Table 2: Compilation of paleomagnetic poles from Laurentia

terrane	unit name	age (Ma)	rating	site lon	site lat	plon	plat	A_{95}	Duluth lat	pole reference
Laurentia-Wyoming	Stillwater Complex - C2	2705^{+4}_{-4}	A	249.2	45.2	335.8	-83.6	4.0		Selkin et al. (2008)
Laurentia-Superior(East)	Otto Stock dikes and aureole	2676^{+5}_{-5}	B	279.9	48.0	227.0	69.0	4.8		Pullaiah and Irving (1975)
Laurentia-Slave	Defeat Suite	2625^{+5}_{-5}	B	245.5	62.5	64.0	-1.0	15.0		Mitchell et al. (2014)
Laurentia-Superior(East)	Ptarmigan-Mistassini dikes	2505^{+2}_{-2}	B	287.0	54.0	213.0	-45.3	13.8		Evans and Halls (2010)
Laurentia-Superior(East)	Matachewan dikes R	2466^{+23}_{-23}	A	278.0	48.0	238.3	-44.1	1.6		Evans and Halls (2010)
Laurentia-Superior(East)	Matachewan dikes N	2446^{+3}_{-3}	A	278.0	48.0	239.5	-52.3	2.4		Evans and Halls (2010)
Laurentia-Slave	Malley dikes	2231^{+2}_{-2}	A	249.8	64.2	310.0	-50.8	6.7		Buchan et al. (2012)
Laurentia-Superior(East)	Senneterre dikes	2218^{+6}_{-6}	A	283.0	49.0	284.3	-15.3	5.5		Buchan et al. (1993)
Laurentia-Superior(East)	Nipissing N1 sills	2217^{+4}_{-4}	A	279.0	47.0	272.0	-17.0	10.0		Buchan et al. (2000)
Laurentia-Slave	Dogrib dikes	2193^{+2}_{-2}	A	245.5	62.5	315.0	-31.0	7.0		Mitchell et al. (2014)
Laurentia-Superior(East)	Biscotasing dikes	2170^{+3}_{-3}	A	280.0	48.0	223.9	26.0	7.0		Evans and Halls (2010)
Laurentia-Wyoming	Rabbit Creek, Powder River and South Path dikes	2160^{+11}_{-8}	A	252.8	43.9	339.2	65.5	7.6		Kilian et al. (2015)
Laurentia-Slave	Indin dikes	2126^{+3}_{-18}	A	245.6	62.5	256.0	-36.0	7.0		Buchan et al. (2016)
Laurentia-Superior(West)	Marathon dikes N	2124^{+3}_{-3}	A	275.0	49.0	198.2	45.4	7.7	43.3	Halls et al. (2008)
Laurentia-Superior(West)	Marathon dikes R	2104^{+3}_{-3}	A	275.0	49.0	182.2	55.1	7.5	38.8	Halls et al. (2008)
Laurentia-Superior(West)	Cauchon Lake dikes	2091^{+2}_{-2}	A	263.0	56.0	180.9	53.8	7.7	37.5	Evans and Halls (2010)
Laurentia-Superior(West)	Fort Frances dikes	2077^{+5}_{-5}	A	266.0	48.0	184.6	42.8	6.1	33.6	Evans and Halls (2010)
Laurentia-Superior(East)	Lac Esprit dikes	2069^{+1}_{-1}	A	282.0	53.0	170.5	62.0	6.4		Evans and Halls (2010)
Laurentia-Greenland-Nain	Kangamiut dikes	2042^{+12}_{-12}	B	307.0	66.0	273.8	17.1	2.7		Fahrig and Bridgwater (1976)
Laurentia-Slave	Lac de Gras dikes	2026^{+5}_{-5}	A	249.6	64.4	267.9	11.8	7.1		Buchan et al. (2009)
Laurentia-Superior(East)	Minto dikes	1998^{+2}_{-2}	A	285.0	57.0	171.5	38.7	13.1		Evans and Halls (2010)
Laurentia-Slave	Rifle Formation	1963^{+6}_{-6}	B	252.9	65.9	341.0	14.0	7.7		Evans and Hoye (1981)
Laurentia-Rae	Clearwater Anorthosite	1917^{+7}_{-7}	B	251.6	57.1	311.8	6.5	2.9		Halls and Hanes (1999)
Laurentia-Wyoming	Sourdough mafic dike swarm	1899^{+5}_{-5}	A	-108.3	44.7	292.0	49.2	8.1		Kilian et al. (2016)
Laurentia-Slave	Ghost Dike Swarm	1887^{+5}_{-9}	A	244.6	62.6	286.0	-2.0	6.0		Buchan et al. (2016)
Laurentia-Slave	Mean Seton/Akaitcho/Mara	1885^{+5}_{-5}	B	250.0	65.0	260.0	-6.0	4.0		Mitchell et al. (2010)
Laurentia-Slave	Mean Kahochella, Peacock Hills	1882^{+4}_{-4}	B	250.0	65.0	285.0	-12.0	7.0		Mitchell et al. (2010)
Laurentia-Superior(West)	Molson (B+C2) dikes	1879^{+6}_{-6}	A	262.0	55.0	218.0	28.9	3.8	47.6	Evans and Halls (2010)
Laurentia-Slave	Takiyuak Formation	1876^{+10}_{-10}	B	246.9	66.1	249.0	-13.0	8.0		Irving and McGlynn (1979)
Laurentia-Slave	Douglas Peninsula Formation, Pethei Group	1876^{+10}_{-10}	B	249.7	62.8	258.0	-18.0	14.2		Irving and McGlynn (1979)
Laurentia-Slave	Pearson A/Peninsular/Kilohigok sills	1870^{+4}_{-4}	A	250.0	65.0	269.0	-22.0	6.0		Mitchell et al. (2010)
Laurentia-Superior	Haig/Flaherty/Sutton Mean	1870^{+1}_{-1}	B	281.0	56.2	245.8	1.0	3.9		Nordic workshop calculation based on data of Schmidt (1980); Schwarz et al. (1982)
Laurentia-Trans-Hudson orogen	Boot-Phantom Pluton	1838^{+1}_{-1}	B	258.1	54.7	275.4	62.4	7.9	73.8	Symons and Mackay (1999)
Laurentia-Rae	Sparrow dikes	1827^{+4}_{-4}	B	250.2	61.6	291.0	12.0	7.9		McGlynn et al. (1974)
Laurentia-Rae	Martin Formation	1818^{+4}_{-4}	A	251.4	59.6	288.0	-9.0	8.5		Evans and Bingham (1973)
Laurentia	Dubawnt Group	1785^{+35}_{-35}	B	265.6	64.1	277.0	7.0	8.0	49.4	Park et al. (1973)
Laurentia-Trans-Hudson orogen	Deschambault Pegmatites	1766^{+5}_{-5}	B	256.7	54.9	276.0	67.5	7.7	68.9	Symons et al. (2000)
Laurentia-Trans-Hudson orogen	Jan Lake Granite	1758^{+1}_{-1}	B	257.2	54.9	264.3	24.3	16.9	67.3	Gala et al. (1995)
Laurentia	Cleaver dikes	1741^{+5}_{-5}	A	242.0	67.5	276.7	19.4	6.1	61.7	Irving (2004)
Laurentia-Greenland	Melville Bugt diabase dikes	1633^{+5}_{-5}	B	303.0	74.6	273.8	5.0	8.7	45.5	Halls et al. (2011)
Laurentia	Western Channel Diabase	1590^{+3}_{-3}	A	242.2	66.4	245.0	9.0	6.6	47.5	Irving and Park (1972)
Laurentia	St.Francois Mountains Acidic Rocks	1476^{+16}_{-16}	A	269.5	37.5	219.0	-13.2	6.1	15.8	Meert and Stuckey (2002)
Laurentia	Michikamau Intrusion	1460^{+5}_{-5}	A	296.0	54.5	217.5	-1.5	4.7	24.7	Emslie et al. (1976)
Laurentia	Spokane Formation	1458^{+13}_{-13}	A	246.8	48.2	215.5	-24.8	4.7	4.2	Elston et al. (2002)

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terrane	unit name	age (Ma)	rating	site lon	site lat	plon	plat	A_{95}	Duluth lat	pole reference
Laurentia	Snowslip Formation	1450^{+14}_{-14}	A	245.9	47.9	210.2	-24.9	3.5	1.4	Elston et al. (2002)
Laurentia	Tobacco Root dikes	1448^{+49}_{-49}	B	247.6	47.4	216.1	8.7	10.5	31.9	Harlan et al. (2008)
Laurentia	Purcell Lava	1443^{+7}_{-7}	A	245.1	49.4	215.6	-23.6	4.8	5.3	Elston et al. (2002)
Laurentia	Rocky Mountain intrusions	1430^{+15}_{-15}	B	253.8	40.3	217.4	-11.9	9.7	16.0	Nordic workshop calculation based on data of Harlan et al. (1994); Harlan and Geissman (1998)
Laurentia	Mistastin Pluton	1425^{+25}_{-25}	B	296.3	55.6	201.5	-1.0	7.6	15.1	Fahrig and Jones (1976)
Laurentia	McNamara Formation	1401^{+6}_{-6}	A	246.4	46.9	208.3	-13.5	6.7	9.6	Elston et al. (2002)
Laurentia	Pilcher, Garnet Range and Libby Formations	1385^{+23}_{-23}	A	246.4	46.7	215.3	-19.2	7.7	8.8	Elston et al. (2002)
Laurentia-Greenland	Zig-Zag Dal Basalts	1382^{+2}_{-2}	B	334.8	81.2	242.8	12.0	3.8	43.8	Marcussen and Abrahamsen (1983)
Laurentia-Greenland	Victoria Fjord dolerite dikes	1382^{+2}_{-2}	B	315.3	81.5	231.7	10.3	4.3	36.6	Abrahamsen and Van Der Voo (1987)
Laurentia-Greenland	Midsommersoe Dolerite	1382^{+2}_{-2}	B	333.4	81.6	242.0	6.9	5.1	39.0	Marcussen and Abrahamsen (1983)
Laurentia	Nain Anorthosite	1305^{+15}_{-15}	B	298.2	56.5	206.7	11.7	2.2	28.1	Murthy (1978)
Laurentia-Greenland	North Qoroq intrusives	1275^{+1}_{-1}	B	314.6	61.1	202.6	13.2	8.3	21.0	Piper (1992)
Laurentia-Greenland	Kungnat Ring dike	1275^{+2}_{-2}	B	311.7	61.2	198.7	3.4	3.2	11.1	Piper and Stearn (1977)
Laurentia	Mackenzie dikes grand mean	1267^{+2}_{-2}	A	250.0	65.0	190.0	4.0	5.0	11.2	Buchan et al. (2000)
Laurentia-Greenland	West Gardar Dolerite dikes	1244^{+8}_{-8}	B	311.7	61.2	201.7	8.7	6.6	17.1	Piper and Stearn (1977)
Laurentia-Greenland	West Gardar Lamprophyre dikes	1238^{+11}_{-11}	B	311.7	61.2	206.4	3.2	7.2	15.9	Piper and Stearn (1977)
Laurentia	Sudbury dikes Combined	1237^{+5}_{-5}	A	278.6	46.3	192.8	-2.5	2.5	8.3	Palmer et al. (1977)
Laurentia-Scotland	Stoer Group	1199^{+70}_{-70}	B	354.5	58.0	238.4	37.2	7.7	43.9	Nordic workshop calculation
Laurentia-Greenland	Hviddal Giant dike	1184^{+5}_{-5}	B	313.7	60.9	215.3	33.2	9.6	43.3	Piper (1977)
Laurentia-Greenland	Narssaq Gabbro	1184^{+5}_{-5}	B	313.8	60.9	225.4	31.6	9.7	48.8	Piper (1977)
Laurentia-Greenland	South Qoroq Intr.	1163^{+2}_{-2}	A	314.6	61.1	215.9	41.8	13.1	48.7	Piper (1992)
Laurentia-Greenland	Giant Gabbro dikes	1163^{+2}_{-2}	B	313.7	60.9	226.1	42.3	9.4	55.5	Piper (1977)
Laurentia-Greenland	NE-SW Trending dikes	1160^{+5}_{-5}	B	314.6	61.1	230.8	33.4	5.7	53.5	Piper (1992)
Laurentia	Ontario lamprophyre dikes	1143^{+12}_{-12}	NR	273.3	48.8	223.3	58.0	9.2	61.2	Piispa et al. (2018)
Laurentia	Abitibi dikes	1141^{+2}_{-2}	A	279.0	48.0	215.5	48.8	14.1	55.4	Ernst and Buchan (1993)
Baltica	Salla dike (width 60-100 m)	1122^{+5}_{-3}	B	28.8	66.8	111.6	70.6	8.1		
Laurentia	Nipigon sills and lavas	1109^{+2}_{-2}	A	270.9	49.1	217.8	47.2	4.0	56.4	Nordic workshop calculation based on data of Palmer (1970); Robertson and Fahrig (1971); Pesonen (1979); Pesonen and Halls (1979); Middleton et al. (2004); Borradaile and Middleton (2006)
Laurentia	Lowermost Mamainse Point volcanics -R1	1109^{+2}_{-3}	A	275.3	47.1	227.0	49.5	5.3	62.9	Swanson-Hysell et al. (2014a)
Laurentia	Lower Osler volcanics -R	1108^{+3}_{-3}	A	272.3	48.8	218.6	40.9	4.8	54.6	Swanson-Hysell et al. (2014b)
Laurentia	Middle Osler volcanics -R	1107^{+4}_{-4}	A	272.4	48.8	211.3	42.7	8.2	50.5	Swanson-Hysell et al. (2014b)
Laurentia	Upper Osler volcanics -R	1105^{+1}_{-1}	A	272.4	48.7	203.4	42.3	3.7	45.1	Halls (1974); Swanson-Hysell et al. (2014b, 2019)
Laurentia	Lower Mamainse Point volcanics -R2	1105^{+3}_{-4}	A	275.3	47.1	205.2	37.5	4.5	43.9	Swanson-Hysell et al. (2014a)
Laurentia	Mamainse Point volcanics -C (lower N, upper R)	1101^{+1}_{-1}	A	275.3	47.1	189.7	36.1	4.9	32.9	Swanson-Hysell et al. (2014a)
Laurentia	North Shore lavas -N	1097^{+3}_{-3}	A	268.7	46.3	181.7	31.1	2.1	24.5	Tauxe and Kodama (2009); Swanson-Hysell et al. (2019)
Laurentia	Chengwatana Volcanics	1095^{+2}_{-2}	B	267.3	45.4	186.1	30.9	8.2	27.3	Kean et al. (1997)

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terrane	unit name	age (Ma)	rating	site lon	site lat	plon	plat	A_{95}	Duluth lat	pole reference
Laurentia	Portage Lake Volcanics	1095^{+3}_{-3}	A	271.2	47.0	182.5	27.5	2.3	22.7	Books (1972); Hnat et al. (2006) as calculated in Swanson-Hysell et al. (2019)
Laurentia	Uppermost Mamainse Point volcanics -N	1094^{+6}_{-4}	A	275.3	47.1	183.2	31.2	2.5	25.6	Swanson-Hysell et al. (2014a)
Laurentia	Cardenas Basalts and Intrusions	1091^{+5}_{-5}	B	248.1	36.1	185.0	32.0	8.0	27.3	Weil et al. (2003)
Laurentia	Schroeder Lutsen Basalts	1090^{+2}_{-7}	A	269.1	47.5	187.8	27.1	3.0	25.9	Fairchild et al. (2017)
Laurentia	Central Arizona diabases -N	1088^{+11}_{-11}	A	249.2	33.7	175.3	15.7	7.0	9.6	Donadini et al. (2011)
Laurentia	Lake Shore Traps	1086^{+1}_{-1}	A	271.9	47.6	186.4	23.1	4.0	22.3	Kulakov et al. (2013)
Laurentia	Michipicoten Island Formation	1084^{+1}_{-1}	A	274.3	47.7	174.7	17.0	4.4	10.2	Fairchild et al. (2017)
Laurentia	Nonesuch Shale	1080^{+4}_{-10}	B	271.5	47.0	178.1	7.6	5.5	5.7	Henry et al. (1977)
Laurentia	Freda Sandstone	1070^{+14}_{-10}	B	271.5	47.0	179.0	2.2	4.2	2.4	Henry et al. (1977)
Laurentia	Haliburton Intrusions	1015^{+15}_{-15}	B	281.4	45.0	141.9	-32.6	6.3	-47.0	Warnock et al. (2000)
Laurentia	Adirondack fayalite granite	990^{+20}_{-20}	NR	285.5	44.0	132.7	-28.4	6.9	-50.7	Brown and McEnroe (2012)
Laurentia	Adirondack metamorphic orthosites	970^{+20}_{-20}	NR	286.0	44.0	149.0	-25.1	11.6	-37.5	Brown and McEnroe (2012)
Laurentia	Adirondack Microcline gneiss	960^{+20}_{-20}	NR	285.0	44.0	151.1	-18.4	10.5	-31.5	Brown and McEnroe (2012)
Laurentia-Scotland	Torridon Group	925^{+145}_{-145}	B	354.3	57.9	220.9	-17.7	7.1	-8.6	Nordic workshop calculation
Laurentia-Svalbard	Lower Grusdievbreen Formation	831^{+20}_{-20}	B	18.0	79.0	204.9	19.6	10.9	-5.3	Maloof et al. (2006)
Laurentia-Svalbard	Upper Grusdievbreen Formation	800^{+11}_{-11}	B	18.2	78.9	252.6	-1.1	6.2	11.5	Maloof et al. (2006)
Laurentia	Gunbarrel dikes	778^{+2}_{-2}	B	248.7	44.8	138.2	9.1	12.0	-18.4	Calculation from Eyster et al. (2020) based on data of Harlan (1993); Harlan et al. (1997)
Laurentia-Svalbard	Svanbergfjellet Formation	770^{+19}_{-40}	B	18.0	78.5	226.8	25.9	5.8	12.8	Maloof et al. (2006)
Laurentia	Uinta Mountain Group	760^{+6}_{-10}	B	250.7	40.8	161.3	0.8	4.7	-10.7	Weil et al. (2006)
Laurentia	Carbon Canyon	757^{+7}_{-7}	NR	248.2	36.1	166.0	-0.5	9.7	-8.5	Weil et al. (2004) as calculated in Eyster et al. (2020)
Laurentia	Carbon Butte/Awatubi	751^{+8}_{-8}	NR	248.5	35.2	163.8	14.2	3.5	1.0	Eyster et al. (2020)
Laurentia	Franklin event grand mean	718^{+2}_{-2}	A	275.4	73.0	162.1	6.7	3.0	-5.7	Denyszyn et al. (2009b)
Laurentia	Long Range dikes	615^{+2}_{-2}	B	303.3	53.7	175.3	-19.0	17.4	-15.5	Murthy et al. (1992)
Laurentia	Baie des Moutons complex	583^{+2}_{-2}	B	301.0	50.8	152.7	-42.6	12.0	-45.1	McCausland et al. (2011)
Laurentia	Baie des Moutons complex	583^{+2}_{-2}	B	301.0	50.8	141.5	34.2	15.4	4.2	McCausland et al. (2011)
Laurentia	Callander Alkaline Complex	575^{+5}_{-5}	B	280.6	46.2	121.4	-46.3	6.0	-67.1	Symons and Chiasson (1991)
Laurentia	Catoctin Basalts	572^{+5}_{-5}	B	281.8	38.5	116.7	-42.0	17.5	-69.0	Meert et al. (1994)
Laurentia	Sept-Iles layered intrusion	565^{+4}_{-4}	B	293.5	50.2	141.0	20.0	6.7	-7.9	Tanczyk et al. (1987)

site lon – longitude of paleomagnetic locality; site lat – latitude of paleomagnetic locality; plon – longitude of the paleomagnetic pole position; plat – latitude of the paleomagnetic pole position; A_{95} – angle of 95% confidence on the pole position; Duluth lat – latitude of Duluth, MN implied by the paleomagnetic pole