

**CARBON FOOTPRINT FOR GOLD FIELDS**  
**YEAR: 2018**

Operation	Scope 1 Emissions											Scope 2 Emissions	Total Scope 1&2 Emissions
	DIESEL: HAULAGE AND OTHER	DIESEL: POWER GENERATION	Petrol	LPG	Natural Gas	Coal	Fugitive Mine Methane	Mine Methane Flaring	Blasting agents	Acetylene	Total Scope 1 Emissions	Electricity	
<b>SOUTH AFRICA</b>	<b>5,272.43</b>	<b>-</b>	<b>34.60</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>197.67</b>	<b>15.41</b>	<b>5,520.11</b>	<b>436,317.69</b>	<b>441,837.80</b>
South Deep Joint Venture	5,271.92	-	34.60	-	-	-	-	-	197.67	15.41	5,519.60	436,236.62	441,756.22
Sandton Main	0.51	-	-	-	-	-	-	-	-	-	0.51	81.06	81.57
<b>WEST AFRICA</b>	<b>304,023.71</b>	<b>3,645.29</b>	<b>96.64</b>	<b>3,374.18</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,762.92</b>	<b>22.76</b>	<b>316,925.50</b>	<b>166,795.82</b>	<b>483,721.32</b>
Tarkwa Gold Mine	196,229.77	-	-	283.28	-	-	-	-	3,831.40	11.81	200,356.25	123,439.71	323,795.96
Damang Gold Mine	107,722.20	3,645.29	-	3,088.59	-	-	-	-	1,931.52	10.95	116,398.56	43,135.81	159,534.36
Accra Main	71.74	-	96.64	2.32	-	-	-	-	-	-	170.69	220.30	390.99
<b>AUSTRALASIA</b>	<b>123,878.64</b>	<b>16,396.07</b>	<b>273.02</b>	<b>2,465.52</b>	<b>71,121.29</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,152.13</b>	<b>5.28</b>	<b>215,291.94</b>	<b>140,660.38</b>	<b>355,952.32</b>
St Ives Gold Mine	70,425.19	-	-	785.63	-	-	-	-	450.87	2.14	71,663.83	91,081.50	162,745.33
Agnew Gold Mine	24,738.42	13,882.24	273.02	602.08	-	-	-	-	332.09	1.08	39,828.93	49,448.94	89,277.87
Gold Fields DHC Pty Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-
Granny Smith Gold Mine	28,715.03	2,513.83	-	1,077.81	71,121.29	-	-	-	369.17	2.07	103,799.18	-	103,799.18
Gruyere Management Pty Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-
Perth Main	-	-	-	-	-	-	-	-	-	-	-	129.94	129.94
<b>SOUTH AMERICA</b>	<b>40,168.19</b>	<b>-</b>	<b>25.98</b>	<b>237.28</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,373.03</b>	<b>0.93</b>	<b>41,805.41</b>	<b>44,711.72</b>	<b>86,517.13</b>
Cerro Corona Gold Mine	40,119.51	-	25.98	237.28	-	-	-	-	1,373.03	0.93	41,756.73	44,681.70	86,438.43
Lima Main	48.68	-	-	-	-	-	-	-	-	-	48.68	30.02	78.70
<b>GROUP</b>	<b>473,342.98</b>	<b>20,041.36</b>	<b>430.24</b>	<b>6,076.98</b>	<b>71,121.29</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8,485.74</b>	<b>44.37</b>	<b>579,542.96</b>	<b>788,485.61</b>	<b>1,368,028.56</b>

Operation	3.1: Purchased Goods And Services	3.3: Fuel- And Energy-Related Activities (Not Included In Scope 1 Or 2)	3.4: Upstream Transportation And Distribution	3.5: Waste Generated In Operations	3.6: Business Travel	3.7: Employee Commuting	3.8: Upstream Leased Assets	3.9: Downstream Transportation And Distribution	3.10: Processing Of Sold Products	3.11: Use of sold product	3.12: End-Of-Life Treatment Of Sold Products	3.13: Downstream Leased Assets	3.14: Franchises	3.15: Investments	Total Scope 3 Emissions
<b>SOUTH AFRICA</b>	<b>9,853.68</b>	<b>13,315.36</b>	<b>453.18</b>	<b>294.45</b>	<b>786.53</b>	<b>2,662.77</b>	<b>-</b>	<b>14.43</b>	<b>51.08</b>	<b>-</b>	<b>102.16</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24,870.88</b>
South Deep Joint Venture	9,850.79	13,313.57	453.16	294.45	786.53	2,662.77	-	14.43	51.08	-	102.16	-	-	-	24,198.27
Sandton Main	2.90	1.79	0.01	-	-	-	-	-	-	-	-	-	-	-	672.61
<b>WEST AFRICA</b>	<b>64,073.43</b>	<b>164,674.69</b>	<b>12,341.79</b>	<b>991.93</b>	<b>602.53</b>	<b>-</b>	<b>-</b>	<b>65.35</b>	<b>129.85</b>	<b>-</b>	<b>259.71</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>243,139.27</b>
Tarkwa Gold Mine	51,816.86	108,760.11	8,219.24	871.17	436.88	-	-	48.60	96.58	-	193.15	-	-	-	170,442.60
Damang Gold Mine	12,248.79	55,864.74	4,118.21	120.76	151.12	-	-	16.75	33.28	-	66.55	-	-	-	72,620.20
Accra Main	7.78	49.83	4.34	-	14.52	-	-	-	-	-	-	-	-	-	76.48
<b>AUSTRALASIA</b>	<b>88,113.28</b>	<b>47,351.45</b>	<b>11,508.70</b>	<b>208.06</b>	<b>4,718.23</b>	<b>-</b>	<b>-</b>	<b>15.59</b>	<b>165.43</b>	<b>-</b>	<b>330.85</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>152,411.59</b>
St Ives Gold Mine	43,680.73	23,268.01	4,577.52	111.95	606.39	-	-	6.45	68.48	-	136.95	-	-	-	72,456.48
Agnew Gold Mine	30,528.54	10,895.87	3,061.68	15.30	1,704.73	-	-	4.21	44.62	-	89.24	-	-	-	46,344.18
Gold Fields DHC Pty Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Granny Smith Gold Mine	13,904.00	13,182.97	3,869.50	80.82	2,401.56	-	-	4.93	52.33	-	104.66	-	-	-	33,600.77
Gruyere Management Pty Ltd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Perth Main	-	4.60	-	-	5.56	-	-	-	-	-	-	-	-	-	10.16
<b>SOUTH AMERICA</b>	<b>19,287.33</b>	<b>30,024.88</b>	<b>3,678.37</b>	<b>30.78</b>	<b>432.69</b>	<b>-</b>	<b>-</b>	<b>9,756.55</b>	<b>30.65</b>	<b>-</b>	<b>61.30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63,302.55</b>
Cerro Corona Gold Mine	19,287.33	30,011.53	3,677.14	30.78	432.69	-	-	9,756.55	30.65	-	61.30	-	-	-	63,287.97
Lima Main	-	13.35	1.22	-	-	-	-	-	-	-	-	-	-	-	14.58
<b>GROUP</b>	<b>181,327.72</b>	<b>255,366.38</b>	<b>27,982.03</b>	<b>1,525.23</b>	<b>6,539.99</b>	<b>2,662.77</b>	<b>-</b>	<b>9,851.93</b>	<b>377.01</b>	<b>-</b>	<b>754.02</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>483,724.30</b>

The following categories of Scope 3 Emissions are zero.

CATEGORY	Value	Comment
3.8: Upstream Leased Assets	Zero	This is reported as zero because energy use after refining of gold is assumed to be negligible
3.11: Use Of Sold Products	Zero	
3.13: Downstream Leased Assets	Zero	No Franchises, therefore zero
3.14: Franchises	Zero	No Franchises, therefore zero
3.15: Investments	Zero	No Franchises, therefore zero

Energy carrier	Diesel	Petrol	Electricity	Total
CO2	5,272	35	436,318	441,625
Units	kl	kl	MW/hr	-
Units consumed (kl, MW/hr)	3,060	51	525,987	-
Energy content (TJ)	110.18	2	1,894	2,005