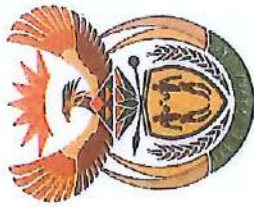


Registered 2016.

DIME 436



**DEPARTMENT: MINERALS AND ENERGY
REPUBLIC OF SOUTH AFRICA**

AMENDMENT/VARIATION OF A MINING RIGHT

Granted in terms of section 102 of the Mineral and Petroleum Resources Development Act,
2002
(Act No. 28 of 2002)



Handwritten initials and signature

REGISTERED IN THE MINERAL & PETROLEUM TITLES
REGISTRATION OFFICE, PRETORIA

In the register of Amendment

On the _____ day of _____ 20_____

Under MPT No. _____

PP DIRECTOR-GENERAL: MINERAL RESOURCES

Protocol No: 667 1206
File Ref No NIW 30/5/11/2/358 MR
Application No

NOTARIAL DEED OF AMENDMENT/VARIATION OF A MINING RIGHT

BE IT HEREBY MADE KNOWN:

That on this the 14th day of July in the year 2011 before me, Michael Robert Waite, Notary Public, duly sworn and admitted, residing and practising at Klerksdorp, in the North West Province of South Africa, and in the presence of the undersigned witnesses personally came and appeared;

Aaron Khathutshelo Kharivhe Regional Manager, North West of the Department of Minerals and Energy, and as such in his/her capacity as the duly representative of:

THE MINISTER OF MINERALS AND ENERGY

The said Regional Manager, being duly authorised thereto under and by virtue of a Power of Attorney granted by the Director-General or Deputy Director-General: Mineral Regulation of the Department of Minerals and Energy on the 20th day of the June in the year 2011 in terms of the powers delegated by the Minister in terms of section 103 (1) of the Mineral and Petroleum Resources Development Act, No 28 of 2002 ("the Act"),

And

Philippus Willem Erasmus in his/her personal capacity or as the company's representative or a Close Corporation's member, and as such, the duly authorised representative of Tharisa Minerals (Proprietary) Limited, Identification/Registration number:

2 0 0 6 / 0 0 9 5 4 4 / 0 7

(hereinafter together with his/her/its successors in title and assigns referred to as "the Holder"), the said representative, being duly authorised thereto under and by virtue of a Power of Attorney/resolution of directors/members of the Holder, signed or passed at Bryanston on the 12th day of July in the year 2011, which power of attorney or certified copy of the resolution has this day been exhibited to me, the notary, and remain filed on record in my protocol with the minutes hereof.

THE MINISTER AND THE HOLDER DECLARED THAT:

WHEREAS The State is the custodian of the nation's mineral and petroleum resources in terms of section 3 of the Act,

AND WHEREAS In terms of clause 4 of the principal right, the terms of the right may not be amended/ varied without the written consent of the Minister.

AND WHEREAS the Holder has applied for the amendment of the defined properties to include portions 56, 183 and 286 of the farm Kafferskraal 342 JQ as would more fully appear from Annexures "A1" and "A2" attached hereto, whereas portion 96 of 183 form part of 258 MR which is consolidated with 358 MR.

AND WHEREAS The Minister has granted consent for the amendment/variation to the Holder, in terms of section 102 of the Act.

NOW THEREFORE THESE PRESENTS WITNESS:

The Minister hereby grants the variation/amendment of the mining right executed on the 19th day of September in the year 2006, under Protocol 618/2006, registered at the Mineral and Petroleum Titles Registration Office under 49/2006(LWR) in respect of:

M W K

Certain: Portions 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22, 23, 25, 26, 27, 28, 29, 30, 33, 38, 39, 40, 41, 47, 48, 53, 74, 76, 83, 84, 90, 91, 100, 101, 104, 105, 108, 109, 110, 111, 114, 116, 117, 118, 119, 120, 122, 123, 127, 132, 133, 135, 137, 138, 139, 140, 142, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 166, 175, 176, 182, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 196, 205, 206, 207, 208, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 224, 225, 226, 227, 229, 230, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 250, 251, 256, 257, 259, 262, 265, 266, 276, 285, 286, 289, 297, 298, 301, 303, 304, 305, 314, 317, 318, 319, 324, 329, 330, 331, 335, 336, 342, 344, 350, 352, 353, 354, 358, 357, 358, 361, 362 and 365 of the farm Kafferskraal 342 JQ, portions 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 113, 114, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 130, 134, 135, 136, 137, 138, 139, 141, 142, 143, 144, 145, 146, 147, 149, 150, 151, 152, 153, 154, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 173, 176, 177, 179, 182, 183, 184, 185, 189, 190, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 212, 213, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 276, 277, 278, 279, 280, 281, 282, 283, 292, 297, 307, 308, 312, 313, 344, 315, 316, 317, 318, 320, 322, 323, 326, 327, 328, 329, 330, 331, 332, 333, 335, 336, 337, 338, 339, 343, 344, 345, 347, 348, 349, 351, 354, 357, 358, 359, 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761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

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Situated: North West Magisterial/Administrative District of Rustenburg
Measuring: 5645-6245-hectares 5401,79 hectares

(in case of various farms involved, a list must be attached and referred to as ANNEXURE X)

is hereby amended/ varied by the inclusion of portions 96, 183 and 286 of the Kafferskraal 342 JQ in the Magisterial District of Rustenburg, measuring 5474,86 hectares, which mining area is described on the attached diagram marked Annexure "B".

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Now therefore the Minister grants the amendment/ variation of the principal right.

Thus done and signed at Klerksdorp on the 14th day of July in the year 2011 in the presence of the undersigned witnesses:

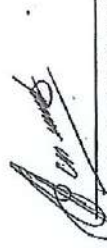
AS WITNESS:




_____ **For and on behalf of the Minister**

AS WITNESS:




_____ **For and on behalf of the Holder**




NOTARY PUBLIC

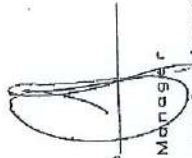


NORTH WEST REGION

PLAN PREPARED IN ACCORDANCE WITH REGULATION 42 OF THE REGULATIONS PUBLISHED UNDER THE MINING TITLES REGISTRATION ACT [ACT 16 OF 1967] - APPLICATION FOR SECTION 102

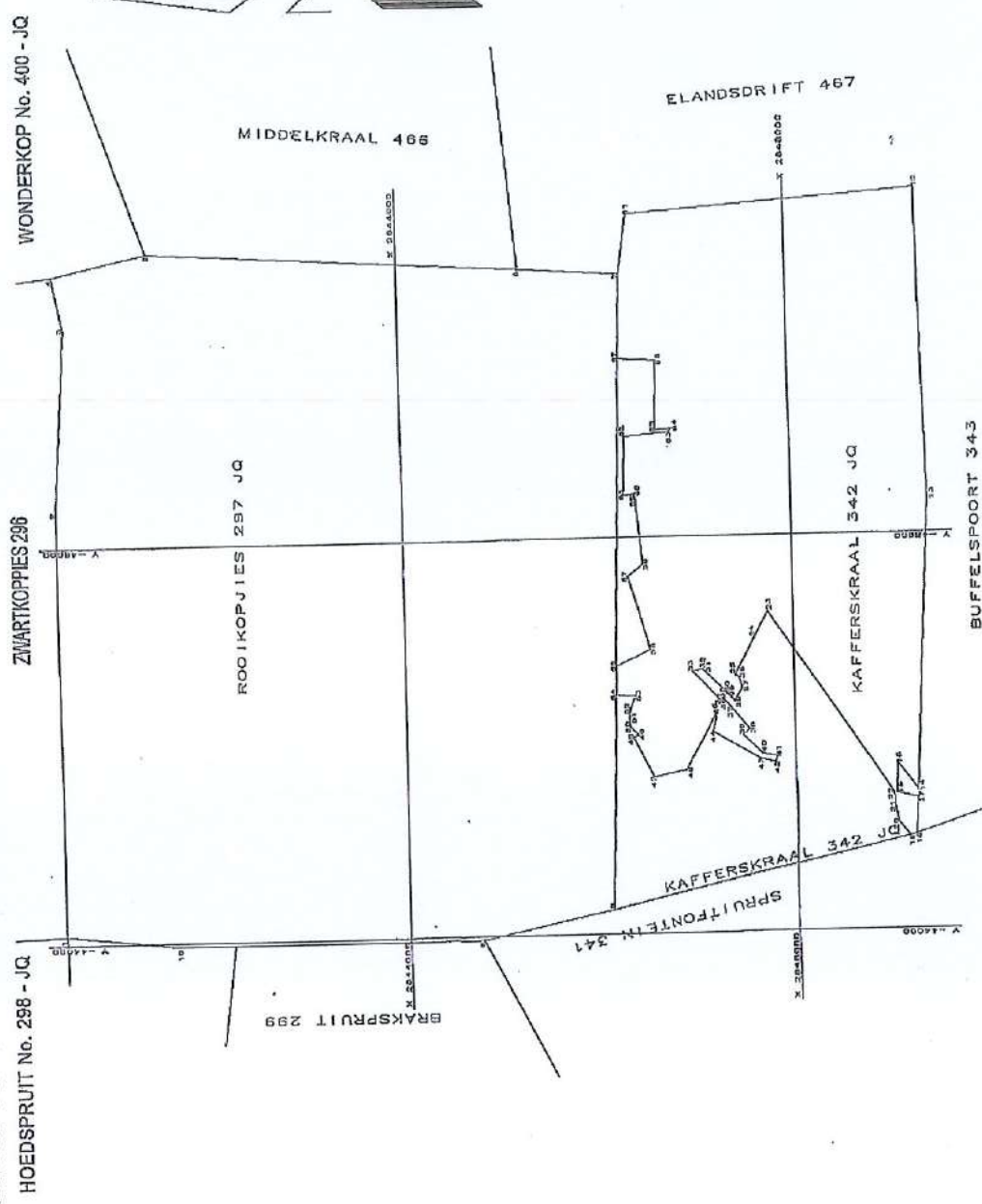
Description of land under application for a mining right
 The figures as indicated on Addendum One and Two (Co Ordinate List) on the farm ROOIKOPJIES 297 JQ end of the farm KAFFERSKRAAL 342 JQ represents the area of the land under application for a mining right, situated in the magisterial district of Rustenburg

NO NW 30/5/1/2/2/358MR
 In extent approx : 5474.86 ha

Signature 
 Regional Manager
 Department of Minerals and energy
 NORTH WEST REGION
 DATE 28/01/2016

Signature 
 Company Representative
 THARISA MINERALS [PTY] LTD
 DATE 28/01/2016

Signature 
 Certified by H G du Preez
 Plato No. PLS 1073
 DATE 20/01/2016



SCALE 1 : 50 000

NORTH WEST REGION

PLAN PREPARED IN ACCORDANCE WITH REGULATION 42 OF THE REGULATIONS
PUBLISHED UNDER THE MINING TITLES REGISTRATION ACT [ACT 16 OF 1967] - APPLICATION FOR SECTION 102

Addendum One

CO-ORDINATE SYSTEM WGS 84

Constants : Y = 0 X = 0

No NW 30/5/1/2/2/358MR

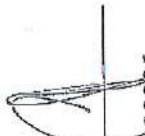
In extent approx : 5474.86 ha

ROOIKOPPIES 297 JQ KAFFERSKRAAL 342 JQ

Y CO-ORDINATES X CO-ORDINATES Y CO-ORDINATES X CO-ORDINATES

1	-44091.410	2840454.900
2	-48339.813	2840429.490
3	-50193.626	2840551.481
4	-50745.423	2840441.606
5	-50859.930	2841426.870
6	-50733.721	2845246.234
7	-50661.098	2846284.531
8	-44251.280	2846093.010
9	-43964.410	2844752.900
10	-43967.240	2841815.370
1	-44091.410	2840454.900

11	-51266.500	2846373.560
12	-51477.930	2849336.700
13	-48361.440	2849403.240
14	-45413.027	2848245.853
15	-45683.979	2849036.886
16	-45383.275	2849023.242
17	-45326.830	2849241.280
18	-44965.100	2849221.850
19	-44848.490	2849149.480
20	-45096.700	2849035.650
21	-45235.000	2849007.650
22	-45392.070	2848989.270
23	-47222.370	2847745.750
24	-46963.940	2847601.340
25	-46596.003	2847396.822
26	-46576.932	2847435.153
27	-46464.428	2847467.476
28	-46341.890	2847386.000
29	-46398.004	2847325.949
30	-46422.159	2847300.539
31	-46620.512	2847083.276
32	-46659.634	2847052.314
33	-46638.026	2846954.257
34	-46343.560	2847231.850
35	-46364.711	2847268.696
36	-46361.622	2847267.047
37	-46272.680	2847343.416
38	-46052.297	2847532.515

Signature: 
Regional Manager
Department of Minerals and Energy

NORTH WEST REGION

DATE: 

Signature: 
Company Representative

THARISA MINERALS [PTY] LTD

DATE: 26/09/2017

Signature: 
Certified by H G du Preez

Plato No. PLS 1073

DATE: 20/10/2017

39	-45992.877	2847463.304
40	-45806.358	2847551.502
41	-45771.288	2847806.260
42	-45715.979	2847794.140
43	-45747.519	2847650.322
44	-46033.761	2847146.342
45	-46240.743	2847199.760
46	-45655.295	2846873.786
47	-45588.927	2846633.120
48	-45969.143	2846323.802
49	-46010.553	2846352.074
50	-46091.282	2846297.335
51	-46183.821	2846289.095
52	-46274.400	2846297.476
53	-46409.078	2846355.685
54	-46414.940	2846157.570
55	-46705.067	2846106.176
56	-46871.624	2846523.342
57	-47605.250	2846303.899
58	-47724.407	2846462.854
59	-48418.173	2846398.638
60	-48431.649	2846390.645
61	-48420.038	2846280.176
62	-49002.385	2846299.521
63	-49045.881	2846759.491
64	-49081.218	2846800.003
65	-49064.156	2846619.725
66	-49789.577	2846643.503
67	-49792.736	2846258.486
7	-50661.098	2846284.531
11	-51266.500	2846373.560

60-61 MiddeI of River



DEPARTMENT: MINERALS AND ENERGY
REPUBLIC OF SOUTH AFRICA

MINING RIGHT

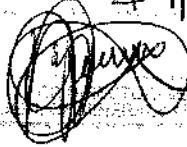
Granted in terms of section 23(1) of the Mineral and Petroleum Resources Development Act, 2002
(Act No. 28 of 2002)

A collection of handwritten signatures in black ink, including a large signature at the top, a signature with the letter 'W' below it, and another signature at the bottom.

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MINING RIGHT
 13th AUGUST 2009
 49/2009(MR)



618
 Protocol No----/2008
 File Ref No 358 MR
 Application No 07/11/14/002

LET IT HEREBY BE MADE KNOWN:

THAT on this 19th day of **September** in the year **2008**, before me, **Michael Robert Waks** a Notary Public, duly sworn and admitted, residing and practising at **Klerksdorp**, in the **North West** Province of South Africa, and in the presence of the subscribing competent witnesses, personally came and appeared:

Aaron Khathutshelo Kharivhe, Regional Manager, **Klerksdorp** Region of the Department of Minerals and Energy, and as such in his / her capacity as the duly authorised representative of:

THE MINISTER OF MINERALS AND ENERGY

The said Regional Manager, being duly authorised thereto under and by virtue of a Power of Attorney granted by the **DIRECTOR-GENERAL** of the Department of Minerals and Energy on the 19th day of **August** in the year **2008** in terms of the powers delegated by the Minister on the 12th day of May 2004 in terms of section 103 (1) of the Act,

AND

Moira Jacquet- Briner in her capacity as Director, and as such, the duly authorised representative of THARISA MINERALS (PTY) LTD, Registration number:

2	0	0	6	/	0	0	9	5	5	4	/	0	7	
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Hereinafter together with her successors in title and assigns referred to, she, the said representative, being duly authorised thereto under and by virtue of a resolution of directors of the Holder, signed or passed at Bryanston on the 11th day of September in the year 2008 which a certified copy of a resolution has this day been exhibited to me, the notary, and remain filed of record in my protocol with the minutes hereof.

AND THE MINISTER AND HOLDER DECLARED THAT:

WHEREAS The State is the custodian of the Nation's mineral and petroleum resources in terms of section 3 of the Act.

AND WHEREAS The Holder has applied for a mining right in terms of section 22 of the Act,

AND WHEREAS The **DIRECTOR-GENERAL** of the Department of Minerals and Energy has by virtue of powers delegated to him, granted to the Holder, a mining right in terms of section 23(1) of the Act.

NOW THEREFORE THE MINISTER GRANTS A MINING RIGHT SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

Definitions

In this mining right, the following words and expressions shall have the meanings assigned to them:

'**Act**' means the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and includes the Regulations, guidelines, circulars, directives and orders made in terms of that Act;

'**Effective date**' means 19th day of **September** in the year **2008** (being the date on which the environmental management programme is approved in terms of section 39(4) of the Act);

'**Environmental Management Programme**' is as defined in the Act and includes any other Environmental Management Programme approved in terms of the previous mining legislation;

'**Financial year**' means a complete financial year of the Holder which, at the time of the granting of this mining right, commences on 01st day of **August** in the year **2007**; and ends on 31st day of **July** in the year **2008**;

'**Holder**' is as defined in the Act, and specifically in relation to this right, it means **Tharisa Minerals (Pty) Ltd**, Registration No/Identification No **200600955407**;

'**Mineral**' is as defined in the Act, and specifically in relation to this right means **platinum group metals, copper ore, nickel ore and chrome ore**;

'**Mining Area**' is as defined in the Act and includes any additional area of environmental liability as may be reflected on the Environmental Management Programme relating to this right;

'**Mining right**' is as defined in the Act and includes all the Annexures to it, agreements and inclusions by reference;

'**Mining Work Programme**' is as defined in the Act and as reflected in the attached **Annexure A** to this mining right;

'**Minister**' means the Minister of Minerals and Energy and includes the successors in title, the assignee or any person duly authorised to act in the Minister's place and stead;

'**Regional Manager**' is as defined in the Act and specifically in relation to this right means the Regional Manager for the **North West** Region of the Department of Minerals and Energy; and

'**Social and Labour Plan**', is as contemplated in regulation 46 of the Regulations to the Act and is as reflected in the attached **Annexure B** to this mining right.

1. Description of the Mining Area

The Mining Area shall comprise the following:

Certain: Portions 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22, 23, 25, 26, 27, 28, 29, 30, 33, 38, 39, 40, 41, 47, 48, 53, 74, 76, 83, 84, 90, 91, 100, 101, 104, 105, 108, 109, 110, 111, 114, 116, 117, 118, 119, 120, 122, 123, 127, 132, 133, 135, 137, 138, 139, 140, 142, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 166, 175, 176, 182, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 196, 205, 206, 207, 208, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 224, 225, 226, 227, 229, 230, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 250, 251, 256, 257, 259, 262, 265, 266, 276, 283, 285, 289, 297, 298, 301, 303, 304, 305, 314, 317, 318, 319, 324, 329, 330, 331, 335, 336, 342, 344, 350, 352, 353, 354, 356, 357, 358, 361, 362 and 365 of the farm Kafferskraal 342 JQ; portions 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 113, 114, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 130, 134, 135, 136, 137, 138, 139, 141, 142, 143, 144, 145, 146, 147, 149, 150, 151, 152, 153, 154, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 173, 176, 177, 179, 182, 183, 184, 185, 189, 190, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 212, 213, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 276, 277, 278, 279, 280, 281, 282, 283, 292, 297, 307, 308, 312, 313, 314, 315, 316, 317, 318, 320, 322, 323, 326, 327, 328, 329, 330, 331, 332, 333, 335, 336, 337, 338, 339, 343, 344, 345, 347, 348, 349, 351, 354, 357, 358, 359, 360, 361, 362, 364, 365, 366, 367, 368, 369, 370, 371, 372, 387, 388, 399 and 400 of the farm Rooikoppies 297 JQ

Situated: **North West Magisterial/Administrative District of Rustenburg**

Measuring: **5515.5316 hectares in extent.**

(In the case of various farms being involved, a list can be attached and referred to as **Annexure**);

Which Mining Area is described in detail on the attached Diagram/plan marked **Annexure C**.

2. Granting of Mining Right

Without detracting from the provisions of sections 5 and 25 of the Act, the Minister grants to the Holder the sole and exclusive right to mine, and recover the mineral/s in, on and under the mining area for the Holder's own benefit and account, and to deal with, remove and sell or otherwise dispose of the mineral/s, subject to the terms and conditions of this mining right, the provisions of the Act and any other relevant law in force for the duration of this right.

3. Commencement, Duration and Renewal

3.1. This mining right shall commence on **19th September 2008** and, unless cancelled or suspended in terms of this clause 13 of this right and or section 47 of the Act, will continue to be in force for a period of **Thirty years ending on 18th September 2038**.

3.2. The Holder must commence with the mining operations within a year from the date on which the mining right becomes effective in terms of section 23 (5) of the Act, or any later date as may, upon a written request by the Holder, be authorised in writing by the Minister in terms of the Act, failing which this right may be cancelled or suspended.

- 3.3. Any application for renewal must be submitted to the Regional Manger not later than 60 working days prior to the date of expiry of this right.

4. Amendments, Variation and Abandonment

- 4.1. The terms of this right (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) may not be amended or varied without the written consent of the Minister.

- 4.2. The Holder shall be entitled to abandon or relinquish the right or the area covered by the right entirely or in part. Upon abandonment or relinquishment of the mining area or any portion thereof, the Holder must:

- 4.2.1. Furnish the Regional Manager with all prospecting and /or mining results and/or information, as well as the general evaluation of the geological, geophysical and borehole data in respect of such abandoned area in so far as it applies to the mineral or any other mineral/s obtained in respect of this right and,

- 4.2.2. Apply for a closure certificate in terms of section 43 (3) of the Act.

- 4.3. With effect from the date the Holder has abandoned or relinquished a portion or portions of the mining area, and subject to section 43 of the Act, the Minister is entitled to grant any right, permit, or permission referred to in the Act in, on, or under the portion/s, so abandoned or relinquished, to any person/s.

5. Payment of Royalties

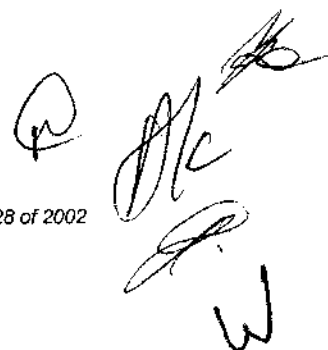
- 5.1. The Holder shall as contemplated in section 25 (2) (g) pay to the State throughout the duration of this mining right, royalties payable in terms of any Act or Amendment to an Act of Parliament implemented.

6. Payment of Interest

If mining fees, any fees, any levy, royalties or consideration referred to in clause 5 are not paid punctually, the Holder shall be in mora and shall pay interest thereon at the rate prescribed in terms of section 80 of the Public Finance Management Act, 1999(Act 1 of 1999) reckoned from the date on which payment is due and payable, to the date of actual payment.

7. Restrictions and Obligations Imposed on the Holder

- 7.1 The Holder is entitled to the rights referred to in section 5(2), (3) and section 25 of the Act, and such other rights as may be contained in this mining right or such other right as may be granted to, acquired by or conferred upon the Holder by any other applicable law.
- 7.2 Mining operations in the mining area must be conducted in accordance with the Mining Work Programme and any amendment to such Mining Work Programme and an approved Environmental Management Plan.
- 7.3 The Holder shall not trespass or enter into any homestead, house or its curtilage nor interfere with or prejudice the interests of the occupiers and/or owners of the surface of the Mining Area except to the extent to which such interference or prejudice is necessary for the purposes of enabling the Holder to properly exercise the Holder's rights under this mining right.

Handwritten signatures and initials in black ink, including a large stylized signature, a smaller signature, and the letter 'W'.

8. Conditions on disposal of Minerals and/ or Products Derived from Mining

It is a condition of the granting of this mining right that the Holder shall dispose of all minerals and/ or products derived from the exploitation of the mineral at competitive market prices which shall mean in all cases, non-discriminatory prices or non-export parity prices. If the minerals are sold to any entity, which is an affiliate or non-affiliated agent or subsidiary of the Holder, or is directly or indirectly controlled by the Holder, such purchaser must unconditionally undertake in writing to dispose of the minerals and any products produced from the minerals, at competitive market prices.

9. Mortgage, Cession, Transfer, Alienation

9.1 This mining right, a shareholding, an equity, an interest or participation in the right or joint venture, or a controlling interest in a company, close corporation or joint venture, may not be encumbered, ceded, transferred, mortgaged, let, sublet, assigned, alienated or otherwise disposed of without the written consent of the Minister, except in the case of a change of controlling interest in listed companies.

9.2 Any transfer, encumbrance, cession, letting, sub-letting, assignment, alienation or disposal of this right or any interest therein or any share or any interest in the Holder, without the consent of the Minister referred to in section 11(1) is of no force, no effect and is invalid.

10. Protection of Boreholes, Shafts, Edits and Openings.

All boreholes, shafts, edits, excavations, and openings sunk or made, by the Holder during the currency of this mining right shall be sealed, closed, fenced, made safe by the Holder in accordance with the approved Environmental Management Programme, the Mine Health and Safety Act, 1996 or any other applicable laws and Regulations.

11. Holder's liability for payment of Compensation for Loss or Damage

11.1. Subject to section 43 of the Act, the Holder shall, during the tenure of this right while carrying out the mining operations under this right, take all such necessary and reasonable steps to adequately safeguard and protect the environment, the mining area and any person/s using or entitled to use the surface of the mining area from any possible damage or injury associated with any activities on the mining area.

- 11.2. Should the holder fail to take reasonable steps referred to above, and to the extent that there is legal liability, the holder shall compensate such person or persons for any damage or losses, including but not limited to damage to the surface, to any crops or improvements, which such person or persons may suffer as a result of, arising from or in connection with the exercise of his/her rights under this mining right or of any act or omission in connection therewith.

12. Inspection of Mining Area

The Minister and/or any person duly authorised thereto in writing by the Minister shall be entitled to inspect the mining area, the Holder's mining operations and the execution of the approved Environmental Management Programme on the Mining Area as provided for in the Act, and any instruction conveyed in writing by the Minister to the Holder requiring the proper performance by the Holder of the Holder's obligations under this mining right shall be put into effect by the Holder in terms of the Act.

13. Cancellation or Suspension

- 13.1 Subject to section 47 of the Act, this mining right may be cancelled or suspended if the Holder:
- 13.1.1 Submits inaccurate, incorrect and or misleading information in connection with any matter required to be submitted under the Act;
 - 13.1.2 Fails to honour or carry out any agreement, arrangement, or undertaking, including the undertaking made by the Holder in terms of the Broad Based Socio Economic Empowerment Charter and Social and Labour plan, on which the Minister relied for the granting of this right;
 - 13.1.3 Breaches any material term and condition of this mining right;
 - 13.1.4 Conducts mining operations in contravention of the provisions of the Act;
 - 13.1.5 Contravenes the requirement of the approved Environmental Management Programme; or
 - 13.1.6 Contravenes any provisions of this Act in any other manner.
- 13.2 Before the Minister cancels or suspends this right, the Minister shall:
- 13.2.1 Give written notice to the Holder indicating the intention to suspend or cancel this right;
 - 13.2.2 Give reason/s why the Minister is considering the suspension or cancellation of this right;
 - 13.2.3 Give the Holder 30 days to show reasons why the right should not be suspended or cancelled;
 - 13.2.4 Notify, the mortgagee [if any], of the intention to suspend or cancel this right; and
 - 13.2.5 Direct the Holder, where it is possible to remedy any contravention, breach or failure, to comply or to take such specified measures to remedy any contravention, breach or failure to comply.
- 13.3 If the Holder does not take the measures as specified by the Minister to remedy a contravention, breach or failure, the Minister may cancel or suspend this right after considering representations made by the Holder in terms of clause 13.2.3.

Handwritten signature and initials, possibly 'R. J. W.', in the bottom right corner of the page.

14. Records and Returns

- 14.1. The Holder shall maintain all such books, plans and records in regard to mining on the Mining Area as may be required by the Act and shall furnish to the office of the Regional Manager such reports and documents as may be relevant under this right.
- 14.2. The Holder shall furnish to the Regional Manager all such monthly returns contemplated in section 28 (2) A of the Act not later than the 15th day of the month following the month in respect of which it was reported.
- 14.3. The Holder shall furthermore at the end of each year following commencement of this mining right, inform the Regional Manager in writing of any new developments and of the future mining activities planned in connection with the exploitation/mining of the minerals on the Mining Area.

15. Minister's liability for Compensation

The Minister shall not at any time be liable or responsible for the payment of compensation of whatever nature to the Holder, the Holder's successors-in-title or assignee, or any person whomsoever as a result of the granting of this right.

16. Compliance with the Laws of the Republic

The granting of this Right, does not exempt the Holder and its successors in title and/or assigns from complying with the relevant provisions of the Mine Health and Safety Act, (Act No.29 of 1996) and any other law in force in the Republic of South Africa.

17. Provisions relating to section 2(d) and (f) of the Act

In the furthering of the objects of this Act, the Holder is bound by the provisions of an agreement or arrangement dated _____ entered into between the Holder/ empowering partner and _____ (the empowerment partner) which agreement or arrangement was taken into consideration for purposes of compliance with the requirements of the Act and or Broad Based Economic Empowerment Charter developed in terms of the Act and such agreement shall form part of this right.

18. Social and Labour Plan

- 18.1 The holder must annually, not later than three months before the end of its financial year, submit detailed implementation plan to give effect to Regulation 46(e)(i),(ii)and (iii) in line with the Social and Labour Plan.

- 18.2 The holder must annually, not later than three months after finalisation of its audited annual report, submit a detailed report on the implementation of the previous year's social and labour plan.

19. Severability

Notwithstanding anything to the contrary, any provision of this mining right which is contrary to any provision of the Act or which is otherwise ultra vires, null and void, voidable, or unenforceable, shall be severable from the rest of this right, such rest thus being and remaining of full force, effect and enforceable.

20. Domicilia citandi et executandi

- 20.1. The parties hereto choose the following addresses as their *domicilia citandi et executandi* and for all purposes arising from this mining right, in particular for the purposes of serving of any notice in terms of this mining right, and any notice properly addressed to the under mentioned postal addresses of the parties shall be deemed to have been received by the addressee within 14 days if given in writing and posted by prepaid registered post addressed to the addressee at the relevant postal address:

- 20.1.1. In the case of the **Minister**:

Physical Address	Postal Address
No. 1 Charel De Klerk Street Senwes Building KLERKSDORP Code 2570 Tel (018) 464 1631 Fax (018) 462 9036	Private Bag A1 KLERKSDORP 2570

- 20.1.2. In the case of the **Holder**:

Physical Address	Postal Address
Eland House The Braes 3 Eaton Road BRYANSTON Code 2021 Tel (011) 996 3500	Postnet Suite 473 Private Bag X 51 BRYANSTON 2021

Fax (011) 996 3525

20.2. Notwithstanding anything to the contrary herein contained, a written notice or communication actually received by a party at any place other than the chosen *domicilia citandi et executandi* shall constitute adequate notice or communication to the party notwithstanding that it was not sent to or delivered at such party's chosen *domicilium citandi et executandi*.

20.3 Either party shall be entitled from time to time to change the *domicilia citandi et executandi* or postal address furnished above after giving at least 14 days prior written notice of such change to the other party, failing which the above mentioned addresses will remain in force.

20.4. Any written notice or communication contemplated in this clause which is forwarded by one party to the other by registered post will be presumed to have been received by the addressee on the fourteenth day following the date of posting from an address within the Republic of South Africa to the addressee at the postal address of the addressee for the time being as determined in accordance with the provisions of this clause.


21. Costs

The Holder shall pay all costs and charges incurred in connection with the execution and registration of this prospecting right.

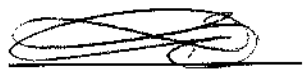
Thus done and signed at **Klerksdorp** on the 19th day of **September** in the year **2008** in the presence of the undersigned witnesses:

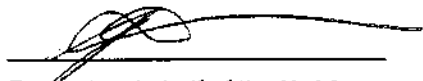
AS WITNESS:



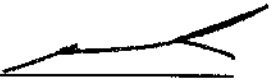

For and on behalf of the **Minister**

AS WITNESS:

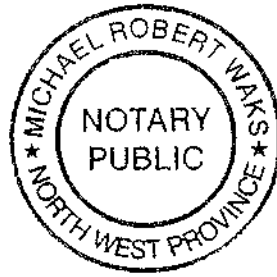




For and on behalf of the **Holder**





Notary Public







the dme

Department:
Minerals and Energy
REPUBLIC OF SOUTH AFRICA

DME 12

From: Directorate: Mineral Regulation: North West

Enquiries: D.P Makamu

1 Charel De Klerk Street, Senwes Building, Klerksdorp, 2570

Private Bag A 1, Klerksdorp, 2570

Tel: (018) 464 1631, Fax: (018) 462 9036

Sub Directorate: Mine Environmental Management Ref: (NW) 30/5/1/2/3/2/1/358EM

REGISTERED MAIL

The Manager
Tharisa Minerals (Pty) Ltd
P O Box 122
CRAMERVIEW
2060

Dear Sir/Madam

APPROVAL OF ENVIRONMENTAL MANAGEMENT PROGRAMME IN TERMS OF SECTION 39 (4) (A) (I - III) OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) FOR THE MINING RIGHT IN RESPECT OF VARIOUS PORTIONS OF THE VARIOUS FARMS KAFFERSKRAAL 342 JQ AND ROOIKOPPIES 297 JQ (ANNEXURE A) SITUATED IN THE MAGISTERIAL DISTRICT OF RUSTENBURG (NORTH WEST REGION) THARISA MINERALS (PTY) LTD (COMPANY).

Kindly note that the EMProgramme stipulates Environmental Management and a copy thereof should always be available on site.

The EMProgramme was approved provided conditions stated below will be adhered to.

CONDITIONS

- a.) All mining activities must take place in accordance with the approved EMProgramme.
- b.) No mining activities are allowed within 1:50 year flood line or 100m from the edge of the river whatever is the greatest, without the necessary authorization from DWAF.
- c.) No mining infrastructure is allowed to be constructed within the 1:100 year flood line without the necessary authorization from DWAF.

- d.) **Tharisa Minerals (Pty) Ltd** is responsible for all surface disturbances on the prospecting area, which includes all historical mining activities.
- e.) All available topsoil must be stripped and stockpiled separately prior to any surface disturbance.
- f.) All mine waste must be taken back to the excavation area for backfilling purposes.
- g.) No mines waste will be allowed to be deposited in natural drainage lines or erosion gullies
- h.) No dumps structures must be left on the surface, this includes topsoil stockpiles, overburden stockpiles, waste rock stockpiles, tailing dumps and slimes dams.
- i.) All excavations must be backfilled to the natural surface level; if a bulk factor exists it must be accommodated on the total area of disturbance.
- j.) A surveyed plan must be submitted every year to the Regional Manager that indicates:
 - The positions, footprints and volumes of all topsoil stockpiles, overburden dumps, waste rock dumps and slimes dams (Any structure that is above the natural surface.)
 - The positions, surface areas and depths of all open pits.
 - The positions and surface areas of all rehabilitated areas (please indicate the status of rehabilitation-backfilled, profiled/landscaped, top soiled, vegetated or monitoring and managing.
- k.) The rehabilitation fund must be upgraded or revised on an annual basis according to the surveyed plan, which indicates the progress in rehabilitation.
- l.) Any project, expansions or additional infrastructure must be addressed through an addendum and submitted to the Regional Manager: Mineral Development for his approval, before they commence. This approval may be amended at any stage if deemed necessary.
- m.) This approval does not purport to absolve your company from its common law obligations towards the surface rights holder or any other affected party.
- n.) The following Acts are applicable and relevant to the said approval and your company is to familiarize itself with its provisions in so far as they apply to the company's operations
 - The National Water Act 1998, (Act 36 of 1998), with particular reference to the sections pertaining to mining or prospecting in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.
 - The Environmental Conservation Act (Act 73 of 1989). Your attention is specifically directed to the requirements of section 20 of the above-mentioned Act.
 - The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by mining activities, into the atmosphere

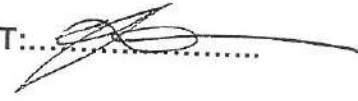
- The Conservation of Agriculture Resources Act, 1983 (Act 43 of 1983), with particular references to the sections pertaining to soil conservation.
- The National Heritage Resources Act, 1999 (Act No 25 of 1999), with particular reference to the protection of all historical and pre-historical cultural remains.
- The Mine Health and Safety Act (Act 29 of 1996) in conjunction with the Mineral and Petroleum Resources Development Act (MPRDA), 2002 (Act 28 of 2002), with particular reference to those sections and regulations pertaining to health and safety at mines; mining within 100 m from structures that must be protected; as well as those sections pertaining to rehabilitation of the surface.
- The National Environmental Management Act (Act 107 of 1998), with particular reference to principles in chapter 2 of the said Act.

o.) All persons concerned must be made fully conversant with the terms of this approval, copies of which must be readily available to them.

Yours faithfully



.....
REGIONAL MANAGER
MINERAL REGULATION
NORTH WEST REGION
 DATE:.....

ACKNOWLEDGEMENT OF RECEIPT: 
 DATE: 12/9/2008

ALL CORRESPONDENCE SHOULD BE ADDRESSED TO THE REGIONAL MANAGER DEPARTMENT OF MINERALS AND ENERGY: NORTH-WEST REGION.



Department of Agriculture, Conservation & Environment

Reference:	NWP/EIA/159/2007
Enquiries:	Robert Nemaahli
Tel No.:	(014) 597 3597
Fax No.:	(014) 592 3653
E-mail:	RNemaahli@nwpg.gov.za

Attention: Mr. Jeff Gard
 Tharisa Minerals (Pty) Ltd
 P. O. Box 122
 CRAMERVIEW
 2080

Tel No.: (011) 463 7101
 Cell No.: 083 700 3370
 Fax No.: (011) 463 7100

Dear Sir

ENVIRONMENTAL AUTHORISATION FOR THARISA OPENCAST MINE ON THE FARMS KAFFERSKRAAL 342 JQ, ROOIKOPPIES 297 JQ, AND POSSIBLY ELANDSDRIFT 467 JQ NEAR THE TOWN OF MARIKANA, LISTED ACTIVITIES 1(b), 1(l), 1(m), 1(n), 1(p), 1(q) 1(e), 7, 12, 13, 14, 15 IN GOVERNMENT NOTICE NUMBER R. 386, INCLUDING LISTED ACTIVITIES 1(c), 1(e), 1(h), 1(j), 1(p), 2, 5, 6, AND 10 IN GOVERNMENT NOTICE NUMBER, R. 387, WITHIN RUSTENBURG LOCAL MUNICIPALITY, NORTH WEST PROVINCE (NWP/EIA/159/2006)

Your application for authorisation, in terms of section 24(2) (a) of the National Environmental Management Act, 1998 as amended (Act No. 107 of 1998) in respect of -

Government Notice No. R. 386 of 21 April 2006:

1. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 1.1 the above ground storage of 1000 tons or more but less than 100 000 tons of ore (listed activity 1(b));
 - 1.2 the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts (listed activity 1(l));
 - 1.3 any purpose in the one in ten year flood line of a river or stream, or within 32 metres from a bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including- (i) canals; (ii) channels; (iii) bridges; (iv) dams; and (v) weirs (listed activity 1(m));
 - 1.4 the off-stream storage of water, including dams and reservoirs, with a capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of the activity listed in item 6 of Government Notice No. R. 387 of 2006 (listed activity 1(n));
 - 1.5 the temporary storage of hazardous waste (listed activity 1(p));



- 1.6 the landing, parking and maintenance of aircraft including- (i) helicopter landing pads, excluding helicopter landing facilities and stops used exclusively by emergency services; (ii) unpaved aircraft landing strips shorter than 1,4 km; (iii) structures for equipment and aircraft storage; (iv) structures for maintenance and repair; (v) structures for fuelling and fuel storage; and (vi) structures for air cargo handling [listed activity 1 (q)];
- 1.7 the treatment of effluent, wastewater or sewage with an annual throughput capacity of more than 2000 cubic metres but less than 15 000 cubic metres [listed activity 1(e)];
2. The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1000 cubic metres at any one location or site [listed activity 7];
3. The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 12];
4. The abstraction of groundwater at a volume where any general authorisation issued in terms of the National Water Act, 1998 (Act No. 36 of 1998) will be exceeded [listed activity 13];
5. The construction of masts of any material or type and of any height, including those used by for telecommunication broadcasting and radio transmission, but excluding- (i) masts of 15 metres and lower exclusively used by radio amateurs; or for lightning purposes; (ii) flag poles; and (iii) lightning conductor poles [listed activity 14];
6. The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long [listed activity 15];

Government Notice No. R. 387 of 21 April 2008:

7. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 7.1 the above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin in containers with a combined capacity of 1000 cubic metres or more at any one location or site including the storage of one or more dangerous goods, in a tank farm [listed activity 1(c)];
 - 7.2 any process or activity which requires permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in terms of Government Notice No. R. 386 of 2008 [listed activity 1(e)];
 - 7.3 the use, recycling, handling, treatment, storage or final disposal of hazardous waste [listed activity 1(g)];
 - 7.4 the manufacturing, storage or testing of explosives, including ammunition, but excluding licensed retail outlets and the legal end use of such explosives [listed activity (h)];
 - 7.5 the bulk transportation of dangerous goods using pipelines, funiculars or conveyors with a throughput capacity of 50 tons or 50 cubic metres or more per day [listed activity 1(j)];
 - 7.6 the treatment of effluent, wastewater or sewage with an annual throughput capacity of 15 000 cubic metres or more [listed activity 1 (p)];
8. Any development activity, including associated structures and infrastructure, where the total area of the development area is, or is intended to be, 20 hectares or more [listed activity 2];
9. The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of this notice and which has not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2008 made under Section 24 (5) of the Act and published in Government Notice No. R. 385 of 2008, where- (a) It is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, (Act No. 7 of 1998); (b) It is a road administered by a provincial authority; (c) the road reserve is wider than 30 metres; or (d) the road will cater for more than one lane of traffic in both directions [listed activity 5];

10. The construction of a dam where highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more [listed activity 8];
- 11 Any process or activity identified in terms of Section 53 (1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 10].

Regulations in terms of Chapter 5 of NEMA, 1998, refer.

This Department has evaluated the Scoping Report received on 14 February 2008, Environmental Impact Assessment Report (including a draft EMP) received on 29 July 2008 and an Exploratory Groundwater Study received on 8 April 2009 for the development of Tharisa Opencast Mine on the farms Kefferskraal 342 JQ, Rookoppies 297 JQ and Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province, to verify whether these activities will have significant negative impact on the environment.

In terms of section 42A of National Environmental Management Act, 1998 as amended, and by virtue of the powers delegated by the MEC, the Chief Director, Environmental Services of the Department of Agriculture, Conservation, Environment and Rural Development authorises:

Government Notice No. R. 386 of 21 April 2006:

1. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 1.1 the above ground storage of 1000 tons or more but less than 100 000 tons of ore [listed activity 1(b)];
 - 1.2 the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts [listed activity 1(i)];
 - 1.3 any purpose in the one in ten year flood line of a river or stream, or within 32 metres from a bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including- (i) canals; (ii) channels; (iii) bridges; (iv) dams; and (v) weirs [listed activity 1(m)];
 - 1.4 the off-stream storage of water, including dams and reservoirs, with a capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of the activity listed in Item 6 of Government Notice No. R. 387 of 2006 [listed activity 1(n)];
 - 1.5 the temporary storage of hazardous waste [listed activity 1(p)];
 - 1.6 the landing, parking and maintenance of aircraft including- (i) helicopter landing pads, excluding helicopter landing facilities and stops used exclusively by emergency services; (ii) unpaved aircraft landing strips shorter than 1,4 km; (iii) structures for equipment and aircraft storage; (iv) structures for maintenance and repair; (v) structures for fuelling and fuel storage; and (vi) structures for air cargo handling [listed activity 1 (q)];
 - 1.7 the treatment of effluent, wastewater or sewage with an annual throughput capacity of more than 2000 cubic metres but less than 15 000 cubic metres [listed activity 1(s)];
2. The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1000 cubic metres at any one location or site [listed activity 7];
3. The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 12];
4. The abstraction of groundwater at a volume where any general authorisation issued in terms of the National Water Act, 1998 (Act No. 36 of 1998) will be exceeded [listed activity 13];

5. The construction of masts of any material or type and of any height, including those used by for telecommunication broadcasting and radio transmission, but excluding- (i) masts of 15 metres and lower exclusively used by radio amateurs; or for lightning purposes; (ii) flag poles; and (iii) lightning conductor poles [listed activity 14];
6. The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long [listed activity 15];

Government Notice No. R. 387 of 21 April 2006:

7. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 7.1 the above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin in containers with a combined capacity of 1000 cubic metres or more at any one location or site including the storage of one or more dangerous goods, in a tank farm [listed activity 1(c)];
 - 7.2 any process or activity which requires permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in terms of Government Notice No. R. 386 of 2006 [listed activity 1(e)];
 - 7.3 the use, recycling, handling, treatment, storage or final disposal of hazardous waste [listed activity 1(g)];
 - 7.4 the manufacturing, storage or testing of explosives, including ammunition, but excluding licensed retail outlets and the legal end use of such explosives [listed activity 1(h)];
 - 7.5 the bulk transportation of dangerous goods using pipelines, funiculars or conveyors with a throughput capacity of 50 tons or 50 cubic metres or more per day [listed activity 1(i)];
 - 7.6 the treatment of effluent, wastewater or sewage with an annual throughput capacity of 15 000 cubic metres or more [listed activity 1(p)];
8. Any development activity, including associated structures and infrastructure, where the total area of the development area is, or is intended to be, 20 hectares or more [listed activity 2];
9. The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of this notice and which has not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2006 made under Section 24 (5) of the Act and published in Government Notice No. R. 385 of 2006, where- (a) it is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, (Act No. 7 of 1998); (b) it is a road administered by a provincial authority; (c) the road reserve is wider than 30 metres; or (d) the road will cater for more than one lane of traffic in both directions [listed activity 5];
10. The construction of a dam where highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more [listed activity 6];
- 11 Any process or activity identified in terms of Section 53 (1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 10].

refers to the development of Tharisa Opencast Mine on the farms Kafferskraal 342 JQ, Roolkoppies 297 JQ and possibly Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province

Enclosed please find the Environmental Authorisation and the conditions under which your application is authorised.

Formal appeals regarding the authorisation can be directed to the MEC for Agriculture, Conservation, Environment and Rural Development, North West Province. Such an appeal must be lodged in terms of Chapter 7 of the Regulations.

Yours Faithfully



Mr. Tshapo Moremi
Chief Director: Environmental Services
North West Department of Agriculture, Conservation, Environment and Rural Development

Date: 23/10/2009

Cc: **Metago Environmental Engineers (Pty) Ltd**
Contact Person: Brandon Stobart
Tel No.: 011 467 0945
Cell No.: 083 471 2231
Fax No.: 011 467 0978

Rustenburg Local Municipality
Contact Person: Tshapo Lenske
Tel No.: (014) 590 3185
Fax No.: (014) 590 3070

Department of Water and Environmental Affairs
Regional Director- North West: Mr. C.M. Lobakeng
Tel No.: (018) 384 3270
Fax No.: (018) 392 2298

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A. DEFINITIONS

"activity" means an activity identified - In Government Notice No. R. 386 and No. R. 387 of 2006 as a listed activity; or in any other notice published by the Minister or MEC in terms of section 24D of the Act as a listed activity or specified activity.

"associated structures and infrastructures" means any building or infrastructure that is necessary for the functioning of a facility or activity or that is used for an ancillary service or use from the facility.

"construction" means the building, erection or expansion of a facility, structure or infrastructure that is necessary for the undertaking of an activity, but excluding any modification, alteration or upgrading of such facility, structure or infrastructure that does not result in a change to the nature of the activity being undertaken or an increase in the production, storage or transportation capacity of that facility, structure or infrastructure.

"public participation process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters.

"registered interested and affected parties" in relation to an application, means an interested and affected party whose name is recorded in the register opened for that application in terms of Regulation 57.

"the Act" means the National Environmental Management Act, 1998 (Act No. 107 of 1998).

"the Department" means the Department of Agriculture, Conservation, Environment and Rural Development.

"the Regulations" means the Environmental Impact Assessment Regulations, 2006.

B. ENVIRONMENTAL AUTHORISATION

DECISION IN TERMS OF SECTION 24(2)(a) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, (AS AMENDED) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATION 2006 (REGULATION 37) WITH REGARD TO THE UNDERTAKING OF THE ACTIVITY DESCRIBED BELOW AS REQUIRED BY GOVERNMENT NOTICE NO. R 385 OF 21 APRIL 2006.

REFERENCE NUMBER: NWP/EJA/159/2007

BRIEF DESCRIPTION OF THE ACTIVITY

This activity entails the development of an opencast mine covering a total area of approximately 750 hectares and comprising of open pit mining, topsoil and waste rock stockpiling, construction of haul roads, access roads, conveyors, concentrator complex, mine residue disposal facilities, and sewage treatment plant, including other supporting infrastructure on the farms Kafferskraal 342 JQ, Rooikoppies 297 JQ and possibly Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province. The mine product will be Platinum concentrate containing Platinum Group Metals (PGM's) and Chrome concentrate as a co-product.

1. LOCATION

The development site is located on the farms Kafferskraal 342 JQ, Rooikoppies 297 JQ and possibly Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province. The co-ordinates of the site are 28° 44' 14" South and 27° 28' 32" East.

2. APPLICANT

Tharisa Minerals (Pty) Ltd
P. O. Box 122
CRAMERVIEW
2060
Tel No.: (011) 463 7101
Cell No.: 083 700 3370
Fax No.: (011) 463 7100

3. ENVIRONMENTAL ASSESSMENT PRACTITIONER

Metago Environmental Engineers (Pty) Ltd
P.O. Box 1898
CRAMERVIEW
2060
Contact Person: Brandon Stobart
Tel No.: 011 467 0945
Cell No.: 083 471 2231
Fax No.: 011 467 0978

6. SITE VISIT

A site visit was conducted by Mr. Robert Nemanashi and Mr. Livhuwani Kutame of this Department on the company of Tharisa Minerals (Pty) Ltd representatives Mr. Raste Erasmus (Project Director) and Mr. Dion Bester (Site Engineer) on 5 March 2009.

7. DECISION

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation. An Authorisation is granted in terms of section 24(2)(a) of the National Environmental Management Act, 1998 (No. 107 of 1998) (as amended) for-

Government Notice No. R. 388 of 21 April 2008:

1. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 1.1 the above ground storage of 1000 tons or more but less than 100 000 tons of ore [listed activity 1(b)];
 - 1.2 the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts [listed activity 1(i)];
 - 1.3 any purpose in the one in ten year flood line of a river or stream, or within 32 metres from a bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including- (i) canals; (ii) channels; (iii) bridges; (iv) dams; and (v) weirs [listed activity 1(m)];
 - 1.4 the off-stream storage of water, including dams and reservoirs, with a capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of the activity listed in Item 6 of Government Notice No. R. 387 of 2008 [listed activity 1(n)];
 - 1.5 the temporary storage of hazardous waste [listed activity 1(p)];
 - 1.6 the landing, parking and maintenance of aircraft including- (i) helicopter landing pads, excluding helicopter landing facilities and stops used exclusively by emergency services; (ii) unpaved aircraft landing strips shorter than 1,4 km; (iii) structures for equipment and aircraft storage; (iv) structures for maintenance and repair; (v) structures for fuelling and fuel storage; and (vi) structures for air cargo handling [listed activity 1(q)];
 - 1.7 the treatment of effluent, wastewater or sewage with an annual throughput capacity of more than 2000 cubic metres but less than 15 000 cubic metres [listed activity 1(s)];
2. The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1000 cubic metres at any one location or site [listed activity 7];
3. The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 62 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 12];
4. The abstraction of groundwater at a volume where any general authorisation issued in terms of the National Water Act, 1998 (Act No. 36 of 1998) will be exceeded [listed activity 13];
5. The construction of masts of any material or type and of any height, including those used by for telecommunication broadcasting and radio transmission, but excluding- (i) masts of 15 metres and lower exclusively used by radio amateurs; or for lightning purposes; (ii) flag poles; and (iii) lightning conductor poles [listed activity 14];
6. The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long [listed activity 15];

Government Notice No. R. 387 of 21 April 2008:

7. The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - 7.1 the above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin in containers with a combined capacity of 1000 cubic metres or more at any one location or site including the storage of one or more dangerous goods, in a tank farm [listed activity 1(c)];

- 7.2 any process or activity which requires permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in terms of Government Notice No. R. 386 of 2006 [listed activity 1(e)];
- 7.3 the use, recycling, handling, treatment, storage or final disposal of hazardous waste [listed activity 1(g)];
- 7.4 the manufacturing, storage or testing of explosives, including ammunition, but excluding licensed retail outlets and the legal end use of such explosives [listed activity (h)];
- 7.5 the bulk transportation of dangerous goods using pipelines, funiculars or conveyors with a throughput capacity of 50 tons or 50 cubic metres or more per day [listed activity 1(i)];
- 7.6 the treatment of effluent, wastewater or sewage with an annual throughput capacity of 15 000 cubic metres or more [listed activity 1 (p)];
8. Any development activity, including associated structures and infrastructure, where the total area of the development area is, or is intended to be, 20 hectares or more [listed activity 2];
9. The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of this notice and which has not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2006 made under Section 24 (5) of the Act and published in Government Notice No. R. 386 of 2006, where- (a) it is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, (Act No. 7 of 1998); (b) it is a road administered by a provincial authority; (c) the road reserve is wider than 30 metres; or (d) the road will cater for more than one lane of traffic in both directions [listed activity 5];
10. The construction of a dam where highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more [listed activity 6];
- 11 Any process or activity identified in terms of Section 53 (1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) [listed activity 10].

on the farms Kaiferskraal 342 JQ, Rookkoppies 297 JQ and possibly Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province

Details / reasons regarding the basis on which the Department reached this decision are set out below.

7.1. BACKGROUND

The applicant, **Tharisa Minerals (Pty) Ltd** applied for authorisation to carry out the following activity:

The development of Tharisa Opencast Mine on the farms Kaiferskraal 342 JQ, Rookkoppies 297 JQ and possibly Elandsdrift 467 JQ near the town of Marikana, Rustenburg Local Municipality, North West Province

The applicant appointed **Mr. Brandon Stobart** of **Metago Environmental Engineers (Pty) Ltd** to undertake an Environmental Assessment Process.

7.2. INFORMATION CONSIDERED IN MAKING THE DECISION

In reaching its decision, the Department took, *inter alia*, the following into consideration –

- (a) Application form for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2006 (Government Notice No. R386 of 21 April 2006).

- (b) The information contained in the Scoping Report, Environmental Impact Assessment Report and a draft EMP compiled by Metago Environmental Engineers (Pty) Ltd and received by the Department on 14 February 2008 and 29 July 2008 respectively.
- (c) The comments received from all interested and affected parties as included in the Scoping Report and the Environmental Impact Assessment Report, including separate comments received from the Department of Water Affairs and Forestry (correspondence dated 30 April 2009).
- (d) A conceptual design and management of surface water and waste facilities report compiled by Francois van Heerden of Metago Environmental Engineers dated May 2008, and attached as Appendix 10.16 of the EIA report.
- (e) Pedological and Land Capability study undertaken by Earth Science Solutions (ESS), report dated April 2008, and attached as Appendix 10.5 of the EIA report.
- (f) A Biodiversity Assessment study undertaken by Natural Scientific Services, report dated March 2008, and attached as Appendix 10.7 of the EIA report.
- (g) Groundwater investigation report compiled by Water Geoscience Consulting dated 19 May 2008, and attached as Appendix 10.8 of the EIA report.
- (h) Air Quality Impact Assessment study undertaken by Airshed Planning Professionals (Pty) Ltd, report dated May 2008, and attached as Appendix 10.9 of the EIA report.
- (i) A Heritage Impact Assessment report compiled by Dr. Julius Plistorius (Archaeologist) dated September 2007, and attached as Appendix 10.10 of the EIA report.
- (j) Social Impact Assessment study undertaken by Concession Creek Consulting, report dated May 2008, and attached as Appendix 10.11 of the EIA report.
- (k) A Traffic Impact Assessment report compiled by AFRICON Engineering International (Pty) Ltd dated April 2008 and attached as Appendix 10.12 of the EIA report.
- (l) A Blast study undertaken by Cambrian cc, report dated 02 May 2008, and attached as Appendix 10.13 of the EIA report.
- (m) Visual Impact Assessment report compiled by Newtown Landscape Architects cc dated May 2008, and attached as Appendix 10.14 of the EIA report.
- (n) Environmental Emergency Procedures and Environmental Awareness Plan compiled by Metago Environmental Engineers dated June 2008, and attached as Appendix 10.15 of the EIA report.
- (o) A Preliminary Geotechnical Investigation report compiled by Metago Environmental Engineers (Pty) Ltd dated May 2008, and attached as Appendix 10.16 of the EIA report.
- (p) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
- (q) The findings of a site visit undertaken by Mr. Robert Nemanashi and Mr. Lihuwani Kutame of this Department on the company of Tharisa Minerals (Pty) Ltd representatives Mr. Rastie Erasmus (Project Director) and Mr. Dion Boster (Site Engineer) on 5 March 2008.

7.3. KEY FACTORS CONSIDERED IN MAKING THE DECISION

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The Department of Transport, Roads and Community Safety has indicated that in principle they have no objection to the proposed (road modifications) road closure, road upgrades, re-alignments, and the proposed construction of other new roads (correspondence dated 30 March 2009).
- b) Bakwena Platinum Corridor Concessionaire (Pty) Ltd has no objection to the proposed closure of the private access bridge crossing over the N4 provided that other stakeholders, including the South African National Roads Agency (SANRL) are consulted and they support closing of the bridge (correspondence dated 6 April 2009). Consultation with SANRL has been included as a condition of this environmental authorisation.
- c) The National Department of Agriculture, Land Use and Soil Management (LUSM) have confirmed that application for change of land use is not required (correspondence dated 3 March 2009). However they requested soil survey to be undertaken to establish soil type and soil forms for future rehabilitation. In this regard, a Pedological and Land Capability study was undertaken by Earth Science Solutions (ESS) [report dated April 2008] and included in the EIA report.
- d) The South African Heritage Resources Agency (SAHRA) does not object to the proposed development (correspondence dated 6 March 2009). SAHRA requested that should any archaeological objects be discovered during construction and operation of the mine, they should be notified. This has been included as a condition of this environmental authorisation.
- e) Rustenburg Local Municipality, Integrated Environmental Management unit has no objection to the development of the mine provided that their recommendations stipulated in the correspondence dated 23 June 2008 are adhered to. The adherence of the applicant to Rustenburg Local Municipality's recommendations has been included as a condition of this environmental authorisation.
- f) The Department of Water Affairs and Forestry (DWAF) have requested that issues raised in their correspondence dated 28 April 2009 be addressed. The Environmental Assessment Practitioner (EAP) indicated that issues raised by DWAF will be addressed in the final EMP to be submitted to this Department and DWAF for approval prior to the commencement of construction.
- g) Eskom has indicated that the proposed development will affect its distribution powerlines, however they in principle have no objection to the proposed development provided that their conditions are adhered to (correspondence dated 27 June 2008). The adherence to Eskom conditions has been included as a condition of this environmental authorisation.
- h) A public participation and authority consultation process has been undertaken with the environmental issues and concerns raised being addressed and mitigated for adequately within the Scoping Report and Environmental Impact Assessment Report.

7.A. FINDINGS

After consideration of the information and factors listed above, the Department made the following findings -

- a) A Biodiversity Assessment study undertaken by Natural Scientific Services cc (report dated March 2008) concluded that the proposed mining area boundary lies within an area that is currently highly disturbed, but that in its natural state (as are remaining pockets) has significant conservation value, therefore, the development is unlikely to have substantial biodiversity impacts.
- b) A Groundwater Investigation study undertaken by Water Geoscience Consulting (report dated 10 May 2008) indicated that there is a potential contamination of groundwater by effluent seepage from the tailings dam; however this impact can be mitigated by proper design and management of the dams. The recommendations of the Groundwater Investigation study have been included as conditions of this environmental authorisation.
- c) The proposed mining site is surrounded by other existing mines in the area. It therefore fits into the general industrial/commercial character of the area. In this regard, the development is not seen to be in conflict with surrounding land uses.
- d) The proposed development will result in job creation during the construction and operational phase, and will contribute to the local, regional and national economic growth.
- e) No significant detrimental environmental impacts are anticipated, should the proposed mitigation measures stipulated in the Scoping Report and Environmental Impact Assessment Report produced by Mr. Brendon Stobart of Melago Environmental Engineers (Pty) Ltd dated November 2007 and June 2008 respectively, be implemented.
- f) It is envisaged that, should the conditions stipulated in this authorisation be complied with, the negative environmental impacts of the proposed development will be minimized.
- g) Based on the above, this Department's conclusion is that this activity will not lead to substantial detrimental impact on the environment, that potential detrimental impacts resulting from this activity can be mitigated to acceptable levels and that the principles of section 2 of NEMA can be upheld.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the Environmental Authorisation, the authorised activity will not conflict with the general objectives of Integrated Environmental Management laid down in Chapter 6 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activity can be mitigated to acceptable levels. The application is accordingly granted.

The granting of this authorisation is subject to the following conditions set out below:

B. CONDITIONS**B.1 STANDARD CONDITIONS**

- B.1.1 Authorisation of the activities are subject to the conditions contained in this authorisation, which forms part of the environmental authorisation and are binding on the holder of the authorisation.

- 8.1.2 The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.
- 8.1.3 The activities which are authorised may only be carried out at the property indicated above (Item B: 3).
- 8.1.4 Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.
- 8.1.5 These activities must commence within a period of **two (2) years** from the date of issue. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
- 8.1.6 If the proponent anticipates that commencement of the activity would not occur within **two (2) year** period, he / she must apply and show good cause for an extension of the Environmental Authorisation **six (6) months** prior to its expiry date.
- 8.1.7 A copy of this authorisation must be kept at the site. The authorisation must be produced to any governmental official(s) who may request to see it for inspection purposes and must be made available to the contractor(s) / subcontractor (s) authorised to undertake work at the property.
- 8.1.8 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, including the transfer of this authorisation, the applicant must in writing notify the Director: Environmental Management and Protection of this Department, within **fourteen (14) days** of the above specified changes.
- 8.1.9 This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activities.
- 8.1.9.1 After an appeal period has expired and no good cause to extend the appeal period has been submitted (Regs 84), a **thirty (30) days** written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence. Such written notice shall make clear reference to the site, location details and EIA number accorded to this environmental authorisation.
- 8.2 SPECIFIC CONDITIONS**
- 8.2.1 COMMISSIONING OF THE ACTIVITY**
- 8.2.1.1 The development must adhere to the proposed mitigation measures and recommendations contained in the Scoping Report and Environmental Impact Assessment Report (both reports

compiled by Metago Environmental Engineers, dated November 2007 and June 2008 respectively).

- 8.2.1.2 The proposed development will affect Eskom distribution powerlines on site; therefore, Eskom conditions stipulated in the correspondence dated 27 June 2008 must be adhered to.
- 8.2.1.3 All recommendations of the Rustenburg Local Municipality: Integrated Environmental Management unit stipulated in the correspondence dated 23 June 2008 must be complied with.
- 8.2.1.4 The applicant must apply and obtain a water use license from the Department of Water Affairs and Forestry (DWAF) regarding surface and groundwater abstraction for mining purposes, prior to the commencement of construction on site.
- 8.2.1.5 Construction of the storm-water dam, tailings dam and waste rock dumps must be undertaken as per the Conceptual Design and Management of Surface Water and Waste Facilities report produced by Metago Environmental Engineers (report dated May 2008). Approval from DWAF must be solicited prior to construction of the dams.
- 8.2.1.6 Construction and operation of a helicopter landing strip/pad must conform to the requirement and standards of the South African Civil Aviation Authority.
- 8.2.1.7 A signed service agreement between Tharisa Minerals (Pty) Ltd, Haartebeespoort Irrigation Board and Magalies Water regarding water supply to the Mine must be submitted to this Department and the Department of Water Affairs and Forestry prior to the commencement of the project.
- 8.2.1.8 A signed service agreement between Tharisa Minerals (Pty) Ltd and Rustenburg Local Municipality or Madibeng Local Municipality confirming the capacity of the landfill to accommodate additional solid waste from the Mine must be submitted to this Department and the Department of Water Affairs and Forestry prior to the commencement of the project.
- 8.2.1.9 The applicant must ensure that working environment for all personnel and equipment on site is conducive and safe.
- 8.2.1.10 Layout and Development**
- a) The building plans for the proposed mining structures and the associated infrastructure must be submitted to Rustenburg Local Municipality and must be approved prior to construction commencing.
- b) The development must be restricted to the development of an opencast mine covering a total area of approximately 750 hectares and comprising of open pit mining, topsoil and waste rock stockpiling, construction of haul roads, access roads, conveyors, concentrator complex, mine residue disposal facilities, and sewage treatment plant, including other supporting infrastructure. Any further expansion of the development will require prior environmental approval in terms of Section 24 (1) of the National Environmental Management Act (Act 107 of 1998).
- c) The development must be substantially in accordance with the Layout Plan (Plan No.: T014-01 dated May 2008) prepared by Metago Environmental Engineers (Pty) Ltd and included as Figure 4.1a of the Environmental Impact Assessment Report.

8.2.1.11 Equipment yards and lay-down areas

- a) Construction personnel, labourers and equipment must remain within the demarcated construction sites at all times.
- b) Explosives must be stored safely in an area demarcated for explosives storage, and strict access to this area must be enforced.
- c) The transportation, storage and handling of all substances considered hazardous on site must conform to all statutory and regulatory requirements as set out by the Hazardous Substances Act, No. 15 of 1973.
- d) The aboveground storage tank (AST) for fuel and associated infrastructure must comply with all relevant (South African National Standards) SANS standards and municipal bylaws applicable to the installation and operation of an AST and associated infrastructure.
- e) The AST must be suitably enclosed by an impervious bund wall, which must be capable of containing 110% of the maximum volumes stored in the tanks. The drainage point area must be connected to an oil/water separator.
- f) Adequate fire fighting equipment must be installed around this area. This should be done in consultation with the local fire protection and emergency services.
- g) A spill contingency and emergency response plan must be developed in conjunction with the Department of Water Affairs and Forestry, and must be implemented as soon as the development is operational.
- h) Material Safety Data Sheets (MSDSs) should be available on site for all chemicals and hazardous substances to be used on-site, including information on their ecological impacts and how to minimize the impacts in case of leakage.

8.2.1.12 Excavations activities

- a) Vegetation clearance must be restricted to the immediate working areas to prevent unnecessary exposure of the ground, and to prevent soil erosion.
- b) Topsoil must be removed and stockpiled aside for rehabilitation purposes prior to the excavation of mineral ore and such topsoil must be protected against water and wind erosion.
- c) All excavated pits or trenches to be developed during mining must be filled up/rehabilitated concurrently with mining to minimize soil erosion, and to avoid danger to human and animal life.
- d) The excavated pits or trenches considered hazardous must be fenced off and proper signage must be placed around them for safety purposes.
- e) Should any archaeological artifacts be exposed during the excavation, activities in the vicinity of the finding must be stopped and the South African Heritage Resource Agency must be notified immediately (within 48 hours). Under no circumstances shall any artifacts be destroyed. Such an archaeological site must be marked and fenced off.

- f) The applicant must compile and submit a detailed Blast Plan to the Chief Inspector of the Department of Minerals and Energy for approval prior to the commencement of blasting activities.
- g) Blasting of mineral ore must only be undertaken by a qualified and experienced specialist to prevent or minimise impacts of blasting, such as excessive noise, dust, vibration, fumes and fly rock. Blasting must be carried out as per the approved Blast Plan.
- h) All the mitigation measures stipulated in the Blast Report undertaken by Cambrian cc (report dated 2 May 2008) must be implemented.
- i) The applicant must apply and obtain permission or approval for the transportation, storage, handling and use of explosives from the Chief Inspector of the Department of Minerals and Energy, and the South African Police Services. Such permission or approval must be obtained prior to the commencement of the development.

8.2.1.13 Surface and Groundwater Impact Management

- a) The discharge of any pollutants such as chemicals, concrete, cement into the natural environment and the storm-water systems must be strictly prohibited.
- b) A specific area must be demarcated for fuelling and workshop services, and such area must be bunded to reduce the possibility of soil and water contamination.
- c) All effluent water from the construction camp or site offices must be disposed of in a properly designated and constructed system, which must be located away from water sources i.e wetlands, rivers, streams, pans or dams.
- d) No development may occur within 50 (fifty) metres of any water resource or wetland or any associated buffers.
- e) The proposed development must be located outside of the 1:100 year floodline of the Sterkstroom River, including any other water resources within the development site.
- f) The proposed diversion of a non-perennial stream away from the development site must be done in consultation with the Department of Water Affairs and Forestry. A site specific geotechnical study must be undertaken to establish founding conditions of the new river channel to avoid soil erosion and environmental degradation further down the stream during rainy seasons.
- g) Any usage of hazardous material near the river must be avoided. Where it cannot be avoided it must be done under strict supervision of the Environmental Control Officer as per the requirements of the EMP.
- h) All recommendations of the Groundwater investigation study undertaken by Water Geoscience Consulting (report dated 19 May 2008), including design, construction and operation of the tailings dam and waste rock dump recommendations must be implemented.
- i) The applicant must ensure that the design, construction and operation of the proposed tailings dam and the waste rock dump area are undertaken in a manner that prevents surface and groundwater contamination.

8.2.1.14 Sewage and waste water disposal

- a) Chemical toilets must be provided to the workers during the construction phase. They must be serviced regularly to ensure proper operation, and must be emptied at the municipal sewage treatment plant to prevent any possible pollution. No "long drop" toilets will be allowed. Open space or surrounding bush must not be used as toilets under any circumstances.
- b) A Sewage Treatment Plant (STP) to be constructed on site must be approved by the Department of Water Affairs and Forestry prior to the commencement of its construction.
- c) The STP must not be constructed within the 1: 100 year floodline of any perennial or non-perennial watercourse, or within 50 (fifty) meters of any wetland.
- d) Effluent from the Sewage Treatment Plant must be treated prior to being discharged to prevent surface and groundwater pollution. The discharged treated water must comply with the requirements of the Department of Water Affairs and Forestry.

8.2.1.15 Waste Management

- a) A Waste Management Plan which deals with storage, management, handling and disposal of all forms of solid waste generated within the development, must be developed and must be included in the final EMP required in terms of condition 8.2.2.2.
- b) All solid waste produced by the development during construction must be suitably stored on site, and removed on a regular basis to a registered landfill site.
- c) Hazardous waste, including medical waste, laboratory chemicals, used chemicals and chemical containers must be stored separately from any other waste, and must be placed in sealed containers within a bunded area prior to their removal and disposal to the registered hazardous landfill site. The removal of hazardous waste from the site to the registered hazardous landfill site must be undertaken by a qualified waste contractor.
- d) All used oil must be collected in containers and placed within the designated oil collection points on site prior to their removal and disposal at the registered hazardous landfill site or an oil refinery facility. The collection points must be suitably bunded to contain oil spills and leakages.
- e) A spill contingency and emergency response plan must be developed in conjunction with the Department of Water Affairs and Forestry, and must be implemented as soon as the development is operational.

8.2.1.16 Storm-water Management

- a) A Storm-water Management Plan (SMP) for the development must be developed and must be submitted to, and approved by the Department of Water Affairs and Forestry and Rustenburg Local Municipality before construction commences.
- b) The Storm-water Management System must be kept separate from the sewage reticulation and treatment system.
- c) Proper storm-water diversion berms must be constructed around the stockpiles to channel water away from the stockpile areas, and to prevent run-off erosion.

8.2.1.17 Traffic Management

- a) The proposed closure of the private access bridge crossing over the N4 must be done in consultation with the South African National Roads Agency (SANRAL), and the alternative access must be provided to the community living across the N4 once the bridge is closed.
- b) All the recommendations of the Traffic Impact Assessment (TIA) undertaken by Africon Engineering International (report dated April 2008), including safety, traffic calming measures and provision of alternative access recommendations, must be implemented.
- c) Should the development of the mine affect the road D1526 (access road to van Rensburg Primary School), the applicant must provide an alternative access to the school.
- d) Safety barriers must be constructed along the road D1325 in close proximity to the shops to guide the pedestrians away from the traffic.

8.2.1.18 Biodiversity Conservation

- a) All plant species of conservation importance (if any) must be removed from the demarcated area prior to development commencing and must either be relocated outside of the development area or donated to the South African National Biodiversity Institute.
- b) Any removal of endangered or protected plant species must be done in consultation with the Department of Water Affairs and Forestry, and the Department of Agriculture, Conservation and Environment: Biodiversity Section, and permission or approval for the removal must be obtained prior to the removal of trees.
- a) The applicant must develop and implement an ecologically sound Rehabilitation Plan which must specify the final landuse of the site after mining has ceased. This plan must advocate extensive use of locally appropriate indigenous vegetation.
- b) The Rehabilitation Plan must form part of the final Environmental Management Plan (EMP) to be submitted to this Department for approval prior to the commencement of the project.
- c) The applicant must ensure that the development site is cleared of invasive alien plants and an alien plant eradication programme must be developed and implemented to prevent re-infestation.
- d) All recommendations of the Biodiversity Assessment study undertaken by Natural Scientific Services (report dated March 2008) must be implemented.

8.2.1.19 Social and Heritage Management

- a) The relocation of communities living within the proposed mining site must be done in consultation with Rustenburg Local Municipality, and basic services such as water supply, access roads etc must be provided at their new relocated site.
- b) Relocation must only commence after suitable land for this purpose have been secured by the applicant.
- c) Should expropriation of land be required during the development of the mine, this must be done in good faith, and landowners must be compensated appropriately for their land. This

Department recommends that expropriation process should be completed prior to the commencement of the development.

- d) All recommendations of the Heritage Impact Assessment (HIA) study undertaken by Dr. Julius CC Pistorius (report dated September 2007) including preservation and relocation of stone walled, graves and historical buildings recommendations must be adhered to.
- e) Any alteration, removal or relocation of stone walled, graves and historical buildings must be done in consultation with the South African Heritage Resources Agency (SAHRA), and approval or permission must be obtained from SAHRA prior to the commencement of such alteration, removal or relocation.
- f) Should exhumation of graves be required during the commencement of the development, this must be undertaken by a forensic archaeologist in consultation with SAHRA and in accordance with the Human Tissues Act, 1983 (Act No. 65 of 1983) and the Ordinance on Exhumations, 1980 (Ordinance No. 12 of 1980). Permission of exhumations must be solicited from the descendants of the deceased.
- g) Should any other archaeological artifacts not identified by the HIA report be exposed during earth moving activities, construction in the vicinity of the finding must be stopped and the South African Heritage Resource Agency must be notified immediately (within 48 hours). Under no circumstances shall any artifacts be destroyed. Such an archaeological site must be marked and fenced off.

8.2.1.20 Air Quality and Noise Management

- a) All material handling, including drilling within the open pit must be undertaken with the application of water on the mineral ore so as to minimise the impacts of dust.
- b) The crushing and screening of mineral ore must be done within an enclosed facility (crushing and screening plant) to avoid, prevent or minimise excessive spreading of dust.
- c) All recommendations of the Air Quality Impact Assessment study undertaken by Airshed Planning Professionals (Pty) Ltd [Report No. APP/08/MEE-01 Rev 1 dated May 2008] including dust monitoring station installation recommendations, must be undertaken.
- d) The applicant must ensure that dust suppression measures (including water spraying) are undertaken on a regular basis within all haul roads on site.
- e) Construction vehicles must be fitted with exhaust silencers to minimise the excessive levels of noise during the construction and operational phase of the development.
- f) Blasting must be done only during the day, and suitable time must be selected with the consideration of existing communities living around the mine, including the van Rensburg Primary School.
- g) During Construction Phase, operation of machinery and equipment, must be kept within normal working hours (summer 07h00-17h00 and winter 07h30-17h00) to prevent unwanted high noise levels. No construction on Sundays and public holidays will be permitted.

8.2.1.21 Erosion Control Measures

- a) Appropriate soil erosion control measures must be developed and implemented to prevent, minimise or manage the erosion during construction, operational and decommissioning phase of the mine.
- b) Suitable designed and engineered drainage structures must be constructed on all roads, to avoid the concentration of run-off in such a manner so as to prevent erosion and to avoid environmental degradation.
- c) All storm-water generated from the development site must be collected and channelled into the storm-water dam to be constructed on site for water storage.
- d) The applicant must ensure that construction and operation of the conveyor bridge crossing over the Starkstroom River does not impede the stream flow and that constant stream flow is maintained during and after the construction of the bridge to sustain the life of the river.
- e) Erosion control measures must be implemented to minimise erosion of the river banks during the construction of the conveyor.

B.2.1.22 Visual Impact Management

- a) All the mitigation measures identified in the Visual Impact Assessment study undertaken by Newtown Landscape Architect cc (report dated May 2008) must be implemented.
- b) A planted berm must be constructed along the southern edge of the tailings dam to screen views from the N4. The proposed berm should not exceed 20 (twenty) metres.
- c) Rehabilitation of the tailings dam should include top-soiling, grass seeding and planting of shrubs and trees on top of the tailings dam, and must be undertaken immediately after the tailing dam has stopped operating.
- d) Dust suppression measures should be implemented at all times during the construction and operational phase to prevent the spreading of nuisance dust.
- e) All building structures on site must be painted with colours that blend with the surrounding environment. Bright colours must be avoided.
- f) Lighting technology that provide sufficient light where required while preventing light spillages elsewhere must be used.
- g) A detailed Landscape Plan for the proposed mining development must be developed and implemented during commissioning, operation and decommissioning of the mine.
- h) Landscaping for the proposed development must be in accordance with the regulations pertaining to the control of weeds and invasive species, as published under Section 29 of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) and must make extensive use of locally appropriate indigenous vegetation.

B.2.1.23 Compliance with other legislation

- a) The statutory provision for the protection of workers refusing to do environmentally hazardous work must be enforced and abided by during all stages of the development activity as legally stipulated in Section 29(1-5) of the National Environment Management Act, No 107 of 1998 as amended.

- b) In terms of section 28 and 30 of the National Environmental Management Act No. 107 of 1998, and section 19 and 20 of the National Water Act No. 36 of 1998, any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the Applicant reads through and understand the legislative requirements pertaining to the project. It is the Applicant's responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmental acceptable manner.
- c) The development must adhere to the municipal by-laws.
- d) Weeds and invader plants that are declared in terms of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) must be controlled as specified in the Act.
- e) Should any archaeological artifacts be exposed during foundation excavation, the construction in the vicinity of the finding must be stopped. Under no circumstances shall any artifacts be destroyed. Such an archaeological site must be marked and fenced off, and South African Heritage Resource Agency must be contacted within 48 hours.
- f) The transportation, storage and handling of all substances considered hazardous on site must conform to all statutory and regulatory requirements as set out by the Hazardous Substances Act, 1973 (Act No. 15 of 1973).
- g) The relevant requirements of the National Water Act, 1998 (Act No. 36 of 1998) must be complied with at all times; including flood lines, water uses, etc.
- h) Firebreaks should be established in terms of the requirements and conditions of the National Veld and Forest Fires Act, 1998 (Act No. 101 of 1998).
- i) All provisions of the Occupational Health and Safety Act, 85 of 1993 and any other applicable legislation must be adhered to by the holder of this authorisation.

8.2.2 MANAGEMENT OF THE ACTIVITY

8.2.2.1 A draft Environmental Management Plan ("EMP") prepared by Metago Environmental Engineers (Pty) Ltd submitted as part of the Environmental Impact Assessment Report must be amended to include, apart from general construction and operation management issues, mitigation and management measures to address the following issues:

- a) A Water Quality Monitoring Programme;
- b) Dust and Noise Monitoring Programme;
- c) A Waste Management Plan;
- d) A Storm-water Management Plan; and
- e) A Rehabilitation Plan

8.2.2.2 The final EMP must be compiled and submitted to this Department and the Department of Water and Forestry for approval prior to the commencement of construction, including the final layout plan with the development outside the 1:100 year floodline.

8.2.2.3 This Department must be notified within 30 days of any change in ownership and / or project developer. The rights and conditions as stipulated in this environmental authorisation must be

made known to the new owner and / or developer and are binding on the new owner and / or developer.

8.2.3 OPERATION OF THE ACTIVITY

- 8.2.3.1 The applicant must conduct regular monitoring inspections and maintenance of the Sewage Treatment Plant, Boreholes, and Storm-water Reticulation System to ensure that they operate effectively.
- 8.2.3.2 The Department of Water Affairs and Forestry and Rustenburg Local Municipality must be immediately notified of any failure of the Sewage Treatment Plant or Sewer Reticulation System.
- 8.2.3.3 Mining equipment, including all vehicles that operate on site must be maintained in good working condition to prevent oil, diesel and petroleum spills and leakages.
- 8.2.3.4 Detection valves must be installed in all tailing dams on site to monitor any leakages, and the wall of the dam must be inspected regularly for any cracks or leakages.
- 8.2.3.5 The applicant must ensure that the development site is cleared of invasive alien plants and an alien plant eradication programme must be developed and implemented to prevent re-infestation.
- 8.2.3.6 All solid waste produced by the development during the operation phase must be suitably stored on site, and removed on a regular basis to a permitted landfill site.
- 8.2.3.7 Dust, Noise and Water quality Monitoring must be undertaken on a quarterly basis throughout the operation cycle of the mine.

8.2.4 SITE CLOSURE AND DECOMMISSIONING

- 8.2.4.1 It is anticipated that the life span of the mine will be less than 30 (thirty) years. During the decommissioning of the mine, the provisions for *Duty of Care and remediation of environmental damage* contained in Section 28 of the National Environmental Management Act, Act 107 of 1998, must be complied with.
- 8.2.4.2 Structures must be demolished; the debris and rubbles must be collected and disposed of at a registered landfill site. The use of recyclable material is encouraged.
- 8.2.4.3 The disturbed areas must be rehabilitated (as per the Rehabilitation Plan) to a natural state, and landscaping of disturbed area must be in accordance with the regulations pertaining to the control of weeds and invasive species, as published under Section 29 of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) and must make extensive use of locally appropriate Indigenous vegetation.

8.2.5 MONITORING

- 8.2.6 An Independent Environmental Control Officer (ECO) must be appointed at the developer's cost for the duration of the construction and operational phase, to ensure that the conditions stipulated in this Environmental Authorisation are complied with and that the approved Environmental Management Plan is adhered to.

- 8.2.7 The name and contact details of the ECO must be communicated to this Department upon appointment of the ECO.
- 8.2.8 The ECO must act as liaison with this Department and other relevant authorities, and must ensure communications with key stakeholders with respect to monitoring of compliance with conditions of authorisation and the EMP.
- 8.2.9 The applicant must conduct regular monitoring inspections of water quality, dust emissions and noise pollution to ensure they are kept within the permitted parameters. All records related to the monitoring and maintenance undertaken on site must be kept safely, and must be made available to this Department on request.
- 8.2.10 This Department reserves the right to monitor and audit the activity to ensure compliance with legislation and the conditions stipulated in this authorisation.
- 8.2.11 It is the holder of this authorisation's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the Environment throughout the life cycle of the activity is put into practice.

8.3 RECORDING AND REPORTING TO THE DEPARTMENT

- 8.3.1 Records of monitoring and/or auditing must be made available for inspection to this department and any other relevant authority inspecting the development activities.
- 8.3.2 Records relating to compliance and non-compliance with the conditions of this authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the department. Environmental compliance will further be monitored through complaints received from the public.
- 8.3.3 All records relating to the implementation of the environmental management plan must be kept in the office where it is safe and can be retrievable.

8.4 NON-COMPLIANCE

- 8.4.1 In the event of non-compliance by any contractor during the construction of the authorised activities, the holder of this authorisation will be liable.
- 8.4.2 The holder shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.
- 8.4.3 The holder must in the event of non-compliance with any condition of this authorisation inform the Director: Environmental Management and Protection of this Department, in writing, within 48 hours.
- 8.4.4 Records relating to compliance and non-compliance with the conditions of this authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the department. Environmental compliance will further be monitored through complaints received from the public.
- 8.4.5 Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998, (section 24F (2)) and Regulation B1(d).


9. **APPEAL OF AUTHORISATION**

- 9.1 The holder of the authorisation must notify every registered interested and affected party, in writing and within five (5) days, of receiving the Department's decision.
- 9.2 The notification referred to in 9.1 must--
- 9.2.1 Specify the date on which the authorisation was issued;
- 9.2.2 Inform the registered interested and affected party of the appeal procedure provided for in Chapter 7 of the GN No. R 385 of 21 April 2008 in terms of NEMA 1998, as amended (see Annexure 1).
- 9.2.3 Advise the interested and affected party that a copy of the authorisation and reasons for the decision will be furnished on request.
- 9.2.4 An appeal against the decision must be lodged in terms of chapter 7 of the GN No. R 385 of 21 April 2008 in terms of NEMA 1998, as amended, from the date of this authorisation, with:

The Member of the Executive Council
 Department of Agriculture, Conservation, Environment and Rural Development
 Private Bag X 2038
 MMABATHO
 2735
 Tel No.: (018) 389 5111
 Fax No.: (018) 384 2679

10. **ISSUED BY:**

Mr. Tshapo Moremi
 Chief Director: Environmental Services
 North West Department of Agriculture, Conservation, Environment and Rural Development

Signature:  Date: 23/10/2009

ANNEXURE 1

APPEAL PROCEDURE IN TERMS OF CHAPTER 7 OF GN. NO. R. 385 OF 21 APRIL 2006 TO BE FOLLOWED BY THE APPLICANT, AND INTERESTED AND AFFECTED PARTIES UPON RECEIPT OF NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION

Application of this Chapter

60. (1) This Chapter applies to decisions that –
- (a) are subject to an appeal to the MEC in terms of section 43 (1), (2) or (3) of the Act; and
- (b) were taken by an organ of state acting under delegation in terms of section 42 or 42A of the Act in the exercise of a power or duty vested by the Act or these Regulations in a competent authority.

Notices of intention to appeal

62. (1) A person affected by a decision referred to in regulation 60 (1) who wishes to appeal against the decision, must lodge a notice of intention to appeal with the MEC, within 10 days after that person has been notified in terms of these Regulations of the decision.

- (2) If the appellant is and applicant, the appellant must serve on each person and organ of state which was a registered interested and affected party in relation to the applicant's application- (a) a copy of the notice referred to subregulation (1); and

- (b) a notice indicating where and for what period the appeal submission will be available for inspection by such person or organ of state.

- (3) If the appellant is a person other than an applicant, the appellant must serve on the applicant-

- (a) a copy of the notice referred to subregulation (1); and
- (b) a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.

- (4) The MEC, may, as the case may be, in writing, on good cause extend the period within which a notice of intention to appeal must be submitted.

Submission of appeals

63. (1) An appeal lodged with-
- (b) the MEC must be submitted to the provincial department responsible for environmental affairs in the relevant province or
- (c) the delegated organ of state, where relevant, must be submitted to that delegated organ of state.

- (2) An appeal must be- (a) on an official form published by or obtainable from the relevant department; and (b) accompanied by-

- (i) a statement setting out the grounds of appeal;
- (ii) supporting documentation which is referred to in the appeal and which is not in the possession of the Minister, MEC or delegated organ of state;

- (iii) a statement by the appellant that regulation 62 (2) or (3) has been complied with together with copies of the notices referred to in that regulation; and
 - (iv) the prescribed appeal fee, if any.
- (3) When submitting an appeal, the appellant must take into account any guidelines applicable to appeals.

Time within which appeals must be lodged

64. (1) An appeal must be submitted to the relevant department within 30 days of the lodging of the notice of intention to appeal referred to in regulation 62 (1).
- (2) The MEC, may, in writing, on good cause extend the period within which an appeal must be submitted.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447, PRETORIA - 0001, Fedsure Building - 315 Pretorius Street - PRETORIA
Tel (+ 27 12) 310 3911 - Fax (+ 2712) 322 2682

NEAS Reference: DEAT/EIA/16318/2012

DEA Reference: 14/12/16/3/3/2/408

Enquiries: Constance Musemburi

Telephone: 012-310-3881 Fax: 012-320-7539 E-mail: CMusemburi@environment.gov.za

Mr. Jeff Gard
Tharisa Minerals (Pty) Ltd
P. O. Box 122
CRAMERVIEW
2060

Tel: (011) 463 7101
Fax: (011) 463 7100

PER FACSIMILE / MAIL

Dear Mr. Gard

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND EIA REGULATIONS 2006: DIVERSION OF AN EXISTING 275kV POWERLINE AND ASSOCIATED INFRASTRUCTURE AT THARISA MINE, WITHIN THE RUSTENBURG LOCAL MUNICIPALITY, NORTH WEST PROVINCE

With reference to the above application, please be advised that the Department has decided to accept the Scoping Report dated February 2008, the Environmental Impact Assessment Report dated 2008 and grant authorisation. The environmental authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 10(2) of the Environmental Impact Assessment Regulations, 2010 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 12 (twelve) days of the date of the EA, of the Department's decision in respect of your application as well as the provisions regarding the submission of appeals that are contained in the Regulations.

Your attention is drawn to Chapter 7 of the Regulations, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached document. Kindly include a copy of this document with the letter of notification to interested and affected parties.

Should the applicant or any other party wish to appeal any aspect of the decision a notice of intention to appeal must be lodged by all prospective appellants with the Minister, within 20 days of the date of the EA, by means of one of the following methods:

- By facsimile: 012 320 7561;
- By post: Private Bag X447,
Pretoria, 0001; or
- By hand: 2nd Floor, Fedsure Building, North Tower.

Cnr. Lilian Ngoyi (Van der Walt) and Pretorius Streets,
Pretoria.

If the applicant wishes to lodge an appeal, it must also serve a copy of the notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection, should you intend to submit an appeal.

Please include the Department (*Attention: Acting Director: Integrated Environmental Authorisations*) in the list of interested and affected parties, notified through your notification letter to interested and affected parties, for record purposes.

Appeals must be submitted in writing to:

Mr T Zwane, Senior Legal Administration Officer (Appeals), of this Department at the above mentioned addresses or fax number. Mr Zwane can also be contacted at:

Tel: 012-310-3929

Email: AppealsDirectorate@environment.gov.za

The authorised activities shall not commence within twenty (20) days of the date of signature of the authorisation. Further, please note that the Minister may, on receipt of appeals against the authorisation or conditions thereof suspend the authorisation pending the outcome of the appeals procedure.

Yours sincerely



Mr Mark Gordon
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs
Date: 15 November 2012

CC:	Mr. B. Stobart	Metago Environmental Engineers (Pty) Ltd.	Tel: 011-467-0945	Fax: 011-467-0978
	Mr. R. Nemanashi	North West Department of Economic Development, Environment, Conservation and Tourism	Tel: 014-697-3597	Fax: 014-692-3553
	Mr. T. Zwane	Appeals Authority (DEA)	Tel: 012-310-3929	Fax: 012-320-7561
	Mr. T. Malaza	Compliance Monitoring (DEA)	Tel: 012-310-3397	Fax: 012-320-5744

APPEALS PROCEDURE IN TERMS OF CHAPTER 7 OF THE NEMA EIA REGULATIONS, 2010 (THE REGULATIONS) AS PER GN R. 543 OF 2010 TO BE FOLLOWED BY THE APPLICANT AND INTERESTED AND AFFECTED PARTIES UPON RECEIPT OF NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION (EA)

APPLICANT	INTERESTED AND AFFECTED PARTIES (IAPs)
1. Receive EA from the relevant Competent Authority (the Department of Environmental Affairs (DEA)).	1. Receive EA from Applicant/Consultant.
2. Within 12 days of date of the EA notify all IAPs of the EA and draw their attention to their right to appeal against the EA in terms of Chapter 7 of the Regulations.	2. N/A.
3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA with the Minister of Water and Environmental Affairs (the Minister).	3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA with the Minister of Water and Environmental Affairs (the Minister).
4. After having submitted your notice of intention to appeal to the Minister, provide each registered IAP with a copy of the notice of intention to appeal within 10 days of lodging the notice.	4. After having submitted your notice of intention to appeal to the Minister, provide the applicant with a copy of the notice of intention to appeal within 10 days of lodging the notice.
5. The Applicant must also serve on each IAP: <ul style="list-style-type: none"> a notice indicating where and for what period the appeal submission will be available for inspection. 	5. Appellant must also serve on the Applicant within 10 days of lodging the notice, <ul style="list-style-type: none"> a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.
6. The appeal must be submitted in writing to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.	6. The appeal must be submitted to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.
7. Any IAP who received a notice of intention to appeal may submit a responding statement to that appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.	7. An Applicant who received notice of intention to may submit a responding statement to the appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.

NOTES:

1. **An appeal against a decision must be lodged with:-**
 - a) the Minister of Water and Environmental Affairs if the decision was issued by the Director- General of the Department of Environmental Affairs (or another official) acting in his/ her capacity as the delegated Competent Authority;
 - b) the Minister of Justice and Constitutional Development if the applicant is the Department of Water Affairs and the decision was issued by the Director- General of the Department of Environmental Affairs (or another official) acting in his/ her capacity as the delegated Competent Authority;
2. **An appeal lodged with:-**
 - a) the Minister of Water and Environmental Affairs must be submitted to the Department of Environmental Affairs;
 - b) the Minister of Justice and Constitutional Development must be submitted to the Department of Environmental Affairs;
3. **An appeal must be:-**
 - a) submitted in writing;
 - b) accompanied by:
 - a statement setting out the grounds of appeal;
 - supporting documentation which is referred to in the appeal; and
 - a statement that the appellant has complied with regulation 62 (2) or (3) together with copies of the notices referred to in regulation 62.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 36 of the Environmental Impact Assessment Regulations, 2010

DIVERSION OF AN EXISTING 275kV POWER LINE AND ASSOCIATED INFRASTRUCTURE AT THARISA MINE, WITHIN THE RUSTENBURG LOCAL MUNICIPALITY, NORTH WEST PROVINCE

RUSTENBURG LOCAL MUNICIPALITY

Authorisation register number:	14/12/16/3/3/2/408
NEAS reference number:	DEAT/EIA/16316/2012
Last amended:	First issue
Holder of authorisation:	THARISA MINERALS (PTY) LTD.
Location of activity:	NORTH WEST PROVINCE: Within Rustenburg Local Municipality

This environmental authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activity specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA Regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises –

THARISA MINERALS (PTY) LTD.

with the following contact details –

Mr. Jeff Gard

Tharisa Minerals (Pty) Ltd.

P. O. Box 122

GRAMERVIEW

2060

Tel: (011) 463 7101

Fax: (011) 463 7100

to undertake the following activity(hereafter referred to as "the activity" as indicated in GN. No. R.386 and GN. No. R.387 of April 2006.

Listed activities	Activity/Project description
Government Notice No. R: 386 of April 2006: Activity Number: 1 <i>The construction of facilities or infrastructure, including associated structures or infrastructure, for-</i> <i>(i) the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts.</i>	A 275kV above ground powerline and associated infrastructure will be constructed.
Government Notice No. R. 387 of April 2006: Activity Number: 1 <i>The construction of facilities or infrastructure, including associated structures or infrastructure, for-</i> <i>(i) the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.</i>	A 275kV above ground powerline and associated infrastructure will be constructed.

as described in the Environmental Impact Assessment Report dated June 2008 at:

Preferred Route	Latitude	Longitude
Starting Point	25°44'26.61876 S	27°30'12.82321 E
Middle Point	25°43'52.23798 S	27°30'51.72839 E
End Point	25°43'25.76714 S	27°30'18.04225 E

- for the diversion of an existing 275kV power line and associated infrastructure to Portions 186, 185, 240, 219, 218, 183, 96, 111, 64, 257 and 256 of Kafferskraal, Farm 342 JQ, Marikana, within the Rustenburg Local Municipality in the North West Province, hereafter referred to as "the property".

All of the abovementioned properties are owned by Tharisa Minerals (Pty) Ltd. The existing 275kV power line of approximately 2km with 6 towers will be replaced with a new powerline of approximately 3km with 11 new lattice towers around the Tharisa's mine.

Conditions of this Environmental Authorisation

Scope of authorisation:

1. The preferred route with the abovementioned co-ordinates as indicated in the EIA Report dated June 2008 and additional information dated 25 October 2012 is hereby authorised.
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the environmental authorisation.
3. The holder of the environmental authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this authorisation, must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.
6. This activity must commence within a period of five (5) years from the date of issue of this authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
7. Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
8. The holder of an environmental authorisation must notify the competent authority of any alienation, transfer and change of ownership rights in the property on which the activity is to take place.

Notification of authorisation and right to appeal

9. The holder of the authorisation must notify every registered interested and affected party, in writing and within 12 (twelve) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment Regulations, 2010;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the competent authority for the decision.
11. The holder of the authorisation must publish a notice –
 - 11.1. informing interested and affected parties of the decision;
 - 11.2. informing interested and affected parties where the decision can be accessed; and
 - 11.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in the newspaper(s) contemplated and used in terms of regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.

Management of the activity

12. The Environmental Management Programme (EMPr) submitted as part of the Application for EA is hereby approved. This EMPr must be implemented and adhered to.

Monitoring

13. The applicant must appoint an independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMPr.
 - 13.1. The ECO must be appointed before commencement of any authorised activity.

- 13.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 13.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 13.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

14. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the *Director: Compliance Monitoring* at the Department.
15. The holder of the authorisation must submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and within 30 days of completion of rehabilitation activities.
16. The environmental audit report must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the EMPr.
17. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Commencement of the activity

18. The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.
19. An appeal under section 43 of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise.
20. Should you be notified by the Minister of a suspension of the authorisation pending appeal procedures, you may not commence with the activity until such time that the Minister allows you to commence with such an activity in writing.

Notification to authorities

21. Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number. This notification period may coincide with the notice of intent to appeal period.

Operation of the activity

22. Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.

Site closure and decommissioning

23. Should the activity ever cease or become redundant, the applicant shall undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

24. Construction areas must be clearly demarcated and only approved areas must be used for storage and cement mixing. Any cement or concrete mixing must be done on an impervious surface to prevent soil contamination.
25. Any solid waste must be disposed of at a landfill licensed in terms of the relevant legislation.
26. Anti-collision devices such as bird flappers must be installed where powerline crosses avifaunal corridors.
27. Potable water must not be used to mitigate dust nuisance.
28. Eskom conditions stipulated in their correspondence dated 27 June 2008 must be adhered to.
29. The use of generators on site must include the use of drip trays.
30. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Any solid waste shall be disposed of at a landfill licensed in terms of section 20 (b) of the National

Environment Management Waste Act, 2008 (Act 59 of 2008). Copies of all waste disposal certificates must be kept on site.

General

31. A copy of this authorisation and the approved EMPr must be kept at the property where the activity/ will be undertaken. The authorisation and approved EMPr must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.
32. The holder of the authorisation must notify both the *Acting Director: Integrated Environmental Authorisations* and the *Director: Compliance Monitoring* at the Department, in writing and within 48 (forty eight) hours, if any condition of this authorisation cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance.
33. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 15 November 2012



Mr Mark Gordon

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

Date:

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the Scoping Report (SR) dated 14 February 2008, the Environmental Impact Assessment (EIA) Report and the draft Environmental Management Plan (EMPr) dated June 2008;
- b) The comments received from organs of state and interested and affected parties as included in the SR and the EIA Report;
- c) The sense of balance of the negative and positive impacts and proposed mitigation measures as provided in the EIA Report and the EMPr dated June 2008;
- d) The information contained in the specialist studies contained within EIA Report dated June 2008; and
- e) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998).

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project was well explained and the Department considered the need of the project.
- c) The EIA Report dated June 2008 identified the relevant legislation and guidelines that have been considered in the preparation of the EIA Report.
- d) The methodology used in assessing the potential impacts identified in the EIA Report dated June 2008 and the specialist studies have been adequately indicated.

- e) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2006 for public involvement.
- f) The Environmental Authorisation issued by the North West Provincial Department of Economic Development, Environment, Conservation and Tourism (the then Department of Agriculture, Conservation and Environment) on 23 October 2009.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIA Report dated June 2008 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The information contained in the EIA Report dated June 2008 is accurate and credible.
- e) EMP measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIA Report and will be implemented to manage the identified environmental impacts during the construction process.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The application is accordingly granted.



read

Department:
**Rural, Environment and Agricultural
 Development**
 North West Provincial Government
REPUBLIC OF SOUTH AFRICA



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 114 Chris Hani Street
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CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES

DIRECTORATE: ENVIRONMENTAL QUALITY MANAGEMENT

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 E-mail: memanashi@nwpg.gov.za

Ref: NWP/EIA/50/2011

Attention: Thulani Ntshanga
 Tharisa Minerals (Pty) Ltd
 Private Bag X 51
 BRYANSTON
 2021

Tel No.: (011) 996 3500
 Cell No.: 082 903 4214
 Fax No.: (011) 996 3535
 Email: ntshanga@tharisa.com

PER FACSIMILE AND POST

Dear Sir/Madam

ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CHROME SAND DRYING PLANT, STORAGE OF FUEL, CHANGES IN FOOTPRINT, SIZE AND DESIGN OF THE TAILINGS STORAGE FACILITY AND WASTE ROCK DUMPS, CONSTRUCTION AND OPERATION OF A NEW WASTE ROCK DUMP AND DISTURBANCE OF WATER COURSES AT THARISA MINE ON THE FARMS KAFFERSKRAAL 342 JQ AND ELANDSDRIFT 467 JQ NEAR MARIKANA, LISTED ACTIVITIES NUMBER 11(xi), 13 AND 18 IN GN NO. R.544, LISTED ACTIVITIES NUMBER 5, 15 AND 26 IN GN NO. R.545 AND LISTED ACTIVITY NUMBER 14 IN GN NO. R.546, RUSTENBURG AND MADIBENG LOCAL MUNICIPALITIES, NORTH WEST PROVINCE

Your application for Environmental Authorisation, in terms of Section 24(2) (a) of the National Environmental Management Act, 1998 as amended (Act No. 107 of 1998) in respect of -

Government Notice No. R. 544 of 18 June 2010 for

1. *The construction of infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line [listed activity 11(xi)];*
2. *The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres facility will be expanded by 80 cubic meters or more (Listed activity 13);*
3. *The infilling or depositing of any material of more than 5 cubic metres into a watercourse (listed activity 18).*

WE BELONG WE CARE WE SERVE

Government Notice No. R. 545 of 18 June 2010 for

1. *The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of Waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the act will apply (listed activity 5);*
2. *Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more (listed activity 15);*
3. *Commencing of an activity, which requires an atmospheric emission license in terms of Section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), except where Activity 28 in Notice No. R. 544 of 2010 applies (listed activity 26).*

Government Notice No. R. 546 of 18 June 2010 for

1. *The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetation cover constitute indigenous vegetation in North West in all areas outside urban areas [listed activity 14(a)]*


In terms of the Regulations of Chapter 5 of NEMA, 1998 refer.

This Department has evaluated the **Scoping Report** received on 27 July 2012 and the **Environmental Impact Assessment Report** received on 09 December 2014, including additional information received on 17 March 2015, for the proposed construction and operation of a chrome sand drying plant, storage of fuel, changes in footprint, size and design of the tailings storage facility and waste rock dumps, construction and operation of a new waste rock dump and disturbance of water courses at Tharisa Mine on the farms Kafferskraal 342 JQ and Elandsdrift 467 JQ near Marikana, Rustenburg and Madibeng Local Municipalities, North West Province, to verify whether this activity will have significant negative impact on the environment.

Enclosed please find the Environmental Authorisation and the conditions under which your application is authorised.

Formal appeals regarding the Environmental Authorisation can be directed to the MEC for Department of Rural, Environment and Agricultural Development, North West Province. Such an appeal must be lodged in terms of Chapter 7 of the Regulations of 18 June 2010.

Yours Faithfully



Mr. Mafu Nkosi

Chief Director: Environmental Services

Department of Rural, Environment and Agricultural Development

Date: 29/04/2015



Cc: SLR Consulting Africa (Pty) Ltd
Contact Person: Alex Pfeiffer
Tel No: (011) 467 0956
Cell No.: 083 269 7545
Fax No.: (011) 467 0978

Rustenburg Local Municipality
Contact Person: Ms. Lillian Sefike
Tel No.: (014) 590 3075/3433
Fax No.: (014) 590 3070



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A. DEFINITIONS

"activity" means an activity identified in any notice published by the Minister or MEC in terms of Section 24D(1)(a) of the Act as a listed activity or specified activity.

"commence" means the start of any physical activity, including site preparation and any other activity on the site in furtherance of a listed activity or specified activity, but does not include any activity required for purposes of an investigation or feasibility study as long as such investigation or feasibility study does not constitute a listed activity or specified activity.

"construction" means the building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of an activity, but excludes any modification, alteration or expansion of such facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint.

"expansion" means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.

"independent", in relation to an EAP or a person compiling a specialist report or undertaking a specialised process or appointed as a member of an appeal panel, means

- a) that such EAP or person has no business, financial, personal or other interest in the activity, application or appeal in respect of which that EAP or person is appointed in terms of these Regulations other than fair remuneration for work performed in connection with that activity, application or appeal; or
- b) that there are no circumstances that may compromise the objectivity of the EAP or person in performing such work.

"public participation process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters.

"registered interested and affected party", in relation to an application, means an interested and affected party whose name is recorded in the register opened for that application in terms of Regulation 55.

"registered EAP" means an environmental assessment practitioner registered with an appointed registration authority contemplated in Section 24H of the Act.

"the Act" means the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended.

"the Department" means the Department of Rural, Environment and Agricultural Development

"state Department" means any Department or administration in the national or provincial sphere of government exercising functions that involve the management of the environment.

"the Regulations" means the Environmental Impact Assessment Regulations of 18 June 2010.

B. Environmental Authorisation

Authorisation register number: NWP/EIA/50/2011
Last amended: First issue
Holder of Environmental Authorisation: Tharisa Minerals (Pty) Ltd

Location of activity: Farm Kafferskraal 342 JQ and Elandsdrift
467 JQ, Rustenburg and Madibeng Local
Municipalities

1. Decision

The Department is satisfied on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activity specified below:

2. Activity authorised

By virtue of the powers delegated by the MEC in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended and the Environmental Impact Assessment Regulations of 18 June 2010, the Chief Director: Environmental Services of the Department of Rural, Environment and Agricultural Development authorises:-

Tharisa Minerals (Pty) Ltd
Private Bag X 51
BRYANSTON
2021

Tel No.: (011) 996 3500
Cell No.: 082 903 4214
Fax No.: (011) 996 3535
e-mail: tnshanga@tharisa.com

to undertake the following activity:

The construction and operation of a chrome drying plant with a production capacity of 25 000 tons / month, storage of fuel in capacity of approximately 460m³, changes in footprint, size and design of the Tailings storage facility and waste rock dumps, construction and operation of a new waste rock dump with footprint of 95 hectares and a height of 70m, and disturbance of watercourses.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Site Location:

Alternative S1	Latitude	Longitude
Chrome Sand Drying Plant Alternative S1	25° 44' 34.957"	27° 29' 39.593"
Changes/addition to tailings and waste rock facilities Alternative S1	25° 43' 49.214"	27° 30' 0.665"
Extension of western waste rock dump Alternative S1	25° 44' 16.968"	27° 29' 08.584"
North-Eastern waste rock dump Alternative S1	25° 43' 23.370"	27° 31' 16.896"
Expansion/addition of facilities covering more than 20 hectares Alternative S1	25° 44' 16.968"	27° 29' 08.584"

The proposed development sites are located at Tharisa Mine on the farms Kafferskraal 342 JQ and Elandsdrift 467 JQ near Marikana, which falls within the jurisdiction of Rustenburg and Madibeng Local Municipalities, North West Province, hereafter referred to as "the property"

3. Conditions**3.1 Scope of Environmental Authorisation**

3.1.1 The preferred **Alternative Sites (S1) are approved.**

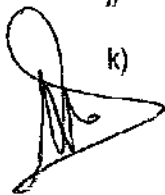
3.1.2 Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the Environmental Authorisation.

3.1.3 The holder of the Environmental Authorisation must be responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the Environmental Authorisation.

3.1.4 The activity authorised may only be carried out at the property as described in Point 2 under site location.

3.1.5 This activity must commence within a period of **five (5) years** from the date of issue. If commencement of the activity does not occur within that period, the Environmental Authorisation **lapses** and a new application for Environmental Authorisation must be lodged in order for the activities to be undertaken.

- 3.1.6 If the holder of the Environmental Authorisation anticipates that commencement of the activities would not occur within **five (5) year** period, he/she **must** apply and **show good cause** for an extension of the Environmental Authorisation **three (3) months** prior to its expiry date.
- 3.1.7 This Environmental Authorisation does not negate the holder of the Environmental Authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.
- 3.1.8 Relevant legislation that must be complied with by the holder of this Environmental Authorisation includes, *inter alia*:
- a) Archaeological remains, artificial features and structures older than **sixty (60) years** are protected by National Heritage Resources Act, 1999 (Act No. 25 of 1999). Should any archaeological artefacts be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped immediately. A registered Heritage Specialist must be called to the site for inspection. Under no circumstances shall any heritage material be destroyed or removed from the site and the relevant Heritage Resources Agency must be informed about the finding. Heritage remains uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from the South African Heritage Resources Agency and/or any of their delegated provincial agencies.
 - b) All provisions of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).
 - c) All provisions of the National Water Act, 1998 (Act No. 36 of 1998) as amended.
 - d) All provisions of Hazardous Substance Act, 1973 (Act No. 15 of 1973).
 - e) Provisions of Petroleum Products Act, 1977 (Act No. 120 of 1977) as amended
 - f) Provision of National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) as amended.
 - g) Provisions of National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) as amended.
 - h) All provisions of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) as amended.
 - i) All provisions of the National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998).
 - j) All provisions of the Spatial Planning and Land Use Management Act, 2013 (Act No.16 of 2013).
 - k) The development must adhere to the municipal by-laws.



3.1.9 The holder of an Environmental Authorisation has the responsibility to apply for Environmental Authorisation amendment to the competent authority for any alienation or deviation from project description.

4. Appeal of Environmental Authorisation

4.1 The holder of the Environmental Authorisation must notify every **registered** interested and affected party, in writing and within **twelve (12) days**, of receiving an Environmental Authorisation from the Department.

4.2 The notification referred to in 4.1 must –

4.2.1 Inform interested and affected parties of the decision, reason for decision and where the decision can be accessed.

4.2.2 Advise the interested and affected parties that a copy of the Environmental Authorisation and reasons for the decision will be furnished on request.

4.2.3 Specify the date on which the Environmental Authorisation was issued.

4.2.4 Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations (Government Notice No. R. 543 of 18 June 2010) (see Annexure 2).

4.2.5 An appeal against the decision must be lodged in terms of Chapter 7 of Government Notice No. R. 543 of 18 June 2010 in terms of NEMA, 1998, as amended, from the date of this Environmental Authorisation, with:

The Member of the Executive Council
Department of Rural, Environment and Agricultural Development
Agricentre Building
Cnr. Dr. James Moroka and Stadium Road
Private Bag X2039
MMABATHO
2735

Tel No.: (018) 389 5688/5056

Fax No.: (018) 384 2679

5. Management of the activity

5.1 The draft Environmental Management Programme (EMPr) for the project submitted as part of application for Environmental Authorisation is **hereby approved**.

5.2 The recommendations and mitigation measures outlined in the Environmental Impact Assessment Report compiled by SLR Consulting Africa (Pty) Ltd received on 09 December 2014 must be adhered to.

- 5.3 Any proposed amendments to the EMPr (as a result of this Environmental Authorisation or otherwise) must be submitted in writing to Chief Director: Environmental Services for approval prior to the amendment being implemented. The proposed amendments will be decided upon by the Department within a period of **thirty (30) days** of receiving the submission.
- 5.4 The provisions of the EMPr are an extension of the conditions of the Environmental Authorisation and therefore non-compliance with the EMPr would constitute non-compliance with the Environmental Authorisation.
- 5.5 The EMPr must form part of the contractor's tender documentation for all contractors working on the project and must be made available on the site.

6. Monitoring

- 6.1 The holder of Environmental Authorisation must appoint an Environmental Control Officer (ECO) for the duration of the construction phase that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in the Environmental Impact Assessment Report are implemented, and to ensure compliance with the provisions of the EMPr.
- 6.2 The name and contact details of the ECO must be communicated to the Control Environmental Officer Grade B: Environmental Compliance and Enforcement Section.
- 6.3 The ECO must be appointed before commencement of any land clearing or construction activity.
- 6.4 The ECO must ensure communications with key stakeholders in respect to monitoring of compliance with conditions of Environmental Authorisation and the EMPr and also liaise with Control Environmental Officer Grade B: Environmental Compliance and Enforcement Section.
- 6.5 The ECO must keep record of all activities on site, monitoring programmes, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.
- 6.6 It is the responsibility of the holder of this Environmental Authorisation to ensure that an ongoing management and monitoring of the impacts of the activities on the environment throughout the life cycle of the activities is put into practice.

7. Recording and reporting to the Department

- 7.1 All the incidents of spill must be reported to this Department and Department of Water and Sanitation within **twenty-four (24) hours** and action taken to remedy the situation must be outlined.
- 7.2 Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.



8. Commencement of the activity/Notification to authority

- 8.1 **Fourteen (14) days** written notice must be given to Control Environmental Officer Grade B: Environmental Compliance and Enforcement Section that the activity will commence. Commencement for the purposes of this condition includes site preparation.
- 8.2 An appeal made against Environmental Authorisation result in it being suspended, therefore the activity must not commence pending the decision by the Member of Executive Council.
- 8.3 The number of people employed for construction phase must be submitted with the notice of commencement of the activity.

9. Operation of the activity

- 9.1 Waste water must be treated and recycled, and this must form part of the management strategy for the operation of the project. Department of Water and Sanitation must be informed of the incidents that could lead to water pollution and must be involved in mitigation/corrective measures undertaken as a result of such incidents.
- 9.2 General waste must be collected and disposed of at a licensed landfill site on a weekly basis. Recyclable waste must be recovered for recycling purpose. No temporary dumping of waste is allowed on site.
- 9.3 A waste management plan to be designed and implemented for the operational phase of the development. The waste management plan must address amongst others:
- Collection procedures, transportation and disposal of waste;
 - The minimization and sorting of waste at source; and
 - Recycling of recoverable waste.
- 9.4 Existing groundwater monitoring must be continued with and it must be expanded to monitor impacts of the proposed additional new structure and infrastructure. Groundwater monitoring must be done in consultation with the Department of Water and Sanitation.
- 9.5 All contaminated stormwater generated on site during operation of the mine must be collected and channelled into the Pollution Control Dam. Only clean stormwater may be discharged into the natural environment
- 9.6 Fuel storage tanks and associated infrastructure must be regularly monitored and properly maintained in good working condition to prevent leaks and spillages.
- 9.7 Blasting must be undertaken only during the day, and blast times must be communicated with existing communities living around the mine.
- 9.8 Groundwater pollution with chrome content (Cr⁶⁺) must be avoided.



- 9.9 The holder of Environmental Authorisation must ensure that water is used in a sustainable manner and that all reasonable measures are taken to conserve it.
- 9.10 The number of people employed for operational phase must be submitted to this Department one (01) month after commencement with operation of the activity.
- 10. Site Closure and Decommissioning of the activity**
- 10.1 Should the activity ever cease or become redundant, the applicant must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.
- 10.2 All mitigation measures for the decommissioning phase, as outlined in the Environmental Impact Assessment Report compiled by SLR Consulting Africa (Pty) Ltd and Specialists Reports received on 09 December 2014 must be adhered to.
- 10.3 The disturbed areas must be rehabilitated to almost a natural state, and landscaping of the disturbed areas must make extensive use of locally appropriate indigenous vegetation.
- 11. Specific Conditions**
- 11.1 The applicant must adhere to the proposed mitigation measures and recommendations contained in the Environmental Impact Assessment Report compiled by SLR Consulting Africa (Pty) Ltd received on 09 December 2014; the Comments from Department of Water and Sanitation, and Comments from Bojanala Platinum District Municipality.
- 11.2 The development must be restricted to construction and operation of a chrome sand drying plant, storage of fuel, changes in footprint, size and design of the tailings storage facility and waste rock dumps, construction and operation of a new waste rock dump and disturbance of water courses on the farms Kafferskraal 342 JQ and Elandsdrift 467 JQ, Rustenburg and Madibeng Local Municipalities, North West Province.
- 11.3 The applicant must apply for an Atmospheric Emission License in terms of the National Environmental Management: Air Quality Act, 2004 (Act No.39 of 2004) with the Bojanala Platinum District Municipality regarding the proposed construction and operation of the chrome sand drying plant.
- 11.4 The proposed stream diversion must be approved by the Department of Water and Sanitation.
- 11.5 Appropriate signage must be placed to caution the community, employees and contractors not to attempt to enter certain structures without being authorised and regular safety inspections must be conducted in order to ensure that participants are equipped with necessary safety equipments.
- 11.6 The proposed development site must be suitably demarcated prior to the construction commencing and construction must be restricted to the demarcated area to minimise exposure of the ground to erosion.

- 11.7 All plant species of conservation importance (if any) must be removed from the demarcated area prior to commencement and must either be relocated outside of the construction area or donated to the South African National Biodiversity Institute in consultation with Biodiversity Management Directorate of this Department.
- 11.8 Topsoil must be removed and stockpiled aside for rehabilitation and such topsoil must be protected against water and wind erosion.
- 11.9 The stockpiles must not be placed within drainage line or site and all trenches and excavation works must be properly backfilled and compacted and if any soils are contaminated, it should be stripped and disposed of at a registered hazardous waste landfill site.
- 11.10 No surface or ground water must be polluted due to any activities on the property or site. The discharge of any pollutants such as cement, concrete, lime, chemicals, etc into the natural environment and the storm water system must strictly be prohibited.
- 11.11 Clear separation of clean and dirty water systems must take place and good management of the dirty water systems must take place to prevent unnecessary seepage and discharge.
- 11.12 Dust suppression measures must be implemented to prevent the spreading of nuisance dust. The applicant must ensure that dust suppression measures (including water spraying) are undertaken on regular basis within all haul roads on site
- 11.13 The applicant must ensure that the design, construction of Tailings Storage Facilities (TSF) and Waste Rock Dumps (WRD) are done under supervision of professional engineer, and operation is undertaken in a manner that prevents surface and groundwater contamination.
- 11.14 The TSF and Waste Rock Dumps surfaces must be lined with an appropriate impermeable layer to prevent seepage of water from these areas and possible contamination of groundwater.
- 11.15 The walls of the tailings storage dams must be vegetated with indigenous grass to prevent erosion and to minimise visual impacts as well as to ensure integral stability of the dams.
- 11.16 Proper storm-water diversion berms must be constructed around the TSF and WRD to channel clean stormwater away from the mining areas, and to prevent run-off erosion.
- 11.17 The aboveground storage tanks must be suitably enclosed by an impervious bund wall, which must be capable of containing the maximum volumes stored in the tank. The drainage point area must be connected to an oil/water separator.
- 11.18 The fuel storage tanks and associated infrastructure must comply with all relevant South African National Standards (SANS) and municipal bylaws applicable to the installation and operation of fuel storage tanks and associated infrastructure.



- 11.19 A spill contingency and emergency response plan must be developed in conjunction with the Department of Water and Sanitation, and must be implemented as soon as the development is operational.
- 11.20 Any re-fuelling of equipment must occur on a hardened or concrete slab surface within designated re-fuelling area where any spill can be contained.
- 11.21 The contractor must ensure that drip trays are always available to collect any fluid that may result from accidental spillage, overflow and/or servicing. All equipments that leak must be repaired immediately and/or removed from the site when necessary.
- 11.22 Adequate fire fighting equipment must be installed on site. This should be done in consultation with the local fire protection and emergency services.
- 11.23 The holder of Environmental Authorisation is responsible for compliance with the provisions for duty of care and remediation of environmental damage in accordance with Section 28 of National Environmental Management Act, 1998 (Act No. 107 of 1998).
- 11.24 The overall EMPr must be based on the premise of sound environmental management and cost effective measures that will ensure wherever possible solution to the remediation of the impacts caused by the construction and operation activities.
- 11.25 Notwithstanding the preceding conditions, the holder shall adhere to, and ensure adherence by all contractors, sub-contractors and workers for this project, to all conditions listed herein, and all obligations, commitments, monitoring and proposed mitigation measures as outlined in the EMPr.

12. General

- 12.1 A copy of this Environmental Authorisation must be kept at the property where the activity will be undertaken. The Environmental Authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the Environmental Authorisation who works or undertakes work at the property.
- 12.2 The holder of the Environmental Authorisation must notify the Department, in writing and within **forty-eight (48) hours**, if any condition of this Environmental Authorisation cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance. Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Regulations.



- 12.3 National government, provincial government, local authorities or committees appointed in terms of the conditions of this Environmental Authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of this Environmental Authorisation as set out in this document or any other subsequent document emanating from these conditions of this Environmental Authorisation.

Environmental Authorisation Approved By:



Mr Mafu Nkosi

Chief Director: Environmental Services

Department of Rural, Environment and Agricultural Development

Date: 29/04/2015



ANNEXURE 1: REASONS FOR AUTHORISATION

1. Background

The Applicant, **Tharisa Minerals (Pty) Ltd** applied for Environmental Authorisation to carry out the following activity:

The construction and operation of a chrome sand drying plant, storage of fuel, changes in footprint, size and design of the tailings storage facility and waste rock dumps, construction and operation of a new waste rock dump and disturbance of water courses at Tharisa Mine.

The applicant appointed **SLR Consulting Africa (Pty) Ltd** to undertake Environmental Impact Assessment process as required by Regulation 16 of the EIA Regulations of 2010.

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the Environmental Impact Assessment Report compiled by SLR Consulting Africa (Pty) Ltd received by the Department on 09 December 2014.
- b) All mitigation measures and recommendations as proposed in the Environmental Impact Assessment Report and the Environmental Management Programme received by the Department on 09 December 2014.
- c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended.
- d) The findings of a site visit undertaken by the Department official Mr. Robert Nemanashi with the Environmental Assessment Practitioner Ms. Stella Moeketse of SLR Consulting Africa (Pty) Ltd, and Mr. Thulani Ntshanga of Tharisa Minerals (Pty) Ltd on 02 August 2012.

3. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below:

- a) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations of 2010 for public involvement. The proposed development was advertised in "Rustenburg Herald" newspaper dated 20 January 2012 and "Daily Sun" newspaper dated 19 January 2012 as part of the public participation process.
- b) The legal and procedural requirements have been complied with and the information contained in the document is to the satisfaction of this Department.

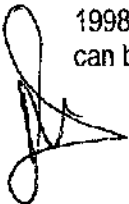
- c) Comments from Bojanala Platinum District Municipality
- d) Comments from Department of Water and Sanitation on the letter dated 20 January 2015

4. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The proposed development will be located within a mining area, and can be considered as an expansion to the existing structures and infrastructure at the mine.
- b) The mitigation measures proposed in the Environmental Management Programme are acceptable and practical for implementation to curtail the identified impacts.
- c) The identification and assessment of impacts are detailed in the Environmental Impact Assessment Report and sufficient assessment of the key identified issues and impacts have been completed.
- d) The procedure followed for impact assessment is adequate for the decision-making process.
- e) EMPr measures for the construction, operation and rehabilitation phases of the development were proposed and included in the Environmental Impact Assessment Report received on 09 December 2014 and will be implemented to manage the identified environmental impacts during the construction process.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the Environmental Authorisation, the activity will not conflict with the general objectives of Integrated Environmental Management laid down in Section 23 (2) (a-f) of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the activity can be mitigated to acceptable levels. **The application is accordingly granted.**



ANNEXURE 2: APPEAL PROCEDURES

APPEAL PROCEDURE IN TERMS OF CHAPTER 7 OF GN. NO. R. 543 OF 18 JUNE 2010 TO BE FOLLOWED BY THE APPLICANT, AND INTERESTED AND AFFECTED PARTIES UPON RECEIPT OF NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION

Application of this Chapter

58. (1) This Chapter applies to decisions that –
- are subject to an appeal to the MEC in terms of Section 43 (1), (2) or (3) of the Act; and
 - were taken by an organ of state acting under delegation in terms of Section 42 or 42A of the Act in the exercise of a power or duty vested by the Act or these Regulations in a competent authority.

Notices of intention to appeal

60. (1) A person affected by a decision who wishes to appeal against the decision, must submit a notice of intention to appeal with the MEC, or delegated organ of state, as the case may be, within **twenty (20) days** after the date of the decision.
- (2) If the appellant is an applicant, the appellant must provide each person and organ of state which was a registered interested and affected party in relation to the applicant's application, within ten **(10) days** of having submitted the notice contemplated in subregulation (1), with-
- a copy of the notice referred to in subregulation (1); and
 - a notice indicating that the appeal submission will be made available on the day of lodging it with the MEC and where and for what period the appeal submission will be available for inspection by such person or organ of state.
- (3) If the appellant is a person other than an applicant, the appellant must provide the applicant within ten **(10) days** of having lodged the notice contemplated in subregulation (1) with-
- a copy of the notice referred to in subregulation (1); and
 - a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.
- (4) The MEC or delegated organ of state, may, as the case may be, in writing, on good cause extend the period within which a notice of intention to appeal must be submitted.

Submission of appeals

61. (1) An appeal lodged must be submitted to the MEC
- (2) An appeal must be-
- submitted in writing; and
 - accompanied by-
 - a statement setting out the grounds of appeal;
 - supporting documentation which is referred to in the appeal and which is not in the possession of the MEC or designated organ of state;
 - a statement by the appellant that Regulation 60 (2) or (3) has been complied with together with copies of the notices referred to in that Regulation; and

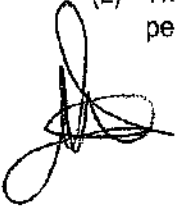



- (iv) the prescribed appeal fee, if any.
- (3) The appellant must take into account any guidelines applicable to appeals as contemplated in Section 24J of the Act.

Time within which appeals must be lodged

62. (1) An appeal as contemplated in Regulation 61(1), must be submitted within **thirty (30) days** after the lapsing of the **twenty (20) days** contemplated in Regulation 60(1).

- (2) The MEC or designated organ of state, as the case may be, may, in writing, on good cause extend the period within which an appeal must be submitted.





mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag A1, Klerksdorp, 2570, Tel: (018) 487 9830, Fax: (018) 487 9831
Cnr Margaret and Voortrekker Street, Vaal University Building, Klerksdorp, 2571

From: Directorate Mineral Regulation: North West
Enquiries: Mr. T Phalala **Email:** tshilidzi.phalala@dmr.gov.za
Sub Directorate: Mine Environmental Management **Ref:** (NW) 30/5/1/2/3/2/1/358 EM

The Manager

Tharisa Minerals (Pty) Ltd

Private Bag X 51

Bryanston

2021

Attention: Mr. Thulani Ntshanga

APPROVAL OF ADDEDUM TO THE APPROVED ENVIRONMENTAL IMPACT ASSESSMENT/ENVIRONMENTAL MANAGEMENT PROGRAMME (EIA/EMPr) IN TERMS OF SECTION 102 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) BY THARISA MINERALS (PTY) LTD TO INCLUDE CHANGES TO THE PIT, TAILINGS DAM AND WASTE ROCK FACILITIES, A CHROME SAND DRYING PLANT IN RESPECT OF VARIOUS PROPERTIES (SEE ATTACHED ANNEXURE A), SITUATED IN THE MAGISTERIAL DISTRICT OF RUSTENBURG

Kindly note that the EIA/EMPr stipulates Environmental Management Programme and a copy thereof should always be available on site.

The EIA/EMPr has been approved under the following conditions which must be adhered to:

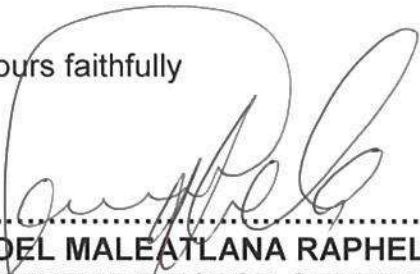
1. All mining activities must take place in accordance with the approved EIA/EMPr.
2. All available topsoil must be stripped and stockpiled separately prior to any surface disturbance.
3. No mining activities and infrastructure are allowed within 1:50 flood line or 100 meters from the edge of the river whatever is the greater, without the necessary authorization from Department of Water Affairs (DWA).
4. **Tharisa Minerals (Pty) Ltd** (the company) is responsible for all surface disturbances on the mining area, which includes all historical surface disturbances.

5. No mining waste will be allowed to be deposited in a natural drainage lines, erosion gullies and or dongas, unless agreed thereto in writing with the Regional Manager.
6. All excavations must be backfilled to the natural surface level, if a bulk factor exist it must be accommodated on the total area of disturbance.
7. A surveyed plan must be submitted every year to the Regional Manager that indicates:
 - The position, footprints and volumes of all topsoil stockpiles, overburden dumps, waste rock dumps and slime dams (any structures that is above the natural surface).
 - The positions, surface areas and depths of all open pits.
 - The positions and surface areas of all rehabilitated areas (please indicate the status of rehabilitation-backfilled, profiled/landscaped, top soiled, vegetated or monitoring and managing).
8. The rehabilitation fund must be upgraded or revised on an annual basis according to the surveyed plan, which indicates the progress in rehabilitation.
9. Monitoring must be conducted on a continuous basis.
10. Performance assessment report as contemplated in regulation 55 (1) (c) of the Mineral and Petroleum Resources Development Act 2002 (Act No.28 of 2002) must be submitted every two years to the Regional Manager: Mineral Regulation.
11. Any project, expansions or additional infrastructure must be addressed through an addendum and submitted to the Regional Manager: Mineral regulation for the approval, before they commerce. This approval may be amended at any stage if deemed necessary.
12. Should any archaeological artefact be exposed during the mining activities in the vicinity of findings it must be stopped. Under no circumstances shall any artefact be destroyed. Such an archaeological site must be marked and fenced off, and South African Heritage Agency must be contacted as soon as possible.
13. This approval does not purport to absolve you from its common law obligations towards the surface rights holder or any other affected party.
14. The following Acts area applicable and relevant to the said approval and you is to familiarize itself with its provisions in so far as they apply to the your operations:
 - The National Water Act, 1998 (Act No.36 of 1998), with particular reference to the sections pertaining to the mining or mining in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.
 - The Environmental Conservation Act, 1989 (Act No.73 of 1989). Your attention is specially directed to the requirements of section 20 of the above Act.
 - The National Environmental Act: Air Quality Act, 2004 (Act No.39 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by mining activities, into the atmosphere.
 - The Conservation of Agriculture Resources Act, 1983 (Act No.43 of 1983), with particular reference to sections pertaining to soil conservation.

- The National Heritage Resources Act, 1999 (Act No. 25 of 1999), with particular reference to sections pertaining to the protection of all historical and pre-historical cultural remains.
- The Mine Health and Safety (act 29 of 1996) in conjunction with Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), with particular reference to sections and regulations pertaining to health and safety at mines; mining within 100 meters from structures that must be protected; as well as those sections pertaining to rehabilitation of the surface.
- The National Environmental Management Act, 1998 (Act No.107 of 1998), with particular reference to sections principles in chapter 2 of the said Act.

15. All persons concerned must be made fully conversant with the terms of this approval, copies of which must be readily available to them.

Yours faithfully



.....
JOEL MALEATLANA RAPHELA
DEPUTY DIRECTOR GENERAL
MINERAL REGULATION
DEPARTMENT OF MINERAL RESOURCES
DATE: 24/6/2015

All the correspondence should be addressed to the attention to the Regional Manager of the Department of Mineral Resources: North West Region. Please quote this office file number as reference.



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag A1, KLERKSDORP 2570

Fax No: (018) 487 4394 / Tel No.: (018) 487 4300

Enquiries: T Meregi Reference No. NW 30/5/1/2/3/2/1/358EM

BY HAND

The Manager
Tharisa Minerals (Pty) Ltd
372 Main Road
2nd Floor
The Crossing
Bryanston
2021

Attention: Derek Baker

Fax no: (014) 572 0710

AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (NEMA) AS AMENDED, AND THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 IN RESPECT OF THE UPGRADE OF THE EXISTING WASTE WATER TREATMENT PLANT IN RESPECT OF THE FARM ROOIKOPIES JQ 297, ELANDSDRIFT JQ 467 AND KAFFERSKRAAL JQ 342 WITHIN THE MAGISTERIAL DISTRICT OF RUSTENBURG NORTH-WEST PROVINCE

With reference to the abovementioned application, please be advised that the Department has decided to **grant** an amended environmental authorisation for in terms of National Environmental Management Act (Act 107 of 1998). The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 4 (2) of the Environmental Impact Assessment Regulations of 2014, you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) calendar days, from the date of the Department's decision in respect of your application and the relevant provisions regarding the lodgement of appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs and a copy of such appeal to the Department of Mineral Resources (North-West Regional Office), within 20 days from the date of notification, and such appeal must be lodged as prescribed in by Chapter 2 of the National Appeal Regulations of 2014, by means of the methods as per prescribed below:

Appeal to the Department of Environmental Affairs

Attention : Directorate Appeals and Legal Review
Email : appeals@environment.gov.za
By post : Private Bag X 447, PRETORIA, 0001
By hand : Environmental House, Corner Steve Biko and Soutpansberg Street, Arcadia, Pretoria,
0083

Copy of the lodged appeal to the Department of Mineral Resources

Attention : Regional Manager: Klerksdorp Region
By facsimile : (018) 487 4394
E-mail : Phumudzo.Nethwadzi@dmr.gov.za
By post : Private Bag XA1, KLERKSDORP, 2570
By hand : Vaal University Building, Cnr Magaretha Prinsloo and Voortreker street, Klerksdorp,
2570

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected, and a copy of the official appeal form can be obtained from the Department of Environmental Affairs.

Kind Regards


.....
CHIEF DIRECTOR
NORTH WESTERN REGION
MINERAL REGULATION
NORTH-WEST REGIONAL OFFICE
DATE: 14/08/2020.....



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag A1, KLERKSDORP 2570

Fax No: (018) 487 4394 / Tel No.: (018) 487 4300
Enquiries: T Meregi Reference No. NW 30/5/1/2/3/2/1/29 EM

AMENDED ENVIRONMENTAL AUTHORISATION

Reference number: NW30/5/1/2/3/2/1/358EM

Holder of authorisation: Tharisa Minerals (Pty) Ltd

Location of activity: Farm Rooikopies JQ 297, Elandsdrift JQ 467 and Kafferskraal JQ 342, within magisterial district of Rustenburg, North West Province.

DECISION

ACRONYMS

NEMA: The National Environmental Management Act, 1998 (Act 107 of 1998), as amended

DEPARTMENT: Department of Mineral Resources.

EA: Environmental Authorisation.

IEA Integrated Environmental Authorisation.

EMPr: Environmental Management Programme

BAR: Basic Assessment Report

S&EIR: Scoping and Environmental Impact Report

I&AP: Interested and Affected Parties

ECO: Environmental Control Officer

SAHRA: South African Heritage Resources Agency

EIA REGULATIONS: EIA Regulations, 2014

MPRDA: Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended

NEM:WA: National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended

EIA: Environmental Impact Assessment.

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake

NEMA EIA listed activity (ies) specified below. Details regarding the basis on which the Department reached this granting decision are set out in Annexure "1" and 2 of this environmental authorisation.

ACTIVITY APPLIED FOR

By virtue of the powers conferred on it by NEMA, the Department hereby Grant an application for EA by **Tharisa Minerals (Pty) Ltd** with the following contact details –

Tharisa Minerals (Pty) Ltd
372 Main Road
2nd Floor
The Crossing
Brynston
2021

Attention: Derek Baker

Tel no: (014) 572 0714

Fax no: (014) 572 0710

To undertake the following activities listed in the NEMA EIA Regulation:

GNR 327 OF April 2017

Activity 10

The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes- (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where- (a) such infrastructure is for bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.

Activity 25

The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2000 cubic metres but less than 15 000 cubic metres.

The granting of this EA is subject to the conditions set out below (site specific) and in **Annexure 2** (Departmental standard conditions). The Environmental Management Programme (EMPr) attached as part of reports for the above development submitted as part of the application for an EA is hereby approved and must be adhered to throughout the life cycle of the operation.

EA SITE SPECIFIC CONDITIONS

1. All mining activities and associated activities within the mining area must adhere to the mitigation measures and the recommendations indicated in the approved Reports including the Final Basic Assessment Report for the proposed upgrade of the waste water treatment plant received on the 08th of November 2019.
2. The upgrading of the existing WWTP should be conducted as per the approved Basic Assessment Report and the Environmental Management Plan.
3. Dust minimisation measures must be put in place to minimise any dust that will be generated during the upgrade of the waste water treatment plant.
4. Noise from the machineries and the construction activities must be kept at a minimum, in order to minimise noise impact on the any nearby communities.
5. The contractor/s must ensure that no animals are disturbed, trapped, hunted or killed during the construction phase. Conservation-orientated clauses should be built into contracts for construction personnel.

ANNEXURE 1: REASONS FOR THE DECISION

1. Background

Tharisa Minerals (Pty) Ltd holds a Mining Right with reference number 358MR. Tharisa Minerals has an existing Waste Water Treatment Plant and have applied for an upgrade of the plant as they are having operational problems and flooding from the existing plant. Two options were assessed which included constructing a new plant, the preferred option was to upgrade the existing one as the construction of a new plant will have high environmental impacts.

Tharisa Minerals (Pty) Ltd appointed Green Gold Group to undertake the Basic Assessment process as required by the EIA Regulations

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the application form received by the Department on 12 June 2019;
- b) The information contained in the BAR received by the Department on 08th November 2019;
- c) The objectives and requirements of the applicable and relevant legislation, policies and guidelines and the EIA Regulations of 2014;
- d) Public Participation Process (PPP), proof of site notices and newspaper advert attached as part of the BAR Report.

3. Key factors considered in making the decision

All the information presented to the Department was taken into account upon the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance are set out below.

- a) A sufficient Public Participation Process (PPP) was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations R982 for public involvement;
- b) The environmental impacts associated with the proposed activity will be addressed by the implementation of proposed mitigation measures outlined in the Basic Assessment Report compiled by Green Gold Group.

4. Findings

After consideration of the information and factors listed above, the Department made the following findings –

- a) The potential impacts on the proposed site were clearly investigated and mitigation measures outlined.
- b) Public Participation Process complied with Chapter 6 of the EIA Regulations R982. The PPP included, *inter-alia*, the following:
 - A newspaper advertisement was placed in the local newspaper Rustenburg Herald on the 21 September 2018;
 - Notices were placed at the project site;
 - Notices were sent to key stakeholders and the registered interested and affected parties;

ANNEXURE 2: DEPARTMENTAL STANDARD CONDITIONS

1. SCOPE OF AUTHORISATION

- 1.1. The holder of EA shall be responsible for ensuring compliance with the conditions contained in the EA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of EA.
- 1.2. Any changes to, or deviation from the project description set out in this EA must be approved in writing by this Department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the Department may request such information as is deemed necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the EA to apply for further authorisation in terms of the EIA Regulations.
- 1.3. The activities, which are authorised, may only be carried out at the property (ies) indicated in the EA and or on the approved EMPr.
- 1.4. Where any of the holder of the EA contact details change including name of the responsible person, physical or postal address/ or telephonic details, the holder of the EA must notify the Department as soon as the new details become known to the holder of the EA.

- 1.5 The EA does not negate the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activity (ies).
- 1.6 The holder of EA must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.

2 APPEAL OF AUTHORISATION

- 2.1 The holder of EA must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with EIA Regulation 4(2) do the following:
 - 2.2 Notify all registered I&APs of –
 - 2.2.1 The outcome of the application;
 - 2.2.2 The date of the decision;
 - 2.2.3 The date of issue of the decision and;
 - 2.2.4 The reasons for the decision as included in Annexure 1 and Departmental Standard Conditions in Annexure 2.
 - 2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,
 - 2.4 Draw the attention of all registered I&APs to the manner in which they may access the decision.
 - 2.5 Provide the registered I&APs with:
 - 2.5.1 Name of the holder (entity) of this EA
 - 2.5.2 Name of the responsible person for this EA
 - 2.5.3 Postal address of the holder;
 - 2.5.4 Telephonic and fax details of the holder and
 - 2.5.5 E-mail address of the holder if any.

3 COMMENCEMENT OF THE ACTIVITY (IES)

- 3.1 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).
- 3.2 This EA must be provided to the site operator and the requirements thereof must be made fully known to him or her.
- 3.3 Hauling routes for construction vehicles and machinery must be clearly marked and appropriate signalling must be posted to that effect. Furthermore, movement of construction vehicles and machinery must be restricted to areas outside of the drainage line or wet areas.
- 3.4 Appropriate notification sign must be erected at the construction site, warning the public (residents, visitors etc.) about the hazard around the construction site and presence of heavy vehicles and machinery.

- 3.5 Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.
- 3.6 Vegetation clearance must be limited on areas where the individual activities will occur, and mitigation measures must be implemented to reduce the risk of erosion and alien species invasion.
- 3.7 The holder of EA must note that in terms of the National Forest Act (Act No.84 of 1998) protected plant species, must not be cut, disturbed, damaged, destroyed and their products must not be possessed, collected, removed, transported, exported, donated, purchased or sold unless permission is granted by the Department of Agriculture, Forestry and fisheries.
- 3.8 Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.
- 3.9 If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.
- 3.10 An integrated waste management approach must be implemented that is based on waste minimization and must incorporate avoidance, reduction, recycling, treat, reuse and disposal where appropriate. Uncontaminated rubble generated on the premises can be re-used as back filling material on site. Ensure that no refuse or rubble generated on the premises is placed, dumped or deposited on the adjacent properties or public places and open space.
- 3.11 In terms of sections 28 and 30 of NEMA, and sections 19 and 20 of the National Water Act, 1998 (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the EA reads through and understand the legislative requirements pertaining to the project. It is the holder of EA responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.
- 3.12 Construction vehicle must be serviced and maintained in the manner whereby no excessive smokes and noise production is reduced to acceptable levels, and to prevent oil leaks. Contaminated soil must be remediated on site or removed to an authorised landfill site.
- 3.14 Residents (if any) on the property (ies) and surrounding areas must be informed if any unusually noisy activities are planned.
- 3.15 Dust suppression measures must be implemented on all exposed surface to minimize and control airborne dust.
- 3.16 Mixing of cement, concrete, paints, solvent, sealants and adhesive must be done in specified areas on concrete aprons or on protected plastic linings to contain spillage or overflow onto soil to avoid contamination of underground water and environmental damage.
- 3.17 Should any heritage remains be exposed during operation or any actions on the site, these must immediately be reported to the South African Heritage Resource Agency (SAHRA) and or North West Heritage Resource Agency (NWHRA) (in accordance with the applicable legislation).

Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the South African Heritage Resource Agency (SAHRA).

Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; middens, indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- 3.18 Care must be taken to ensure that the material and excavated soil required for backfilling are free of contamination from hydrocarbons.
- 3.19 Hydraulic fluid or chemicals required during construction must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. Should any spills occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site permitted of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.
- 3.20 Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works.
- 3.21 The holder of EA must ensure that any water uses listed in terms of Section 21 of National Water Act must get authorization from Department of Water and Sanitation prior to the commencement of such activity (ies).
- 3.22. This EA does not purport to absolve the holder of EA from its common law obligations towards the owner of the surface of land affected.
- 3.23. The holder of EA must ensure that rehabilitation of the disturbed areas caused by operation at all times comply with the approved EMPr.
- 3.24. This EA may be amended or withdrawn at any stage for non-compliance and provides no relief from the provisions of any other relevant statutory or contractual obligations.
- 3.25. The holder of EA must note that in terms Section 43A of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), residue deposit and residue deposit must be deposited and managed in a prescribed manner on any site demarcated for that purpose in the Environmental Management Plan or Environmental Management Programme. No person may temporary or permanently deposits residue stockpile or residue deposit on any area or site other than on site indicated on the Environmental Management Plan or Environmental Management Programme.
- 3.26. The holder of EA must note that in terms Section 20 of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), no person may commence, undertake or conduct a waste management activity, except in accordance, with the requirements of norms and standards

determined in terms of Section 19 (3) for that activity or a waste management licence is issued in respect of that activity if licence is required.

- 3.27. An appeal under Section 43 (7) of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended) suspend an EA or exemption or any provisions of conditions attached hereto, or any directive unless the Minister directs otherwise.
- 3.28. Should you be notified by the Minister of a suspension of the authorisation pending appeal procedure, you may not commence with the activity (ies) until such time that the Minister allows you to commence with such activity (ies) in writing.
- 3.29 The Department reserves the right to audit and/or inspect the activity (ies) without prior notification at any reasonable time and at such frequency as may be determined by the Regional Manager.
- 3.30 The waste storage site must have a firm, impermeable, chemical resistant floors and a roof to prevent direct sunlight and rain water from getting in contact with the waste.
- 3.31 The storage of hydrocarbons must have bund walls with adequate capacity to contain the maximum volume that is stored in the area. Uncontaminated storm water must be prevented from coming into contact with the waste and must be diverted away from the storage site.
- 3.32 Subject to the commencement and duration requirements of the MPRDA and NEMA for the listed Mining activity is valid for the period for which the aforesaid Right is granted provided that this activity must commence within 10 years. If the commencement of the proposed activity does not occur within the specified period, the EA lapses and a new application for EA in terms of the NEMA and the EIA Regulations should be made for the activity to be undertaken.
- 3.33. The listed activity (ies), including site preparation, must not commence within 20 (twenty) calendar days of the date of the notification of the decision being sent to the registered I&APs. In the event that an appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is decided.
- 3.34 Should there be any conflicting conditions between this EA and other approval granted by other authorities, it is upon the holder of EA to bring it to the attention of the Department for resolution.

4. MANAGEMENT OF ACTIVITY (IES)

- 4.1 A copy of the EA and EMPr must be kept at the property or on site office where the activity (ies) will be undertaken. The EA and EMPr must be produced to any authorised officials of the Department who request to see it and must be made available for inspection by any employee or agent of the holder of the EA who works or undertakes work at the property (ies).
- 4.2. The content of the EMPr and its objectives must be made known to all contractors, subcontractors, agent and any other people working on the site, and any updates or amendments to the EMPr must be submitted to the Department for approval.
- 4.4 Regular monitoring and maintenance of storm water drainage facilities must be conducted at all times, if damaged as directed by the Department or any other relevant authority.
- 4.5 A buffer zone of 100 metres between the activity (ies) and the residential areas, cemeteries or burial grounds must be clearly demarcated and maintained.

- 4.6 The holder of the EA must prevent nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards.
- 4.7 The holder of the EA must ensure that all non-recyclable waste are disposed of at waste management facilities licenced to handle such wastes and all recyclable waste are collected by licenced waste management facilities for recycling, reuse or treatment.
- 4.8 The holder of the EA must ensure that all liquid wastes, whose emissions to water or land could cause pollution are diverted to sewer, after testing water quality and receiving written approval from the relevant local authority.
- 4.9 Non-compliance with any condition of this EA or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
- 4.10 Only listed activities that are expressly specified in the EMPr that forms part of this EA may be conducted, and additional or new activities not specified herein must be applied for by the holder and authorised by the competent authority in the form of an amendment to the aforesaid EMPr before such activities may be commenced with. This condition is also applicable in the case of the amendment, addition, substitution, correction, and removal or updating of any detail in the aforesaid EMPr.
- 4.11 Rehabilitation of the disturbed surface caused by operation at all times must comply with the approved EMPr.
- 4.12 The Holder of EA must ensure that the name and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of EA must also ensure that an ECO is always available on site to ensure that activity (ies) at all times comply with the issued EA and approved EMPr.
- 4.13 The ECO must:
 - 4.13.1. Keep and maintain a detailed incident register (including any spillages of fuels, chemicals or any other material
 - 4.13.2. Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints.
 - 4.13.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.
 - 4.13.4. Keep copies of all environmental reports submitted to the Department.
 - 4.13.5. Keep the records of all permits, licences and authorisations required by the operation.
 - 4.13.6. Compile a monthly monitoring report and make it available to the Department if requested.
- 4.14 The duties and responsibility of the ECO should not be seen as exempting the holder of the EA from the legal obligations in terms of the NEMA
- 4.15 The footprint of the activity (ies) must be limited on the areas authorised for the actual construction works and operational activities and all areas outside of the footprint must be regarded as a "no go" areas.

- 4.16. Erosion and soil loss must be prevented by minimizing the construction site exposed to surface water run-off. Where necessary erosion stabilizing action such as gabions or re-vegetation must be implemented to prevent further habitat deterioration.
- 4.17. The holder of the EA must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations so as to minimise the risk involved. Records of training and verification of competence must be kept by the holder EA.
- 4.18. In order to prevent nuisance conditions, the holder of the EA must ensure that all storage skips and bins are not overfilled.

5 REPORTING TO THE DEPARTMENT

5.1 The holder of EA must:

- 5.1.1 submit and Environmental Audit Report to this Department biennially and such report must be done by qualified Environmental Assessment Practitioner and must the audit report must specify whether conditions of this environmental authorisation and EMPr/closure plan are adhered to;
 - 5.1.2 identify and assess any new impacts and risks as a result of undertaking the activity/ies, if applicable;
 - 5.1.3 identify shortcomings in the EMPr/closure plan, if applicable;
 - 5.1.4 identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMPr/closure plan;
 - 5.1.5 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate;
 - 5.1.6 specify the name of the auditor and
 - 5.1.7 be submitted by the holder to the competent authority within 30 days from the date on which the auditor finalised the audit.
- 5.2 Should any shortcomings in terms of Regulation 34(4) be identified, the holder must submit recommendation to amend the EMPr/closure plan in order to rectify any shortcomings identified with the aforementioned audit report.
 - 5.3 Any complaint received from the Interested &Affected Parties during all phases of the operation must be attended to as soon as possible and addressed to the satisfaction of all concerned interested and affected parties.
 - 5.4 The holder of the EA must annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.
 - 5.5 The holder of the EA must, within 24 hours of incidents occurring, notify the Competent Authority of the occurrence or detection of any incident on the site, or incidental to the operation of the site, which

has the potential to cause, or has caused pollution of the environment, health risks, nuisance conditions or water pollution.

- 5.6 The holder of the EA must, within 14 days, or a shorter period of time, if specified by the Competent Authority from the occurrence or detection of any incident referred to in condition 5.5, submit an action plan, which must include a detailed time schedule, and resource allocation signed off by top management, to the satisfaction of the Competent Authority of measures taken to –
- 5.6.1.1 Correct the impact resulting from the incident;
- 5.6.1.2 Prevent the incident from causing any further impact; and
- 5.6.1.3 Prevent a recurrence of a similar incident.
- 5.7 In the event that measures have not been implemented within 21 days of the incident referred to in condition 5.6, or measures which have been implemented are inadequate, the Competent Authority may implement the necessary measures at the cost of the holder of the EA.

6. SITE SECURITY AND ACCESS CONTROL

- 6.1 The holder of the EA must ensure effective access control on the site to reasonably prevent unauthorised entry. Signs indicating the risks involved in unauthorised entry must be displayed at each entrance.
- 6.2 Weather proof, durable and legible notices in at least three official languages applicable in the area must be displayed at each entrance to the Site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the holder of the EA and the person responsible for the operation of the site.

7. EMERGENCY PREPAREDNESS PLAN

- 7.1 The holder of the EA must maintain and implement an emergency preparedness plan and review it biennially when conducting audit and after each emergency and or major accident. The plan must, amongst others, include:
- 7.1.1 Site Fire
- 7.1.3 Spillage
- 7.1.3 Natural disasters such as floods
- 7.1.4 Industrial action
- 7.1.5 Contact details of police, ambulances and any emergency centre closer to the site.
- 7.2 The holder of EA must ensure that an up to date emergency register is kept during all phases of the operation. This register must be made available upon request by the department.

8. INVESTIGATIONS

- 8.1 If, in the opinion of the Competent Authority, nuisances or health risks may be or is occurring on the site, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem.
- 8.2 If, in the opinion of the Competent Authority, pollution may be or is occurring, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include the monitoring of the water quality variables, at those monitoring points and such frequency as may be specified by the Competent Authority.
- 8.3 Investigations carried out in terms of conditions 8.1 and 8.2 above must include the monitoring of the relevant environmental pollution, nuisance and health risk variables, at those monitoring points and such frequency to be determined in consultation with the Competent Authority.
- 8.4 Should the investigation carried out as per conditions 8.1 and 8.2 above reveal any unacceptable levels of pollution, the holder of the EA must submit mitigation measures to the satisfaction of the Competent Authority.

9. COMMISSIONING AND DECOMMISSIONING

- 9.1 The commissioning and decommissioning of individual activity within the overall listed Mining activity must take place within the phases and timeframes as set out in EMPr.

10. SITE CLOSURE

- 10.1 The holder of EA must apply for a closure certificate in terms of Section 34 of Mineral and Petroleum Resources Development Act (Act 49 of 2008), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of development.
- 10.2 The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 34 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.
- 10.3 No exotic plants may be used for rehabilitation purposes only indigenous plant can be utilized for rehabilitation purposes.
- 10.4 The holder of EA remains responsible for any environmental liability, pollution or ecological degradation, the pumping and treatment of extraneous water, compliance with the conditions of EA and the management and sustainable closure thereof until the Minister has issued a Closure Certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002). Where necessary the Minister may retain certain portion of financial provision for residual, health or environmental impacts that might be known in future.

11. NEMA PRINCIPLES

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

12. DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

13. RECOMMENDATIONS

In view of the above, the NEMA principles, compliance with the conditions stipulated in this EA, and compliance with the EMP/closure plan, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA, and that any potentially detrimental environmental impacts resulting from the listed activity/ies can be mitigated to acceptable levels. The authorisation is accordingly granted.

Your interest in the future of our environment is appreciated.

Kind Regards


.....
CHIEF DIRECTOR
NORTH WESTERN REGION
MINERAL REGULATION
NORTH-WEST REGIONAL OFFICE
DATE...14/08/2020.....



mineral resources
& energy

Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag A1, KLERKSDORP 2570

Fax No: (018) 487 4394 / Tel No.: (018) 487 4300

Enquiries: T Meregi Reference No. NW 30/5/1/2/3/2/1/358EM

BY HAND

The Manager
Tharisa Minerals (Pty) Ltd
372 Main Road
2nd Floor
The Crossing
Bryanston
2021

Attention: Mr. Patrick Sibuyi

Fax no: (014) 572 0710

AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (NEMA) AS AMENDED, AND THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 IN RESPECT OF THE APPLICATION FOR ENVIRONMENTAL AUTHORISATION TOGETHER WITH A WASTE LICENCE FOR INCREASE STORAGE CAPACITY OF TAILINGS FACILITY AND WASTE ROCK DUMP AND INCREASE THE AUTHORISED FUEL STORAGE CAPACITY IN RESPECT OF FARM ROOIKOPIES JQ 297, ELANDSDRIFT JQ 467 AND KAFFERSKRAAL JQ 342, WITHIN THE MAGISTERIAL DISTRICT OF BOJANALA, NORTH WEST PROVINCE.

With reference to the above-mentioned application, please be advised that the Department has decided to **grant** an amended environmental authorisation in terms of National Environmental Management Act (Act 107 of 1998). The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 4 (2) of the Environmental Impact Assessment Regulations of 2014, you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) calendar days, from the date of the Department's decision in respect of your application and the relevant provisions regarding the lodgement of appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs and a copy of such appeal to the Department of Mineral Resources (North-West Regional Office), within 20 days from the date of notification, and such appeal must be lodged as prescribed in by Chapter 2 of the National Appeal Regulations of 2014, by means of the methods as per prescribed below:

Appeal to the Department of Environmental Affairs

Attention : Directorate Appeals and Legal Review

Email : appeals@environment.gov.za

By post : Private Bag X 447, **PRETORIA**, 0001

By hand : Environmental House, Corner Steve Biko and Soutpansberg Street, Arcadia, **Pretoria**,

0083

Copy of the lodged appeal to the Department of Mineral Resources

Attention : Regional Manager: Klerksdorp Region

By facsimile : (018) 487 4394

E-mail : Phumudzo.Nethwadzi@dmre.gov.za

By post : Private Bag XA1, **KLERKSDORP**, 2570

By hand : Vaal University Building, Cnr Magaretha Prinsloo and Voortreker street, Klerksdorp, **2570**

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected, and a copy of

the official appeal form can be obtained from the Department of Environmental Affairs.

Kind Regards



.....
CHIEF DIRECTOR

NORTH WESTERN REGION

MINERAL REGULATION

NORTH-WEST REGIONAL OFFICE

DATE: 03/08/2021
.....



mineral resources & energy

Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag A1, KLERKSDORP 2570

Fax No: (018) 487 4394 / Tel No.: (018) 487 4300

Enquiries: T Mereg Reference No. NW 30/5/1/2/3/2/1/358EM

AMENDED ENVIRONMENTAL AUTHORISATION

Reference number: NW30/5/1/2/3/2/1/358EM

Holder of authorisation: Tharisa Minerals (Pty) Ltd

Location of activity: Farm Rooikopies JQ 297, Elandsdrift JQ 467 and Kafferskraal JQ 342, within magisterial district of Rustenburg, North West Province.

DECISION

ACRONYMS

NEMA: The National Environmental Management Act, 1998 (Act 107 of 1998), as amended

DEPARTMENT: Department of Mineral Resources.

EA: Environmental Authorisation.

IEA Integrated Environmental Authorisation.

EMPr: Environmental Management Programme

BAR: Basic Assessment Report

S&EIR: Scoping and Environmental Impact Report

I&AP: Interested and Affected Parties

ECO: Environmental Control Officer

SAHRA: South African Heritage Resources Agency

EIA REGULATIONS: EIA Regulations, 2014

MPRDA: Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended

NEM:WA: National Environmental Management: Waste Act, 2008 (Act 59 of 2008),
as amended

EIA: Environmental Impact Assessment

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake **NEMA EIA** listed activity (ies) specified below. Details regarding the basis on which the Department reached this granting decision are set out in **Annexure "1"** and **2** of this environmental authorisation.

ACTIVITY APPLIED FOR

By virtue of the powers conferred on it by NEMA, the Department hereby Grant an application for EA by **Tharisa Minerals (Pty) Ltd** with the following contact details –

Tharisa Minerals (Pty) Ltd

372 Main Road

2nd Floor

The Crossing

Brynston

2021

Attention: Patric Sibuyi

Tel no: (014) 572 0714

Fax no: (014) 572 0710

To undertake the following activities listed in the NEMA EIA Regulation:

GNR 325 OF April 2017

Activity 4

The development and related operation of facilities or infrastructure, for the storage and handling of dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.

Activity 6

The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding- (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies.

The granting of this EA is subject to the conditions set out below (site specific) and in **Annexure 2** (Departmental standard conditions). The Environmental Management Programme (EMPr) attached as part of reports for the above development submitted as part of the application for an EA is hereby approved and must be adhered to throughout the life cycle of the operation.

EA SITE SPECIFIC CONDITIONS

1. All mining activities and associated activities within the mining area must adhere to the mitigation measures and the recommendations indicated in the approved Reports including the Basic Assessment Report for the proposed increase of the storage capacity of the tailings facility and waste rock dump, and the increase of the fuel storage capacity received on the 22nd October 2020.
2. Dust minimisation measures must be put in place to minimise any dust that will be generated during the construction of the increased storage capacity upgrade of of the tailings facility and waste rock dump, and the increase of the fuel storage capacity.
3. Noise from the machineries and the construction activities must be kept at a minimum, in order to minimise noise impact on the any nearby communities.
4. The contactor/s must ensure that no animals are disturbed, trapped, hunted or killed during the construction phase. Conservation-orientated clauses should be built into contracts for construction personnel.

ANNEXURE 1: REASONS FOR THE DECISION

1. Background

Tharisa Minerals (Pty) Ltd holds a Mining Right with reference number **358MR**. Tharisa Minerals has an existing storage facility and waste rock dump and fuel storage facility. They have applied for an increase in the capacity of the mentioned facilities. Potential environmental impact were assessed and mitigation measures were proposed for the above project.

Tharisa Minerals (Pty) Ltd appointed Green Gold Group to undertake the Basic Assessment process as required by the EIA Regulations

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration

-

- a) The information contained in the application form received by the Department on 03rd March 2020 and amended form on the 22 October 2020;
- b) The information contained in the BAR received by the Department on 22 October 2020;
- c) The objectives and requirements of the applicable and relevant legislation, policies and guidelines and the EIA Regulations of 2014;
- d) Public Participation Process (PPP), proof of site notices and newspaper advert attached as part of the BAR Report.

3. Key factors considered in making the decision

All the information presented to the Department was taken into account upon the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance are set out below.

- a) A sufficient Public Participation Process (PPP) was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations R982 for public involvement;

- b) The environmental impacts associated with the proposed activity will be addressed by the implementation of proposed mitigation measures outlined in the Basic Assessment Report compiled by Green Gold Group.

4. Findings

After consideration of the information and factors listed above, the Department made the following findings –

- a) The potential impacts on the proposed site were clearly investigated and mitigation measures outlined.
- b) Public Participation Process complied with Chapter 6 of the EIA Regulations R982. The PPP included, *inter-alia*, the following:
- A newspaper advertisement was placed in the local newspaper Rustenburg Herald ;
 - Notices were placed at the project site;
 - Notices were sent to key stakeholders and the registered interested and affected parties;

ANNEXURE 2: DEPARTMENTAL STANDARD CONDITIONS

1. SCOPE OF AUTHORISATION

- 1.1. The holder of EA shall be responsible for ensuring compliance with the conditions contained in the EA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of EA.

- 1.2. Any changes to, or deviation from the project description set out in this EA must be approved in writing by this Department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the EA to apply for further authorisation in terms of the EIA Regulations.
- 1.3. The activities, which are authorised, may only be carried out at the property (ies) indicated in the EA and or on the approved EMPr.
- 1.4. Where any of the holder of the EA contact details change including name of the responsible person, physical or postal address/ or telephonic details, the holder of the EA must notify the Department as soon as the new details become known to the holder of the EA.
- 1.5. The EA does not negate the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activity (ies).
- 1.6. The holder of EA must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.

2 APPEAL OF AUTHORISATION

- 2.1 The holder of EA must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with EIA Regulation 4(2) do the following:
 - 2.2 Notify all registered I&APs of –
 - 2.2.1 The outcome of the application;
 - 2.2.2. The date of the decision;
 - 2.2.3. The date of issue of the decision and;

2.2.4 The reasons for the decision as included in Annexure 1 and Departmental Standard Conditions in Annexure 2.

2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,

2.4 Draw the attention of all registered I&APs to the manner in which they may access the decision.

2.5 Provide the registered I&APs with:

2.5.1 Name of the holder (entity) of this EA

2.5.2 Name of the responsible person for this EA

2.5.3 Postal address of the holder;

2.5.4 Telephonic and fax details of the holder and

2.5.5 E-mail address of the holder if any.

3 COMMENCEMENT OF THE ACTIVITY (IES)

3.1 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).

3.2 This EA must be provided to the site operator and the requirements thereof must be made fully known to him or her.

3.3 Hauling routes for construction vehicles and machinery must be clearly marked and appropriate signalling must be posted to that effect. Furthermore, movement

of construction vehicles and machinery must be restricted to areas outside of the drainage line or wet areas.

- 3.4 Appropriate notification sign must be erected at the construction site, warning the public (residents, visitors etc.) about the hazard around the construction site and presence of heavy vehicles and machinery.
- 3.5 Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.
- 3.6 Vegetation clearance must be limited on areas where the individual activities will occur, and mitigation measures must be implemented to reduce the risk of erosion and alien species invasion.
- 3.7 The holder of EA must note that in terms of the National Forest Act (Act No.84 of 1998) protected plant species, must not be cut, disturbed, damaged, destroyed and their products must not be possessed, collected, removed, transported, exported, donated, purchased or sold unless permission is granted by the Department of Agriculture, Forestry and fisheries.
- 3.8 Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.
- 3.9 If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.
- 3.10 An integrated waste management approach must be implemented that is based on waste minimization and must incorporate avoidance, reduction, recycling, treat, reuse and disposal where appropriate. Uncontaminated rubble generated on the premises can be re-used as back filling material on site. Ensure that no

refuse or rubble generated on the premises is placed, dumped or deposited on the adjacent properties or public places and open space.

- 3.11 In terms of sections 28 and 30 of NEMA, and sections 19 and 20 of the National Water Act, 1998 (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the EA reads through and understand the legislative requirements pertaining to the project. It is the holder of EA responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.
- 3.12 Construction vehicle must be serviced and maintained in the manner whereby no excessive smokes and noise production is reduced to acceptable levels, and to prevent oil leaks. Contaminated soil must be remediated on site or removed to an authorised landfill site.
- 3.14 Residents (if any) on the property (ies) and surrounding areas must be informed if any unusually noisy activities are planned.
- 3.15. Dust suppression measures must be implemented on all exposed surface to minimize and control airborne dust.
- 3.16 Mixing of cement, concrete, paints, solvent, sealants and adhesive must be done in specified areas on concrete aprons or on protected plastic linings to contain spillage or overflow onto soil to avoid contamination of underground water and environmental damage.
- 3.17 Should any heritage remains be exposed during operation or any actions on the site, these must immediately be reported to the South African Heritage Resource Agency (SAHRA) and or **North West Heritage Resource Agency (NWHRA)** (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the South African Heritage Resource Agency (SAHRA).

Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; middens, indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- 3.18 Care must be taken to ensure that the material and excavated soil required for backfilling are free of contamination from hydrocarbons.
- 3.19 Hydraulic fluid or chemicals required during construction must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. Should any spills occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site permitted of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.
- 3.20 Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works.
- 3.21 The holder of EA must ensure that any water uses listed in terms of Section 21 of National Water Act must get authorization from Department of Water and Sanitation prior to the commencement of such activity (ies).
- 3.22. This EA does not purport to absolve the holder of EA from its common law obligations towards the owner of the surface of land affected.
- 3.23. The holder of EA must ensure that rehabilitation of the disturbed areas caused by operation at all times comply with the approved EMPr.

- 3.24. This EA may be amended or withdrawn at any stage for non-compliance and provides no relief from the provisions of any other relevant statutory or contractual obligations.
- 3.25. The holder of EA must note that in terms Section 43A of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), residue deposit and residue deposit must be deposited and managed in a prescribed manner on any site demarcated for that purpose in the Environmental Management Plan or Environmental Management Programme. No person may temporary or permanently deposits residue stockpile or residue deposit on any area or site other than on site indicated on the Environmental Management Plan or Environmental Management Programme.
- 3.26. The holder of EA must note that in terms Section 20 of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), no person may commence, undertake or conduct a waste management activity, except in accordance, with the requirements of norms and standards determined in terms of Section 19 (3) for that activity or a waste management licence is issued in respect of that activity if licence is required.
- 3.27. An appeal under Section 43 (7) of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended) suspend an EA or exemption or any provisions of conditions attached hereto, or any directive unless the Minister directs otherwise.
- 3.28. Should you be notified by the Minister of a suspension of the authorisation pending appeal procedure, you may not commence with the activity (ies) until such time that the Minister allows you to commence with such activity (ies) in writing.
- 3.29 The Department reserves the right to audit and/or inspect the activity (ies) without prior notification at any reasonable time and at such frequency as may be determined by the Regional Manager.
- 3.30 The waste storage site must have a firm, impermeable, chemical resistant floors and a roof to prevent direct sunlight and rain water from getting in contact with the waste.

- 3.31 The storage of hydrocarbons must have bund walls with adequate capacity to contain the maximum volume that is stored in the area. Uncontaminated storm water must be prevented from coming into contact with the waste and must be diverted away from the storage site.
- 3.32 Subject to the commencement and duration requirements of the MPRDA and NEMA for the listed Mining activity is valid for the period for which the aforesaid Right is granted provided that this activity must commence within 10 years. If the commencement of the proposed activity does not occur within the specified period, the EA lapses and a new application for EA in terms of the NEMA and the EIA Regulations should be made for the activity to be undertaken.
- 3.33. The listed activity (ies), including site preparation, must not commence within 20 (twenty) calendar days of the date of the notification of the decision being sent to the registered I&APs. In the event that an appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is decided.
- 3..34 Should there be any conflicting conditions between this EA and other approval granted by other authorities, it is upon the holder of EA to bring it to the attention of the Department for resolution.

4. MANAGEMENT OF ACTIVITY (IES)

- 4.1 A copy of the EA and EMPr must be kept at the property or on site office where the activity (ies) will be undertaken. The EA and EMPr must be produced to any authorised officials of the Department who request to see it and must be made

available for inspection by any employee or agent of the holder of the EA who works or undertakes work at the property (ies).

- 4.2. The content of the EMPr and its objectives must be made known to all contractors, subcontractors, agent and any other people working on the site, and any updates or amendments to the EMPr must be submitted to the Department for approval.
- 4.4 Regular monitoring and maintenance of storm water drainage facilities must be conducted at all times, if damaged as directed by the Department or any other relevant authority.
- 4.5 A buffer zone of 100 metres between the activity (ies) and the residential areas, cemeteries or burial grounds must be clearly demarcated and maintained.
- 4.6 The holder of the EA must prevent nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards.
- 4.7 The holder of the EA must ensure that all non-recyclable waste are disposed of at waste management facilities licenced to handle such wastes and all recyclable waste are collected by licenced waste management facilities for recycling, reuse or treatment.
- 4.8 The holder of the EA must ensure that all liquid wastes, whose emissions to water or land could cause pollution are diverted to sewer, after testing water quality and receiving written approval from the relevant local authority.
- 4.9 Non-compliance with any condition of this EA or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
- 4.10 Only listed activities that are expressly specified in the EMPr that forms part of this EA may be conducted, and additional or new activities not specified herein must be applied for by the holder and authorised by the competent authority in

the form of an amendment to the aforesaid EMPr before such activities may be commenced with. This condition is also applicable in the case of the amendment, addition, substitution, correction, and removal or updating of any detail in the aforesaid EMPr.

4.11 Rehabilitation of the disturbed surface caused by operation at all times must comply with the approved EMPr.

4.12 The Holder of EA must ensure that the name and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of EA must also ensure that an ECO is always available on site to ensure that activity (ies) at all times comply with the issued EA and approved EMPr.

4.13 The ECO must:

4.13.1. Keep and maintain a detailed incident register (including any spillages of fuels, chemicals or any other material

4.13.2. Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints.

4.13.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.

4.13.4. Keep copies of all environmental reports submitted to the Department.

4.13.5. Keep the records of all permits, licences and authorisations required by the operation.

4.13.6. Compile a monthly monitoring report and make it available to the Department if requested.

4.14 The duties and responsibility of the ECO should not be seen as exempting the holder of the EA

from the legal obligations in terms of the NEMA

- 4.15 The footprint of the activity (ies) must be limited on the areas authorised for the actual construction works and operational activities and all areas outside of the footprint must be regarded as a “no go” areas.
- 4.16. Erosion and soil loss must be prevented by minimizing the construction site exposed to surface water run-off. Where necessary erosion stabilizing action such as gabions or re-vegetation must be implemented to prevent further habitat deterioration.
- 4.17. The holder of the EA must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations so as to minimise the risk involved. Records of training and verification of competence must be kept by the holder EA.
- 4.18. In order to prevent nuisance conditions, the holder of the EA must ensure that all storage skips and bins are not overfilled.

5 REPORTING TO THE DEPARTMENT

5.1 The holder of EA must:

- 5.1.1 submit and Environmental Audit Report to this Department biennially and such report must be done by qualified Environmental Assessment Practitioner and must the audit report must specify whether conditions of this environmental authorisation and EMP/closure plan are adhered to;
- 5.1.2 identify and assess any new impacts and risks as a result of undertaking the activity/ies, if applicable;
- 5.1.3 identify shortcomings in the EMP/closure plan, if applicable;

- 5.1.4 identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMP/closure plan;
- 5.1.5 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate;
- 5.1.6 specify the name of the auditor and
- 5.1.7 be submitted by the holder to the competent authority within 30 days from the date on which the auditor finalised the audit.
- 5.2 Should any shortcomings in terms of Regulation 34(4) be identified, the holder must submit recommendation to amend the EMP/closure plan in order to rectify any shortcomings identified with the aforementioned audit report.
- 5.3 Any complaint received from the Interested & Affected Parties during all phases of the operation must be attended to as soon as possible and addressed to the satisfaction of all concerned interested and affected parties.
- 5.4 The holder of the EA must annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.
- 5.5 The holder of the EA must, within 24 hours of incidents occurring, notify the Competent Authority of the occurrence or detection of any incident on the site, or incidental to the operation of the site, which has the potential to cause, or has caused pollution of the environment, health risks, nuisance conditions or water pollution.
- 5.6 The holder of the EA must, within 14 days, or a shorter period of time, if specified by the Competent Authority from the occurrence or detection of any incident

referred to in condition 5.5, submit an action plan, which must include a detailed time schedule, and resource allocation signed off by top management, to the satisfaction of the Competent Authority of measures taken to –

- 5.6.1.1 Correct the impact resulting from the incident;
- 5.6.1.2 Prevent the incident from causing any further impact; and
- 5.6.1.3 Prevent a recurrence of a similar incident.

5.7 In the event that measures have not been implemented within 21 days of the incident referred to in condition 5.6, or measures which have been implemented are inadequate, the Competent Authority may implement the necessary measures at the cost of the holder of the EA.

6. SITE SECURITY AND ACCESS CONTROL

6.1 The holder of the EA must ensure effective access control on the site to reasonably prevent unauthorised entry. Signs indicating the risks involved in unauthorised entry must be displayed at each entrance.

6.2 Weather proof, durable and legible notices in at least three official languages applicable in the area must be displayed at each entrance to the Site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the holder of the EA and the person responsible for the operation of the site.

7. EMERGENCY PREPAREDNESS PLAN

7.1 The holder of the EA must maintain and implement an emergency preparedness plan and review it biennially when conducting audit and after each emergency and or major accident. The plan must, amongst others, include:

7.1.1 Site Fire

7.1.3 Spillage

7.1.3 Natural disasters such as floods

7.1.4 Industrial action

7.1.5 Contact details of police, ambulances and any emergency centre closer to the site.

7.2 The holder of EA must ensure that an up to date emergency register is kept during all phases of the operation. This register must be made available upon request by the department.

8. INVESTIGATIONS

8.1 If, in the opinion of the Competent Authority, nuisances or health risks may be or is occurring on the site, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem.

8.2 If, in the opinion of the Competent Authority, pollution may be or is occurring, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include the monitoring of the water quality variables, at those monitoring points and such frequency as may

be specified by the Competent Authority.

8.3 Investigations carried out in terms of conditions 8.1 and 8.2 above must include the monitoring of the relevant environmental pollution, nuisance and health risk variables, at those monitoring points and such frequency to be determined in consultation with the Competent Authority.

8.4. Should the investigation carried out as per conditions 8.1 and 8.2 above reveal any unacceptable levels of pollution, the holder of the EA must submit mitigation measures to the satisfaction of the Competent Authority.

9. COMMISSIONING AND DECOMMISSIONING

9.1 The commissioning and decommissioning of individual activity within the overall listed Mining activity must take place within the phases and timeframes as set out in EMPr.

10. SITE CLOSURE

10.1 The holder of EA must apply for a closure certificate in terms of Section 34 of Mineral and Petroleum Resources Development Act (Act 49 of 2008), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of development.

10.2 The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 34 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.

10.3 No exotic plants may be used for rehabilitation purposes only indigenous plant can be utilized for rehabilitation purposes.

10.4 The holder of EA remains responsible for any environmental liability, pollution or ecological degradation, the pumping and treatment of extraneous water, compliance with the conditions of EA and the management and sustainable closure thereof until the Minister has issued a Closure Certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002). Where necessary the Minister may retain certain portion of financial provision for residual, health or environmental impacts that might be known in future.

11. NEMA PRINCIPLES

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

12. DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

13. RECOMMENDATIONS

In view of the above, the NEMA principles, compliance with the conditions stipulated in this EA, and compliance with the EMP/closure plan, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA, and that any potentially detrimental environmental impacts resulting from the listed activity/ies can be mitigated to acceptable levels. The authorisation is accordingly granted.

Your interest in the future of our environment is appreciated.

Kind Regards



.....
CHIEF DIRECTOR

NORTH WESTERN REGION

MINERAL REGULATION

NORTH-WEST REGIONAL OFFICE

DATE..03/08/2021.....



mineral resources & energy

Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Directorate: Mineral Regulation: North West Region
Private Bag A1, Klerksdorp, 2570 Cnr Margaretha Prinsloo & Voortrekker Streets
Vaal University of Technology Building, Klerksdorp, 2571

Enquiries: Mr. Christopher Tshisevhe **Tel:** (018) 487 4300 **Fax:** (018) 487 4350
E-Mail: chris.tshisevhe@dmre.gov.za **Ref:** NW 30/5/1/2/3/2/1/ (358) EM

BY HAND

Attention: Derek Ivan Baker
Tharisa Minerals (Pty) Ltd
Postnet Suite 473
Private Bag X51
BRYANSTON
2120

Cell: 084 455 7044
Tel No: (014) 572 0714
Fax No: (014) 572 0710

RECTIFICATION OF UNLAWFUL COMMENCEMENT WITH A LISTED ACTIVITY AS CONTEMPLATED IN SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AS AMENDED LISTING NOTICE 1 ACTIVITY NUMBER 14 "THE DEVELOPMENT AND RELATED OPERATION OF FACILITIES OR INFRASTRUCTURE, FOR THE STORAGE, OR FOR THE STORAGE AND HANDLING, OF A DANGEROUS GOOD, WHERE SUCH STORAGE OCCURS IN CONTAINERS WITH A COMBINED CAPACITY OF 80 CUBIC METRES OR MORE BUT NOT EXCEEDING 500 CUBIC METRES".

Your application in terms of section 24G of the National Environmental Management Act, 1998 (Act No.107 of 1998) (as amended) submitted for the authorisation in respect of the diesel storage facilities (listed activity number 14 in GNR 327 of 07 April 2017) has reference.

This Department has evaluated the report received and has considered your application. By virtue of power vested in me in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) I, **Samson Gwede Mantashe** hereby rectify and authorised "the development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres" in terms of section 24G (2) (b) of the said Act (the above ground diesel storage tanks 4, 5 & 6).

In terms of regulation 4(2) of the Environmental Impact Assessment Regulations, 2014 as amended, you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) **calendar days, from the date of the Department's** decision in respect of your application and the relevant provisions regarding the lodgement of appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of this decision, you must submit the appeal to the Minister of the Department of Environment, Forestry and Fisheries and a copy of such appeal to the Department of Mineral Resources & Energy (North West Regional Office) within 20 days from the date of notification and such appeal must be lodged as prescribed in terms of Chapter 2 of the National Appeal Regulations of 2014, by means of the methods as prescribed below:

Appeal to the Department of Environment, Forestry and Fisheries

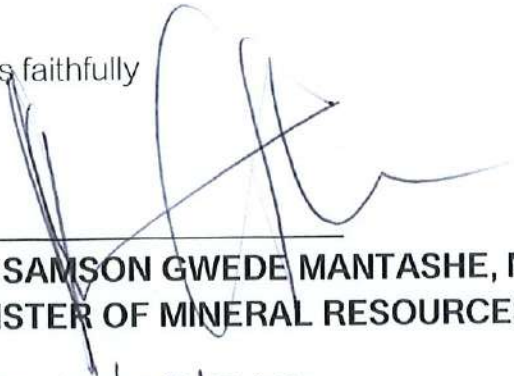
Attention : Directorate Appeals and Legal Review
Email : appeals@environment.gov.za
By post : Private Bag X 447, **PRETORIA**, 0001
By hand : Environmental House, Corner Steve Biko and Soutpansberg Street, Arcadia, **PRETORIA**, 0083

Copy of the lodged appeal to the Department of Mineral Resources & Energy

Attention : Regional Manager: North West Region
By facsimile : (018) 487 4350
E-mail : Phumudzo.nethwadzi@dmre.gov.za
By post : Private Bag A1, Klerksdorp, 2570
By hand : Vaal University of Technology Building, Cnr Margareth Prinsloo & Voortrekker Street, Klerksdorp, 2570

Should you decide to appeal, you must comply with the National Appeal Regulations of 2014 in relation to notification of all registered interested and affected, and a copy of the official appeal form can be obtained from the Department of Environment, Forestry and Fisheries.

Yours faithfully



**MR. SAMSON GWEDE MANTASHE, MP
MINISTER OF MINERAL RESOURCES & ENERGY**

DATE...10/08/2021.....



mineral resources & energy

Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

ENVIRONMENTAL AUTHORISATION

DECISION IN TERMS OF SECTION 24G (2) (b) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AS AMENDED WITH REGARD TO THE UNDERTAKING OF THE ACTIVITY LISTED UNDER LISTING NOTICE 1 ACTIVITY NUMBER 14 DESCRIBED BELOW BY GOVERNMENT NOTICE NO.327 OF 07 APRIL 2017 AS AMENDED.

1. REFERENCE NUMBER:

NW 30/5/1/2/3/2/1/ (358) EM

2. APPLICANT:

Name: Tharisa Minerals (Pty) Ltd

Address: Postnet Suite 473
Private Bag X51
BRYANSTON
2120

Contact person: Derek Ivan Baker

Telephone: (014) 572 0714

Fax: (014) 572 0710

3. CONSULTANT:

Name: Green Gold Group (Pty) Ltd

Address: P.O. Box 65384
ERASMUSRAND
0165

Contact person: Lebogang Moiloa

Telephone: (012) 000 2562/ 073 232 4312

Fax: (086) 510 7306

4. BRIEF DESCRIPTION OF THE ACTIVITY:

4.1 Tharisa Minerals (Pty) Ltd has applied for the following listed activity:

Listing notice 1 activity number 14 "the development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres".

4.2 The development entails existing above diesel storage tanks 4, 5 & 6 with the storage capacity of 287m³).

5. LOCATION OF DEVELOPMENT:

5.1 Province: North West

5.2 Magisterial District: Rustenburg

5.3 Name of the Property: Portions 148, 184 and 289 of the farms Kafferskral 342 JO and Rooikoppies 297 JQ

5.4 Extent of property: 162m²

6. SITE VISIT:

Date conducted: 18 September 2019

Persons Present: Mr. Christopher Tshisevhe from the Department of Mineral Resources & Energy, Ms. Basetsana Motha from Green Gold Group Mr. Patrick Sibuyi from Tharisa Minerals (Pty) Ltd.

7. DOCUMENTS ASSESSED:

7.1 Application form

7.2 Section 24G Declaration of NEMA Contravention

7.3 Tharisa Minerals (Pty) Ltd Impact Assessment Report on diesel storage facilities.

8. DECISION:

The environmental authorisation is granted for the activity listed in section 24G of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended subject to the following conditions:

8.1 SPECIFIC CONDITION:

The following restriction and conditions are imposed on the development:

- 8.1.1** An environmental manager/control officer must ensure that all conditions stipulated in this authorisation and mitigation measures contained in the submitted report (dated October 2020) are complied with. Any alteration to the Impact Assessment Report is subject to the approval by this Department.
- 8.1.2** The contents of the approved Impact Assessment Report must be made known to personnel, contractors and sub-contractors association with this project. The holder must ensure that the contents of the Impact Assessment Report is explained to, and understood by, all personnel, contractors and sub-contractors association with this project.
- 8.1.3** Mitigation measures and recommendations in this authorisation as well as the Impact Assessment Report are a legal binding component of the entire activity and they are legally enforceable.
- 8.1.4** An integrated waste management approach that is based on best practices which incorporate avoidance, reduction, recycling, treatment, reuse, and disposal where appropriate must be used. Any solid waste must be disposed of at a landfill site, licensed in terms provision of the National Environmental Management Waste Act, 2008 (Act No. 56 of 2008).
- 8.1.5** All conditions determined and/or to be determined by the Department of Human Settlement, Water and Sanitation regarding storm water runoff must be adhered to.
- 8.1.6** The holder this authorisation must as soon as reasonable possible attend to any complaint received from the public during the operation of this project. A complaint register must be kept up to date and must be forwarded to this Department if so requested.

8.2 STANDARD CONDITIONS:

- 8.2.1** This authorisation is granted only in terms of section 24G (2) (b) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) and does not exempt the holder thereof from compliance with any other legislations.
- 8.2.2** The holder of this authorisation must annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
- 8.2.3** This authorisation refers only to the activity as specified and described above. Any other activity listed under section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) and which is not specified above, is not covered by this authorisation, and must therefore comply with the requirement of the National Environmental Management Act, 1998 and the regulations promulgated in terms of this law.
- 8.2.4** The conditions of this authorisation must be brought to the attention of all persons (employees, sub-contractors, contractors, etc) associated with the undertaking of this activity. The holder must also take necessary measures to bind such persons to these conditions. The holder must carry out regular environmental audits to establish compliance with the conditions of this authorisation.
- 8.2.5** The holder must notify this Department in writing, within 24 hours, if any condition of this authorisation is not complied with.
- 8.2.6** Any changes to, or deviation from the project description set out in this authorisation must be approved in writing by this Department before such changes or deviation may be done. In assessing whether to grant such approval or not, the Department may request such information as is deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the section 24 of the National Environmental Management Act, 1998 and its associated regulations.
- 8.2.7** Where any of the contact details changes including name of the responsible person, physical or postal address/ or telephonic details, the holder of the authorisation must notify the Department as soon as the new details become known to the holder.
- 8.2.8** The holder this authorisation must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.

8.2.9 The holder this authorisation must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with regulation 4(2) of the EIA Regulations, 2014 must notify all registered I&APs of –

8.2.9.1 The outcome of the application.

8.2.9.2 The date of the decision.

8.2.9.3 The date of issue of the decision.

8.2.10 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations.

8.2.11 Draw the attention of all registered I&APs to the manner in which they may access the decision.

8.2.12 This Department may add, change and/or amend any of the condition in this authorisation if, in the opinion of the department, the addition, change or amendment is environmental justified.

9. COMMENCEMENT OF THE ACTIVITIES

9.1 Appropriate notification sign must be erected at the facility warning the public (residents, visitors etc.) about the hazard around the facility and presence of heavy vehicles and machinery.

9.2 In terms of sections 28 and 30 of NEMA, and sections 19 and 20 of the National Water Act, 1998 (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the authorisation reads through and understand the legislative requirements pertaining to the project. It is the holder's responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.

9.3 Dust suppression measures must be implemented on all exposed surface to minimize and control airborne dust.

9.4 Should any hydraulic fluid or chemicals spills occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site permitted of such waste. The regional office of the Department of Human Settlement, Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.

9.5 The Department reserves the right to audit and/or inspect the activities without prior notification at any reasonable time and at such frequency as may be determined by the Minister or Regional Manager or any other authorised officials.

9.6 Should there be any conflicting conditions between this environmental authorisation, and other approval granted by other competent authorities, it is upon the holder this authorisation to bring it to the attention of the Department for resolution.

10. MANAGEMENT OF ACTIVITIES

10.1 A copy of the Impact Assessment Report must be kept at the property or site offices where the activities are located. The Impact Assessment Report must be produced to any authorised officials of the Department who request to see it and must be made available for inspection by any employee or agent of the holder of the environmental authorisation who works or undertakes work at the properties.

10.2 The holder of the environmental authorisation must prevent nuisance conditions, health hazards and the potential creation of nuisance conditions or health hazards.

10.3 The holder of the environmental authorisation must ensure that all non-recyclable waste is disposed of at waste management facilities licensed to handle such wastes and all recyclable waste are collected by licensed waste management facilities for recycling, reuse or treatment.

10.4 Non-compliance with any condition of this environmental authorisation may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.

10.5 Rehabilitation of the disturbed surface caused by operation at all times must comply with the approved Impact Assessment Report.

10.6 The holder of the environmental authorisation must ensure that the name and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of the environmental authorisation must also ensure that an ECO is always available on site to ensure that activities at all times comply with the issued environmental authorisation and approved Impact Assessment Report.

10.7 The ECO must:

10.7.1 Keep and maintain a detailed incidents register (including any spillages of fuels, chemicals or any other material.

10.7.2 Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints.

10.7.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.

10.7.4 Keep copies of all environmental reports submitted to the Department.

- 10.7.5** Keep the records of all permits, licences and authorisations required by the operation.
- 10.7.6** Compile a monthly monitoring report and make it available to the Department if requested.
- 10.8** The duties and responsibility of the ECO should not be seen as exempting the holder of the environmental authorisation from the legal obligations in terms of the NEMA: EIA Regulations, 2014.
- 10.9** The holder of this authorisation must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations to minimise the risk involved. Records of training and verification of competence must be kept by the holder of the environmental authorisation.
- 10.10** To prevent nuisance conditions, the holder of this authorisation must ensure that all storage skips and bins are not overfilled.

11. EMERGENCY PREPAREDNESS PLAN

11.1 The holder of this authorisation must maintain and implement an emergency preparedness plan and review it biennially when conducting audit and after each emergency and or major accident. The plan must, amongst others, include:

11.1.1 Site Fire

11.1.2 Spillage

11.1.3 Natural disasters such as floods

11.1.4 Industrial action

11.1.5 Contact details of police, ambulances and any emergency center closer to the site.

11.2 The holder of this authorisation must ensure that an up to date emergency register is kept during all phases of the operation. This register must be made available upon request by the Department.

12. INVESTIGATIONS

12.1 If, in the opinion of the Competent Authority, nuisances or health risks may be or is occurring on the site, the holder of this authorisation must initiate an investigation into the cause of the problem or suspected problem.

12.2 If, in the opinion of the Competent Authority, pollution may be or is occurring, the holder of this authorisation must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include the monitoring of the water quality variables, at those monitoring points and such frequency as may be specified by the Competent Authority.

12.3 Investigations carried out in terms of conditions 12.1 and 12.2 above must include the monitoring of the relevant environmental pollution, nuisance and health risk variables, at those monitoring points and such frequency to be determined in consultation with the Competent Authority.

12.4 Should the investigation carried out as per conditions 12.1 and 12.2 above reveal any unacceptable levels of pollution, the holder of this authorisation must submit mitigation measures to the satisfaction of the Competent Authority.

13. SITE CLOSURE

13.1 The holder of this authorisation must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002) as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of development.

13.2 The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act, 2002 (Act No.28 of 2002) as amended.

13.3 The holder of this authorisation remains responsible for any environmental liability, pollution or ecological degradation, compliance with the conditions of environmental authorisation and the management and sustainable closure thereof until the Minister has issued a Closure Certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002) as amended. Where necessary the Minister may retain certain portion of financial provision for residual, health or environmental impacts that might be known in future.

13.4 No exotic plants may be used for rehabilitation purposes, only indigenous plant can be utilized for rehabilitation purposes.

14. NEMA PRINCIPLES

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and

- the selection of the best practicable environmental option.

15. DISCLAIMER

The Department of Mineral Resources & Energy in terms of the conditions of this environmental authorisation shall not be held responsible for any damages or losses suffered by the holder of the environmental authorisation, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

16. RECOMMENDATIONS

In view of the above, the NEMA principles, compliance with the conditions stipulated in this authorisation, and compliance with the Impact Assessment /closure plan, the competent authority is satisfied that the proposed listed activity will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No.107 of 1998) as amended and that any potentially detrimental environmental impacts resulting from these activities can be mitigated to acceptable levels. The authorisation is accordingly granted.

Your interest in the future of our environment is appreciated.

Kind Regards



MR. SAMSON GWEDE MANTASHE, MP
MINISTER OF MINERAL RESOURCES & ENERGY

DATE...10/08/2021.....



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Schoeman Street, Pretoria
Tel: (012) 336-7500, Fax: (012) 326-4472/ (012) 326-2715

AMENDMENT IN TERMS OF SECTION 50 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998 (THE ACT))

I, **Trevor Balzer**, in my capacity as Acting Director-General in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Human Settlements, Water and Sanitation, hereby authorises the following water uses in respect of this licence.

SIGNED: _____

DATE: _____

12/11/2020

LICENCE NO: 03/A21K/ABCGIJ/1468

FILE NO: 16/2/7/A210/C497

1. **Licensee:** Tharisa Minerals (Pty) Ltd
Postal Address: Postnet Suite 473
Private Bag X51
BRYNSTON
2021

2. Water Uses

- 2.1 Section 21(a) of the Act: Taking of water from a water resource, subject to the conditions set out in Appendices (I) and (II)
- 2.2 Section 21(b) of the Act: Storage of water, subject to the conditions set out in appendices (I) and (III)
- 2.3 Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse, subject to the conditions set out in Appendices (I) and (IV)
- 2.4 Section 21(i) of the Act: Altering the bed, banks or the characteristics of a water course, subject to the conditions set out in Appendices (I) and (IV)

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- 2.5 Section 21(g) of the Act: Disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource, subject to the conditions as set out in Appendices (I) and (V)
- 2.6 Section 21(j) of the Act: Removing, discharging or disposing of water found underground, subject to the conditions set out in Appendices (I) and (VI)

3. Properties on which the water use (s) will be exercised

- 3.1 Section 21(a) of the Act: Kafferskraal 342JQ (Various Portions)
- 3.2 Section 21(b) of the Act: Kafferskraal 342JQ (Various Portions)
- 3.3 Section 21(c) of the Act: Elandsdrift 467JQ (Various portions) & Kafferskraal 342 JQ (Various portion)
- 3.4 Section 21(g) of the Act: Kafferskraal 342JQ (Various portions) & Elandsdrift 467 JQ
- 3.5 Section 21(i) of the Act: Kafferskraal 342 JQ (Various Portions)
- 3.6 Section 21(j) of the Act: Kafferskraal 342 JQ (Various Portions)

4. Registered owners of the Properties

Tharisa Minerals (Pty) Ltd

5. Licence and Review Period

This Licence is valid for a period of twelve (20) years from the date of issuance and it may be reviewed at intervals of more than (5) years.

6. Definitions

Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence.

"The Regional Head" means the Regional Chief Director: North West, Department of Water and Sanitation, Private Bag X357, Hartbeespoort, 0216.

"Report" refers to the report titled:

- *"Integrated Water and Waste Management Plan for a Proposed Platinum Group Metals dated June 2009;*
- *Tharisa Minerals Integrated Waste and Water Management Plan-Addendum dated June 2010;*
- *Water Use Licence Application Forms dated January 2009;*
- *Environmental Impact Assessment and Environmental Management Programme dated June 2008 and*
- *Groundwater investigation for Tharisa Minerals as compiled by Metago for Tharisa Minerals, which were and still are relevant for the application finalized in 2010 and the following reports for the current amendment:*
- *EIA and management programme report, compiled by SLR global environmental solutions dated September 2014;*
- *Socio-economic impact assessment report by Green gold group (Pty) Ltd, dated 28/08/2017;*
- *Integrated water and waste management plan by MSA group, dated august 2017;*



- *Water course rehabilitation and management program by MSA, date April 2016;*
- *Engineering drawings to support amendment application (detailed design of the tailings storage facilities and associated infrastructure, by Epoch, dated February 2013;*
- *Storm water management plan, compiled by LMJ dated August 2017;*
- *Storm water management plan Feasibility study compiled by LMJ, dated August 2017;*
- *Storm water management plan design drawings, compiled by LMJ, dated 01 September 2017;*
- *Tharisa Platinum Group Metal and Chrome Mine Waste Type Assessment, compiled by SLR Global Environmental, dated January 2016;*
- *MCC Dam Inspection Report, compiled by Epoch, dated 31 August 2016;*
- *Stream crossing design drawings, by MVW Consulting Engineers, with no date;*
- *Public consultation report, compiled by MSA, dated August 2016;*
- *Tharisa Minerals Water balance compiled by MSA Group, dated 30 September 2016;*
- *Geohydrological study report, compiled by SLR Global Environmental Solutions, dated September 2016;*
- *Sewage treatment plant design drawings, compiled by MSA, dated 30 September 2016;*
- *Annual water quality Assessment report, April 2015 to march 2016, compiled by MSA, dated 30 September 2016 as well as all other related documentations and communication (emails, letters, verbal, etc) related thereto.*

7. **Brief description of the Project**

This licence authorizes the taking of two hundred and thirty eight thousand two hundred and fifty four cubic meters per annum (238 254 m³/a) for domestic purpose from different boreholes. This licence also authorizes the taking of two million forty thousand seven hundred and thirty seven cubic meters per annum (2 040 737 m³/a) for production process from various boreholes and mining pits. This licence also authorizes the storing of water on SLP dam, Zink dam and Raw water dam with maximum storage capacity of forty nine thousand cubic meters (49 000 m³); twelve thousand cubic meters (12 000 m³) and forty five thousand cubic meters (45 000 m³) respectively. This licence also authorizes the altering and impeding the unnamed tributary of the Sterkstroom. This licence also authorizes the disposal of waste water and waste into different dirty water and waste storage facilities. This licence also authorizes the dewatering of water for safety and for continuing mining the pits.

**APPENDIX I
GENERAL CONDITIONS FOR THE LICENCE**

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Regional Head of any change of name, address, premises and/or legal status.
4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Regional Head of the Department within 60 days of the said change taking place.
5. The Licensee shall be responsible for any water use charges or levies imposed by a Regional Head.
- ~~6. If a water-user association is established in the area to manage the resource, membership of the Licensee is compulsory.~~
7. The licence shall not be construed as exempting the Licensee from compliance with the provisions any other applicable Act, Ordinance, Regulation or By-law.
8. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
10. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this licence and a report on the audit shall be submitted to the Regional Head within one month of finalisation of the report.
11. Flow metering, recording and integrating devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates shall be available for inspection by the Regional Head or his representative upon request.
12. Any incident that causes or may cause water pollution shall be reported to the Regional Head or his/her designated representative within 24 hours.
13. The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders with respect to Water Conservation/Water Demand Management initiatives.
14. The Licensee is exempted to comply with GN 704 for the following activities:
 - West 1 Waste rock dump, Access road & security fence
 - Toe of the West pit - top soil stock pile high wall
15. This licence supersedes the licence issued to the Tharisa Minerals (Pty) Ltd, issued on 16/07/2012 with the licence No. 03/A21K/ABCGIJ/1468.



APPENDIX II

Section 21 (a) of the Act: Taking water from a water resource

1 This licence authorises the taking of water as follows:

1.1 This licence authorises the taking of a maximum quantities of water from the properties and geographical positions as shown on Table 1.

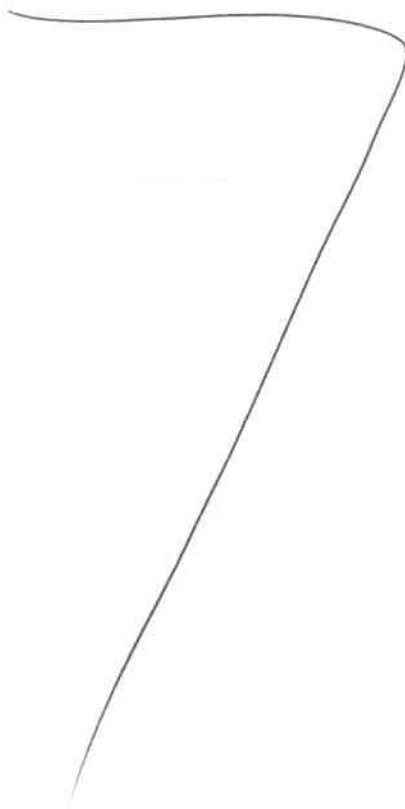
Table 1: taking of water from underground

Farm Name	Water Use Description	purpose	Volume (m ³ /a dimensions (m)/ capacity (m ³)	Location
Kafferskraal 342JQ 346	Taking groundwater from TP4/Braam 4 borehole	Domestic purposes	119 522	25°44'31.53"S 27° 29'18,91"E
Kafferskraal 342 JQ 289	Taking groundwater from Hardpark 5 borehole	Domestic purposes	5 204	25°44'31.9"S 27° 30'05.4"E
Kafferskraal 342 JQ 289	Taking groundwater from Hardpark 4 borehole	Domestic purposes	91 454	25°44'28.1"S 27° 30'10.4"E
Kafferskraal 342 JQ 240	Taking groundwater from Security 1 borehole	Domestic purposes	6 781	25°44'23.5"S 27° 29'25.9"E
Kafferskraal 342 JQ 297	Taking groundwater from Security 2 borehole	Domestic purposes	2 679	25°44'27.7"S 27° 29'30.8"E
Kafferskraal 342 JQ, 289	Taking groundwater from Hardpark 6 borehole	Domestic purposes	12 614	25°44'22.7"S 27° 30'09.3"E
Total for domestic purposes			238 254	
Kafferskraal 342 JQ, ptn 317	Taking groundwater from groundwater- Carpark	To take water to be used in the production process	4 098	25° 44'29.9S 27° 29'37.3"E

Farm Name	Water Use Description	purpose	Volume (m ³ /a dimensions (m)/ capacity (m ³)	Location
Kafferskraal 342 JQ 240	Taking groundwater from Dissipator 1 borehole	To take water to be used in the production process	10 880	25°44'22.4"S 27° 30'15.8"E
Kafferskraal 342 JQ, 184	Taking groundwater from Hardpark 1 borehole	Taking water to be used in the production process	5 204	25°44'22.7"S 27°30'09.04"E
Kafferskraal 342 JQ 184	Taking groundwater from Dissipator 2 borehole	To take water to be used in the production process	10 723	25°44'20.9"S 27° 30'15.2"E
Kafferskraal 342 JQ 318	Taking groundwater from Mmaditlokwa borehole	For irrigation at Mmaditlokwa community project	21 918	25°43'53.2"S 27° 28'11.0"E
Elandsdrift 467 JQ, ptn 75	Taking water from Samancor borehole	To take water to be used in the production process	420 374	25° 43'29.0"S 27°31'13.5"E
Kafferskraal 342 JQ, ptn 96, 138, 151, 152, 183, 218, 220	Taking water from east mine pit	To take water to be used in the production process	1 354 034	25° 43' .59.3"S 27° 30' 06.6"E
Kafferskraal 342 JQ, ptn 15, 16, 25,26, 27,28, 29, 40, 47, 48, 74, 114, 116, 120, 119, 191, 205, 259, 283, 286, 329, 357, 358	Taking groundwater from a west pit	To take water to be used in the production process	207 199	25° 44'01.6"S 27° 28'39.9"E
Kafferskraal	Taking	To take water to	6307.2	25°44'22.9"S

Farm Name	Water Use Description	purpose	Volume (m ³ /a dimensions (m)/ capacity (m ³)	Location
342 JQ 184	groundwater from Hardpark 2 borehole	be used in the production process		27° 30'07.01"E
Total for mining production process			2 040 737	
Total			2 278 991	

- 1.2 The quantity of water authorised to be taken in terms of this may not be exceeded without prior authorisation by the Minister.
- 1.3 This licence does not imply any guarantee that the said quantities and qualities of water will be available at present or at any time in the future.
- 1.4 The abovementioned volume may be reduced when the licence is reviewed.
- 1.5 The Licensee shall be responsible for any water use charges or levies, which may be imposed from time to time by the Department or responsible authority in terms of the Department's Raw Water Pricing Strategy.
- 1.6 The Licensee shall ensure that neighbouring groundwater users are provided with water should there be any impact occurring as a result of dewatering or abstraction from underground.



APPENDIX III
Section 21 (b) of the Act: Storing of water

1. STORING OF WATER

1.1 The Licensee is authorised to store water on following facilities, properties and geographical positions as shown in Table 2:

Table 2: Raw water storage dams

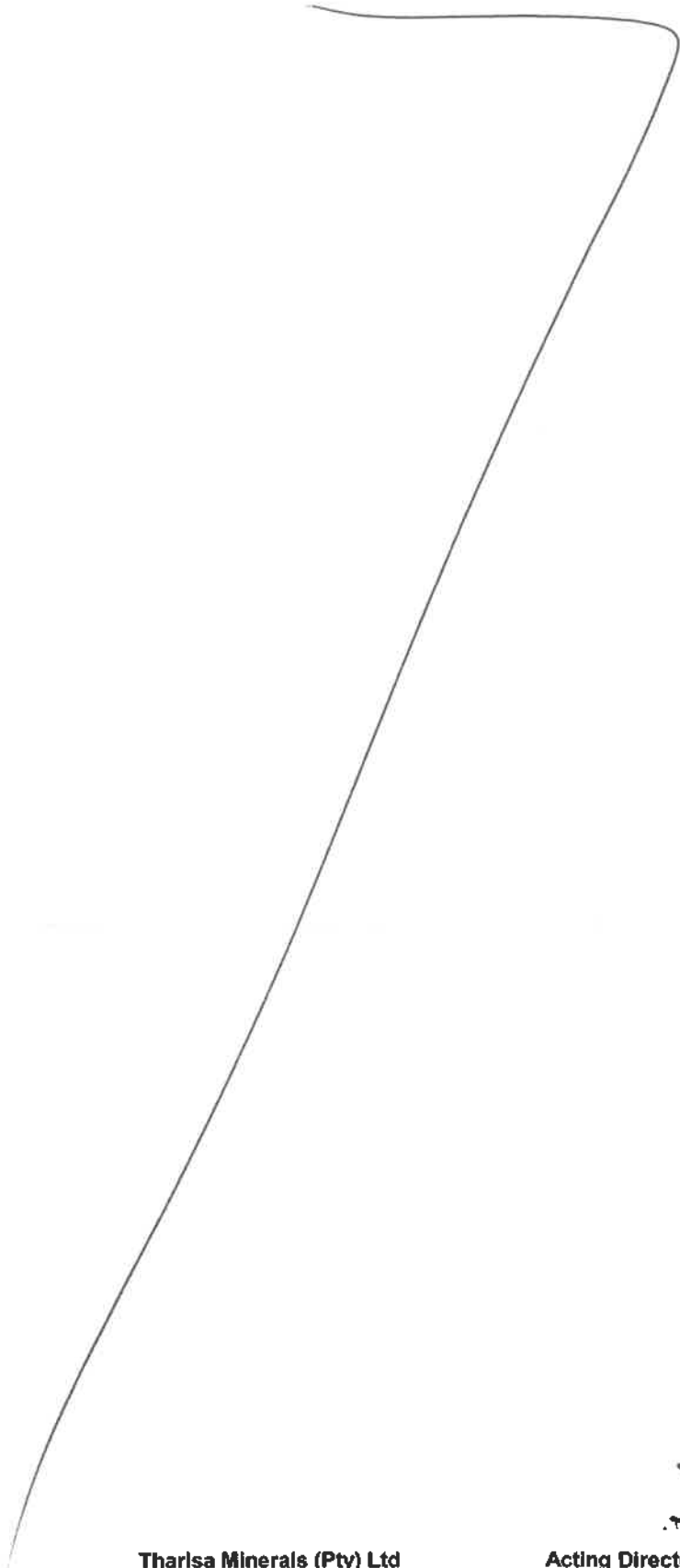
Property	Description	Purpose	Capacity (m ³)	Coordinates
Kafferskraal 342 JQ, ptn 240	Storage of water on a Raw water dam	To use in a production process	45 000	25°44'48.4"S 27° 30'8.9"E
Kafferskraal 342 JQ, SLP	Storage of water on an SLP dam	For storing of water to be supplied to the community and storing water from the boreholes (Braam 4)	49 000	25°44'33.2"S 27° 29'34.9"E
Kafferskraal 342 JQ	Storage of water on a zink dam from boreholes	For processing purpose	12 000	25°44'24.7"S 27° 29'36.7"E

- 1.2 The Licensee must obtain any proprietary rights or servitudes at their own cost.
- 1.3 The Licensee is not exempted from compliance with any applicable Dam Safety Regulations.

2. MONITORING REQUIREMENTS

- 2.1 The Licensee is not indemnified from any detrimental effect that the dam(s) may have on other properties. The Department does not accept any responsibility or liability for any ~~damages or losses that may be suffered~~ by any other party as a result of the construction of the dams.
- 2.2 Suitable measuring structures must be constructed up stream and down stream of the dams to measure the flow entering and leaving the dams and this information must be available on request.
- 2.3 The Licensee shall establish a monitoring programme and the date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis as well as other significant information (low flow, flooding, pollution incident, etc.).
- 2.4 The quantity of water stored shall be recorded as at the last day of each month.
- 2.5 The Licensee shall consider whether the safety norms pertaining to the design, construction, monitoring, operation, performance and maintenance of the dam satisfy acceptable dam engineering practices.

2.6 The Licensee must compile a report on the matters contemplated above according to the prescribed requirements and submit the signed and dated report to Regional Head on quarterly basis



APPENDIX IV

Section 21 (c) of the Act: Impeding or diverting the flow of water in a watercourse

Section 21 (i) of the Act: Altering the bed, banks, course or characteristic of a watercourse

1. CONSTRUCTION, OPERATION AND MAINTENANCE

1.1 This licence authorises the Section 21(c) and (i) water use activities as set out in Table 3 and in the water use licence application reports submitted to the Department or the Responsible Authority (refer condition 1.2):

Table 3: Impeding and altering structures

Ref no	Property description	Activities	Purpose	Dimensions	Coordinates
C-1	Elandsdrift 467JQ, ptn, 29, 92,94,176, 177, 113 & 114	Diverting stream around tailings dam complex	For the purpose of separating clean and dirty water	H= 5m W= 5m L= 1.1km	S 25°43' 45.00" E27° 30' 57.51"
I-1	Elandsdrift 467JQ, ptn, 29, 92,94,176, 177, 113 & 114	Diverting stream around tailings dam complex	For the purpose of separating clean and dirty water	H= 5m W= 5m L= 1.1km	S 25°14' 53.52" E27° 30' 35.64"
I-2	Kafferskraal 342 JQ	Altering the headwaters of the non-perennial tributary of Sterkspruit by means of Tailings facility	Mining process	L= 500m	S25°44'16.9" E27°29'15.0"
I-3	Kafferskraal 342 JQ ptn 186	River crossing (culvert) over a tributary of Sterkstroom River	To allow mining machineries to cross over	H= 1.85 W=12.9 L=20	25°44'16.9"S 27° 29'15.0"E
I-4	Kafferkraal 342 JQ Ptn 219	Altering the banks of the eastern tributary of the Sterkstroom	Stockpiling top soil	L = 500m	S25° 44'08.52" E27°30'00.00"
I-5	Kafferkraal 342 JQ Ptn 135, 138, 151,152,183,184, 218, 219, 220, 283 & 285	Altering the head water of the eastern tributary	Open cast mining on the eastern pit (waste rock dump)	L = 613m	S25°44'11.04" E27°29'46.03"

I-6	Kafferkraal 342 JQ Ptn 9, 29, 13, 41, 47, 48, 90, 91, 117, 190, 335, 336, 357, 358	Altering the banks of the western tributary of the Sterkstroom	Open cast at the western pit (Waste rock dump)	L = 551m	S25° 43'54.0" E27° 28'26.0"
I-7	Kafferkraal 342 JQ Ptn 303	Altering headwaters of the western stream 2	Topsoil stockpiling	L= 182m	S27° 43'52.32 E25° 28 05.88

1.2 The Licensee shall carry out and complete all the activities according to the following:

- 1.2.1 Report(s) submitted to the Department or the Regional Head
- 1.2.2 Conditions of this licence; and
- 1.2.3 Any other written direction issued by the Regional Head in relation to this licence.

1.3 No activity must take place within the 1:100 year flood line or the delineated riparian habitat, whichever is the greatest, or within 500m radius from the boundary of any wetland unless authorised by this licence.

1.4 The conditions of the authorisation must be brought to the attention of all persons (employees, sub-consultants, contractors etc.) associated with the undertaking of these activities and the Licensee must take such measures that are necessary to bind such persons to the conditions of this licence.

1.5 A copy of the water use licence and reports set out under condition 1.2 of Appendix IV above must be on site at all times.

1.6 A suitably qualified person(s), appointed by the Licensee, and approved in writing by the Regional Head must be responsible for ensuring that the activities are undertaken in compliance with the specifications as set out in reports submitted to the Department or the Regional Head and the conditions of this licence.

2 PROTECTIVE MEASURES

2.1 Storm Water Management

2.1.1 Storm water management practices must be constructed, operated and maintained in a sustainable manner throughout the project and for the water use activities set out in condition 1.1 of Appendix VI and must include but are not limited to the following:

2.1.1.1 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the watercourse(s);

2.1.1.2 Storm water must be diverted from open cast mining and must be managed in such a manner as to disperse runoff and to prevent the concentration of storm water flow;



- 2.1.1.3 The velocity of storm water discharges must be attenuated and the banks of the watercourses protected; and
- 2.1.1.4 Storm water leaving the Licensee's premises must in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises,
- 2.1.1.5 Sheet runoff from paved surfaces and access roads need to be curtailed.

2.2 Structures, Construction Plant and Materials

- 2.2.1 The necessary erosion prevention measures must be employed to ensure the sustainability of all structures
- ~~2.2.2 The height, width and length of structures must be limited to the minimum dimension necessary to accomplish the intended function.~~
- 2.2.3 Structures must not be damaged by floods exceeding the magnitude of floods occurring on average once in every 100 years.
- 2.2.4 Structures must be non-erosive, structurally stable and must not induce any flooding or safety hazard.
- 2.2.5 Structures must be inspected monthly or after every heavy storm event for accumulation of debris, blockage, erosion of abutments and overflow areas - debris must be removed and damages must be repaired and reinforced immediately.
- 2.2.6 The construction camp, plant and material stockpiles must be located outside the extent of the watercourse(s) and must be recovered and removed one (1) month after construction has been completed.
- 2.2.7 During construction erosion berms should be installed to prevent gully formation, according to the slope.
- 2.2.8 All areas affected by construction should be rehabilitated upon completion of the construction phase of the activity. Areas should be reseeded with indigenous vegetation species as required, and the use of seed-nets is recommended to prevent erosion.
- 2.2.9 During the construction phase no vehicles shall be allowed to indiscriminately drive through any wetland areas.



2.3 Water Quality

- 2.3.1 The Licensee shall sample the water quality weekly during construction and monthly during operation for the mentioned variables (Table 3 on Section 4) at monitoring points both upstream and downstream of the activities and report to the Regional Head within thirty (30) days after the results of each sampling event is received.
- 2.3.2 Monitoring must continue for five (5) years after the cessation of the activities listed in condition 1.1 of Appendix IV.
- 2.3.3 Activities that lead to elevated levels of turbidity of any watercourse(s) must be prevented, reduced, or otherwise remediated. Activities must be scheduled to take place during the dry seasons when flows are lowest where reasonably possible. If this is not possible and if management measures have not been provided for in the reports submitted to the Regional Head, the Licensee must submit such to the Regional Head for written approval before these activities commence. Natural in stream hydrology is to be used to determine which months constitute the low flow months.
- 2.3.4 The Licensee must ensure that the quality of the water to downstream water users does not decrease because of the water use activities listed under condition 1.1 of Appendix IV.
- 2.3.5 A qualified person must be appointed to assess the quality of water both upstream and downstream of the activities prior to commencement of construction.
- 2.3.6 Pollution of and disposal/spillage of any material into the watercourse must be prevented, reduced, or otherwise remediated through proper operation, maintenance and effective protective measures.
- 2.3.7 ~~Vehicles and other machinery must be serviced well above the 1:100 year flood line or delineated riparian habitat, whichever is the greatest. Oils and other potential pollutants must be disposed off at an appropriate licensed site, with the necessary agreement from the owner of such a site.~~
- 2.3.8 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance.
- 2.3.9 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled material back into the system. The system must be maintained in a state of good repair and standby pumps must be provided.
- 2.3.10 The Licensee has to indicate to the Regional Head within sixty (60) days after issuance of this licence, the strategic placement of bio-swale, bio-filters, silt, litter and hydrocarbon (oil) traps to minimise the risk of pollutants entering the natural drainage system of the area.

2.4 Flow

- 2.4.1 The Licensee must determine flood lines (1:50 and 1:100 year) prior to construction to ensure risks are adequately managed. Flood lines must be clearly indicated on the site plan(s) and drawings along with all wetland boundaries.
- 2.4.2 The activities must be conducted in a manner that does not negatively affect catchment yield, hydrology and hydraulics. The Licensee must ensure that the overall magnitude and frequency of flow in the watercourse(s) does not decrease, other than for natural evaporative losses and authorised attenuation volumes.
- 2.4.3 Appropriate design and mitigation measures must be developed to minimise impacts on the natural flow regime of the watercourse i.e. through placement of structures/supports and to minimise turbulent flow in the watercourse.
- 2.4.4 Structures to be designed in a way to prevent the damming of stream/river water and not impact on the flow of the water, during the construction and operational phases of all activities.
- 2.4.5 Place infrastructure below calculated bank full flow scour depths and allow a safety margin.
- 2.4.6 Bank filling must restore the channel shape and bed level to pre-construction condition.
- 2.4.7 Where flow in watercourse is permanent, the trench must be staged across part of the channel to maintain flows. Flows must not be stopped.

2.5 Riparian and Instream Habitat (Vegetation and Morphology)

- 2.5.1 Activities (including spill clean-up) must start up-stream and proceed into a down-stream direction, so that the recovery processes can start immediately, without further disturbance from upstream works.
- ~~2.5.2 Operation and storage of equipment must not take place within the 1:100 year flood line or delineated riparian habitat, whichever is the greatest unless authorised in this licence.~~
- 2.5.3 Activities must not occur in sensitive riffle habitats.
- 2.5.4 Indigenous riparian vegetation, including dead trees, outside the limits of disturbance indicated in the site plans must not be removed from the area.
- 2.5.5 Alien and invader vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be sustainably eradicated or controlled.
- 2.5.6 Existing vegetation composition must be maintained or improved by maintaining the natural variability in flow fluctuations. Rehabilitated areas shall have a vegetation basal cover of at least 15% at all times.



- 2.5.7 Recruitment and maintaining of a range of size classes of dominant riparian species in perennial channels must be stimulated.
- 2.5.8 Encroachment of additional exotic species and terrestrial species in riparian zones must be discouraged.
- 2.5.9 Accumulation of woody debris on terraces by periodic flooding must be discouraged.
- 2.5.10 Existing flood terraces and deposition of sediments on these terraces to ensure optimum growth, spread and recruitment of these species must be maintained.
- 2.5.11 All reasonable steps must be taken to minimise noise and mechanical vibrations in the vicinity of the watercourses.
- 2.5.12 The necessary erosion prevention mechanisms must be employed to ensure the sustainability of all structures and activities and to prevent in-stream sedimentation.
- 2.5.13 Soils that have become compacted through the water use activities must be loosened to an appropriate depth to allow seed germination.
- 2.5.14 Slope/bank stabilisation measures must be implemented with a 1:3 ratio or flatter and vegetated with indigenous vegetation immediately after the shaping.
- 2.5.15 Stockpiling of removed soil and sand must be stored outside of the 1:100 flood line or delineated riparian habitat, whichever is the greatest unless authorised by this licence, to prevent being washed into the river and must be covered to prevent wind and rain erosion.
- 2.5.16 The indiscriminate use of machinery within the instream and riparian habitat will lead to compaction of soils and destruction vegetation and must therefore be strictly controlled.
- 2.5.17 The overall macro-channel structures and mosaic of cobbles and gravels must be maintained by ensuring a balance (equilibrium) between sediment deposition and sediment conveyance maintained. A natural flooding and sedimentation regime must thus be ensured as far as reasonably possible.
- 2.5.18 As much indigenous vegetation growth as possible should be promoted within the proposed development area in order to protect soil and to reduce the percentage of the surface area which is paved.
- 2.5.19 Run-off from paved surfaces should be slowed down by the strategic placement of berms.

2.6 Biota

- 2.6.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species.
- 2.6.2 All reasonable steps must be taken not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.



2.6.3 The current level of diversity of biotopes and communities of animals, plants and microorganisms must be maintained.

3. REHABILITATION AND MANAGEMENT

- 3.1 The Licensee must embark on a systematic long-term rehabilitation programme to restore the watercourse(s) to environmentally acceptable and sustainable condition after completion of the activities, which must include, but not limited to the rehabilitation of disturbed and degraded riparian areas to restore and upgrade the riparian habitat integrity to sustain a bio-diverse riparian ecosystem.
- 3.2 All disturbed areas must be re-vegetated with an indigenous seed mix in consultation with an indigenous plant expert, ensuring that during rehabilitation only indigenous shrubs, trees and grasses are used in restoring the biodiversity.
- 3.3 An active campaign for controlling invasive species must be implemented within disturbed zones to ensure that it does not become a conduit for the propagation and spread of invasive exotic plants.
- 3.4 Rehabilitation must be concurrent with construction.
- 3.5 Topsoil must be stripped and redistributed.
- 3.6 Compacted and disturbed areas must be shaped to natural forms and to follow the original contour. In general cut and fill slopes and other disturbed areas must not exceed 1:3 (v:h) ratio, it must be protected, vegetated, ripped and scarified parallel with the contour.
- 3.7 The Regional Head must sign a release form indicating that rehabilitation was done satisfactory according to specifications as per this license.
- 3.8 A photographic record must be kept as follows and submitted with reports as set out in section 4 below:
- 3.8.1 Dated photographs of all the sites to be impacted before construction commences;
 - 3.8.2 Dated photographs of all the sites during construction on a monthly basis; and
 - 3.8.3 Dated photographs of all the sites after completion of construction, seasonally.
- 3.9 Rehabilitation structures must be inspected regularly for the accumulation of debris, blockages instabilities and erosion with concomitant remedial and maintenance actions.
- 3.10 A comprehensive and appropriate rehabilitation and management programme to restore the watercourse(s) to environmentally acceptable and sustainable condition after construction must be developed and submitted to the Regional Head for written approval within six (6) month from the date of issuance of this licence.



4. MONITORING AND REPORTING

- 4.1 The Regional Head must be notified in writing one (1) week prior to commencement of the licensed activity(ies) and again upon completion of the activity(ies).
- 4.2 A comprehensive and appropriate environmental assessment and monitoring programme (including bio-monitoring) to determine the impact, change, deterioration and improvement of the aquatic system associated with the activities listed under condition 1.1 of appendix III as well as compliance to these water use licence conditions must be developed and submitted to the Regional Head for written approval before commencement and must subsequently be implemented as directed.
- 4.3 Six (6) monthly water quality and quantity monitoring reports must be submitted to the Regional Head until otherwise agreed in writing with the Regional Head. Variables that need to be monitored are indicated in Table (four) 4 for the sampling stations indicated in Table five (5) for surface water monitoring in Tharisa Minerals (Pty) Ltd as contained in Appendix IV.

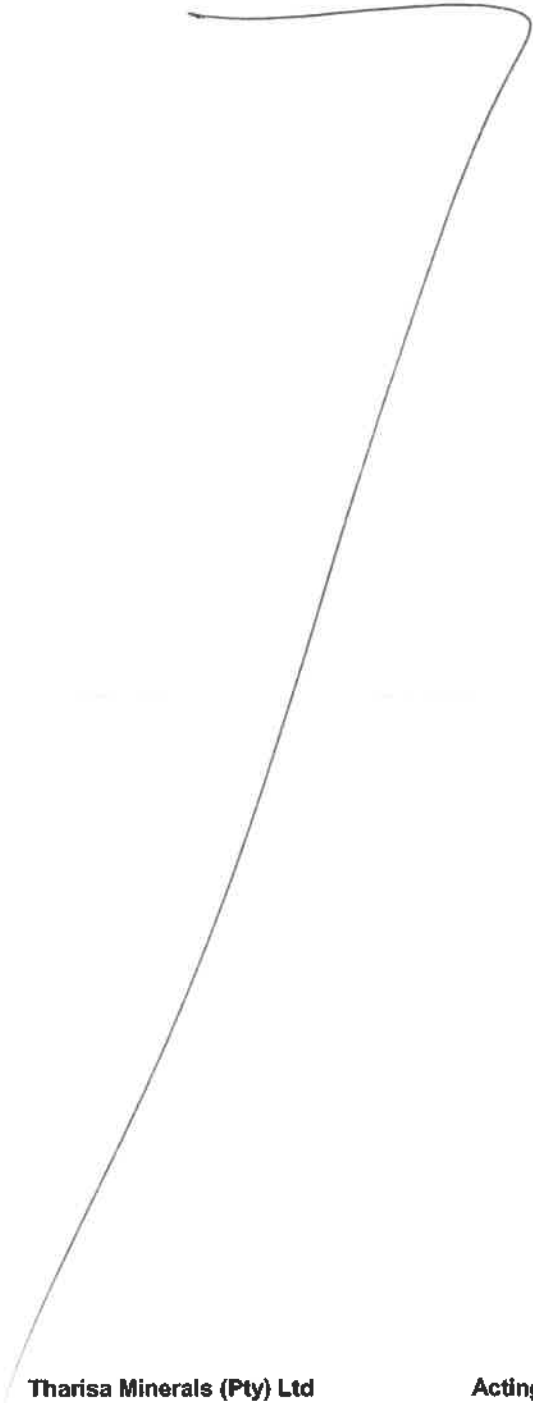
Table 4: Compliance and monitoring requirements to be undertaken by Applicant

Constituents	Water quality limits	Units	Monitoring frequency
pH	6.5-8.5	pH units	Monthly
Electrical conductivity	70	mS/m	Monthly
Dissolved oxygen	5	mg/l	Monthly
Na	16	mg/l	Monthly
Ca	20	mg/l	Monthly
Mg	15	mg/l	Monthly
Cl	57	mg/l	Monthly
SO ₄	191	mg/l	Monthly
F	0.75	mg/l	Monthly
NO ₃	4	mg/l	Monthly
Al	5	ug/l	Monthly
As	10	ug/l	Monthly
Atrazine	0.1	ug/l	Monthly
Cd	0.15	ug/l	Monthly
Cr	0.050	µg/l	Monthly

Table 5: Monitoring points (Surface water monitoring)

Locality	Description
Elandsdrieffspruit	Up stream

Locality	Description
Elandsdrieffspruit	Downstream
Immediately upstream of the energy dissipater structure	at the stream diversion exit
Within the Sterkstroom River	Upstream of the Tharisa Development
Within the Sterkstroom River	Downstream of the Tharisa Development
Within the Sterkstroom River	At a point immediately upstream of a point where the open pit alignment crosses the Sterkstroom
Within non-perennial tributaries	Along the open pit immediately downstream of the mine infrastructure



APPENDIX V

Section 21 (g) Disposing of waste in a manner which may detrimentally impact on a water resource

1. CONSTRUCTION AND OPERATION

1.1 The Licensee shall carry out and complete all the activities, including the construction and operation of the waste water disposal facilities listed in Table 6.

Table 6: Waste Storage Facilities to be constructed

Property description	Activity	purpose	Volume/capacity	Coordinates
Kafferskraal 342, JQ, ptn 186	Sewage drying beds	For sludge disposal	18600	25°44'18.86"S 27°29'39.37"E
Kafferskraal 342JQ, ptn 184	Storing of water on a storm water dam		Capacity =30 000 m ³	S25°44' 20.42" E27° 29' 36.55"
Elandsdrift 467 JQ, ptn 75 & 76	Disposing waste: North Eastern Waste rock dump	To dispose waste rock	39 040659 m ³	25°43'25.96"S 27°31'24.52"E
Kafferskraal 342 JQ ptn, 317	Disposing waste water on a process water dam	To dispose waste water	15 000 m ³	S 25 44' 28.04" E27 29'35.27"
Kafferskraal 342 JQ, ptn 219	disposing water on a MCC dam	To dispose waste water for reuse in a process	50 000 m ³	S27 40'20.40 E25 30'.9.07
Elandsdrift 467 JQ, ptn 89, 113, 176, 177, 92, 93, 94 Kafferskraal 342vJQ, ptn 90 & 91	Disposing of tailings on a tailings dam (TSF2)	To dispose mine tailings	22.7 000000 m ³	25°44'17.29"S 27°30'21.60"E

1.2 The construction of the waste and waste water disposal facilities must be carried out under the supervision of a professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990), as approved by the designer.

1.3 The construction and future operation of the new facilities listed in Table 6 and 7 should be subjected to the independent expert review panel of three persons mutually agreed to between the licence holder and the authority and that the expert review panel should report on the TSF safety at least once annually to the Regional Head

- 1.4 Within 30 days after the completion of the activities referred here in accordance with the relevant provisions of this licence, the Licensee shall in writing, under reference 16/2/7/A210/C497, inform the Regional Director thereof. This shall be accompanied by a signature of approval from the designer referred to above that the construction was done according to the design plans referred to in the Report.
- 1.5 The Licensee must ensure that the disposal of the waste rock, tailings, process water as well as return water and the operation and maintenance of the system are done according to the provisions in the Reports.
- 1.6 The storm water dam, process water dam, return water dam, Tailings dam, shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood-event on top of its mean operating level.
- 1.7 The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.
- 1.8 Flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for inspection by the Regional Director or his representative upon request.

2. DISPOSE, STORAGE OF WASTE OR WATER CONTAINING WASTE

- 2.1 The Licensee is authorised for disposal and storage of waste or water containing waste of a maximum quantities in cubic meters per annum (m³/a) into the waste disposal facilities and on properties as indicated in Table 7.

Table 7: Waste water storage and disposal facilities

Property description	Activity	Purpose	Volume/capacity	Coordinates
Kafferskraal 342 JQ, ptn 218	Depositing tailings on a tailings dam 1		5.4Mm ³	S27 12'34.00 E25 17' 44.00
Elandsdrift 467 JQ,	Depositing tailings on a tailings dam 2		12.8Mm ³	S27 18'56.08" E25 35' 12.09"
Kafferskraal 342 JQ, ptn 219	Overburden waste rock dump (West)		32Mt/a	S25 ⁰ 44'11.04" E27 ⁰ 29'46.03"
Kafferskraal 342 JQ, 331	Overburden waste rock dump (East)		32 Mt/a	S25 ⁰ 43'52.32" E27 ⁰ 28 05.85
Kafferskraal 342 JQ, ptn 331	Backfilling with waste rock dump (east pit		6 563 627 tons/a	S25 ⁰ 43'52.32" E27 ⁰ 28 05.85

Property description	Activity	Purpose	Volume/capacity	Coordinates
Kafferskraal 342 JQ, ptn 219	Backfilling with waste rock dump (west pit)		2 995 951 tons/a	S25°44'11.04" E27°29'46.03'
Kafferskraal 342 JQ, ptn 314	Disposal of sewage sludge		109 500m ³ /a	S27° 43'52.32 E25° 28 05.88
Kafferskraal 342 JQ, ptn 221	Disposing water containing waste on a Hernic quarry	To dispose waste water for reuse in the mining process	200 000	25°44'12.62"S; 27°29'18.04"E
Kafferskraal 342 JQ, Ptn 19	Disposing water for dust suppression	To suppress dust during mining at the west waste rock dump	9 828	25°44'17.5"S; 27°29'09.3"E 25°44'42.5"S; 27°29'08.3"E 25°44'11.7"S; 27°28'50.09"E
Elandsdrift 467 JQ, ptn 89, 133, 176, 177, 92,93,94 Kafferskraal 342 JQ, ptn 90 & 91	Disposing waste water for dust suppression	To suppress dust at the tailings dam	39 310	25°44'13.5"S; 27°31'37.2"E 25°44'29.9"S; 27°31'41.7"E 25°44'41.9"S; 27°31'33.2"E
Kafferskraal 342 JQ, various portion	Disposing waste water for dust suppression	To suppress dust at the haul road	29 483	25°44'18.7"S; 27°29'26.4"E

3. MONITORING

- 3.1 The Licensee shall monitor surface water resources for the points indicated on Table 6 (Appendix V) and comply with the limits as indicated in Table 5 (appendix IV).
- 3.2 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.
- 3.3 In-stream water quality must be analysed on a two-weekly basis during construction and otherwise monthly at monitoring points both upstream and downstream of the activities as per Table 5 in Appendix IV.
- 3.4 Monitoring points shall not be changed prior to notification and written approval by the Regional Head.

- 3.5 An Aquatic Scientist approved by the Regional Director must establish a monitoring programme for the following indices: Invertebrate Habitat Assessment System (IHAS) and the latest SASS (South African Scoring System). Sampling must be done once during the summer season and once during the winter season, to reflect the status of the river upstream and downstream of the mining activities.
- 3.6 Water quality tests to be performed on the tailings disposal complex monitoring boreholes on a quarterly basis in order to determine the risks to the receiving environment. The data gathered in the investigation must be reported annually during March of each year to the Regional Head. If any toxicity levels as specified is exceeded, the Licensee must institute an investigation to determine the cause of toxicity.
- 3.7 Water Quality Tests must be conducted quarterly on the wastewater stream from the tailing disposal compartments when returned back to the mine for use as process water.
- 3.8 The Licensee shall participate in any initiative such as Direct Estimation of Ecological Effect Potential (DEEEP) to determine the toxicity of complex tailings waste discharges. Both acute and chronic toxicity must be addressed and at least three taxonomic groups must be present when toxicity tests are performed.
- ~~3.9~~ Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), in terms of the Standards Act, 1982 (Act 30 of 1982).
- 3.10 The methods of analysis shall not be changed without prior notification to and written approval by the Minister.
- 3.11 The Licensee must conduct monitoring as per monitoring programme indicated on Table 10 of Appendix VI for groundwater levels and water quality. Groundwater quality should be monitored 5 years after mine closure. If groundwater pollution occurs groundwater remediation and implementation plan must be formulated.
- ~~3.12~~ Monitoring for groundwater quality must be done quarterly and monthly for groundwater levels.
- ~~3.13~~ The Licensee must resample baseline quality and do a comprehensive analysis of groundwater quality, which include: Physical, Inorganic (Non-Metallic), Inorganic (Metallic) and organic analysis.
- 3.14 The Licensee must drill another borehole downstream of the tailings dam facility for monitoring.

4. WATER RESOURCE PROTECTION

- 4.1 The impact of the activities of the mine on groundwater shall not exceed water quality objectives detailed in Table 8 (groundwater quality limits).



Table 8: Water resource quality limits for groundwater

Parameter (mg/l unless otherwise stated)	Groundwater Quality limits
	<i>Groundwater quality reserve</i>
<i>Ec(mS/m)</i>	70
<i>Sodium</i>	20
<i>Magnesium</i>	50
<i>Chloride</i>	30
<i>Calcium</i>	32
<i>Sulphates</i>	70
<i>Nitrates</i>	6
<i>Fluorides</i>	0.5
<i>Cr</i>	0.05
<i>Physical water quality</i>	
<i>pH (pH units)</i>	6.0-9.0

5. REPORTING

- 5.1 The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.
- 5.2 The Licensee shall submit the results of analysis for the monitoring requirements to the Regional Head on a quarterly basis under reference number 16/2/7/A210/C497.

6. STORM WATER MANAGEMENT

- 6.1 Storm water leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.
- 6.2 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the stream.
- 6.3 Storm-water shall be diverted from the tailings and the waste rock complex site and roads and shall be managed in such a manner as to disperse runoff and concentrating the storm-water flow.



- 6.4 Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses.
- 6.5 Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.
- 6.6 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm-water does not lead to bank instability and excessive levels of silt entering the streams.
- 6.7 All storm-water that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.
- 6.8 The polluted storm water system shall be designed and implemented to provide suitable routing and pumping capacity for contaminated storm water from the individual facilities to the respective storm water dams in accordance with the design specifications as contained in the IWWMP and on the EIA Report.
- 6.9 The polluted storm water captured in the storm water control dams shall be pumped to the process water treatment plant for reuse and recycling.

7. PLANT AREAS AND CONVEYANCES

- 7.1 Pollution caused by spills from the conveyances must be prevented through proper maintenance and effective protective measures especially near all stream crossings.
- 7.2 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled material back into the system. The system shall be maintained in a state of good repair and standby pumps must be provided.
- 7.3 Any hazardous substances must be handled according to the relevant legislation relating to the transport, storage and use of the substance.
- 7.4 The Licensee must bund the area where vehicle parts will be kept to prevent groundwater contamination.
- 7.5 Any access roads or temporary crossings must be:
 - 7.5.1 non-erosive, structurally stable and shall not induce any flooding or safety hazard and
 - 7.5.2 repaired immediately to prevent further damage.

8. ACCESS CONTROL

- 8.1 Strict access procedures must be followed in order to gain access to the property.

Access to the waste rock dump, tailing complex, storm water dams and return water dams must be limited to authorised employees of the Licensee and their Contractors only.



- 8.2 Notices prohibiting unauthorised persons from entering the controlled access areas as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.

9. CONTINGENCIES

- 9.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Regional Director upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

- 9.1.1 operating errors
- 9.1.2 mechanical failures (including design, installation or maintenance)
- 9.1.3 environmental factors (e.g. flood)
- 9.1.4 loss of supply services (e.g. power failure) and
- 9.1.5 other causes.

- 9.2 The Licensee must, within 24 hours, notify the Regional Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

- 9.2 The Licensee must, within 14 days, or a shorter period of time, as specified by the Regional Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Regional Head of measures taken to:

- 9.2.1 correct the impacts resulting from the incident
- 9.2.2 prevent the incident from causing any further impacts and
- 9.2.3 prevent a recurrence of a similar incident.

10. AUDITING

- 10.1 The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Regional Director within one month of finalisation of the report, and shall be made available to an external auditor should the need arise.

- 10.2 The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this license was issued and a report on the audit shall be submitted to the Regional Director within one month of finalisation of the report.

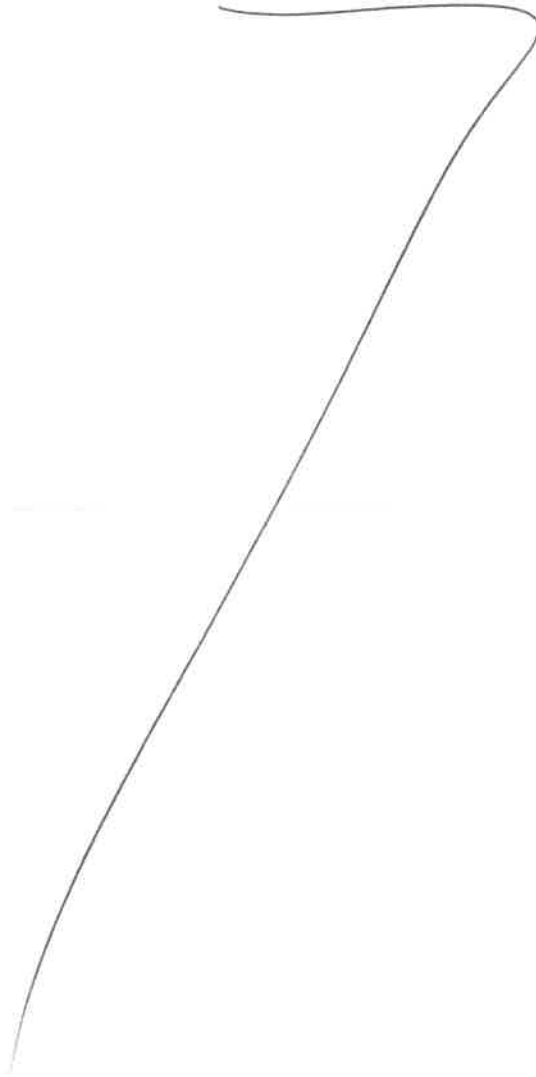
11. INTEGRATED WATER AND WASTE MANAGEMENT

- 11.1 The Licensee must prepare an *Integrated Water and Waste Management Plan (IWWMP)*, which must together with the *Rehabilitation Strategy and Implementation Programme (RSIP)*, be submitted to the Regional Director for approval within one (1) year from the date of issuance of this licence.

- 11.2 The IWWMP and RSIP shall thereafter be updated and submitted to the Regional Director for approval, annually.



- 11.3 The Licensee must, at least 180 days prior to the intended closure of any facility, or any portion thereof, notify the Regional Director of such intention and submit any final amendments to the IWWMP and RSIP as well as a final *Closure Plan*, for approval.
- 11.4 The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.
- 12 The study should be undertaken to assess the impact of blasting to groundwater quality.
- 13 Hence the open pit will be backfilled with waste rock, the Licensee must conduct an impact assessment and develop mitigation measures thereof on groundwater pollution.
- 14 All dirty containment dams should be lined to prevent groundwater pollution
- 15 The Licensee shall ensure that a proof of agreement for the disposal of sewage sludge is forwarded to the Department before disposal.



APPENDIX VI

Section 21 (j) of the Act: Removing of water found underground

1. The Licensee is authorised to remove a volume of water as per Table 9 from pit dewatering and from properties as indicated in Table 9.

Table 9: Removing water found underground

Property description	Water Use description	purpose	Total volume (m ³ /a)	Coordinates
Kafferskraal 342 JQ, ptn 15, 16, 25,26, 27,28, 29, 40, 47, 48, 74, 114, 116, 120, 119, 191, 205, 259, 283, 286, 329, 357, 358	Taking groundwater from a west pit	To take water to be used in the production process	207 199	25 ⁰ 44'01.6"S 27 ⁰ 28'39.9"E
Kafferskraal 342 JQ, ptn 96, 138, 151, 152, 183, 218, 220	Taking water from east mine pit	To take water to be used in the production process	1 354 034	25° 43' .59.3"S 27 ⁰ 30' 06.6"E

2. The quantity of the water authorised to be removed in terms of this licence may not be exceeded without prior authorisation by the Minister.
3. The Licensee shall provide any water user whose water supply is impacted by the water use with potable water.
7. The quantity of water removed from underground must be metered and recorded on a daily basis.
8. The groundwater levels shall be monitored every six months (once in the beginning of the dry season and once in the beginning of the wet season). The monitoring shall take place on the monitoring points as indicated in Table 10. The Licensee shall ensure that coordinates for new monitoring points are provided when reports are submitted.

Table 10: Monitoring programme (Groundwater monitoring)

Locality	Description	Coordinates	
		Latitude	Longitude
TM GW COMM 01	South of Plant – Mrs Potgieter	25°44'59.74"S	27°29'35.02"E
TM GW COMM 02	South of Tailings Dam Complex adjacent to N4 – Glenn Ross	25°44'55.88"S	27°30'56.25"E
TM GW COMM 05	In line with West Mine	25°44'20.12"S	27°28'33.33"E

Locality	Description	Coordinates	
		Latitude	Longitude
	activities – Retief School		
TM GW COMM 06	In line with West Mine activities – Harbours	25°44'34.84"S	27°28'44.52"E
TM GW RPM	Near RPM workshop	25°44'22.41"S	27°30'11.05"E
TM GW HP5	Hardpark 5	25°44'31.78"S	27°30'04.85"E
TM GW TSF 01	West of Tailings Dam Complex	25°44'48.29"S	27°29'57.51"E
TM GW MCC	Groundwater Monitoring Hardpark	25°44'34.78"S	27°30'08.78"E
TM GW Sec2	Mine main entrance opposite the road	25°44'27.76"S	27°29'30.83"E
TM GW Sec1	Groundwater feeding tap at Security	25°44'23.58"S	27°29'25.97"E
TM GW WM 03	In line with West Mine activities – Braam Janse van Rensburg	25°44'31.53"S	27°29'18.91"E
TM GW Dissipator 1	Dissipator Borehole	25°44'22.44"S	25°30'15.80"E
TM GW Dissipator 2	In line with East Mine activities – Near the Dissipator	25°44'20.99"S	27°30'15.21"E
TM GW Samancor	Samancor Boreholes – North of the TSF	25°43'35.65"S	27°30'42.93"E

Proposed Additional Monitoring Localities

Locality	Description	Coordinates	
		Latitude	Longitude
TM GW EM 001	North of Tailings Storage Facility	25°44'11.62"S	27°30'53.17"E
TM GW EM 002	North of East Mine Pit and East Mine Waste Rock Dump	25°43'26.88"S	27°30'20.69"E
TM GW WM 001	North of West Mine Pit and West Mine Waste Rock Dump	25°43'45.17"S	27°28'40.61"E
TM GW FW001	North of Far-West Pit and Far-West Waste Rock Dump	25°43'25.87"S	27°27'47.13"E

9. Self registering flow meters must be installed in the delivery lines at easily accessible positions near the dewatering points



10. The flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for inspection by the Regional Director or his/her representative upon request.
11. Calibration certificates in respect of the pumps must be submitted to the Regional Director after installation thereof and thereafter at intervals of two years.
12. The date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis.
13. Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards, in terms of the Standards Act, 1982 (Act 30 of 1982).
14. The methods of analysis shall not be changed without prior notification to the Licensee and written approval by the Minister or his/her delegated nominee.
15. The Regional Director must be informed of any incident that may lead to groundwater being disposed of contrary to the provisions of this license, by submitting a report containing the following information: -
 - 15.1 nature of the incident (e.g. operating malfunctions, mechanical failures, environmental factors, loss of supply services, etc)
 - 15.2 actions taken to rectify the situation and to prevent pollution or any other damage to the environment and
 - 15.3 measures to be taken to prevent re-occurrence of similar incident.
16. The Licensee shall follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the groundwater removal system.
17. Reasonable measures must be taken to provide for mechanical, electrical or operational failures and malfunctions of the underground water removal system.
18. The Licensee shall ensure that any dewatering impact on Sterkspruit as a result of open pit mining is addressed.
19. At closure, the Licensee must ensure that all infrastructures are removed.
20. The Licensee shall ensure that the financial provision for rehabilitation is secured and reviewed as the mine develops.

END OF LICENCE

