

GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF ARTS AND CULTURE

NO. 585

15 JUNE 2018



SOUTH AFRICAN HERITAGE RESOURCES AGENCY

DECLARATION OF GEOSITES AS PART OF THE BARBERTON MAKHONJWA
MOUNTAINS AS NATIONAL HERITAGE SITES

By virtue of the powers vested in the South African Heritage Resources Agency, in terms of section 27 (5) of the National Heritage Resources Act (No. 25 of 1999) SAHRA hereby declares 51 Geosites listed in the Schedule as part of the Barberton Makhonjwa Mountain as National Heritage Sites.

Statement of Significance

The Barberton Makhonjwa Mountain contains the oldest well-preserved sequence of volcanic and sedimentary rocks on Earth. These highly accessible Archaean outcrops present a continuous 350 million year geological sequence, from 3 600 million years ago. The physical and chemical characteristics of these rocks are so remarkably well preserved that they provide a globally unparalleled history of the early Earth. In particular, they provide unique evidence of the formation of the earliest oceanic and continental crusts and of the initial phase of the evolution of our biosphere. The area is South Africa's largest and most scientifically well-researched and important Greenstone Belt. The Geosites illustrate some of the earliest tectonic events and formative processes of Earth's measurable history, including valuable clues as to the origin of life itself and include:

- basaltic lavas extruded as sub-marine tubes and "pillows";
- chemical sediments of black chert; volcanic lapilli (ash-ball hailstones) from Earth's earliest volcanic eruptions;
- red and black banded iron formations created by biogenesis and precipitation;
- submarine earthquake evidence;
- spherule layers indicating earth's earliest very large meteorite impact events;
- 3 200-million-year-old beach deposits with biomats, mud cracks, wave ripples and tidal patterns;
- volcanic processes such as felsic agglomerates, dacitic tuffs and lavas;
- komatiitic lava flows, pillow lavas, ocelli, spinifex olivine crystals;
- buck reef chert with the fossilized environment for the genesis of life;
- large exposures of migmatites and xenoliths;
- the original type-locality for the discovery of komatiite in 1968;
- exposed pillowed komatiites, some with spinifex textures, that are the signature outcrops of the world's most diverse Archaean Greenstone Belt.

Schedule

The demarcation of the Geosites are as follows:

Geosite Locality and Number	Erf No / Farm	Province	Town	Municipality		Coordinates	
				Local	District	Latitude	Longitude
Geotrail 1	Barberton Townlands 8/369 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,761728	31,050047
						-25,762450	31,050622
						-25,763000	31,049703
						-25,762267	31,049108
Geotrail 206	Barberton Townlands 8/369 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,771094	31,066464
						-25,770639	31,065031
						-25,769753	31,065531
						-25,770153	31,066617
Geotrail 3	Dycedale 368 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,781908	31,076225
						-25,783050	31,076933
						-25,783272	31,076497
						-25,782511	31,076000
Geotrail 172 & 207	Dycedale 368 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,786822	31,082517
						-25,787344	31,083281
						-25,788439	31,082811
						-25,787908	31,081850
Geotrail 148; 208; 149 & 209	Dycedale 368 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,795844	31,083575
						-25,789961	31,081797
						-25,787414	31,089825
						-25,795875	31,093425
Geotrail 168	Dycedale 368 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,793797	31,095156
						-25,794492	31,094967
						-25,794253	31,094636
						-25,793792	31,094808
Geotrail 210	Oosterbeek 371 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,838831	31,078578
						-25,829531	31,089408
						-25,833511	31,091803
						-25,842064	31,080583
Geotrail 182	Heemstede 378 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,859131	31,062700
						-25,860331	31,063508
						-25,860381	31,063136
						-25,859347	31,062433
Geotrail 212	Heemstede 378 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,872019	31,059289
						-25,871900	31,059619
						-25,872247	31,059828
						-25,872308	31,059475
Geotrail 181	Schoonoord 380 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,877439	31,087881
						-25,877406	31,088425
						-25,878186	31,088392
						-25,878194	31,088008

Geosite Locality and Number	Erf No / Farm	Province	Town	Municipality		Coordinates	
				Local	District	Latitude	Longitude
Geotrail 278	Schoonoord 380 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,881275	31,099214
						-25,881425	31,097672
						-25,880656	31,097583
						-25,880481	31,099381
Geotrail 279	Schoonoord 380 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,886083	31,096817
						-25,885706	31,097322
						-25,886147	31,097639
						-25,886550	31,096967
Geotrail 216	Schoonoord 1/380 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,882822	31,103917
						-25,882533	31,104322
						-25,883003	31,104664
						-25,883250	31,104203
Geotrail 217	Loenen 381 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,905358	31,091639
						-25,905719	31,091961
						-25,906481	31,091236
						-25,906247	31,090844
Geotrail 178	Loenen 381 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,905592	31,101261
						-25,906133	31,101625
						-25,906856	31,101033
						-25,906483	31,100767
Geotrail 179	Loenen 381 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,912311	31,105583
						-25,913939	31,104686
						-25,913181	31,104169
						-25,911919	31,105192
Geotrail 218	Josefsdal 382 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,940175	31,105836
						-25,941219	31,104772
						-25,941064	31,104589
						-25,939978	31,105561
Geotrail 177	Josefsdal 382 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,945841	31,108211
						-25,945421	31,108211
						-25,945784	31,109163
						-25,945944	31,108754
Geotrail 176	Josefsdal 382 JU	Mpumalanga	Barberton	City of Mbombela	Ehlanzeni	-25,946903	31,110208
						-25,946754	31,110049
						-25,945823	31,111206
						-25,946791	31,111541
						-25,946874	31,111359
						-25,946313	31,110986
Theespruit 5	Batavia 5/151 IT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,003364	30,660981
						-26,003533	30,662878
						-26,004194	30,662758
						-26,004136	30,661319

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Theespruit 6	Batavia 5/151 IT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,006825	30,661669
						-26,006858	30,662911
						-26,007442	30,662853
						-26,007336	30,661750
Theespruit 7	Batavia 5/151 IT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,004419	30,647408
						-26,004411	30,649069
						-26,005322	30,648878
						-26,005183	30,647428
Theespruit 277	Theeboom 729 JT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,021242	30,743653
						-26,022889	30,745214
						-26,023519	30,744317
						-26,022089	30,743014
Theespruit 18	Nederland 2/152 IT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,035819	30,715053
						-26,035786	30,715881
						-26,036433	30,715967
						-26,036519	30,715144
Theespruit 17 & 19	Nederland 2/152 IT & Nederland 152 IT	Mpumalanga	Badplaas/Elu kwatini	Albert Luthuli	Gert Sibande	-26,030386	30,711550
						-26,029511	30,715125
						-26,030117	30,715353
						-26,031633	30,711931
Tjakastad 126 & 127	Hooggenoeg 1/731 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,969861	30,840200
						-25,973481	30,837114
						-25,973328	30,835658
						-25,969322	30,839342
Tjakastad 283	Hooggenoeg 1/731 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,968281	30,838042
						-25,968308	30,838383
						-25,968661	30,838436
						-25,968672	30,837828
Tjakastad 128	Hooggenoeg 1/731 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,960428	30,836806
						-25,960714	30,838053
						-25,961597	30,837806
						-25,961250	30,836328
Tjakastad 130	Theespruit 1/156 IT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,988994	30,856875
						-25,984819	30,862414
						-25,986561	30,862178
						-25,990328	30,856797
Tjakastad 131	Theespruit 1/156 IT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,992250	30,851983
						-25,995553	30,851911
						-25,995275	30,851106
						-25,990758	30,851314

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Tjakastad 132 linked to 133	Geluk 732 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,948914	30,882347
						-25,949225	30,884147
						-25,966042	30,881214
						-25,968431	30,878964
						-25,968186	30,878458
						-25,959811	30,881147
Tjakastad 139	Geluk 732 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,953128	30,880486
						-25,939078	30,879578
						-25,940278	30,883375
						-25,940767	30,883194
Tjakastad 242	Geluk 732 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,939400	30,879403
						-25,974114	30,898194
						-25,974375	30,899419
						-25,974994	30,899269
Tjakastad 246	Geluk 732 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,974775	30,898053
						-25,943642	30,884156
						-25,943869	30,885894
						-25,945092	30,885892
Tjakastad 234	Schoongezicht 713 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,944731	30,883953
						-25,926233	30,915872
						-25,926386	30,914447
						-25,925194	30,914539
Tjakastad 254	Schoongezicht 713 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,925167	30,916081
						-25,929008	30,919342
						-25,928628	30,917944
						-25,927539	30,918089
Tjakastad 255	Schoongezicht 713 JT	Mpumalanga	Badplaas/ Tjakastad	Albert Luthuli	Gert Sibande	-25,927806	30,919506
						-25,928850	30,914219
						-25,929197	30,915286
						-25,930383	30,914936
Mooiplaas 102 & 103	Uitgevonden 170 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-25,930172	30,913925
						-26,161709	30,852147
						-26,080219	30,855708
						-26,081906	30,855914
Mooiplaas 107	Uitgevonden 170 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-26,081958	30,851664
						-26,159017	30,867519
						-26,079592	30,867814
						-26,081658	30,863589
Mooiplaas 104	Uitgevonden 170 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-26,080875	30,863092
						-26,121633	30,864131
						-26,121775	30,864725
						-26,122141	30,864561
						-26,122033	30,864058

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Mooiplaas 110	Roodewal 169 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-26,134400	30,904033
						-26,066800	30,906267
						-26,070108	30,906606
						-26,070081	30,903817
Mooiplaas 94	Brandybal 1/171 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-26,132164	30,835864
						-26,065944	30,836778
						-26,066975	30,836797
						-26,066706	30,835892
Mooiplaas 97	Brandybal 1/171 IT	Mpumalanga	Badplaas	Albert Luthuli	Gert Sibande	-26,167044	30,841042
						-26,166942	30,842558
						-26,167664	30,842508
						-26,167758	30,841131

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