

CBA



Canadian Battery Association
Representing the Industry Since 1970

2019 Annual Stewardship Report

-Manitoba-

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Executive Summary

The manufacturers, distributors and recyclers of lead batteries in Manitoba had successful year recovering just under 100% of the lead batteries sold in the province - see 2019 Sales & Recovery Performance Measures on Page 3.

In total, there were just under 7.5M kg of consumer and commercial lead batteries recovered and recycled at regulated smelters in Canada and USA. Approximately 99% of the lead is recovered in the smelting process and sold for a variety of purposes including the manufacture of new lead batteries. The sulphuric acid and plastic battery casings are recovered by the battery breaker and the acid and plastic casings are recycled into new batteries or used in the manufacture of other products. The plastic separators within the battery cells are also recovered and used for energy recovery by the smelters.

Some of the highlights of other program initiatives that support the recovery of lead batteries are summarized below.

In 2019, the Canadian Battery Association completed 65 samples of 6039kg of residential and IC&I landfill waste in British Columbia and no lead batteries were found in the samples (Table 1). To date, the Canadian Battery Association has completed 390 samples of landfill waste and calculated an overall landfill diversion rate for lead batteries of 99.98%. The high landfill diversion rate corroborates the high recovery rate for lead batteries reported in 2019.

With respect to accessibility, there was an increase of 5 Return Collection Facilities (RCF) for a total of 94. The summary of RCF statistics for communities of different sizes is summarized below and Table 4 lists the RCFs by community. The RCF provides consumer accessibility to 96.7% of Manitoba’s population that lives in a community with some recycling infrastructure.

Manitoba Communities Populations	Population	RCFs	RCF/Pop	Pop Served	Average Distance To RCF (km)
>30,000	800,203	22	36,373	800,203	3.0
>4,000	125,116	20	5,550	106,166	17.1
<4,000	123,770	52	1,156	108,009	26.1
	1,049,089	94		1,014,378	

Finally, the Canadian Battery Association will continue to work with Local Government and First Nation Communities expand the collection and recovery in Manitoba’s rural and remote communities.

2019 Performance Measures for Lead Batteries: Sales & Recovery			
Program Metric	Target / Report	2019 Results	Follow-Up Action
Lead Battery* Sales	Report	Sales in Manitoba: 7,446,326kg	None
Lead Battery Recycled	Report	Recovered in Manitoba: 7,433,158kg	None
Lead Battery Recovery Rate	Target >90%	Recovery Rate: 99.8% Target Met	Achieved Circular Economy for Lead Batteries
Sales per Capita	Report	5.44 kg/person/yr ¹	Continue to Monitor and compare to other Provinces
Recovery per Capita	Report	5.44 kg/person/yr ¹	Continue to Monitor and compare to other Provinces
Diversion Rate	Report	99.98% - Based on combined data from all Waste Characterization Studies	Continue to conduct Waste Characterization Studies to identify priority communities and sectors.
		See Table 1	
2019 Performance Measures for Lead Batteries: Consumer Awareness			
		Participation in Program: 61% Know How to Find More Info: 72% Know Location of RCFs: 69% Know How to Get RCF Info: 72% Perception of Convenience: 72% Trust in Program: 84% See Table 3	

2019 Performance Measures for Lead Batteries: Accessibility			
Total Number of RCFs in the Province	Report	Total Number of RCFs: 94 See Table 4 for list of RCFs	Continue to expand the number of RCFs especially in remote First Nation Communities
Accessibility: Communities >30,000 Population	Target: <5km	Communities >30,000 Population <ul style="list-style-type: none"> • 3 – Number of Communities • 3.0 km - Average km to RCF • 100% - Pop. Served to Target See Table 3 for details	
Accessibility: Communities <30,000 & >4,000 Population	Target: <15km	Communities <30,000 & >4,000 <ul style="list-style-type: none"> • 16 – Number of Communities • 17.1km - Average km to RCF • 84.9% - Pop. Served to Target See Table 3 for details	Continue to Establish RCFs for remote First Nation Communities that did not meet CBA Target.
Accessibility: Communities <4,000 Population	Report	Communities <4000 <ul style="list-style-type: none"> • 90 – Number of Communities • 26.1km - Average km to RCF • 87.3% - Pop. Served to 45km See Table 3 for details	Continue to Establish RCFs for remote First Nation Communities that did not meet CBA Target.
Percent of Population Served using CBA Accessibility Goals	Report	Communities >30,000: 100% Communities > 4,000: 84.9% Communities < 4,000: 88.3% Overall Accessibility: 96.7%	

2019 Program Performance Measures for Lead Batteries			
Use of Permitted Recycling Facilities	Target: 100%	100% LABs sent to Permitted Recycling Facilities in Canada and USA Target Met	Monitor and track progress year over year
Adherence to International Hazardous Waste Commitments	Target: 100%	100% Compliance to International Requirements. Target Met	Continue to Monitor and work with Transport Canada and Environment Canada and develop education and training programs for Transportation of Dangerous Goods and Hazardous Wastes
Value per Lead Batteries	Report	Thompson: \$5.00	Monitor Prices for Auto Batteries in Small Communities
Pollution Prevention Hierarchy	Report	Lead: About 99% Recovery in Smelting Process Sulphuric Acid: Recovered by the Battery Breaker Process Plastic Battery Casings: Recovered by Battery Breaker Process Plastic Cell Separators: Considered not recyclable	The main use of recovered lead is the remanufacturing of new batteries Recovered battery acid used in fertilizer production, battery manufacturing or galvanizing plants Primarily pelletized and reused to make new battery casings Used for energy recovery in the smelting process

* Consumer lead batteries includes automotive, small sealed lead, AGM batterie and powersport batteries and Commercial lead batteries includes golf cart, forklift, telco, energy storage and UPS batteries.

¹ Population estimate from Statistics Canada of 1,369,000 in Manitoba

Table 1: Summary of Lead Batteries Recovered in Landfill Studies

Year	Study	Source of Waste	Sample Size(kg)	Lead Batteries Recovered (kg)
2014	Sunshine Coast Regional District	Residential	1,911	0
2015	Metro Vancouver	IC&I	9,213	5.85 SSLA*
2016	Capital Regional District		7,476	0
2017	Peace River Regional District	Residential	1,451	0
		IC&I		1.07 SSLA
	Kitimat		4,260	0
2018	Columbia Shuswap RD	Transfer Stn	6,072	0.75 SSLA
	City of Squamish		2,073	0
2019	Cariboo Regional District	Residential	6,039	0
		IC&I		0
Totals			38,494	7.67 SSLA
Diversion Rate			99.98%	

*SSLA=Small Sealed Lead Acid

Table 2: Consumer Awareness Study Results for Lead Batteries

Consumer Awareness Questions Asked to Consumers	Response		
	2013	2016	2018
Awareness Program Exists to Take Care of Lead Batteries	73%	80%	79%
Participation in the Program	51%	62%	61%
Know Where to Get Information About Recycling and Safe Disposal of Lead Batteries	68%	80%	72%
Know Location to take Unwanted Lead Batteries	54%	72%	69%
Know Where to Get Information about Return Collection Facilities for Lead Batteries	65%	80%	72%
Perception Program for Lead Batteries is Convenient	75%	67%	72%
Trust Program will Safely Recycle / Dispose of Lead Batteries	84%	81%	84%

Table 3: Summary of Return Collection Facilities by Community

	Community	Community Population	# of RCFs	Pop/RCF Ratio	Population Serviced To CBA Target	Closest RCF (km)	RCFs within 15 km Target	RCFs within 60 km Target
1	Winnipeg	705,244	18	39,180	705,244	2.9	18	26
1	Brandon	48,859	3	16,286	48,859	2.2	3	8
1	Strathclair	46,100	1	46,100	46,100	4.1	1	6
3		800,203	22	36,373	800,203	3.0	3	3
1	Steinbach	15,829	3	5,276	15,829	0.8	4	22
1	Thompson	13,678	2	6,839	13,678	0.4	2	2
1	Portage la Prairie	13,304	3	4,435	13,304	1.5	3	11
1	Winkler	12,591	1	12,591	12,591	1.2	1	9
1	Selkirk	10,278	1	10,278	10,278	0.5	1	23
1	Morden	8,668			8,668	12.1	1	11
1	Dauphin	8,251	3	2,750	8,251	0.4	3	5
1	The Pas	5,369	1	5,369	5,369	0.3	1	1
1	Flin Flon	5,363	2	2,682	5,363	1.1	2	2
1	Norway House	4,927				196.0		
1	Stonewall	4,809				21.8		23
1	Niverville	4,610				20.3		26
1	Neepawa	4,609	1	4,609	4,609	1.0	1	9
1	Oakbank	4,604				15.7		27
1	Altona	4,212	1	4,212	4,212	0.4	2	7
1	Swan River	4,014	2	2,007	4,014	0.6	2	2
16		125,116	20	5,550	106,166	17.1	12	15
1	Virден	3,322	1	3,322	3,322	1.2	1	3
1	St. Theresa Point	3,262	1	3,262	3,262	1.0	1	1
1	Beausejour	3,219	1	3,219	3,219	0.3	1	21
1	Carman	3,164			3,164	0.6	1	13
1	Garden Hill	2,776	1	2,776	2,776	1.0	1	1
1	Peguis	2,704			2,704	27.7		4
1	Nelson House	2,547				64.8		
1	Mitchell	2,523			2,523	5.3	3	24
1	Sandy Bay	2,515			2,515	42.0		3
1	Opaskwayak Cree	2,473			2,473	5.5	1	1
1	Minnedosa	2,449	1	2,449	2,449	0.3	1	6
1	Lorette	2,361			2,361	18.7		25
1	Killarney	2,197	1	2,197	2,197	0.5	1	9
1	Ste. Anne	2,114			2,114	15.2		25
1	Fort Alexander	2,099			2,099	7.9	1	3
1	Split Lake	2,044				114.8		
1	Cross Lake	2,018				121.4		
1	La Salle	1,957			1,957	9.3	2	29
1	Bunibonibee/Oxford House	1,950	1	1,950	1,950	1.0	1	1

Canadian Battery Association 2019 Annual Report – Manitoba

1	Gimli	1,916	1	1,916	1,916	0.3	1	6
1	Morris	1,885			1,885	10.0	1	17
1	Mariapolis	1,884	1	1,884	1,884	0.3	1	10
1	Souris	1,876			1,876	29.0		8
1	Stony Mountain	1,800			1,800	15.3		23
1	Carberry	1,738	1	1,738	1,738	34.9		12
1	Pukatawagan	1,724				115.7		
1	St. Jean Baptiste	1,703	1	1,703	1,703	0.5	1	10
1	Boissevain	1,656	3	552	1,656	0.2	1	5
1	Roblin	1,614	1	1,614	1,614	0.3	1	2
1	Cross Lake	1,607				126.0		
1	Tyndall-Garson	1,582			1,582	10.9	1	22
1	Glenboro	1,565	1	1,565	1,565	0.2	2	12
1	Pinawa	1,504			1,504	26.7		3
1	Grunthal	1,479			1,479	17.4		17
1	Gilbert Plains	1,470	1	1,470	1,470	0.6	1	5
1	Shilo CFB-BFC	1,419			1,419	23.1		10
1	Wasagamack	1,403	1	1,403	1,403	1.0	1	1
1	Russell	1,395	1	1,395	1,395	0.2	1	4
1	Waywayseecappo	1,365			1,365	7.7	1	5
1	St. Adolphe	1,362			1,362	16.6		26
1	Moosehorn	1,354	1	1,354	1,354	0.6	1	2
1	God's Lake	1,341	1	1,341	1,341	1.0	1	1
1	Lac du Bonnet	1,328	1	1,328	1,328	10.3	1	4
1	Landmark	1,326			1,326	17.9		26
1	Gillam	1,317				206.2		
1	Powerview-Pine Falls	1,316	1	1,316	1,316	1.8	1	4
1	Ebb and Flow	1,297			1,297	34.1		2
1	Rivers	1,257			1,257	26.3		9
1	Ile-des-Chenes	1,253			1,253	17.0		27
1	Chemawawin	1,252				125.0		
1	Arborg	1,232	1	1,232	1,232	1.2	1	5
1	St. Malo	1,227			1,227	28.7		10
1	Moose Lake	1,225				83.0		
1	Teulon	1,201	1	1,201	1,201	0.5	1	20
1	Fisher River	1,168			1,168	42.3		3
1	Winnipeg Beach	1,145			1,145	14.0	1	7
1	Blumenort (North)	1,133	1	1,133	1,133	8.1	3	24
1	Berens River	1,128				147.8		
1	Eriksdale	1,100	1	1,100	1,100	0.7	1	3
1	St-Pierre-Jolys	1,099			1,099	23.1		27
1	Long Plain	1,078			1,078	19.1		12
1	La Broquiere	1,073	1	1,073	1,073	0.5	4	11
1	Melita	1,042			1,042	22.1		2
1	Sioux Valley	1,028			1,028	30.8		6
1	Ste. Rose du Lac	1,021	1	1,021	1,021	0.4	1	4
1	Deloraine	977	1	977	977	0.4	1	4
1	MacGregor	963	1	963	963	0.5	1	11

Canadian Battery Association 2019 Annual Report – Manitoba

1	Miniota	904	1	904	904	0.5	1	6
1	Churchill	899				600.0		
1	Gladstone	889	1	889	889	0.5	2	7
1	Manitou	840	1	840	840	0.3	1	9
1	Birtle	690	1	690	690	0.5	1	6
1	Notre Dame de Lourdes	683	1	683	683	0.5	1	15
1	Pilot Mound	635	1	635	635	0.4	1	8
1	St. Claude	603	1	603	603	0.4	1	11
1	Wawanesa	594	1	594	594	0.2	1	11
1	Rosburn	550	1	550	550	0.5	1	5
1	Riverton	538	1	538	538	0.3	1	4
1	Erickson	487	1	487	487	0.5	1	4
1	Elkhorn	461	1	461	461	0.3	1	5
1	Fisher Branch	460	1	460	460	0.5	1	4
1	Elm Creek	336	1	336	336	0.5	1	14
1	Baldur	320	1	320	320	0.5	1	10
1	Pierson	209	1	209	209	0.5	1	2
1	Minto	100	1	100	100	0.3	1	7
1	Marquette	50	1	50	50	2.8	1	25
1	Cypress River				-	0.5	2	11
1	Domain		1		-	0.5	1	30
1	Lowe Farm		1		-	0.5	1	9
1	St. Joseph		1			0.5	2	6
90		123,770	52	1,156	108,009	26	59	80

Table 4: List of Return Collection Facilities in Manitoba

Piston Ring	273 Centre Avenue E		Altona	MB
Piston Ring	161 Sunset Avenue		Arborg	MB
CO-OP	121 2nd Street S		Baldur	MB
Beausejour Tire	751 Park Ave		Beausejour	MB
CO-OP	861 Main Street		Birtle	MB
CO-OP	336 South Railway St		Boissevain	MB
Canadian Tire	1655 18th Street		Brandon	MB
Kal Tire	1665 18 Street N		Brandon	MB
Prairie Battery	1124 18th Street		Brandon	MB
Eco-depot			Bunibonibee Cree Nation	MB
CO-OP	61 Main Street North		Carman	MB
CO-OP	115 Ducker Street		Cypress River	MB
Canadian Tire	1500 Main Street S.		Dauphin	MB
Kal Tire	305 Main Street S		Dauphin	MB
Piston Ring	1250 Main Street		Dauphin	MB
CO-OP	107 North Railway Avenue W		Deloraine	MB
CO-OP	1 MacDonald Road		Domain	MB

Canadian Battery Association 2019 Annual Report – Manitoba

CO-OP	103 Richhill Avenue E		Elkhorn	MB
CO-OP	43 Church Avenue		Elm Creek	MB
CO-OP	38 Main Street		Erickson	MB
CO-OP	24 Railway Avenue S.		Eriksdale	MB
CO-OP	22 Tache Street		Fisher Branch	MB
Canadian Tire	170 Hwy 10		Flin Flon	MB
Piston Ring	Hwy 10 Highway S.		Flin Flon	MB
Eco-depot			Garden Hill First Nation	MB
CO-OP	19 Gordon Avenue E		Gilbert Plains	MB
Piston Ring	29 Centre Street		Gimli	MB
CO-OP	9 Saskatchewan Hwy E		Gladstone	MB
Piston Ring	32 Dennis Street		Gladstone	MB
CO-OP	119 Broadway Avenue		Glenboro	MB
Eco-depot			God's Lake Narrows	MB
CO-OP	330 Broadway Avenue		Killarney	MB
CO-OP	155 Principale Street		La Broquerie	MB
Piston Ring	148 P.R. 317		Lac du Bonnet	MB
CO-OP	78 Main Street		Lowe Farm	MB
CO-OP	Hwy 1		MacGregor	MB
CO-OP	430 Main Street N		Manitou	MB
CO-OP	120 St. Paul Street E		Mariapolis	MB
CO-OP	SE 1 13 3W		Marquette	MB
CO-OP	Hwy 83		Miniota	MB
CO-OP	48 Centre Avenue		Minnedosa	MB
CO-OP	210 South Railway Avenue		Minto	MB
CO-OP	1 Main Street		Moosehorn	MB
CO-OP	50 Main Street		Neepawa	MB
CO-OP	155 Notre Dame Avenue		Notre Dame de Lourdes	MB
CO-OP	13 Broadway Street		Pierson	MB
Piston Ring	309 Railway Street		Pilot Mound	MB
Canadian Tire	2445 Saskatchewan Avenue W.		Portage La Prairie	MB
Kal Tire	2580 Highway 1A West		Portage La Prairie	MB
Piston Ring	2556 Saskatchewan Avenue		Portage La Prairie	MB
Piston Ring	7 Power Drive		Powerview	MB
CO-OP	49 Riverton Avenue		Riverton	MB
CO-OP	119 Hwy 5 E		Roblin	MB
CO-OP	21 Main Street		Rosburn	MB
CO-OP	206 Main Street		Russell	MB
Eco-depot			St Theresa Point	MB
Canadian Tire	1041 Manitoba Avenue		Selkirk	MB
CO-OP	39 Aspen Avenue N		St. Claude	MB
CO-OP	174 Caron Street		St. Jean Baptiste	MB
CO-OP	13 Morin Street		St. Joseph	MB
CO-OP	705 Central Avenue		St. Rose du Lac	MB
Canadian Tire	Hwy 12 North		Steinbach	MB
CO-OP	Hwy 5		Steinbach	MB
Kal Tire	Hwy 52 W		Steinbach	MB
CO-OP	46 Main Street		Strathclair	MB

Canadian Battery Association 2019 Annual Report – Manitoba

Kal Tire	201 4th Avenue N		Swan River	MB
CO-OP	203 Elm Avenue		Swan River	MB
Piston Ring	Hwy 7		Teulon	MB
Piston Ring	33 - 2nd Street E.		The Pas	MB
Canadian Tire	60 Selkirk Street		Thompson	MB
Piston Ring	91 Kelsey Bay		Thompson	MB
CO-OP	430 Frontage Road W		Virden	MB
Eco-depot			Wasagamack	MB
CO-OP	221 Main Street		Wawanesa	MB
Canadian Tire	781 Norquay Drive		Winkler	MB
Canadian Energy	1520 Inkster Blvd		Winnipeg	MB
Canadian Tire	750 St. James Street		Winnipeg	MB
East Penn Batteries	111 Inksbrook Drive		Winnipeg	MB
Energy Systems Services	96 Debaets Street		Winnipeg	MB
Exide Technologies	1525 Dublin Avenue		Winnipeg	MB
Interstate Batteries	10 Keenleyside Street		Winnipeg	MB
Kal Tire	340 Pembina Hwy		Winnipeg	MB
Magnacharge Batteries	977 Century Street		Winnipeg	MB
Motive Energy	27 Keith Road		Winnipeg	MB
Prairie Battery	1280 Border Street		Winnipeg	MB
The Battery Man	1390 St James Street		Winnipeg	MB
Urbanmine	72 Rothwell Road		Winnipeg	MB
Kal Tire	1240 Sherwin Road		Winnipeg - Bandag	MB
Canadian Tire	1711 Kenasten Blvd.		Winnipeg - Kenasten	MB
Canadian Tire	2305 McPhillips Avenue		Winnipeg - McPhillips	MB
Kal Tire	1777 Brookside Blvd N		Winnipeg - North	MB
Canadian Tire	3615 Portage Avenue		Winnipeg - Portage	MB
Canadian Tire	1519 Regent Avenue West		Winnipeg - Regent	MB
Canadian Tire	157 Vermillion Road		Winnipeg - Vermillion	MB