

Report Transmission Cover Page

Bill To: The Black Dirt Company
300 Saskatchewan Ave
Spruce Grove, AB, Canada

Attn: Charlene Hinkel

Sampled By:
Company:

Project:
ID:
Name:
Location:
LSD:
P.O.:
Acct code:

Lot ID: **1207263**
Control Number: C0084827
Date Received: Jun 9, 2017
Date Reported: Jun 20, 2017
Report Number: 2197089

Contact & Affiliation	Address	Delivery Commitments
Charlene Hinkel The Black Dirt Company	300 Saskatchewan Ave, Spruce Grove, Alberta Phone: (780) 962-8220 Fax: (780) 962-8215 Email: charlene.hinkel@blackdirtcompany.com	On [Lot Verification] send (COA) by Email - Single Report On [Report Approval] send (Test Report, COC) by Email - Merge Reports On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report

Notes To Clients:

- Weed Seed analysis was performed by a subcontract laboratory. See attached one page report ROA1026941-01.

Analytical Report

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project: ID: Name: Location: LSD: P.O.: Acct code:	Lot ID: 1207263 Control Number: C0084827 Date Received: Jun 9, 2017 Date Reported: Jun 20, 2017 Report Number: 2197089
Attn: Charlene Hinkel		
Sampled By:		
Company:		

Analyte	Matrix	Units	Reference Number	Reference Number	Reference Number	Nominal Detection Limit
			1207263-1	1207263-2	1207263-3	
Metals Strong Acid Digestion						
Boron	Saturated Paste	mg/L	<0.5	0.15	0.24	0.05
Antimony	Strong Acid Extractable	mg/kg	0.2	0.3	0.2	0.2
Arsenic	Strong Acid Extractable	mg/kg	4.6	8.9	5.5	0.2
Barium	Strong Acid Extractable	mg/kg	95	166	137	1
Beryllium	Strong Acid Extractable	mg/kg	0.3	0.7	0.3	0.1
Cadmium	Strong Acid Extractable	mg/kg	0.22	0.25	0.39	0.01
Chromium	Strong Acid Extractable	mg/kg	6.7	14.7	8.5	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.9	8.9	6.4	0.1
Copper	Strong Acid Extractable	mg/kg	17.3	16.8	20.7	1
Lead	Strong Acid Extractable	mg/kg	5.0	10.4	6.7	0.1
Mercury	Strong Acid Extractable	mg/kg	<0.05	<0.05	<0.05	0.05
Molybdenum	Strong Acid Extractable	mg/kg	<1.0	<1.0	<1.0	1
Nickel	Strong Acid Extractable	mg/kg	9.7	21.3	13.3	0.5
Selenium	Strong Acid Extractable	mg/kg	0.3	0.7	0.4	0.3
Silver	Strong Acid Extractable	mg/kg	<0.1	0.1	<0.1	0.1
Thallium	Strong Acid Extractable	mg/kg	0.08	0.15	0.11	0.05
Tin	Strong Acid Extractable	mg/kg	<1.0	<1.0	<1.0	1
Uranium	Strong Acid Extractable	mg/kg	0.6	1.7	0.6	0.5
Vanadium	Strong Acid Extractable	mg/kg	12.3	26.2	16.3	0.1
Zinc	Strong Acid Extractable	mg/kg	51	79	70	1
Physical and Aggregate Properties						
Texture			Sandy Loam	Loam	Sandy Loam	
Sand	50 µm - 2 mm	% by weight	70	25	62	0.1
Silt	2 µm - 50 µm	% by weight	21	49	28	0.1
Clay	<2 µm	% by weight	9	26	10	0.1
Salinity						
% Saturation		%	60	68	56	
Soil Acidity						
pH	1:2 Soil:Water	pH	6.7	7.3	5.0	
Electrical Conductivity	1:2 Soil:Water	dS/m at 25 °C	1.42	0.37	0.14	0.01
Water Soluble Parameters						
Chromium (VI)	Dry Weight	mg/kg	<0.1	<0.1	<0.1	0.1
Clubroot Analysis						
Plasmodiophora brassicae	Clubroot Pathogen	spores/g	<1000	<1000	<1000	1000

Analytical Report

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project: ID: Name: Location: LSD: P.O.: Acct code:	Lot ID: 1207263 Control Number: C0084827 Date Received: Jun 9, 2017 Date Reported: Jun 20, 2017 Report Number: 2197089
Attn: Charlene Hinkel Sampled By: Company:		

	Reference Number	1207263-1	1207263-2	1207263-3	
	Sample Date				
	Sample Time				
	Sample Location				
	Sample Description	Boundary Field Garden Mix	Grove Drive Topsoil	Boundary Field Topsoil	
	Matrix	Soil	Soil	Soil	
Analyte	Units	Results	Results	Results	Nominal Detection Limit
Subcontracted Analysis					
Subcontractor Report Id	Biovision	1026939-01	1026940-01	1026941-01	

Approved by: 
Anthony Neumann, MSc
Laboratory Operations Manager

Data have been validated by Analytical Quality Control and Exova's Integrated Data Validation System (IDVS).

Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

Methodology and Notes

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project: ID: Name: Location: LSD: P.O.: Acct code:	Lot ID: 1207263 Control Number: C0084827 Date Received: Jun 9, 2017 Date Reported: Jun 20, 2017 Report Number: 2197089
Attn: Charlene Hinkel Sampled By: Company:		

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
1:5 Water Soluble Extraction	APHA	* Colorimetric Method, 3500-Cr B	12-Jun-17	Exova Edmonton
1:5 Water Soluble Extraction	McKeague	* Soluble Salts in Extracts of 1:5 Soil:Water Mixtures, 3.23	12-Jun-17	Exova Edmonton
Clubroot	Plant Path	* Wallenhammer et al 2011. In-Field distribution of Plasmodiophora brassicae measured using real-time PCR., Plant Pathology	15-Jun-17	Exova Edmonton
Metals ICP (Hot Block) in soil	EPA	* Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements, October 1999, 200.2	12-Jun-17	Exova Edmonton
Metals ICP (Hot Block) in soil	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	12-Jun-17	Exova Edmonton
Particle Size Analysis - GS	Carter	* Hydrometer Method, 55.3	12-Jun-17	Exova Edmonton
pH and Conductivity in general soil 1:2	McKeague	* 1:2 Soil:Water Ratio, 4.12	12-Jun-17	Exova Edmonton
Saturated Paste in General Soil	Carter	* Electrical Conductivity and Soluble Ions, Chapter 15	12-Jun-17	Exova Edmonton
Sublet to Biovision	Ext. Lab	See attached test report,	09-Jun-17	Biovision Seed Research Ltd.

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
Carter	Soil Sampling and Methods of Analysis.
EPA	Environmental Protection Agency Test Methods - US
Ext. Lab	External Laboratory
McKeague	Manual on Soil Sampling and Methods of Analysis
Plant Path	Plant Pathology
Soil & Environ. Anal.	Soil and Environmental Analysis: Physical Methods
US EPA	US Environmental Protection Agency Test Methods

Comments:

- Weed Seed analysis was performed by a subcontract laboratory. See attached one page report ROA1026941-01.

Methodology and Notes

Bill To: The Black Dirt Company
300 Saskatchewan Ave
Spruce Grove, AB, Canada

Attn: Charlene Hinkel

Sampled By:

Company:

Project:
ID:
Name:
Location:
LSD:
P.O.:
Acct code:

Lot ID: **1207263**
Control Number: C0084827
Date Received: Jun 9, 2017
Date Reported: Jun 20, 2017
Report Number: 2197089

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.



Tested By: BioVision Seed Labs
Unit 310, 280 Portage Close
Sherwood Park, Alberta T8H 2R6
P 1 (780) 436-8822
CFIA Acc #1172

SENIOR MEMBER OF



161 HOSNA ARA BEGUM

Submitted By:

Exova (Calgary)
Bay #5, 2712 - 37 Avenue NE
Calgary, AB CA T1Y 5L3
P (403) 291-2022
E calgary@exova.com

Sample of: Soil
Designated: PO# 103450
Sample ID: 1207263-1, Boundary Field Garden Mix

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 6/14/2017	Method	OTH
-------------------------	----------------------	--------	------------

- pale Smartweed 1
- Chickweed 1
- Lamb's-quarters 1

Accredited by CFIA to conduct tests in accordance with the laboratory's scope of accreditation and the Canadian Methods and Procedures for Testing Seed.

BioVision Seed Research Ltd. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

*Advisory test -- Method not CFIA M&P prescribed.

Method(s) used for promoting germination of dormant seed.



Work Order 1026940-01
Received 6/13/2017 Completed 6/13/2017

Tested By: BioVision Seed Labs
Unit 310, 280 Portage Close
Sherwood Park, Alberta T8H 2R6
P 1 (780) 436-8822
CFIA Acc #1172

SENIOR MEMBER OF



141 JOYCE DARY

Submitted By:

Exova (Calgary)
Bay #5, 2712 - 37 Avenue NE
Calgary, AB CA T1Y 5L3
P (403) 291-2022
E calgary@exova.com

Sample of: Soil

Designated: PO# 103450

Sample ID: 1207263-2, Grove Drive Topsoil

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 6/13/2017	Method OTH
-------------------------	----------------------	-------------------

Lamb's-quarters 1

Accredited by CFIA to conduct tests in accordance with the laboratory's scope of accreditation and the Canadian Methods and Procedures for Testing Seed.

BioVision Seed Research Ltd. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

*Advisory test - - Method not CFIA M&P prescribed.

Method(s) used for promoting germination of dormant seed.



Work Order 1026941-01

Received 6/13/2017 Completed 6/14/2017

Tested By: BioVision Seed Labs
Unit 310, 280 Portage Close
Sherwood Park, Alberta T8H 2R6
P 1 (780) 436-8822
CFIA Acc #1172

SENIOR MEMBER OF



141 JOYCE DARY

Submitted By:

Exova (Calgary)
Bay #5, 2712 - 37 Avenue NE
Calgary, AB CA T1Y 5L3

P (403) 291-2022

E calgary@exova.com

Sample of: Soil

Designated: PO# 103450

Sample ID: 1207263-3, Boundary Field Topsoil

REPORT OF ANALYSIS

*Soil Seed Analysis 50g

Completed: 6/14/2017

Method

OTH

None Found 0

