GOLD BARS WORLDWIDE

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INTERNATIONAL REFINER

> Supplement 2014

JOHNSON MATTHEY GROUP

USA - CANADA

Johnson Matthey Pic, a specialty chemicals company that focuses on catalysts, precious metals and fine chemicals, has its international headquarters in London.

The company, whose origins date back to 1817, operates in over 30 countries and employs around 10,000 people.

Johnson Matthey undertakes gold refining and the manufacture of bars at two large refineries in the USA and Canada.



Johnson Matthey is a major gold refiner and bar manufacturer in the USA.

JOHNSON MATTHEY GOLD & SILVER REFINING INC - USA

LOCATION

Johnson Matthey Gold & Silver Refining Inc, the leading refiner of newly-mined gold in the United States, is located in Salt Lake City, Utah.

OWNERSHIP

Johnson Matthey Gold & Silver Refining Inc is a subsidiary of Johnson Matthey Gold & Silver Refining Holdings Limited, which is a subsidiary of Johnson Matthey Plc.

ACCREDITATION

London Bullion Market Association (LBMA)CME Group – Market Contract: COMEX

1994 Tokyo Commodity Exchange (TOCOM)

Johnson Matthey Gold & Silver Refining Inc also manufactures London Good Delivery silver bars at its Salt Lake City refinery (since 1989).

Kilobars (1000 g) are manufactured to a fineness of 995 or 999.9.

BACKGROUND

The gold refinery of Johnson Matthey Gold & Silver Refining Inc was established in Salt Lake City in 1983 in response to the resurgence of gold mining in the United States, particularly in Nevada, the state adjacent to Utah.

The Johnson Matthey Group has been operating in the United States for more than 100 years, under several names: Bishop & Co (1909), Matthey Bishop Inc (1967), Johnson Matthey Inc (1980) and Johnson Matthey Gold & Silver Refining Inc (since 2013).

In addition to gold, the refinery in Salt Lake City also refines silver. The Johnson Matthey Group in North America, also refines platinum group metals, manufacturing an extensive range of products for the platinum group metals industry.

Number of employees: 175 (Salt Lake City), 1,900 (USA).



London Good Delivery 400 oz bars have been manufactured since 1989

GOLD SERVICES

Johnson Matthey Gold & Silver Refining Inc focuses on:

- (1) Gold refining and the recycling of scrap
- (2) Gold grain for the jewellery industry
- (3) High purity gold for the electronics industry
- (5) Gold bars

GOLD REFINING AND RECYCLING OF SCRAP

The company normally accepts the following gold-bearing materials for refining to specified purities up to 999.9:

- Semi-refined bullion
- Mine doré: predominantly gold
- Mine doré: predominantly silver
- · Electrolytic slimes derived from silver
- Precipitated gold slimes
- Old jewellery
- Jewellery manufacturers scrap
- High-grade electronic scrap
- Dental scrap
- Old coins and medals

Gold refining methods include pyrometallurgical chlorination and electrolysis.

Annual gold refining capacity is around 250 tonnes.

GOLD BARS

Cast bars: 400 oz, 100 oz, 1000 g, 10 oz



Pouring gold at the Salt Lake City refinery.



The company has manufactured bars in Salt Lake City since 1983.

TECHNICAL DESCRIPTION

Weight	Туре	Fineness	Shape	Dimensions mm	First Made*	Serial Number System	System Introduced
400 oz	Cast	995+, 999.9	Rectangular	248 x 80 x 41	1983	5 numbers	1983
				220 x 57 (base)		6 numbers	2005*
						Plus year date	1997*
100 oz	Cast	995+, 999.9	Rectangular	152 x 51 x 13	1983	5 numbers	1983
						6 numbers	2005*
1000 g	Cast	995, 999.9	Rectangular	118 x 52 x 8	1983	5 numbers	1983
						6 numbers	2005*
10 oz	Cast	999.9	Rectangular	72 x 36 x 7	2010	6 numbers	2010

Source: Johnson Matthey Gold & Silver Refining Inc * Estimated dates

OFFICIAL STAMPS



On cast bars issued since 1983. For a brief period in the 1980s, the words "Johnson Matthey" were removed.



On 100 oz and 1000 g bars issued since 1992. The assay designation is either 9999 or 9950.



HISTORY OF GOLD BAR MANUFACTURE

The company's gold refinery in Salt Lake City, when established in 1983, issued its full range of 3 cast bars: 400 oz, 100 oz and 1000 g. The 10 oz cast bar was issued in 2010.

While the same official stamp, depicting a "hammer and geologist's pick" – the international trade mark of the Johnson Matthey Group, has been applied since 1983 to the 400 oz market bars, the certification mark was modified in 1989 in order to include reference to "USA", and again in the late 1990's to make reference to Salt Lake City "SLC".

The 100 oz (Comex) and 1000 g (kilobar) bars depict the "double oval" logo, with the reference to Johnson Matthey – SLC around either the 9999 or 9950 assay designation.

The serial numbering system, five numbers since 1983, was changed to six numbers around 2005.

TRADE COMMUNICATION

Enquiries by gold dealers and industrial customers as regards the refining of gold should be directed to the Business Development Manager at the refinery in Salt Lake City.

Johnson Matthey Gold & Silver Refining Inc 4601 West 2100 South Salt Lake City Utah 84120 USA

Tel: +1-801-924 9125 Fax: +1-801-973 7313

Website: www.matthey.com

Email: david.dorris@jmusa.com

CERTIFICATION MARK On 400 oz bars issued since 1997-98.



The company launched a 10 oz cast bar for the North American market in 2010.

JOHNSON MATTHEY LIMITED - CANADA

LOCATION

Johnson Matthey Limited, a major gold refiner in North America, has its headquarters in Brampton, close to the international airport of Toronto.

Gold refining and the manufacture of bars and other precious metal products take place at the company's headquarters in Brampton.

OWNERSHIP

Johnson Matthey Limited is a subsidiary of Johnson Matthey Gold & Silver Refining Holdings Limited, which is a subsidiary of Johnson Matthey Plc.

ACCREDITATION

1961 London Bullion Market Association (LBMA)
 1974 CME Group – Market Contract: COMEX
 1988 Tokyo Commodity Exchange (TOCOM)

Johnson Matthey Limited also manufactures London Good Delivery silver bars (since 2001).



Johnson Matthey Limited has refined gold at its Brampton refinery since 1976.



BACKGROUND

The company was originally established as Johnson Matthey (Canada) Limited in 1930.

In 1947, following a joint-venture agreement with PR Mallory Inc (Indianapolis), it operated as Johnson Matthey & Mallory Limited until 1977, when the company was renamed Johnson Matthey Limited.

Gold refining took place at the company's former refinery in Toronto at 110 Industry Street (established 1948) until the opening of the Brampton refinery in 1976. The company also refines silver.

Number of employees: 150

GOLD SERVICES

Johnson Matthey Limited focuses on:

- (1) Gold refining and the recycling of scrap
- (2) Gold bars

GOLD REFINING AND RECYCLING OF SCRAP

The company normally accepts the following gold-bearing materials for refining to specified purities up to 999.9:

- Semi-refined bullion
- Mine doré: predominantly gold
- Mine doré: predominantly silver
- Electrolytic slimes: derived from copper
- Electrolytic slimes: derived from silver
- · Precipitated gold slimes
- Loaded carbon
- Old jewellery
- Jewellery manufacturers scrap
- Electronic scrap
- Dental scrap
- · Old coins and medals

Gold refining methods include pyrometallurgical chlorination and electrolysis.

Annual gold refining capacity is around 300 tonnes.

GOLD BARS

Cast bars: 400 oz, 100 oz, 1000 g



Low purity doré bars supplied by mining companies for refining into tradable bars.



Pouring gold at the Brampton refinery.



Assaying

TECHNICAL DESCRIPTION

Weight	Туре	Fineness	Shape	Dimensions mm	First Made	Serial Number System	System Introduced
400 oz	Cast	995+, 999.9	Rectangular	260 x 82 x 39	1961*	5 numbers	1961*
				240 x 58 (base)		Plus year date	2005
100 oz	Cast	995+, 999.9	Rectangular	154 x 55 x 15	1971*	Letter	1975
						Plus 6 numbers	
1000 g	Cast	999.9	Rectangular	117.5 x 52.4 x 9.5	1971*	Letter	1975
						Plus 6 numbers	

Source: Johnson Matthey Limited * Estimated dates



HISTORY OF GOLD BAR MANUFACTURE

Bar manufacture dates back to at least 1961 when the company's 400 oz bars were accepted as London Good Delivery.

100 oz and 1000 g cast bars were first issued in 1971 (est).

For more than 25 years (1971 - 2000), the company was the largest manufacturer of minted bars in North America. The bars, issued over this period, are still widely traded on the secondary market: in ounces, 7 bars ranging from 10 oz to 1/10 oz; in grams, 8 bars ranging from 500 g to 1 g.

The company also manufactured 10 tola cast bars between 1987 and 1995.

The serial number system for 400 oz bars is believed to have remained the same since 1961, and on 100 oz and 1000 g bars since 1975.

TRADE COMMUNICATION

Enquiries by gold dealers and industrial customers should be directed to the company's headquarters in Brampton.

Johnson Matthey Limited 130 Glidden Road Brampton Ontario L6W 3M8 Canada

Tel: +1-905-454 6854 Fax: +1-905-454 6871

Email: brad.boyko@matthey.com

Website: www.matthey.com



Kilobars are manufactured to a fineness of 999.9.



London Good Delivery 400 oz bar.

OFFICIAL STAMPS



On 400 oz and 100 oz bars issued by Johnson Matthey Limited, since 1980. For a brief period in the 1980s, the words "Johnson Matthey" were removed.



On 1000 g and 100 oz bars issued by Johnson Matthey Limited, since 1992.

CERTIFICATION MARK



On 400 oz bars issued by Johnson Matthey Limited, since 1977.



EXAMPLES OF GOLD BARS Johnson Matthey Group



1000 g Johnson Matthey Gold & Silver Refining Inc USA



1000 g Johnson Matthey Limited Canada



Gold granules for the jewellery industry.

Refer to disclaimer on website: www.goldbarsworldwide.com

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