June 7, 2022

GAI-LAP
Initial: CVZ #:0.13
DATE: 06/07/2022

Nikoliya Boyanich
NewFields
9400 Station Street, Suite 300
Lone Tree, CO 80124

Re: FINAL LABORATORY TEST REPORT

Dear Ms. Boyanich:

Thank you for consulting TRI California for your material testing needs.

Enclosed is the ***final*** laboratory report for the Conformance testing of one (1) 40mil Smooth HDPE sample.

PROJECT NAME: Cripple Creek & Victor Mine VLF2 Ph 3 DATE REPORTED: **June 7, 2022**

REFERENCE TRI JOB NO.: CA220530

DATE RECEIVED: May 26, 2022

SAMPLED BY: New Fields

SAMPLE IDENTIFICATIONS:

SAMPLE ID	*TRI CONTROL NUMBER*
R#GTD0092600004 L#PPA821630	163505

TESTS REQUIRED / PERFORMED:

TEST METHOD	*DESCRIPTION*
1. ASTM D6693	Tensile Properties
2. ASTM D792	Specific Gravity Method A
3. ASTM D4218	Carbon Content Muffle
4. ASTM D1238	Melt Flow Index
5. ASTM D1004	Tear Resistance
6. ASTM D4833	Puncture Resistance
7. ASTM D5596	Carbon Black Dispersion
8. ASTM D5199	Thickness

TEST RESULTS: The test results are summarized in the attached Table 1.

Note: The general conditioning and testing of the material samples identified in this report were performed within the range of the laboratory environmental conditions; i.e., 20-24°C and 45-65% RH. Otherwise, the actual environmental conditions are indicated in the respective test method reported.

Respectfully,
TRI Environmental, Inc. - California

Maria Espitia
Quality Assurance

Chad Blackwell
TRI-CA Director

Signatures are on file

3 Pages Total *(including this sheet)*

TABLE 1.

MATERIAL PROPERTIES

CLIENT: NewFields

PROJECT: Criple Creek & Victor Mine VLF2 Ph 3

Date Received: **5/26/2022**
Date Reported: **6/7/2022**
Client Sample ID: **R#GTD0092600004 L#PPA821630**
Material Description: **40mil Smooth HDPE**

QC'd By: Maria Espitia
TRI Job No.: **CA220530**
TRI Control No.: **163505**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5199	Thickness (mils)															
Procedure B	*Apparatus:Dead weight dial Micrometer with 6.35 mm (0.250 in) dia presser foot and a pressure of 43.10 kPA (6.38 psi) provided by a 142 gm dead weight. Loading time: 5 sec Specimen Size: 10pcs.-3in. Diameter.*															**40 min. ave.**
		40	**41**	**42**	**42**	**43**	**41**	**42**	**42**	**42**	**42**	**42**	**1**	**40**	**43**	**36 min.**
ASTM D792	Specific Gravity (23/ 23°C)															
Method A		**0.9538**	**0.9535**									**0.9537**	**0.0002**	**0.9535**	**0.9538**	**0.940 min. ave.**
ASTM D6693	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	**109**	**114**	**109**	**113**	**109**						**111**	**2**	**109**	**114**	**63 min. ave.**
	TD	**110**	**116**	**111**	**110**	**109**						**111**	**3**	**109**	**116**	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	**219**	**219**	**215**	**216**	**204**						**215**	**6**	**204**	**219**	**114 min. ave.**
	TD	**187**	**208**	**211**	**187**	**194**						**197**	**12**	**187**	**211**	
	Elongation at Yield (percent, %)															
	MD	**19**	**16**	**17**	**16**	**18**						**17**	**1**	**16**	**19**	**12 min. ave.**
	TD	**14**	**17**	**16**	**16**	**14**						**15**	**1**	**14**	**17**	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in.*															
	MD	**859**	**848**	**773**	**864**	**828**						**834**	**37**	**773**	**864**	**700 min. ave.**
	TD	**823**	**909**	**922**	**850**	**922**						**885**	**46**	**823**	**922**	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	**37.4**	**34.8**	**38.0**	**37.0**	**37.1**	**36.0**	**36.0**	**36.1**	**35.7**	**35.0**	**36.3**	**1.0**	**34.8**	**38.0**	**28 min. ave.**
	TD	**32.0**	**31.1**	**30.0**	**32.5**	**33.0**	**36.0**	**34.1**	**35.0**	**35.0**	**34.1**	**33.3**	**1.9**	**30.0**	**36.0**	
	Thickness (mils)															
	MD	**41**	**41**	**40**	**40**	**41**	**41**	**41**	**41**	**42**	**41**	**41**	**1**	**40**	**42**	**-**
	TD	**40**	**41**	**40**	**42**	**42**	**42**	**40**	**42**	**40**	**41**	**41**	**1**	**40**	**42**	

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LEGENDS:
MD - MACHINE DIRECTION
TD- TRANSVERSE DIRECTION

1970 S. Santa Cruz Street, Anaheim, CA 92805, www.precisionlabs.net
TRI Environmental, Inc. dba Precision Geosynthetic Laboratories International

TABLE 1.

MATERIAL PROPERTIES

CLIENT: NewFields

PROJECT: Criple Creek & Victor Mine VLF2 Ph 3

Date Received: **5/26/2022**
Date Reported: **6/7/2022**
Client Sample ID: **R#GTD0092600004 L#PPA821630**
Material Description: **40mil Smooth HDPE**

QC'd By: Maria Espitia
TRI Job No.: **CA220530**
TRI Control No.: **163505**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4833	Puncture Resistance (lbs)															
	Specimens were tested as directed in Test Method D4833. They were clamped without tension between circular plates of a ring clamp attachment secured in the tensile machine. Test specimens were extended beyond the outer edges of the clamping plates.															
		117	**117**	**116**	**113**	**112**	**111**	**111**	**107**	**105**	**105**	**111**	**5**	**105**	**117**	**72 min. ave.**
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															**9 in Cat. 1 or 2**
		1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**10 out of 10 in Category 1**				**1 in Cat. 3**
ASTM D1238 Procedure A	Melt Flow Index (grams/ 10 minutes)															
	Condition FR-190/2.16.; Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^{0}C and 2.16kg load.															
		0.2641	**0.2648**	**0.2647**								**0.2645**	**0.0004**	**0.2641**	**0.2648**	**-**
ASTM D4218	Carbon Content															
	Apparatus: Muffle Furnace															
		2.50	**2.46**									**2.48**	**0.03**	**2.46**	**2.50**	**2.0 - 3.0**

(End of Table 1)

LEGENDS:
MD - MACHINE DIRECTION
TD- TRANSVERSE DIRECTION