## TEST RESULTS and REPORT for

# Wolf Peak Holdings, LLC

Brazeau

by



COLTS Laboratories maintains A2LA accreditation to ISO/IEC 17025 for the tests listed on Certificate # 1612.01. Any tests not included on this certificate have been identified on the appropriate test result page.

Also Certified for testing by the Safety Equipment Institute

## Z-WPI080812-01

- Results in this report only relate to the samples analyzed.

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- Unless otherwise requested, test samples will be discarded 21 days from the report date.

#### **COLTS Laboratories**

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A2LA Accredited-Certificate # 1612.01

#### **Wolf Peak Holdings, LLC**

#### **Z-WPI080812-01**

| Project ID        | Test /Model(s)   | Results<br>Pass / Fail | Reason | Page |
|-------------------|--|------------------------|--------|------|
| Z-WPI080812-01-01 | ANSI Z87.1-2010 High Impact Spectacles - Base Model<br>Brazeau (XB116) Smoke Lens, Black Gloss Frame [S] | Pass                   |        | 1    |

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Report To: Wolf Peak Holdings, LLC 1221 West Marshall Way Layton, UT 84041 Attn: Mark Marshall Date: September 21, 2012

#### PROJECT

of Model(s): E Report of: A Project ID(s): Z

Brazeau (XB116) ANSI Z87.1-2010 High Impact Spectacles - Base Model Z-WPI080812-01-01



Product Description: Smoke Lens, Black Gloss Frame [S]

On August 08, 2012, COLTS Laboratories received spectacles: Brazeau (XB116) from Wolf Peak Holdings, LLC. From August 09, 2012 through September 21, 2012 COLTS Laboratories tested these spectacles in accordance with ANSI Z87.1-2010.

#### **Final Conclusion:**

The spectacles: Brazeau (XB116) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 High Impact Spectacles - Base Model. Batch# 7474

Please contact us should you have any questions concerning this report.

#### Respectfully submitted,

**COLTS** Laboratories

Daryl Neely Vice-President & COO

Dale Payne Technical Services Manager

Project No. Z-WPI080812-01-01

Lab Temp (°C): 22



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

| Test/Property  | ANSI Z87.1-20<br>Paragraph |   | Test Results | Acceptance |
|--|----------------------------|---|--------------|------------|
| Optical Quality  |                            | When tested in accordance with Section 9.1, protector lenses shall be free of striae, bubbles, waves and other visible defects which would impair their optical quality.  |              |            |
|  |                            |   | Acceptable   | Pass       |
| Luminous Transmission  |                            | When tested in accordance with Section 9. 2, clear lenses shall have a luminous transmission of not less than 85%.  |              | N//A       |
|  |                            |   |              | N/A<br>N/A |
|  |                            | Right   |              | N/A        |
| Haze   | 5.1.3                      | When tested in accordance with Section 9.3, clear plano lenses shall not exhibit more than 3% haze.   |              |            |
|  |                            | Left  |              | N/A        |
|  |                            | Right   |              | N/A        |
| Refractive Power, Astigmatism, Resolving<br>Power, Prism and Prism Imbalance for<br>Plano Protectors |                            | When tested in accordance with Section 9.4, the tolerance on refractive power, astigmatism and resolving power shall be as indicated in Table 1.Filter lenses of shade 9 or higher are exempt from this testing. When tested in accordance with Section 9.5, the tolerance on prism and prism imbalance shall be as indicated in Table 2.<br>Refractive Power Left (±0.06D) | +0.02        | Pass       |
|  |                            | Refractive Power Right (±0.06D)   | +0.025       | Pass       |
|  |                            | Astigmatism Left (<=0.06D)  | 0.04         | Pass       |
|  |                            | Astigmatism Right (<=0.06D)   | 0.035        | Pass       |
|  |                            | Resolving Power Left (Minimum Pattern 20)   | 20           | Pass       |
|  |                            | Resolving Power Right (Minimum Pattern 20)  | 20           | Pass       |
|  |                            | Spectacle Complete Prism Left (<=0.50D)   | 0.100        | Pass       |
|  |                            | Spectacle Complete Prism Right (<=0.50D)  | 0.158        | Pass       |
|  |                            | Spectacle Vertical Imbalance (<=0.25D)  | 0.05         | Pass       |
|  |                            | Spectacle Horizontal Imbalance In/Out (In <=0.25D; Out <=0.50D)   | 0.15 in      | Pass       |
| Physical Requirements  | 5.2                        | Protectors shall be free from projections, sharp edges or other defects which are likely to cause discomfort or injury during use.  |              |            |
|  |                            |   | Acceptable   | Pass       |

Project No. Z-WPI080812-01-01



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

Lab Temp (°C) : 22 Lab Rh : 50

| Lab Rh : 50                                 | ANSI Z87.1-2 | 010  |              |            |
|---|--------------|--|--------------|------------|
| Test/Property                               | Paragraph    |  | Test Results | Acceptance |
| Drop Ball Impact Resistance                 | 5.2.1        | When tested in accordance with Section 9.6, protector lenses shall not fracture when impacted by a 25.4 mm (1 in.) steel ball when dropped from a height of 127 cm (50 in.). Glass welding filter lenses shall be tested and used in conjunction with a safety plate in order to comply with the impact performance criteria.  |              |            |
|   |              | Sample 1 - Left Eye  | Acceptable   | Pass       |
|   |              | Sample 2 - Left Eye  | Acceptable   | Pass       |
|   |              | Sample 3 - Right Eye   | Acceptable   | Pass       |
|   |              | Sample 4 - Right Eye   | Acceptable   | Pass       |
| Ignition                                    | 5.2.3        | When tested in accordance with Section 9.7, protectors shall not ignite or continue to glow once the rod is removed. Each externally exposed material (exclusive of textiles or elastic bands) shall be tested.  |              |            |
|   |              | Lens   | Acceptable   | Pass       |
|   |              | Front  | Acceptable   | Pass       |
|   |              | Temple   | Acceptable   | Pass       |
|   |              | Sideshield   |              | N/A        |
|   |              | Other  |              | N/A        |
| Corrosion Resistance of Metal<br>Components | 5.2.4        | When tested in accordance with Section 9.8, metal components used in protectors shall be corrosion resistant to the degree that the function of the protector shall not be impaired by the corrosion. Lenses and electrical components are excluded from these requirements.   |              |            |
|   |              |  | Acceptable   | Pass       |
| Minimum Coverage Area                       | 5.2.5        | The eyewire and lens shall cover in plane view an area of not less than 40 mm (1.57 in.) in width and 33 mm (1.30 in.) in height (elliptical) in front of each eye, centered on the geometrical center of the lens. Frames designed for small head sizes shall cover in plane view an area of not less than 34 mm (1.34 in.) in width and 28 mm (1.10 in.) in height (elliptical), centered on the geometrical center of the lens. Frames designed for small head sizes shall be tested on the 54 mm (2.13 in.) PD headform and are permitted to have an eye size, including eyewire thickness, as small as 34 x 28mm (1.34 x 1.10 in.). Frames that are tested using the small headform shall be marked on the frame with the letter "H." |              |            |
|   |              |  | Acceptable   | Pass       |

Project No. Z-WPI080812-01-01



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

A2LA Accredited-Cert .#1612.01

#### Report of: ANSI Z87.1-2010 High Impact Spectacles - Base Model Lab Temp (°C): 22 Lab Rh: 50 ANSI Z87.1-2010 **Test/Property Test Results** Acceptance Paragraph Requirement Minimum Lens Thickness 5.3 The minimum lens thickness for specified protectors shall be those indicated in Table 3. Note 1: No minimum thickness requirement applies to the protector beyond a vertical plane passing through the 90 degree impact point. Note 2: For plano spectacles, no minimum thickness is required for protectors if they meet the requirements of Section 9.11, High Mass Impact Test. **Minimum Thickness** N/A

Project No. Z-WPI080812-01-01



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

Lab Temp (°C): 22 Lab Rh: 50

| Lab Rh : 50<br>Test/Property | ANSI Z87.1-2010<br>Paragraph  | Requirement   | Test Results | Acceptance |
|------------------------------|---|---|--------------|------------|
| Marking Requirements         | 4a. Markings<br>use applicatio<br>indicated use<br>are intended for<br>system descrii | shall bear the permanent markings in specified locations as shown in Table<br>shall follow the sequence shown in Table 4b. Markings for lens type and<br>ns shall be required only when claims for protection against the hazard or<br>are made by the manufacturer. In addition, the components of frames that<br>or prescription protector use shall be marked for size in accordance with the<br>bed in ANSI Z80.5-2004. Fronts shall be marked with the A-dimension (eye<br>. (distance between lenses). Temples shall be marked with their overall |              |            |
|                              | Lens and Re   | placement Lens Markings Sequence  | Acceptable   | Pass       |
|                              | 5   | rk or Logo  | Acceptable   | Pass       |
|                              | + Mark  |   | Acceptable   | Pass       |
|                              | H Mark  | (Coverage - small head sizes)   |              | N/A        |
|                              | Lens Ty   | /pe (multiple claim sequence W,U,L,R,S)   | Acceptable   | Pass       |
|                              | Spectacle Fra   | ame Front Markings Sequence for Products with Replaceable Lenses  | Acceptable   | Pass       |
|                              | Mfg Ma  | rk or Logo - Frame Front  | Acceptable   | Pass       |
|                              | Z87 Ma  | rk - Frame Front  | Acceptable   | Pass       |
|                              | + Mark  | - Frame Front   | Acceptable   | Pass       |
|                              | H Mark  | (Coverage - small head sizes)   |              | N/A        |
|                              | Spectacle Te  | mple Markings Sequence for Products with Replaceable Lenses   | Acceptable   | Pass       |
|                              | Mfg Ma  | rk or Logo - At least one temple  | Acceptable   | Pass       |
|                              | Z87 Ma  | rk - At least one temple  | Acceptable   | Pass       |
|                              | + Mark  | - At least one temple   | Acceptable   | Pass       |
|                              | H Mark  | (Coverage - small head sizes)   |              | N/A        |
|                              | Z87 Ma  | rk - Both detachable sideshields  |              | N/A        |
|                              | + Mark  | - Both detachable sideshields   |              | N/A        |
|                              | Complete De   | vice Markings Sequence (No replaceable parts)   |              | N/A        |
|                              | Mfg Ma  | rk or Logo  |              | N/A        |
|                              | Z87 Ma  | rk  |              | N/A        |
|                              | + Mark  |   |              | N/A        |
|                              | H Mark  | (Coverage - small head sizes)   |              | N/A        |
|                              | Lens Ty   | /pe (multiple claim sequence W,U,L,R,S)   |              | N/A        |

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Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

A2LA Accredited-Cert .#1612.01

Lab Temp (°C): 22 Lab Rh: 50

|            | 010 Requirement   | Test Results  | Acceptance   |
|------------|---|---|--|
| i alagiapi | Use (multiple claim sequence D3,D4,D5)  |   | N/A  |
|            | Permanence of markings  | Acceptable  | Pass   |
| 5.5.4      | All frames which can house replaceable or removable lenses shall be supplied with detailed specifications on the required lens bevel design or mounting technique and nominal lens sizing required to conform to ANSI/ISEA Z87.1-2010.  |   |  |
|            |   |   | N/A  |
| 5.7        | All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested assembled with the original complete device in the as worn condition to show compliance with all applicable requirements in Sections 5, 6, 7 and 8. For aftermarket sideshields, the sideshields shall be tested on representative frames for which the product is specified to fit. Documentation listing all devices that the component or accessory (OEM or non-OEM) has been tested and is approved for shall be made available by the manufacturer. Except automatic darkening filters, replacement welding and goggle filters and lenses that meet the size restrictions specified in Section 5.6 shall be tested on one (1) type of representative frames as needed to verify compliance with applicable requirements in Sections 5, 6, 7 and 8. | Manufacturer requirement  | Not testable   |
| 6.1.1      | Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b. Impact Requirements  | Acceptable  | Pass   |
| 6.1.3      | When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5 mm (0.06 in.) in diameter) from the vertical plane of the lenses tangential to a point not less than 10 mm (0.394 in.) posterior to the corneal plane and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) above and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane centered on the eyes of the headform. The probe shall not contact the headform within the defined coverage area. (See Annex D).  | Accentable  | Pass   |
|            | 5.5.4   | Permanence of markings   5.5.4 All frames which can house replaceable or removable lenses shall be supplied with detailed specifications on the required lens bevel design or mounting technique and nominal lens sizing required to conform to ANSI/ISEA Z87.1-2010.   5.7 All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested assembled with the original complete device in the as worn condition to show compliance with all applicable requirements in Sections 5, 6, 7 and 8. For aftermarket sideshields, the sideshields shall be tested on representative frames for which the product is specified to fit. Documentation listing all devices that the component or accessory (OEM or non-OEM) has been tested and is approved for shall be made available by the manufacturer. Except automatic darkening filters, replacement welding and goggle filters and lenses that meet the size restrictions specified in Section 5.6 shall be tested on one (1) type of representative frames as needed to verify compliance with applicable requirements in Sections 5, 6, 7 and 8.   6.1.1 Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b. Impact Requirements   6.1.3 When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5 mm (0.06 in.) in diameter) from the vertical plane of the lenses than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) above and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane centered on the eyes of the headform. The probe shall not contact the headform within the def | Paragraph   Requirement     Use (multiple claim sequence D3,D4,D5)   Permanence of markings   Acceptable     5.5.4   All frames which can house replaceable or removable lenses shall be supplied with detailed specifications on the required lens bevel design or mounting technique and nominal lens sizing required to conform to ANSI/ISEA Z87.1-2010.   S.7   All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested assembled with the original complete device in the as worn condition to show compliance with all applicable requirements in Sections 5, 6, 7 and 8. For aftermarket sideshields shall be tested on representative frames for which the product is specified to fit. Documentation listing all devices that the component or accessory (OEM or non-OEM) has been tested and is approved for shall be made available by the manufacturer. Except automatic darkening filters, replacement welding and goggle filters and lenses that meet the size restrictions specified in Section 5.6 shall be tested on one (1) type of representative frames as needed to verify compliance with applicable requirements in Sections 5, 6, 7 and 8.     6.1.1   Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b. Impact Requirements   Acceptable     6.1.3   When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5 mm (0.06 in.) in diameter) from the varical plane of the lenses tangential to a point not less than 10 mm (0.334 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane ce |

Project No. Z-WPI080812-01-01



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

Lab Temp (°C): 22

|                                | •             |  |              |            |
|--------------------------------|---------------|--|--------------|------------|
| Lab Rh : 50                    | ANSI Z87.1-20 | 010  |              |            |
| Test/Property                  | Paragraph     | Requirement  | Test Results | Acceptance |
| High Mass Impact               |               | When tested in accordance with Section 9.11, the complete device shall be capable of resisting an impact from a pointed projectile weighing 500 g (17.6 oz.) dropped from a height of 127 cm (50.0 in.).   |              |            |
|                                |               | Left Eye Sample 1  | Acceptable   | Pass       |
|                                |               | Left Eye Sample 2  | Acceptable   | Pass       |
|                                |               | Right Eye Sample 3   | Acceptable   | Pass       |
|                                |               | Right Eye Sample 4   | Acceptable   | Pass       |
| High Velocity Impact           |               | When tested in accordance with Section 9.12, the complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at the velocity specified in Table 5. No contact with the eye of the headform is permitted as a result of impact. |              |            |
|                                |               | Left Eye Center  | 151 fps      | Pass       |
|                                |               | Left Eye 30°   | 151 fps      | Pass       |
|                                |               | Right Eye Center   | 152 fps      | Pass       |
|                                |               | Right Eye 30°  | 151 fps      | Pass       |
|                                |               | One Side 90° at 10mm Above (H - 8mm)   | 150 fps      | Pass       |
|                                |               | Opposite Side 90° at 10mm Below (H - 8mm)  | 150 fps      | Pass       |
| Penetration Test (lenses only) |               | When tested in accordance with Section 9.13, lenses for all complete devices shall be capable of resisting penetration by a weighted needle with a total weight of 44.2 gm (1.56 oz.) dropped from a height of 127 cm (50.0 in.).  |              |            |
|                                |               | Left Eye Sample 1  | Acceptable   | Pass       |
|                                |               | Left Eye Sample 2  | Acceptable   | Pass       |
|                                |               | Right Eye Sample 3   | Acceptable   | Pass       |
|                                |               | Right Eye Sample 4   | Acceptable   | Pass       |

Report To: Wolf Peak Holdings, LLC Project No. Z-WPI080812-01-01



Sample ID: Brazeau (XB116)

Smoke Lens, Black Gloss Frame [S]

Report Date: 9/21/2012

#### Lab Temp (°C): 22 Lab Rh: 50

| Lab Rh : 50<br>Test/Property | ANSI Z87.1-2010<br>Paragraph Requirement |   | Test Results | Acceptance |
|------------------------------|--|---|--------------|------------|
| Special Purpose Lenses       | Table 10                                 | Transmittance Requirements for Special Purpose Lenses |              |            |
|                              |  | Tinted Lens - Left Eye (8% - 85%)                     | 13.01%       | Pass       |
|                              |  | Tinted Lens - Right Eye (8% - 85%)                    | 13.26%       | Pass       |
|                              |  | Tinted Lens - Ratio (0.90 - 1.10)                     | 0.981        | Pass       |
|                              |  | Extra Dark Lens - Left Eye (0.2% - 8%)                |              | N/A        |
|                              |  | Extra Dark Lens - Right Eye (0.2% - 8%)               |              | N/A        |
|                              |  | Extra Dark Lens - Ratio (0.80 - 1.20)                 |              | N/A        |