



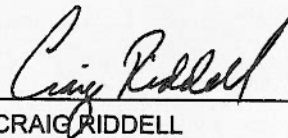
Assiniboine Injections Ltd. (Notre Dame De
Lourdes)
ATTN: RON JAMAULT
Box 160
126 Notre Dame Ave W.
Notre Dame De Lourdes MB R0G 1M0

Date Received: 12-SEP-12
Report Date: 21-SEP-12 11:26 (MT)
Version: FINAL

Client Phone: 204-248-2559

Certificate of Analysis

Lab Work Order #: L1208107
Project P.O. #: NOT SUBMITTED
Job Reference: STANLEY
C of C Numbers:
Legal Site Desc:



CRAIG RIDDELL
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

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
L1208107-1 BIOSOLIDS FROM RM OF STANLEY PRIMARY LAGOON							
Sampled By: ron jamault on 12-SEP-12 @ 10:00							
Matrix: soil							
Miscellaneous Parameters							
% Moisture	57.9		0.10	%	20-SEP-12	20-SEP-12	R2439747
Available Nitrate-N	<4.0	DLM	4.0	mg/kg	20-SEP-12	20-SEP-12	R2439971
Available Phosphate-P	97.8		1.0	mg/kg	18-SEP-12	18-SEP-12	R2437989
Loss on Ignition @ 550 C	17		1	%	18-SEP-12	19-SEP-12	R2439060
Mercury (Hg)-Total	0.217		0.050	mg/kg	14-SEP-12	17-SEP-12	R2437977
Total Organic Nitrogen	0.613		0.020	%		20-SEP-12	
pH and EC (1:2 Soil:Water Extraction)							
Conductivity (1:2)	2.58		0.050	dS m-1	20-SEP-12	20-SEP-12	R2439736
pH (1:2 soil:water)	8.12		0.10	pH	20-SEP-12	20-SEP-12	R2439736
Metals							
Antimony (Sb)	4.34		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Arsenic (As)	6.30		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Barium (Ba)	393		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Beryllium (Be)	0.34		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Bismuth (Bi)	25.8		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Boron (B)	17		10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Cadmium (Cd)	2.38		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Calcium (Ca)	43000		100	mg/kg	14-SEP-12	14-SEP-12	R2436853
Cesium (Cs)	0.478		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Chromium (Cr)	26.0		1.0	mg/kg	14-SEP-12	14-SEP-12	R2436853
Cobalt (Co)	4.78		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Copper (Cu)	293		1.0	mg/kg	14-SEP-12	14-SEP-12	R2436853
Iron (Fe)	10900		25	mg/kg	14-SEP-12	14-SEP-12	R2436853
Lead (Pb)	38.4		0.20	mg/kg	14-SEP-12	14-SEP-12	R2436853
Magnesium (Mg)	11200		10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Manganese (Mn)	726		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Molybdenum (Mo)	11.7		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Nickel (Ni)	22.9		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Phosphorus (P)	8410		100	mg/kg	14-SEP-12	14-SEP-12	R2436853
Potassium (K)	2230		25	mg/kg	14-SEP-12	14-SEP-12	R2436853
Rubidium (Rb)	8.90		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Selenium (Se)	4.32		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Silver (Ag)	0.67		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Sodium (Na)	2800		10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Strontium (Sr)	151		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Tellurium (Te)	<0.10		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Thallium (Tl)	0.16		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Tin (Sn)	23.9		5.0	mg/kg	14-SEP-12	14-SEP-12	R2436853
Titanium (Ti)	31.0		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Tungsten (W)	1.11		0.050	mg/kg	14-SEP-12	14-SEP-12	R2436853
Uranium (U)	6.81		0.020	mg/kg	14-SEP-12	14-SEP-12	R2436853
Vanadium (V)	29.1		0.50	mg/kg	14-SEP-12	14-SEP-12	R2436853
Zinc (Zn)	774		10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Zirconium (Zr)	2.32		0.10	mg/kg	14-SEP-12	14-SEP-12	R2436853
Solid Manure Package MS1							
Total N in Solid Manure -as rec'd							
Total Nitrogen	4.06		0.10	lbs/ton	19-SEP-12	19-SEP-12	R2440131
Total P,K & S - solid manure- as rec'd							
Phosphorus (P)	3.28		0.40	lbs/ton	19-SEP-12	19-SEP-12	R2439076
Potassium (K)	2.56		0.40	lbs/ton	19-SEP-12	19-SEP-12	R2439076
Sulfur (S)	3.33		0.40	lbs/ton	19-SEP-12	19-SEP-12	R2439076

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1208107-1 BIOSOLIDS FROM RM OF STANLEY PRIMARY LAGOON							
Sampled By: ron jamault on 12-SEP-12 @ 10:00							
Matrix: soil							
Total Organic Nitrogen - Soil							
Available Ammonium-N	803	DLM	1.6	mg/kg	19-SEP-12	19-SEP-12	R2439197
Available Ammonium-N							
Total Kjeldahl Nitrogen							
Total Kjeldahl Nitrogen	0.693		0.020	%	20-SEP-12	20-SEP-12	R2440059

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

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLM	Detection Limit Adjusted For Sample Matrix Effects

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
---------------	--------	------------------	--------------------

ETL-N-TOTORG-CALC-SK	Soil	Nitrogen, Total Organic - calculation	APHA 4500 Norg-Calculated as TKN - NH3-N
----------------------	------	---------------------------------------	--

HG-200.2-CVAF-WP	Soil	Mercury Total	EPA 7470A Rev 1,1994
------------------	------	---------------	----------------------

A hydrochloric acid/nitric acid and potassium persulphate block digestion is employed to oxidize the organomercury to inorganic mercury. After digestion, samples are analyzed using cold vapour techniques.

LOI-550-SK	Soil	Loss on Ignition @ 550 C	CSSS (1993) p.461-462
------------	------	--------------------------	-----------------------

The sample is air dried at 40C overnight, then ground to < 2mm in particle size using a flail grinder. A portion of the dried and ground sample is dried at 105C overnight, then ignited at 550C for 16-20 hours. Loss on ignition at 550C is reported on a dry sample basis.

Carter, Martin. Soil Sampling and Methods of Analysis. Can. Soc. Soil Sci.(1993) method 44.3.3

MET-200.2-MS-WP	Soil	Metals	EPA 200.8/200.2 /BCMOE-S
-----------------	------	--------	--------------------------

This analysis is carried out using procedures adapted from US EPA method 200.2. Sample preparation procedure for spectrochemical determination of total recoverable elements. Soil samples are dried (<60 C) and homogenized and a representative subsample of the dry material is digested. The digested samples are analyzed by ICPMS.

The results are reported as mg/Kg dry weight or mg/Kg wet weight this is equivalent to ug/g dry weight or ug/g wet weight.

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that maybe environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not mobile in the environment. This method has known stability issues for determining Silicon.

MOIST-AG-SK	Manure	% Moisture in Solid Manure	ASTM D2216-80
-------------	--------	----------------------------	---------------

N-TOT-LECO-AG-SK	Manure	Total N in Solid Manure -as rec'd	RMMA A3769 3.3
------------------	--------	-----------------------------------	----------------

The sample is introduced into a quartz tube where it undergoes combustion at 900 C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. This mixture of N2, CO2, and H2O is then passed through an absorber column containing magnesium perchlorate to remove water. N2 and CO2 gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:

Reference: Wolf, A., Watson, M. and Nancy Wolf. 2005. In: John Peters(ed.) Recommended Methods for Manure Analysis. Method 3.3

N-TOTKJ-COL-SK	Soil	Total Kjeldahl Nitrogen	CSSS (1993) 22.2.3
----------------	------	-------------------------	--------------------

The soil is digested with sulfuric acid in the presence of CuSO4 and K2SO4 catalysts. Ammonia in the soil extract is determined colorimetrically at 660 nm.

NH4-AVAIL-SK	Soil	Available Ammonium-N	CSSS(1993) 4.2/COMM SOIL SCI 19(6)
--------------	------	----------------------	------------------------------------

Ammonium (NH4-N) is extracted from the soil using 2 N KCl. Ammonium in the extract is mixed with hypochlorite and salicylate to form indophenol blue, which is determined colorimetrically by auto analysis at 660 nm.

NO3-AVAIL-SK	Soil	Available Nitrate-N	Method = Alberta Ag (1988)
--------------	------	---------------------	----------------------------

Available Nitrate and Nitrite are extracted from the soil using a dilute calcium chloride solution.

Nitrate is quantitatively reduced to nitrite by passage of the sample through a copperized cadmium column. The nitrite (reduced nitrate plus original nitrite) is then determined by diazotizing with sulfanilamide followed by coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. The resulting water soluble dye has a magenta color which is measured at colorimetrically at 520nm.

Reference:

Recommended Methods of Soil Analysis for Canadian Prairie Agricultural Soils. Alberta Agriculture (1988) p. 19 and 28

NUTR-PART-AG-SK	Manure	Total P,K & S - solid manure- as rec'd	SSSA (1996) P.931
-----------------	--------	--	-------------------

PH,EC-1:2-SK	Soil	pH and EC (1:2 Soil:Water Extraction)	CSSC 3.13/CSSS 18.3.1
--------------	------	---------------------------------------	-----------------------

1 part dry soil and 2 parts de-ionized water (by volume) is mixed. The slurry is allowed to stand with occasional stirring for 30 - 60 minutes. After equilibration, pH of the slurry is measured using a pH meter. Conductivity of the filtered extract is measured by a conductivity meter.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
PO4-AVAIL-OLSEN-SK	Soil	Available Phosphate-P by Olsen	CSSS (1993) 7.2.7.3.1
Plant available phosphorus is extracted from the sample with sodium bicarbonate. PO4-P in the filtered extract is determined colorimetrically at 880 nm.			

** 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
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA
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.

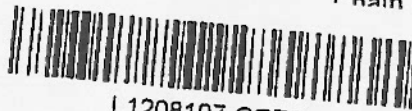
N/A - Result not available. Refer to qualifier code and definition for explanation.

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.

Environmental Division



L1208107-COFC

INFO: (204) 255 9739
: (204) 255 9740 OR (204) 255 9737

ORDER NO:

NO: L1208107

DATE RECEIVED: Sept 12

TIME RECEIVED: 11:30 AM

BY: SA

FOR LABORATORY USE ONLY (SHADED AREAS)

Sample Condition Upon Receipt: ACCEPTABLE NON ACCEPTABLE

Frozen Cold Ambient Broken Leakage Incorrect Sample Container

COMMENT:

Date Sampled: Sept 12 Time: 10:00 A.M. P.M.

Date Required: Within 2 weeks 18.4°C

Location: E. of Stanley
(Town, Community, City)

Submitter's Name Printed: Assiniboine Injections

Sample Submitted By: Ken Jamall

Community Code Number:

Rural Municipality/LGC/UVD: E. of Stanley

SAMPLE TYPE

DRINKING WATER

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

PURPOSE OF TEST

- Private Real Estate Water Main

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 (50% SURCHARGE) EMERGENCY (100% SURCHARGE)

LAB NUMBER	SAMPLE IDENTIFICATION	ALS CUSTOMER #:	QUOTE #:
	Biosolids from E. of Stanley primary lagoon	W10296	
		REPORT TO BE SENT TO	
		NAME: Ken Jamall	
		COMPANY: Assiniboine Injections	
		ADDRESS: Box 130	
		CITY/TOWN: Kylewell / PROV.: Man.	
		POSTAL CODE: R0C 1S0	
		PHONE: 204-248-2555	
		BY: MAIL <input type="checkbox"/> FAX <input type="checkbox"/>	
		PICKUP <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> (FAX NUMBER) (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"/> (FAX NUMBER) (EMAIL ADDRESS)	

* Report on Dry wt Basis MS1-AG-SK *

Analyses required

- Hg-200 Z-CVAF-WP
- PH, EC-1 Z-SK Met-200.2-ms-WP
- LoI-550-SK, ETL-N-TUTORC-CALC-SK
- MOIST-AG-SK, N-TOT-LECU-AG-SK
- N-TOT-ORG-SK, N-TOTKS-SK, NIT4-Avail
- NO3-Avail-SK, NUTR-PART-AG-SK
- PO4-Avail-olsen-SK, prep-dry/gravel-SK

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

BILLING ADDRESS

SAME AS REPORT TO

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

PAYMENT PARTICULARS

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

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

ENTERED IN LIMS BY:

Environmental Division



L1208107-COFC

Chain of Custody / Analytical Request Form
INFO: (204) 255 9739
(204) 255 9740 OR (204) 255 9737

FOR LABORATORY USE ONLY (SHADED AREAS)

Sample Condition Upon Receipt: ACCEPTABLE NON ACCEPTABLE
 Frozen Cold Ambient Broken Leakage Incorrect Sample Container

ORDER NO:

NO.: L1208107

DATE RECEIVED: Sept 12/12
TIME RECEIVED: 11:30 AM
BY: SA

Date Sampled: Sept 12 Time: 10:00 A.M. P.M.

Date Required: Within 2 weeks 18.4°C

Location: S.M. of Stanley
(Town, Community, City)

Submitter's Name Printed: Assiniboine Injection

Sample Submitted By: Ken Jamault
Rural Municipality/LGC/UVD: R.M. of Stanley

Community Code Number:

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

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

SERVICE REQUESTED

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

PURPOSE OF TEST

- Private Real Estate Water Main

LAB NUMBER	SAMPLE IDENTIFICATION	ALS CUSTOMER #:	QUOTE #:
	Biosolids from End of Stanley primary lagoon	W10276	
		NAME: Ken Jamault	REPORT TO BE SENT TO
		COMPANY: Assiniboine Injection	
		ADDRESS: Box 126	
		CITY/TOWN: Raynham, PROV: Man.	
		POSTAL CODE: R0G 1S0	
		PHONE: 204-248-2555	
		BY: MAIL <input type="checkbox"/> FAX <input type="checkbox"/>	
		PICKUP <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> (FAX NUMBER)	
			(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"/>	(FAX NUMBER)
			(EMAIL ADDRESS)

* Report on Dry wt basis
MSI-AG-SK *

Analyses required Hg-200, Z-CVAF-WD
EL-12-SK Met-200, 2-MS-WD
LoE-550-SK, ETL-N-TOTRG-CALC-SK
MOIST-AG-SK, N-TOT-LECC-AG-SK
N-TOT-ORG-SK, N-TOTKS-SK, NH4-Avail-SK
SS-AVAL-SK, NUTR-PART-AG-SK

SAMPLING INSTRUCTIONS ON REVERSE SIDE

Manitoba Technology Centre Ltd
Part of the ALS Laboratory Group
1229 Mainway Rd. Winnipeg, MB R2H 1A1
204-255-9739 www.alsglobal.com

BILLING ADDRESS SAME AS REPORT TO

NAME:
COMPANY:
ADDRESS:
CITY/TOWN: / PROV:
POSTAL CODE:

PAYMENT PARTICULARS

- INVOICE NEEDED / CLIENT'S P.O. NO.
 INTERAC
 CASH
 CHEQUE
 VISA MASTERCARD

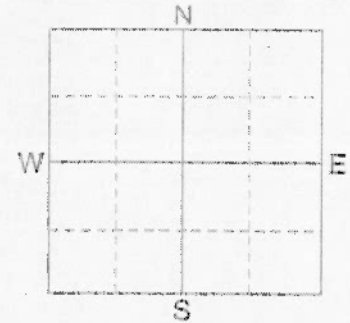
ENTERED IN LIMS BY:



Soil Analysis by **Agvise Laboratories**
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **GEORGE FROESE**
 SAMPLE ID **NORTH 80**
 FIELD NAME
 COUNTY **05**
 TWP **02**
 SECTION **14** QTR **SW** ACRES **80**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
RM OF STANLEY

SUBMITTED BY: **KR3239**
KR CROP CHECK LIMITED
12085 RD 23 W (DICKE
BOX 240
WINKLER, MB **R6W 4A5**

REF # **14041226** BOX # **0**
 LAB # **NW71056**

Date Sampled **09/10/2012**

Date Received **09/11/2012**

Date Reported **9/20/2012**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High	YIELD GOAL		YIELD GOAL		YIELD GOAL			
Nitrate	0-6" 18 lb/ac					[Dropdown]		[Dropdown]		[Dropdown]			
	0-24" 32 lb/ac					[Input]		[Input]		[Input]			
						[Dropdown]		[Dropdown]		[Dropdown]			
Phosphorus	Olsen 11 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Potassium	220 ppm					N		N		N			
Chloride	0-24" 676 lb/ac					P ₂ O ₅		P ₂ O ₅		P ₂ O ₅			
						K ₂ O		K ₂ O		K ₂ O			
Sulfur	0-6" 120 +lb/ac					Cl		Cl		Cl			
	0-24" 480 +lb/ac					S		S		S			
Boron	3.3 ppm					B		B		B			
Zinc	0.78 ppm					Zn		Zn		Zn			
Iron	15.1 ppm					Fe		Fe		Fe			
Manganese	2.1 ppm					Mn		Mn		Mn			
Copper	0.96 ppm					Cu		Cu		Cu			
Magnesium	1175 ppm					Mg		Mg		Mg			
Calcium	5822 ppm					Lime		Lime		Lime			
Sodium	400 ppm												
Org.Matter	4.1 %												
Carbonate(CCE)	2.7 %												
Sol. Salts	0-6" 1.79 mmho/cm					Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
	0-24" 1.61 mmho/cm					0-6" 7.6		41.2 meq	% Ca	% Mg	% K	% Na	% H
									(65-75) 70.6	(15-20) 23.8	(1-7) 1.4	(0-5) 4.2	(0-5)

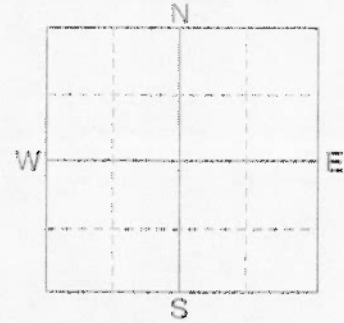
General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)



Soil Analysis by Agvise Laboratories
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **ED KRAHN**
 SAMPLE ID **SOUTH 80**
 FIELD NAME
 COUNTY **5**
 TWP **2**
 SECTION **14** QTR **SW** ACRES **80**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
RM OF STANLEY

SUBMITTED BY: KR3239
KR CROP CHECK LIMITED
12085 RD 23 W (DICKE
BOX 240
WINKLER, MB **R6W 4A5**

REF # **14041227** BOX # **0**
 LAB # **NW88176**

Date Sampled **09/20/2012** Date Received **09/20/2012** Date Reported **9/24/2012**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
Depth	Concentration	Very Low Low Med High	YIELD GOAL	YIELD GOAL	YIELD GOAL	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES
0-6"	6 lb/ac	**						
0-24"	12 lb/ac							
Nitrate								
Phosphorus	Olsen 9 ppm	*****	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
Potassium	417 ppm	*****	N		N		N	
Chloride	0-24" 308 lb/ac	*****	P ₂ O ₅		P ₂ O ₅		P ₂ O ₅	
Sulfur	0-6" 86 lb/ac 0-24" 480 +lb/ac	*****	K ₂ O		K ₂ O		K ₂ O	
Boron	2.3 ppm	*****	Cl		Cl		Cl	
Zinc	1.39 ppm	*****	S		S		S	
Iron	42.6 ppm	*****	B		B		B	
Manganese	4.5 ppm	*****	Zn		Zn		Zn	
Copper	2.52 ppm	*****	Fe		Fe		Fe	
Magnesium	1566 ppm	*****	Mn		Mn		Mn	
Calcium	5851 ppm	*****	Cu		Cu		Cu	
Sodium	149 ppm	*****	Mg		Mg		Mg	
Org. Matter	5.8 %	*****	Lime		Lime		Lime	
Carbonate(CCE)	0.3 %	**	Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)		
Sol. Salts	0-6" 0.5 mmho/cm 0-24" 2.49 mmho/cm	*****	0-6" 7.4		44.0 meq	% Ca	% Mg	% K
						(65-75) 66.5	(15-20) 29.6	(1-7) 2.4
						(0-5) 1.5	(0-5) 1.5	(0-5) 1.5

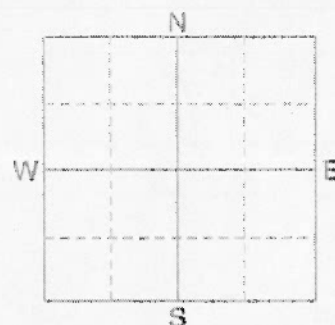
General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)



Soil Analysis by **Aqvis Laboratories**
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **HAZEL WIEBO**
 SAMPLE ID **NORTH 60**
 FIELD NAME
 COUNTY **05**
 TWP **02**
 SECTION **11** QTR **NE** ACRES **60**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
RM OF STANLEY

SUBMITTED BY: **KR3239**
KR CROP CHECK LIMITED
12085 RD 23 W (DICKE
BOX 240
WINKLER, MB **R6W 4A5**

REF # **14041223** BOX # **0**
 LAB # **NW71054**

Date Sampled **09/10/2012**

Date Received **09/11/2012**

Date Reported **9/20/2012**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High	YIELD GOAL		YIELD GOAL		YIELD GOAL			
Nitrate	0-6" 11 lb/ac					[Dropdown]		[Dropdown]		[Dropdown]			
	0-24" 12 lb/ac	**				0 [] []		0 [] []		0 [] []			
						SUGGESTED GUIDELINES [Dropdown]		SUGGESTED GUIDELINES [Dropdown]		SUGGESTED GUIDELINES [Dropdown]			
Phosphorus	Olsen 22 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Potassium	573 ppm	*****				N		N		N			
Chloride	0-24" 312 lb/ac	*****				P ₂ O ₅		P ₂ O ₅		P ₂ O ₅			
	0-6" 58 lb/ac	*****				K ₂ O		K ₂ O		K ₂ O			
Sulfur	0-24" 480 +lb/ac	*****				Cl		Cl		Cl			
						S		S		S			
Boron	2.2 ppm	*****				B		B		B			
Zinc	1.56 ppm	*****				Zn		Zn		Zn			
Iron	47.2 ppm	*****				Fe		Fe		Fe			
Manganese	10.2 ppm	*****				Mn		Mn		Mn			
Copper	3.18 ppm	*****				Cu		Cu		Cu			
Magnesium	1474 ppm	*****				Mg		Mg		Mg			
Calcium	4833 ppm	*****				Lime		Lime		Lime			
Sodium	155 ppm	*****											
Org.Matter	5.8 %	*****											
Carbonate(CCE)	0.4 %	**											
Sol. Salts	0-6" 0.58 mmho/cm	*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
	0-24" 2.73 mmho/cm	*****							% Ca	% Mg	% K	% Na	% H
						0-6" 6.7		38.6 meq	(65-75) 62.6	(15-20) 31.8	(1-7) 3.8	(0-5) 1.7	(0-5)

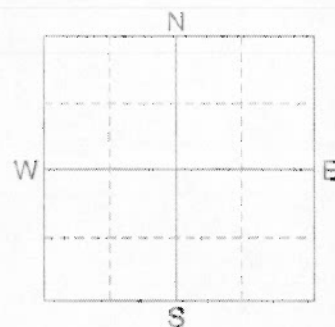
General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)



Soil Analysis by Agvise Laboratories
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **GEORGE FROESE**
 SAMPLE ID **NORTH 80**
 FIELD NAME
 COUNTY **05**
 TWP **02**
 SECTION **14** QTR **SW** ACRES **80**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
RM OF STANLEY

SUBMITTED BY: **KR3239**
KR CROP CHECK LIMITED
12085 RD 23 W (DICKE
BOX 240
WINKLER, MB **R6W 4A5**

REF # **14041226** BOX # **0**
 LAB # **NW71056**

Date Sampled **09/10/2012** Date Received **09/11/2012** Date Reported **9/20/2012**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow	Low	Med	High	YIELD GOAL		YIELD GOAL		YIELD GOAL		
Nitrate	0-6" 18 lb/ac	*****				0		0		0		
	0-24" 32 lb/ac					SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Phosphorus	Olsen 11 ppm	*****				N		N		N		
Potassium	220 ppm	*****				P ₂ O ₅		P ₂ O ₅		P ₂ O ₅		
Chloride	0-24" 676 lb/ac	*****				K ₂ O		K ₂ O		K ₂ O		
Sulfur	0-6" 120 +lb/ac	*****				Cl		Cl		Cl		
	0-24" 480 +lb/ac	*****				S		S		S		
Boron	3.3 ppm	*****				B		B		B		
Zinc	0.78 ppm	*****				Zn		Zn		Zn		
Iron	15.1 ppm	*****				Fe		Fe		Fe		
Manganese	2.1 ppm	*****				Mn		Mn		Mn		
Copper	0.96 ppm	*****				Cu		Cu		Cu		
Magnesium	1175 ppm	*****				Mg		Mg		Mg		
Calcium	5822 ppm	*****				Lime		Lime		Lime		
Sodium	400 ppm	*****				Soil pH		% Base Saturation (Typical Range)				
Org.Matter	4.1 %	*****				Buffer pH	Cation Exchange Capacity	% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)	2.7 %	*****				0-6" 7.6	41.2 meq	(65-75) 70.6	(15-20) 23.8	(1-7) 1.4	(0-5) 4.2	(0-5)
Sol. Salts	0-6" 1.79 mmho/cm 0-24" 1.61 mmho/cm	*****										

General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)