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ANNUAL REPORT

OF THE DIRECTOR OF THE SOUTH AFRICAN MINT
FOR THE YEAR 1 APRIL 1981 TO 31 MARCH 1982

REPUBLIC OF SOUTH AFRICA

SOUTH AFRICAN MINT

The Director General: Finance
Private Bag X115
PRETORIA.

ANNUAL REPORT OF THE DIRECTOR OF
THE SOUTH AFRICAN MINT FOR 1981/82.

I wish to submit the following report on the activities of the South African Mint during the financial year 1st April, 1981, to 31st March, 1982.

INTRODUCTION

Total coinage production for the year amounted to 227 million as against 136 million for the previous year. This considerable increase indicates that the requirements of the banks have returned to normal after the considerable overstocking during previous years. The indications are that there will be a steady and considerable increase in demand in the future.

Sales of circulation coins amounted to R27 395 000 which is an increase of 32% over the previous year.

Mainly due to the continued demand for Proof Krugerrands and the sale of the newly introduced 1/2-, 1/4- and 1/10-Krugerrands the sales of collectors' coins increased to R18 989 906.

The sale of miscellaneous Mint products amounted to R46 145 149 which is normal and mainly accounted for by the sale of industrial gold and silver.

The total sales of all Mint products amounted to R92 million for the year yielding a nett profit of R27,7 million.

The production of Krugerrands for the Chamber of Mines of South Africa decreased slightly to 3,0 million but the additional 2,4 million 1/2-, 1/4- and 1/10-Krugerrands brought the total number of gold coins produced for the Chamber to 5,5 million.

Despite the considerable disruption caused by the installation of the two new Rolling Mills it was possible to maintain the required production.

The financial statements and the activities of the various departments are set out in the following chapters.



J.J. GROENEWALD
DIRECTOR: S.A. MINT.

CHAPTER I - FINANCE

COMBINED MANUFACTURING- OPERATING- AND PROFIT AND LOSS ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1982

1980/81			1981/82
R		R	R
	<u>EXPENDITURE:</u>		
279 099	Work in progress on 1 April 1981		543 312
8 929 731	Coin stocks on hand at cost on 1 April 1981		8 699 444
	Operating costs for the year:		61 511 181
60 472 649	Bullion costs	59 562 019	
1 394 186	Conversion costs	1 949 162	
385 851	Selling expenses		511 614
19 701	Non-vote expenditure credited in the manufacture of bronze coin for foreign governments		
71 481 217	Subtotaal		71 265 551
	Less:		
Nil	Value of coin issued in replacement of old coin withdrawn from circulation, at cost.		1 982
8 699 444	Coin stocks on hand at cost on 31 March 1982	6 303 376	
543 312	Work in progress on 31 March 1982	198 903	6 502 279
62 238 461	Cost of sales		64 761 290
	<u>RECEIPTS:</u>		
84 048 787	Sales		92 530 055
62 238 461	Less: Cost of sales		64 761 290
21 810 326	Net profit for the year		27 768 765

BALANCE SHEET AS AT 31 MARCH 1982

31 March 1981

R	LIABILITIES:
	<u>MINT CAPITAL</u>
4 731 985	Balance on 1 April 1981
116 401	Additions for the year
<u>4 848 386</u>	
202 515	Less: Sales, depreciation and write-offs
4 645 871	Balance on 31 March 1982
2 143 608	<u>OPERATING CAPITAL</u>
398 277	<u>SUNDRY CREDITORS</u>
5 641 995	S.A. RESERVEBANK for gold deposited
30 000 000	<u>THE TREASURY</u> - advances for the purchase of bullion
272 344	ADVANCE PAYMENTS by clients
<u>43 102 095</u>	

ASSETS:

4 190 990	<u>BUILDINGS</u> at cost
Nil	Additions during the year
<u>4 190 990</u>	
849 518	Less: Accumulated depreciation
3 341 472	Value on 31 March 1982
4 654 971	<u>MACHINERY AND EQUIPMENT</u> at cost
116 401	Additions during the year
<u>4 771 372</u>	
3 484 973	Less: Sales, accumulated depreciation and write-offs
1 286 399	Value on 31 March 1982
18 000	<u>LAND</u>
55 566	<u>STORES</u> at cost
417 646	<u>SUNDRY DEBTORS</u>
	<u>BULLION</u> (including bullion in coin stocks)
24 300 696	Gold
9 308 874	Other
1 650 890	<u>COIN STOCKS</u> at cost (excluding bullion content)
184 579	<u>WORK IN PROGRESS</u> at cost
248 704	<u>OPERATING SUSPENSE ACCOUNTS</u>
3 868	<u>MINT MUSEUM STOCK</u> at cost price
2 285 401	<u>CASH</u> with Paymaster General
<u>43 102 095</u>	

31 March 1982

R	
4 645 871	
1 529 464	
<u>6 175 335</u>	
193 811	
	5 981 524
	855 883
	285 576
	4 388 366
	26 000 000
	340 068
	37 851 417
4 190 990	
Nil	
<u>4 190 990</u>	
882 932	
	3 308 058
4 771 372	
1 529 464	
<u>6 300 836</u>	
3 645 370	
	2 655 466
	18 000
	77 389
	294 138
	28 643 001
19 940 543	
<u>8 702 458</u>	
	450 405
	198 903
	132 525
	5 821
	2 067 711
	37 851 417

1. Comparative Statement of Sales

	<u>1981/82</u>	<u>1980/81</u>	<u>1979/80</u>
	R	R	R
a) Circulation coin	27 395 000	20 735 600	4 333 028
b) Proof and collectors' coin	18 989 906	15 487 816	7 965 134
c) Gold and silver for industrial purposes	44 830 847	46 789 789	45 785 083
d) Die and medal products, laboratory and sundry services	752 378	308 954	6 177 728
e) Manufacture of gold coin for the Chamber of Mines	544 220	583 989	521 316
f) Manufacture of coin for foreign governments	Nil	125 500	Nil
g) Rand Refinery (bullion sales)	17 704	17 139	20 519
Total	<u>92 530 055</u>	<u>84 048 787</u>	<u>64 802 808</u>

The appreciable increase in sales during 1979/80 under the item 1 d) is the result of a single transaction involving the sale of old silver at R6 080 948.

2. Comparative Statement of Conversion and Sales Costs

	<u>1981/82</u>	<u>1980/81</u>	<u>1979/80</u>
	R	R	R
Conversion costs	1 947 998	1 413 585	1 312 741
Selling costs	511 614	386 154	341 069
Total	<u>2 459 612</u>	<u>1 799 739</u>	<u>1 653 810</u>

3. Operating Results

a) <u>Combined</u>			
Sales	92 530 055	84 048 787	64 802 808
Net profit	27 768 765	21 810 326	12 345 820
% Profit	30,01	25,95	19,05
b) <u>Circulation coin</u>			
Sales	27 395 000	20 735 600	4 333 028
Net profit	20 041 693	15 737 483	2 691 997
% Profit	73,16	75,90	62,13
c) <u>Proof and Collectors' coin</u>			
Sales	18 989 906	15 487 816	7 965 134
Net profit	7 016 276	5 496 850	3 418 115
% profit on sales	36,95	35,49	42,91
d) <u>Sundry Accounts</u>			
Sales	46 145 149	47 825 371	52 504 646
Net profit	710 796	575 993	6 235 708
% Profit on sales	1,54	1,20	11,88

The percentage profit under 3 d) above for 1979/80 is the result of a transaction involving the sale of old silver ex stock at a most advantageous price. The slightly smaller percentage net profit in respect of circulation coin for 1981/82 is due to increased production costs.

In the case of the sundry accounts the higher percentage net profit is due to adjustment of the tariffs charged for the preparation of gold and silver granules.

4. Comparative Statement of Capital Additions

	<u>1981/82</u>	<u>1980/81</u>	<u>1979/80</u>
	R	R	R
Buildings	Nil	Nil	Nil
Machinery and equipment	<u>1 529 464</u>	<u>116 401</u>	<u>7 282</u>
Total	<u>1 529 464</u>	<u>116 401</u>	<u>7 282</u>

During 1981/82 a new rolling mill was installed at a cost of nearly R1,25 million resulting in a considerable increase in outlay compared to the previous years.

5. Gold Coins Delivered to Chamber of Mines

		<u>Number of pieces</u>	
Krugerrand	3 014 527	3 192 328	4 590 079
1/2-Krugerrand	153 986	543 063	
1/4-Krugerrand	1 270 928	603 818	
1/10-Krugerrand	1 016 022	1 456 355	
R2 Gold	Nil	Nil	422 167
R1 Gold	Nil	92 445	200
Total	<u>5 455 463</u>	<u>5 888 009</u>	<u>5 012 446</u>

6. Comparative Statement of Stores Used

Direct purchases	148 925	105 564	85 232
Issued ex stores	<u>146 321</u>	<u>138 433</u>	<u>155 912</u>
Total	<u>295 246</u>	<u>243 997</u>	<u>241 144</u>

The increase of approximately 21% during 1981/82 over 1980/81 is due mainly to higher purchase prices.

CHAPTER II - ADMINISTRATION

A. MINT OFFICE

The Mint Office is responsible for the purchase of all coinage metals, the issue thereof to the production sections and the issue of all coins, medals and products manufactured by the S.A. Mint.

1. GOLD

The average selling price of industrial gold was R385-61 per fine ounce, compared with R444-84 in the previous year. The selling price of gold sold for industrial purposes is determined in accordance with the average ruling prices on the free market on a weekly basis in respect of manufacturing jewellers and on a daily basis for buyers of gold bars from April 1980, as adjusted and approved by the South African Reserve Bank, plus a commission of 1%.

A total fine mass of 3 310,38 kg of gold was sold during the year whereas 3 008,09 kg was sold during the previous year.

Gold Coins:

A total of 24 476 gold proof coins (12 238 of R2 and 12 238 of R1) was struck for sale in 6 000 proofsets of 10 coins (R2 - $\frac{1}{2}$ c) and 6 238 proofsets of 2 coins (R2 - R1).

In addition to the above 6 300 prooflike R2 coins, 7 036 prooflike R1 coins, 12 900 proof Krugerrands, 9 000 proof 1/2-Krugerrands and 7 500 each of the proof 1/4- & 1/10-Krugerrands were minted.

The following uncirculated Krugerrands and fractional Krugerrands were minted for the Chamber of Mines :-

Krugerrand	3 014 527
1/2-Krugerrand	153 986
1/4-Krugerrand	1 270 928
1/10-Krugerrand	1 016 022

Gold Transactions:

There was an increase in the total fine mass of the gold transacted as compared with the previous year as follows :-

	<u>1981/82</u>	<u>1980/81</u>
	kg	kg
Received from the Rand Refinery Ltd.	3 920,22	2 839,77
Granulated and dental gold sold	3 310,38	3 008,09
Medals, wire and sheet gold sold	12,78	22,70
Mass of R2, R1, Krugerrand	829,09	766,98
Transferred to Die & Medal Section	12,53	12,63
Transferred to Coinage Section	640,15	879,86
	<u>8 725,15</u>	<u>7 530,03</u>

2. SILVER

Silver transactions by mass:

	<u>1981/82</u>	<u>1980/81</u>
	kg	kg
Bought from Rand Refinery Ltd.	11 264,25	12 449,01
Granules and strip sold	11 314,55	11 837,90
Medals and other items sold	121,09	192,20
Coin received from Coinage Section	120,36	180,01
Issues for various alloys	93,59	76,11
	<u>22 913,84</u>	<u>24 735,23</u>

Purchase of Silver:

11 264,25 kg of Silver was purchased from the Rand Refinery Ltd., mainly for sale in granulations.

Basic Selling Price of Silver:

It was necessary for the Mint, with Treasury approval, to vary its basic selling price of silver in conformity with the rise and fall in the overseas market price. Silver is sold at the daily cash price ruling on the London Metal Market. The average selling price was R9-00 per fine ounce compared with R13-73 in the previous year. The total fine mass sold during the year was 11 314,55 kg whereas 11 837,90 kg was sold during the previous year.

Withdrawal of 500 Std. and 800 Std. Silver Coin for Remelting:

During the year no silver coins were withdrawn from circulation.

3. NICKEL

Nickel Transactions by mass in kg

	<u>1981/82</u>	<u>1980/81</u>
Blanks purchased for coinage	452 500,00	-
Mass of coins received	335 146,64	188 546,61
Transferred to Die & Medal Section	10,48	19,88
	<u>787 657,12</u>	<u>188 566,49</u>

4. BASE METALS

The following are the receipts of and the transactions in base metals. This involved mainly issues to the Coinage Section for the production of gold, silver and bronze coin as well as a small amount of copper for the alloying of the different grades of gold sold to industry.

Base Metals Transactions by mass:	1981/82 kg	1980/81 kg
Bronze coin received from Coinage Section for Zimbabwe	-	40 212,96
Copper purchased	176 720,00	-
Bronze issued to Coinage Section	215 544,50	295 741,10
Bronze coin received from Coinage Section	475 612,65	331 737,65
Metals for various alloys	23,39	64,02
Copper issued to Rand Refinery Ltd.	24 893,00	8 632,00
Copper issued to Mechanic Shop	399,00	422,00
Issued to Die & Medal Section	546,73	-
Scrap sold	3 230,00	-
	<u>896 969,27</u>	<u>676 809,73</u>

Withdrawal of Bronze Coin:

During the year coin to the value of R2 794-78 was withdrawn from circulation.

5. COIN RECEIVED AND ISSUED

The following is a comparative schedule in respect of gold, silver, nickel and bronze coins received from the Coinage Section and issued by the Mint Office :-

Denomi- nation	Receipts from Coinage Section		Issued to Banks etc. during	
	1981/82	1980/81	1981/82	1980/81
<u>Gold</u>				
2 Rand	37 076.00	60 082.00	38 808.00	49 860.00
1 Rand	19 274.00	47 000.00	20 221.00	39 864.00
<u>Silver</u>				
1 Rand	10 000.00	15 000.00	15 120.00	16 696.00
<u>Nickel</u>				
R1	2 641 399.00	3 673 018.00	8 491 956.00	5 914 085.00
50c	1 641 727.50	3 355 493.50	4 541 531.50	3 210 380.00
20c	3 751 321.80	2 127 883.80	5 833 412.60	4 844 752.00
10c	976 806.20	3 500.00	2 525 706.30	1 992 876.00
5c	2 416 090.00	333 358.45	2 798 353.15	2 380 038.00
<u>Bronze</u>				
2c	1 094 920.00	1 066 700.00	1 876 836.04	1 525 531.50
1c	847 040.00	391 130.00	1 300 770.63	905 287.60
½c	50.00	75.00	1 076.04	686.73
	<u>13 435 704.50</u>	<u>11 073 240.75</u>	<u>27 443 791.26</u>	<u>20 880 056.83</u>

6. PROOFSETS

The Mint produced 6 000 ten-coin proofsets (R2 - ½c), 6 238 gold proofsets (R2 - R1) and 4 000 eight-coin proofsets (R1 - ½c). 12 900 Proof quality Krugerrands, 9 000 1/2-Krugerrands and 7 500 each of the 1/4- & 1/10-Krugerrands were minted.

7. COINS MANUFACTURED FOR OTHER COUNTRIES

Nil

8. PACKAGING AND DESPATCH SECTION

The number of parcels despatched by post and by rail compared with the previous year was :-

	<u>1981/82</u>	:	<u>1980/81</u>
Parcels despatched by post	16 308	:	14 795
Parcels, other than coin, despatched by rail	42 (687 kg)	:	1 (29 kg)
Boxes of coin despatched by rail	8 161 (797,021 kg)	:	6 603 (328,308 kg)
Boxes of Krugerrands, etc.	7 046 (123 672,56 kg)	:	6 318 (107 187,93 kg)

B. PERSONNEL

1. SCHEDULE OF POSTS AND PERSONNEL EMPLOYED

The following comparative schedule shows the number of posts and the personnel employed at the end of the year as compared with the previous year:-

Categories	1982		1981	
	Posts	Personnel	Posts	Personnel
a. Administrative	8	7	9	9
b. Professional	4	3	4	2
c. Technical	19	11	19	11
d. Clerical	17	3	16	5
e. General Divisions A & B excluding items (g) to (j)	29	11	31	17
f. Temporary employees against posts under items (a) to (e)	-	9	-	10
g. Senior Special Craftsman	2	-	2	-
h. Special Craftsman	11	8	11	7
i. Foreman	5	3	5	3
j. Male Operators	22	15	22	13
k. Apprentices	4	3	4	3
l. Female Operators and Supervisors	50	37	49	37
m. Guards & Bossboys	17	17	17	17
n. Messengers, Cleaners & Labourers	148	117	128	105
	336	244	317	239

There was an increase of 5 in the number of persons employed while the number of posts increased by 19.

2. PERSONNEL TURNOVER

Appointments	164
Resignations	159

3. POST STRUCTURAL CHANGES

The number of authorised posts increased by 19.

4. PERSONNEL CHANGES

a) The following employees retired on pension:-

- i) Mr. J.D. Smook, Control Administrative Officer on 1st February 1982, after 18 years of service.

- ii) Mr. William Mncube, Guard, on 1st December 1981, after 5 years of service.
- b) Two workers died during the year:-
- i) Mr. Johannes Masemola, on the 10th July 1981, after 14 years of service.
 - ii) Mr. P.J. Pretorius, on 10th March 1982, after 5 years of service.
- c) The following officers and employees were transferred to other ranks:-
- i) Mrs. M.J.C. Graaff, TN.6 Machine Operator, to TN.5 Supervisor with effect from 1st June 1981.
 - ii) Mrs. E.A. van Zweel, TN.5 Special Operator, to TN.4 Restaurant Manageress with effect from 1st July 1981.
 - iii) Mr. Elias Modikoe, Labourer, to Bossboy with effect from 1st August 1981.
 - iv) Mrs. N.I. Bouwer, TN.5 Special Operator to TN.4 Special Operator with effect from 1st September 1981.
 - v) Miss E. von Hagen, TN.6 Machine Operator, to TN.5 Special Operator with effect from 1st October 1981.
 - vi) Miss M.M. Cooper, TN.6 Machine Operator, to TN.5 Balance Weigher with effect from 1st February 1982.
 - vii) Mr. J. Lourens, Senior Operator, to Artisan Foreman with effect from 1st February 1982.
 - viii) Mr. C.B. Visagé, Senior Operator, to Special Craftsman with effect from 1st February 1982.
 - ix) Mrs. W.C. Kilian, TN.6 Machine Operator, to TN.5 Special Operator with effect from 1st March 1982.
- d) The following officers were promoted:-
- i) Mr. J. Venter, Control Administrative Officer to the progression scale with effect from 1st April 1981.
 - ii) Mrs. A.M. Barnard, Administrative Assistant to Assistant Accountant with effect from 1st November 1981.
 - iii) Mr. L.P. Boshoff, Senior Artisan Foreman to Chief Maintenance Officer with effect from 1st March 1982.
- e) Merit advancement was awarded to:-
- Mrs. G.C. Joubert.
- f) Mrs. A. Maree was appointed as Liaison Officer with effect from 1st January 1982.
- g) Mr. A.S. Fourie, Accountant, was transferred to the Department of Manpower with effect from 1st November 1981.

C. MINT MUSEUM AND LIBRARY

A. GIFTS

1. Gifts received :

Mint Bureau, Japan

- One set of coins dated 1981
(1 Yen - 100 Yen)

Botswana Government

- 10 Thebe and 50 Thebe dated 1977.

Central Bank, Uruguay

- 1 Centimos, 5 Centimos and
10 Centimos dated 1980/81.

Royal Canadian Mint

- 1 Dollar in silver 1980.

Bank of Israel

- One set of coins dated 1980
($\frac{1}{2}$ Lira - 25 Agorot)

- One set of coins dated 1981
($\frac{1}{2}$ Shequel - 10 Agorot).

M. Pagliari

- Medal in silver commemorating
Royal Wedding.

The Cape Mint

- Medal in silver commemorating
20th Anniversary of the Republic
of South Africa.

2. Gifts presented:

Bank of Israel

- One 1981 short proofset (R1 - $\frac{1}{2}$ c)

Plews Indy 500 Museum, U.S.A.

- Two 1981 uncirculated coin sets
(R1 - 1c)

Fuji Bank, Japan

- Two 1981 uncirculated coin sets
(R1 - 1c)

Dr. I. Bulmus, Turkey

- One 1981 uncirculated coin set
(R1 - 1c)

B. VISITORS

258 Visitors were received during 1981/82.

C. PERSONNEL CHANGES

Mrs. A. Maree commenced duty as Liaison Officer on 1st January, 1982.

CHAPTER III - PRODUCTION

1. MELTING SECTION

The following schedules show the activities of the section for the year :-

Gold

Fine gold granules	768,6817 kg
22ct gold granules	288,9953 kg
18ct gold granules	302,1259 kg
9ct gold granules	67,4171 kg
18ct gold for Die & Medal	77,6352 kg
9ct gold for Die & Medal	81,8765 kg
Total	<u>1 586,7317 kg</u>

Silver

925 Std. silver for Die & Medal	227,1145 kg
Fine silver granules	11 275,5201 kg
Total	<u>11 502,6346 kg</u>

Bronze

Coinage bronze	613 391,5000 kg
Total	<u>613 391,5000 kg</u>

2. ROLLING SECTION

The production in this section was as follows :-

a) Bars Rolled

Coinage bronze	980 011,7700 kg
9ct gold for Die & Medal	73,7140 kg
18ct gold for Die & Medal	48,6626 kg
925 Std. silver for Die & Medal	347,8605 kg
Total	<u>980 482,0071 kg</u>

b) Blanks annealed and cleaned

Proof Krugerrand	12 900 pieces
Proof 1/2-Krugerrand	9 000 pieces
Proof 1/4-Krugerrand	7 500 pieces
Proof 1/10-Krugerrand	7 500 pieces
Proof gold R2	18 600 pieces
Proof gold R1	19 300 pieces
Std. Krugerrand	3 020 000 pieces
Std. 1/2-Krugerrand	154 000 pieces
Std. 1/4-Krugerrand	1 271 000 pieces
Std. 1/10-Krugerrand	1 017 000 pieces
800 Std. silver R1	11 000 pieces
2c, 1c & 1/2c bronze	139 388 000 pieces
Uncirculated sets (R1 - 1c)	160 000 pieces

Total 145 095 800 pieces

Total Mass 601 154,000 kg.

c) Blanks cleaned

R1 Nickel	270 000 pieces
50c Nickel	330 000 pieces
20c Nickel	1 900 000 pieces
10c Nickel	1 000 000 pieces
5c Nickel	4 900 000 pieces

Total 8 400 000 pieces

Total Mass 340 250,000 kg

3. COINAGE SECTION

a) The number of coins minted during the year amounted to 227 771 500 pieces as reflected in the following schedule :-

COIN PRODUCTION					
Denominations	Bars Cast kg.	Bars Rolled kg.	Blanks Coined kg.	Good Coin Produced	
				1981/82 No. of pieces	1980/81 No. of pieces
Gold					
Krugerrand			437,6887	12 900	12 000
1/2-Krugerrand			152,6827	9 000	69
1/4-Krugerrand			63,6293	7 500	65
1/10-Krugerrand			25,4472	7 500	95
R2			148,0619	18 538	30 041
R1			76,9520	19 274	47 000
TOTAL			904,4618	74 712	89 270
800 Std. Silver					
R1			150,4504	10 000	15 000
TOTAL			150,4504	10 000	15 000
Nickel					
R1			31 792,374	2 641 399	3 673 018
50c			31 090,838	3 283 455	6 710 987
20c			112 514,489	18 756 609	10 639 419
10c			39 013,048	9 768 062	35 000
5c			120 750,829	48 321 800	6 667 169
TOTAL			335 161,578	82 771 325	27 725 593
Bronze					
2c)			219 925,70	54 746 000	53 335 000
1c)	613 391,50	980 011,77	255 667,17	84 704 000	39 113 000
1/2c)			19,99	10 000	15 000
TOTAL	613 391,50	980 011,77	475 612,86	139 460 000	92 463 000
Bronze					
Rhod. 1c					10 000 000
TOTAL					10 000 000
Chamber of Mines					
Krugerrand			102 192,4653	3 014 527	3 192 328
1/2-Krugerrand			2 602,3803	153 986	543 063
1/4-Krugerrand			10 790,1788	1 270 928	603 818
1/10-Krugerrand			3 453,4588	1 016 022	1 456 355
R1					92 445
TOTAL	613 391,50	980 011,77	119 038,4832	5 455 463	5 888 009
GRAND TOTAL	613 391,50	980 011,77	930 867,8334	227 771 500	136 180 872

b) Proof Coins

The following proof coins were minted and delivered to the Mint Office:-

South African:

a) Proof Krugerrand	12 900
b) Proof 1/2-Krugerrand	9 000
c) Proof 1/4-Krugerrand	7 500
d) Proof 1/10-Krugerrand	7 500
e) Long proofsets (R2 & R1 gold R1 - $\frac{1}{2}$ c)	6 000
f) Short sets (R1 - $\frac{1}{2}$ c)	4 000
g) Gold proofsets (R2 & R1)	6 238
c) Uncirculated sets (R1 - 1c)	10 000

4. DIE AND MEDAL SECTION

The following number of units were produced in this section during the year :-

Coinage dies	7 836
Dies for medals	36
Medals and badges	16 490
Gold Jewellers' articles	45
Silver Jewellers' articles	97
Sundry Die and Medal items	16 689
S.A. Police, S.A. Defence, Prisons and	
S.A. Railway Police medals stamped	4 754
Articles engraved (hand)	432
Medals numbered by machine	3 220

The following medals were produced:-

1. Opening of State Theatre, Pretoria:

For the occasion 38 mm diameter medals were struck in 18ct gold, silver and bronze: 50 18ct gold, 200 silver and 400 bronze. A further 100 50 mm diameter medals were minted in bronze.

Obverse: Front elevation of the new Theatre with the wording:
"Staatsteater - State Theatre, Pretoria".
Modelled by L.P. de Lange.

Reverse: Replica of "Applause" as modelled by sculptor Danie de Jager,
with opening curtain on background and PACT emblem.
Wording: "Opening 23 Mei-May 1981".
Modelled by L.P. de Lange.

2. Ciskei Independence Medal:

20 Numbered sets struck in 18ct gold, silver and bronze with 38 mm diameter.
A further 100 18ct gold numbered, 200 silver and 200 bronze were also struck.

Obverse: Coat of Arms of the Republic of Ciskei.
Modelled by A. Sutherland.

Reverse: Laurel wreath with wording: "Iriphabliki Ye Ciskei, 4 Disemba 1981
Inkululeko".

3. Department of Foreign Affairs and Information:

One 18ct gold medal 38 mm diameter was struck.

Obverse: Coat of Arms of the Republic of South Africa.

Reverse: Wording: "Presented to His Excellency Kaosi L.M. Mangope,
President of the Republic of Bophuthatswana by M. Viljoen, State
President of the Republic of South Africa - State visit 25-27 March
1981".

4. University of the Witwatersrand: Diamond Jubilee

5 Sets of medals in 18ct gold, silver and bronze with 38 mm diameter were struck.
A further 20 18ct gold, 50 silver and 200 bronze medals were struck.

Obverse: Diamond Jubilee logo.
Modelled by G. Richards.

Reverse: Front elevation of the University of the Witwatersrand with
wording: "Tomorrow begins at Wits today".

CHAPTER IV - ENGINEERING

The function of the section is the installation and maintenance of machinery and plant in all sections of the Mint as well as the manufacture of tooling for production requirements.

1. Preparation for the installation of new Rolling Mills.

To allow for the installation of two new Rolling Mills the following work had to be executed before installation and commissioning by the suppliers:

- 1.1 Three existing Rolling Mills had to be moved and two units temporarily installed to allow for continued production.
- 1.2 Three Blanking Presses had to be moved and one temporarily re-commissioned.
- 1.3 All services that were to be disturbed by excavations for foundations had to be rerouted.
- 1.4 The necessary excavation work had to be undertaken and the foundations cast.
- 1.5 A Process water tank had to be moved to a new position in the basement to allow for the installation of the new rolling oil tanks.
- 1.6 All services including electrical power, water, air and rolling oil had to be laid on to the positions of the new mills.
- 1.7 The 11 containers holding the Rolling Mill parts had to be off-loaded and the contents stored.

2. Preparation for the installation of a new Vacuum Furnace for the heat treatment of coinage dies.

- 2.1 The existing die-hardening furnaces had to be removed and re-installed temporarily in the basement.
- 2.2 The necessary foundations had to be excavated and the concrete cast.
- 2.3 All services had to be provided.

3. A new Gräbener MPU 150 Minting Press was received and installed but has not yet been fully commissioned.

4. The following development work was undertaken :

- 4.1 Tungsten carbide serrated collars are now being formed by means of the wire electric discharge method. This gives a better profile.
- 4.2 The securing of coinage dies in the die-holders by means of an epoxy resin is now standard practice on all the modern minting presses.
- 4.3 The punches of the blanking tool-sets are also secured by means of a special epoxy resin with a reduction in the repair time.
- 4.4 Two twin-die Gräbener finger feed minting presses have been converted as follows:
 - a) The feed arms are pneumatically controlled instead of the usual friction activation.
 - b) The movement of the slides is guided on rotor pillars and bushes.

CHAPTER V - LABORATORY SERVICES

This section is responsible for process quality control and the assaying of metals for the manufacture of coins and medals.

Assaying is carried out for the South African Police, Diamond and Gold Branch, in connection with the combatting of illicit precious metal dealings, fraud and counterfeit coins. In this connection laboratory staff was subpoenaed to give evidence in three court cases during the year.

The S.A. Bureau of Standards submits various gold and silver samples for assay in connection with the use of the Bureau hallmark on gold and silver articles manufactured in the jewellery trade.

Assaying of minerals is also carried out for bonafide prospectors.

The following work was carried out in the section during the year:-

1. a) Precious Metal Assays:

Gold:	Mint Office	1 007 Samples	
	S.A. Bureau of Standards	81 Samples	1 088
Silver:	Mint Office	172 Samples	
	S.A. Bureau of Standards	15 Samples	187
		Total	1 275

b) Other Metal Assays:

Copper	271 Samples
Zinc	161 "
Tin	161 "
Phosphorus	161 "
Nickel	9 "

c) Illicit Gold Trade: S.A. Police

312 Exhibits in 178 cases were assayed.

In addition 85 samples of gold were prepared and assayed for trap purposes.

This represents an increase of 1,02%.

2. General Physical Testing

Nickel coin blanks	900
Bronze coin blanks	8 590
Krugerrand blanks	1 120
Manufactured coins	15 940
Manufactured Krugerrand coins	870
Die inspection	7 356

3. Prospector's Samples

There were no prospector's samples during the year.