-96	17-Feb-94	17-Oct-95	Mar-20-96
6.5	6.6		8			7.7	7.9		7.6	7.7		7.6	7.7	
160	159		347			351	374		329	398		329	398	
50.9	51.1		124			167	150		139	166		139	166	
			109				170			180			180	
10.9	11.4		31.4			10.1	8.8		9.7	9.7		9.7	9.7	
	0.22		0.77				<0.06			<0.06			<0.06	
0.006	<0.005		0.007			0.115	<0.005		0.008	<0.005		0.008	<0.005	
0.89	1.14		<0.02			<0.02	<0.02		0.17	<0.02		0.17	<0.02	
0.89	1.14		<0.02			<0.02	<0.02		0.17	<0.02		0.17	<0.02	
<0.005	<0.005		<0.005			<0.005	<0.005		<0.005	<0.005		<0.005	<0.005	
<0.03	<0.03		<0.03			<0.03	<0.03		<0.03	<0.03		<0.03	<0.03	
0.23	0.13		0.26			<0.06	<0.06		<0.06	<0.06		<0.06	<0.06	
<0.04	<0.04		<0.04			<0.04	<0.04		<0.04	<0.04		<0.04	<0.04	
<0.04	<0.04		<0.04			<0.04	<0.04		<0.04	<0.04		<0.04	<0.04	
0.002	0.003		0.021			<0.001	<0.001		0.003	0.003		0.003	0.003	
<0.001	<0.001		<0.001			<0.001	<0.001		<0.001	<0.001		<0.001	<0.001	
0.02	<0.02		<0.02			0.02	<0.02		<0.02	<0.02		<0.02	<0.02	
13	13.2		34.3			59.2	52.8		40.4	48.6		40.4	48.6	
<0.002	<0.002		<0.002			<0.002	<0.002		<0.002	<0.002		<0.002	<0.002	
<0.004	<0.004		<0.004			<0.004	<0.004		<0.004	<0.004		<0.004	<0.004	
<0.002	<0.002		<0.002			<0.002	<0.002		<0.002	<0.002		<0.002	<0.002	
0.305	0.21		0.003			0.004	0.005		0.018	0.003		0.018	0.003	
0.14	0.1		0.63			3.16	>0.05		<0.05	0.06		<0.05	0.06	
0.5	0.8		2.9			<0.4	>0.4		<0.4	0.6		<0.4	0.6	
4.47	4.4		9.21			4.7	4.33		9.2	10.8		9.2	10.8	
0.005	0.003		0.246			0.18	0.136		0.01	0.057		0.01	0.057	
G. Bellhouse			Bellhouse Pond			Burdge House			Outsell House			Outsell Pond		
<0.004	<0.004		<0.004			<0.004	>0.004		<0.004	<0.004		<0.004	<0.004	
8.7	9.2		17.1			18.4	17.1		16.9	19.4		16.9	19.4	
<0.01	<0.01		<0.01			<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	
<0.04	<0.04		0.05			0.06	<0.04		<0.04	<0.04		<0.04	<0.04	

<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
2.8	2.5	4.3	5.4	3.2	3.3	3.3	3.3	6.8	6.8
<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
10.8	9.6	5	11.6	10.1	10.3	11.3	10.3	6.7	6.7
<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
0.066	0.074	0.165	0.079	0.072	0.081	0.094	0.081	0.076	0.076
<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
0.009	0.005	0.005	0.003	<0.003	<0.003	<0.003	<0.003	0.005	0.005
<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
0.06	0.14	0.14	0.05	0.13	0.08	0.03	0.08	<0.01	<0.01
<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
0.7	0.5	0.5	0.5	<0.4	0.7	<0.4	0.7	0.6	0.6
9.07	9.15	9.15	19.6	17	17.8	18.2	17.8	8.81	8.81
0	31		0	<1	0	<1	0		

15

file

Galliano Club PR-5559
Comparison of Water Sampling Analyses Dated 17 Feb 94 and 17 Oct 95

Parameter	Unit	Criteria for Drinking Water	Site 1			Site 2			Site 3			Site 3A			Site 4			Site 5			Site 6		
			17-Feb-94	17-Oct-95	17-Feb-94	17-Feb-94	17-Feb-94	17-Feb-94	17-Feb-94	17-Oct-95	17-Oct-95	17-Oct-95	17-Oct-95	17-Feb-94	17-Feb-94	17-Feb-94	17-Feb-94	17-Oct-95	17-Oct-95	17-Feb-94	17-Feb-94	17-Feb-94	17-Feb-94
pH	pH units	6.5 - 8.5	7.1	6.1	6.3	6.5	6.6	6.6	6.6	6.6	6.6	8	7.7	7.7	7.9	7.6	7.6	7.7	7.7	7.6	7.6	7.6	8.2
Sp. Conductance	uS/cm	700 - Drinking	17	16	30	160	159	159	159	159	159	347	351	351	374	329	329	398	398	329	329	329	239
Hardness Total	mg/L CaCO ₃	100 Acceptable, <200 Tolerable	6.1	11.2	9.4	50.9	51.1	51.1	51.1	51.1	51.1	124	167	167	150	139	139	166	166	139	139	139	25
Alkalinity Total 4.5	mg/L CaCO ₃	no criteria specified	4.1	4.1	2.1	10.9	45.2	45.2	45.2	45.2	45.2	109	10.1	10.1	170	9.7	9.7	180	180	9.7	9.7	9.7	5.7
Chloride diss.	mg/L Cl	250	1.8	0.6	2.1	10.9	11.4	11.4	11.4	11.4	11.4	31.4	10.1	10.1	8.8	9.7	9.7	9.7	9.7	9.7	9.7	9.7	5.7
Nitrogen Total	mg/L N	no criteria specified	1.24	1.24	0.017	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.115	0.115	0.005	0.008	0.008	0.005	0.005	0.008	0.008	0.009	0.009
Nitrogen Amm. Diss	mg/L N	no criteria specified	0.006	0.006	0.017	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.115	0.115	0.005	0.008	0.008	0.005	0.005	0.008	0.008	0.009	0.009
NO ₃ +NO ₂	mg/L as N	10	0.06	0.02	0.15	0.89	1.14	1.14	1.14	1.14	1.14	0.02	0.02	0.02	0.02	0.17	0.17	0.02	0.02	0.17	0.17	0.02	0.02
NO ₃ Diss (N)	mg/L as N	10	0.05	0.02	0.15	0.89	1.14	1.14	1.14	1.14	1.14	0.02	0.02	0.02	0.02	0.17	0.17	0.02	0.02	0.17	0.17	0.02	0.02
NO ₂ Diss (N)	mg/L as N	1	0.007	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.011	0.011
Silver	mg/L Ag	no criteria specified	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Aluminum	mg/L Al	0.2	5.69	7.92	9.63	0.23	0.13	0.13	0.13	0.13	0.13	0.26	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Arsenic	mg/L As	0.05 (proposed)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Boron	mg/L B	5	0.06	0.11	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Barium	mg/L Ba	1	0.027	0.048	0.042	0.002	0.003	0.003	0.003	0.003	0.003	0.021	0.001	0.001	0.001	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Beryllium	mg/L Be	no criteria specified	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Bismuth	mg/L Bi	no criteria specified	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Calcium	mg/L Ca	20 - 100 food processing	1.02	1.63	1.72	13	13.2	13.2	13.2	13.2	13.2	34.3	59.2	59.2	52.8	40.4	40.4	48.6	48.6	40.4	40.4	40.4	9.78
Cadmium	mg/L Cd	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Cobalt	mg/L Co	no criteria specified	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Chromium	mg/L Cr	0.05	0.004	0.01	0.006	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Copper	mg/L Cu	0.5	0.003	0.008	0.005	0.305	0.21	0.21	0.21	0.21	0.21	0.003	0.004	0.004	0.005	0.018	0.018	0.003	0.003	0.018	0.018	0.002	0.002
Iron	mg/L Fe	0.3	3.49	7.35	5.47	0.14	0.1	0.1	0.1	0.1	0.1	0.63	3.16	3.16	0.05	0.05	0.05	0.06	0.06	0.05	0.05	0.05	0.05
Potassium	mg/L K	no criteria specified	1	1.2	0.5	0.5	0.8	0.8	0.8	0.8	0.8	2.9	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.4	0.4
Magnesium	mg/L Mg	>700: laxative effects	0.86	1.72	1.24	4.47	4.4	4.4	4.4	4.4	4.4	9.21	4.7	4.7	4.33	9.2	9.2	10.8	10.8	9.2	9.2	9.2	0.14
Manganese	mg/L Mn	0.05	0.025	0.072	0.035	0.005	0.003	0.003	0.003	0.003	0.003	0.246	0.18	0.18	0.136	0.01	0.01	0.057	0.057	0.01	0.01	0.01	<0.002

Parameter	Unit	Criteria	Site 1		Site 2	Site 3		Site 3A	Site 4		Site 5		Site 6
Molybdenum	mg/L Mo	0.25	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	>0.004	<0.004	<0.004	0.006
Sodium	mg/L Na	no criteria specified	1.6	1.8	2.5	8.7	9.2	17.1	18.4	17.1	16.9	19.4	48.1
Nickel	mg/L Ni	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phosphorus	mg/L P	0.01	0.06	0.16	0.1	<0.04	<0.04	0.05	0.06	<0.04	<0.04	<0.04	<0.04
Lead	mg/L Pb	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Sulphur	mg/L S	no criteria specified	0.4	0.5	1	2.8	2.5	4.3	5.4	3.2	3.3	3.3	1.7
Antimony	mg/L Sb	0.006	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Selenium	mg/L Se	0.01	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Silicon	mg/L Si	no criteria specified	8.8	10.2	14.8	10.8	9.6	5	11.6	10.1	10.3	11.3	4.8
Tin	mg/L Sn	no criteria specified	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Strontium	mg/L Sr	no criteria specified	0.037	0.057	0.04	0.066	0.074	0.165	0.079	0.072	0.081	0.094	0.021
Tellurium	mg/L Te	no criteria specified	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	mg/L Ti	0.1	0.353	0.496	0.563	0.009	0.005	0.005	0.003	<0.003	<0.003	<0.003	<0.003
Thallium	mg/L Tl	0.013	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Vanadium	mg/L V	0.1	0.009	0.019	0.017	<0.03	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Zinc	mg/L Zn	5	0.02	0.02	0.03	0.06	0.14	0.14	0.05	0.13	0.08	0.03	0.02
Zirconium	mg/L Zr	no criteria specified	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Potassium Dissolved	mg/L K	20	0.6	0.4	0.6	0.7	0.5	0.5	0.5	<0.4	0.7	<0.4	<0.4
Sodium Dissolved	mg/L Na	20 Drinking : restricted diet 200 aesthetic <10 disinfection only	1.42	1.52	2.52	9.07	9.15	9.15	19.6	17	17.8	18.2	48.9
Coliform - Fecal	CFU/100ml	>100: complete treatment req'd <100 partial treatment <10 disinfection only	0	12 500	10	0	31	0	0	<1	0	<1	0

All instances of sample readings exceeding criteria are noted in bold script. Some excessive readings due to sampling technique (smallest reading exceeded criteria). Those parameters clearly exceeding criteria for drinking water are noted below.

Aluminum	Manganese	Titanium
Iron	Phosphorus	Fecal Coliforms

While not exceeding limits of tolerability, the Burdge and Outsell well water contains higher than acceptable levels of hardness.

Reference: BC Environment: Approved and Working Criteria for Water Quality, 1995.



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ZENON ENVIRONMENTAL LABORATORIES
Certificate of Analysis

8577 Commerce Court
Burnaby, B.C.
Canada V5A 4N5
Tel 604 444 4808
Fax 604 444 4511

Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

FAX : DEB BOOTH
Phone : 751-3100

Requisition Forms :

Zenon ID

Form 10010505 received on 22-MAR-1996 completed on 23-APR-1996 containing sample(s) 96006944
96006945
96006946
96006947

From sampling site NOSITE GALIANO ISLAND LANDFILL

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '---' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.



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ANALYTICAL REPORT Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *G. Bellhouse Well*

Zenon ID : 96006944

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.6	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	121	uS/cm	1	35/01	Cond. Meter Radiometer
00051034	Residue Total	118	mg/L	4	35/01	Grav. 105C - Total Res.
007H1033	Res. Filterable 1.0u	118	mg/L	4	35/01	Grav 1.0 um Filter
0107CALC	Hardness Total -T	40.0	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	34.3	mg/L	0.5	35/01	Automated Electrometer
01160500	Chemical Oxygen Dem.	15	mg/L	10	04/05	K2Cr2O7 Dig: Titr.
11041330	Chloride Dissolved	8.9	mg/L	0.5	35/01	Auto. mercuric thiocyan.
IonBCALC	Ion Balance	0.8	%		--/--	Calculated Result
0112CALC	Nitrogen Organic-Tot	0.23	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	0.23	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	1.26	mg/L		--/--	Calculated Result
11081351	Ammonia (N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitrate + Nitrite (N)	1.03	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	1.03	mg/L		--/--	Calculated Result
11111354	Nitrite-NO2 (N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
11181380	Phosphorus Ort. Dis-P	0.017	mg/L	0.003	35/01	Auto. Ascorbic Acid
11211400	Sulfate	6.9	mg/L	1.0	35/01	Auto Methyl Thymol Blue
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.36	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.002	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	10.4	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.206	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.18	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	3.49 (1)	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	8.2 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	2.4	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 96/03/20 09:00



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ANALYTICAL REPORT
Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *G. Bellhouse Well*

Zenon ID : 96006944

Sparcode	Parameter		Unit	MDC	Media	Workroute
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	11.3	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.059	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.013	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.05	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Ca-D0031	Calcium Dissolved	10.2	mg/L	0.01	05/13	ICAP 61E Analysis
K_D0031	Potassium Dissolved	0.5	mg/L	0.4	35/01	ICAP 61E Analysis
Mg-D0031	Magnesium Dissolved	3.54	mg/L	0.02	05/13	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	8.30	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 96/03/20 09:00

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



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ANALYTICAL REPORT Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *Bellhouse Pond*

Zenon ID : 96006945

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.3	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	163	uS/cm	1	35/01	Cond. Meter Radiometer
00051034	Residue Total	146	mg/L	4	35/01	Grav. 105C - Total Res.
007H1033	Res. Filterable 1.0u	149	mg/L	4	35/01	Grav 1.0 um Filter
0107CALC	Hardness Total -T	45.1	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	31.2	mg/L	0.5	35/01	Automated Electrometer
01160500	Chemical Oxygen Dem.	21	mg/L	10	04/05	K2Cr2O7 Dig: Titr.
11041330	Chloride Dissolved	21.8	mg/L	0.5	35/01	Auto. mercuric thiocyan.
IonBCALC	Ion Balance	1.0	%		--/--	Calculated Result
0112CALC	Nitrogen Organic-Tot	0.37	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	0.37	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	0.81	mg/L		--/--	Calculated Result
11081351	Ammonia (N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitrate+ Nitrite (N)	0.44	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.44	mg/L		--/--	Calculated Result
11111354	Nitrite-NO2 (N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
11181380	Phosphorus Ort. Dis-P	0.009	mg/L	0.003	35/01	Auto. Ascorbic Acid
11211400	Sulfate	11.0	mg/L	1.0	35/01	Auto Methyl Thymol Blue
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.19	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.006	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	11.9	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.18	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.7	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	3.90 (1)	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.013	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	14.3	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	4.3	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 96/03/20 09:00



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ANALYTICAL REPORT
Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *Bellhouse Pond*

Zenon ID : 96006945

Sparcode	Parameter		Unit	MDC	Media	Workroute
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	9.4	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.077	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.005	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Ca-D0031	Calcium Dissolved	11.6	mg/L	0.01	05/13	ICAP 61E Analysis
K_D0031	Potassium Dissolved	0.7	mg/L	0.4	35/01	ICAP 61E Analysis
Mg-D0031	Magnesium Dissolved	3.92	mg/L	0.02	05/13	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	14.1	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 96/03/20 09:00

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



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ANALYTICAL REPORT Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *Burdge House Well*

Zenon ID : 96006946

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.8	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	398	uS/cm	1	35/01	Cond. Meter Radiometer
00051034	Residue Total	240	mg/L	4	35/01	Grav. 105C - Total Res.
007H1033	Res. Filterable 1.0u	240	mg/L	4	35/01	Grav 1.0 um Filter
0107CALC	Hardness Total -T	177	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	180	mg/L	0.5	35/01	Automated Electrometer
01160500	Chemical Oxygen Dem.	11	mg/L	10	04/05	K2Cr2O7 Dig: Titr.
11041330	Chloride Dissolved	11.1	mg/L	0.5	35/01	Auto. mercuric thiocyan.
IonBCALC	Ion Balance	3.4	%		--/--	Calculated Result
0112CALC	Nitrogen Organic-Tot	0.08	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel.Tot(N)	0.08	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	< 0.10	mg/L		--/--	Calculated Result
11081351	Ammonia (N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitrate+ Nitrite (N)	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrite-NO2 (N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
11181380	Phosphorus Ort.Dis-P	0.014	mg/L	0.003	35/01	Auto. Ascorbic Acid
11211400	Sulfate	10.9	mg/L	1.0	35/01	Auto Methyl Thymol Blue
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.05	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	61.2 (1)	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.004	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.05	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	5.08 (1)	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.170	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	19.2	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	4.0	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 96/03/20 09:20



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ANALYTICAL REPORT
Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *Burdge House Well*

Zenon ID : 96006946

Sparcode	Parameter		Unit	MDC	Media	Workroute
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	12.0	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.082	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.29	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Ca-D0031	Calcium Dissolved	62.0	mg/L	0.01	05/13	ICAP 61E Analysis
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Mg-D0031	Magnesium Dissolved	5.28	mg/L	0.02	05/13	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	20.7	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 96/03/20 09:20

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



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ANALYTICAL REPORT Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL
Submitted by : *Outsell House Well*

Zenon ID : 96006947

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.6	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	353	uS/cm	1	35/01	Cond. Meter Radiometer
00051034	Residue Total	202	mg/L	4	35/01	Grav. 105C - Total Res.
007H1033	Res. Filterable 1.0u	200	mg/L	4	35/01	Grav 1.0 um Filter
0107CALC	Hardness Total -T	148	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	158	mg/L	0.5	35/01	Automated Electrometer
01160500	Chemical Oxygen Dem.	< 10	mg/L	10	04/05	K2Cr2O7 Dig: Titr.
11041330	Chloride Dissolved	9.6	mg/L	0.5	35/01	Auto. mercuric thiocyan.
IonBCALC	Ion Balance	3.6	%		--/--	Calculated Result
0112CALC	Nitrogen Organic-Tot	0.06	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	0.06	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	< 0.08	mg/L		--/--	Calculated Result
11081351	Ammonia (N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitrate+ Nitrite (N)	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrite-NO2 (N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
11181380	Phosphorus Ort. Dis-P	0.019	mg/L	0.003	35/01	Auto. Ascorbic Acid
11211400	Sulfate	9.0	mg/L	1.0	35/01	Auto Methyl Thymol Blue
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.002	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	39.7	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.10	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K T0042	Potassium	< 0.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	9.11 (1)	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.052	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na T0042	Sodium	18.3	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 96/03/20 09:10

Sample 96006947 comment :

FILTERING CONTAMINATION SUSPECTED ON DISSOLVED METALS



23-Apr-96
Page 9 of 10

ANALYTICAL REPORT
Form 10010505

Sampling site : NOSITE GALIANO ISLAND LANDFILL
Submitted by : *Outsell House Well*

Zenon ID : 96006947

Sparcode	Parameter		Unit	MDC	Media	Workroute
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.7	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	11.4	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.082	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Ca-D0031	Calcium Dissolved	43.8	mg/L	0.01	05/13	ICAP 61E Analysis
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Mg-D0031	Magnesium Dissolved	9.38	mg/L	0.02	05/13	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	21.5	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 96/03/20 09:10

Sample 96006947 comment :
FILTERING CONTAMINATION SUSPECTED ON DISSOLVED METALS

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



13-Apr-96
Page 1 of 4

ZENON ENVIRONMENTAL LABORATORIES
Certificate of Analysis

8577 Commerce Court
Burnaby, B.C.
Canada V5A 4N5
Tel 604 444 4808
Fax 604 444 4511

Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

FAX : DEB BOOTH
Phone : 751-3100

APR 16 1996

Requisition Forms :

Zenon ID

Form 10010506 received on 22-MAR-1996 completed on 13-APR-1996 containing sample(s) 96006949

From sampling site NOSITE GALIANO ISLAND LANDFILL

Outsell Pond

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '---' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.

Barry Oliver Zenon
444-4808



13-Apr-96
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ANALYTICAL REPORT Form 10010506

Sampling site : NOSITE GALIANO ISLAND LANDFILL
Submitted by :

Zenon ID : 96006949

Dutsell Pond

Sparcode	Parameter	Unit	MDC	Media	Workroute
00041220	pH	7.3	pH units	0.1	35/01 Automated pH Meter
00111160	Specific Conductance	134	uS/cm	1	35/01 Cond. Meter Siebold
00051034	Residue Total	96	mg/L	4	35/01 Grav. 105C - Total Res.
007H1033	Res. Filterable 1.0u	120	mg/L	4	35/01 Grav 1.0 um Filter
0107CALC	Hardness Total -T	45.5	mg/L	--/--	Calculated Result
01021210	Alkalinity Total 4.5	28.3	mg/L	0.5	35/01 Automated Electrometer
01160500	Chemical Oxygen Dem.	19	mg/L	10	04/05 K2Cr2O7 Dig: Titr.
11041330	Chloride Dissolved	10.3	mg/L	0.5	35/01 Auto. mercuric thiocyan.
IonBCALC	Ion Balance	3.6	%	--/--	Calculated Result
0112CALC	Nitrogen Organic-Tot	0.20	mg/L	--/--	Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	0.22	mg/L	0.04	35/01 HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	0.31	mg/L	--/--	Calculated Result
11081351	Ammonia (N)	0.015	mg/L	0.005	35/01 Automated Bertholot meth
11091350	Nitrate + Nitrite (N)	0.09	mg/L	0.02	35/01 Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.09	mg/L	--/--	Calculated Result
11111354	Nitrite-NO2 (N)	< 0.005	mg/L	0.005	35/01 Auto. Diazotization
11181380	Phosphorus Ort. Dis-P	0.005	mg/L	0.003	35/01 Auto. Ascorbic Acid
11211400	Sulfate	17.0	mg/L	1.0	35/01 Auto Methyl Thymol Blue
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.10	mg/L	0.06	05/02 GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.004	mg/L	0.001	05/02 GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02 GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	12.6	mg/L	0.05	05/02 GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02 GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.22	mg/L	0.05	05/02 GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.6 (1)	mg/L	0.4	05/02 GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	3.62 (1)	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.046	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02 GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	8.8 (1)	mg/L	0.4	05/02 GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02 GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	6.8	mg/L	0.1	05/02 GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 96/03/20 09:10



13-Apr-96
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ANALYTICAL REPORT
Form 10010506

Sampling site : NOSITE GALIANO ISLAND LANDFILL

Submitted by : *Outsell Pond*

Zenon ID : 96006949

Sparcode	Parameter		Unit	MDC	Media	Workroute
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	6.7	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.076	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.005	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V-T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Ca-D0031	Calcium Dissolved	12.2	mg/L	0.01	05/13	ICAP 61E Analysis
K_D0031	Potassium Dissolved	0.6	mg/L	0.4	35/01	ICAP 61E Analysis
Mg-D0031	Magnesium Dissolved	3.64	mg/L	0.02	05/13	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	8.81	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 96/03/20 09:10

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.

**Galiano Landfill, Galiano Island PR-5559
(Closed October 31, 1991)**

Site 3- Bellhouse Well							
	Feb-16-94	Jul-13-95	Oct-17-95	Mar-20-96		Drinking Water	FW Aquatic Life
S3- Conductivity (uS/cm)	160	152	159	121		700	
S3- Total Dissolved Solids (mg/L)				118		500	
S3- COD (mg/L)				15			
S3- Chloride, dissolved (mg/L)	10.9	20.5	11.4	8.9		250	
S3- Sodium, dissolved (mg/L)	9.07	10.6	9.15	8.3		200	
S3- Sulphate (mg/L)				6.9		500	100
S3- Calcium (mg/L)	13	14.8	13.2	10.4			4-8
Site 4- Burdge Well							
	Feb-16-94	Jul-13-95	Oct-17-95	Mar-20-96		Drinking Water	FW Aquatic Life
S4- Conductivity (uS/cm)	351	336	374	398		700	
S4- Total Dissolved Solids (mg/L)				240		500	
S4- COD (mg/L)				11			
S4- Chloride, dissolved (mg/L)		10.5	8.8	11.1		250	
S4- Sodium, dissolved (mg/L)		18.6	17	20.7		200	
S4- Sulphate (mg/L)				10.9		500	100
S4- Calcium (mg/L)		57	52.8	61.2			4-8
Site 5- Outsell Well							
	Feb-16-94	Jul-13-95	Oct-17-95	Mar-20-96		Drinking Water	FW Aquatic Life
S5- Conductivity (uS/cm)	329	353	398	353		700	
S5- Total Dissolved Solids (mg/L)				200		500	
S5- COD (mg/L)				<10			
S5- Chloride, dissolved (mg/L)	9.7	9.4	9.7	9.6		250	
S5- Sodium, dissolved (mg/L)		21	18.2	21.5		200	
S5- Sulphate (mg/L)				9		500	100
S5- Calcium (mg/L)		48.5	48.6	39.7			4-8
Site 3A- Bellhouse Pond							
			Oct-17-95	Mar-20-96		Drinking Water	FW Aquatic Life
S3A- Conductivity (uS/cm)			347	163		700	
S3A- Total Dissolved Solids (mg/L)				149		500	
S3A- COD (mg/L)				21			
S3A- Chloride, dissolved (mg/L)			31.4	21.8		250	
S3A- Sodium, dissolved (mg/L)			17.3	14.1		200	
S3A- Sulphate (mg/L)				11		500	100
S3A- Calcium (mg/L)			34.3	11.9			4-8

Site 5A- Outsell Pond						Water Quality Criteria	
						Drinking Water	FW Aquatic Life
			Oct-17-95	Mar-20-96			
S5A- Conductivity (uS/cm)			135	134		700	
S5A- Total Dissolved Solids (mg/L)				120		500	
S5A- COD (mg/L)				19			
S5A- Chloride, dissolved (mg/L)			9.3	10.3		250	
S5A- Sodium, dissolved (mg/L)			8.39	8.81		200	
S5A- Sulphate (mg/L)				17		500	100
S5A- Calcium (mg/L)			10.9	12.6			4-8
Site 6- Lot 17 Well						Water Quality Criteria	
						Drinking Water	FW Aquatic Life
			Feb-16-94				
S6- Conductivity (uS/cm)	239					700	
S6- Total Dissolved Solids (mg/L)	-					500	
S6- COD (mg/L)	-						
S6- Chloride, dissolved (mg/L)	5.7					250	
S6- Sodium, dissolved (mg/L)	48.9					200	
S6- Sulphate (mg/L)	-					500	100
S6- Calcium (mg/L)	9.78						4-8



11-Nov-95
Page 1 of 14

ZENON ENVIRONMENTAL LABORATORIES Certificate of Analysis

Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

Submitted By : SPIDEL A W
Phone : 751-3192

Requisition Forms :

Zenon ID

Form 11031212 received on 19-OCT-1995 completed on 11-NOV-1995 containing sample(s)

95030070
95030071
95030072
95030073
95030074
95030075

From sampling site NOSITE GALIANO LANDFILL

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '---' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.



11-Nov-95
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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030070

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.1	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	16	uS/cm	1	35/01	Cond.Meter Siebold
0107CALC	Hardness Total	11.2	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	4.1	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	0.6	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	1.23	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel.Tot(N)	1.24	mg/L	0.04	35/01	HgSO4 Dig.Auto.Colour.
0114CALC	Nitrogen Total	1.24	mg/L		--/--	Calculated Result
11081351	Nitrogen Amm.Diss(N)	0.006	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	7.92	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.11	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.048	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	1.63	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	0.010	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.008	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	7.35	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	1.2	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	1.72	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.072	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	1.8	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	0.16	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	0.5	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	10.2	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.057	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 07:40

Sample 95030070 comment : SITE 1 LANDFILL POND



11-Nov-95
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ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030070

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.496	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
TI-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	0.019	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	1.52	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 07:40

Sample 95030070 comment : SITE 1 LANDFILL POND



11-Nov-95
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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030071

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.6	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	159	uS/cm	1	35/01	Cond.Meter Siebold
0107CALC	Hardness Total	51.1	mg/L	--/--		Calculated Result
01021210	Alkalinity Total 4.5	45.2	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	11.4	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	0.22	mg/L	--/--		Calculated Result
0113136A	Nitrogen Kjel.Tot(N)	0.22	mg/L	0.04	35/01	HgSO4 Dig.Auto.Colour.
0114CALC	Nitrogen Total	1.36	mg/L	--/--		Calculated Result
11081351	Nitrogen Amm.Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	1.14	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	1.14	mg/L	--/--		Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.13	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.003	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	13.2	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.210	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.10	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.8	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.40	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	9.2	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	2.5	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	9.6	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.074	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 08:25

Sample 95030071 comment : SITE 2 BELL HOUSE

Well



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ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030071

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.005	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.14	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.5	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	9.15	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 08:25

Sample 95030071 comment : SITE 2 BELL HOUSE



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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030072

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	8.0	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	347	uS/cm	1	35/01	Cond. Meter Siebold
0107CALC	Hardness Total	124	mg/L	--/--		Calculated Result
01021210	Alkalinity Total 4.5	109	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	31.4	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	0.76	mg/L	--/--		Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	0.77	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	0.77	mg/L	--/--		Calculated Result
11081351	Nitrogen Amm. Diss(N)	0.007	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L	--/--		Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.26	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.021	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	34.3	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.63	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	2.9 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	9.21	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.246	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	17.1 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	0.05	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	4.3	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	5.0	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.165	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 08:30

Sample 95030072 comment : SITE 3 BELL POND

Bell house Pond.



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ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030072

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.012	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	3.1	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	17.3	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 08:30

Sample 95030072 comment : SITE 3 BELL POND

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030073

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.9	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	374	uS/cm	1	35/01	Cond.Meter Siebold
0107CALC	Hardness Total	150	mg/L	--/--		Calculated Result
01021210	Alkalinity Total 4.5	170	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	8.8	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	< 0.04	mg/L	--/--		Calculated Result
0113136A	Nitrogen Kjel.Tot(N)	< 0.04	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	< 0.06	mg/L	--/--		Calculated Result
11081351	Nitrogen Amm.Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L	--/--		Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	52.8	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.005	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	< 0.05	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.33	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.136	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	17.1	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.2	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	10.1	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.072	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 08:50

Sample 95030073 comment : SITE 4 BURDGE HOUSE

Well



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ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030073

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.13	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	17.0	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 08:50

Sample 95030073 comment : SITE 4 BURDGE HOUSE



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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030074

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.7	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	398	uS/cm	1	35/01	Cond. Meter Siebold
0107CALC	Hardness Total	166	mg/L	--/--		Calculated Result
01021210	Alkalinity Total 4.5	180	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	9.7	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	< 0.04	mg/L	--/--		Calculated Result
0113136A	Nitrogen Kjel. Tot(N)	< 0.04	mg/L	0.04	35/01	HgSO4 Dig. Auto. Colour.
0114CALC	Nitrogen Total	< 0.06	mg/L	--/--		Calculated Result
11081351	Nitrogen Amm. Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3 + NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L	--/--		Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B-T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.003	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	48.6	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.06	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.6	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	10.8	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.057	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	19.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.3	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	11.3	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.094	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 09:00

Sample 95030074 comment : SITE 5 OUTSELL WELL



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ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030074

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.03	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	18.2	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 09:00

Sample 95030074 comment : SITE 5 OUTSELL WELL



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ANALYTICAL REPORT Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030075

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.2	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	135	uS/cm	1	35/01	Cond.Meter Siebold
0107CALC	Hardness Total	42.8	mg/L		--/--	Calculated Result
01021210	Alkalinity Total 4.5	41.7	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	9.3	mg/L	0.5	35/01	Auto. mercuric thiocyan.
0112CALC	Nitrogen Organic-Tot	0.47	mg/L		--/--	Calculated Result
0113136A	Nitrogen Kjel.Tot(N)	0.50	mg/L	0.04	35/01	HgSO4 Dig. Auto.Colour.
0114CALC	Nitrogen Total	0.50	mg/L		--/--	Calculated Result
11081351	Nitrogen Amm.Diss(N)	0.033	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.16	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.004	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	10.9	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.65	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.5 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	3.79	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.038	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	8.9	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	2.1	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	4.1	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.062	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/10/17 09:10

Sample 95030075 comment : SITE 6 TWO CABIN POND

Outsell Pond



11-Nov-95
Page 13 of 14

ANALYTICAL REPORT
Form 11031212

Sampling site : NOSITE GALIANO LANDFILL
Submitted by : SPIDEL A W

Zenon ID : 95030075

Sparcode	Parameter		Unit	MDC	Media	Workroute
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.008	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.6	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	8.39	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/10/17 09:10

Sample 95030075 comment : SITE 6 TWO CABIN POND

Result comments and/or text results :

(1) Diss > Total, within precision of analytical method.



File PR5559

JR LABORATORIES INC.A British Columbia Government Designated
and Certified Dairy and Food Laboratory

OCT 31 1995

ANALYSIS CERTIFICATE

REPORTED TO: Mr. Al Spidel
Ministry of Environment, Land & Parks
Environmental Protection Branch
Nanaimo - Van. Island Regional
2569 Kenworth Road
Nanaimo, B.C.
V9T 4P7

Date Shipped Oct. 17, 1995Date Received Oct. 19, 1995Temperature on Receipt 5 °C

CLIENT CODE: CA

Page No. 1 of 2

LAB. FILE NO. : ME001953934-1

Sample Identification

REPORT DATE: Oct. 27, 1995

CUSTOMER No.: ME001

SUBMITTED BY: Al Spidel

PHONE: (604) 751-3192

REQUISITION FORMS:

JR LAB ID

1. Form 10031211 received on 19 Oct. 1995 completed on 23 Oct. 1995 containing sample(s) 1. ME001953934-1
- | | |
|--|-------------|
| From sampling site ** - #1 - Galiand Landfill - Landfill Pond | SITE ID: ** |
| From sampling site ** - #2 - Galiand Landfill - Bell House | SITE ID: ** |
| From sampling site ** - #4 - Galiand Landfill - Burdge House | SITE ID: ** |
| From sampling site ** - #5 - Galiand Landfill - Outsell Well | SITE ID: ** |
| From sampling site ** - #6 - Galiand Landfill - Two Cabin Pond | SITE ID: ** |

ANALYTICAL REPORT:

SPARCODE	PARAMETER	UNIT	MDL	MEDIA	WORKROUTE	SITE & TIME
0451X022	Coliform - Total - MF	17300	CFU/100ml	0	30/01	Membrane Filter Count-EL #1 - 07:40
0450X022	Coliform - Fecal - MF	12500	CFU/100ml	0	31/01	Membrane Filter Count-EL #1 - 07:40
0451X022	Coliform - Total - MF	68	CFU/100ml	0	30/01	Membrane Filter Count-EL #2 - 08:25
0450X022	Coliform - Fecal - MF	31	CFU/100ml	0	31/01	Membrane Filter Count-EL #2 - 08:25
0451X022	Coliform - Total - MF	(1	CFU/100ml	0	30/01	Membrane Filter Count-EL #4 - 08:50
0450X022	Coliform - Fecal - MF	(1	CFU/100ml	0	31/01	Membrane Filter Count-EL #4 - 08:5
0451X022	Coliform - Total - MF	(1	CFU/100ml	0	30/01	Membrane Filter Count-EL #5 - 09:00
0450X022	Coliform - Fecal - MF	(1	CFU/100ml	0	31/01	Membrane Filter Count-EL #5 - 09:00
0451X022	Coliform - Total - MF	400	CFU/100ml	0	30/01	Membrane Filter Count-EL #6 - 09:10
0450X022	Coliform - Fecal - MF	8	CFU/100ml	0	31/01	Membrane Filter Count-EL #6 - 09:10

Sample State: Fresh Water Sample Type: Regular
Sampled on : 95/10/17 07:40 to 09:10

REMARKS:

MFC agar - sterile	Rinse water - sterile	Positive control - good growth	Negative control - no growth
EC - sterile	LTB - sterile	Membrane filter - sterile	FC - Duplicate: 5

METHODOLOGY:

Methods used by JR Laboratories Inc. are based upon those found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on ENV 93.

ISO 9002 REGISTERED

INSPECTION AND/OR ANALYSIS HAS BEEN PERFORMED USING GOOD
LABORATORY PRACTICE AND PROCEDURES. JR LABORATORIES
LIABILITY IS LIMITED TO THE TESTING FEE PAID.

VERSION 1.1

Analyst

#12 - 3871 North Fraser Way, Burnaby, B.C., Canada V5J 5G6
Telephone: (604) 432-9311 Page 108 Fax: (604) 432-7768
MOE-2010-00100

PR 5559

Galliano Club PR-5559

Comparison of Water Sampling Analyses Dated 17 Feb 94 and 14 Jul 95

Site Location

Site 3 G. Bellhouse

Site 4 Pattison Lk Gray House (Burns)

Site 5 Pattison Lk (Outsell)

Parameter	Unit	Site 3		Site 4		Site 5		Criteria for Drinking Water
pH	pH units	17-Feb-94	14-Jul-95	17-Feb-94	14-Jul-95	17-Feb-94	14-Jul-95	6.5 - 8.5
Sp. Conductance	uS/cm	6.5	6.4	7.7	7.6	7.6	7.3	700
Residue Total	mg/L	160	152	351	336	329	353	500 (total dissolved solids)
Alkalinity Total 4.5	mg/L CaCO ₃		130		248		270	30-250 Food Processing (varies w process)
Hardness Total	mg/L CaCO ₃		40.7		174		189	100 Acceptable, >200 poor but tolerable
Chloride diss.	mg/L Cl	50.9	57.1	167	162	139	164	250
Nitrogen Amm. Diss	mg/L N	10.9	20.5	10.1	10.5	9.7	9.4	no criteria specified
NO ₃ +NO ₂	mg/L as N	0.006	<0.005	0.115	<0.005	0.008	<0.005	10
NO ₃ Diss (N)	mg/L as N	0.89	0.74	<0.02	<0.02	0.17	<0.02	10
NO ₂ Diss (N)	mg/L as N	0.89	0.73	<0.02	<0.02	0.17	<0.02	1
Silver	mg/L Ag	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	no criteria specified
Aluminum	mg/L Al	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.2
Arsenic	mg/L As	0.23	<0.06	<0.06	<0.06	<0.06	<0.06	0.025 (proposed)
Boron	mg/L B	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	5
Barium	mg/L Ba	<0.04	0.05	<0.04	0.06	<0.04	0.1	1
Beryllium	mg/L Be	0.002	0.002	<0.001	<0.001	0.003	0.002	no criteria specified
Bismuth	mg/L Bi	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	no criteria specified
Calcium	mg/L Ca	0.02	<0.02	0.02	<0.02	<0.02	<0.02	20 - 100 food processing
Cadmium	mg/L Cd	13	14.8	59.2	57	40.4	48.5	0.005
Cobalt	mg/L Co	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	no criteria specified
Chromium	mg/L Cr	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.05
Copper	mg/L Cu	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.5
Iron	mg/L Fe	0.305	0.183	0.004	0.005	0.018	0.072	3
Potassium	mg/L K	0.14	0.11	3.16	<0.05	<0.05	0.11	no criteria specified
Magnesium	mg/L Mg	0.5	0.6	<0.4	<0.4	<0.4	<0.4	>700 laxative effect
Manganese	mg/L Mn		4.88		4.74		10.4	0.05
Molybdenum	mg/L Mo	0.005	0.003	0.18	0.118	0.01	0.015	0.25
Sodium	mg/L Na	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	no criteria specified
		8.7	10.4	18.4	18.1	16.9	20.2	

Parameter	Unit	Site 3		Site 4		Site 5		Criteria
Phosphorus	mg/L P	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	0.01
Lead	mg/L Pb	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
Sulphur	mg/L S	2.8	3.1	5.4	4.3	3.3	3.2	no criteria specified
Antimony	mg/L Sb	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006
Selenium	mg/L Se	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.01
Silicon	mg/L Si	10.8	10.5	11.6	11.6	10.3	12.4	no criteria specified
Tin	mg/L Sn	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Strontium	mg/L Sr	0.066	0.083	0.079	0.079	0.081	<0.099	no criteria specified
Tellurium	mg/L Te	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Titanium	mg/L Ti	0.009	<0.003	0.003	<0.003	<0.003	<0.003	0.1
Thallium	mg/L Tl	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.013
Vanadium	mg/L V	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.1
Zinc	mg/L Zn	0.06	0.05	0.05	0.14	0.08	0.02	5
Zirconium	mg/L Zr	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	no criteria specified
Potassium Dissolved	mg/L K	0.7	0.8	0.5	<0.04	0.7	0.5	20
Sodium Dissolved	mg/L Na	9.07	10.6	19.6	18.6	17.8	21	20 Drinking : restricted diet 200 aesthetic
Coliform - Fecal	CFU/100ml	10	0	0	0	0	0	>100: complete treatment req'd

*Note: Total Iron is often high due to suspended sediment, thus not considered significant

All instances of sample readings exceeding criteria are noted in bold scri Those parameters clearly exceeding criteria for drinking water are noted below.

Aluminum Manganese Phosphorus: Site 4

Those parameters for which MDC exceeds criteria are:

Antimony Phosphorus Titanium
Selenium Thallium

Site 3 currently shows a pH reading marginally below acceptable parameters.

Reference: BC Environment: Approved and Working Criteria for Water Quality, 1995.



09-Sep-95
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ZENON ENVIRONMENTAL LABORATORIES
Certificate of Analysis

Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

Submitted By : SPIDEL A W
FAX : A. SPIDEL
Phone : 751-3192

Requisition Forms :

Zenon ID

Form 20003875 received on 29-AUG-1995 completed on 9-SEP-1995 containing sample(s) 95024123
95024124
95024125

From sampling site NOSITE WELL WATER

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '---' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.



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ANALYTICAL REPORT Form 20003875

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

Zenon ID : 95024123

Sparcode	Parameter		Unit	MDC	Media	Workroute
0107CALC	Hardness Total	57.1	mg/L		--/--	Calculated Result
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.05	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.002	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	14.8	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.183	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.11	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.6	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.88	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	10.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.1	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	10.5	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.083	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.05	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/07/13 08:00

Sample 95024123 comment : BELL HOUSE



ANALYTICAL REPORT Form 20003875

09-Sep-95
Page 3 of 5

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

Zenon ID : 95024124

Sparcode	Parameter	Unit	MDC	Media	Workroute
0107CALC	Hardness Total	162		--/--	Calculated Result
Ag-T0042	Silver	< 0.03	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.06	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	< 0.001	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	57.0	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.005	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	< 0.05	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.74	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.118	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	18.1	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	4.3	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	11.6	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.079	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.14	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/07/13 08:15

Sample 95024124 comment : BURNS(?)



09-Sep-95
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ANALYTICAL REPORT
Form 20003875

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

Zenon ID : 95024125

Sparcode	Parameter		Unit	MDC	Media	Workroute
0107CALC	Hardness Total	164	mg/L		--/--	Calculated Result
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.10	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.002	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	48.5	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.072	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.11	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	10.4	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.015	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	20.2	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.2	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	12.4	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.099	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 95/07/13 08:20

Sample 95024125 comment : OUSTELL

Galiano Club PR-5559
Comparison of Water Sampling Analyses Dated 17 Feb 94 and 14 Jul 95

Site Location

Site 3 G. Bellhouse
Site 4 Pattison Lk Gray House (Burns)
Site 5 Pattison Lk (Outsell)

Parameter	Unit	Site 3		Site 4		Site 5		Criteria for Drinking Water
pH	pH units	17-Feb-94	14-Jul-95	17-Feb-94	14-Jul-95	17-Feb-94	14-Jul-95	6.5 - 8.5
Sp. Conductance	uS/cm	6.5	6.4	7.7	7.6	7.6	7.3	700
Residue Total	mg/L	160	152	351	336	329	353	500 (total dissolved solids)
Alkalinity Total 4.5	mg/L CaCO ₃		130		248		270	30-250 Food Processing (varies w process)
Hardness Total	mg/L CaCO ₃		40.7		174		189	100 Acceptable, >200 Tolerable
Chloride diss.	mg/L Cl	50.9		167		139		250
Nitrogen Amm. Diss	mg/L N	10.9	20.5	10.1	10.5	9.7	9.4	no criteria specified
NO ₃ +NO ₂	mg/L as N	0.006	<0.005	0.115	<0.005	0.008	<0.005	10
NO ₃ Diss (N)	mg/L as N	0.89	0.74	<0.02	<0.02	0.17	<0.02	10
NO ₂ Diss (N)	mg/L as N	0.89	0.73	<0.02	<0.02	0.17	<0.02	1
Silver	mg/L Ag	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	no criteria specified
Aluminum	mg/L Al	<0.03		<0.03		<0.03		0.2
Arsenic	mg/L As	0.23		<0.06		<0.06		.025 (proposed)
Boron	mg/L B	<0.04		<0.04		<0.04		5
Barium	mg/L Ba	<0.04		<0.04		<0.04		1
Beryllium	mg/L Be	0.002		<0.001		0.003		no criteria specified
Bismuth	mg/L Bi	<0.001		<0.001		<0.001		no criteria specified
Calcium	mg/L Ca	0.02		0.02		<0.02		20 - 100 food processing
Cadmium	mg/L Cd	13		59.2		40.4		0.005
Cobalt	mg/L Co	<0.002		<0.002		<0.002		no criteria specified
Chromium	mg/L Cr	<0.004		<0.004		<0.004		0.05
Copper	mg/L Cu	<0.002		<0.002		<0.002		0.05
		0.305		0.004		0.018		0.5
Iron	mg/L Fe							>3 Drinking: note total Iron often high due to suspended sediment, thus not considered important
Potassium	mg/L K	0.14		3.16		<0.05		no criteria specified
Manganese	mg/L Mn	0.5		<0.4		<0.4		0.05
		0.005		0.18		0.01		

Galiano Club PR-5559
Summary of Water Sampling Analysis Dated 17 Feb 94

Site Location	Site 1	North Side	Site 4	Pattison Lk Gray House	Site 5	Pattison Lk	Site 6	Lot 17 Well
Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Criteria for Drinking Water		
pH	pH units	7.1	6.3	6.5	7.7	7.6	8.2	6.5 - 8.5
Sp. Conductance	uS/cm	17	30	160	351	329	239	700 - Drinking
Hardness Total	mg/L CaCO3	6.1	9.4	50.9	167	139	25	100 Acceptable, <200 Tolerable
Chloride diss.	mg/L Cl	1.8	2.1	10.9	10.1	9.7	5.7	250
Nitrogen Amm. Diss	mg/L N	0.015	0.017	0.006	0.115	0.008	0.009	no criteria specified
NO3+NO2	mg/L as N	0.06	0.15	0.89	<0.02	0.17	0.02	10
NO3 Diss (N)	mg/L as N	0.05	0.15	0.89	<0.02	0.17	<0.02	10
NO2 Diss (N)	mg/L as N	0.007	<0.005	<0.005	<0.005	<0.005	0.011	1
Silver	mg/L Ag	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	no criteria specified
Aluminum	mg/L Al	5.69	9.63	0.23	<0.06	<0.06	<0.06	0.2
Arsenic	mg/L As	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	.025 (proposed)
Boron	mg/L B	0.06	0.06	<0.04	<0.04	<0.04	0.25	5
Barium	mg/L Ba	0.027	0.042	0.002	<0.001	0.003	<0.001	1
Beryllium	mg/L Be	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	no criteria specified
Bismuth	mg/L Bi	<0.02	<0.02	0.02	0.02	<0.02	<0.02	no criteria specified
Calcium	mg/L Ca	1.02	1.72	13	59.2	40.4	9.78	20 - 100 food processing
Cadmium	mg/L Cd	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.005
Cobalt	mg/L Co	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	no criteria specified
Chromium	mg/L Cr	0.004	0.006	<0.002	<0.002	<0.002	<0.002	0.05
Copper	mg/L Cu	0.003	0.005	0.305	0.004	0.018	<0.002	0.5
								high due to suspended sediment, thus not considered important
Iron	mg/L Fe	3.49	5.47	0.14	3.16	<0.05	<0.05	important
Potassium	mg/L K	1	0.5	0.5	<0.4	<0.4	<0.4	no criteria specified
Magnesium	mg/L Mg	0.86	1.24	4.47	4.7	9.2	0.14	>700; laxative effects
Manganese	mg/L Mn	0.025	0.035	0.005	0.18	0.01	<0.002	0.05

Parameter	Unit	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Criteria
Molybdenum	mg/L Mo	<0.004	<0.004	<0.004	<0.004	<0.004	0.006	
Sodium	mg/L Na	1.6	2.5	8.7	18.4	16.9	48.1	no criteria specified
Nickel	mg/L Ni	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2
Phosphorus	mg/L P	0.06	0.1	<0.04	0.06	<0.04	<0.04	0.01
Lead	mg/L Pb	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
Sulphur	mg/L S	0.4	1	2.8	5.4	3.3	1.7	no criteria specified
Antimony	mg/L Sb	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006
Selenium	mg/L Se	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.01
Silicon	mg/L Si	8.8	14.8	10.8	11.6	10.3	4.8	no criteria specified
Tin	mg/L Sn	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Strontium	mg/L Sr	0.037	0.04	0.066	0.079	0.081	0.021	no criteria specified
Tellurium	mg/L Te	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Titanium	mg/L Ti	0.353	0.563	0.009	0.003	<0.003	<0.003	0.1
Thallium	mg/L Tl	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.013
Vanadium	mg/L V	0.009	0.017	<0.003	<0.003	<0.003	<0.003	0.1
Zinc	mg/L Zn	0.02	0.03	0.06	0.05	0.08	0.02	5
Zirconium	mg/L Zr	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	no criteria specified
Potassium Dissolved	mg/L K	0.6	0.6	0.7	0.5	0.7	<0.4	20
Sodium Dissolved	mg/L Na	1.42	2.52	9.07	19.6	17.8	48.9	20 Drinking :restricted diet 200 aesthetic
Coliform - Fecal	CFU/100ml	0	10	0	0	0	0	<10 disinfection only <100 partial treatment >100: complete treatment req'd

All instances of sample readings exceeding criteria are noted in bold script. Some excessive readings due to sampling technique (smallest reading exceeded criteria). Those parameters clearly exceeding criteria for drinking water are noted below.

Aluminum Phosphorus Fecal Coliforms
Manganese Titanium

Reference: BC Environment: Approved and Working Criteria for Water Quality, 1995.

PR 5559



26-Aug-95
Page 1 of 5

ZENON ENVIRONMENTAL LABORATORIES
Certificate of Analysis

Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

Submitted By : SPIDEL A W
Phone : 361-6241

Requisition Forms :

Zenon ID

Form 20003867 received on 14-JUL-1995 completed on 26-AUG-1995 containing sample(s) 95018606
95018607
95018608

From sampling site NOSITE WELL WATER

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '___' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.



26-Aug-95
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ANALYTICAL REPORT
Form 20003867

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

Zenon ID : 95018606

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.4	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	152	uS/cm	1	35/01	Cond. Meter Siebold
00051034	Residue Total	130	mg/L	4	35/01	Grav. 105C - Total Res.
01021210	Alkalinity Total 4.5	40.7	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	20.5	mg/L	0.5	35/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm. Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	0.74	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.73	mg/L	--/--		Calculated Result
11111354	Nitrogen NO2 Diss(N)	0.008	mg/L	0.005	35/01	Auto. Diazotization
P--T139A	Phosphorus	0.003	mg/L	0.003	35/01	Pres. Dig. Auto. Ascorbic A
K_D0031	Potassium Dissolved	0.8	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	10.6	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/07/13 08:00

Sample 95018606 comment : BELLHOUSE - NO METALS BOTTLE SENT

*METALS
TO BIE on
Done
35/01
See Na/K*



26-Aug-95
Page 3 of 5

ANALYTICAL REPORT
Form 20003867

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

Zenon ID : 95018607

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.6	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	336	uS/cm	1	35/01	Cond.Meter Siebold
00051034	Residue Total	248	mg/L	4	35/01	Grav. 105C - Total Res.
01021210	Alkalinity Total 4.5	174	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	10.5	mg/L	0.5	35/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3 + NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
P--T139A	Phosphorus	0.019	mg/L	0.003	35/01	Pres.Dig.Auto.Ascorbic A
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	18.6	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/07/13 08:15

Sample 95018607 comment : BURNS? - NO METALS BOTTLE SENT

*Birdac
Well*

*Houses.
Close
To OUSTON
ACROSS
STREET.*



26-Aug-95
Page 4 of 5

ANALYTICAL REPORT
Form 20003867

Sampling site : NOSITE WELL WATER
Submitted by : SPIDEL A W

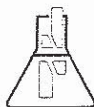
Zenon ID : 95018608

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.3	pH units	0.1	35/01	Automated pH Meter
00111160	Specific Conductance	353	uS/cm	1	35/01	Cond.Meter Siebold
00051034	Residue Total	270	mg/L	4	35/01	Grav. 105C - Total Res.
01021210	Alkalinity Total 4.5	189	mg/L	0.5	35/01	Automated Electrometer
11041330	Chloride Dissolved	9.4	mg/L	0.5	35/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	< 0.005	mg/L	0.005	35/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	35/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	35/01	Auto. Diazotization
P--T139A	Phosphorus	0.031	mg/L	0.003	35/01	Pres.Dig.Auto.Ascorbic A
K_D0031	Potassium Dissolved	0.5	mg/L	0.4	35/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	21.0	mg/L	0.01	35/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 95/07/13 08:20

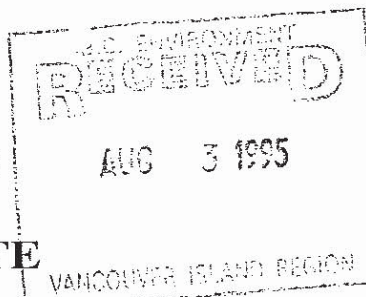
Sample 95018608 comment : OUSTELL - NO METALS BOTTLE SENT

*See
Burns (?)
House
Basement
Across Street*



JR LABORATORIES INC.

A British Columbia Government Designated
and Certified Dairy and Food Laboratory



ANALYSIS CERTIFICATE

REPORTED TO: Mr. Al Spidel
Ministry of Environment, Land & Parks
Environmental Protection Branch
Nanaimo - Van. Island Regional
2569 Kenworth Road
Nanaimo, B.C.
V9T 4P7

Date Shipped July 13, 1995

Date Received July 14, 1995

Temperature on Receipt 5 °C

CLIENT CODE: CA

Page No. 1 of 2

LAB. FILE NO.: ME001952624-3

Sample Identification

REPORT DATE: July 28, 1995

CUSTOMER No.: ME001

SUBMITTED BY: Al Spidel

PHONE: (604) 751-3192

REQUISITION FORMS:

JR LAB ID

1. Form 20003868 received on 14 July 1995 completed on 16 July 1995 containing sample(s) 1. ME001952624-3

From sampling site ** - Well Water

SITE ID: **

ANALYTICAL REPORT:

SPARCODE	PARAMETER	UNIT	MDL	MEDIA	WORKROUTE	TIME	
0450X022	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:00
0451X022	Coliform - Total - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:00
0450X022	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:15
0451X022	Coliform - Total - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:15
0450X022	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:20
0451X022	Coliform - Total - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:20

Sample State: Fresh Water Sample Type: Regular
Sampled on: 95/07/13 08:00 to 08:20

REMARKS:

MFC agar - sterile
EC - sterile

Rinse water - sterile
LTB - sterile

Positive control - good growth
Membrane filter - sterile

Negative control - no growth

METHODOLOGY:

Methods used by JR Laboratories Inc. are based upon those found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on ENV 93.

ISO 9002 REGISTERED

INSPECTION AND/OR ANALYSIS HAS BEEN PERFORMED USING GOOD
LABORATORY PRACTICE AND PROCEDURES. JR LABORATORIES
LIABILITY IS LIMITED TO THE TESTING FEE PAID.

VERSION 1.1

Analyst

#12 - 3871 North Fraser Way, Burnaby, B.C., Canada V5J 5G6
Telephone: (604) 432-9311

Page 120
MOE-2010-00100
Fax: (604) 432-7768

Galiano Club PR-5559

Site Location	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
	North Side	Northeast Pit	G. Bellhouse	Pattison Lk Gray House	Pattison Lk	Lot 17 Well

Parameter	Unit	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Criteria
Molybdenum	mg/L Mo	<0.004	<0.004	<0.004	<0.004	<0.004	0.006	0.25
Sodium	mg/L Na	1.6	2.5	8.7	18.4	16.9	48.1	no criteria specified
Nickel	mg/L Ni	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.2
Phosphorus	mg/L P	0.06	0.1	<0.04	0.06	<0.04	<0.04	0.01
Lead	mg/L Pb	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
Sulphur	mg/L S	0.4	1	2.8	5.4	3.3	1.7	no criteria specified
Antimony	mg/L Sb	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006
Selenium	mg/L Se	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.01
Silicon	mg/L Si	8.8	14.8	10.8	11.6	10.3	4.8	no criteria specified
Tin	mg/L Sn	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Strontium	mg/L Sr	0.037	0.04	0.066	0.079	0.081	0.021	no criteria specified
Tellurium	mg/L Te	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	no criteria specified
Titanium	mg/L Ti	0.353	0.563	0.009	0.003	<0.003	<0.003	0.1
Thallium	mg/L Tl	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.013
Vanadium	mg/L V	0.009	0.017	<0.003	<0.003	<0.003	<0.003	0.1
Zinc	mg/L Zn	0.02	0.03	0.06	0.05	0.08	0.02	5
Zirconium	mg/L Zr	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	no criteria specified
Potassium Dissolved	mg/L K	0.6	0.6	0.7	0.5	0.7	<0.4	20
Sodium Dissolved	mg/L Na	1.42	2.52	9.07	19.6	17.8	48.9	20 Drinking :restricted diet 200 aesthetic
Coliform - Fecal	CFU/100ml	9000	1000	1200	3200	4600	1700	<100: complete treatment req'd

All instances of sample readings exceeding criteria are noted in bold script. Some excessive readings due to sampling technique (smallest reading exceeded criteria). Those parameters clearly exceeding criteria for drinking water are noted below.

Aluminum	Phosphorus
Magnesium	Titanium
Manganese	Fecal Coliforms

Reference: BC Environment: Approved and Working Criteria for Water Quality, 1995.

ZENON ENVIRONMENTAL LABORATORIES
Certificate of Analysis



Reported To :

WASTE - VANCOUVER ISLAND

Client Code CA

Waste Management Branch
Vancouver Island Region
2569 Kenworth Road
Nanaimo, BC V9T 4P7

Submitted By : SPIDEL A W

Requisition Forms :

Zenon ID

Form 10028751 received on 17-FEB-1994 completed on 9-MAR-1994 containing sample(s)

94002957
94002958
94002959
94002960
94002961
94002962

From sampling site NOSITE PR5559

Remarks :

- ☞ All results are blank corrected except for Hi-Res MS data.
- ☞ 'MDC' = Minimum Detectable Concentration
- ☞ '<' = Less than MDC
- ☞ '___' = Not analyzed
- ☞ Solids results are based on dry weight except Volatile Organics, TPH and Biota Analyses.
- ☞ Organic analyses are not corrected for surrogate recoveries except for Isotope Dilution methods.

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', 17th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on US EPA protocols found in the 'Test Methods For Evaluating Solid Waste, Physical/Chemical Method, SW846', 3rd Edition. Other procedures are based on methodologies accepted by the B.C. Ministry of Environment.

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ANALYTICAL REPORT Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002957

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.1	pH units	0.1	02/01	Automated pH Meter
00111160	Specific Conductance	17	uS/cm	1	02/01	Cond.Meter Siebold
0107CALC	Hardness Total	6.1	mg/L		--/--	Calculated Result
11041330	Chloride Dissolved	1.8	mg/L	0.5	02/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	0.015	mg/L	0.005	02/01	Automated Bertholot meth
11091350	Nitro NO3 + NO2 D	0.06	mg/L	0.02	02/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.05	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	0.007	mg/L	0.005	02/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	5.69	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.06	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.027	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	1.02	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	0.004	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.003	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	3.49	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	1.0	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	0.86	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.025	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	1.6	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	0.06	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	0.4	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	8.8	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.037	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.353	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	0.009	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 07:35

Sample 94002957 comment : 1=NORTH SIDE

09-Mar-94
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ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002957

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.6	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	1.42	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 07:35

Sample 94002957 comment : 1=NORTH SIDE

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002958

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.3	pH units	0.1	02/01	Automated pH Meter
00111160	Specific Conductance	30	uS/cm	1	02/01	Cond.Meter Siebold
0107CALC	Hardness Total	9.4	mg/L		--/--	Calculated Result
11041330	Chloride Dissolved	2.1	mg/L	0.5	02/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	0.017	mg/L	0.005	02/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	0.15	mg/L	0.02	02/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.15	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	02/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	9.63	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.06	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.042	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	1.72	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	0.006	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.005	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	5.47	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.5	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	1.24	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.035	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	2.5	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	0.10	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	1.0	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	14.8	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.040	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.563	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	0.017	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 07:40

Sample 94002958 comment : 2=NORTHEAST PIT

09-Mar-94
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ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002958

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.03	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.6 (1)	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	2.52 (1)	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 07:40

Sample 94002958 comment : 2=NORTHEAST PIT

Result comments and/or text results :

(1) Dissolved > Total, within precision of analytical method.

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002959

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	6.5	pH units	0.1	02/01	Automated pH Meter
00111160	Specific Conductance	160	uS/cm	1	02/01	Cond.Meter Siebold
0107CALC	Hardness Total	50.9	mg/L		--/--	Calculated Result
11041330	Chloride Dissolved	10.9	mg/L	0.5	02/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	0.006	mg/L	0.005	02/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	0.89	mg/L	0.02	02/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.89	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	02/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	0.23	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.002	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	13.0	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.305	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	0.14	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	0.5 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.47	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.005	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	8.7 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	2.8	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	10.8	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.066	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.009	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 09:08

Sample 94002959 comment : 3=G.BELLHOUSE

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002959

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.06	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.7	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	9.07	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 09:08

Sample 94002959 comment : 3=G.BELLHOUSE

Result comments and/or text results :

(1) Dissolved > Total, within precision of analytical method.

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002960

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.7	pH units	0.1	02/01	Automated pH Meter
00111160	Specific Conductance	351	uS/cm	1	02/01	Cond.Meter Siebold
0107CALC	Hardness Total	167	mg/L		--/--	Calculated Result
11041330	Chloride Dissolved	10.1	mg/L	0.5	02/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	0.115	mg/L	0.005	02/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	< 0.02	mg/L	0.02	02/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L		--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	02/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	59.2	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.004	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	3.16	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	4.70	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.180	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	18.4 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	0.06	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	5.4	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	11.6	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.079	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 08:50

Sample 94002960 comment : 4=PATTISON LK.GRAY HOUSE

09-Mar-94
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ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002960

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.05	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.5	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	19.6	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 08:50

Sample 94002960 comment : 4=PATTISON LK.GRAY HOUSE

Result comments and/or text results :

(1) Dissolved > Total, within precision of analytical method.

09-Mar-94
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ANALYTICAL REPORT Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002961

Sparcode	Parameter		Unit	MDC	Media	Workroute
00041220	pH	7.6	pH units	0.1	02/01	Automated pH Meter
00111160	Specific Conductance	329	uS/cm	1	02/01	Cond. Meter Siebold
0107CALC	Hardness Total	139	mg/L		--/--	Calculated Result
11041330	Chloride Dissolved	9.7	mg/L	0.5	02/01	Auto. mercuric thiocyan.
11081351	Nitrogen Amm. Diss(N)	0.008	mg/L	0.005	02/01	Automated Bertholot meth
11091350	Nitro NO3+NO2 D	0.17	mg/L	0.02	02/01	Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	0.17	mg/L		--/--	Calculated Result
1111354	Nitrogen NO2 Diss(N)	< 0.005	mg/L	0.005	02/01	Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02	GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
B--T0042	Boron	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	0.003	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	40.4	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	0.018	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	< 0.05	mg/L	0.05	05/02	GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	9.20	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	0.010	mg/L	0.002	05/02	GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	< 0.004	mg/L	0.004	05/02	GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	16.9 (1)	mg/L	0.4	05/02	GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02	GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	3.3	mg/L	0.1	05/02	GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	10.3	mg/L	0.8	05/02	GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.081	mg/L	0.001	05/02	GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02	GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02	GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 09:00

Sample 94002961 comment : 5=PATTISON LK

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002961

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.08-	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	0.7	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	17.8	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 09:00

Sample 94002961 comment : 5=PATTISON LK

Result comments and/or text results :

(1) Dissolved > Total, within precision of analytical method.

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002962

Sparcode	Parameter	Unit	MDC	Media	Workroute
00041220	pH	8.2	pH units	0.1	02/01 Automated pH Meter
00111160	Specific Conductance	239	uS/cm	1	02/01 Cond.Meter Siebold
0107CALC	Hardness Total	25.0	mg/L	--/--	Calculated Result
11041330	Chloride Dissolved	5.7	mg/L	0.5	02/01 Auto. mercuric thiocyan.
11081351	Nitrogen Amm.Diss(N)	0.009	mg/L	0.005	02/01 Automated Bertholot meth
11091350	Nitro NO3+NO2 D	0.02	mg/L	0.02	02/01 Auto. Cadmium Reduction
1110CALC	Nitrogen NO3 Diss(N)	< 0.02	mg/L	--/--	Calculated Result
11111354	Nitrogen NO2 Diss(N)	0.011	mg/L	0.005	02/01 Auto. Diazotization
Ag-T0042	Silver	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
Al-T0042	Aluminum	< 0.06	mg/L	0.06	05/02 GI HNO3 Dig; ICAP 61E
As-T0042	Arsenic	< 0.04	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
B--T0042	Boron	0.25	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
Ba-T0042	Barium	< 0.001	mg/L	0.001	05/02 GI HNO3 Dig; ICAP 61E
Be-T0042	Beryllium	< 0.001	mg/L	0.001	05/02 GI HNO3 Dig; ICAP 61E
Bi-T0042	Bismuth	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Ca-T0042	Calcium	9.78	mg/L	0.05	05/02 GI HNO3 Dig; ICAP 61E
Cd-T0042	Cadmium	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Co-T0042	Cobalt	< 0.004	mg/L	0.004	05/02 GI HNO3 Dig; ICAP 61E
Cr-T0042	Chromium	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Cu-T0042	Copper	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Fe-T0042	Iron	< 0.05	mg/L	0.05	05/02 GI HNO3 Dig; ICAP 61E
K_T0042	Potassium	< 0.4	mg/L	0.4	05/02 GI HNO3 Dig; ICAP 61E
Mg-T0042	Magnesium	0.14	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Mn-T0042	Manganese	< 0.002	mg/L	0.002	05/02 GI HNO3 Dig; ICAP 61E
Mo-T0042	Molybdenum	0.006	mg/L	0.004	05/02 GI HNO3 Dig; ICAP 61E
Na_T0042	Sodium	48.1	mg/L	0.4	05/02 GI HNO3 Dig; ICAP 61E
Ni-T0042	Nickel	< 0.01	mg/L	0.01	05/02 GI HNO3 Dig; ICAP 61E
P_T0042	Phosphorus	< 0.04	mg/L	0.04	05/02 GI HNO3 Dig; ICAP 61E
Pb-T0042	Lead	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
S_T0042	Sulphur	1.7	mg/L	0.1	05/02 GI HNO3 Dig; ICAP 61E
Sb-T0042	Antimony	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Se-T0042	Selenium	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
Si-T0042	Silicon	4.8	mg/L	0.8	05/02 GI HNO3 Dig; ICAP 61E
Sn-T0042	Tin	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Sr-T0042	Strontium	0.021	mg/L	0.001	05/02 GI HNO3 Dig; ICAP 61E
Te-T0042	Tellurium	< 0.02	mg/L	0.02	05/02 GI HNO3 Dig; ICAP 61E
Ti-T0042	Titanium	< 0.003	mg/L	0.003	05/02 GI HNO3 Dig; ICAP 61E
Tl-T0042	Thallium	< 0.03	mg/L	0.03	05/02 GI HNO3 Dig; ICAP 61E
V--T0042	Vanadium	< 0.003	mg/L	0.003	05/02 GI HNO3 Dig; ICAP 61E

Sample State : Fresh Water
Sampled on : 94/02/16 09:25

Sample 94002962 comment : 6=LOT 17 WELL

ANALYTICAL REPORT
Form 10028751



Sampling site : NOSITE PR5559
Submitted by : SPIDEL A W

Zenon ID : 94002962

Sparcode	Parameter		Unit	MDC	Media	Workroute
Zn-T0042	Zinc	0.02	mg/L	0.01	05/02	GI HNO3 Dig; ICAP 61E
Zr-T0042	Zirconium	< 0.003	mg/L	0.003	05/02	GI HNO3 Dig; ICAP 61E
K_D0031	Potassium Dissolved	< 0.4	mg/L	0.4	02/01	ICAP 61E Analysis
Na_D0031	Sodium Dissolved	48.9 (1)	mg/L	0.01	02/01	ICAP 61E Analysis

Sample State : Fresh Water
Sampled on : 94/02/16 09:25

Sample 94002962 comment : 6=LOT 17 WELL

Result comments and/or text results :

(1) Dissolved > Total, within precision of analytical method.



PR 5559

JR LABORATORIES INC.
A British Columbia Government Designated
and Certified Dairy and Food Laboratory

ANALYSIS CERTIFICATE

REPORTED TO: Mr. Al Spidel
Ministry of Environment, Land & Parks
Environmental Protection Branch
Nanaimo - Van. Island Regional
2569 Kenworth Road
Nanaimo, B.C.
V9T 4P7

Date Shipped Feb. 16, 1994
Date Received Feb. 17, 1994
Temperature on Receipt 3 °C

CLIENT CODE: CA

Page No. 1 of 2

LAB. FILE NO. : ME00194475-1

Sample Identification				
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REPORT DATE: Feb. 28, 1994 CUSTOMER No.: ME001 SUBMITTED BY: Al Spidel PHONE: (604) 751-3192

REQUISITION FORMS:

JR LAB ID

1. Form 10028752 received on 17 Feb. 1994 completed on 25 Feb. 1994 containing sample(s) 1. ME00194475-1

From sampling site ** - PR 7559 #1 - North Side #4 - House SITE ID: PR 7559
#2 - Northeast Pt. #5 - Pattison Lane Rd.
#3 - 6 Bellhouse #6 - LOT 17 Well

ANALYTICAL REPORT:

SPARCODE	PARAMETER		UNIT	MDL	MEDIA	WORKROUTE	TIME
04502480	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	07:35
04512480	Coliform - Total - MF	9000	CFU/100ml	0	30/01	Membrane Filter Count-EL	07:35
04502480	Coliform - Fecal - MF	10	CFU/100ml	0	30/01	Membrane Filter Count-EL	07:40
04512480	Coliform - Total - MF	1000	CFU/100ml	0	30/01	Membrane Filter Count-EL	07:40
04502480	Coliform - Fecal - MF	10	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:08
04512480	Coliform - Total - MF	1200	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:08
04502480	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:50
04512480	Coliform - Total - MF	3200	CFU/100ml	0	30/01	Membrane Filter Count-EL	08:50
04502480	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:00
04512480	Coliform - Total - MF	4600	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:00
04502480	Coliform - Fecal - MF	0	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:25
04512480	Coliform - Total - MF	1700	CFU/100ml	0	30/01	Membrane Filter Count-EL	09:25

Sample State: Waste Water Sample Type: Regular
Sampled on : 94/02/16 07:35 07:40 09:08 08:50 09:00 09:25

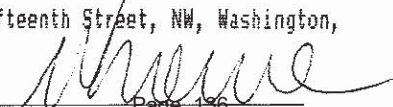
REMARKS:

MFC agar - sterile Rinse water - sterile Positive control - good growth Negative control - no growth
EC - sterile LTB - sterile Membrane filter - sterile

METHODOLOGY:

Methods used by JR Laboratories Inc. are based upon those found in "Standard Methods for the Examination of Water and Wastewater", 18th Edition, published by the American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005, or on ENV 93.

INSPECTION &/OR ANALYSIS HAS BEEN PERFORMED USING GOOD
LABORATORY PRACTICE AND PROCEDURES. JR. LABORATORIES
LIABILITY IS LIMITED TO THE TESTING FEE PAID.

Analyst 

Page 136

#12 - 3871 North Fraser Way, Burnaby, B.C. V5J 5G6
Telephone: (604) 432-9311 Fax: (604) 432-7768

11/16/1993 12:05:27PM M. B. RESEARCH/LABS

P1

JIM TRUEIT

09/02/93

W17322

GALIANO ISLAND, B.C.

closed dump site

water/effluent

1

Sample: combined from: Mrs Ward/BeHouse/Usher/Pond Dhouse/Usher/Pond House
02Sep93

Elements	Sample	Units	Maximum Limits Permissible In Drinking Water*
1) Aluminum Al	0.043	mg/L	no limit listed
2) Antimony Sb	<0.020	mg/L	no limit listed
3) Arsenic As	<0.002	mg/L	0.050
4) Barium Ba	0.008	mg/L	1.000
5) Beryllium Be	<0.001	mg/L	no limit listed
6) Bismuth Bi	<0.005	mg/L	no limit listed
7) Boron B	0.083	mg/L	5.000
8) Cadmium Cd	<0.001	mg/L	0.005
9) Calcium Ca	34.73	mg/L	200.000
10) Chromium Cr	<0.003	mg/L	0.050
11) Cobalt Co	<0.005	mg/L	no limit listed
12) Copper Cu	0.019	mg/L	1.000
13) Gold Au	<0.004	mg/L	no limit listed
14) Iron Fe	0.383	mg/L	0.300
15) Lanthanum La	<0.002	mg/L	no limit listed
16) Lead Pb	<0.002	mg/L	0.010
17) Magnesium Mg	8.55	mg/L	50.000
18) Manganese Mn	0.205	mg/L	0.050
19) Molybdenum Mo	<0.003	mg/L	no limit listed
20) Nickel Ni	<0.005	mg/L	no limit listed
21) Phosphorous P	<0.065	mg/L	no limit listed
22) Potassium K	0.504	mg/L	no limit listed
23) Silicon Si	11.030	mg/L	no limit listed
24) Silver Ag	<0.003	mg/L	0.050
25) Sodium Na	37.7	mg/L	200.000
26) Strontium Sr	0.0049	mg/L	no limit listed
27) Titanium Ti	0.002	mg/L	no limit listed
28) Tungsten W	<0.030	mg/L	no limit listed
29) Vanadium V	<0.050	mg/L	no limit listed
30) Zinc Zn	0.020	mg/L	5.000
Hardness (mg/L CaCO3)	121.91	mg/L	75-150 mg/L = moderately hard
pH	8.66		

* As per Canadian or B.C. limits

Ministry of Environment - Water Quality Criteria, Report No. 80-9, 1980. Task Force
of the Canadian Council of Resource and Environment Ministers - Canadian Water Quality
Guidelines, March, 1987.

Comments:

Iron: high amounts of Iron can cause staining of laundry, porcelain and plumbing
fixtures; can produce an undesirable taste. Essential for health.

Manganese: not considered to be toxic; high amounts of Manganese can cause staining of
laundry, porcelain and plumbing fixtures; may produce an undesirable taste.

Analytical Chemist

M.B. LABS LTD
Fax: 656-0443

Client / Code

JIM TRUEIT
RR 1
Galliano Island, B.C.Date 09/13/93
Source Well
Type of Sample Water
No. of Samples 1

No. M17442

Comments Paid
Ph: 539-3460/539-3127

Sample: Well: Lot 17 Galliano Island

Elements	Sample	Units	Maximum Limits Permissible
			In Drinking Water*
1) Aluminum Al	0.414	mg/L	no limit listed
2) Antimony Sb	<0.020	mg/L	no limit listed
3) Arsenic As	<0.002	mg/L	0.050
4) Barium Ba	0.010	mg/L	1.000
5) Beryllium Be	<0.001	mg/L	no limit listed
6) Bismuth Bi	<0.005	mg/L	no limit listed
7) Boron B	0.147	mg/L	5.000
8) Cadmium Cd	<0.001	mg/L	0.005
9) Calcium Ca	36.250	mg/L	200.000
10) Chromium Cr	<0.003	mg/L	0.050
11) Cobalt Co	<0.005	mg/L	no limit listed
12) Copper Cu	0.014	mg/L	1.000
13) Gold Au	<0.004	mg/L	no limit listed
14) Iron Fe	0.600	mg/L	0.300
15) Lanthanum La	<0.002	mg/L	no limit listed
16) Lead Pb	<0.002	mg/L	0.010
17) Magnesium Mg	1.340	mg/L	50.000
18) Manganese Mn	0.028	mg/L	0.050
19) Molybdenum Mo	<0.003	mg/L	no limit listed
20) Nickel Ni	<0.005	mg/L	no limit listed
21) Phosphorous P	<0.065	mg/L	no limit listed
22) Potassium K	0.251	mg/L	no limit listed
23) Silicon Si	7.191	mg/L	no limit listed
24) Silver Ag	<0.003	mg/L	0.050
25) Sodium Na	43.5	mg/L	200.000
26) Strontium Sr	0.084	mg/L	no limit listed
27) Titanium Ti	0.026	mg/L	no limit listed
28) Tungsten W	<0.030	mg/L	no limit listed
29) Vanadium V	<0.050	mg/L	no limit listed
30) Zinc Zn	0.022	mg/L	5.000
Hardness (mg/L CaCO ₃)	96.0	mg/L	75-150 mg/L = moderately hard
pH	8.11		

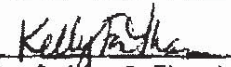
* As per Canadian or B.C. limits

Ministry of Environment - Water Quality Criteria, Report No. 80-9, 1980. Task Force of the Canadian Council of Resource and Environment Ministers - Canadian Water Quality Guidelines, March, 1987.

Comments:

Iron: high amounts of Iron can cause staining of laundry, porcelain and plumbing fixtures; can produce an undesirable taste. Essential for health.

Preparation: nitric acid digestion; elements reported as total not dissolved.


 Analytical Chemist


Client / Code

JIM TRUETT
RR 1
Galiano Island, B.C.

Date 09/13/93
Source Well
Type of Sample Water
No. of Samples 1

No. W17442

Comments Paid
Ph: 539-3460/539-3127

Sample: Wells: Lot 17 Galiano Island

Elements	Sample	Units	Maximum Limits Permissible
			In Drinking Water*
1) Aluminum Al	0.414	mg/L	no limit listed
2) Antimony Sb	<0.020	mg/L	no limit listed
3) Arsenic As	<0.002	mg/L	0.050
4) Barium Ba	0.010	mg/L	1.000
5) Beryllium Be	<0.001	mg/L	no limit listed
6) Bismuth Bi	<0.005	mg/L	no limit listed
7) Boron B	0.147	mg/L	3.000
8) Cadmium Cd	<0.001	mg/L	0.005
9) Calcium Ca	36.250	mg/L	200.000
10) Chromium Cr	<0.003	mg/L	0.050
11) Cobalt Co	<0.005	mg/L	no limit listed
12) Copper Cu	0.014	mg/L	1.000
13) Gold Au	<0.004	mg/L	no limit listed
14) Iron Fe	0.600	mg/L	0.300
15) Lanthanum La	<0.002	mg/L	no limit listed
16) Lead Pb	<0.002	mg/L	0.010
17) Magnesium Mg	1.540	mg/L	50.000
18) Manganese Mn	0.028	mg/L	0.050
19) Molybdenum Mo	<0.003	mg/L	no limit listed
20) Nickel Ni	<0.005	mg/L	no limit listed
21) Phosphorous P	<0.065	mg/L	no limit listed
22) Potassium K	0.251	mg/L	no limit listed
23) Silicon Si	7.191	mg/L	no limit listed
24) Silver Ag	<0.003	mg/L	0.050
25) Sodium Na	43.5	mg/L	200.000
26) Strontium Sr	0.084	mg/L	no limit listed
27) Titanium Ti	0.026	mg/L	no limit listed
28) Tungsten W	<0.030	mg/L	no limit listed
29) Vanadium V	<0.050	mg/L	no limit listed
30) Zinc Zn	0.022	mg/L	5.000
Hardness (mg/L CaCO ₃)	96.0	mg/L	75-150 mg/L = moderately hard
pH	8.11		

* As per Canadian or B.C. limits

Ministry of Environment - Water Quality Criteria, Report No. 80-9, 1980. Task Force of the Canadian Council of Resource and Environment Ministers - Canadian Water Quality Guidelines, March, 1987.

Comments:

Iron: high amounts of Iron can cause staining of laundry, porcelain and plumbing fixtures; can produce an undesirable taste. Essential for health.

Preparation: nitric acid digestion; elements reported as total not dissolved.

Kelly Taylor
Analytical Chemist



Client/Code

JIM TRUEIT

GALIANO ISLAND, B.C.

Date 09/02/93

No. W17322

Source closed dump site

Type of Sample water/effluent

No. of Samples 1

Comments

Sample: combined from: Mrs Ward/Behouse/Usher/Pond Dhouse/Usher/Pond House
02Sep93

Elements	Sample	Units	Maximum Limits Permissible In Drinking Water*
1) Aluminum Al	0.043	mg/L	no limit listed
2) Antimony Sb	<0.020	mg/L	no limit listed
3) Arsenic As	<0.002	mg/L	0.050
4) Barium Ba	0.008	mg/L	1.000
5) Beryllium Be	<0.001	mg/L	no limit listed
6) Bismuth Bi	<0.005	mg/L	no limit listed
7) Boron B	0.083	mg/L	5.000
8) Cadmium Cd	<0.001	mg/L	0.005
9) Calcium Ca	34.75	mg/L	200.000
10) Chromium Cr	<0.003	mg/L	0.050
11) Cobalt Co	<0.005	mg/L	no limit listed
12) Copper Cu	0.019	mg/L	1.000
13) Gold Au	<0.004	mg/L	no limit listed
14) Iron Fe	0.383	mg/L	0.300
15) Lanthanum La	<0.002	mg/L	no limit listed
16) Lead Pb	<0.002	mg/L	0.010
17) Magnesium Mg	8.55	mg/L	50.000
18) Manganese Mn	0.205	mg/L	0.050
19) Molybdenum Mo	<0.003	mg/L	no limit listed
20) Nickel Ni	<0.005	mg/L	no limit listed
21) Phosphorous P	<0.065	mg/L	no limit listed
22) Potassium K	0.504	mg/L	no limit listed
23) Silicon Si	11.030	mg/L	no limit listed
24) Silver Ag	<0.003	mg/L	0.050
25) Sodium Na	37.7	mg/L	200.000
26) Strontium Sr	0.0049	mg/L	no limit listed
27) Titanium Ti	0.002	mg/L	no limit listed
28) Tungsten W	<0.030	mg/L	no limit listed
29) Vanadium V	<0.050	mg/L	no limit listed
30) Zinc Zn	0.020	mg/L	5.000
Hardness (mg/L CaCO_3)	121.91	mg/L	75-150 mg/L = moderately hard
pH	8.66		

* As per Canadian or B.C. limits

Ministry of Environment - Water Quality Criteria, Report No. 80-9, 1980. Task Force
of the Canadian Council of Resource and Environment Ministers - Canadian Water Quality
Guidelines, March, 1987.

Comments:

Iron: high amounts of Iron can cause staining of laundry, porcelain and plumbing
fixtures; can produce an undesirable taste. Essential for health.

Manganese: not considered to be toxic; high amounts of Manganese can cause staining of
laundry, porcelain and plumbing fixtures; may produce an undesirable taste.

H. Martin
Analytical Chemist

