



Miller Environmental Corporation

1803 Hekla Avenue
Winnipeg, Manitoba R2R 0K3
Tel. (204) 925-9600 Fax (204) 925-9601

Committed to Leadership in Our Industry

November 19, 2020

Manitoba Conservation and Climate
Environmental Compliance and Enforcement
1007 Century Street
Winnipeg, MB R3H 0W4

Attn: Edward Yazon – Environmental Engineer

Dear Mr. Yazon:

RE: Repository Cell 2 South Side HDPE QA/QC Results - License DGHTA No. 58 HW S2 RRRR

Please accept this as Miller Environmental Corporation's QA/QC report for the installed HDPE liner on the South side of Repository Cell 2 (RC2).

For result details, please refer to Appendix A – Repository Cell 2 South Side HDPE QA/QC Results.

If you have any questions, please feel free to contact me at 204-925-9604 or by email at daveh@millerenvironmental.mb.ca

Sincerely yours,

Miller Environmental Corporation

Dave Howes
Director of Regulatory Affairs

CC: Paul Bauer – Vice President & General Manager, Miller Environmental Corporation
Yolo Ortiz – Operations Manager, Miller Environmental Corporation

Appendix A

Repository Cell 2 South Side HDPE QA/QC Results

Project Completion QA/QC Package
for

Miller Environmental Corporation
C/O
Winnipeg Environmental Remediation

RC2 Containment Cell

Installation of HDPE 60mil Smooth Geomembrane

St. Jean Baptiste, MB

Prepared By: Mark Tymecki

Reviewed By: Mark Tymecki

Date Submitted: November 16th, 2020

Layfield Canada Ltd.

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for

Miller Environmental Corporation

C/O

Winnipeg Environmental
Remediation

RC2 Containment Cell

Installation of HDPE 60mil Smooth Geomembrane

St. Jean Baptiste, MB

New Construction

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Other Documents

1) Inventory Log	1 pg.
2) Mill Certificate	4 pg.
3) Installation Warranty	1 pg.



New Construction

CERTIFICATE OF INSPECTION OF SOIL SUBGRADE SURFACE

PROJECT NAME: MILLER ENVIRONMENTAL RC-2
 PROJECT NUMBER: OT-001514
 OWNER/CONTRACTOR: MILLER ENVIRONMENTAL / WILKINS ENVIRONMENTAL
 LOCATION: Saint John Baptiste, MB

I, the undersigned, a duly appointed representative of Layfield Canada Ltd. (Layfield), have visually observed the soil subgrade surface described below, and:

- found it to be an acceptable surface on which to install geomembrane; OR
 found it to be an Unacceptable surface on which to install geomembrane

Area Inspected (Partial or Complete): _____
 Dimensions of Subgrade Inspection: 7103 SQM
 Anchor Trench Dimensions: 2' x 2'
 Comments: _____

This certification is based on observations of the surface of the subgrade only. No subterranean inspections or tests have been performed by Layfield and Layfield makes no representations or warranties regarding conditions which may exist below the surface of the subgrade. Layfield accepts no responsibility for conformance of the subgrade to this project's specifications.

The soil subgrade inspected on this date refers to its present condition. Any changes in the subgrade condition that result from the effects of inclement weather and/or other forces beyond the control of Layfield and remedial work to correct the resulting deficiencies, will be the direct responsibility of the General Contractor.

LAYFIELD REPRESENTATIVE:

Date: Nov 6th, 2020
 Signature: [Signature]
 Name: DAVID BURGOS
 Title: PROJECT SUPERVISOR

OWNERS REPRESENTATIVE:

I, the undersigned, a duly appointed representative of the Owner, hereby understand the soil subgrade surface inspection described above and authorize Layfield to proceed with deployment of geosynthetics on the subgrade provided.

Date: Nov 6th 2020
 Signature: [Signature]
 Name: Duane Melinton
 Title: SUPERVISOR
 Company: WERI



GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER CT001514
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2

AREA / LAYER PRIMARY
 DEPLOYMENT DATE 2020/11/04

PANEL NUMBER	ROLL NUMBER	LENGTH (m)	WIDTH (m)	AIR TEMP °C	PANEL CONDITION	CHECKED BY	SUBGRADE CONDITION
5	E0011221-004	19.5	6.8	7	GOOD	DB	OPTIMAL
6	E0011221-004	11	6.8	7	GOOD	DB	OPTIMAL
7	E0011221-004	16	6.8	7	GOOD	DB	OPTIMAL
8	E0011221-004	12.8	6.8	7	GOOD	DB	OPTIMAL
9	E0011221-004	16	6.8	7	GOOD	DB	OPTIMAL
10	E0011221-004	16	6.8	10	GOOD	DB	OPTIMAL
11	E0011221-004	16	6.8	11	GOOD	DB	OPTIMAL
12	E0011221-004	16	6.8	11	GOOD	DB	OPTIMAL
13	E0011221-004	16	6.8	11	GOOD	DB	OPTIMAL
14	E0011221-004	16	6.8	15	GOOD	DB	OPTIMAL
15	E0011221-004	16	6.8	15	GOOD	DB	OPTIMAL
16	E0011221-012	16	6.8	15	GOOD	DB	OPTIMAL
17	E0011221-012	16	6.8	15	GOOD	DB	OPTIMAL
18	E0011221-012	16	6.8	15	GOOD	DB	OPTIMAL
19	E0011221-012	16	6.8	19	GOOD	DB	OPTIMAL
20	E0011221-012	16	6.8	19	GOOD	DB	OPTIMAL
21	E0011221-012	15.5	6.8	19	GOOD	DB	OPTIMAL
22	E0011221-012	15.5	6.8	19	GOOD	DB	OPTIMAL
23	E0011221-012	15.5	6.8	19	GOOD	DB	OPTIMAL
24	E0011221-012	15.5	6.8	19	GOOD	DB	OPTIMAL

TOTAL PAGE AREA 2130.44 m²

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 2 of 3



GEOMEMBRANE SEAM & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2 SEAM DATE 2020/11/04

TRIAL SEAMS																							
#	MACHINE NUMBER	TIME	TECH	AIR TEMP °C	SPEED	TEMP/SETTING	INSIDE PEEL (PPI)					OUTSIDE PEEL (PPI)					SHEAR (PPI)			CHK'D BY	LINER TO LINER TYPE AND REMARKS		
							116	119	125	131	119	117	119	124	131	119	225	231	198			198	187
1	PW-4063	815	MR	7	55.0%	454°C	116	119	125	131	119	117	119	124	131	119	225	231	198	198	187	DB	
2	PW-4112	820	DB	7	55.0%	454°C	113	114	121	124	117	109	117	125	127	120	203	213	205	209	196	DB	
3	PW-4063	1235	MR	16	55.0%	454°C	121	129	131	124	122	122	133	133	127	116	198	198	203	211	185	DB	
4	PW-4112	1240	DB	16	55.0%	454°C	125	115	109	115	113	122	115	111	116	127	220	201	209	187	189	DB	

WELD SEAMS									QC		AIR PRESSURE TEST (PSI)				VERIFY	
PANEL NUMBERS	SEAM SECTION		START TIME	AIR TEMP °C	WELD TECH	MACHINE NUMBER	WELD LENGTH	DESTRUCT NUMBER	TEST METH.	TEST DATE Y-M-D	TIME		PRESSURE		PASS	QC TECH
	FROM	TO									START	END	START	END		
4 / 5	WEOS	EEOS	832	7	MR	PW-4063	19.5		AP+PS	11/6/2020	1115	1120	35	35	PASS	DB
5 / 6	WEOS	EEOS	845	7	MR	PW-4063	11.0		AP+PS	11/6/2020	1121	1126	35	35	PASS	DB
7 / 8	NEOS	SEOS	911	7	MR	PW-4063	12.8		AP+PS	11/6/2020	1121	1126	35	35	PASS	DB
8 / 9	NEOS	SEOS	914	7	DB	PW-4112	6.8		AP+PS	11/6/2020	1121	1126	35	35	PASS	DB
7 / 10	NEOS	SEOS	935	7	MR	PW-4063	16.0		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
10 / 11	NEOS	SEOS	940	7	DB	PW-4112	16.0		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
11 / 12	NEOS	SEOS	1039	10	MR	PW-4063	16.0		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
12 / 13	NEOS	SEOS	1051	11	MR	PW-4063	16.0		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
13 / 14	NEOS	SEOS	1109	12	MR	PW-4063	16.0		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
14 / 15	NEOS	SEOS	1118	13	MR	PW-4063	16.0		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
15 / 16	NEOS	SEOS	1300	17	MR	PW-4063	16.0	DS-4	AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
16 / 17	NEOS	SEOS	1315	17	MR	PW-4063	16.0		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
17 / 18	NEOS	SEOS	1327	17	MR	PW-4063	16.0		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
18 / 19	NEOS	SEOS	1339	17	MR	PW-4063	16.0		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
19 / 20	NEOS	SEOS	1352	17	MR	PW-4063	16.0		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
20 / 21	NEOS	SEOS	1409	17	MR	PW-4063	15.5		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
21 / 22	NEOS	SEOS	1422	17	MR	PW-4063	15.5		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
24 / 25	NEOS	SEOS	1427	17	DB	PW-4112	15.5	DS-5	AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
22 / 23	NEOS	SEOS	1432	17	MR	PW-4063	15.5		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
25 / 26	NEOS	SEOS	1440	17	DB	PW-4112	15.5		AP+PS	11/6/2020	1156	1201	35	35	PASS	DB

PAGE TOTAL **303.6**

TEST METHOD	AL - AIR LANCE	ST - SPARK TEST
	AP - AIR PRESSURE	VB - EXTRUDED
	PS - POINT STRESS	& VAC BOX

REMARKS:

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 2 of 6

LS-10-QF-004

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GEOMEMBRANE SEAM & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2 SEAM DATE 2020/11/05

TRIAL SEAMS																							
#	MACHINE NUMBER	TIME	TECH	AIR TEMP °C	SPEED	TEMP/SETTING	INSIDE PEEL (PPI)					OUTSIDE PEEL (PPI)					SHEAR (PPI)				CHK'D BY	LINER TO LINER TYPE AND REMARKS	
							99	108	110	107	111	110	107	117	128	113	229	200	199	219			203
1	PW-4063	735	MR	5	50.0%	454°C	99	108	110	107	111	110	107	117	128	113	229	200	199	219	203	DB	
2	PW-4112	739	DB	5	50.0%	454°C	113	127	115	119	121	116	119	119	118	135	189	195	195	201	187	DB	

WELD SEAMS								QC		AIR PRESSURE TEST (PSI)				VERIFY		
PANEL NUMBERS	SEAM SECTION		START TIME	AIR TEMP °C	WELD TECH	MACHINE NUMBER	WELD LENGTH	DESTRUCT NUMBER	TEST METH.	TEST DATE Y-M-D	TIME		PRESSURE		PASS	QC TECH
	FROM	TO									START	END	START	END		
EXIST / 9	WEOS	EEOS	1010	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
EXIST / 8	WEOS	EEOS	1013	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
6 / 9	WEOS	EEOS	1015	7	MR	PW-4063	7.0	DS-6	AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
EXIST / 7	WEOS	EEOS	1016	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
5 / 8	WEOS	EEOS	1018	7	MR	PW-4063	9.0		AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
EXIST / 10	WEOS	EEOS	1019	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1202	1207	35	35	PASS	DB
4 / 7	WEOS	EEOS	1021	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
EXIST / 11	WEOS	EEOS	1022	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1208	1213	35	35	PASS	DB
4 / 10	WEOS	EEOS	1024	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
EXIST / 12	WEOS	EEOS	1025	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1208	1213	35	35	PASS	DB
4 / 11	WEOS	EEOS	1027	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
EXIST / 13	WEOS	EEOS	1028	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1208	1213	35	35	PASS	DB
4 / 12	WEOS	EEOS	1030	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1128	1133	35	35	PASS	DB
EXIST / 14	WEOS	EEOS	1031	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1208	1213	35	35	PASS	DB
4 / 13	WEOS	EEOS	1033	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
EXIST / 15	WEOS	EEOS	1034	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1215	1220	35	35	PASS	DB
4 / 14	WEOS	EEOS	1036	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
EXIST / 16	WEOS	EEOS	1037	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1215	1220	35	35	PASS	DB
4 / 15	WEOS	EEOS	1039	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
EXIST / 17	WEOS	EEOS	1041	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1215	1220	35	35	PASS	DB

PAGE TOTAL **138.4**

TEST METHOD AL - AIR LANCE ST - SPARK TEST
 AP - AIR PRESSURE VB - EXTRUDED
 PS - POINT STRESS & VAC BOX

REMARKS: Exist = RC3 Existing liner. Tie in of RC2 to RC3

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 4 of 6

LS-10-QF-004

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GEOMEMBRANE SEAM & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2 SEAM DATE 2020/11/05

TRIAL SEAMS																	
#	MACHINE NUMBER	TIME	TECH	AIR TEMP °C	SPEED	TEMP/SETTING	INSIDE PEEL (PPI)			OUTSIDE PEEL (PPI)			SHEAR (PPI)			CHK'D BY	LINER TO LINER TYPE AND REMARKS

WELD SEAMS								QC		AIR PRESSURE TEST (PSI)				VERIFY		
PANEL NUMBERS	SEAM SECTION		START TIME	AIR TEMP °C	WELD TECH	MACHINE NUMBER	WELD LENGTH	DESTRUCT NUMBER	TEST METH.	TEST DATE Y-M-D	TIME		PRESSURE		PASS	QC TECH
	FROM	TO									START	END	START	END		
4 / 16	WEOS	EEOS	1042	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1134	1139	35	35	PASS	DB
EXIST / 18	WEOS	EEOS	1044	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1215	1220	35	35	PASS	DB
4 / 17	WEOS	EEOS	1045	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
EXIST / 19	WEOS	EEOS	1047	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1222	1227	35	35	PASS	DB
4 / 18	WEOS	EEOS	1048	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
EXIST / 20	WEOS	EEOS	1050	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1222	1227	35	35	PASS	DB
4 / 19	WEOS	EEOS	1051	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
EXIST / 21	WEOS	EEOS	1053	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1222	1227	35	35	PASS	DB
4 / 20	WEOS	EEOS	1054	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
EXIST / 22	WEOS	EEOS	1056	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1222	1227	35	35	PASS	DB
4 / 21	WEOS	EEOS	1057	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1142	1147	35	35	PASS	DB
EXIST / 23	WEOS	EEOS	1059	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1230	1235	35	35	PASS	DB
4 / 22	WEOS	EEOS	1100	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
EXIST / 24	WEOS	EEOS	1102	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1230	1235	35	35	PASS	DB
4 / 23	WEOS	EEOS	1103	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
EXIST / 25	WEOS	EEOS	1105	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1230	1235	35	35	PASS	DB
4 / 24	WEOS	EEOS	1106	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
EXIST / 26	WEOS	EEOS	1108	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1230	1235	35	35	PASS	DB
4 / 25	WEOS	EEOS	1109	7	MR	PW-4063	6.8		AP+PS	11/6/2020	1150	1155	35	35	PASS	DB
EXIST / 27	WEOS	EEOS	1111	11	DB	PW-4112	6.8		AP+PS	11/6/2020	1236	1241	35	35	PASS	DB

PAGE TOTAL 136.0

TEST METHOD AL - AIR LANCE ST - SPARK TEST
 AP - AIR PRESSURE VB - EXTRUDED
 PS - POINT STRESS & VAC BOX

REMARKS: Exist = RC3 Existing liner. Tie in of RC2 to RC3

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 5 of 6

LS-10-QF-004

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GEOMEMBRANE DETAIL & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2

TRIAL SEAMS																			
#	MACHINE NUMBER	DATE YYYY-MM-DD	TIME	WELD TECH	AIR TEMP °C	PREHEAT TEMP °C	EXTRUDER TEMP °C	PEEL (PPI)					SHEAR (PPI)					CHK'D BY	REMARKS
1	PX-005	2020/11/06	720	TH	5	262°C	262°C	119	121	128	102	107	200	209	189	199	201	DB	
2	PX-015	2020/11/06	725	DB	5	265°C	265°C	121	115	106	108	115	203	199	188	187	203	DB	
3																			
4																			
5																			
6																			

DETAIL CODE	PANEL NUMBER(S)	LOCATION DESCRIPTION	DETAIL TYPE	REPAIR TYPE	MACHINE NUMBER	REPAIR DATE YYYY-MM-DD	START TIME	WELD TECH	AIR TEMP °C	TEST DATE YYYY-MM-DD	TEST METH.	QC TECH
1A	5 / 6	T Seam Intersect P5-6-8-9	T	P	PX-005	2020/11/06	741	TH	6	2020/11/06	VB+PT	DB
1B	4 / 5	T Seam Intersect P4-7-8	T	P	PX-005	2020/11/06	755	TH	6	2020/11/06	VB+PT	DB
1C	7 / 10	T Seam Intersect P 4-7-10	T	G&W	PX-005	2020/11/06	803	TH	6	2020/11/06	VB+PT	DB
1D	10 / 11	T Seam Intersect P4-10-11	T	G&W	PX-005	2020/11/06	815	TH	6	2020/11/06	VB+PT	DB
1E	11 / 12	T Seam Intersect P4-11-12	T	G&W	PX-005	2020/11/06	823	TH	6	2020/11/06	VB+PT	DB
1F	12 / 13	T Seam Intersect P4-12-13	T	G&W	PX-005	2020/11/06	828	TH	6	2020/11/06	VB+PT	DB
1G	13 / 14	T Seam Intersect P4-13-14	T	G&W	PX-005	2020/11/06	847	TH	6	2020/11/06	VB+PT	DB
1H	14 / 15	T Seam Intersect P4-14-15	T	G&W	PX-005	2020/11/06	856	TH	6	2020/11/06	VB+PT	DB
1I	15 / 16	T Seam Intersect P4-15-16	T	G&W	PX-005	2020/11/06	908	TH	6	2020/11/06	VB+PT	DB
1J	16 / 17	T Seam Intersect P4-16-17	T	G&W	PX-005	2020/11/06	917	TH	6	2020/11/06	VB+PT	DB
1K	17 / 18	T Seam Intersect P4-17-18	T	G&W	PX-005	2020/11/06	926	TH	6	2020/11/06	VB+PT	DB
1L	18 / 19	T Seam Intersect P4-18-19	T	G&W	PX-005	2020/11/06	931	TH	6	2020/11/06	VB+PT	DB
1M	19 / 20	T Seam Intersect P4-19-20	T	G&W	PX-005	2020/11/06	941	TH	6	2020/11/06	VB+PT	DB
1N	20 / 21	T Seam Intersect P4-20-21	T	G&W	PX-005	2020/11/06	949	TH	6	2020/11/06	VB+PT	DB
1O	21 / 22	T Seam Intersect P4-21-22	T	G&W	PX-005	2020/11/06	1003	TH	6	2020/11/06	VB+PT	DB
1P	22 / 23	T Seam Intersect P4-22-23	T	G&W	PX-005	2020/11/06	1018	TH	6	2020/11/06	VB+PT	DB
1Q	23 / 24	T Seam Intersect P4-23-24	T	G&W	PX-005	2020/11/06	1026	TH	6	2020/11/06	VB+PT	DB
1R	24 / 25	T Seam Intersect P4-24-25	T	G&W	PX-005	2020/11/06	1031	TH	6	2020/11/06	VB+PT	DB
1S	25 / 26	T Seam Intersect P4-25-26	T	G&W	PX-005	2020/11/06	1045	TH	6	2020/11/06	VB+PT	DB
1T	26 / 27	T Seam Intersect P4-26-27	T	G&W	PX-005	2020/11/06	1055	TH	6	2020/11/06	VB+PT	DB

DETAIL TYPE: AD - ANIMAL DAMAGE DS-# - DESTRUCT SAMPLE NUMBER IO - INSUFFICIENT OVERLAP T - THREE PANEL INTERSECTION
 ATL - AIR TEST LEAK EE - EARTHWORK EQUIPMENT DAMAGE MD - MANUFACTURER/DELIVERY DAMAGE VL - VACUUM TEST LEAK
 BO - FUSION WELDER BURN EXT - EXTENSION P - PENETRATION WR - WRINKLE
 CR - CREASE FM - FISHMOUTH PT - PRESSURE TEST CUT WS - WELDER RESTART
 D - INSTALLATION DAMAGE FS - FAILED SEAM LENGTH SI - SOIL SURFACE IRREGULARITY OTHER:

TEST METHOD: AL - AIR LANCE VB - VAC BOX
 PS - POINT STRESS ST - SPARK TEST

REPAIR TYPE: G&W - GRIND & WELD B - BOOT P - PATCH
 HAW - HOT AIR WELD C - CAP

REMARKS

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 1 of 3



GEOMEMBRANE DETAIL & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2

TRIAL SEAMS																			
#	MACHINE NUMBER	DATE YYYY-MM-DD	TIME	WELD TECH	AIR TEMP °C	PREHEAT TEMP °C	EXTRUDER TEMP °C	PEEL (PPI)					SHEAR (PPI)					CHK'D BY	REMARKS
1	PX-005	2020/11/06	720	TH	5	262°C	262°C	119	121	128	102	107	200	209	189	199	201	DB	
2	PX-015	2020/11/06	725	DB	5	265°C	265°C	121	115	106	108	115	203	199	188	187	203	DB	
3																			
4																			
5																			
6																			

DETAIL CODE	PANEL NUMBER(S)	LOCATION DESCRIPTION	DETAIL TYPE	REPAIR TYPE	MACHINE NUMBER	REPAIR DATE YYYY-MM-DD	START TIME	WELD TECH	AIR TEMP °C	TEST DATE YYYY-MM-DD	TEST METH.	QC TECH
2A	27 / 30	T Seam Intersect P4-27-28-30	T	G&W	PX-005	2020/11/06	1103	TH	6	2020/11/06	VB+PT	DB
2B	28 / 29	T Seam Intersect P28-29-30	T	G&W	PX-005	2020/11/06	1115	TH	6	2020/11/06	VB+PT	DB
2C	29 / 30	T Seam Intersect P29-30-31	T	G&W	PX-005	2020/11/06	1125	TH	6	2020/11/06	VB+PT	DB
2D	29 / 31	Panel intersect P31 to RC3	T	G&W	PX-015	2020/11/06	1102	DB	6	2020/11/06	VB+PT	DB
2E	1 / 2	5MTS FROM WEOS	B	P	PX-005	2020/11/06	1130	TH	6	2020/11/06	VB+PT	DB
2F	6 / 9	T Seam Intersect P6-9-Existing	T	G&W	PX-015	2020/11/06	725	DB	6	2020/11/06	VB+PT	DB
2G	8 / 9	T Seam Intersect P8-9-Existing	T	G&W	PX-015	2020/11/06	730	DB	6	2020/11/06	VB+PT	DB
2H	7 / 8	T Seam Intersect P7-8-Existing	T	G&W	PX-015	2020/11/06	735	DB	6	2020/11/06	VB+PT	DB
2I	7 / 10	T Seam Intersect P7-10-Existing	T	G&W	PX-015	2020/11/06	740	DB	6	2020/11/06	VB+PT	DB
2J	10 / 11	TSeam Intersect P10-11-Existing	T	G&W	PX-015	2020/11/06	745	DB	6	2020/11/06	VB+PT	DB
2K	11 / 12	TSeam Intersect P11-12-Existing	T	G&W	PX-015	2020/11/06	750	DB	6	2020/11/06	VB+PT	DB
2L	12 / 13	TSeam Intersect P12-13-Existing	T	G&W	PX-015	2020/11/06	755	DB	6	2020/11/06	VB+PT	DB
2M	13 / 14	TSeam Intersect P13-14-Existing	T	G&W	PX-015	2020/11/06	800	DB	6	2020/11/06	VB+PT	DB
2N	14 / 15	TSeam Intersect P14-15-Existing	T	G&W	PX-015	2020/11/06	812	DB	6	2020/11/06	VB+PT	DB
2O	15 / 16	TSeam Intersect P15-16-Existing	T	G&W	PX-015	2020/11/06	817	DB	6	2020/11/06	VB+PT	DB
2P	16 / 17	TSeam Intersect P16-17-Existing	T	G&W	PX-015	2020/11/06	822	DB	6	2020/11/06	VB+PT	DB
2Q	17 / 18	TSeam Intersect P17-18-Existing	T	G&W	PX-015	2020/11/06	837	DB	6	2020/11/06	VB+PT	DB
2R	18 / 19	TSeam Intersect P18-19-Existing	T	G&W	PX-015	2020/11/06	843	DB	6	2020/11/06	VB+PT	DB
2S	19 / 20	TSeam Intersect P19-20-Existing	T	G&W	PX-015	2020/11/06	902	DB	6	2020/11/06	VB+PT	DB
2T	20 / 21	TSeam Intersect P20-21-Existing	T	G&W	PX-015	2020/11/06	907	DB	6	2020/11/06	VB+PT	DB

AD - ANIMAL DAMAGE	DS-# - DESTRUCT SAMPLE NUMBER	IO - INSUFFICIENT OVERLAP	T - THREE PANEL INTERSECTION
ATL - AIR TEST LEAK	EE - EARTHWORK EQUIPMENT DAMAGE	MD - MANUFACTURER/DELIVERY DAMAGE	VL - VACUUM TEST LEAK
BO - FUSION WELDER BURN	EXT - EXTENSION	P - PENETRATION	WR - WRINKLE
CR - CREASE	FM - FISHMOUTH	PT - PRESSURE TEST CUT	WS - WELDER RESTART
D - INSTALLATION DAMAGE	FS - FAILED SEAM LENGTH	SI - SOIL SURFACE IRREGULARITY	OTHER:

TEST METHOD:	AL - AIR LANCE	VB - VAC BOX
	PS - POINT STRESS	ST - SPARK TEST

REPAIR TYPE:	G&W - GRIND & WELD	B - BOOT	P - PATCH
	HAW - HOT AIR WELD	C - CAP	

REMARKS

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 2 of 3



GEOMEMBRANE DETAIL & TEST LOG

PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2

TRIAL SEAMS																			
#	MACHINE NUMBER	DATE YYYY-MM-DD	TIME	WELD TECH	AIR TEMP °C	PREHEAT TEMP °C	EXTRUDER TEMP °C	PEEL (PPI)					SHEAR (PPI)				CHK'D BY	REMARKS	
1	PX-005	2020/11/06	720	TH	5	262°C	262°C	119	121	128	102	107	200	209	189	199	201	DB	
2	PX-015	2020/11/06	725	DB	5	265°C	265°C	121	115	106	108	115	203	199	188	187	203	DB	
3																			
4																			
5																			
6																			

DETAIL CODE	PANEL NUMBER(S)	LOCATION DESCRIPTION	DETAIL TYPE	REPAIR TYPE	MACHINE NUMBER	REPAIR DATE YYYY-MM-DD	START TIME	WELD TECH	AIR TEMP °C	TEST DATE YYYY-MM-DD	TEST METH.	QC TECH
3A	21 / 22	TSeam Intersect P21-22-Existing	T	G&W	PX-015	2020/11/06	931	DB	6	2020/11/06	VB+PT	DB
3B	22 / 23	TSeam Intersect P22-23-Existing	T	G&W	PX-015	2020/11/06	939	DB	6	2020/11/06	VB+PT	DB
3C	23 / 24	TSeam Intersect P23-24-Existing	T	G&W	PX-015	2020/11/06	945	DB	6	2020/11/06	VB+PT	DB
3D	24 / 25	TSeam Intersect P24-25-Existing	T	G&W	PX-015	2020/11/06	957	DB	6	2020/11/06	VB+PT	DB
3E	25 / 26	TSeam Intersect P25-26-Existing	T	G&W	PX-015	2020/11/06	1017	DB	6	2020/11/06	VB+PT	DB
3F	26 / 27	TSeam Intersect P26-27-Existing	T	G&W	PX-015	2020/11/06	1019	DB	6	2020/11/06	VB+PT	DB
3G	27 / 30	TSeam Intersect P27-30-Existing	T	G&W	PX-015	2020/11/06	1025	DB	6	2020/11/06	VB+PT	DB
3H	30 / 31	TSeam Intersect P30-31-Existing	T	G&W	PX-015	2020/11/06	1034	DB	6	2020/11/06	VB+PT	DB
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DETAIL TYPE: AD - ANIMAL DAMAGE DS-# - DESTRUCT SAMPLE NUMBER IO - INSUFFICIENT OVERLAP T - THREE PANEL INTERSECTION
 ATL - AIR TEST LEAK EE - EARTHWORK EQUIPMENT DAMAGE MD - MANUFACTURER/DELIVERY DAMAGE VL - VACUUM TEST LEAK
 BO - FUSION WELDER BURN EXT - EXTENSION P - PENETRATION WR - WRINKLE
 CR - CREASE FM - FISHMOUTH PT - PRESSURE TEST CUT WS - WELDER RESTART
 D - INSTALLATION DAMAGE FS - FAILED SEAM LENGTH SI - SOIL SURFACE IRREGULARITY OTHER:

TEST METHOD: AL - AIR LANCE VB - VAC BOX
 PS - POINT STRESS ST - SPARK TEST

REPAIR TYPE: G&W - GRIND & WELD B - BOOT P - PATCH
 HAW - HOT AIR WELD C - CAP

REMARKS

QC TECH DAVID BURGOS
 SUPERVISOR DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 3 of 3



GEOMEMBRANE DESTRUCT LOG

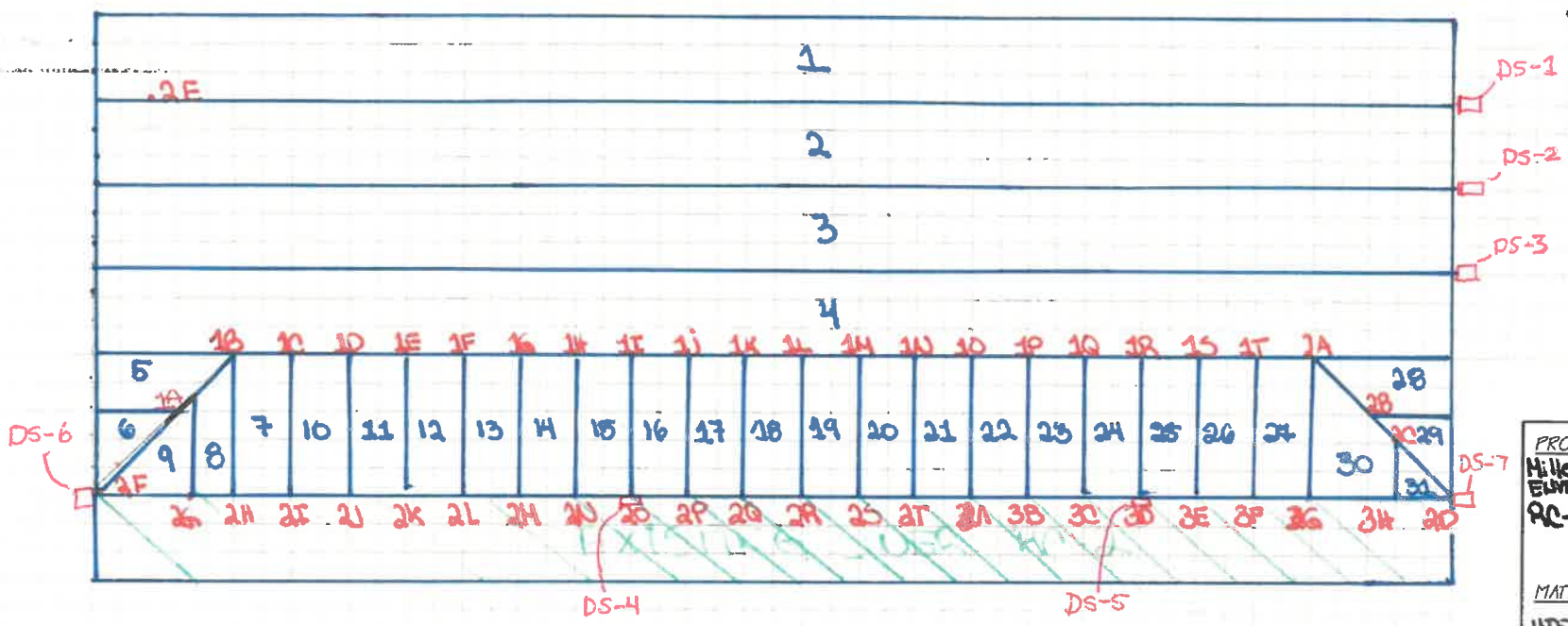
PROJECT NUMBER CT001514 AREA / LAYER PRIMARY
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2 3RD PARTY _____
 ARCHIVE LAYFIELD OWNER ENGINEER

DESTRUCT SAMPLE NUMBER	TYPE OF SEAM	PANEL NUMBERS	TEST DATE YYYY-MM-DD	TEST TEMP °C	INITIALS			INSIDE PEEL STRENGTH (PPI)					OUTSIDE PEEL STRENGTH (PPI)					SHEAR STRENGTH (PPI)				
					3RD PARTY PRESENT LAYFIELD	PASS	3RD PARTY LAB PASS	LOCUS OF BREAK					LOCUS OF BREAK					LOCUS OF BREAK				
DS-1	SOF	1/2	2020/11/04	15		PASS		99	100	100	101	117	101	103	105	108	118	201	225	211	199	203
EEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-2	SOF	2/3	2020/11/04	15		PASS		115	117	121	121	109	117	118	109	119	127	199	200	198	213	207
EEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-3	SOF	3/4	2020/11/04	15		PASS		121	128	107	106	109	105	116	127	113	128	203	201	187	211	208
EEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-4	SOF	15/16	2020/11/05	17		PASS		122	117	115	121	116	107	99	105	125	115	198	199	196	198	199
SEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-5	SOF	24/25	2020/11/05	17		PASS		105	100	103	108	117	113	102	107	125	116	189	192	195	199	198
SEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-6	SOF	6/9	2020/11/06	7		PASS		111	103	113	121	121	127	131	119	127	117	197	203	201	204	200
SWEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-7	SOF	EXIST/31	2020/11/06	7		PASS		105	105	111	127	131	114	114	105	117	126	203	201	211	206	199
EEOS Cutoff								SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1	SE-1
DS-																						

TYPE OF SEAM: SPF - SPLIT FUSION SOF - SOLID FUSION SLV - SOLVENT
EXT - EXTRUSION HAF - HOT AIR FUSION

QC TECH DAVID BURGOS
 SUBMITTED BY DAVID BURGOS
 SUBMISSION DATE 2020/11/06
 SHEET NUMBER 1 of 1

2
3
E



PROJECT NAME
Miller
Environmental
RC-2

MATERIAL TYPE
HDPE 60ML



LEGEND

- EXTENT OF LINER
- - - TOE OF SLOPE
- LINER FIELD SEAM
- EXTRUSION WELDING
- ▲ PATCH
- P2 PANEL NUMBER
- 1A REPAIR NUMBER

DATE: 1/20/20 REVISION: DB

DATE:	1/20/20	REVISION:	DB
PROJECT No.	CE-001541		
DWG:	OF	SCALE:	N/A
DWG:	CMD:	APP:	

CERTIFICATE OF FINAL INSPECTION AND ACCEPTANCE

PROJECT NAME: MILLER ENVIRONMENTAL RC-2
 PROJECT NUMBER: CF-00154 DATE: NOV 6th, 2020
 OWNER: MILLER ENVIRONMENTAL / WILLIAMS ENVIRONMENTAL
 LOCATION: Saint-Jean Baptiste, NB

Scope of Installation(s): **THE WORK**
 Area/Layer: PRIMARY Area Inspected: Partial or Complete
 Dimensions: 7103 SQM

Part 1 – LAYFIELD CANADA LTD.

I, DAVID BURGOS, a duly appointed representative of Layfield Canada Ltd. (Layfield), have visually observed the installations (as outlined above), and have found the Work to be complete and free of defects and declare that the Work was completed in accordance with the project specifications, Layfield's QC program and the terms and conditions of the contract.

Layfield Representative:

Name: DAVID BURGOS
 Title: PROJECT SUPERVISOR
 Date: 11/06/2020 Signature: [Signature]

Part 2 – OWNER (or Representative)

I, Duane McClinton, a duly appointed representative of WERI, do hereby take over and accept the installation(s) described above, and confirm that the work has been completed in accordance with the project specifications and the terms of the conditions of the contract.

I have evaluated and measured the work together with the Layfield representative, and agree that the measurements shown are both true and correct, and that the installation has met our approval.

Owners Representative:

Name: Duane McClinton
 Title: SUPERVISOR
 Company: WERI
 Date: NOV 6 2020 Signature: [Signature]

Comments: _____



INVENTORY LOG

PROJECT NUMBER CT001514
 PROJECT TITLE MILLER ENVIRONMENTAL RC-2
 DATE OF INVENTORY 2020/11/02
 PRODUCT TYPE HDPE 60MIL
 MATERIAL MANUFACTURER LAYFIELD

#	ROLL NUMBER	MATERIAL DIMENSIONS			REMARKS
		THICKNESS	LENGTH (m)	WIDTH (m)	
1	E0011221-004		158.8	6.8	
2	E0011221-006		158.8	6.8	ON SITE
3	E0011221-007		158.8	6.8	
4	E0011221-008		83	6.8	
5	E0011221-009		158.8	6.8	ON SITE
6	E0011221-010		158.8	6.8	ON SITE
7	E0011221-012		158.8	6.8	
8	E0011221-013		158.8	6.8	
9	E0011221-019		158.8	6.8	
10	E0011221-023		158.8	6.8	ON SITE
11	E0011221-024		158.8	6.8	
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

TOTAL PAGE AREA m²

QC TECH DAVID BURGOS

SUPERVISOR DAVID BURGOS

SUBMISSION DATE 2020/11/06



Mill Certification Report

Job #	E0011221	Customer Name	LAYFIELD GEO EDMONTON - 361086
Start Date	8/24/2020	Job Description	HDPE 270"x520' 60MIL
Req Delivery Date	8/24/2020	Warehouse	45
Close Date		Qty Manufactured	12480 FT

Inspection #	42215	Job	E0011221	Status	Active	Result	Pass
Stock Code	605270060		HDPE 270"x520' 60MIL	Inspection Date	8/23/2020	Completion Date	8/24/2020
Notes							

Serial	Result	Roll Length (ft)	Roll Weight - Net lbs	Sheet Width (270 in +/- 2.7 in)	Roll Area m2	Thickness - Average ASTM D5994 (60 mils min.)	Thickness - Minimum ASTM D5994 (54 mils min.)
605270060-E0011221-001	Pass	520	3551	271.3	1086.95652173913	61.22	60.8
605270060-E0011221-002	Pass	520	3556	271.0	1086.95652173913	61.04	59.5
605270060-E0011221-003	Pass	520	3556	271.3	1086.95652173913	60.94	59.7
605270060-E0011221-004	Pass	520	3551	271.0	1086.95652173913	61.13	59.8
605270060-E0011221-005	Pass	520	3551	270.3	1086.95652173913	60.51	58.9
605270060-E0011221-006	Pass	520	3551	270.3	1086.95652173913	60.84	59.9
605270060-E0011221-007	Pass	520	3556	270.3	1086.95652173913	60.3	59.2
605270060-E0011221-008	Pass	520	3546	270.0	1086.95652173913	60.82	60.1
605270060-E0011221-009	Pass	520	3546	271.0	1086.95652173913	59.98	58.8
605270060-E0011221-010	Pass	520	3551	270.8	1086.95652173913	60.48	58.9
605270060-E0011221-011	Pass	520	3551	270.8	1086.95652173913	60.79	59.7
605270060-E0011221-012	Pass	520	3551	271.0	1086.95652173913	60.26	59.1
605270060-E0011221-013	Pass	520	3551	271.0	1086.95652173913	61.08	59.1
605270060-E0011221-014	Pass	520	3561	270.5	1086.95652173913	61.02	60.1
605270060-E0011221-015	Pass	520	3551	271.0	1086.95652173913	60.88	59.9
605270060-E0011221-016	Pass	520	3551	270.8	1086.95652173913	61.03	59.6
605270060-E0011221-017	Pass	520	3551	270.5	1086.95652173913	61.38	60.3
605270060-E0011221-018	Pass	520	3546	271.3	1086.95652173913	61.25	60.1
605270060-E0011221-019	Pass	520	3551	270.8	1086.95652173913	61.31	60.2
605270060-E0011221-020	Pass	520	3556	271.5	1086.95652173913	60.68	59.9
605270060-E0011221-021	Pass	520	3551	270.5	1086.95652173913	60.98	59.4
605270060-E0011221-022	Pass	520	3561	270.8	1086.95652173913	60.32	59
605270060-E0011221-023	Pass	520	3556	270.5	1086.95652173913	60.42	59.7
605270060-E0011221-024	Pass	520	3556	270.5	1086.95652173913	60.32	59.1



Mill Certification Report

Job #	E0011221	Customer Name	LAYFIELD GEO EDMONTON - 361086
Start Date	8/24/2020	Job Description	HDPE 270"x520' 60MIL
Req Delivery Date	8/24/2020	Warehouse	45
Close Date		Qty Manufactured	12480 FT

Inspection #	42215	Job	E0011221	Status	Active	Result	Pass
Stock Code	605270060		HDPE 270"x520' 60MIL	Inspection Date	8/23/2020	Completion Date	8/24/2020
Notes							

Serial	Strength at Yield - MD Average ASTM D6693 IV (126 lbs/in min.)	Elongation at Yield - MD Average ASTM D6693 IV (12 % min.)	Strength at Break - MD Average ASTM D6693 IV (228 lbs/in min.)	Elongation at Break - MD Average ASTM D6693 IV (700 % min.)	Strength at Yield - TD Average ASTM D6693 IV (126 lbs/in min.)	Elongation at Yield - TD Average ASTM D6693 IV (12 % min.)	Strength at Break - TD Average ASTM D6693 IV (228 lbs/in min.)
605270060-E0011221-001	159.78	20.4	304.86	809.8	164.48	18.6	325.96
605270060-E0011221-002	159.78	20.4	304.86	809.8	164.48	18.6	325.96
605270060-E0011221-003	159.78	20.4	304.86	809.8	164.48	18.6	325.96
605270060-E0011221-004	159.78	20.4	304.86	809.8	164.48	18.6	325.96
605270060-E0011221-005	159.78	20.4	304.86	809.8	164.48	18.6	325.96
605270060-E0011221-006	158.96	18.8	306.68	806.6	163.94	18	327.5
605270060-E0011221-007	158.96	18.8	306.68	806.6	163.94	18	327.5
605270060-E0011221-008	158.96	18.8	306.68	806.6	163.94	18	327.5
605270060-E0011221-009	158.96	18.8	306.68	806.6	163.94	18	327.5
605270060-E0011221-010	158.96	18.8	306.68	806.6	163.94	18	327.5
605270060-E0011221-011	149.2	20.4	287.76	813	154.44	19.6	327.96
605270060-E0011221-012	149.2	20.4	287.76	813	154.44	19.6	327.96
605270060-E0011221-013	149.2	20.4	287.76	813	154.44	19.6	327.96
605270060-E0011221-014	149.2	20.4	287.76	813	154.44	19.6	327.96
605270060-E0011221-015	149.2	20.4	287.76	813	154.44	19.6	327.96
605270060-E0011221-016	162.8	20.4	311.76	836.8	166.44	18.4	320.96
605270060-E0011221-017	162.8	20.4	311.76	836.8	166.44	18.4	320.96
605270060-E0011221-018	162.8	20.4	311.76	836.8	166.44	18.4	320.96
605270060-E0011221-019	162.8	20.4	311.76	836.8	166.44	18.4	320.96
605270060-E0011221-020	162.8	20.4	311.76	836.8	166.44	18.4	320.96
605270060-E0011221-021	161.04	20.4	286.92	764.6	164.94	18.4	329.6
605270060-E0011221-022	161.04	20.4	286.92	764.6	164.94	18.4	329.6
605270060-E0011221-023	161.04	20.4	286.92	764.6	164.94	18.4	329.6
605270060-E0011221-024	161.04	20.4	286.92	764.6	164.94	18.4	329.6



Mill Certification Report

Job #	E0011221	Customer Name	LAYFIELD GEO EDMONTON - 361086
Start Date	8/24/2020	Job Description	HDPE 270"x520' 60MIL
Req Delivery Date	8/24/2020	Warehouse	45
Close Date		Qty Manufactured	12480 FT

Inspection #	42215	Job	E0011221	Status	Active	Result	Pass
Stock Code	605270060		HDPE 270"x520' 60MIL	Inspection Date	8/23/2020	Completion Date	8/24/2020
Notes							

Serial	Elongation at Break - TD Average ASTM D6693 IV (700 % min.)	Tear Strength - MD Average ASTM D1004 (42 lbs min.)	Tear Strength - TD Average ASTM D1004 (42 lbs min.)	Puncture Strength - Average ASTM D4833 (108 lbs min.)	Carbon Black Content ASTM D4218 (2 % to 3 %)	Density ASTM D1505 (0.94 g/cc to 0.96 g/cc)	Carbon Black Dispersion ASTM D5596
605270060-E0011221-001	898.8	51.4	52.8	149.2	2.56	0.951	>= 9 in Category 1 or 2
605270060-E0011221-002	898.8	51.4	52.8	149.2	2.56	0.951	>= 9 in Category 1 or 2
605270060-E0011221-003	898.8	51.4	52.8	149.2	2.56	0.951	>= 9 in Category 1 or 2
605270060-E0011221-004	898.8	51.4	52.8	149.2	2.56	0.951	>= 9 in Category 1 or 2
605270060-E0011221-005	898.8	51.4	52.8	149.2	2.56	0.951	>= 9 in Category 1 or 2
605270060-E0011221-006	892.8	51.4	52.8	149.2	2.70	0.951	>= 9 in Category 1 or 2
605270060-E0011221-007	892.8	51.4	52.8	149.2	2.70	0.951	>= 9 in Category 1 or 2
605270060-E0011221-008	892.8	51.4	52.8	149.2	2.70	0.951	>= 9 in Category 1 or 2
605270060-E0011221-009	892.8	51.4	52.8	149.2	2.70	0.951	>= 9 in Category 1 or 2
605270060-E0011221-010	892.8	51.4	52.8	149.2	2.70	0.951	>= 9 in Category 1 or 2
605270060-E0011221-011	929	54.4	54.2	142	2.62	0.951	>= 9 in Category 1 or 2
605270060-E0011221-012	929	54.4	54.2	142	2.62	0.951	>= 9 in Category 1 or 2
605270060-E0011221-013	929	54.4	54.2	142	2.62	0.951	>= 9 in Category 1 or 2
605270060-E0011221-014	929	54.4	54.2	142	2.62	0.951	>= 9 in Category 1 or 2
605270060-E0011221-015	929	54.4	54.2	142	2.62	0.951	>= 9 in Category 1 or 2
605270060-E0011221-016	897.2	54.4	54.2	142	2.53	0.951	>= 9 in Category 1 or 2
605270060-E0011221-017	897.2	54.4	54.2	142	2.53	0.951	>= 9 in Category 1 or 2
605270060-E0011221-018	897.2	54.4	54.2	142	2.53	0.951	>= 9 in Category 1 or 2
605270060-E0011221-019	897.2	54.4	54.2	142	2.53	0.951	>= 9 in Category 1 or 2
605270060-E0011221-020	897.2	54.4	54.2	142	2.53	0.951	>= 9 in Category 1 or 2
605270060-E0011221-021	918.4	47.8	51.2	148.2	2.54	0.951	>= 9 in Category 1 or 2
605270060-E0011221-022	918.4	47.8	51.2	148.2	2.54	0.951	>= 9 in Category 1 or 2
605270060-E0011221-023	918.4	47.8	51.2	148.2	2.54	0.951	>= 9 in Category 1 or 2
605270060-E0011221-024	918.4	47.8	51.2	148.2	2.54	0.951	>= 9 in Category 1 or 2



Mill Certification Report

Job #	E0011221	Customer Name	LAYFIELD GEO EDMONTON - 361086
Start Date	8/24/2020	Job Description	HDPE 270"x520' 60MIL
Req Delivery Date	8/24/2020	Warehouse	45
Close Date		Qty Manufactured	12480 FT

Inspection #	42215	Job	E0011221	Status	Active	Result	Pass
Stock Code	605270060		HDPE 270"x520' 60MIL	Inspection Date	8/23/2020	Completion Date	8/24/2020
Notes							

Serial	OIT - High Pressure ASTM D5885
605270060-E0011221-001	Pass > 400 mins
605270060-E0011221-002	Pass > 400 mins
605270060-E0011221-003	Pass > 400 mins
605270060-E0011221-004	Pass > 400 mins
605270060-E0011221-005	Pass > 400 mins
605270060-E0011221-006	Pass > 400 mins
605270060-E0011221-007	Pass > 400 mins
605270060-E0011221-008	Pass > 400 mins
605270060-E0011221-009	Pass > 400 mins
605270060-E0011221-010	Pass > 400 mins
605270060-E0011221-011	Pass > 400 mins
605270060-E0011221-012	Pass > 400 mins
605270060-E0011221-013	Pass > 400 mins
605270060-E0011221-014	Pass > 400 mins
605270060-E0011221-015	Pass > 400 mins
605270060-E0011221-016	Pass > 400 mins
605270060-E0011221-017	Pass > 400 mins
605270060-E0011221-018	Pass > 400 mins
605270060-E0011221-019	Pass > 400 mins
605270060-E0011221-020	Pass > 400 mins
605270060-E0011221-021	Pass > 400 mins
605270060-E0011221-022	Pass > 400 mins
605270060-E0011221-023	Pass > 400 mins
605270060-E0011221-024	Pass > 400 mins



LAYFIELD

LAYFIELD CANADA LTD.

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Fax: (780) 452-9495

Toll Free: 1 800 840-2884

Web: www.layfieldgroup.com

E-Mail: edm@layfieldgroup.com

INSTALLATION WARRANTY

Layfield Reference No.: (Job #) CT001514

LAYFIELD CANADA LTD. (LAYFIELD) hereby warrants to Winnipeg Environmental Remediation Inc; (the Customer) that the work performed by LAYFIELD on the Installation described as WERI MEC RC2 Cell will:

1. Meet the field seam specifications set out in the contract between LAYFIELD and the Customer (as amended by LAYFIELD's quotation), all workmanship to meet the requirements of LAYFIELD's Field Installation Quality Assurance program, and be free of defects at the time of completion of the Installation; and
2. Be free of installation defects from the date of the completion of the Installation (November 6th, 2020), for a period of 1 (one) year so long as the completed Installation is used for the purposes and in the manner for which the Installation was designed.

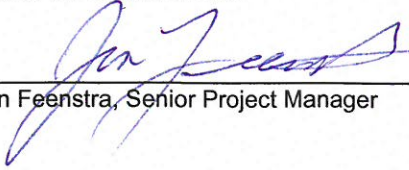
Should damage or defects within the scope of the aforesaid warranties occur, LAYFIELD shall repair the damage or defects, PROVIDED THAT the area to be repaired must first be made ready by the Customer and be in a clean, dry, unencumbered condition, free from all water, soil, sludge, residuals, and liquids of any kind.

To enable LAYFIELD to investigate and determine the cause of any alleged damage or defect, notice and details of any claim hereunder must be presented in writing to LAYFIELD within thirty (30) days after the alleged damage or defect was first noticed or observed. Failure to provide such notice and details shall invalidate all warranties provided hereunder.

The liability of LAYFIELD under the aforesaid warranties are subject to the following conditions:

- a. LAYFIELD's only obligation shall be to repair or replace any defective workmanship and in no event shall LAYFIELD be liable for any amount in excess of the cost of the Installation;
- b. No allowance will be made for repairs, replacements or alterations made by the Customer unless with the prior written consent of LAYFIELD;
- c. The warranties hereunder extend only to the Customer and are not transferable;
- d. The warranties hereunder shall not apply to any damage or defects resulting from misuse, mechanical abuse by machinery, equipment or persons, excessive pressures or stresses, exposure of the completed Installation of harmful chemicals, unusual weather conditions, casualty catastrophe such as (but not limited to) earthquake, flood, hail, tornado, or any other act of God;
- e. Under no circumstances shall LAYFIELD be liable for any special, direct, indirect, or consequential damages including the loss of use of the Installation howsoever caused;
- f. The warranties hereunder are given in lieu of all other warranties, express, implied, statutory, or otherwise, and the Customer expressly waives all other warranties and claims whatsoever except those specifically given herein, and the Customer acknowledges that the warranties hereunder are accepted in preference to and to the exclusion of any or all other warranties; and
- g. An Installation Warranty will not be provided for lining projects unless the installation is completed by LAYFIELD personnel or designated LAYFIELD subcontractors.

LAYFIELD CANADA LTD.


Jon Feenstra, Senior Project Manager

LAYFIELD CANADA LTD.


Cameron Forster, Vice President