

Report Transmission Cover Page

Bill To: The Black Dirt Company
300 Saskatchewan Ave
Spruce Grove, AB, Canada
Attn: Charlene Hinkel
Sampled By: Charlene Henkel
Company: The Black Dirt Company

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

Lot ID: **1484354**
Control Number:
Date Received: Apr 7, 2021
Date Reported: May 7, 2021
Report Number: 2620904

Contact	Company	Address
Accounts Payable	The Black Dirt Company	Box 3130 Spruce Grove, AB T7X 3A5 Phone: (780) 962-8220 Fax: (780) 962-8215 Email: info@blackdirtcompany.com
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
Email - Single Report	PDF	Invoice
Charlene Hinkel	The Black Dirt Company	300 Saskatchewan Ave Spruce Grove, AB Phone: (780) 962-8220 Fax: (780) 962-8215 Email: charlene.hinkel@blackdirtcompany.com
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
Email - Merge Reports	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	PDF	Invoice

Notes To Clients:

- Apr 12, 2021 - Weed seed analysis was performed by a subcontract laboratory. See attached 5 page report 1114468-01
- Apr 12, 2021 - Weed seed analysis was performed by a subcontract laboratory. See attached 1 page report 1114469-01
- Apr 12, 2021 - Weed seed analysis was performed by a subcontract laboratory. See attached 1 page report 1114470-01
- Apr 16, 2021 - Caution - Note for Clubroot analysis on identified samples: Although results are below the method detection limits (1000 spores/g), DNA amplification was measured, suggesting low concentrations of pathogen spores may be present. Caution should be taken with the results of this sample and confirmatory resampling is suggested.
- Apr 20, 2021 - Report was issued to include missed services :
PS1 service requested on sample(s) 1, 2, 3, 4, 5, 6, 7.
Previous report 2610405.
- May 07, 2021 - Report was reissued to report each sample on thier own report as requested by Charlene Hinkel
Previous report 2614789.

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Analytical Report

Bill To: The Black Dirt Company
300 Saskatchewan Ave
Spruce Grove, AB, Canada
Attn: Charlene Hinkel
Sampled By: Charlene Henkel
Company: The Black Dirt Company

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

Lot ID: **1484354**
Control Number:
Date Received: Apr 7, 2021
Date Reported: May 7, 2021
Report Number: 2620904

Reference Number 1484354-7
Sample Date Apr 07, 2021
Sample Time NA
Sample Location
Sample Description Golden Spike Rd
(Topsoil)
Matrix Soil

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Digestion					
Boron	Saturated Paste	mg/L	0.10		0.05
Antimony	Strong Acid Extractable	mg/kg	0.2		0.2
Arsenic	Strong Acid Extractable	mg/kg	5.9		0.2
Barium	Strong Acid Extractable	mg/kg	145		1
Beryllium	Strong Acid Extractable	mg/kg	0.4		0.1
Cadmium	Strong Acid Extractable	mg/kg	0.20		0.01
Chromium	Strong Acid Extractable	mg/kg	10.3		0.5
Cobalt	Strong Acid Extractable	mg/kg	6.4		0.1
Copper	Strong Acid Extractable	mg/kg	11.6		1
Lead	Strong Acid Extractable	mg/kg	7.2		0.1
Mercury	Strong Acid Extractable	mg/kg	<0.05		0.05
Molybdenum	Strong Acid Extractable	mg/kg	<1.0		1
Nickel	Strong Acid Extractable	mg/kg	15.8		0.5
Selenium	Strong Acid Extractable	mg/kg	0.4		0.3
Silver	Strong Acid Extractable	mg/kg	<0.10		0.1
Thallium	Strong Acid Extractable	mg/kg	0.11		0.05
Tin	Strong Acid Extractable	mg/kg	<1.0		1
Uranium	Strong Acid Extractable	mg/kg	1.3		0.5
Vanadium	Strong Acid Extractable	mg/kg	18.4		0.1
Zinc	Strong Acid Extractable	mg/kg	61		1
Physical and Aggregate Properties					
Texture			Loam		
Sand	50 µm - 2 mm	% by weight	42		0.1
Silt	2 µm - 50 µm	% by weight	40		0.1
Clay	<2 µm	% by weight	18		0.1
Salinity					
Electrical Conductivity	Saturated Paste	dS/m	0.94		0.01
SAR	Saturated Paste		0.4		
% Saturation		%	43		
Calcium	Saturated Paste	mg/kg	66.2		
Magnesium	Saturated Paste	mg/kg	9.5		
Sodium	Saturated Paste	mg/kg	8		
Potassium	Saturated Paste	mg/kg	3		
Chloride	Saturated Paste	mg/L	63		2
Chloride	Saturated Paste	mg/kg	27		
Sulfate (SO ₄)	Saturated Paste	mg/kg	124		
TGR	Saturated Paste	T/ac	<0.1		

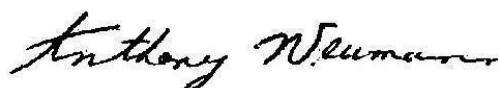
Analytical Report

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project ID: Project Name: Project Location:	Lot ID: 1484354 Control Number:
Attn: Charlene Hinkel	LSD:	Date Received: Apr 7, 2021
Sampled By: Charlene Henkel	P.O.:	Date Reported: May 7, 2021
Company: The Black Dirt Company	Proj. Acct. code:	Report Number: 2620904

Reference Number	1484354-7
Sample Date	Apr 07, 2021
Sample Time	NA
Sample Location	
Sample Description	Golden Spike Rd (Topsoil)
Matrix	Soil

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Soil Acidity					
pH	1:2 Soil:Water	pH	7.8		
pH	1:2 Soil:CaCl2 sol.	pH	7.1		
Electrical Conductivity	1:2 Soil:Water	dS/m at 25 °C	0.16		0.01
Water Soluble Parameters					
Chromium (VI)	Dry Weight	mg/kg	<0.05		0.05
Clubroot Analysis					
Plasmodiophora brassicae	Clubroot Pathogen	spores/g	7750		1000
Plasmodiophora brassicae	Detected/ Not Detected	spores/g	Detected		1000
Subcontracted Analysis					
Subcontractor Report Id	Biovision		1114468-01		

Approved by:



Anthony Neumann, MSc
General Manager

Data have been validated by Analytical Quality Control and Element'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	Project ID:	Lot ID: 1484354
300 Saskatchewan Ave	Project Name:	Control Number:
Spruce Grove, AB, Canada	Project Location:	Date Received: Apr 7, 2021
Attn: Charlene Hinkel	LSD:	Date Reported: May 7, 2021
Sampled By: Charlene Henkel	P.O.:	Report Number: 2620904
Company: The Black Dirt Company	Proj. Acct. code:	

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
1:5 Water Soluble Extraction	APHA	* Colorimetric Method, 3500-Cr B	Apr 8, 2021	Element Edmonton - Roper Road
1:5 Water Soluble Extraction	McKeague	* Soluble Salts in Extracts of 1:5 Soil:Water Mixtures, 3.23	Apr 8, 2021	Element Edmonton - Roper Road
Clubroot	Plant Path	* Wallenhammer et al 2012. In-Field distribution of Plasmodiophora brassicae measured using real-time PCR., Plant Pathology	Apr 16, 2021	Element Edmonton - Roper Road
Metals ICP (Hot Block) in soil	EPA	* Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements, October 1999, 200.2	Apr 8, 2021	Element Edmonton - Roper Road
Metals ICP (Hot Block) in soil	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Apr 8, 2021	Element Edmonton - Roper Road
Particle Size Analysis - GS	Carter	* Hydrometer Method, 55.3	Apr 21, 2021	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	McKeague	* 1:2 Soil:Water Ratio, 4.12	Apr 8, 2021	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	Soil & Environ. Anal.	* Particle Size Analysis, Direct Method, Chapter 7	Apr 8, 2021	Element Edmonton - Roper Road
pH by CaCl ₂ (1:2 ratio) in soil	McKeague	* pH in 0.01M Calcium Chloride, 3.11	Apr 8, 2021	Element Edmonton - Roper Road
Saturated Paste in General Soil	APHA	* Automated Ferricyanide Method, 4500-Cl-E	Apr 8, 2021	Element Edmonton - Roper Road
Saturated Paste in General Soil	Carter	* Electrical Conductivity and Soluble Ions, Chapter 15	Apr 8, 2021	Element Edmonton - Roper Road
Sublet to Biovision	Ext. Lab	See attached test report,	Apr 8, 2021	SGS Biovision

* 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:

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Methodology and Notes

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	300 Saskatchewan Ave	Project Name:		Control Number:	
	Spruce Grove, AB, Canada	Project Location:		Date Received:	Apr 7, 2021
Attn:	Charlene Hinkel	LSD:		Date Reported:	May 7, 2021
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Company:	The Black Dirt Company	Proj. Acct. code:			

PS1 service requested on sample(s) 1, 2, 3, 4, 5, 6, 7.

Previous report 2610405.

- May 07, 2021 - Report was reissued to report each sample on thier own report as requested by Charlene Hinkel
Previous report 2614789.

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.

Submitted By:

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Mississauga, ON CA L5K 1B3

P (905) 822-4111

E info.Edmonton@element.com

Tested By: SGS Canada Inc.

Unit 310, 280 Portage Close

Sherwood Park, Alberta T8H 2R6

P 1 (780) 436-8822

****** CFIA Acc #1172

Sample of: Soil

Designated: POC103611

Sample ID: 1484354-1

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/9/2021		Method OTH
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Lamb's-quarters 1

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

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

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

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Sample of: Soil

Designated: POC103611

Sample ID: 1484354-4

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/9/2021	Method	OTH
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Lamb's-quarters 2

Green Foxtail 1

Papaver (Poppy) spp. 1

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

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

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Sample of: Soil

Designated: POC103611

Sample ID: 1484354-5

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/9/2021	Method	OTH
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Lamb's-quarters 1

Barnyardgrass 1

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

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

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****** CFIA Acc #1172

Sample of: Soil

Designated: POC103611

Sample ID: 1484354-6

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/9/2021		Method OTH
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chickweed 1

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

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

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****** CFIA Acc #1172

Sample of: Soil

Designated: POC103611

Sample ID: 1484354-7

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/9/2021	Method	OTH
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Lamb's-quarters 2

Goosefoot 1

Cinquefoil 2

Sedge 1

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

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****** CFIA Acc #1172

Sample of: Soil

Designated: POC103611

Sample ID: 1484354-2

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/12/2021		Method OTH
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None Found 0

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

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

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****** CFIA Acc #1172

Sample of: Soil

Designated: POC103611

Sample ID: 1484354-3

ASSOCIATE MEMBER OF



A-065 JANEK BARTEL

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/12/2021		Method OTH
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None Found 0

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

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