



CERTIFICATE OF ANALYSIS

Date: May 24, 2005
ALS File No. V7959
Report On: 40692 Water Analysis
Report To: **Gartner Lee Ltd.**
2251 2nd Ave
Whitehorse, YT
Y1A 5W1
Attention: **Mr. Martin Guilbeault**
Received: May 10, 2005

ALS ENVIRONMENTAL

per:

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File No. V7959

REMARKS



Please note that the detection limits for certain Metals have been increased for some of the samples reported in the following data tables due to sample matrix interferences.

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RESULTS OF ANALYSIS - Water



Sample ID		BH12A	BH 12 A R	BH 12B	BH 13 A
ALS ID		1	2	3	4
Physical Tests					
Conductivity	(uS/cm)	1290	1290	1250	1000
Hardness	CaCO3	742	737	705	511
pH		7.94	8.03	7.96	7.89
Dissolved Anions					
Alkalinity-Total		200	67.3	201	124
Sulphate	SO4	475	469	451	406
Dissolved Metals					
Aluminum	D-Al	<0.020	<0.020	<0.020	<0.020
Antimony	D-Sb	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	D-As	<0.0020	<0.0020	<0.0020	<0.0020
Barium	D-Ba	0.044	0.045	0.043	0.025
Beryllium	D-Be	<0.0050	<0.0050	<0.0050	<0.0050
Boron	D-B	<0.10	<0.10	<0.10	<0.10
Cadmium	D-Cd	0.00029	0.00029	0.00027	<0.00010
Calcium	D-Ca	160	160	148	136
Chromium	D-Cr	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	D-Co	<0.0010	<0.0010	<0.0010	<0.0010
Copper	D-Cu	<0.0040	<0.0040	<0.0040	0.0069
Iron	D-Fe	<0.030	<0.030	<0.030	<0.030
Lead	D-Pb	<0.0020	<0.0020	<0.0020	<0.0020
Lithium	D-Li	<0.050	<0.050	<0.050	<0.050
Magnesium	D-Mg	83.1	82.3	81.4	41.8
Manganese	D-Mn	<0.010	<0.010	<0.010	<0.010
Mercury	D-Hg	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	D-Mo	<0.0020	<0.0020	<0.0020	0.0049
Nickel	D-Ni	0.011	0.011	0.011	<0.010
Selenium	D-Se	0.0027	0.0029	0.0022	<0.0020
Silver	D-Ag	<0.00010	<0.00010	<0.00010	<0.00010
Sodium	D-Na	6.6	7.0	6.7	14.3
Thallium	D-Tl	<0.00040	<0.00040	<0.00040	<0.00040
Titanium	D-Ti	<0.050	<0.050	<0.050	<0.050
Uranium	D-U	0.00643	0.00624	0.00661	0.00140
Vanadium	D-V	<0.030	<0.030	<0.030	<0.030
Zinc	D-Zn	0.171	0.175	0.187	0.0091

Remarks regarding the analyses appear at the beginning of this report.
 Results are expressed as milligrams per litre except where noted.
 < = Less than the detection limit indicated.

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

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:

Sample: 14 days

Reference: APHA

Laboratory Location: ALS Environmental, Vancouver

Sulphate in Water

This analysis is carried out using procedures adapted from APHA Method 4500-SO4 "Sulphate". Sulphate is determined using the turbidimetric method.

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
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.

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End of Report