

**APPENDIX D**

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**Wastewater Sample Results**



CASH CLIENTS - WINNIPEG  
ATTN: JOEL  
Whiteshell Colony  
River Hills MB R0E 1T0

Date Received: 12-JUL-13  
Report Date: 18-JUL-13 15:48 (MT)  
Version: FINAL

Client Phone: 204-340-5716

## Certificate of Analysis

**Lab Work Order #:** L1331694  
Project P.O. #: Paid \$31.00 by MC 16-Jul-13 CR  
Job Reference: WHITESHELL COLONY LAGOON  
C of C Numbers:  
Legal Site Desc:

*Paul Nicolas*

Paul Nicolas  
Account Manager

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ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721  
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

# ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1331694-1 WHITESHELL COLONY Sampled By: CLIENT on 11-JUL-13 @ 10:30 Matrix: Sewage/Waste Water <b>Miscellaneous Parameters</b> Phosphorus (P)-Total	2.76		0.010	mg/L		18-JUL-13	R2651860

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

## Reference Information

### Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.

\*\* ALS test methods may incorporate modifications from specified reference methods to improve performance.

*The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:*

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

### Chain of Custody Numbers:

### GLOSSARY OF REPORT TERMS

*Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.*

*mg/kg - milligrams per kilogram based on dry weight of sample*

*mg/kg wwt - milligrams per kilogram based on wet weight of sample*

*mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight*

*mg/L - unit of concentration based on volume, parts per million.*

*< - Less than.*

*D.L. - The reporting limit.*

*N/A - Result not available. Refer to qualifier code and definition for explanation.*

*Test results reported relate only to the samples as received by the laboratory.*

*UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.*

*Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.*





CASH CLIENTS - WINNIPEG  
ATTN: JOEL  
Whiteshell Colony  
River Hills MB R0E 1T0

Date Received: 12-JUL-13  
Report Date: 18-JUL-13 15:48 (MT)  
Version: FINAL

Client Phone: 204-340-5716

## Certificate of Analysis

**Lab Work Order #:** L1331700  
Project P.O. #: PAID \$31.00 by MC 16-JUL-13  
Job Reference:  
C of C Numbers:  
Legal Site Desc:

*Paul Nicolas*

Paul Nicolas  
Account Manager

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ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

# ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1331700-1 WHITESHELL COLONY - JUST BEFORE WHITEMOUTH RIVER Sampled By: CLIENT on 11-JUL-13 @ 16:30 Matrix: Sewage/Waste Water <b>Miscellaneous Parameters</b> Phosphorus (P)-Total	1.49		0.010	mg/L		18-JUL-13	R2651860

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

## Reference Information

**Test Method References:**

ALS Test Code	Matrix	Test Description	Method Reference**
P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.

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**Chain of Custody Numbers:**
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Date: 24-JUL-13

PO No.: CLIENT PAID \$31 BY CHEQUE

WO No.: L1334543

Project Ref:

Sample ID: WHITESHELL COLONY

Sampled By:

Date Collected: 18-JUL-13

Lab Sample ID: L1334543-1

Matrix: water

CASH CLIENTS - WINNIPEG

N/A

RIVER HILLS MB R0E 1T0

ATTN: WHITESHELL COLONY

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Phosphorus (P)-Total	2.37		mg/L			24-JUL-13
<p><b>CDWQG = Health Canada Guideline Limits updated</b></p> <p>* CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L &lt; or N.D. = less than detection limit.            * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality            - A blank entry designates no known limit.            - A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.</p>						
<p>Approved by <u>Chantal Bouchard</u>            Chantal Bouchard            Account Manager</p>						

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## Guidelines & Objectives

### Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N*	Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.
Lead*	A cumulative body poison, uncommon in naturally occurring hard waters.
Fluoride*	Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).
Total Coliforms*	Criteria is 0 CFU/100mL. Adverse health effects.
E. Coli*	Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.

\*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

### Aesthetic Objective Concentration Levels

Alkalinity	Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.
Balance	Quality control parameter ratioing cations to anions
Bicarbonate	See Alkalinity. Report as the anion HCO <sub>3</sub> -1
Carbonate	See Alkalinity. Reported at the anion CO <sub>3</sub> -2
Calcium	See Hardness. Common major cation of water chemistry.
Chloride	Common major anion of water chemistry.
Conductance	Physical test measuring water salinity (dissolved ions or solids)
Hardness	Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.
Hydroxide	See alkalinity
Magnesium	See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.
pH	Measure of water acidity/alkalinity. Normal range is 7.0-8.5.
Potassium	Common major cation of water chemistry.
Sodium	Common major cation of water chemistry. Measure of salinity (saltiness).
Sulphate	Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.
Total Dissolved Solids	A measure of water salinity.
Iron	Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.
Manganese	Elevated levels may cause staining of laundry and porcelain.
Heterotrophic Plate Count	Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

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CASH CLIENTS - WINNIPEG  
ATTN: N/A  
Whiteshell Colony  
River Hills MB R0E 1T0

Date Received: 26-JUL-13  
Report Date: 30-JUL-13 14:28 (MT)  
Version: FINAL

Client Phone: 204-340-5716

## Certificate of Analysis

**Lab Work Order #:** L1338634  
**Project P.O. #:** Client paid \$62.00 for this and L1338636  
**Job Reference:** WHITESHELL COLONY  
**C of C Numbers:**  
**Legal Site Desc:**

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Chantal Bouchard  
Account Manager

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## Reference Information

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Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

### Chain of Custody Numbers:

### GLOSSARY OF REPORT TERMS

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Environmental Division



WORK ORDER NO: L1338634

**FOR LABORATORY USE**

Sample Condition Upon R

Frozen  Cold  Ambient

COMMENT:

TABLE

LAB NO.:

DATE RECEIVED: July 26/13

TIME RECEIVED: 11:10

BY: GH 15.9°C

Date Sampled: July 26/2013 Time: 8:30 A.M.  P.M.

Date Required:

Location: Whiteshell Colony  
(Town, Community, City)

Submitter's Name Printed:

Community Code Number:

Sample Submitted By:

Rural Municipality/LGC/UVD:

**SAMPLE TYPE**

**DRINKING WATER**

- Untreated Well
- Treated Well
- Treated Municipal
- Non-Treated Municipal
- Water-Surface-Raw
- Water-Surface-Treated

**PLEASE PRINT & PRESS FIRMLY**

**NON-DRINKING WATER**

- Sewage/Waste Water
- Lake/River
- Swimming Pool
- Whirl Pool
- Other

**NOTES & CONDITIONS**

1. Quote number must be provided to insure proper pricing.
2. Failure to properly complete all portions of this form may delay analysis.
3. ALS's liability limited to cost of analysis.

**SERVICE REQUESTED**

- REGULAR  PRIORITY  EMERGENCY  
(50% SURCHARGE) (100% SURCHARGE)

PURPOSE OF TEST  
 Private  Real Estate  Water Main

LAB NUMBER	SAMPLE IDENTIFICATION	ALS CUSTOMER #:	QUOTE #:
	<u>Almost Empty - at discharge</u>		
<b>REPORT TO BE SENT TO</b>			
		NAME: <u>Whiteshell colony</u>	
		COMPANY: <u>Whiteshell colony</u>	
		ADDRESS: <u>Whiteshell colony</u>	
		CITY/TOWN: <u>River Hills</u> / PROV.: <u>MB</u>	
		POSTAL CODE: <u>R0E 1T0</u>	
		PHONE: <u>204-340-5716</u>	
		BY: MAIL <input type="checkbox"/> FAX <input type="checkbox"/>	
		PICKUP <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> <u>ypelo@whiteshellcolony.com</u>	(EMAIL ADDRESS)
		CC NAME:	
		ADDRESS:	
		CITY/TOWN: / PROV.:	
		POSTAL CODE:	
		PHONE:	
		BY: MAIL <input type="checkbox"/> FAX <input type="checkbox"/>	
		PICKUP <input type="checkbox"/> E-MAIL <input type="checkbox"/>	(EMAIL ADDRESS)

Analyses required total Phosphorous analysis

**BILLING ADDRESS** SAME AS REPORT TO

NAME: \_\_\_\_\_  
COMPANY: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY/TOWN: \_\_\_\_\_ / PROV.: \_\_\_\_\_  
POSTAL CODE: \_\_\_\_\_

**SAMPLING INSTRUCTIONS ON REVERSE SIDE**

**Manitoba Technology Centre Ltd.**  
Part of the **ALS Laboratory Group**  
12 - 1329 Niakwa Rd. E., Winnipeg, MB Canada R2J 3T4  
Phone: +1 204 255 9720 Fax: +1 204 255 9721 www.alsglobal.com  
A Campbell Brothers Limited Company

**PAYMENT PARTICULARS**

INVOICE NEEDED / CLIENT'S P.O. NO. \_\_\_\_\_  
 INTERAC  
 CASH Subtotal \$ \_\_\_\_\_  
 CHEQUE # 090 G.S.T. \$ \_\_\_\_\_  
 VISA / MASTERCARD Total \$ 31.00

\* OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT

SUBMITTER COPY

ENTERED IN LIMS BY: \_\_\_\_\_





CASH CLIENTS - WINNIPEG  
ATTN: N/A  
Whiteshell Colony  
River Hills MB R0E 1T0

Date Received: 26-JUL-13  
Report Date: 30-JUL-13 14:29 (MT)  
Version: FINAL

Client Phone: 204-340-5716

## Certificate of Analysis

**Lab Work Order #:** L1338636  
**Project P.O. #:** Client paid see L1338634  
**Job Reference:** WHITESHELL COLONY  
**C of C Numbers:**  
**Legal Site Desc:**

---

Chantal Bouchard  
Account Manager

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# ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1338636-1 WHITESHELL COLONY - ALMOST EMPTY - AT WHITEMOUTH RIVER Sampled By: CLIENT on 26-JUL-13 @ 09:30 Matrix: Water <b>Miscellaneous Parameters</b> Phosphorus (P)-Total	1.15		0.010	mg/L		30-JUL-13	R2660537

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

## Reference Information

### Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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