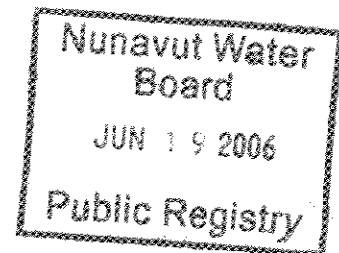




WOLFDEN
Resources Inc.



June 13, 2006

Mr. Philippe di Pizzo
Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0B 1J0

Dear Mr. di Pizzo:

Re: ULU WATER LICENSE NWB1ULU0008 – MAY 2006 SNP SAMPLING RESULTS

Pursuant to Schedule I – Part D, Item 1 of the above note license, and the Interim Water Management Plan requirements, find enclosed the analytical results for the water samples collected during May 2006.

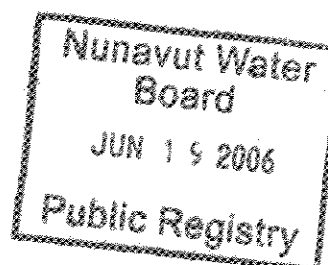
If you have any additional comments or questions I can be reached at the address indicated in the above, by telephone at (807) 346-2762 or email at dave.stevenson@wolfdenresources.com.

Yours truly,

David B. Stevenson, M.Sc., P.Geo.
Exploration Manager, Ulu
Wolfden Resources Inc.

Encl.

ALS Environmental



CERTIFICATE OF ANALYSIS

Date: June 9, 2006

ALS File No. X6436

Report On: ULU Water Analysis

Report To: **Wolfdan Resources Inc.**
401 - 1113 Jade Court
Thunder Bay, ON
P7B 6M7

Attention: **Mr. Dave Stevenson**

Received: May 29, 2006

ALS ENVIRONMENTAL

per:

A handwritten signature in black ink, appearing to read "Can Dang".

Can Dang, B.Sc. - Senior Account Manager
Janice Pearson, - Account Manager

File No. X6436

RESULTS OF ANALYSIS - Water



Sample ID	200-2	200-4	200-5A	200-5	200-3
Sample Date	06-05-29	06-05-29	06-05-29	06-05-29	06-05-29
Sample Time	11:45	12:45	12:30	12:45	
ALS ID	1	2	3	4	5

Physical Tests

Conductivity	(uS/cm)	62.7	69.3	69.5	20.4	240
Hardness	CaCO3	22.6	18.5	17.7	6.61	96.6
pH		6.88	7.00	6.90	6.75	7.64
Total Suspended Solids		9.1	<3.0	<3.0	<3.0	7.1

Dissolved Anions

Alkalinity-Total		CaCO3	3.2	5.4	4.6	2.6	26.0
Chloride	Cl		8.96	7.48	7.87	1.55	33.9
Sulphate	SO4		5.60	12.7	12.9	3.56	33.9

Nutrients

Ammonia Nitrogen	N	0.186	0.089	<0.020	<0.020	0.055
Nitrate Nitrogen	N	1.31	0.175	0.271	0.0251	0.412
Nitrite Nitrogen	N	0.0635	0.0011	0.0011	<0.0010	0.0245

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6436

RESULTS OF ANALYSIS - Water

Sample ID		200-2	200-4	200-5A	200-5	200-3
Sample Date		06-05-29	06-05-29	06-05-29	06-05-29	06-05-29
Sample Time		11:45	12:45	12:30	12:45	
ALS ID		1	2	3	4	5
Total Metals						
Aluminum	T-Al	0.443	0.0820	0.0582	0.0391	0.298
Antimony	T-Sb	0.00080	0.00088	0.00088	0.00093	0.00108
Arsenic	T-As	0.00314	<0.00050	<0.00050	<0.00050	0.00482
Barium	T-Ba	<0.020	<0.020	<0.020	<0.020	<0.020
Beryllium	T-Be	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	T-B	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	T-Cd	0.000355	0.000051	0.000044	0.000035	0.000052
Calcium	T-Ca	8.36	5.47	4.91	1.60	34.9
Chromium	T-Cr	<0.0010	<0.0010	<0.0010	<0.0010	0.0016
Cobalt	T-Co	0.00098	<0.00030	<0.00030	0.00040	0.00071
Copper	T-Cu	0.0049	0.0023	0.0020	0.0018	0.0048
Iron	T-Fe	1.00	0.082	<0.030	0.037	0.389
Lead	T-Pb	0.00655	<0.00050	<0.00050	<0.00050	0.00063
Lithium	T-Li	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium	T-Mg	0.94	1.29	1.44	0.72	2.62
Manganese	T-Mn	0.0316	0.0214	0.00268	0.0412	0.0232
Mercury	T-Hg	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum	T-Mo	<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Nickel	T-Ni	0.0018	0.0026	0.0017	0.0041	0.0016
Potassium	T-K	<2.0	<2.0	<2.0	<2.0	2.3
Selenium	T-Se	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver	T-Ag	0.000254	0.000072	0.000029	<0.000020	0.000029
Sodium	T-Na	2.9	4.9	5.7	<2.0	7.2
Thallium	T-Tl	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin	T-Sn	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium	T-Ti	0.017	<0.010	<0.010	<0.010	0.011
Uranium	T-U	0.00022	<0.00020	<0.00020	<0.00020	0.00066
Vanadium	T-V	<0.030	<0.030	<0.030	<0.030	<0.030
Zinc	T-Zn	0.0791	0.0074	0.0054	0.0119	<0.0050

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6436

RESULTS OF ANALYSIS - Water

Sample ID	200-2	200-4	200-5A	200-5	200-3
Sample Date	06-05-29	06-05-29	06-05-29	06-05-29	06-05-29
Sample Time	11:45	12:45	12:30	12:45	
ALS ID	1	2	3	4	5

Dissolved Metals

Aluminum	D-Al	0.0077	0.0519	0.0498	0.0188	0.0298
Antimony	D-Sb	0.00058	0.00066	0.00074	0.00065	0.00084
Arsenic	D-As	0.00081	<0.00050	<0.00050	<0.00050	0.00387
Barium	D-Ba	<0.020	<0.020	<0.020	<0.020	<0.020
Beryllium	D-Be	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	D-B	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	D-Cd	0.000326	0.000029	0.000041	0.000024	0.000031
Calcium	D-Ca	7.86	5.30	4.84	1.56	34.6
Chromium	D-Cr	<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Cobalt	D-Co	0.00036	<0.00030	<0.00030	<0.00030	<0.00030
Copper	D-Cu	0.0019	0.0021	0.0018	0.0016	0.0031
Iron	D-Fe	<0.030	<0.030	<0.030	<0.030	<0.030
Lead	D-Pb	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lithium	D-Li	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium	D-Mg	0.73	1.27	1.38	0.66	2.47
Manganese	D-Mn	0.0187	0.00651	0.00128	0.00812	0.00049
Mercury	D-Hg	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum	D-Mo	<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Nickel	D-Ni	<0.0010	0.0024	0.0016	0.0038	<0.0010
Potassium	D-K	<2.0	<2.0	<2.0	<2.0	2.3
Selenium	D-Se	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver	D-Ag	0.000128	0.000056	0.000041	<0.000020	0.000024
Sodium	D-Na	3.0	4.8	5.7	<2.0	7.1
Thallium	D-Tl	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin	D-Sn	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium	D-Ti	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	D-U	<0.00020	<0.00020	<0.00020	<0.00020	0.00057
Vanadium	D-V	<0.030	<0.030	<0.030	<0.030	<0.030
Zinc	D-Zn	0.0659	0.0063	<0.0050	0.0105	<0.0050

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6436

Appendix 1 - QUALITY CONTROL - Replicates



Water	200-3	200-3
	06-05-29	QC # 503476

Physical Tests

Conductivity	(uS/cm)	240	240
Hardness	CaCO ₃	96.6	100
pH		7.64	7.67

Dissolved Anions

Alkalinity-Total		CaCO ₃	26.0	26.5
Chloride	Cl		33.9	34.1
Sulphate	SO ₄		33.9	35.3

Nutrients

Ammonia Nitrogen	N	0.055	0.056
Nitrate Nitrogen	N	0.412	0.420
Nitrite Nitrogen	N	0.0245	0.0245

Results are expressed as milligrams per litre except where noted.
< = Less than the detection limit indicated.

File No. X6436

Appendix 1 - QUALITY CONTROL - Replicates



Water	200-3	200-3
	06-05-29	QC # 503476

Total Metals

Aluminum	T-Al	0.298	0.295
Antimony	T-Sb	0.00108	0.00093
Arsenic	T-As	0.00482	0.00481
Barium	T-Ba	<0.020	<0.020
Beryllium	T-Be	<0.0010	<0.0010
Boron	T-B	<0.10	<0.10
Cadmium	T-Cd	0.000052	0.000060
Calcium	T-Ca	34.9	35.2
Chromium	T-Cr	0.0016	0.0016
Cobalt	T-Co	0.00071	0.00069
Copper	T-Cu	0.0048	0.0048
Iron	T-Fe	0.389	0.403
Lead	T-Pb	0.00063	0.00064
Lithium	T-Li	<0.0050	<0.0050
Magnesium	T-Mg	2.62	2.66
Manganese	T-Mn	0.0232	0.0226
Mercury	T-Hg	<0.000020	<0.000020
Molybdenum	T-Mo	0.0012	0.0012
Nickel	T-Ni	0.0016	0.0016
Potassium	T-K	2.3	2.4
Selenium	T-Se	<0.0010	<0.0010
Silver	T-Ag	0.000029	<0.000020
Sodium	T-Na	7.2	7.4
Thallium	T-Tl	<0.00020	<0.00020
Tin	T-Sn	<0.00050	<0.00050
Titanium	T-Ti	0.011	<0.010
Uranium	T-U	0.00066	0.00065
Vanadium	T-V	<0.030	<0.030
Zinc	T-Zn	<0.0050	<0.0050

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6436

Appendix 1 - QUALITY CONTROL - Replicates



Water	200-3	200-3
	06-05-29	QC # 503476

Dissolved Metals

Aluminum	D-Al	0.0298	0.0314
Antimony	D-Sb	0.00084	0.00082
Arsenic	D-As	0.00387	0.00387
Barium	D-Ba	<0.020	<0.020
Beryllium	D-Be	<0.0010	<0.0010
Boron	D-B	<0.10	<0.10
Cadmium	D-Cd	0.000031	0.000028
Calcium	D-Ca	34.6	35.9
Chromium	D-Cr	0.0013	0.0011
Cobalt	D-Co	<0.00030	<0.00030
Copper	D-Cu	0.0031	0.0032
Iron	D-Fe	<0.030	<0.030
Lead	D-Pb	<0.00050	<0.00050
Lithium	D-Li	<0.0050	<0.0050
Magnesium	D-Mg	2.47	2.54
Manganese	D-Mn	0.00049	0.00050
Mercury	D-Hg	<0.000020	<0.000020
Molybdenum	D-Mo	0.0013	0.0013
Nickel	D-Ni	<0.0010	0.0010
Potassium	D-K	2.3	2.5
Selenium	D-Se	<0.0010	<0.0010
Silver	D-Ag	0.000024	<0.000020
Sodium	D-Na	7.1	7.4
Thallium	D-Tl	<0.00020	<0.00020
Tin	D-Sn	<0.00050	<0.00050
Titanium	D-Ti	<0.010	<0.010
Uranium	D-U	0.00057	0.00057
Vanadium	D-V	<0.030	<0.030
Zinc	D-Zn	<0.0050	<0.0050

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6436

Appendix 2 - METHODOLOGY



Outlines of the methodologies utilized for the analysis of the samples submitted are as follows

Conductivity in Water

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

Recommended Holding Time:

Sample: 28 days

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

pH in Water

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode.

Recommended Holding Time:

Sample: 2 hours

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Solids in Water

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total dissolved solids (TDS) and total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius, TSS is determined by drying the filter at 104 degrees celsius. Total solids are determined by evaporating a sample to dryness at 104 degrees celsius. Fixed and volatile solids are determined by igniting a dried sample residue at 550 degrees celsius.

Recommended Holding Time:

Sample: 7 days

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Alkalinity in Water by Colourimetry

This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method.

Recommended Holding Time:

File No. X6436

Appendix 2 - METHODOLOGY - Continued



Sample: 14 days
Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Dissolved Anions in Water by Ion Chromatography

This analysis is carried out using procedures adapted from APHA Method 4110 "Determination of Anions by Ion Chromatography" and EPA Method 300.0 "Determination of Inorganic Anions by Ion Chromatography". Anions are determined by filtering the sample through a 0.45 micron membrane filter and injecting the filtrate onto a Dionex IonPac AG17 anion exchange column with a hydroxide eluent stream. Anions routinely determined by this method include: bromide, chloride, fluoride, nitrate, nitrite and sulphate.

Recommended Holding Time:

Sample: 28 days (bromide, chloride, fluoride, sulphate)
Sample: 2 days (nitrate, nitrite)
Reference: APHA and EPA

Laboratory Location: ALS Environmental, Vancouver

Ammonia in Water by Selective Ion Electrode

This analysis is carried out, on sulphuric acid preserved samples, using procedures adapted from APHA Method 4500-NH₃ "Nitrogen (Ammonia)". Ammonia is determined using an ammonia selective electrode.

Recommended Holding Time:

Sample: 28 days
Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Metals in Water

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" 20th Edition 1998 published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotplate or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by atomic absorption/emission spectrophotometry (EPA Method 7000 series), inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B), and/or inductively coupled plasma - mass spectrometry (EPA Method 6020).

Recommended Holding Time:

Sample: 6 months

File No. X6436

Appendix 2 - METHODOLOGY - Continued



Reference: EPA

Laboratory Location: ALS Environmental, Vancouver

Mercury in Water

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" 20th Edition 1998 published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves a cold-oxidation of the acidified sample using bromine monochloride prior to reduction of the sample with stannous chloride. Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry (EPA Method 245.7).

Recommended Holding Time:

Sample: 28 days

Reference: EPA

Laboratory Location: ALS Environmental, Vancouver

Results contained within this certificate relate only to the samples as submitted.

This Certificate Of Analysis shall only be reproduced in full, except with the written approval of ALS Environmental.

End of Report



CERTIFICATE OF ANALYSIS

Date: June 13, 2006

ALS File No. X6704

Report On: Wolfden Resources
Water Analysis

Report To: **Wolfden Resources Inc.**
401 - 1113 Jade Court
Thunder Bay, ON
P7B 6M7

Attention: **Mr. Dave Stevenson**

Received: June 5, 2006

ALS ENVIRONMENTAL

per:

Janice Pearson, - Account Manager
Can Dang, B.Sc. - Senior Account Manager

File No. X6704

RESULTS OF ANALYSIS - Water



Sample ID	200-2	200-3	200-4	200-5	200-5A
Sample Date	06-05-31	06-05-31	06-05-31	06-05-31	06-05-31
Sample Time	10:39	11:14	11:30	11:45	12:05
ALS ID	1	2	3	4	5

Physical Tests

Conductivity	(uS/cm)	32.8	603	67.2	15.6	62.9
Hardness	CaCO3	8.99	135	17.5	6.08	15.7
pH		8.29	7.59	7.82	6.76	7.48
Total Suspended Solids		5.8	6.5	<3.0	<3.0	<3.0

Dissolved Anions

Alkalinity-Total		CaCO3	3.2	24.7	2.9	3.7	4.8
Chloride	Cl		3.51	105	7.56	0.66	7.57
Sulphate	SO4		4.96	55.5	10.9	2.66	10.8

Nutrients

Ammonia Nitrogen	N	0.190	2.99	0.028	<0.020	<0.020
Nitrate Nitrogen	N	0.229	9.95	0.193	0.0130	0.200
Nitrite Nitrogen	N	0.0165	0.946	0.0018	<0.0010	<0.0010

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6704

RESULTS OF ANALYSIS - Water

Sample ID		200-2	200-3	200-4	200-5	200-5A
Sample Date		06-05-31	06-05-31	06-05-31	06-05-31	06-05-31
Sample Time		10:39	11:14	11:30	11:45	12:05
ALS ID		1	2	3	4	5
Total Metals						
Aluminum	T-Al	0.248	0.317	0.0667	0.0534	0.0656
Antimony	T-Sb	0.00078	0.00115	0.00077	0.00076	0.00129
Arsenic	T-As	0.00113	0.00199	<0.00050	<0.00050	<0.00050
Barium	T-Ba	<0.020	0.047	<0.020	<0.020	<0.020
Beryllium	T-Be	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	T-B	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	T-Cd	0.000613	0.000149	0.000033	0.000022	0.000027
Calcium	T-Ca	2.85	46.5	5.14	1.30	4.39
Chromium	T-Cr	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	T-Co	0.00049	0.00145	<0.00030	<0.00030	<0.00030
Copper	T-Cu	0.0031	0.0035	0.0022	0.0028	0.0022
Iron	T-Fe	0.337	0.422	0.063	0.045	<0.030
Lead	T-Pb	0.00158	0.00084	<0.00050	<0.00050	<0.00050
Lithium	T-Li	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium	T-Mg	0.63	4.55	1.23	0.72	1.25
Manganese	T-Mn	0.0277	0.0456	0.0155	0.0129	0.00322
Mercury	T-Hg	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum	T-Mo	<0.0010	0.0010	<0.0010	<0.0010	<0.0010
Nickel	T-Ni	0.0013	0.0052	0.0022	0.0031	0.0017
Potassium	T-K	<2.0	4.3	<2.0	<2.0	<2.0
Selenium	T-Se	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver	T-Ag	<0.000020	<0.000020	<0.000020	<0.000020	0.000021
Sodium	T-Na	2.1	35.3	5.1	<2.0	5.3
Thallium	T-Tl	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin	T-Sn	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium	T-Ti	<0.010	0.012	<0.010	<0.010	<0.010
Uranium	T-U	0.00023	0.00029	<0.00020	<0.00020	<0.00020
Vanadium	T-V	<0.030	<0.030	<0.030	<0.030	<0.030
Zinc	T-Zn	0.0166	0.0099	0.0054	0.0090	0.0051

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

File No. X6704

RESULTS OF ANALYSIS - Water

Sample ID	200-2	200-3	200-4	200-5	200-5A
Sample Date	06-05-31	06-05-31	06-05-31	06-05-31	06-05-31
Sample Time	10:39	11:14	11:30	11:45	12:05
ALS ID	1	2	3	4	5

Dissolved Metals

Aluminum	D-Al	0.0096	0.0262	0.0370	0.0424	0.0499
Antimony	D-Sb	0.00077	0.00091	0.00067	0.00052	0.00073
Arsenic	D-As	<0.00050	0.00140	<0.00050	<0.00050	<0.00050
Barium	D-Ba	<0.020	0.045	<0.020	<0.020	<0.020
Beryllium	D-Be	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	D-B	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	D-Cd	0.000598	0.000101	0.000027	0.000027	0.000029
Calcium	D-Ca	2.73	46.7	5.01	1.28	4.28
Chromium	D-Cr	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	D-Co	<0.00030	0.00068	<0.00030	<0.00030	<0.00030
Copper	D-Cu	0.0020	0.0021	0.0020	0.0024	0.0020
Iron	D-Fe	<0.030	<0.030	<0.030	<0.030	<0.030
Lead	D-Pb	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lithium	D-Li	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium	D-Mg	0.53	4.45	1.21	0.70	1.22
Manganese	D-Mn	0.0196	0.0300	0.00541	0.00613	0.00175
Mercury	D-Hg	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum	D-Mo	<0.0010	0.0011	<0.0010	<0.0010	<0.0010
Nickel	D-Ni	0.0010	0.0030	0.0022	0.0029	0.0016
Potassium	D-K	<2.0	4.1	<2.0	<2.0	<2.0
Selenium	D-Se	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver	D-Ag	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Sodium	D-Na	2.4	35.6	4.8	<2.0	5.1
Thallium	D-Tl	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin	D-Sn	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium	D-Ti	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	D-U	<0.00020	0.00023	<0.00020	<0.00020	<0.00020
Vanadium	D-V	<0.030	<0.030	<0.030	<0.030	<0.030
Zinc	D-Zn	0.0101	<0.0050	0.0051	0.0088	<0.0050

Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

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Appendix 1 - METHODOLOGY



Outlines of the methodologies utilized for the analysis of the samples submitted are as follows

Conductivity in Water

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

Recommended Holding Time:

Sample: 28 days

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

pH in Water

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode.

Recommended Holding Time:

Sample: 2 hours

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Solids in Water

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total dissolved solids (TDS) and total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius, TSS is determined by drying the filter at 104 degrees celsius. Total solids are determined by evaporating a sample to dryness at 104 degrees celsius. Fixed and volatile solids are determined by igniting a dried sample residue at 550 degrees celsius.

Recommended Holding Time:

Sample: 7 days

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Alkalinity in Water by Colourimetry

This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method.

Recommended Holding Time:

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Appendix 1 - METHODOLOGY - Continued



Sample: 14 days
Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Dissolved Anions in Water by Ion Chromatography

This analysis is carried out using procedures adapted from APHA Method 4110 "Determination of Anions by Ion Chromatography" and EPA Method 300.0 "Determination of Inorganic Anions by Ion Chromatography". Anions are determined by filtering the sample through a 0.45 micron membrane filter and injecting the filtrate onto a Dionex IonPac AG17 anion exchange column with a hydroxide eluent stream. Anions routinely determined by this method include: bromide, chloride, fluoride, nitrate, nitrite and sulphate.

Recommended Holding Time:

Sample: 28 days (bromide, chloride, fluoride, sulphate)
Sample: 2 days (nitrate, nitrite)
Reference: APHA and EPA

Laboratory Location: ALS Environmental, Vancouver

Ammonia in Water by Selective Ion Electrode

This analysis is carried out, on sulphuric acid preserved samples, using procedures adapted from APHA Method 4500-NH₃ "Nitrogen (Ammonia)". Ammonia is determined using an ammonia selective electrode.

Recommended Holding Time:

Sample: 28 days
Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Metals in Water

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" 20th Edition 1998 published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotplate or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by atomic absorption/emission spectrophotometry (EPA Method 7000 series), inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B), and/or inductively coupled plasma - mass spectrometry (EPA Method 6020).

Recommended Holding Time:

Sample: 6 months

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Appendix 1 - METHODOLOGY - Continued



Reference: EPA

Laboratory Location: ALS Environmental, Vancouver

Mercury in Water

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" 20th Edition 1998 published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves a cold-oxidation of the acidified sample using bromine monochloride prior to reduction of the sample with stannous chloride. Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry (EPA Method 245.7).

Recommended Holding Time:

Sample: 28 days

Reference: EPA

Laboratory Location: ALS Environmental, Vancouver

Results contained within this certificate relate only to the samples as submitted.

This Certificate Of Analysis shall only be reproduced in full, except with the written approval of ALS Environmental.

End of Report