Safety and Quality

2.0 Bike Specifications

BCycle 2.0 meets or exceeds all CPSC, ISO and EN bicycle standards

BCYCLE 2.0 CPSC TESTING CHECKLIST

Year	2017
Model	BCycle 2.0
Assembly location	GCM

(place 'X' in box to show pass)

BIKE ASSEMBLY CHECKLIST:

GENERAL:	
Assembly	
CPSC 1512.4(a)	**X**
CPSC 1512.4(b)	X
CPSC 1512.4(d)	X
CPSC 1512.4(g)	X
FRAMESET:	
Paint:	**X**
Frame/Fork Fit:	**X**
Shock/Linkage:	**NA**
Headset:	**NA**
ACCESSORIES:	
Rear Rack:	**NA**
Kickstand:	**X**
Other:	**X**

LITERATURE:	
Manual:	
CPSC 1512.19(a)	**X**
Other:	
CPSC 1512.19(b)(1)	X
CPSC 1512.19(b)(2)	X
CPSC 1512.19(c)(1)	X
CPSC 1512.19(c)(2)	X
CPSC 1512.19(e)	X

SEAT SUBASSEMBLY	
Seat Clamp:	
Seat:	
CPSC 1512.15(a)	X
Post:	
CPSC 1512.15(b)	X
CPSC 1512.15(c)	X

Insert photo of bike here

DRIVETRAIN:	
Derailleur, front:	
CPSC 1512.4(i)	NA
CPSC 1512.4(j)	NA
Bottom Bracket:	
Cranks:	
Chainline(mm)	N
BBshell width(mm)	73
BB length(mm)	120.0
Derailleur, rear:	
CPSC 1512.4(i)	X
CPSC 1512.4(j)	X
Chain:	
# links:	104
CPSC 1512.8	**X**
Brakes:	
Alignment Tool:	26

BRAKE ASSEMBLY:	
CPSC 1512.5(b(4))	X
CPSC 1512.5(a)	X
CPSC 1512.5(b(6))	X
CPSC 1512.5(b(8))	X
CPSC 1512.4(i)	X
CPSC 1512.4(j)	X
BB cable guide:	

FRAME/FORK:	
CPSC 1512.13	**X**
CPSC 1512.14	**X**

CONTROLS 1:	
Shifters:	
Brake Levers:	
CPSC 1512.5(b(3))	X
CPSC 1512.5(b(5))	X
Bar/Stem Fit:	
CPSC 1512.6(a)	**X**
CPSC 1512.6(c)	X

FOOTBRAKES	
CPSC 1512.5(c) 1	**NA**
CPSC 1512.5(c) 2	**NA**
CPSC 1512.5(c) 3	**NA**
CPSC 1512.5(c) 4	**NA**
CPSC 1512.5(d)	**NA**
CPSC 1512.5(e) 1	**NA**
CPSC 1512.5(e) 2	**NA**
CPSC 1512.5(e) 3	**NA**
WHEELS:	
Front wheel:	
CPSC 1512.11(a)	X
CPSC 1512.11(b)	X
CPSC 1512.11(c)	**X**
CPSC 1512.12(a)	X
CPSC 1512.12(a)(2)	**X**
CPSC 1512.12(b)	X
CPSC 1512.12(c)	**X**

WHEELS:	
Rear wheel:	
CPSC 1512.9(b)	X
CPSC 1512.11(a)	X
CPSC 1512.11(b)	X
CPSC 1512.12(a)	X
CPSC 1512.12(a)(1)	**X**
CPSC 1512.12(b)	X
CONTROLS 2:	
CPSC 1512.6 (b)	**X**
CPSC 1512.6 (e)	**X**
Grips:	
CPSC 1512.6(d)	X
Bar plugs:	**X**
Tape:	
Bar Ends:	**X**

OTHER:	
CPSC 1512.9 (a)	**X**
Reflectors:	
CPSC 1512.16	X
CPSC 1512.16(a)	X
CPSC 1512.16(b)	X
CPSC 1512.16(f)	X
CPSC 1512.16(c)	X
CPSC 1512.16(d)	X
CPSC 1512.16(e)	X
CPSC 1512.16(h)(1)	X
CPSC 1512.16(h)(2)	**X**
CPSC 1512.16(h)(3)	**X**
CPSC 1512.16(h)(4)	**X**
Pedals:	
CPSC 1512.7(c)	X
CPSC 1512.7(a)	X
CPSC 1512.7(b)	NA
Tires:	
CPSC 1512.10	**X**

FUNCTIONAL CHECK:	
Shiftabilty:	
Test Ride:	
CPSC 1512.17(a)	**X**
CPSC 1512.17(c)	**X**
CPSC 1512.17(d)	**X**
CPSC 1512.5(b(2))	X
CPSC 1512.4(c)	X
CPSC 1512.5(b)	X
CPSC 1512.5(b)(1)	**X**
CPSC 1512.17(b)	NA
MANUFACTURERS COC	
CPSC 1512.16(g)	**X**

SAFETY AND COMPLIANCE TESTING FOR BCYCLE LLC.

Tested Sample(s)	**:** Bike Share Bicycle
Brand	**:** BCycle
Model	**:** BCycle 2.0
Color	**:** White
Size	**:** 26”
Stock / Model Number	**:** P517415
Age Grading	**:** Adult
Children’s Product	**:** No

Prepared For:

BCycle LLC.
801 West Madison Street
Waterloo, Wisconsin 53594

Issue Date: 04 December 2015

<u>Final Report</u>: 50.0083.015

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

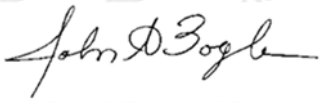
Contract File No.: 50.0083.015.001
T:\ACT Testing\ Trek – 50.0083.015
Control Document Rev. 10 January 2014

Technician: Robert Stetina

CONCLUSION

50.0083.015.001 – Trek, BCycle 2.0 (White), (SWTU194C6590K)		
Purpose of Test - Each test performed is intended to check compliance with the following:	**Result**	**Comment**
CPSC 16 CFR 1512 – Requirements for Bicycles	C	

President,



John A. Bogler

SAMPLE IDENTIFICATION

Brand:	BCycle	**Job No.:**	50.0083.015
Model:	BCycle 2.0	**Sample ID:**	50.0083.015.001
Manufacturer:	GCM	**Type:**	Bike Share Bicycle
Model No.:	BCycle 2.0 16.5 Wt	**Material:**	Not Specified
Stock No.:	P517415	**Size(in):**	26”
UPC:	601479369980	**Color(s):**	White
Serial No.:	SWTU194C6590K	**Weight (kg):**	22.44

50.0083.015.001 – BCycle 2.0 (White)

DATE AND PLACE OF TEST

Sample(s) received on : 11 November 2015
Testing was initiated on : 16 November 2015
Testing was completed on : 04 December 2015
Testing was performed at : ACT Lab LLC
Long Beach, CA

TEST METHODS

Method for each test conducted is as follows:

- CPSC 16 CFR 1512 test was performed according to the CPSC Bicycle Compliance Test Manual (1976) Requirements for Bicycles standard and all other standards referenced within.

TEST RESULTS

C: Compliant; Product meets specified standard **NC:** Non-Compliant; Product does not meet specified standard **NA:** Not Applicable to this design **NR:** Not Requested by the Applicant **NP:** Not Present	**ND:** None Detected **IC:** Inconclusive **NT:** Not Tested **FTR:** Further Testing Recommended **PPM:** Parts Per Million ***:** See Comments

CPSC 16 CFR 1512: BICYCLE TEST

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
1512.4	MECHANICAL REQUIREMENTS		
4(a)	Assembly	C	
4(b)	Sharp Edges	C	
4(c)	Integrity - 1512.18 (d),(e),(p),(q)	C	
4(d)	Attachment Hardware	C	
4(e)	"Reserved" - Protrusion Test	NA	
4(f)	"Reserved"	C	
4(g)	Excluded Area	C	
4(h)	"Reserved" - Screw Length	NA	
4(i)	Control Cable Ends - 1512.18 (c)	C	
4(j)	Control Cable Abrasions	C	
1512.5	REQUIREMENTS FOR BRAKING SYSTEM		
5(a)	Braking System	C	
5(b)	Handbrakes - 1512.18 (d)(2)(i), (iii)	C	
5(b)(1)	Stopping Distance - 1512.18 (d)(2)(v)	C	
5(b)(2)	Hand Lever Access	C	
5(b)(3)	Grip Dimension	C	
5(b)(4)	Attachment - 1512.18 (d)(2)(iii)	C	
5(b)(5)	Operating Force	C	
5(b)(6)	Pad and Pad Holders - 1512.18 (d)(2)(iii)	C	
5(b)(7)	"Reserved"	NA	
5(b)(8)	Hand Lever Location	C	
5(b)(9)	Hand Lever Extensions	NA	
5(c)	Footbrakes - 1512.18 (e)(2)	NA	
5(c)(1)	Stopping Distance - 1512.18 (e)(3)	NA	
5(c)(2)	Operating Force	NA	
5(c)(3)	Crank Differential	NA	
5(c)(4)	Independent Operation	NA	
5(d)	Footbrakes and Handbrakes - 1512.5 (c)	NA	
5(e)(1)	Sidewalk Bicycles shall not have handbrakes only	NA	
5(e)(2)	Sidewalk Bicycles seat height > 560 mm - 1512.5 (c), 1512.18 (f)	NA	

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
5(e)(3)	Sidewalk Bicycles seat height < 560 mm - 1512.18 (f)	NA	
1512.6	REQUIREMENTS FOR STEERING SYSTEM		
6(a)	Handlebar Stem Insertion Mark	NA	
6(b)	Handlebar Stem Strength - 1512.18 (g)	NT	
6(c)	Handlebar	C	
6(d)	Handlebar Ends - 1512.18 (c)	C	
6(e)	Handlebar and Clamps - 1512.18 (h)(1), (h)(2),1512.19(a)(2)	C	
1512.7	REQUIREMENTS FOR PEDALS		
7(a)	Construction	C	
7(b)	Toe Clips	NA	
7(c)	Pedal Reflectors - 1512.16 (e)	C	
1512.8	REQUIREMENTS FOR DRIVE CHAIN	C	
1512.9	REQUIREMENTS FOR PROTECTIVE GUARDS		
9(a)	Chain Guard	C	
9(b)	Derailleur Guard	NA	
1512.10	REQUIREMENT FOR TIRES	C	
1512.11	REQUIREMENTS FOR WHEELS		
11(a)	Spokes	C	
11(b)	Alignment	C	
11(c)	Rims - 1512.18(j)	C	
1512.12	REQUIREMENTS FOR WHEEL HUBS		
12(a)	Locking Devices	C	
12(a)(1)	Rear Wheels	C	
12(a)(2)	Front Wheels	NA	
12(b)	Quick-Release Devices	NA	
12(c)	Front Hubs - 1512.18 (j)(3)	NA	
1512.13	REQUIREMENTS FOR FRONT FORK - 1512.18 (k)(1)	C	
1512.14	REQUIREMENTS FOR FORK AND FRAME ASSEMBLY - 1512.18(k)(2)	C	
1512.15	REQUIREMENTS FOR SEAT		
15(a)	Seat Limitation	C	
15(b)	Seat Post	NA	
15(c)	Adjustment Clamps - 1512.18 (l)	C	
1512.16	REQUIREMENTS FOR REFLECTORS		

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
16(a)	Front, Rear, and Pedal Reflectors	C	
16(b)	Side Reflectors	C	
16(c)	Front Reflectors - 1512.18 (m)	C	
16(d)	Rear Reflectors - 1512.18 (m)	C	
16(e)	Pedal Reflectors	C	
16(f)	Side Reflectors	C	
16(g)	Reflector Tests - 1512.18 (n)	C	
16(h)	Retro-reflective Tire Sidewalls - 1512.18 (o), (r)	C	
16(i)	Retro-reflective Rims - 1512.18 (o)	C	
1512.17	OTHER REQUIREMENTS		
17(a)	Road Test - 1512.18 (p)	C	
17(b)	Sidewalk Bicycle Proof Test	NA	
17(c)	Ground Clearance	C	
17(d)	Toe Clearance	C	
1512.19	INSTRUCTIONS AND LABELING		
19(a)(1)	Operation and Safety Instructions	NA	
19(a)(2)	Assembly Instructions	NA	
19(a)(3)	Maintenance Instructions	NA	
19(b)(1)	List of Tools for Assembly	C	
19(b)(2)	Illustration of Minimum Leg Length	C	
19(c)	The Minimum Leg Length Dimension	C	
19(d)	"Reserved" - Label for 1976-1978	NA	
19(e)	Permanent Label - Manufacturer's Information	C	

****

END OF REPORT

SAFETY AND COMPLIANCE TESTING FOR BCYCLE LLC.

Tested Sample(s)	**:** Bike Share Bicycle
Brand	**:** BCycle
Model	**:** BCycle 2.0
Color	**:** White
Size	**:** 26”
Stock / Model Number	**:** P517415
Age Grading	**:** Adult
Children’s Product	**:** No

Prepared For:

BCycle LLC.
801 West Madison Street
Waterloo, Wisconsin 53594

Issue Date: 16 December 2015

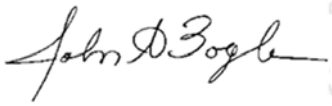
<u>Final Report</u>: 50.0082.015

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

CONCLUSION

(50.0082.015.001) – Trek, BCycle 2.0 (White), (SWTU194C6590K)		
Purpose of Test - Each test performed is intended to check compliance with the following:	**Result**	**Comment**
ISO 4210: Cycles – Safety Requirements for City/Trekking Bicycles	C	

President,



John A. Bogler

SAMPLE IDENTIFICATION

Brand:	BCycle	**Job No.:**	50.0082.015
Model:	BCycle 2.0	**Sample ID:**	50.0082.015.001
Manufacturer:	GCM	**Type:**	Bike Share Bicycle
Model No.:	BCycle 2.0 16.5 Wt	**Material:**	Not Specified
Stock No.:	P517415	**Size(in):**	26”
UPC:	601479369980	**Color(s):**	White
Serial No.:	STWU194C6590K	**Weight (kg):**	22.44

50.0082.015.001 – BCycle 2.0 (White)

DATE AND PLACE OF TEST

Sample(s) received on : 11 November 2015
Testing was initiated on : 16 November 2015
Retest saddle received on : 11 December 2015
Testing was completed on : 15 December 2015
Testing was performed at : ACT Lab LLC
Long Beach, CA

TEST METHODS

Method for each test conducted is as follows:

- ISO 4210:2015 tests were performed according to the ISO Cycles-Safety Requirements for Bicycles (2015E) standard – Part 2: Requirements for City and Trekking, Young Adult, Mountain and Racing Bicycles.

TEST RESULTS

C: Compliant; Product meets specified standard **NC:** Non-Compliant; Product does not meet specified standard **NA:** Not Applicable to this design **NR:** Not Requested by the Applicant **NP:** Not Present	**ND:** None Detected **IC:** Inconclusive **NT:** Not Tested **FTR:** Further Testing Recommended **PPM:** Parts Per Million ***:** See Comments

ISO 4210: BICYCLE TEST

ISO 4210-2015			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.1	TOXICITY	NT	
4.2	SHARP EDGES	C	
4.3	SECURITY AND STRENGTH OF SAFETY-RELATED FASTENERS		
4.3.1	Security of screws	C	
4.3.2	Minimum failure torque	NA	
4.3.3	Folding bicycle mechanism	NA	
4.4	CRACK DETECTION METHODS	C	
4.5	PROTRUSIONS	C	
4.6	BRAKES		
4.6.1	Braking systems	C	
4.6.2	Hand-operated brakes		
4.6.2.1	Brake lever position	C	
4.6.2.2	Brake lever grip dimension	C	
4.6.3	Attachment of brake assembly and cable requirements	C	
4.6.4	Brake-block and brake-pad assemblies - Security test	C	
4.6.5	Brake adjustment	C	
4.6.6	Hand-operated braking system - Strength test	C	
4.6.7	Back-pedal braking system - Strength test		
4.6.7.1	General	NA	
4.6.7.2	Requirement	NA	
4.6.8	Braking performance		
4.6.8.1	General - Track or Machine	C	
4.6.8.1.1	Track test	C	
4.6.8.1.2	Machine test	NT	
4.6.8.2	Smooth, safe-stop characteristics	C	
4.6.8.3	Ratio between wet and dry braking performance - Track	C	
	Ratio between wet and dry braking performance - Machine	NT	
4.6.9	Brakes - Heat-resistance test		
4.6.9.1	General - Disc, Hub and Thermoplastic rims	NT	
4.6.9.2	Requirement	NT	
4.7	STEERING		
4.7.1	Handlebar - Dimensions	C	
	Length of bar	C	

ISO 4210-2015			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
	Height between the saddle in its lowest position to the top of the handlebar in its highest	C	
4.7.2	Handlebar grips and plugs	C	
4.7.3	Handlebar stem - Insertion -depth mark or positive stop	NA	
4.7.4	Handlebar stem to fork steerer - Clamping requirements	C	
4.7.5	Steering stability	C	
4.7.6	Steering assembly - Static strength and security test	C	
4.7.6.1	Handlebar stem - Lateral bending test		
4.7.6.1.1	This test is intended for stem manufactures who do not produce handlebars	NA	
4.7.6.1.2	Requirement	NA	
4.7.6.2	Handlebar and stem assembly - Lateral bending test	NA	
4.7.6.3	Handlebar-stem - Forward bending test		
4.7.6.3.2	Requirement stage 1	NT	
4.7.6.3.3	Requirement stage 2	NT	
4.7.6.4	Handlebar to handlebar stem - Torsional security test	C	
4.7.6.5	Handlebar stem to fork steerer — Torsional security test	C	
4.7.6.6	Bar end to handlebar — Torsional security test	NA	
4.7.6.7	Aerodynamic extensions to handlebar — Torsional security test	NA	
4.7.7	Handlebar and stem assembly — Fatigue test		
4.7.7.1	Handlebars must be tested with a stem, but stems can be tested using a steel rod	C	
4.7.7.2	Requirement for stage 1 and stage 2	C	
4.8	FRAME		
4.8.1	Suspension-frames — Special requirements	NA	
4.8.2	Frame — Impact test (falling mass)	C	
4.8.3	Frame and front fork assembly — Impact test (falling frame)	C	
4.8.4	Frame — Fatigue test with pedaling forces	C	
4.8.5	Frame — Fatigue test with horizontal forces	C	
4.8.6	Frame — Fatigue test with a vertical force	C	
4.9	FRONT FORK		
4.9.2	Means of location of the axle and wheel retention	C	
4.9.3	Suspension forks — Special requirements		
4.9.3.1	Tire clearance test	NA	
4.9.3.2	Tensile test	NA	

ISO 4210-2015			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.9.4	Front fork — Static bending test	C	
4.9.5	Front fork — Rearward impact test		
4.9.5.1	Forks made entirely of metal - Impact 1	C	
4.9.5.1	Forks made entirely of metal - Impact 2	C	
4.9.5.2	Forks which have composite parts - Impact 1	NA	
4.9.5.2	Forks which have composite parts - Impact 2	NA	
4.9.6	Front fork — Bending fatigue test plus rearward impact test	C	
4.9.7	Forks intended for use with hub- or disc-brakes		
4.9.7.1	Static brake-torque test	NT	
4.9.7.2	Fork for hub/disc-brake — Brake mount fatigue test	NT	
4.9.8	Tensile test for a non-welded fork	NA	
4.9.8.2	Requirement	NA	
4.10	WHEELS AND WHEEL/TIRE ASSEMBLY		
4.10.1	Wheels/tire assembly — Concentricity tolerance and lateral tolerance	C	
4.10.2	Wheel/tire assembly — Clearance	C	
4.10.3	Wheel/tire assembly — Static strength test	C	
4.10.4	Wheels — Wheel retention		
4.10.4.1	Must comply to: 4.10.4.2, 4.10.4.3, and 4.10.5	C	
4.10.4.2	Wheel retention — Retention devices secured	C	
4.10.4.3	Front wheel retention — Retention devices unsecured	C	
4.10.4.4	Wheels — Quick-release devices — Operating features	C	
4.11	RIMS, TIRES, AND TUBES		
4.11.1	Non-pneumatic tires are excluded from the requirements of 4.11.2, 4.11.3, and 4.11.4	NA	
4.11.2	Tire inflation pressure	C	
4.11.3	Tire and rim compatibility	C	
4.11.4	Tubular tires and rims	NA	
4.11.5	Rim-wear	NA	
4.11.6	Greenhouse effect test for composite wheels	NA	
4.12	FRONT MUDGUARD	C	
4.13	PEDALS AND PEDAL/CRANK DRIVE SYSTEM		
4.13.1	Pedal tread		
4.13.1.1	Tread surface	C	
4.13.1.2	Toe Clips	NA	

ISO 4210-2015			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.13.1.3	Pedals designed to be used only with toe clips or shoe-retention devices shall have toe clips or shoe-retention devices securely attached and need not comply with the requirements of 4.13.1.2 items a) and b).	NA	
4.13.2	Pedal clearance		
4.13.2.1	Ground clearance	C	
4.13.2.2	Toe clearance	C	
4.13.2.3	Static strength test	C	
4.13.2.4	Pedal — Impact test	C	
4.13.2.5	Dynamic durability test	C	
4.13.2.6	Drive system — Static strength test		
4.13.2.6.a	Drive system with chain	C	
4.13.2.6.b	Drive system with belt	C	
4.13.2.7	Crank assembly — Fatigue test		
4.13.2.7.1	Requirement	C	
4.13.2.7.2	Special requirements for mountain bicycles	NA	
4.14	DRIVE-CHAIN AND DRIVE BELT		
4.14.1	Drive-chain	C	
4.14.2	Drive belt	NA	
4.15	CHAIN-WHEEL AND BELT-DRIVE PROTECTIVE DEVICE		
4.15.1	Requirements	C	
4.15.2	Chain-wheel disc and drive pulley disc diameter	C	
4.15.3	Chain and drive belt protective device	C	
4.15.4	Combined front gear-change guide	NA	
4.16	SADDLES AND SEAT-POSTS		
4.16.1	Limiting dimensions	C	
4.16.2	Seat-post — Insertion-depth mark or positive stop	C	
4.16.3	Saddle/seat-post — Security test		
4.16.3.1	Saddles with adjustment-clamps	C	
4.16.3.2	Saddles without adjustment clamps	NA	
4.16.3.4	Saddle — Static strength test	C	
4.16.3.5	Saddle and seat-post clamp — Fatigue test	C	
4.16.3.6	Seat-post — Fatigue test		
4.16.3.6.1	Requirement for stage 1		
4.16.3.6.1.1	Seat-post without suspension system	C	

ISO 4210-2015			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.16.3.6.1.2	Seat-post with suspension system	NA	
4.16.3.6.2	Requirement for stage 2		
4.16.3.6.2.1	Seat-post without suspension system	C	
4.16.3.6.2.2	Seat-post with suspension system	NA	
4.17	SPOKE PROTECTOR	NA	
4.18	LUGGAGE CARRIERS	NA	
4.19	ROAD TEST OF A FULLY ASSEMBLED BICYCLE	C	
4.20	LIGHTING SYSTEMS AND REFLECTORS		
4.20.1	Bicycles shall be equipped with reflectors at the front, rear and side. Bicycles shall be equipped with lighting systems and reflectors in conformity with the national regulations in the country in which the bicycle is marketed, because national regulations for lighting systems and reflectors differ from country to country.	C	
4.20.2	Wiring harness	C	
4.20.3	Lighting systems	NT	
4.20.4	Reflectors	C	
4.20.4.1	Rear reflectors - shall be Red	C	
4.20.4.2	Side reflectors - All the same color, either Clear or Yellow	C	
4.20.4.3	Front reflectors - Shall be Clear	C	
4.20.4.4	Pedal reflectors	C	
4.21	WARNING DEVICE	NA	
5	MANUFACTURER'S INSTRUCTIONS	NA	
6	MARKINGS	C	
6.1	REQUIREMENT	C	
6.2	DURABILITY	C	

****

END OF REPORT

SAFETY AND COMPLIANCE TESTING FOR BCYCLE LLC.

Tested Sample(s)	**:** Bike Share Bicycle
Brand	**:** BCycle
Model	**:** BCycle 2.0
Color	**:** White
Size	**:** 26”
Stock / Model Number	**:** P517415
Age Grading	**:** Adult
Children’s Product	**:** No

Prepared For:

BCycle LLC.
801 West Madison Street
Waterloo, Wisconsin 53594

Issue Date: 30 December 2015

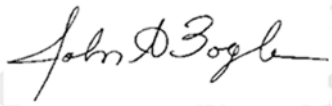
<u>Final Report</u>: 50.0082.015.03

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

CONCLUSION

(50.0082.015.001) – Trek, BCycle 2.0 (White), (SWTU194C6590K)		
Purpose of Test - Each test performed is intended to check compliance with the following:	**Result**	**Comment**
EN 71 Part 3:2013 Migration of Certain Elements	C	

President,



John A. Bogler

SAMPLE IDENTIFICATION

Brand:	BCycle	**Job No.:**	50.0082.015
Model:	BCycle 2.0	**Sample ID:**	50.0082.015.001
Manufacturer:	GCM	**Type:**	Bike Share Bicycle
Model No.:	BCycle 2.0 16.5 Wt	**Material:**	Not Specified
Stock No.:	P517415	**Size(in):**	26”
UPC:	601479369980	**Color(s):**	White
Serial No.:	STWU194C6590K	**Weight (kg):**	22.44

50.0082.015.001 – BCycle 2.0 (White)

DATE AND PLACE OF TEST

Sample(s) received on : 11 November 2015
Testing was initiated on : 16 November 2015
Retest saddle received on : 11 December 2015
Testing was completed on : 30 December 2015
Testing was performed at : Taicang ACT Sporting Goods Testing Company, LTD.
Taicang City, Jiangsu Province, China

PURPOSE OF TEST

Tests performed are intended to check compliance with the following:

- EN 71 Part 3: 2013 – Migration of Certain Elements.

TEST METHODS

Method for each test conducted is as follows:

- Extractable Chromium(VI)& Extractable Chromium (III) – With reference to EN 71 Part 3:2013, analysis was performed by HPLC-ICP-MS.
- Elements – With reference to EN 71 Part 3:2013, analysis was performed by ICP-MS.
- Extractable Organic Tin –With reference to EN71 Part 3:2013, analysis was performed by GC-MS.

TEST RESULTS

C: Compliant; Product meets specified standard **NC:** Non-Compliant; Product does not meet specified standard **NA:** Not Applicable to this design **NR:** Not Requested by the Applicant **NP:** Not Present	**ND:** None Detected **IC:** Inconclusive **NT:** Not Tested **FTR:** Further Testing Recommended **PPM:** Parts Per Million ***:** See Comments

The Limited value is based on European Directive 2009/48/EC and its subsequent amendments and EN 71 Part 3: 2013.

Category I: Dry, brittle, powder-like or pliable materials
Category II: Liquid or sticky materials
Category III: Scraped-off materials

Limited Value for migration of certain elements:

Test Item(s)	Unit	Limited Value		
		Category I	Category II	Category III
Extractable Lead (Pb)	mg/kg	13.5	3.4	160
Extractable Antimony (Sb)	mg/kg	45	11.3	560
Extractable Arsenic (As)	mg/kg	3.8	0.9	47
Extractable Barium (Ba)	mg/kg	1500	375	18750
Extractable Cadmium (Cd)	mg/kg	1.3	0.3	17
Extractable Chromium (III) (Cr III)	mg/kg	37.5	9.4	460
Extractable Chromium (VI)	mg/kg	0.02	0.005	0.2
Extractable Mercury (Hg)	mg/kg	7.5	1.9	94
Extractable Selenium (Se)	mg/kg	37.5	9.4	460
Extractable Boron (B)	mg/kg	1200	300	15000
Extractable Cobalt (Co)	mg/kg	10.5	2.6	130
Extractable Manganese (Mn)	mg/kg	1200	300	15000
Extractable Strontium (Sr)	mg/kg	4500	1125	56000
Extractable Tin (Sn)	mg/kg	15000	3750	180000
Extractable Zinc (Zn)	mg/kg	3750	938	46000
Extractable Copper (Cu)	mg/kg	622.5	156	7700
Extractable Aluminum (Al)	mg/kg	5625	1406	70000
Extractable Nickel (Ni)	mg/kg	75	18.8	930
Extractable Organic Tin	mg/kg	0.9	0.2	12

EN71-3 Sample ID List	
Sample ID	**Description**
1. 20151221-5	Handlebar Grip
2. 20151221-6	Pedal
3. 20151221-7	Saddle
4. 20151221-8	Tire

CHEMICAL: SURFACE COATING

50.0082.015 – BCycle (White)							
Test Item(s)	MDL	Mg/kg				Category III Criteria	Result
		#1	#2	#3	#4		
Extractable Lead (Pb)	10	2.62	<1	<1	1.40	160	C
Extractable Antimony (Sb)	10	<1	<1	<1	<1	560	C
Extractable Arsenic (As)	10	<1	<1	<1	<1	47	C
Extractable Barium (Ba)	50	1.87	1.60	<1	5.47	18750	C
Extractable Cadmium (Cd)	10	<1	<1	<1	<1	17	C
Extractable Chromium (III) (Cr III)	5	<1	<1	<1	<1	460	C
Extractable Chromium (VI)(Cr VI)	0.2	<0.2	<0.2	<0.2	<0.2	0.2	C
Extractable Mercury (Hg)	10	<1	<1	<1	<1	94	C
Extractable Selenium (Se)	10	<1	<1	<1	<1	460	C
Extractable Boron (B)	50	1.59	<1	<1	<1	15000	C
Extractable Cobalt (Co)	10	<1	<1	<1	<1	130	C
Extractable Manganese (Mn)	50	<1	<1	<1	<1	15000	C
Extractable Strontium (Sr)	50	1.16	<1	<1	<1	56000	C
Extractable Tin (Sn)	5	<1	<1	<1	<1	180000	C
Extractable Zinc (Zn)	50	57.63	10.48	65.89	340.79	46000	C
Extractable Copper (Cu)	50	1.41	3.82	<1	<1	7700	C
Extractable Aluminum (Al)	50	11.71	13.26	7.64	6.07	70000	C
Extractable Nickel (Ni)	10	6.37	<1	<1	<1	930	C
Extractable Organic Tin	0.02	<1	<1	<1	<1	12	C

****

END OF REPORT

Safety and Quality

1.0 Bike Specifications

BCycle 1.0 meets or exceeds all CPSC, ISO, and EN bicycle standards

BCYCLE 1.0 CPSC TESTING CHECKLIST

Year	2014
Model	BCycle 1.0
Assembly location	GCM

(place 'X' in box to show pass)

BIKE ASSEMBLY CHECKLIST:

GENERAL:	
Assembly	
CPSC 1512.4(a)	**X**
CPSC 1512.4(b)	X
CPSC 1512.4(d)	X
CPSC 1512.4(g)	X
FRAMESET:	
Paint:	**X**
Frame/Fork Fit:	**X**
Shock/Linkage:	**NA**
Headset:	**X**
ACCESSORIES:	
Rear Rack:	**X**
Kickstand:	**X**
Other:	**X**

LITERATURE:	
Manual:	
CPSC 1512.19(a)	**X**
Other:	
CPSC 1512.19(b)(1)	X
CPSC 1512.19(b)(2)	X
CPSC 1512.19(c)(1)	X
CPSC 1512.19(c)(2)	X
CPSC 1512.19(e)	X

SEAT SUBASSEMBLY	
Seat Clamp:	
Seat:	
CPSC 1512.15(a)	X
Post:	
CPSC 1512.15(b)	X
CPSC 1512.15(c)	X

Insert photo of bike here

DRIVETRAIN:	
Derailleur, front:	
CPSC 1512.4(i)	NA
CPSC 1512.4(j)	NA
Bottom Bracket:	
Cranks:	
Chainline(mm)	45.4
BBshell width(mm)	73
BB length(mm)	124.5
Derailleur, rear:	
CPSC 1512.4(i)	X
CPSC 1512.4(j)	X
Chain:	
# links:	100
CPSC 1512.8	**X**
Brakes:	
Alignment Tool:	26

BRAKE ASSEMBLY:	
CPSC 1512.5(b(4))	X
CPSC 1512.5(a)	X
CPSC 1512.5(b(6))	X
CPSC 1512.5(b(8))	X
CPSC 1512.4(i)	X
CPSC 1512.4(j)	X
BB cable guide:	

FRAME/FORK:	
CPSC 1512.13	**X**
CPSC 1512.14	**X**

CONTROLS 1:	
Shifters:	
Brake Levers:	
CPSC 1512.5(b(3))	X
CPSC 1512.5(b(5))	X
Bar/Stem Fit:	
CPSC 1512.6(a)	**X**
CPSC 1512.6(c)	X

FOOTBRAKES	
CPSC 1512.5(c) 1	**NA**
CPSC 1512.5(c) 2	**NA**
CPSC 1512.5(c) 3	**NA**
CPSC 1512.5(c) 4	**NA**
CPSC 1512.5(d)	**NA**
CPSC 1512.5(e) 1	**NA**
CPSC 1512.5(e) 2	**NA**
CPSC 1512.5(e) 3	**NA**
WHEELS:	
Front wheel:	
CPSC 1512.11(a)	X
CPSC 1512.11(b)	X
CPSC 1512.11(c)	**X**
CPSC 1512.12(a)	X
CPSC 1512.12(a)(2)	**X**
CPSC 1512.12(b)	X
CPSC 1512.12(c)	**X**

WHEELS:	
Rear wheel:	
CPSC 1512.9(b)	X
CPSC 1512.11(a)	X
CPSC 1512.11(b)	X
CPSC 1512.12(a)	X
CPSC 1512.12(a)(1)	**X**
CPSC 1512.12(b)	X
CONTROLS 2:	
CPSC 1512.6 (b)	**X**
CPSC 1512.6 (e)	**X**
Grips:	
CPSC 1512.6(d)	X
Bar plugs:	**X**
Tape:	
Bar Ends:	

OTHER:	
CPSC 1512.9 (a)	**X**
Reflectors:	
CPSC 1512.16	X
CPSC 1512.16(a)	X
CPSC 1512.16(b)	X
CPSC 1512.16(f)	X
CPSC 1512.16(c)	X
CPSC 1512.16(d)	X
CPSC 1512.16(e)	X
CPSC 1512.16(h)(1)	X
CPSC 1512.16(h)(2)	**X**
CPSC 1512.16(h)(3)	**X**
CPSC 1512.16(h)(4)	**X**
Pedals:	
CPSC 1512.7(c)	X
CPSC 1512.7(a)	X
CPSC 1512.7(b)	X
Tires:	
CPSC 1512.10	**X**

FUNCTIONAL CHECK:	
Shiftabilty:	
Test Ride:	
CPSC 1512.17(a)	**X**
CPSC 1512.17(c)	**X**
CPSC 1512.17(d)	**X**
CPSC 1512.5(b(2))	X
CPSC 1512.4(c)	X
CPSC 1512.5(b)	X
CPSC 1512.5(b)(1)	**X**
CPSC 1512.17(b)	NA
MANUFACTURERS COC	
CPSC 1512.16(g)	**X**

SAFETY AND COMPLIANCE TESTING FOR BCYCLE LLC.

Tested Sample(s)	**:** Bike Share Bicycle
Brand	**:** BCycle
Model	**:** BCycle 1.0
Color	**:** Red
Size	**:** 26”
Stock / Model Number	**:** 512215
Age Grading	**:** Adult
Children’s Product	**:** No

Prepared For:

BCycle LLC.
801 West Madison Street
Waterloo, Wisconsin 53594

Issue Date: 20 October 2014

Final Report: 50.0053.091

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

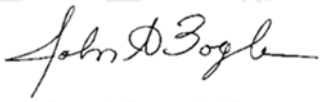
Contract File No.: 50.0053.091
T:\ACT Testing\ Trek – 50.0053
Control Document Rev. 10 January 2014

Technician: Matt Pfeffer

CONCLUSION

50.0053.091 – Trek – BCycle (Red)		
Purpose of Test - Each test performed is intended to check compliance with the following:	**Result**	**Comment**
CPSC 16 CFR 1512 – Requirements for Bicycles	C	

President,



John A. Bogler

DATE AND PLACE OF TEST

Sample(s) received on : 28 September 2014
Testing was initiated on : 11 October 2014
Testing was completed on : 03 November 2014
Testing was performed at : Taicang ACT Sporting Goods Testing Co., Ltd.
Taicang City, Suzhou, Jiangsu Province, Taiwan

TEST METHODS

Method for each test conducted is as follows:

- CPSC 16 CFR 1512 test was performed according to the CPSC Bicycle Compliance Test Manual (1976) Requirements for Bicycles standard and all other standards referenced within.

TEST RESULTS

C: Compliant; Product meets specified standard **NC:** Non-Compliant; Product does not meet specified standard **NA:** Not Applicable to this design **NR:** Not Requested by the Applicant **NP:** Not Present	**ND:** None Detected **IC:** Inconclusive **NT:** Not Tested **FTR:** Further Testing Recommended **PPM:** Parts Per Million ***:** See Comments

SAMPLE IDENTIFICATION

Brand:	Trek	**Job No.:**	50.0053.091
Model:	BCycle 1.0	**Type:**	Bike Share Bicycle
Manufacturer:	GCM	**Size:**	26”
Stock No.:	512215	**Color(s):**	Red
UPC:	Not Specified	**Weight (kg):**	19.25

50.0053.091 – BCycle 1.0 (Red)

CPSC 16 CFR 1512: BICYCLE TEST

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
1512.4	MECHANICAL REQUIREMENTS		
4(a)	Assembly	C	
4(b)	Sharp Edges	C	
4(c)	Integrity - 1512.18 (d),(e),(p),(q)	C	
4(d)	Attachment Hardware	C	
4(e)	"Reserved" - Protrusion Test	NA	
4(f)	"Reserved"	C	
4(g)	Excluded Area	C	
4(h)	"Reserved" - Screw Length	NA	
4(i)	Control Cable Ends - 1512.18 (c)	C	
4(j)	Control Cable Abrasions	C	
1512.5	REQUIREMENTS FOR BRAKING SYSTEM		
5(a)	Braking System	C	
5(b)	Handbrakes - 1512.18 (d)(2)(i), (iii)	C	
5(b)(1)	Stopping Distance - 1512.18 (d)(2)(v)	C	
5(b)(2)	Hand Lever Access	C	
5(b)(3)	Grip Dimension	C	
5(b)(4)	Attachment - 1512.18 (d)(2)(iii)	C	
5(b)(5)	Operating Force	C	
5(b)(6)	Pad and Pad Holders - 1512.18 (d)(2)(iii)	C	
5(b)(7)	"Reserved"	NA	
5(b)(8)	Hand Lever Location	C	
5(b)(9)	Hand Lever Extensions	NA	
5(c)	Footbrakes - 1512.18 (e)(2)	NA	
5(c)(1)	Stopping Distance - 1512.18 (e)(3)	NA	
5(c)(2)	Operating Force	NA	
5(c)(3)	Crank Differential	NA	
5(c)(4)	Independent Operation	NA	
5(d)	Footbrakes and Handbrakes - 1512.5 (c)	NA	
5(e)(1)	Sidewalk Bicycles shall not have handbrakes only	NA	
5(e)(2)	Sidewalk Bicycles seat height > 560 mm - 1512.5 (c), 1512.18 (f)	NA	

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
5(e)(3)	Sidewalk Bicycles seat height < 560 mm - 1512.18 (f)	NA	
1512.6	REQUIREMENTS FOR STEERING SYSTEM		
6(a)	Handlebar Stem Insertion Mark	NA	
6(b)	Handlebar Stem Strength - 1512.18 (g)	NA	
6(c)	Handlebar	C	
6(d)	Handlebar Ends - 1512.18 (c)	C	
6(e)	Handlebar and Clamps - 1512.18 (h)(1), (h)(2),1512.19(a)(2)	C	
1512.7	REQUIREMENTS FOR PEDALS		
7(a)	Construction	C	
7(b)	Toe Clips	NA	
7(c)	Pedal Reflectors - 1512.16 (e)	C	
1512.8	REQUIREMENTS FOR DRIVE CHAIN	C	
1512.9	REQUIREMENTS FOR PROTECTIVE GUARDS		
9(a)	Chain Guard	C	
9(b)	Derailleur Guard	NA	
1512.10	REQUIREMENT FOR TIRES	C	
1512.11	REQUIREMENTS FOR WHEELS		
11(a)	Spokes	C	
11(b)	Alignment	C	
11(c)	Rims - 1512.18(j)	C	
1512.12	REQUIREMENTS FOR WHEEL HUBS		
12(a)	Locking Devices	C	
12(a)(1)	Rear Wheels	C	
12(a)(2)	Front Wheels	NA	
12(b)	Quick-Release Devices	NA	
12(c)	Front Hubs - 1512.18 (j)(3)	NA	
1512.13	REQUIREMENTS FOR FRONT FORK - 1512.18 (k)(1)	C	
1512.14	REQUIREMENTS FOR FORK AND FRAME ASSEMBLY - 1512.18(k)(2)	C	
1512.15	REQUIREMENTS FOR SEAT		
15(a)	Seat Limitation	C	
15(b)	Seat Post	NA	
15(c)	Adjustment Clamps - 1512.18 (l)	C	
1512.16	REQUIREMENTS FOR REFLECTORS		

CPSC 16 CFR 1512			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
16(a)	Front, Rear, and Pedal Reflectors	C	
16(b)	Side Reflectors	C	
16(c)	Front Reflectors - 1512.18 (m)	C	
16(d)	Rear Reflectors - 1512.18 (m)	C	
16(e)	Pedal Reflectors	C	
16(f)	Side Reflectors	C	
16(g)	Reflector Tests - 1512.18 (n)	C	
16(h)	Retro-reflective Tire Sidewalls - 1512.18 (o), (r)	C	
16(i)	Retro-reflective Rims - 1512.18 (o)	C	
1512.17	OTHER REQUIREMENTS		
17(a)	Road Test - 1512.18 (p)	C	
17(b)	Sidewalk Bicycle Proof Test	NA	
17(c)	Ground Clearance	C	
17(d)	Toe Clearance	C	
1512.19	INSTRUCTIONS AND LABELING		
19(a)(1)	Operation and Safety Instructions	NA	
19(a)(2)	Assembly Instructions	NA	
19(a)(3)	Maintenance Instructions	NA	
19(b)(1)	List of Tools for Assembly	C	
19(b)(2)	Illustration of Minimum Leg Length	C	
19(c)	The Minimum Leg Length Dimension	C	
19(d)	"Reserved" - Label for 1976-1978	NA	
19(e)	Permanent Label - Manufacturer's Information	C	

****

END OF REPORT

SAFETY AND COMPLIANCE TESTING FOR BCYCLE LLC.

Tested Sample(s)	**:** Bike Share Bicycle
Brand	**:** BCycle
Model	**:** BCycle 1.0
Color	**:** Red
Size	**:** 26”
Stock / Model Number	**:** 512215
Age Grading	**:** Adult
Children’s Product	**:** No

Prepared For:

BCycle LLC.
801 West Madison Street
Waterloo, WI 59593

Issue Date: 20 October 2014

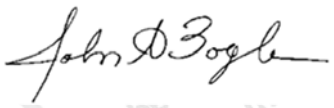
<u>Final Report</u>: 50.0053.091

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

CONCLUSION

50.0053.091 – Trek – BCycle (Red)		
Purpose of Test - Each test performed is intended to check compliance with the following:	**Result**	**Comment**
ISO 4210:2014 Cycles – Safety Requirements for Bicycles	C	
EN 71 Part 3:2013 Migration of Certain Elements	C	

President,



John A. Bogler

DATE AND PLACE OF TEST

Sample(s) received on : 28 September 2014
Testing was initiated on : 11 October 2014
Testing was completed on : 03 November 2014
Testing was performed at : Taicang ACT Sporting Goods Testing Co., Ltd.
Taicang City, Suzhou, Jiangsu Province, Taiwan

TEST METHODS

Method for each test conducted is as follows:

- ISO 4210:2014, test was performed according to the ISO Cycles-Safety Requirements for Bicycles (2014E) Requirements for Bicycles standard and all other standards referenced within.
- Extractable Chromium(VI)& Extractable Chromium (III) – With reference to EN 71 Part 3:2013, analysis was performed by HPLC-ICP-MS.
- Elements – With reference to EN 71 Part 3:2013, analysis was performed by ICP-MS.
- Extractable Organic Tin –With reference to EN71 Part 3:2013, analysis was performed by GC-MS.

TEST RESULTS

C: Compliant; Product meets specified standard **NC:** Non-Compliant; Product does not meet specified standard **NA:** Not Applicable to this design **NR:** Not Requested by the Applicant **NP:** Not Present	**ND:** None Detected **NT:** Not Tested **FTR:** Further Testing Recommended **PPM:** Parts Per Million ***:** See Comments

The Limited value is based on European Directive 2009/48/EC and its subsequent amendments and EN 71 Part 3: 2013.

Category I: Dry, brittle, powder-like or pliable materials
Category II: Liquid or sticky materials
Category III: Scrapped-off materials

Limited Value for migration of certain elements:

Test Item(s)	Unit	Limited Value		
		Category I	Category II	Category III
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Extractable Arsenic (As)	mg/kg	3.8	0.9	47
Extractable Barium (Ba)	mg/kg	1500	375	18750
Extractable Cadmium (Cd)	mg/kg	1.3	0.3	17
Extractable Chromium (III) (Cr III)	mg/kg	37.5	9.4	460
Extractable Chromium (VI)	mg/kg	0.02	0.005	0.2
Extractable Mercury (Hg)	mg/kg	7.5	1.9	94
Extractable Selenium (Se)	mg/kg	37.5	9.4	460
Extractable Boron (B)	mg/kg	1200	300	15000
Extractable Cobalt (Co)	mg/kg	10.5	2.6	130
Extractable Manganese (Mn)	mg/kg	1200	300	15000
Extractable Strontium (Sr)	mg/kg	4500	1125	56000
Extractable Tin (Sn)	mg/kg	15000	3750	180000
Extractable Zinc (Zn)	mg/kg	3750	938	46000
Extractable Copper (Cu)	mg/kg	622.5	156	7700
Extractable Aluminum (Al)	mg/kg	5625	1406	70000
Extractable Nickel (Ni)	mg/kg	75	18.8	930
Extractable Organic Tin	mg/kg	0.9	0.2	12

SAMPLE IDENTIFICATION

Brand:	Trek	**Job No.:**	50.0053.091
Model:	BCycle 1.0	**Type:**	Bike Share Bicycle
Manufacturer:	GCM	**Size:**	26”
Stock No.:	512215	**Color(s):**	Red
UPC:	Not Specified	**Weight (kg):**	19.25

50.0053.091 – BCycle 1.0 (Red)

ISO 4210-14: BICYCLE TEST

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.1	Toxicity	C	
4.2	Sharp edges	C	
4.3	Security and strength of safety-related fasteners	C	
4.3.1	Security of screws	C	
4.3.2	Minimum failure torque	C	
4.3.3	Folding bicycle mechanism	NA	
4.4	Crack detection methods	C	
4.5	Protrusions	C	
4.6	Brakes	C	
4.6.1	Braking systems	C	
4.6.2	Hand-operated brakes	C	
4.6.2.1	Brake lever position	C	
4.6.2.2	Brake lever grip dimension	C	
4.6.3	Attachment of brake assembly and cable requirements	C	
4.6.4	Brake-block and brake-pad assemblies - Security test	C	
4.6.5	Brake adjustment	C	
4.6.6	Hand-operated braking system - Strength test	C	
4.6.7	Back-pedal braking system - Strength test	NA	
4.6.7.1	General	NA	
4.6.7.2	Requirement	NA	
4.6.8	Braking performance	C	
4.6.8.1	General - Track or Machine	C	
4.6.8.1.1	Track test	C	
4.6.8.1.2	Machine test	NA	
4.6.8.2	Smooth, safe-stop characteristics	C	
4.6.8.3	Ratio between wet and dry braking performance - Track	C	
	Ratio between wet and dry braking performance - Machine	NA	
4.6.9	Brakes - Heat-resistance test	C	
4.6.9.1	General - Disc, Hub and Thermoplastic rims	C	
4.6.9.2	Requirement	C	
4.7	Steering	C	
4.7.1	Handlebar - Dimensions	C	

Contract File No.: 50.0053.091
T:\ACT testing\ Trek – Trek 50.0053
Control Document Rev. 14 December 2016

Technician: Matt Pfeffer

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
	Length of bar	C	
	Height between the saddle in its lowest position to the top of the handlebar in its highest	C	
4.7.2	Handlebar grips and plugs	C	
4.7.3	Handlebar stem - Insertion -depth mark or positive stop	NA	
4.7.4	Handlebar stem to fork steerer - Clamping requirements	C	
4.7.5	Steering stability	C	
4.7.6	Steering assembly - Static strength and security test	C	
4.7.6.1	Handlebar stem - Lateral bending test	NA	
4.7.6.1.1	This test is intended for stem manufactures who do not produce handlebars	NA	
4.7.6.1.1.2	Requirement	NA	
4.7.6.2	Handlebar and stem assembly - Lateral bending test	C	
4.7.6.2.1	This test is for manufactures who produce handlebars and stems or for cycle manufacturers	C	
4.7.6.2.2	Requirement	C	
4.7.6.3	Handlebar-stem - Forward bending test	C	
4.7.6.3.1	Conduct the test in two stages on the same assembly as follows	C	
4.7.6.3.2	Requirement stage 1	C	
4.7.6.3.3	Requirement stage 2	C	
4.7.6.4	Handlebar to handlebar stem - Torsional security test	C	
4.7.6.5	Handlebar stem to fork steerer — Torsional security test	C	
4.7.6.6	Bar end to handlebar — Torsional security test	C	
4.7.6.7	Aerodynamic extensions to handlebar — Torsional security test	NA	
4.7.7	Handlebar and stem assembly — Fatigue test	C	
4.7.7.1	Handlebars must be tested with a stem, but stems can be tested using a steel rod	C	
4.7.7.2	Requirement for stage 1 and stage 2	C	
4.8	Frame	C	
4.8.1	Suspension-frames — Special requirements	NA	
4.8.2	Frame — Impact test (falling mass)	C	
4.8.3	Frame and front fork assembly — Impact test (falling frame)	C	
4.8.4	Frame — Fatigue test with pedaling forces	C	
4.8.5	Frame — Fatigue test with horizontal forces	C	

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.8.6	Frame — Fatigue test with a vertical force	C	
4.9	Front fork	C	
4.9.2	Means of location of the axle and wheel retention	C	
4.9.3	Suspension forks — Special requirements	NA	
4.9.3.1	Tyre clearance test	NA	
4.9.3.2	Tensile test	NA	
4.9.4	Front fork — Static bending test	C	
4.9.5	Front fork — Rearward impact test	C	
4.9.5.1	Forks made entirely of metal - Impact 1	C	
4.9.5.1	Forks made entirely of metal - Impact 2	C	
4.9.5.2	Forks which have composite parts - Impact 1	NA	
4.9.5.2	Forks which have composite parts - Impact 2	NA	
4.9.6	Front fork — Bending fatigue test plus rearward impact test	C	
4.9.7	Forks intended for use with hub- or disc-brakes	NA	
4.9.7.1	Static brake-torque test	NA	
4.9.7.2	Fork for hub/disc-brake — Brake mount fatigue test	NA	
4.9.8	Tensile test for a non-welded fork	NA	
4.9.8.2	Requirement	NA	
4.10	Wheels and wheel/tyre assembly	C	
4.10.1	Wheels/tyre assembly — Concentricity tolerance and lateral tolerance	C	
4.10.2	Wheel/tyre assembly — Clearance	C	
4.10.3	Wheel/tyre assembly — Static strength test	C	
4.10.4	Wheels — Wheel retention	C	
4.10.4.1	Must comply to: 4.10.4.2, 4.10.4.3, and 4.10.5	C	
4.10.4.2	Wheel retention — Retention devices secured	C	
4.10.4.3	Front wheel retention — Retention devices unsecured	C	
4.10.4.4	Wheels — Quick-release devices — Operating features	NA	
4.11	Rims, tyres, and tubes	C	
4.11.1	Non-pneumatic tyres are excluded from the requirements of 4.11.2, 4.11.3, and 4.11.4	NA	
4.11.1.2	Tyre inflation pressure	C	
4.11.1.3	Tyre and rim compatibility	C	

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.11.1.4	Tubular tyres and rims	NA	
4.11.1.5	Rim-wear	C	
4.11.1.6	Greenhouse effect test for composite wheels	NA	
4.11.1.6.1	This is only for wheels made from composite materials	NA	
4.11.1.6.2	Requirement	NA	
4.12	Front mudguard	C	
4.13	Pedals and pedal/crank drive system	C	
4.13.1	Pedal tread	C	
4.13.1.1	Tread surface	C	
4.13.1.2	Toe Clips	NA	
4.13.1.3	Pedals designed to be used only with toe clips or shoe-retention devices shall have toe clips or shoe-retention devices securely attached and need not comply with the requirements of 4.13.1.2 items a) and b).	NA	
4.13.2	Pedal clearance	C	
4.13.2.1	Ground clearance	C	
4.13.2.2	Toe clearance	C	
4.13.2.3	Static strength test	C	
4.13.2.4	Pedal — Impact test	C	
4.13.2.5	Dynamic durability test	C	
4.13.2.6	Drive system — Static strength test	C	
4.13.2.6.a	Drive system with chain	C	
4.13.2.6.b	Drive system with belt	NA	
4.13.2.7	Crank assembly — Fatigue test	C	
4.13.2.7.1	Requirement	C	
4.13.2.7.2	Special requirements for mountain bicycles	NA	
4.14	Drive-chain and drive belt	C	
4.14.1	Drive-chain	C	
4.14.2	Drive belt	NA	
4.15	Chain-wheel and belt-drive protective device	C	
4.15.1	Requirements	C	
4.15.2	Chain-wheel disc and drive pulley disc diameter	NA	
4.15.3	Chain and drive belt protective device	C	

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
4.15.4	Combined front gear-change guide	NA	
4.16	Saddles and seat-posts	C	
4.16.1	Limiting dimensions	C	
4.16.2	Seat-post — Insertion-depth mark or positive stop	C	
4.16.3	Saddle/seat-post — Security test	C	
4.16.3.1	Saddles with adjustment-clamps	C	
4.16.3.2	Saddles without adjustment clamps	C	
4.16.3.4	Saddle — Static strength test	C	
4.16.3.5	Saddle and seat-post clamp — Fatigue test	C	
4.16.3.6	Seat-post — Fatigue test	C	
4.16.3.6.1	Requirement for stage 1	C	
4.16.3.6.1.1	Seat-post without suspension system	C	
4.16.3.6.1.2	Seat-post with suspension system	NA	
4.16.3.6.2	Requirement for stage 2	C	
4.16.3.6.2.1	Seat-post without suspension system	C	
4.16.3.6.2.2	Seat-post with suspension system	NA	
4.17	Spoke protector	C	
4.18	Luggage carriers	NA	
4.19	Road test of a fully assembled bicycle	C	
4.20	Lighting systems and reflectors	C	
4.20.1	Bicycles shall be equipped with reflectors at the front, rear and side. Bicycles shall be equipped with lighting systems and reflectors in conformity with the national regulations in the country in which the bicycle is marketed, because national regulations for lighting systems and reflectors differ from country to country.	C	
4.20.2	Wiring harness	C	
4.20.3	Lighting systems	C	
4.20.4	Reflectors	C	
4.20.4.1	Rear reflectors - shall be Red	C	
4.20.4.2	Side reflectors - All the same color, either Clear or Yellow	C	
4.20.4.3	Front reflectors - Shall be Clear	C	
4.20.4.4	Pedal reflectors	C	
4.21	Warning device	NA	

ISO 4210-2014			
Ref. #	**Test Description**	**Result**	**Observations and Notes**
5	Manufacturer's Instructions	NA	
6	Markings	C	
6.1	Requirement	C	
6.2	Durability	C	

EN 71 Part 3:2013 MIGRATION OF CERTAIN ELEMENTS

EN 71 Part 3:2013 MIGRATION OF CERTAIN ELEMENTS									
Test Item(s)	**MDL ***	**Mg/kg**						**Category III Criteria**	**Result**
		#1	**#2**	**#3**	**#4**	**#5**	**#6**		
Extractable Lead (Pb)	10	<1	<1	<1	<1	<1	<1	160	C
Extractable Antimony (Sb)	10	<1	<1	<1	<1	<1	<1	560	C
Extractable Arsenic (As)	10	<1	<1	<1	<1	<1	<1	47	C
Extractable Barium (Ba)	50	1.46	1.27	2.68	1.78	559.07	16.76	18750	C
Extractable Cadmium (Cd)	10	<1	<1	<1	<1	<1	<1	17	C
Extractable Chromium (III) (Cr III)	5	<1	<1	<1	<1	<1	<1	460	C
Extractable Chromium (VI)(Cr VI)	0.2	<1	<1	<1	<1	<1	<1	0.2	C
Extractable Mercury (Hg)	10	1.935	<1	<1	<1	<1	<1	94	C

Contract File No.: 50.0053.091
T:\ACT testing\ Trek – Trek 50.0053
Control Document Rev. 14 December 2016

Technician: Matt Pfeffer

EN 71 Part 3:2013 MIGRATION OF CERTAIN ELEMENTS									
Test Item(s)	MDL *	Mg/kg						Category III Criteria	Result
		#1	#2	#3	#4	#5	#6		
Extractable Selenium (Se)	10	<1	<1	<1	<1	<1	<1	460	C
Extractable Boron (B)	50	1.508	<1	<1	<1	<1	1.271	15000	C
Extractable Cobalt (Co)	10	<1	<1	<1	<1	<1	<1	130	C
Extractable Manganese (Mn)	50	<1	6.65	16.71	1.25	4.52	<1	15000	C
Extractable Strontium (Sr)	50	<1	<1	3.564	<1	16.73	<1	56000	C
Extractable Tin (Sn)	5	<1	<1	<1	<1	5.04	<1	180000	C
Extractable Zinc (Zn)	50	11.25	2446.78	178.984	<1	27.50	<1	46000	C
Extractable Copper (Cu)	50	<1	1.15	1.83	<1	<1	1.03	7700	C
Extractable Aluminum (Al)	50	806.405	74.20	37.53	144.38	799.25	1000.27	70000	C
Extractable Nickel (Ni)	10	<1	<1	1.66	<1	<1	1.07	930	C
Extractable Organic Tin (Sn)	0.02	<1	<1	<1	<1	5.04	<1	12	C

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END OF REPORT

Contract File No.: 50.0053.091
T:\ACT testing\ Trek – Trek 50.0053
Control Document Rev. 14 December 2016

Technician: Matt Pfeffer