

Event Description

Are you fascinated by all things related to gold mining history in Gympie? Come along to this detailed talk presented by guest speaker Gavin Miller who is a geologist studying how mercury was used in gold processing in the Gympie region. Hear about his international travels in search for answers and learn how mercury was sourced and used for mining in the Gympie region. Bookings are essential.

When

10:00AM - 11:00AM
Friday 27 February 2026

 [Add to Calendar](#)

Contact

[07 54810859](tel:0754810859)

Where

Events Space
[Gympie Library](#)
8-14 Mellor Street
Gympie Queensland
[Google Maps](#) 



<https://aiatsis.gov.au/explore/map-indigenous-australia>



<https://seqilc.com.au/learn/jinibara/>

Searched the web >

The main Aboriginal traditional owner groups associated with the Mary River catchment are:

Kabi Kabi (also written Gubbi Gubbi) — the river formed a natural territorial boundary and is a sacred site and traditional meeting place for the Kabi Kabi people. [Wikipedia](#) They are the primary traditional custodians of much of the catchment.

Jinibara People — associated with the upper catchment and hinterland areas. The Jinibara People Aboriginal Corporation is an active partner in current catchment management projects, including the Jinibara Water Quality Monitoring Program which builds capacity for Jinibara Rangers in water quality monitoring. [Government of Queensland](#)

Dalla People — traditionally associated with the lands at the headwaters of the river. [Wikipedia](#)

Butchulla People — the Butchulla of K'gari also regarded the river as a territorial boundary, and as expert canoe builders were known to sometimes extend their hunting along its reaches. [Wikipedia](#)

It's also worth noting that Aboriginal people had different names for the different reaches of the river that were part of their country, with derivatives of the Gabbi Gabbi word *Moocooboola* most often used. [Wikipedia](#) — which connects to the modern name **Moonaboola** now used in many official catchment documents.

Both the Kabi Kabi and Jinibara groups are active partners in current Mary River catchment management and rehabilitation projects, which is directly relevant to your research context.

Gympie's Gold



Request for artefacts – Hg flasks etc. Please!

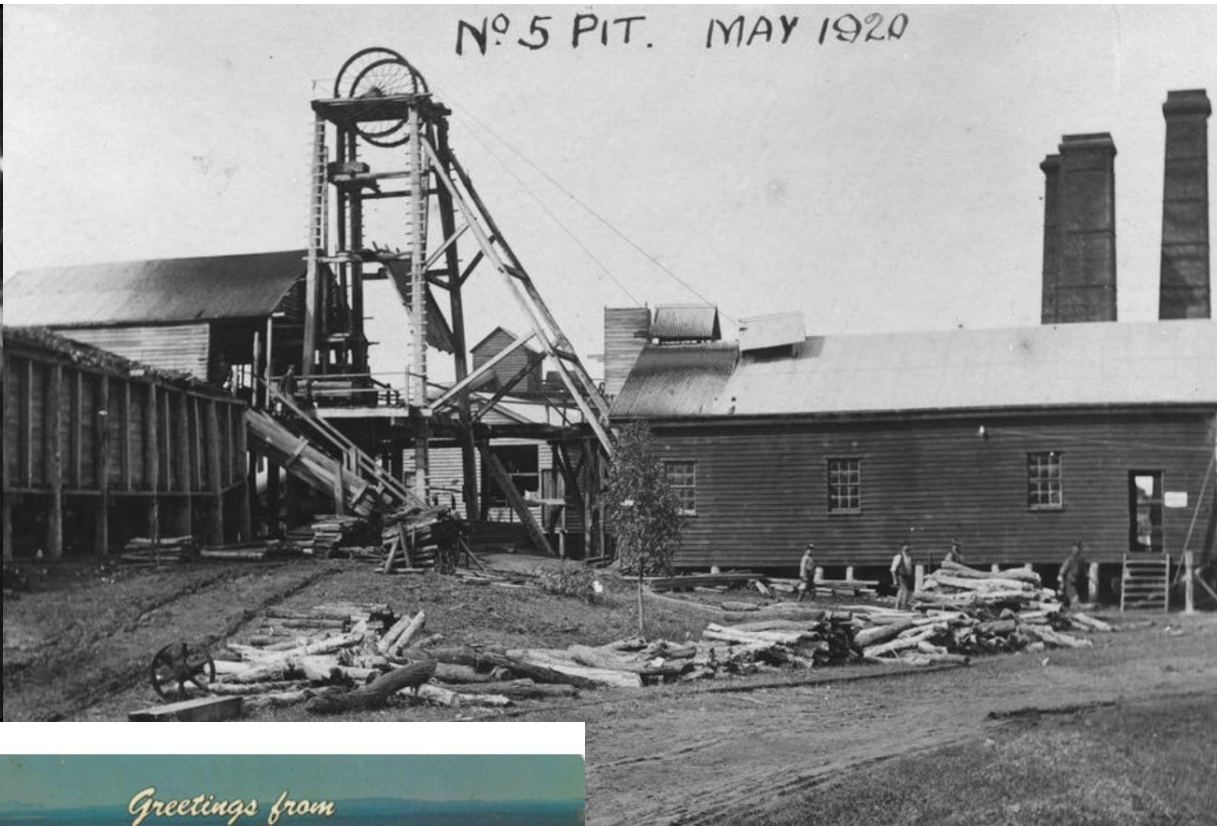
Mercury's Role



Bauple Mtn

Mary River Maryborough Q



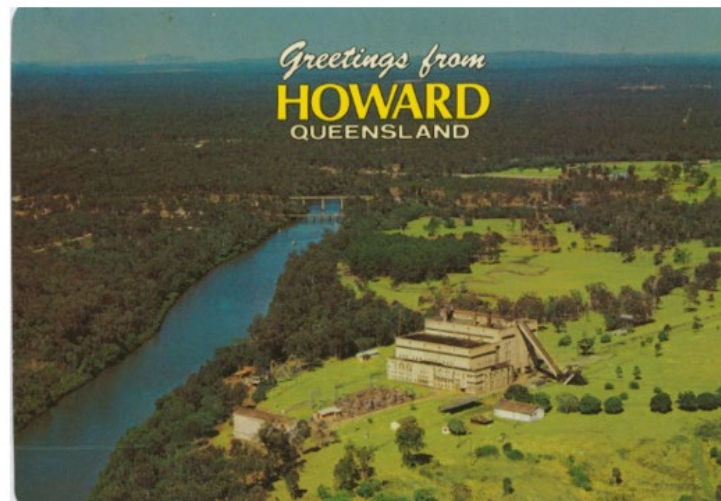


GEOLOGICAL SURVEY OF QUEENSLAND
(A. K. Denmead, M.Sc., Chief Government Geologist)

PUBLICATION No. 296

THE BURRUM COALFIELD

By W. L. HAWTHORNE, B.Sc., Geologist







[News](#) > [Queensland](#) > [Gympie](#)

Poppet head part of mining's end

GOLD mining in Gympie town has already been consigned to history – and even some of its last remaining symbols are now starting to disappear.

less than 2 min read April 13, 2010 - 2:10AM **GympieTimes**

GOLD mining in Gympie town has already been consigned to history – and even some of its last remaining symbols are now starting to disappear.



Nov 2022



‘..for every kgm of gold recovered ... loss of 1kgm of mercury to the environment’

THE GOLD RECOVERY PROCESS

The gold—mercury amalgam from the stamper battery amalgamating trays was collected in enamel lined cast iron buckets and the contents pressed to extract surplus mercury which was returned to the storage flask for re-use. When sufficient solid amalgam was obtained, it was put into a retort which was then sealed and placed in the furnace. At a temperature of 250°C mercury sublimes (turns to vapour) and is condensed in the usually water jacketed tube for reuse in the stamper battery. It is worth noting that for every kgm of gold recovered there was a loss of 1kgm of mercury into the environment.

The gold cake was removed from the retort and placed in a graphite crucible with chemicals such as borax to purify the gold which was then heated to over 1064°C to melt the gold to enable it to be poured into moulds



Gympie Gold Mining and Historical Museum

https://www.youtube.com/watch?v=1kncHR2jaso&list=PPSV



Search



Overview

In Retrospect, the film is a direct outcome of the Mary River Catchment Coordinating Committee's *Looking Forward Looking Back Project* conducted in association with Goorie Vision funded by the Federal Government's Your Community Heritage program.

The film is a social and environmental history documentary on the Mary River catchment. Its purpose is to provide an ongoing community educational resource that firstly encourages reflection on what we can learn from the past; and secondly stimulates the audience to conduct their own research on particular topics raised during the film and on their part of the catchment.

As one of the key objectives of the *Looking Forward Looking Back* was to capture historical stories of the catchment, it was important for us to include a broad range of people; obviously those who live or have lived with and interacted with the river and its catchment, but also others who are acknowledged as reputable sources of certain aspects of this history.

By gaining a better understanding of the Mary River catchment's Aboriginal and European history, *In Retrospect* aims to lead us towards a collective future wisdom about living in harmony with the environment which sustains our livelihoods, cultural and spiritual connectedness, and recreation.

0:06 / 50:14

In Retrospect the Mary River Catchment Post 1900 130214



Mary River Catchment Coordinating Committee

97 subscribers

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17



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342 views · 8 Apr 2022

The Mary River we know today travels from the rainforest and ranges of the Conondales west of Noosa, through fertile farmland and regional towns and cities to meet the sea in the Great Sandy Strait, just a short barge ride from K'Gari (Fraser Island). Over 3000 km of streams and tributaries carry water from the catchment, which covers ~9500 square kilometres. Dozens of towns and districts and around 200,000 people are all connected by the Mary River and tributaries.

Although the Mary has traversed her course for hundreds of thousands of years, the people who have lived alongside her banks and the way they live has changed dramatically.

While aboriginal people lived carefully with the river for 20,000+ years, European settlement brought about drastic change to the catchment and to many creeks and rivers. Awareness of these impacts and how we can better work and live with the river has been growing in recent decades.

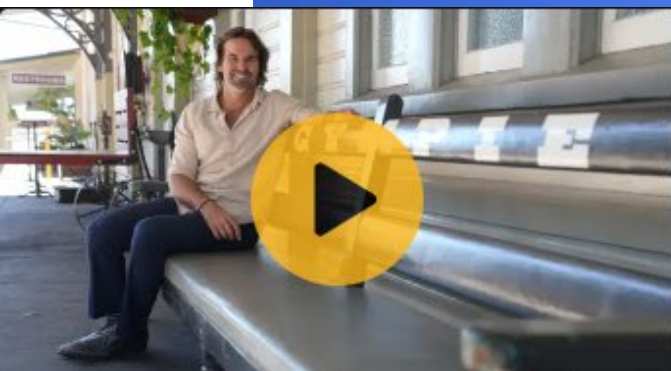
In Retrospect takes you on a journey through this history, offering a glimpse of the way this special river has always been a part of our lives and have been central to many of the dramas that have played out right in our backyards.

And next time you gaze across the Mary River or one of her tributaries, you may see her and our future in a different light.



WHO

DO YOU THINK YOU ARE?



5. Pat Rafter

Tue, Jun 4, 2024

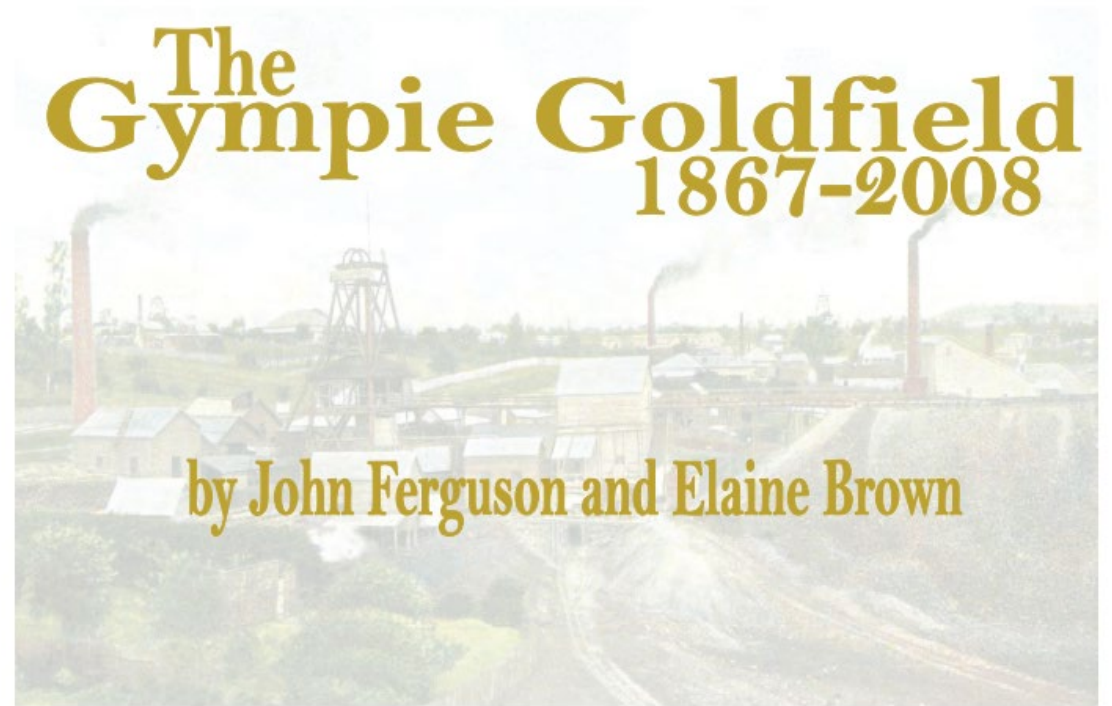
Pat Rafter, a former world number one tennis champion, encounters a fiery troublemaker and confronts a violent past.

PG Advice: A 54m





Photo: Courier Mail 21 Feb '14



Download a pdf: scan the code or visit:

<https://library.gympie.qld.gov.au/Local-History/The-Past-in-Print>

About the Authors



John Ferguson

John's father Norman and grandfather Ben Ferguson were both born in Gympie and great-grandfather, Thomas John Ferguson, had a store in Mary Street trading as Ferguson Bros. After more than twenty years in Latin America with the International Centre for Tropical Agriculture (CIAT), John and wife-soulmate Loretta sought change as empty-nesters at Mooloo near Gympie. Between 1996 and 2003 they enjoyed flower farming and local community life. Searching for his family roots led John into exploring the history of the Gympie goldfield.



Elaine Brown

Educated at the Maryborough Girls' High School and the University of Queensland, Elaine became a high school teacher. After retirement, she returned to study, completing a PhD in History in 2005. She is now in her fifteenth year as Local History Officer at the Gympie Regional Library, a satisfying job that involves working with a team of enthusiastic volunteers. Elaine and her husband Geoff live on a farm at Wolvi, near Gympie. They have two adult sons and five grandchildren.

National Library of Australia
Cataloguing-in-Publication entry

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Notes: Includes index.
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This project has been assisted by the Queensland Government, through the Q150 Community Funding Program.

THE NUGGET FROM NASHVILLE (GYMPIE) 1868: OF PERSEVERANCE AND A PRINCE

By JOHN E. FERGUSON and JIM S. DUGDALE

Key Words: Nugget, gold mass, Gympie Goldfield, Curtis, Brigg.

In October 1867 James Nash, a solitary prospector, discovered alluvial gold near the Mary River 'south of Maryborough'. Known landmarks were scarce when he made a claim for a reward, mentioning only the Wide Bay District and a vague location 50 miles south of Maryborough between Curra and Traverston¹. Since that time, a hierarchy of landmarks - geographic, geological and social - have evolved, allowing a more detailed description of the subsequent metamorphosis of Nashville into the Gympie Goldfield and the city of Gympie. An overview of this history was recently published.²

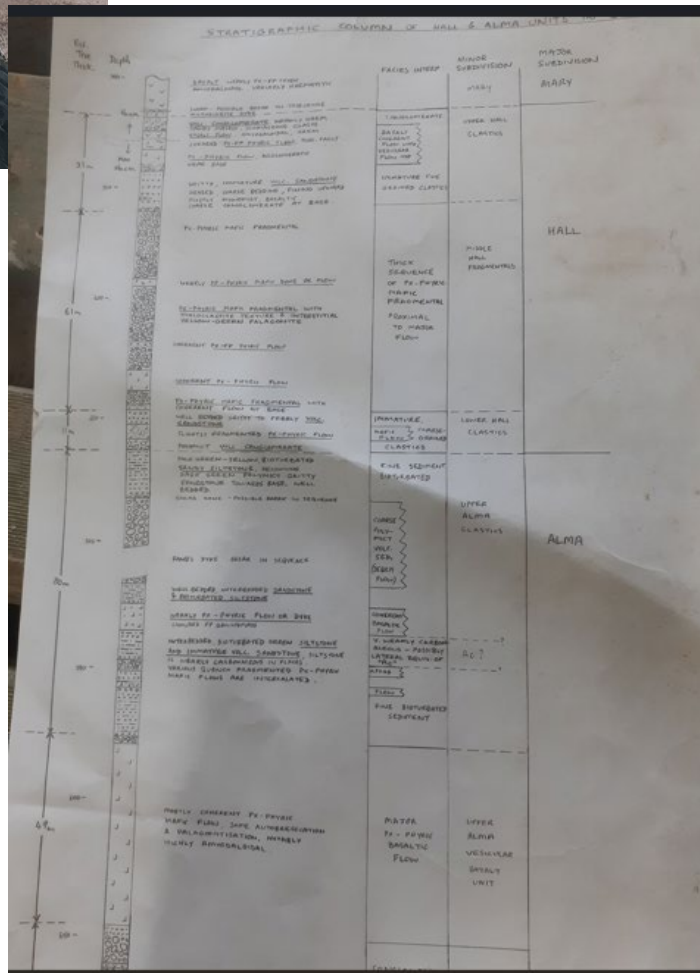
Early in February 1868 two miners unearthed an extremely large nugget of gold. Their good fortune enhanced the reputation of the infant goldfield and attracted other miners and capital. The lifespan of this nugget was very short, approximately two months before being converted to gold bullion at the Sydney Mint. Only brief details of the nugget were recorded in newspapers and no image has been found. The nugget remains the largest found in Queensland and rates among the largest in Australia.

The paucity of formal records transforms newspaper and eyewitness comments into rich wash-dirt for history enthusiasts. This paper summarises the history of the nugget, to the extent possible from primary sources, and provides an explanation of the formation of this rare gold specimen.





Map Recovery Eldorado Gympie Gold



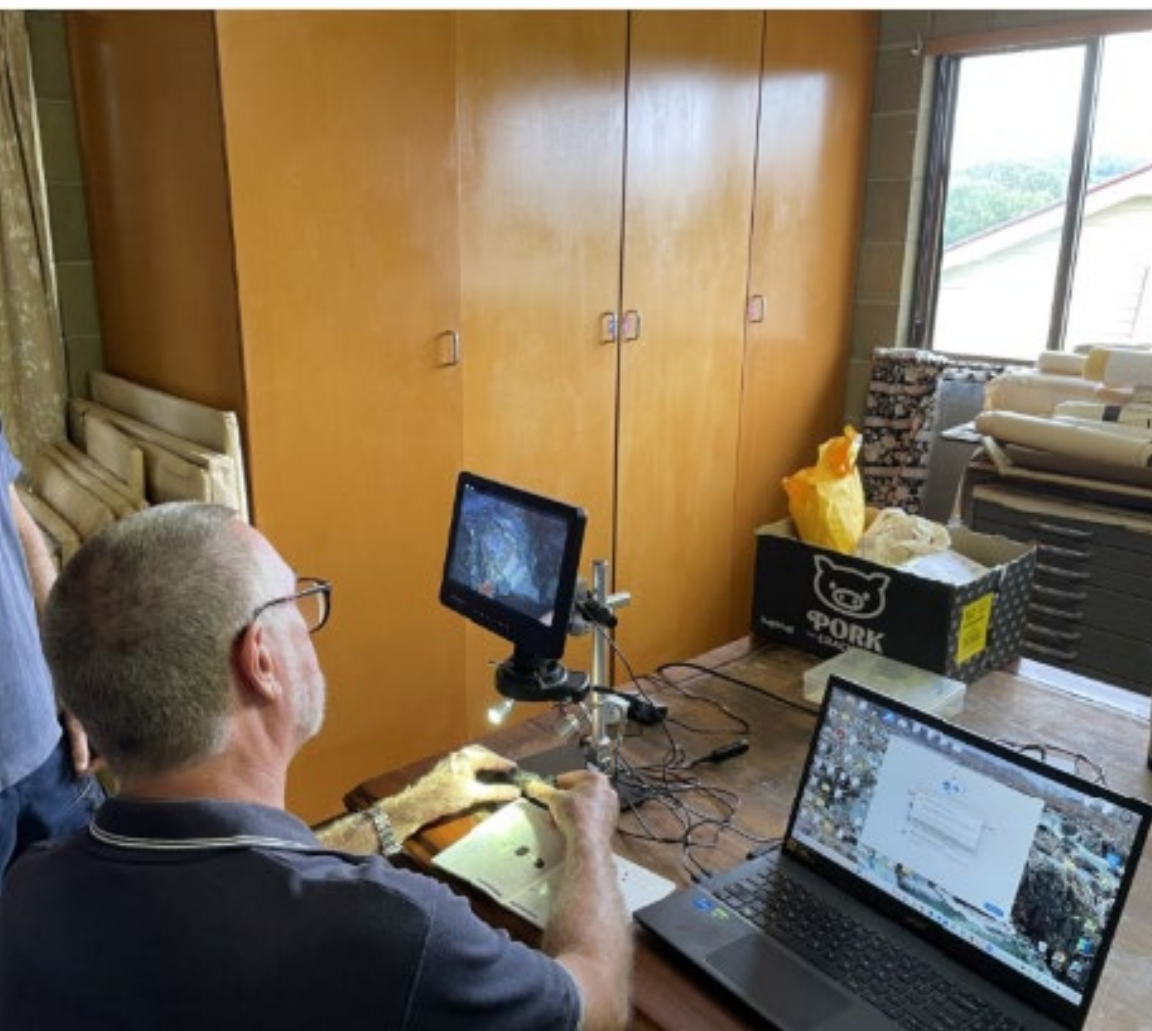




Gympie Geology: learn more or
scan with your smartphone or visit:

<https://geoscience.data.qld.gov.au/data/report/cr099245>





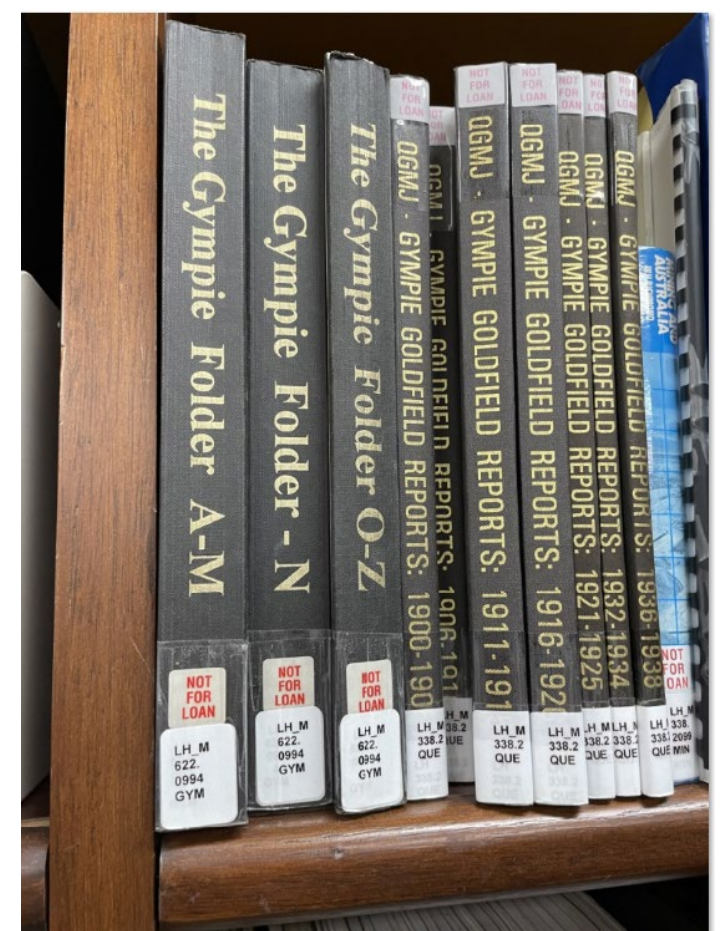


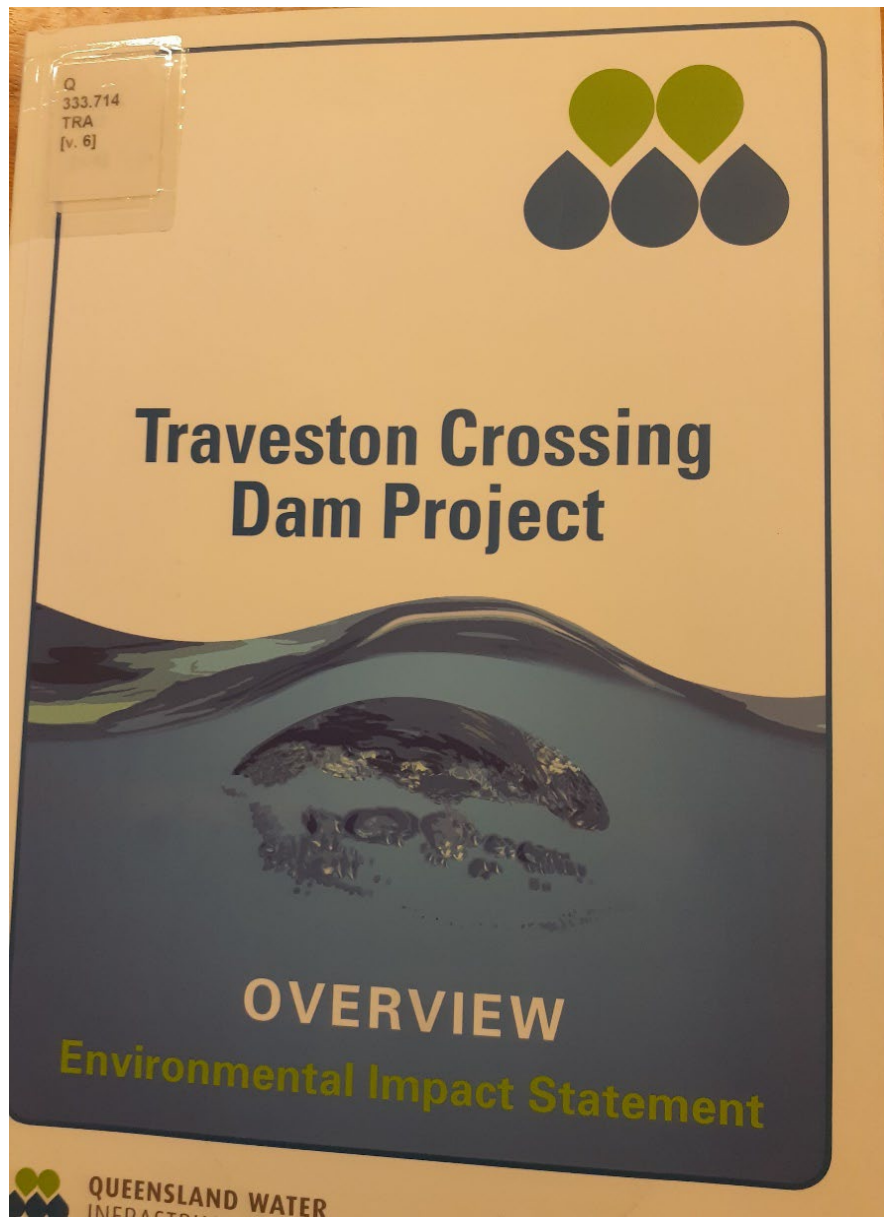
XRF elemental analysis

The image shows the screen of an XRF analyzer displaying a table of elemental concentrations. The title of the screen is "OxideConcentration". Below the title, it shows "592 04-02 11:04" and "Time 60.0". The table has three columns: "El", "PPM", and "Conc. [%]". The element "Ag" is highlighted in blue. Below the table, there are three buttons: a green power button, an orange warning triangle button, and a square button.

El	PPM	Conc. [%]
Se	1917	75
Rb	4156	7
Sr	79	3
Pd	102	10
Ag	1549	86
Cd	61	10
Sn	509	127
Te	5	3
Ta	138	12
Au	114K	530
Hg	1279	126
Tl	143	16
Bi	736	80
U	3424	150

Gympie Library





Environmental Impact Statement

Volume 1

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VOLUME 1

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2. Project Rationale and Alternatives
3. Relevant Legislation and Approvals
4. Description of Project (DoP)
5. Land

(Land Use and Tenure, Infrastructure, Topography and Geomorphology, Geology and Soils, Landscape Character and Visual Amenity, Land Contamination)

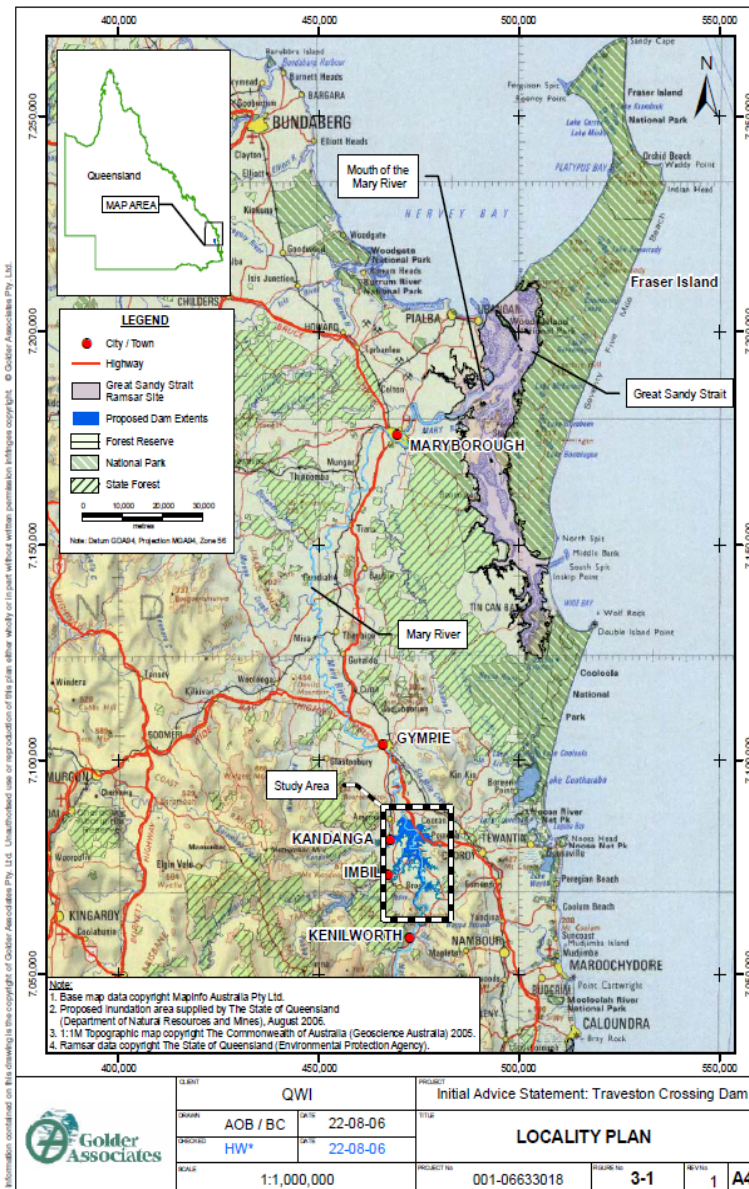
6. Water Resources and Water Quality

(Hydrology, Hydrogeology (Groundwater), Surface Water Quality)

7. Terrestrial Environments

VOLUME 2

8. Aquatic Environments
9. Matters of National Environmental Significance Report (MNES)
10. Air
11. Noise and Vibration
12. Waste Management
13. Transport and Access Arrangements
14. Cultural Heritage
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16. Hazard and Risk
17. Cumulative Impacts
18. Environmental Management Plan
(EMP, Conclusion and Recommendations and Proponent Commitments)
19. References



29 May 2007

- 10 -

077-06632039

The water quality results from both sampling phases are discussed in the following sections.

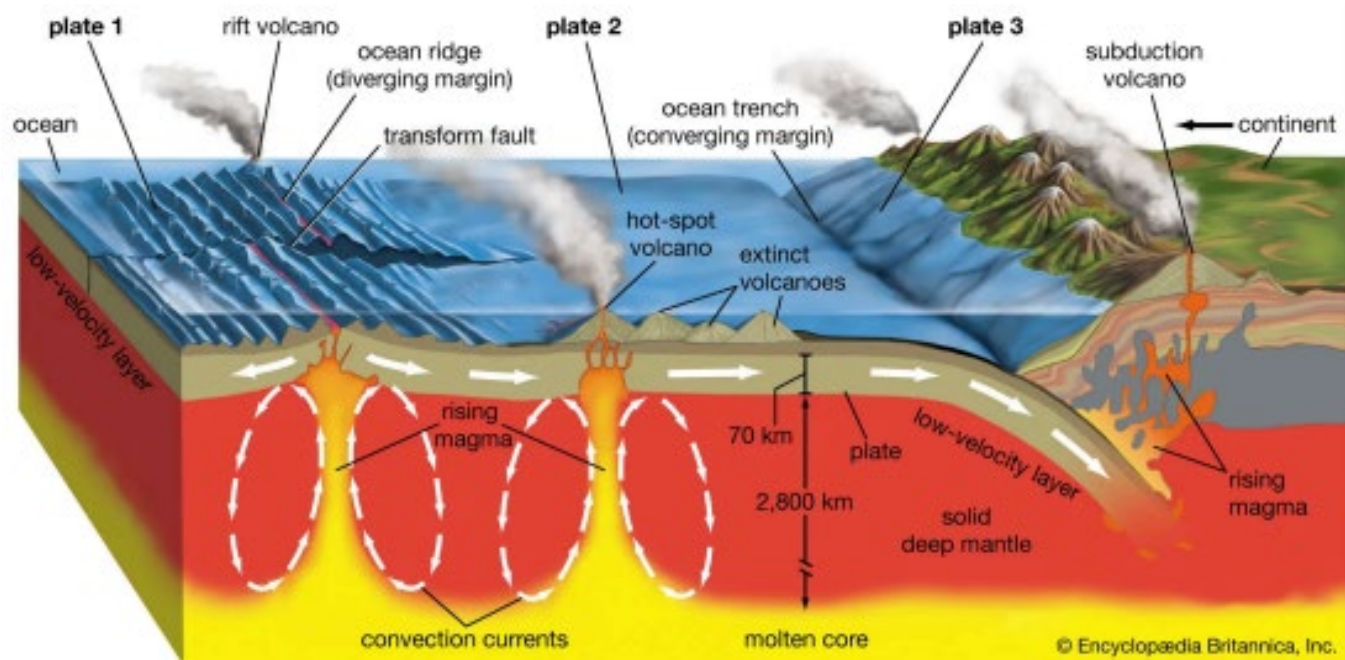
4.6.2 Phase 1: Groundwater Sampling - Prior to Pumping Test

Water was sampled from bores: - PB01, MA01, MA04, MA05, BH43, BH44, BH45 and BH46. The boreholes were purged and sampled following MDBC (1997) guidelines using a Grundfos MP1 groundwater sampling pump. Sampling equipment was decontaminated between bores. A duplicate sample was collected from BH44.

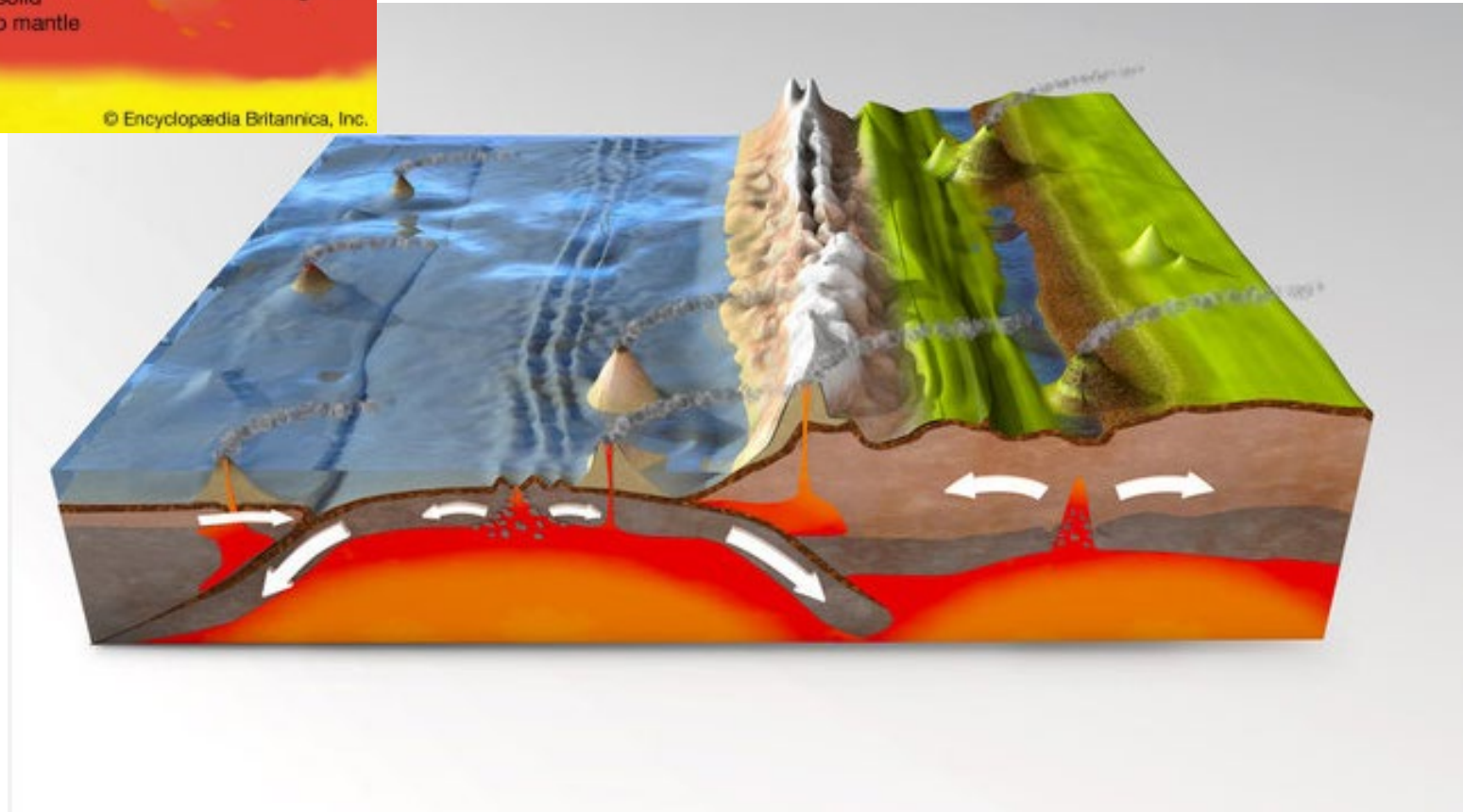
Samples were sent to ALS where for analysis of:

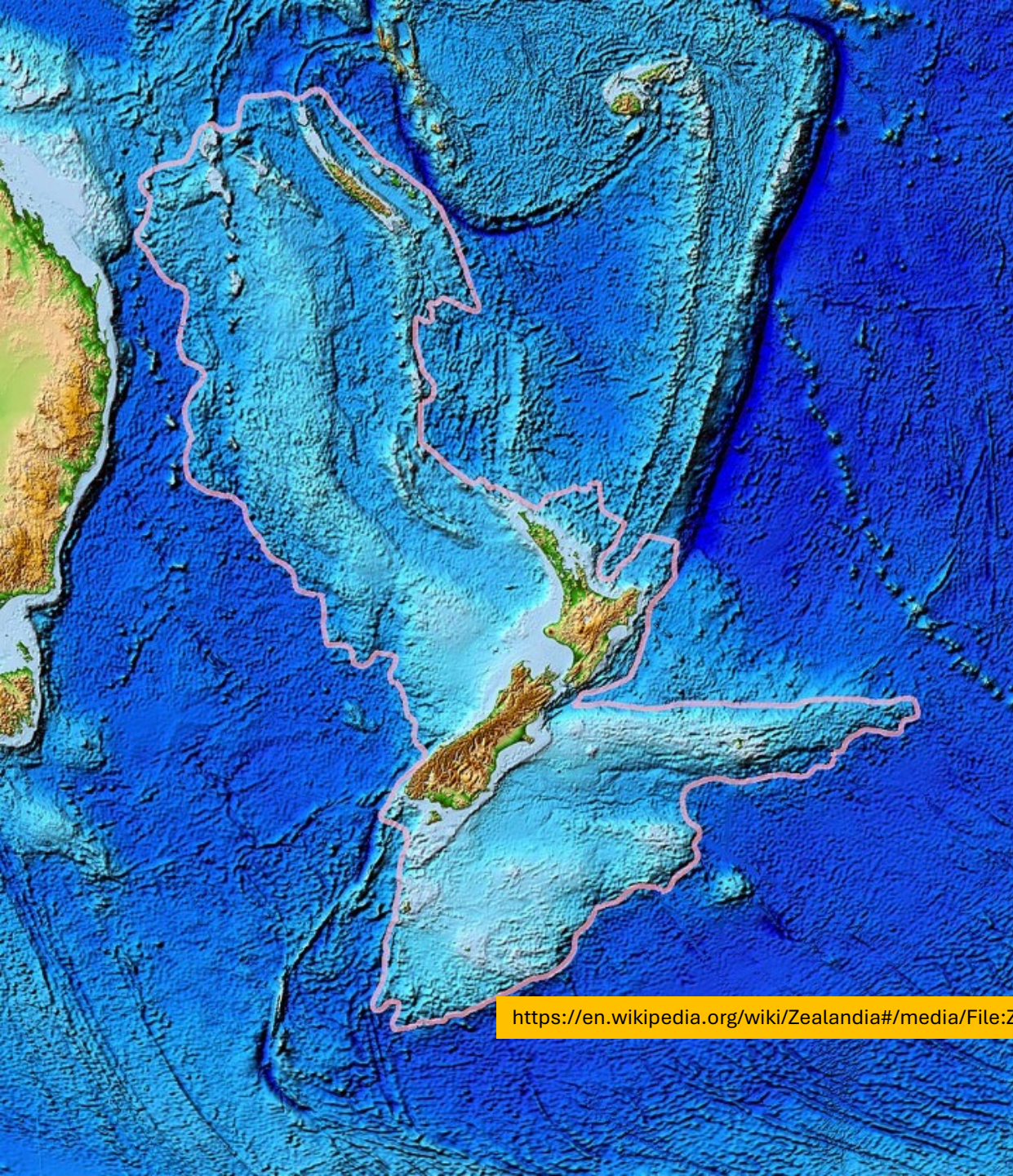
- pH, total dissolved solids (TDS), electrical conductivity (EC), alkalinity;
- major anions and cations;
- dissolved metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc);
- nutrients (ammonia as N, nitrate + nitrite as N, total Kjeldahl nitrogen, total phosphorus)
- faecal coliforms (Sub-sample sent to BCC Scientific Analysis Services for analysis)
- pesticides; and
- herbicides





Gold source



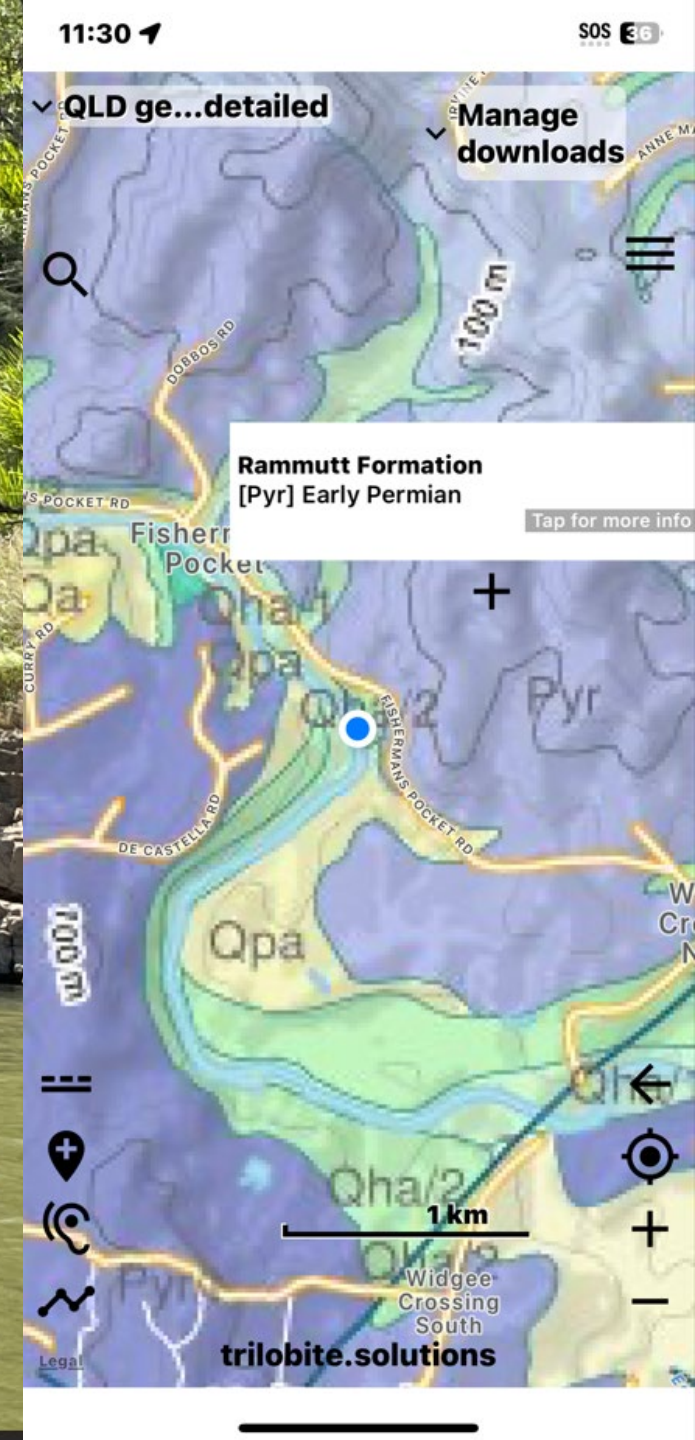


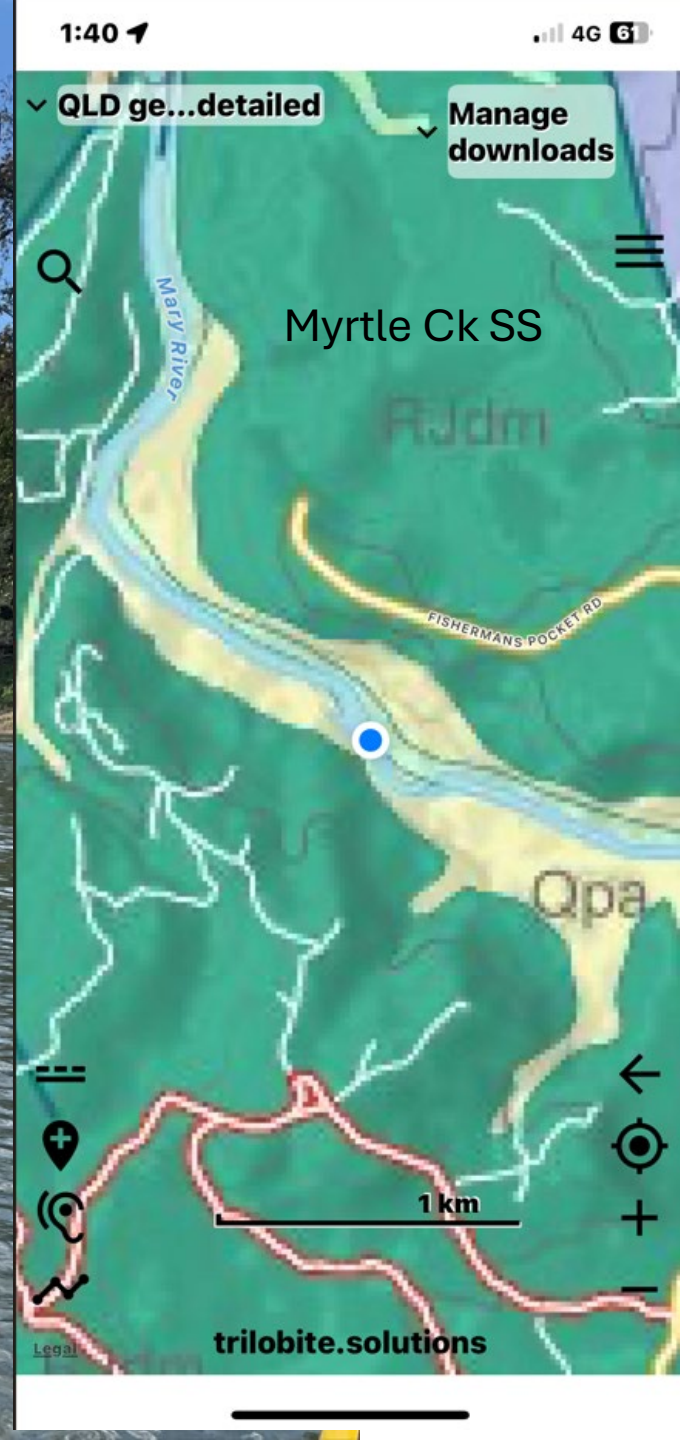
https://en.wikipedia.org/wiki/Zealandia#/media/File:Zealandia_topography.jpg

GYMPIE GROUP	GEGM stratigraphy	Revised stratigraphy		
		Formation	Member	Lithological Description
Late Permian	Tamaree Formation (T)	Tamaree Formation	Pgt	Rhythmically graded beds of sandstone, siltstone and mudstone
Middle to late Permian	South Curra Limestone (U)	South Curra Limestone	Pgs	Dark grey silty limestone, bioclastic calcarenite, siltstone interbeds
	Langton Dolerite (D)	Langton Dolerite	Pgl	Massive fine-grained dolerite, partly amygdaloidal
Early to Middle Permian		Rammutt Formation	Pgr	Volcanogenic sandstone, conglomerate, siltstone, andesite
	Top conglomerate (Ng)	Glanmire Conglomerate	Pgrg	Clast-supported polymict cobble conglomerate, coarse-grained sandstone
	Pengelly Siltstone (P)	Pengelly Siltstone	Pgrp	Dark grey carbonaceous siltstone, shale
	Upper Nash clastics (Nu)	Nash Clastics	Pgrn	Volcanogenic sandstone, pebbly conglomerate, minor siltstone
	Calton volcanics (C)	Calton Andesite	Pgrc	Felds
	Calton clastics (Cs)	Calton clastic facies	Pgrcx	Epicle
	Lower Nash clastics (Nl)	Eldorado Clastics	Pgre	Volca
	Mary volcanics (M)	Mary Basalt	Pgm	Hema
	Tozer volcanics (Z)	Tozer Basalt	Pgmz	Green
	Alma Formation (A)	Dawn Formation	Pga	Pale g
	Hall andesite (Ha)	Kidgell Andesite	Pgak	Hornl
	Hall clastics (H)	Hall Clastics	Pgah	brecc
	Ellen Harkins carb shale (Ac)	Ellen Harkins Shale	Pgac	Green
	Excelsior bed (Ae)	Excelsior Marker Bed	Pgax	hyalo
				Conglomerate in silty hematitic matrix
Late Carboniferous	Highbury volcanics (Hi)	Highbury Basalt	Pgh	Basalt lavas, flow & tuff breccias, hematitic, scoriaceous, pyroxene-phyric



Figure 3: Correlation of stratigraphy used by GEGM with newly revised stratigraphy of the Gympie Group at Gympie.















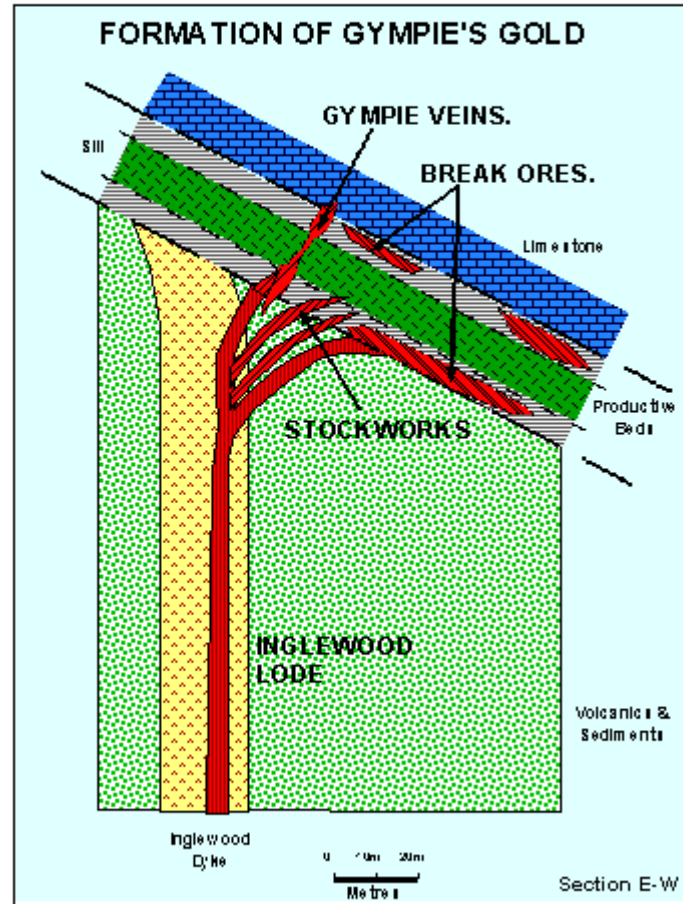
The Gympie Gold Story: Exploring and Reopening A Historic Goldfield In Today's Business Reality.

Ron Cunneen¹ & Ian Levy²

2.2 Gold Lodes

Four main styles of quartz-gold lodes are recognised and are summarised in Figure 2. In a modern ex

Figure 2



Gympie Veins

Gympie Veins are individual tensional- vertical extent the grades tend to be si strike approximately north-south and d mines exploited several of these veins

Break-style

Break-style veins are bedding-parallel vertical vein comes in contact with the shear as a narrow ribbon for several h

These zones of quartz have produced the current Monkland Mine, break-style

Stockworks

Stockworks are wide zones of num by economic cut-off grades of the t

Like the Gympie Veins they require than the larger Gympie Veins. Thi arsenopyrite.

Individual stockwork orebodies cor

Inglewood style

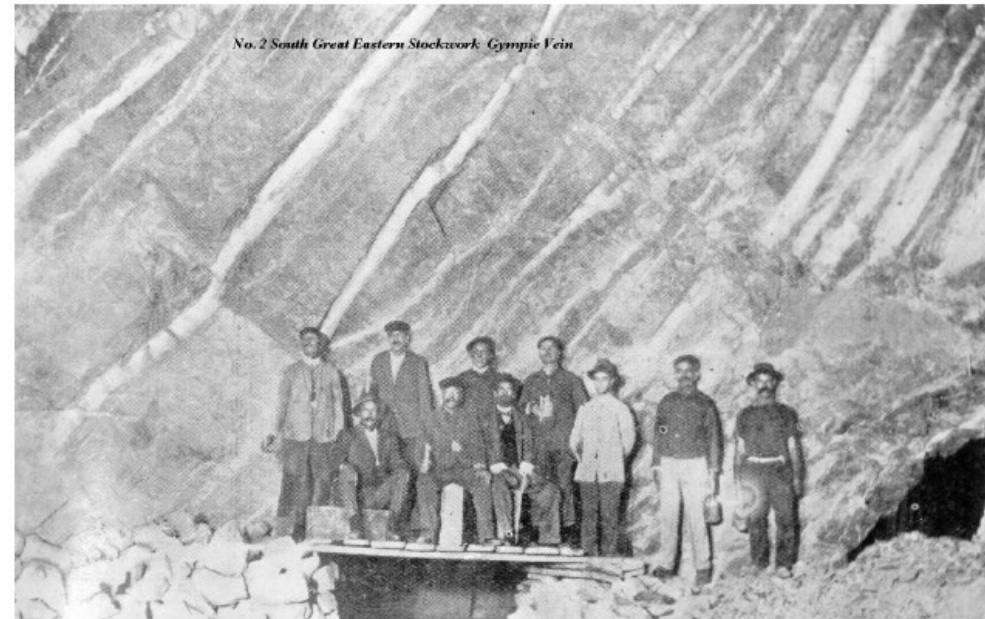
The Inglewood Reef is a large, sub-vertical, structure containing laminated quartz vein lode and extends over a strike-length of 2 km and a height of over 800m.



Photograph 56: Inglewood Reef, 15 Level development drive, 750 m below surface, Monkland Mine, circa 1993. Photograph from GEGM library.



Photograph 54: Gold in quartz within carbonaceous siltstone, Pengelly Siltstone Member. In GEGM drill hole L068, depth 60.6 m, drilled from Stockwork 6A, Monkland Mine.



Photograph 55: Sheeted Gympie Veins, No 2 South Great Eastern Mine, possibly on 1190 ft Level, 363 m below surface, circa 1902. GEGM Photograph library.

THE GYMPIE GOLD STORY: EXPLORING AND REOPENING A HISTORIC GOLDFIELD IN TODAY'S BUSINESS REALITY.

Ron Cunneen¹ & Ian Levy²

ABSTRACT

Fresh rock chip geochemistry has proven more useful in exploration than secondary geochemical halos in soil and stream sediments because the goldfield is heavily contaminated by 4.5 million tonnes of old tailings and millions of tonnes of mullock that had been distributed widely during and since historic mining. ^{1,2} Exploration geologists, Gympie Gold Limited.

Gympie The real treasure is the town's post



Gympie The real treasure is the town

2 February 2022 · 🌐

...

Mullock heaps where the One Mile soccer ovals are and One Mile School in the background. Mullock Heaps were a regular sight throughout Gympie most were eventually used to make our roads. Unsure of the year can anyone help?

Gympie Regional Libraries

[One Mile State School](#)

[#lovegympie](#)

<https://www.facebook.com/GympieRealTreasure/posts/mullock-heaps-where-the-one-mile-soccer-ovals-are-and-one-mile-school-in-the-bac/5227244670642228/>



Write a comment...



g low-level gold. This testwork revealed that most gold orebodies in the Gympie Goldfield exhibit a primary geochemical halo e because the goldfield is heavily contaminated by 4.5 million tonnes of old **tailings** and millions of tonnes of mullock that had b



Deep Ck / Mary R; Normanby Bridge, Rail Bridge circa 1920

Deep Ck/ Mary River. 12 April 2023



67. Normanby Bridge and Railway Bridge, Gympie, Q.

1934.
—
QUEENSLAND.

ANNUAL REPORT
OF THE
UNDER SECRETARY FOR MINES
TO
THE HONOURABLE JAMES STOPFORD, M.L.A.,
SECRETARY FOR MINES,
INCLUDING THE
REPORTS OF THE WARDENS, INSPECTORS OF MINES, GOVERNMENT
GEOLOGISTS, AND OTHER OFFICERS,
FOR
THE YEAR 1933.

PRESENTED TO PARLIAMENT BY COMMAND.

The cyanide plant owned by Messrs. Archbold and Runge at the old *Scottish Gympie* mine was put in order, with replacements where necessary. A new 22 h.p. Ruston-Hornsbey crude-oil engine was erected. The cyanidation of the old tailings at the Phoenix P.C. dump was undertaken, and during the year 19,080 tons were treated for a recovery of 2794.60208 oz. of gold bullion of a value of £4,564 15s. 5d., exclusive of £3,813 1s. 4d. paid as gold premium.

Tailings were also cyanided at the *Gympie Cyanide Works* by Mr. W. H. C. Lovely, obtained from auriferous sands claims held by him, and from 1,920 tons the result was 208.3291 oz. gold bullion of a value of £335 19s. 8d., plus £287 14s. 11d. paid as premium on the gold.

On the auriferous sands claim on Deep Creek held by West Brothers, 302 tons of sands were put over the concentrator for a return of 15 oz. 4 dwt. of retorted gold and 144 lb. of **mercury**. The heavy rains during the year retarded operations.

‘..for every kgm of gold recovered ... loss of 1kgm of mercury to the environment’

THE GOLD RECOVERY PROCESS

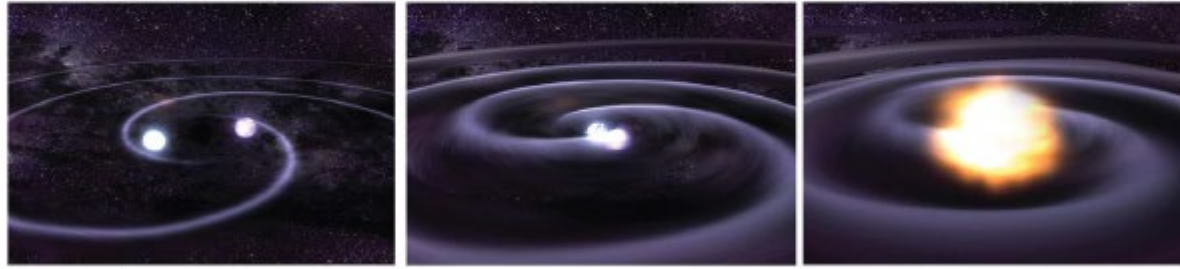
The gold—mercury amalgam from the stamper battery amalgamating trays was collected in enamel lined cast iron buckets and the contents pressed to extract surplus mercury which was returned to the storage flask for re-use. When sufficient solid amalgam was obtained, it was put into a retort which was then sealed and placed in the furnace. At a temperature of 250°C mercury sublimes (turns to vapour) and is condensed in the usually water jacketed tube for reuse in the stamper battery. It is worth noting that for every kgm of gold recovered there was a loss of 1kgm of mercury into the environment.

The gold cake was removed from the retort and placed in a graphite crucible with chemicals such as borax to purify the gold which was then heated to over 1064°C to melt the gold to enable it to be poured into moulds



Gympie Gold Mining and Historical Museum

HEAVIEST ELEMENTS



Two neutron stars spiral toward an explosive collision. Recent evidence supports the theory that many of the periodic table's heavier elements form through such crashes. Credit: Ron Miller

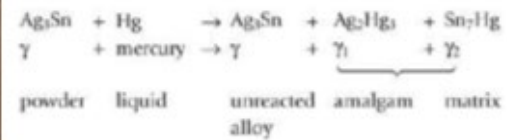


Galinstan Ga/In/Sn - 1996



Setting reaction

The setting reaction between the Ag-Sn alloy and the mercury is initiated by a vigorous mixing of the two ingredients. This mixing causes the outer layer of the alloy particles to dissolve into the mercury, forming two new phases, which are solid at room temperature. The reaction is as follows:



Dental amalgams



Copyright© National Geographic Society, All Rights Reserved

A MINERAL of a perfectly singular kind," wrote Englishman John Hill of mercury in the 18th century. "It penetrates the Substance of all Metals, and dissolves, and makes them brittle." Today many of us have come to share the old scientist's wonder at mercury's perfect singularity—but our wonder is mixed with fear of the element as a pollutant, and with confusion about the extent of the danger it poses.

The confusion is understandable. For years most of us thought of mercury, if at all, as that silvery liquid in thermometers. Then, suddenly, we became aware of mercury's double nature. It can be a deadly enemy, striking down even the unborn. Yet it plays a vital role in our daily lives.

We learned of a New Mexico family poisoned after eating meat from a hog fed with mercury-treated seed, of rivers and lakes closed to fishing because of mercury contamination, of canned tuna being removed from supermarket shelves, and of giant industries shaken by charges of pollution. Then came scientific reports that challenged some of the government's protective measures.

Earlier this year grim reports from Iraq reminded us again of mercury's perils: When a large shipment of mercury-treated grain seed was distributed, villagers used it to make bread and to feed animals. Some 450 people died and thousands more were afflicted.

Looking into the mercury question, I traveled across the United States and around the world: to Spain, where men have mined the element since before the time of Christ; to Japan, where a score of teen-agers still suffer the agonies of mercury poison ingested while in their mothers' wombs; to Sweden, where scientists and government officials, acting to save vanishing bird populations, pioneered mercury-control studies.

The answers I received sometimes differed, but on one thing all were agreed: "The great mercury scare" provides a textbook example of the kind of problem we will meet again and again in our chemical-filled age. The lessons we draw from it can serve us in confronting similar challenges to come.

The story of mercury, also called quicksilver, begins some 4½ billion years ago, when the earth was formed. It is an element, a metal, like copper and iron. It is about 1.2 times heavier than lead. But unlike any of these, it has a melting point of -38° F. (iron, by comparison, melts at +2,795° F.), so that we usually see mercury as a liquid. During the passage of eons, it worked its way throughout the earth's surface—appearing in rocks, soil, water, air, and living organisms.

At some prehistoric time a man was attracted by a red rock. He picked it up, mixed bits of it with water, and found that it could be used to draw on the walls of caves. The rock was cinnabar, the sulphide ore of mercury. Archeologists have found it used as a pigment

Quicksilver and Slow Death

By JOHN J. PUTMAN
NATIONAL GEOGRAPHIC STAFF

Photographs by
ROBERT W. MADDEN

Fluid as water, brilliant as silver, heavier than lead, mercury spills through a mine worker's fingers. A unique element—the only metal that is liquid at room temperature—mercury has fascinated mankind for centuries. Ancients used its compounds for medicines and pigments. Today thousands of products—from thermometers and light switches to pesticides—depend on its unusual properties. But recent tragedies, caused by rising levels in the environment, have shown that mercury can be a deadly servant.



Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus
Data LDEO-Columbia, NSF, NOAA

the separation of lithium 6, an isotope involved in the fusion reaction in hydrogen bombs.

When American astronauts left for the moon, they carried long-life mercury batteries to power emergency lights. The same batteries power military radios, the sensors dropped along enemy supply trails in Viet Nam, and the cardiac pacemakers that have been sewn into hundreds of thousands of patients to keep their hearts beating steadily.

From Japan Comes a Dire Warning

It was in 1953 that man received his first notice that mercury's marvels came with a price tag higher than occasional occupational illnesses. That year in villages around Minamata, a small city on Japan's island of Kyushu, fishermen and their families began to fall victim to a mysterious and catastrophic disease. When I journeyed there, I found some of the villagers still paying that price.

Shinobu Sakamoto, 15 years old, lives in the village of Yudo. When she appeared in the doorway of the room where her mother and I sat talking over cups of green tea, I was struck by her loveliness: almond eyes, a bright smile, and a willowy body. She tossed down her book bag and spoke to us. The words came out not in the rapid flow of her mother's speech, but slowly, as if with pain, and cruelly distorted.

Mrs. Sakamoto answered with a smile and the girl walked—with a tottering, jerky gait—into the next room. I heard a television set snap on. Now and then, as Mrs. Sakamoto and I talked, we would hear the girl's gentle laughter from the other room.

Shinobu is one of 202 people who were poisoned by contaminated fish from Minamata Bay. Fifty-two died, including Shinobu's older sister. Most of the victims had eaten the fish, a three-times-a-day staple in such humble seaside villages.

Shinobu had been poisoned while still in her mother's womb. Mrs. Sakamoto herself had experienced no symptoms. But the poison in her bloodstream had worked its way past the placental barrier to wreak its destruction on the unborn Shinobu.

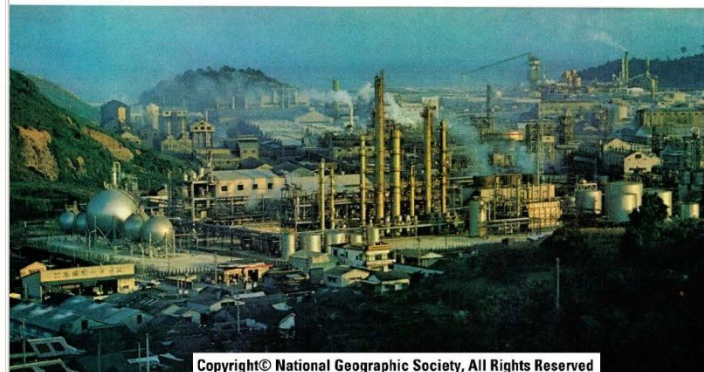
"We did not know anything was wrong with her until, at about 3, we noticed she had difficulty walking and holding up her head; she fell down often.

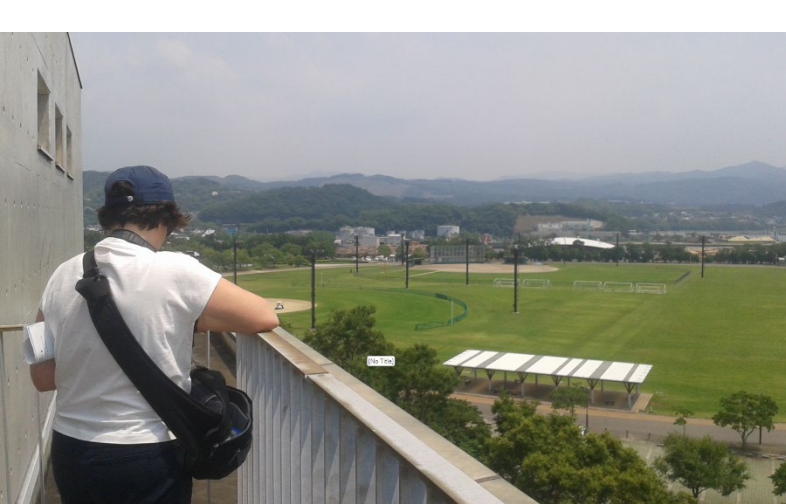
"We took her to the hospital. By then the cause of the poisoning was known. I was told there was no cure. We could only try to train



BOTH BY JAMES L. STANFIELD

CRIPPLED BY POLLUTION, Shinobu Sakamoto struggles to fasten her sweater buttons. She was inadvertently poisoned by wastes from a chemicals plant at Minamata, Japan (right). In the 1950's the factory discharged lethal methyl mercury into Minamata Bay. Transferred through the food chain, the mercury became concentrated in fish, from which it passed to the population.



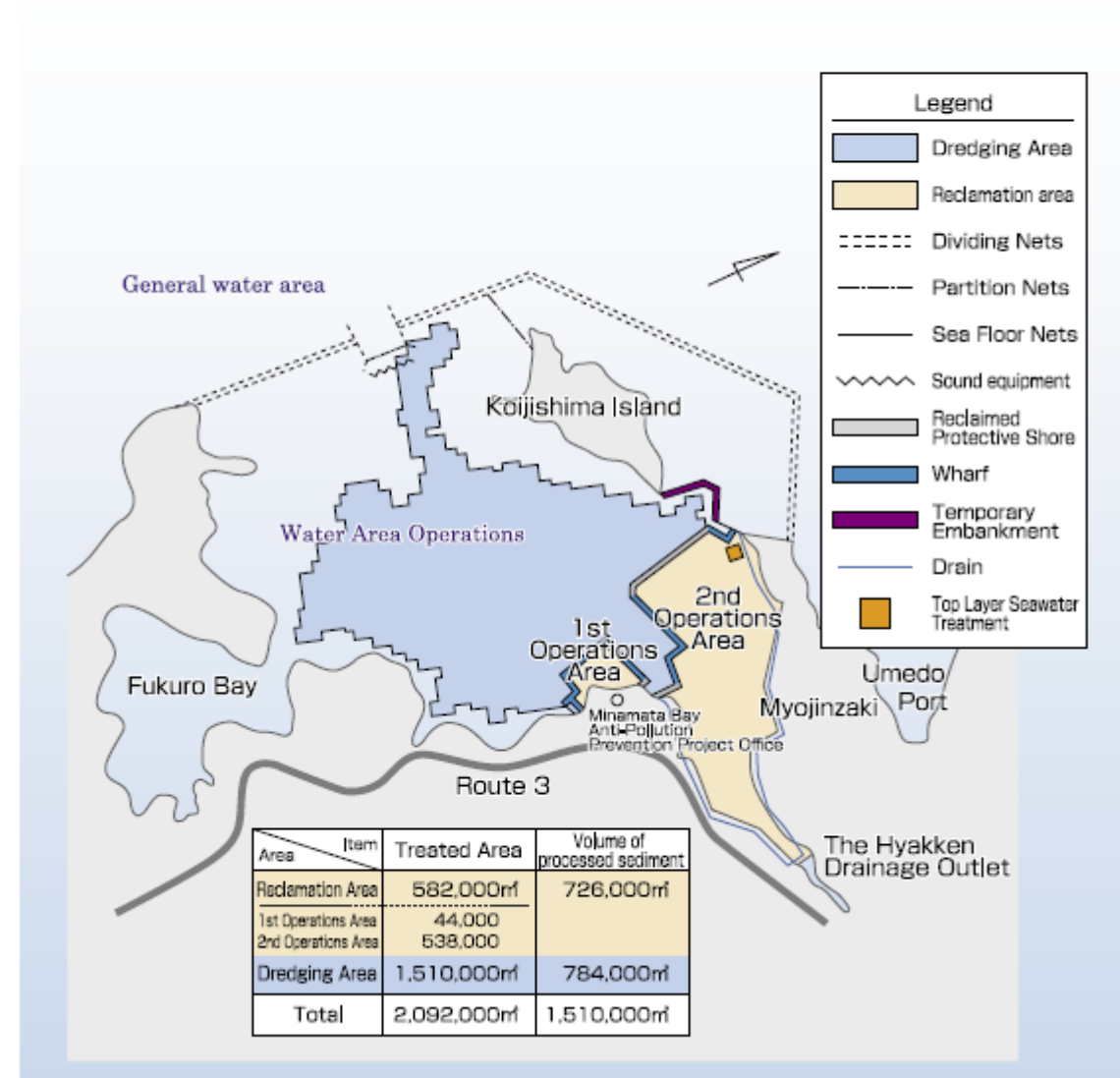


2019



Fig. 5 Map of Minamata Bay Dredging Operations

Reference: Kumamoto Prefecture, *Minamata Bay Environmental Restoration Project* (Exhibition at the Minamata Disease Municipal Museum)



Construction of the Reinforced Shore using Steel Sheet Pile Cells



Dredging using a Cutterless Pump Dredging Ship



Australian Government
Department of Climate Change, Energy,
the Environment and Water

National Implementation Plan

Minamata Convention on Mercury

Australian Government Department of Climate Change, Energy, the Environment and Water

October 2024



Highlighted



MINAMATA CONVENTION UPDATES

NEWSLETTER

Minamata Convention updates: February newsletter

Learn more about the eighth meeting of the Effectiveness Evaluation Group, the intersessional work towards COP-7, the ninth replenishment of the GEF Trust Fund, a COP-6 highlights video and more.



FROM THE EXECUTIVE SECRETARY

Save the date for the seventh meeting of the Conference of the Parties to the Minamata Convention on Mercury: 6- 10 September 2027

The Secretariat is pleased to inform that COP-7 will now take place from 6-10 September 2027, with regional preparatory meetings on Sunday, 5 September 2027.

<https://minamataconvention.org/en>

The Convention ▾ Meetings ▾ Parties ▾ Implementation ▾ Focus areas ▾ Resources ▾ News ▾



HIGHLIGHTS

ICMGP 2026: Call for abstract submission

Abstracts are invited by 15 March for potential inclusion in ICMGP 2026, to be held in Hyderabad, India in October under the theme "Reaching Ten Years of Enforcement of the Minamata Convention".



NEWS

Experts advance the first effectiveness evaluation of the Minamata Convention

The Effectiveness Evaluation Group under the Minamata Convention on Mercury gathered in Geneva from 9 to 11 February 2026.



Sixth meeting of the Conference of the Parties to the Minamata Convention on Mercury (COP-6)

3-7 November 2025
neva - Switzerland

VIDEO

Minamata Convention COP-6: Highlights and Key Messages

Watch the video on the meeting held in Geneva from 3 to 7 November 2025, where key decisions were adopted to strengthen global efforts in the fight against mercury pollution.



HIGHLIGHTS

Webinar: New Entries to the "Catalogue of Technologies and Services on Mercury Waste Management"

This event (Tuesday 27 January, 12h00-14h00 CET) focused on the latest version of the catalogue developed by the Waste Management Area of the UNEP Global Mercury Partnership.





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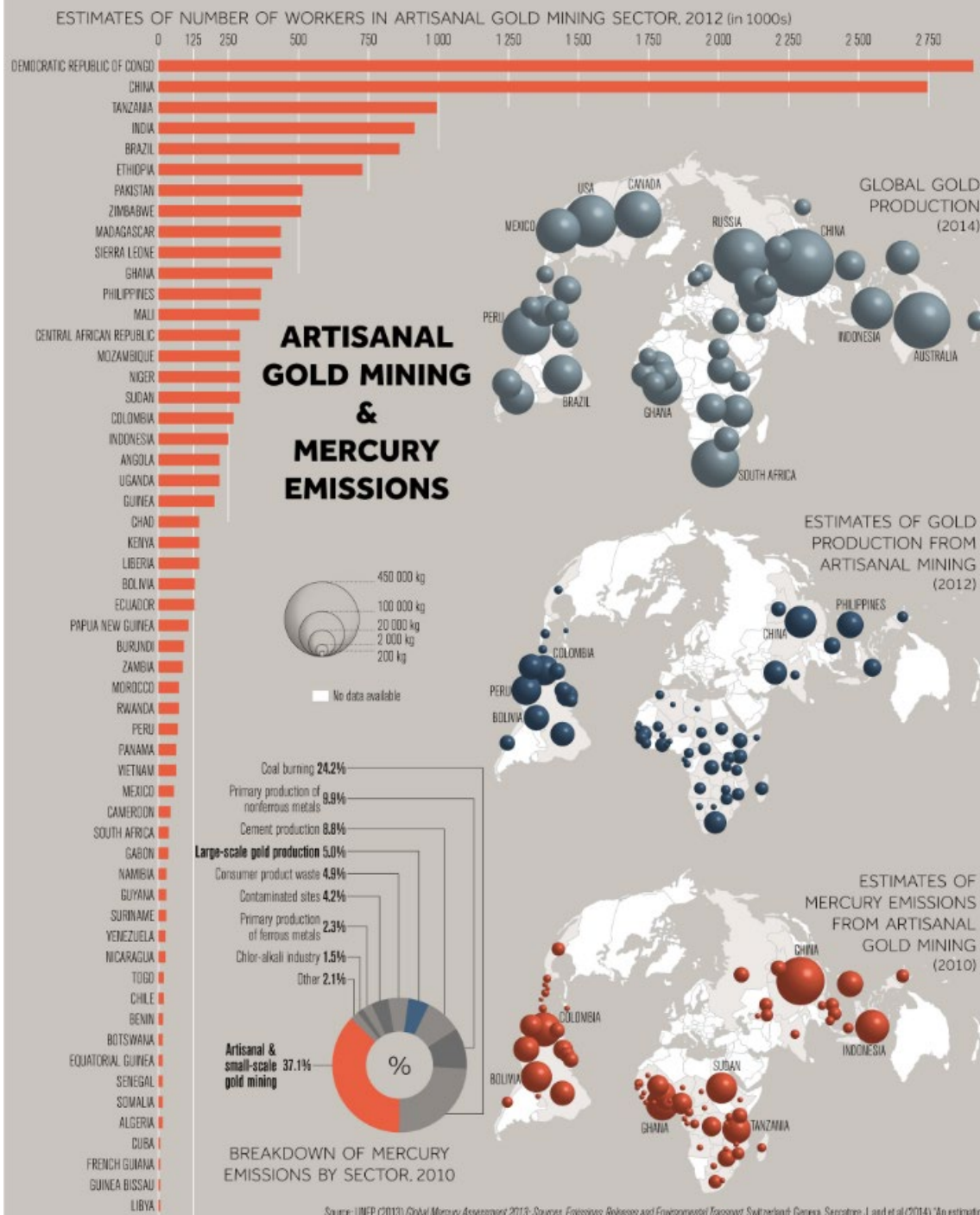
 158



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https://farm1.staticflickr.com/548/31643082131_b95d80651b_o.jpg

MERCURY AND ALUMINUM

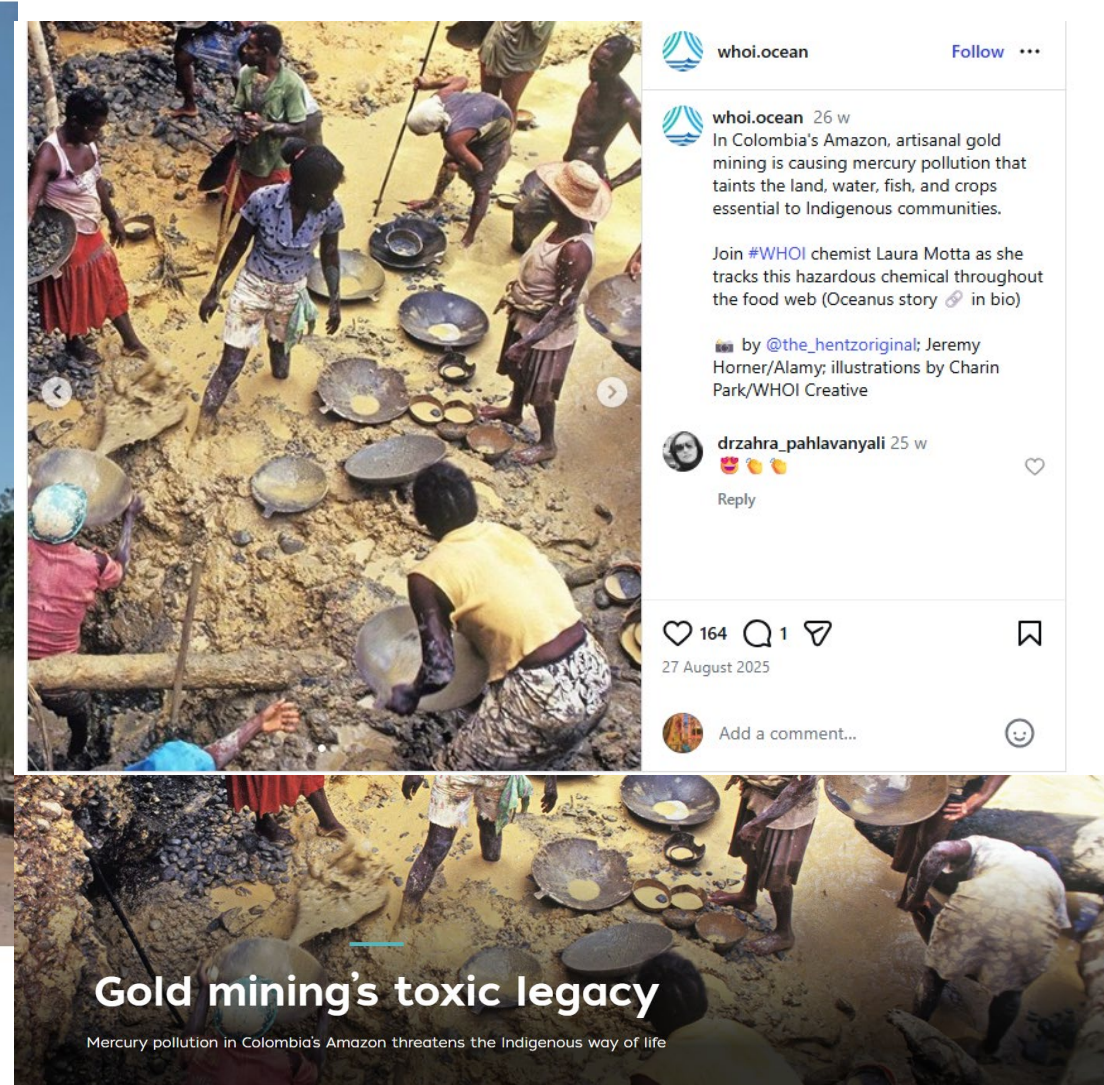


https://www.youtube.com/shorts/eNL_nDqfhLQ

https://www.instagram.com/p/DN1QcZc5kdd/?img_index=2



See what clean artisanal gold mining means for Amazon





QGMJ, Maryborough

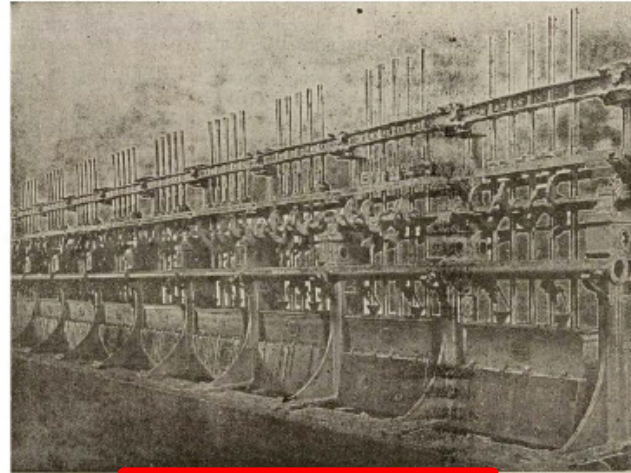
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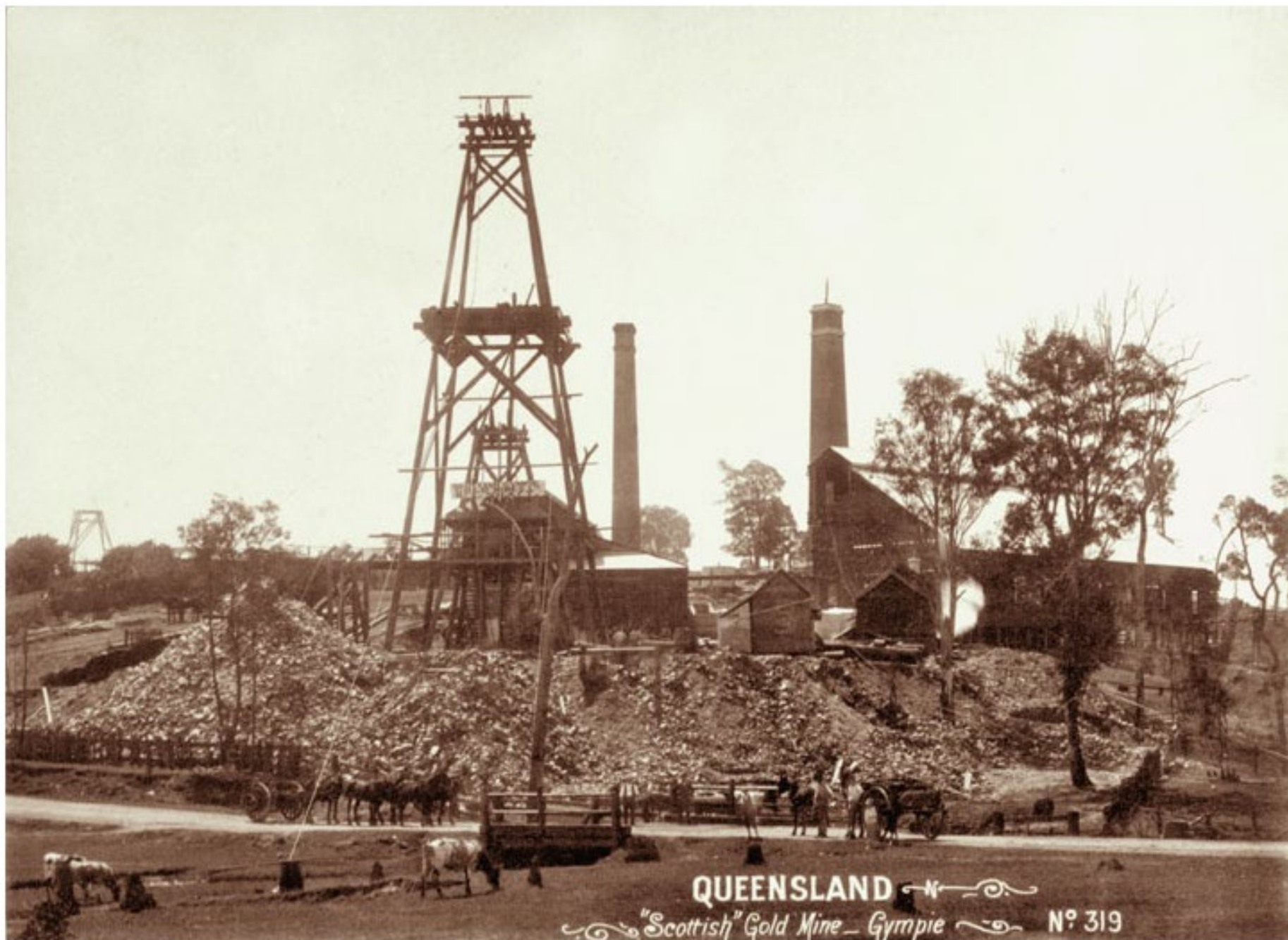
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QUEENSLAND

"Scottish" Gold Mine - Gympie

No 319

In compiling the gold production from the Gympie Goldfield, Barker *et al.* (1993) noted that early records are incomplete. One table listing annual gold production from 1868 to 1927 was published in the Gympie Times (Woolgar, 1927, page 40), giving a total of 4,084,720 ounces gold bullion or 127,049 kg. This table's outputs for 1868–1898 are identical to those listed by Lees (1899), which were taken from Departmental records, so are likely to be from the same source. Barker *et al.* (1993) calculated a total fine gold output up to 1993 of 105,258 kg using a fineness value of 820 for the bullion, but they do not state the original bullion figure or the source of the fineness value. Recalculation gives a total of 128,363 kg gold bullion. Mine records of gold fineness are no longer available but they are believed to range between 820 and 930.

In the modern phase of gold mining in Gympie at Monkland Mine, from 1994 to 2008, a total of 12.0 tonnes (387,000 ounces) of gold was produced from 1.76 million tonnes of ore with a recovered grade of 6.8 g/t and a mined grade of 7.1 g/t. Approximately 60% of the total produced from this phase was sourced from

the Inglewood Reef. Rich bonanza veins, described below, were mined from 1998 to 2001, boosting overall gold recoveries during this period to a maximum annual average return of 9.8 g/t Au.

Total gold (bullion) output for the period 1868–2008 is estimated to be about 140 tonnes or 4,500,000 ounces.

As of mid-February 2026, the gold price in Brisbane is approximately **AUD 7,117 per ounce**. Retail prices for 1oz gold bars are generally around AUD 7,400–7,500, with buy-back prices from local dealers ranging from AUD 6,800 to over AUD 6,900. Prices are high, reflecting strong market demand. [🔗](#)

Key Gold Price Information (AUD):

- **Spot Price:** ~AUD 7,117/oz
- **1oz Bar (Buy):** ~AUD 7,265 - \$7,561
- **1oz Bar (Sell/Buy-back):** ~AUD 6,807 - \$6,915
- **1 Gram Bar:** ~AUD 221 [🔗](#)

A\$32,026,500,000

KILKIVAN MERCURY MINING.

By A. K. DENMEAD, M.Sc., Geologist.

This intermittently productive meroury field was a prolific producer in the early days of Gympie when amalgamation was an essential feature of gold recovery; and after a long period of quiescence production was renewed on a small scale during the last war.

This Department encouraged individual efforts to increase production; and after the outbreak of war and the cutting off of European supplies, an intensive geological survey of the area was made, but without revelation of much promise of appreciable reserves.

It is now suggested that mercury metallisation is essentially superficial—and the ores mined are supposedly secondary enrichments—due to the precipitative action of the abundant lode lime upon mercury sulphide in solution. The richer ores have to be gouged out and the formations as a whole are far below normal workable grades; and little hope is offered of appreciable future production.—L.C.B.

Ball, L.C. Qld Chief Geologist 1945

undertaken by the company. The Australian demand for mercury is quite a large one, our imports for 1906 being 77½ tons, valued at £17,139, and practically the whole of this was derived from Spanish mines.

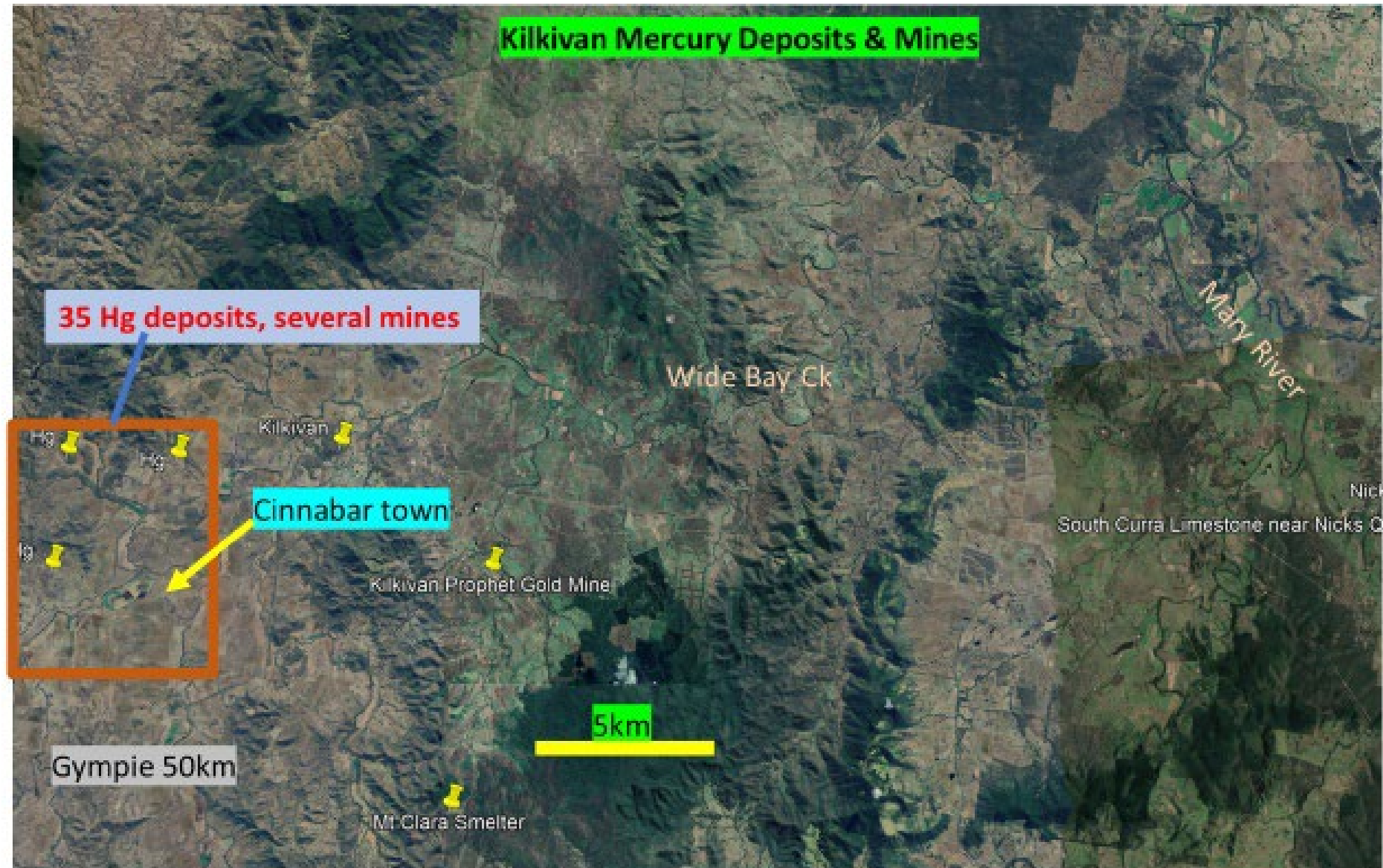
Brisbane, 30th April, 1909.

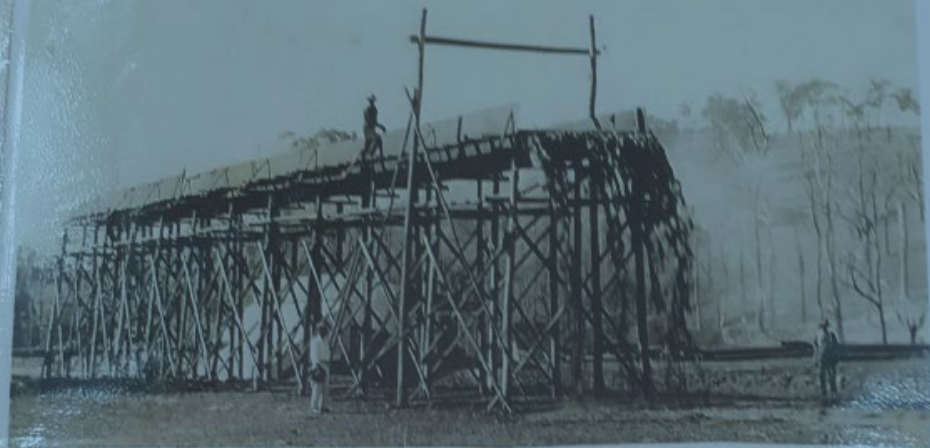
'Prolific producer in the early days of Gympie'

Renewed production WWII



The output of the Kilkivan mines was sufficient for the supply of the Gympie amalgamators in the early years of the industry. Between 1874 and 1891 a total of 41 tons of mercury was produced, and the average yield of the stone treated in the last year was 5.3%. No record can be found of the later product of the mines, which have now been closed down for many years. I have heard rumours, however, that some prospecting has been going on in the district during the last few months, and that there is some likelihood of capitalists becoming interested in the work.





27. "QUICKSILVER PLANT IN OPERATION 23.3.33
SLUICE BOXES SHOWING SLURRY POURING OUT OF THE TAIL END AFTER
SAVING QUICKSILVER. A.W. WILSON, (D & H WILSON)
KILKIVAN."



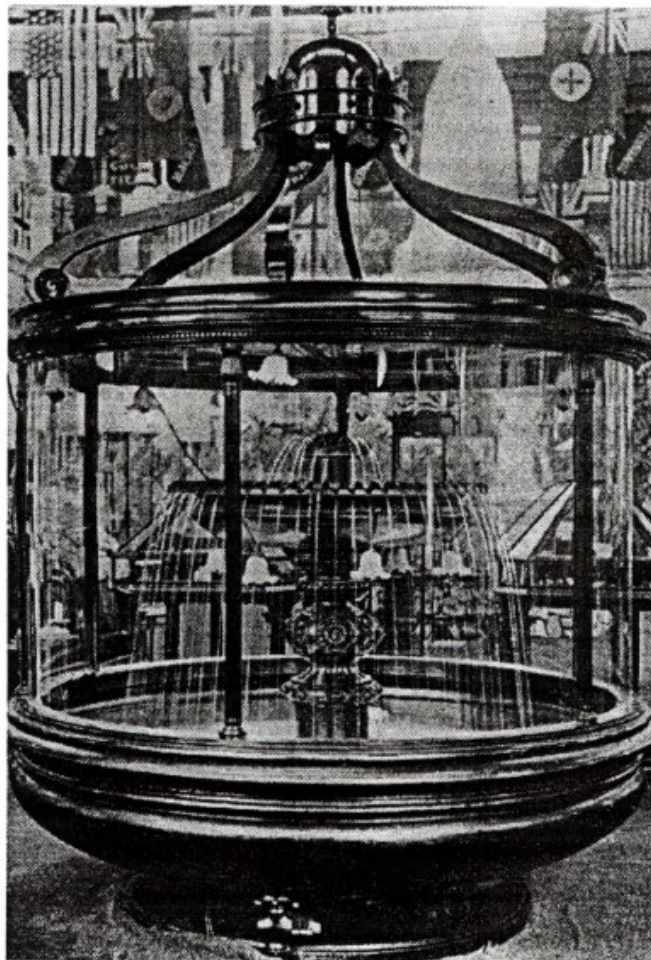
3

12-8-1933.

Mining.—Operations have been resumed at the Queensland quicksilver works on a small scale, with the water pumped from the Wide Bay Creek. As soon as good rain falls and fills the dam sluicing works will be resumed on a large scale.

Copy of newspaper
article - unknown source

Kilkivan

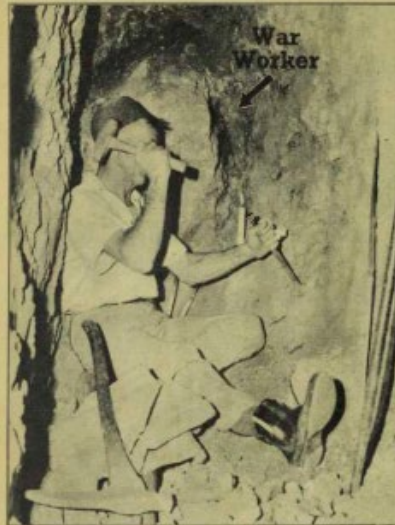


McKay, Judith Marilyn. 1996. 'A good show' : colonial Queensland at international exhibitions. Thesis

122. Queensland's 'famous' mercury fountain in its Glasgow guise complete with coloured lamps.

[*British Australasian* exhibition supplement, 8 August 1901, p.4]

Mining Mercury For Our Munitions



Raw Material Mercury is found in many parts of the world, but only in a few instances is it a commercial proposition. Australian deposits are relatively small. Deposits on North Coast of N.S.W. are not at present being worked. Total production in Queensland since 1860 was 18,320lb., valued at £2068. Above: Miner works 60 feet underground at Cinnabar.



Finished Product Fuses being assembled in an Australian factory. They contain fulminate of mercury. Fulminate results from treatment of mercury with nitric acid, alcohol. Explosion of mercuric fulminate is so violent, rapid, that it has to be modified by mixture with other chemicals for use in munitions. Pure fulminate is so sensitive that tick of a finger-nail is sufficient to cause it to explode. Usually, it is handled only in small lots.

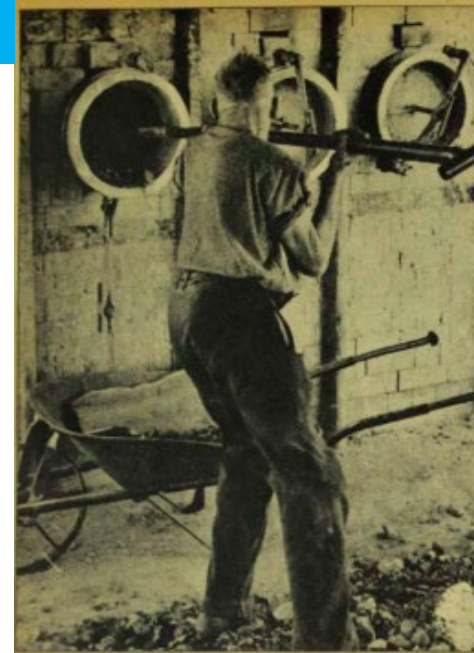


Man-Power Several shafts have been sunk at Cinnabar. Cost of recovering ore is relatively small, as little equipment is needed. Miners descend by windlass, scull ore in bucket aloft by same method.



Crushing Cinnabar, brought from mine in large lumps, is broken up before treatment in retorts. Power crusher is used for this purpose. Cinnabar ranges in color from a dark brown to brilliant red.

VITAL Since war, mercury is being produced at rate of 50lb. a week at Cinnabar, Queensland. It is the only mine at present producing mercury in Australia. A little of this valuable element goes a long way. Minute quantities of fulminate of mercury are used to detonate practically every explosive used in warfare—cartridges, shells, bombs, depth charges, mines, etc. Present market price is about 25s. a lb. Retorts at Cinnabar are kept going 24 hours a day. Mine is run by local manager, C. Poynting, and eight men. Mercuric ore—cinnabar—is obtained from shafts, in places 60 feet below surface. Treated in retorts, ore gives off a gas which is condensed by cooling. Mercury is then collected and bottled. It is paradoxical that cinnabar, so often used to produce death-dealing devices, has also for centuries been used to adorn beauty. Red metallic ore, carefully carved, makes striking necklaces, ear-rings, bracelets.



Ore Is "Cooked" Ore is placed in iron retorts, heated with a wood fire. Mercury gas is driven off by temperatures above 250 deg. Centigrade. Gas passes through pipes to condenser.



Collecting Mercury Gas from retorts passes through pipes wrapped with wet sacking. Pipe ends are just covered by water. When mercury forms, it sinks to bottom in buckets.



Roughing It There are few social amenities at Cinnabar, but miners are used to roughing it. Here is dining-room. Most miners prefer to sleep in tents—they are cooler in summer. Cinnabar is about 150 miles from Brisbane. Temperatures there often soar above 100 deg. Mercury is also used for making many medicinal preparations.



War Barometer Mercury serves as barometer not only of weather, but also of war. Its consumption registers tempo of world munition making. Above is the deadly raw material.

LANDSCAPES OF CHANGE

A History of the South Burnett

VOLUME 1



Dr Tony Matthews Ph.D.

If there was ever any kind of military target on the South Burnett worth the attention of Japanese long range bombers, then it was the mercury mining operations at Cinnabar. The

— 292 —

36: Cinnabar

Japanese were certainly well aware of the deposits, Japanese espionage agents roamed throughout the state prior to the war making careful surveys of military and civil facilities that might serve the Japanese military following a Japanese invasion of the country. Agents disguised as tourists and businessmen travelled the countryside, some on bicycles, others by train and car, drawing maps, speaking with locals, and carefully recording everything of interest. The Cinnabar deposits would certainly not have escaped their attentions. Additionally, the Australian press during that time was also not adverse to publicising the importance of the mercury deposits, and to foreign intelligence services, press stories were one of the most favoured forms of information. For example, in 1941, when the Japanese had Queensland firmly within their sights as a military target, the *South Burnett Times* published a lengthy report detailing the importance of the mercury deposits at Kilkivan, the report had been taken from an editorial which had been published in the German monitored London press. There is no doubt whatever that this report would have found its way into the files of both German and Japanese intelligence departments and it would seem likely that the region would have been marked for special attention following an enemy invasion of the state.²⁵ The publication of such important information was then a sensitive issue. In September that year the local branch of the R.S.S.A.I.L.A., during a meeting at the Hall of Memory at Goomeri, passed a resolution that urged the censorship of newspapers be reinstated and strictly enforced.²⁶

Despite the promising prospects for the mine and regardless of the problems it was experiencing in its attempts to obtain assistance in producing the mercury, the mining operations near Kilkivan closed after the cessation of hostilities when prices once again plummeted.

Notes and Sources
Chapter Thirty-six
Cinnabar

On 23 January 1942 the Japanese landed in New Guinea and the Solomon Islands. Rabaul was captured and Singapore fell on 15 February. The Prime Minister, John Curtin, described it as 'Australia's Dunkirk—the opening of the Battle of Australia'. 'Our honeymoon is finished,' Curtin announced to the Australian people, 'Now we must fight or work as never before'.

Munitions

Rocklea, south of Brisbane, had been chosen by the Federal government as the site for a £1.5 million munitions factory in January 1941. From 1941 until 1943 the Rocklea factory produced about 150 million rounds of small arms ammunition and more than one million cartridge cases for 25-pounder shells. At its peak the factory employed about 3000 men and women, many of who lived nearby in government housing. Rocklea factory ceased munitions production in late 1943 when it was modified for the overhaul of US aero engines for the Department of Aircraft Production. The factory also engaged in the manufacture and repair of machinery for naval and merchant shipping at its marine engine works.

Ipswich railway workshops produced a huge quantity of war munitions. Amongst the machinery manufactured at Ipswich were a number of large lathes, aero engine crankshafts, presses for the production of shell and cartridge cases, and 25-pounder gun barrels.



Mercury Content Calculation

Mercury fulminate primer loading for .303 British: Early .303 Mk I-VI ammunition used mercury fulminate primers. The mercury content per primer was typically around **3-4 mg of mercury fulminate**, which contains approximately **85% Hg by mass** (molecular weight of $\text{Hg}(\text{CNO})_2 = 284.6 \text{ g/mol}$; Hg fraction = $200.6/284.6 \approx 70.5\%$). This gives roughly **2-3 mg of elemental mercury per primer**, consistent with the forensic figure of $\sim 3.5 \text{ mg}$ ($3,537 \mu\text{g}$) released per round.

Using **3.5 mg Hg per round** as the working figure:

Scenario 1: 137,729,208 rounds (~137.7 million)

Unit	Value
Mercury per round	3.5 mg
Total mercury	$137,729,208 \times 3.5 \text{ mg} = \mathbf{482,052,228 \text{ mg}}$
=	482,052 g
=	482 kg (~0.48 tonnes)

The Small Arms Ammunition factory at Rocklea commenced operations in November 1941, ten months after the site was chosen. The outbreak of the Pacific War on 8 December 1941, prompted the Rocklea Munitions Works to enter full production. The first production lot of 200,000 rounds of cartridge SA Ball .303 inch Mk VII was submitted for Army inspection in February 1942. The capacity of the RMW was expected to reach the production 220 million rounds of mall-arms ammunition in a full year.² Between March 1942 and October 1943 a total of 137,729,208 million rounds of small arms ammunition were produced at the RMW as well as 1,221,122 brass cartridge cases for 25-pounder artillery shells. The .303 round was standard ammunition for the Lee Enfield SMLE rifle, the Bren light machine gun (LMG) and the water-cooled Vickers heavy machine gun (HMG) used by the Australian Army and also by the Royal Australian Air Force. The 25-pounder field gun had become the standard artillery weapon used by the Australian Army, with an Australian cut-down version of this field gun having been adapted for use in the Papua New Guinea jungle.



Heritage Citation



Rocklea Munitions Works - S.A.A. Mess (former)

Key details

Address

41-18 Christie Street, Subiaco, Queensland 4107

Type of place

Entire site

Period

World War II 1939-1945

Lat/long

S 17.58° 142° 04'

Key dates

Local Heritage Place Declared

1 January 2005

Date of Citation

August 2018

Construction

Reed, Completed c.1941

The Quicksilver Situation.*

QGMJ Dec 15 1914

The quicksilver situation is at present of unusual interest because of the large use of mercury in the preparation of fulminate for explosives, the present and probable future consumption of which must have an important bearing on the market for the metal, withdrawal of available supplies and future demands. The following notes by H. D. McCaskey, of the United States Geological Survey, are of interest at this time:—

The world's production of quicksilver, in metric tons, was 4,171 tons in 1913, and has averaged 3,728 tons, or 109,584 flasks of 75 lb. net each, annually for the past ten years. During 1904 and 1905 the United States led the world in production, but from 1906 to date the leading producer has been Spain, whose great cinnabar deposits of Almaden, the output of which has been controlled by the Rothschilds and marketed chiefly in London, have proved very rich. The deposits of quicksilver ore in Idria (Carniola, Austria), and at Monte Amiata (Tuscany, Italy), have with those of the United States (chiefly California)

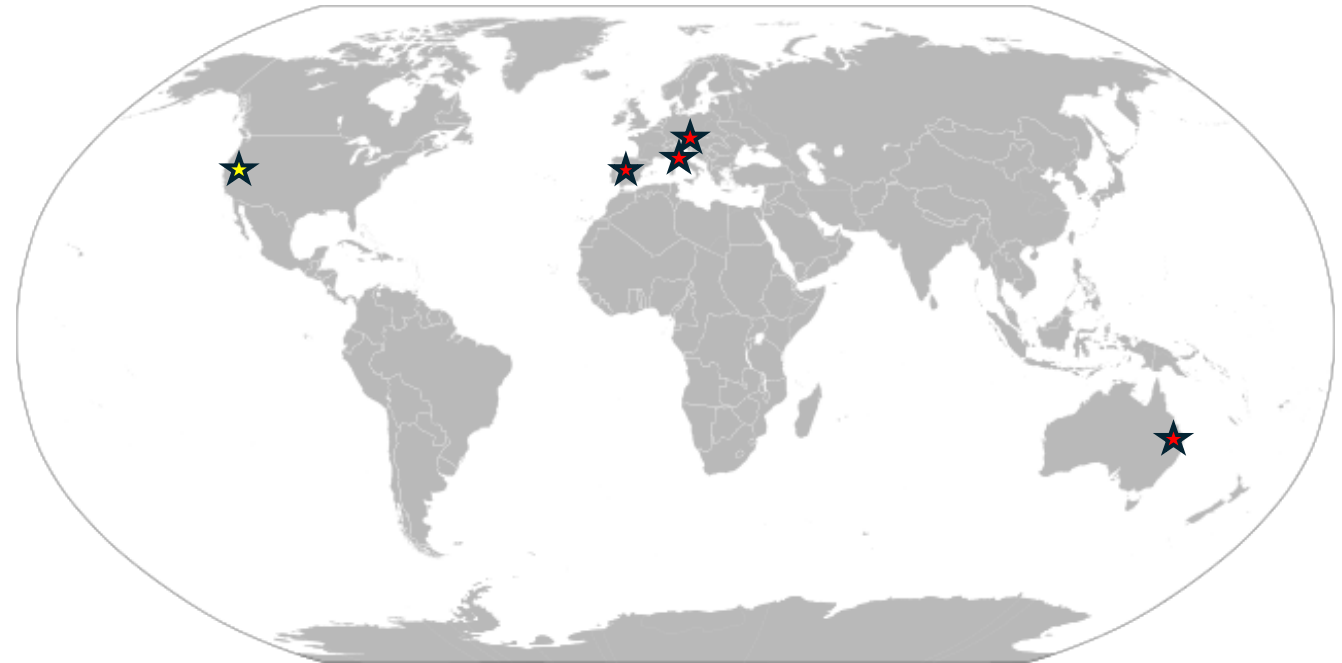
figures given in the survey report for 1913 show that during that year Spain produced approximately 1,490 metric tons, Italy 388 tons, Austria 855 tons, the United States 688 tons, and Mexico and all others 150 tons.

The production of the United States was 20,213 flasks of 75 lb. each; the imports were 2,289 flasks, and the exports 1,140 flasks, giving an approximate consumption and stocks available of 21,666 flasks, which is probably not far from the present domestic consumption. The domestic demand is mainly for making fulminate, for amalgamation of gold and silver ores, and for manufacture of electric and other appliances. It seems

unlikely that domestic production will greatly increase, so that there will hardly be any surplus in the United States for export.

The Austrian production of quicksilver, controlled as it is by the government, is definitely cut off from the world's markets, and the Italian supplies must be considered uncertain. The Spanish output is mainly controlled in London, and if this remains, but little metal will be free, for a time at least, for the foreign trade. Undoubtedly large quantities of available European quicksilver will be immediately utilized in the manufacture of explosive caps for fixed ammunition for both small arms and

Rothschilds

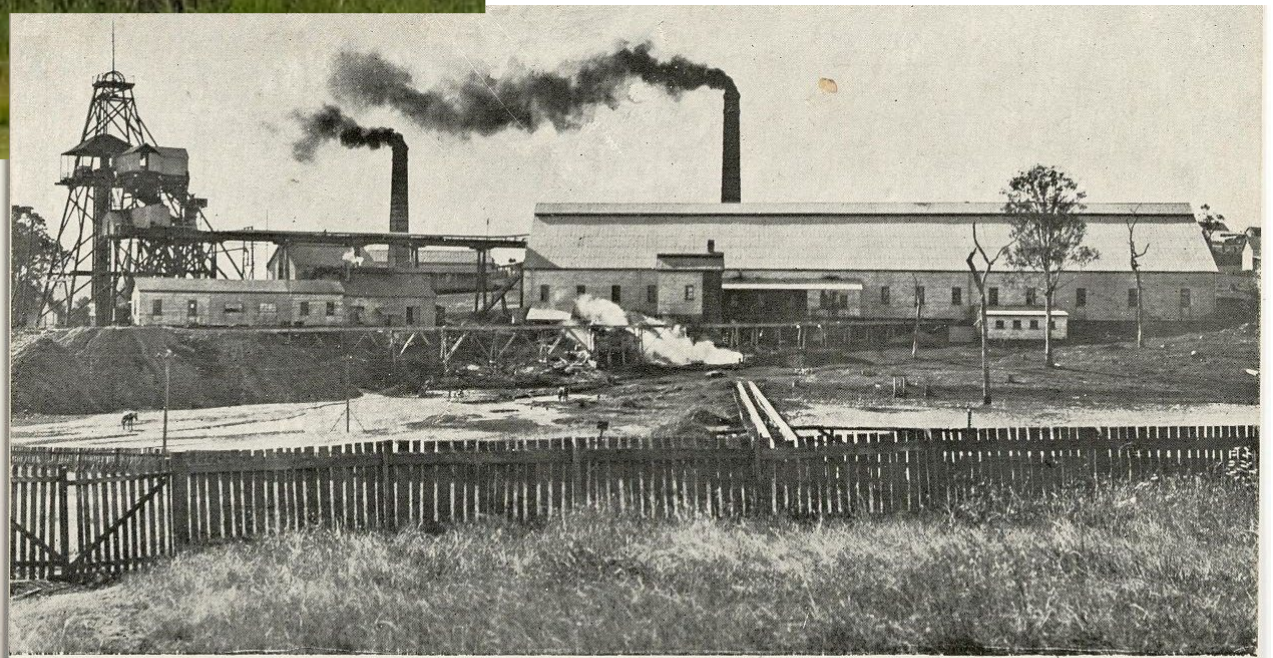


- Almadén
- Idria
- Mt Amiata
- Kilkivan
- California



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[LEONARD BIRT, PHOTO.]

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 of One Pound each, Fully Paid, Numbered as undernoted in
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172831	172880	50
TOTAL		50

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day of January One thousand nine hundred and three

Levon P. John

Director.

J B Hilliard

Director.

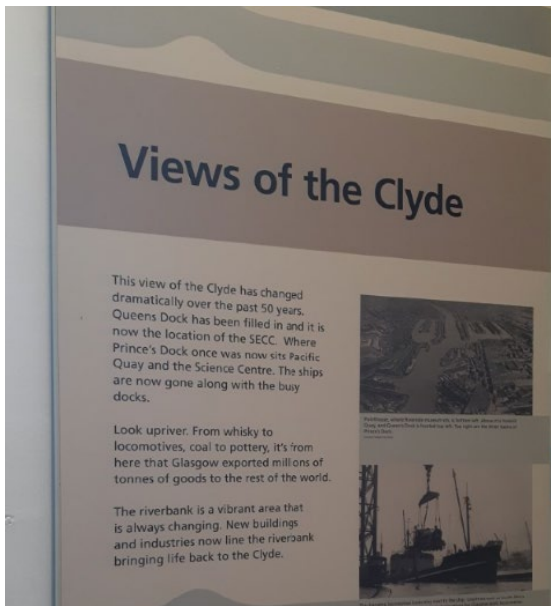
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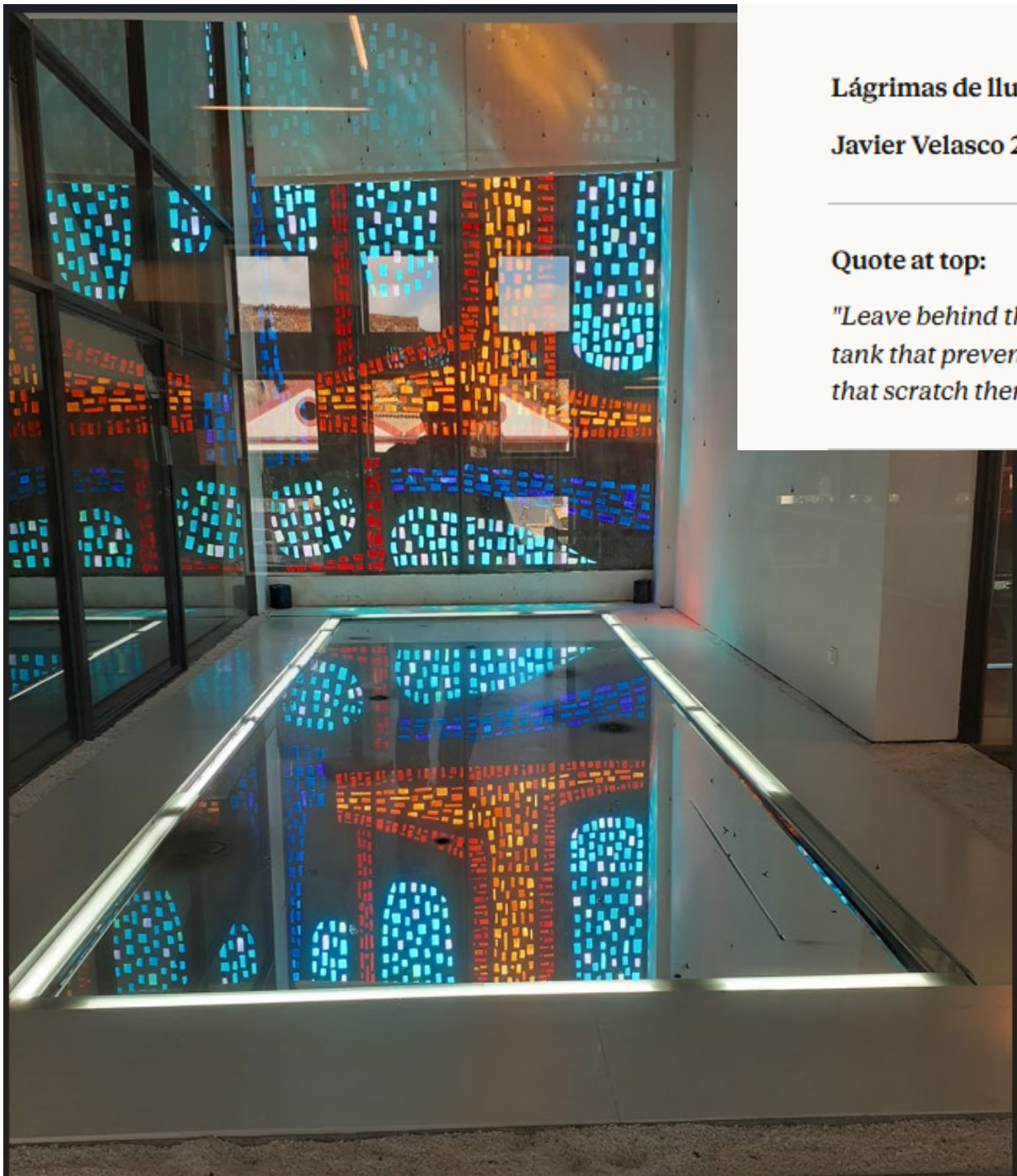










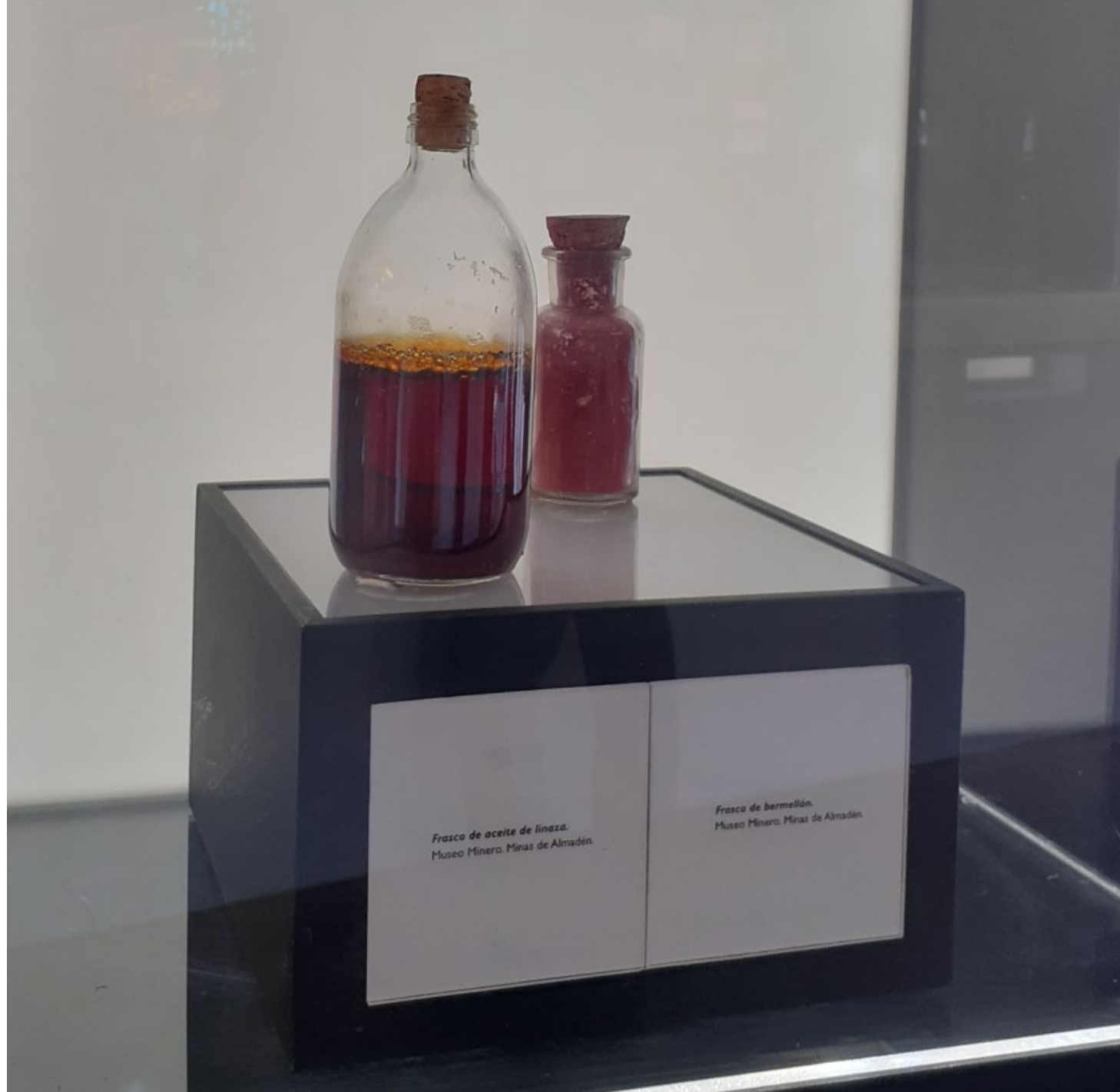


Lágrimas de lluvia (*Tears of Rain*)

Javier Velasco 2007

Quote at top:

"Leave behind the frozen pond that the tears of rain have filled to overflowing, break the fish tank that prevents me from breathing, trace new routes on maps devoured by famished eyes that scratch them without ceasing." — **Lewis Carroll**



Left label:

Frasco de aceite de linaza. Museo Minero. Minas de Almadén.

Bottle of linseed oil. Mining Museum. Almadén Mines.

Right label:

Frasco de bermellón. Museo Minero. Minas de Almadén.

Bottle of vermillion. Mining Museum. Almadén Mines.

Context:

Both are museum exhibit labels from the **Almadén Mining Museum**.

Vermillion (bermellón) is particularly significant — it is **mercuric sulphide (HgS)**, the same mineral as cinnabar, but in its processed/refined pigment form. It was produced at Almadén by roasting cinnabar ore and was one of the most prized red pigments in the world for centuries, used in everything from Renaissance paintings to Chinese lacquerware.

Linseed oil was used extensively in mining operations as a lubricant, lamp fuel, and as a binding agent in various applications underground.

The juxtaposition of these two items in the museum collection nicely illustrates the dual industrial and artistic legacy of mercury production at Almadén — very fitting for the museum context you were exploring.



CERCO DE SAN TEODORO

Translation:

ENCLOSURE OF SAN TEODORO

BEHIND THIS WALL ARE FOUND THE MAIN SHAFTS OF THE ALMADÉN MINE. APPROXIMATELY ONE THIRD OF THE MERCURY USED IN THE WORLD HAS COME FROM THE INTERIOR OF THIS ENCLOSURE.

Context:

This is a plaque at **Almadén**, in Castilla-La Mancha, Spain — the most significant mercury mine in human history, having operated for over **2,000 years**. The claim on the plaque is well supported historically — Almadén is estimated to have produced around **285,000 tonnes of mercury** over its lifetime, representing roughly a third of all mercury ever mined globally.

This is directly relevant to your research, Gav — much of the mercury used in gold and silver amalgamation throughout the Americas and Australia during the colonial and historical mining periods originated from Almadén. The mercury used at Gympie and other Queensland goldfields would almost certainly have included Almadén-sourced mercury, either directly or via redistribution through British and European trading networks.

The mine was designated a **UNESCO World Heritage Site** in 2012. Were you visiting Almadén as part of your research travels?





Real Hospital de Mineros

EL PUEBLO DE
ALMADEN A SU
MEDICO
JOSE LUIS RODRIGUEZ
LOPEZ DE HARO
8-11-1898-14-11-1976

MINAS DE ALMADÉN

Gráfico demostrativo de la influencia del baño caliente y seco, y medicación yodo-bromurada, en un obrero alarife dado de baja por temblor mercurial desordenado.

Fausto Ramírez

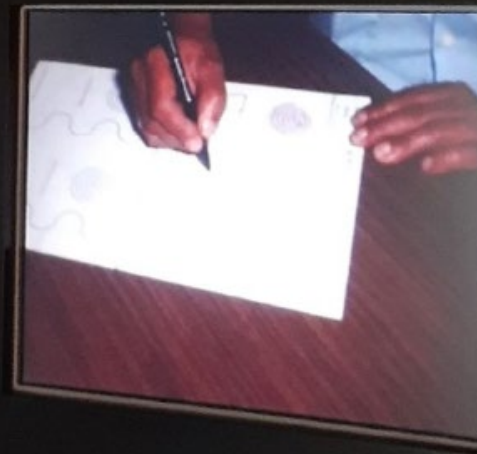
Día 8 de Junio de 1923. Al empezar el tratamiento.

Fausto Ramírez

Día 16 de Junio. Después de cinco baños.

Fausto Ramírez

Día 26 de Junio. Seis baños y séptimo día de medicación yodo-bromurada.

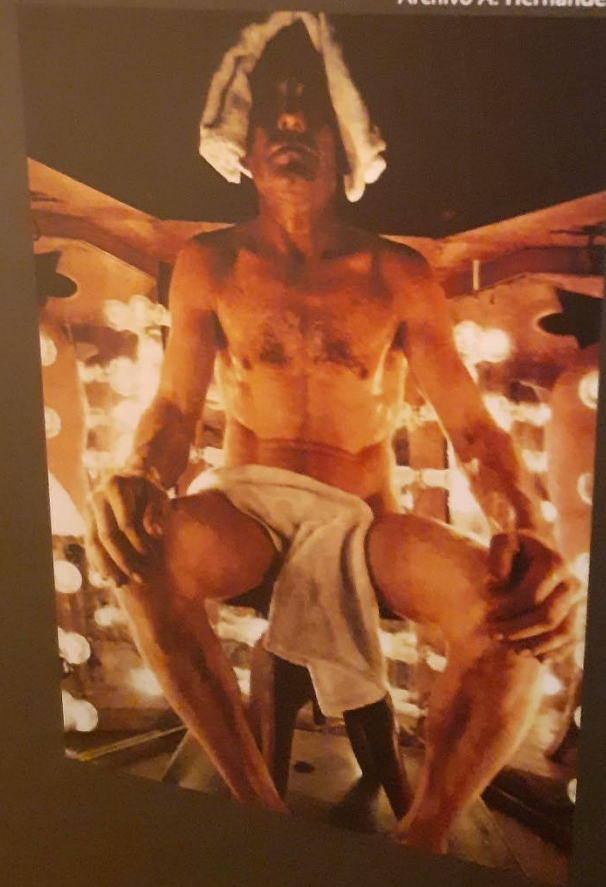


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Llevo a cabo
para la prevención y c
hidrargirismo como el
y "la playa".

"Caja Kelloj".
Archivo A. Hernández.



Historia de Minas de

The Quicksilver Situation.*

The quicksilver situation is at present of unusual interest because of the large use of mercury in the preparation of fulminate for explosives, the present and probable future consumption of which must have an important bearing on the market for the metal, withdrawal of available supplies and future demands. The following notes by H. D. McCaskey, of the United States Geological Survey, are of interest at this time:—

The world's production of quicksilver, in metric tons, was 4,171 tons in 1913, and has averaged 3,728 tons, or 109,584 flasks of 75 lb. net each, annually for the past ten years. During 1904

and 1905, the United States led the world in production, but from 1906 to date the leading producer has been Spain, whose great cinnabar deposits of Almaden, the output of which has been controlled by the Rothschilds and marketed chiefly in

London, have proved very valuable. The largest producers in Idria (Carniola, Austria), and at Monte Amiata (Tuscany, Italy), have with those of the United States (chiefly California) furnished the bulk of the remainder of the world's supply. The figures given in the survey report for 1913 show that during that year Spain produced approximately 1,490 metric tons, Italy 388 tons, Austria 855 tons, the United States 688 tons, and Mexico and all others 150 tons.

The production of the United States was 20,213 flasks of 75 lb. each; the imports were 2,289 flasks, and the exports 1,140 flasks, giving an approximate consumption and stocks available of 21,666 flasks, which is probably not far from the present domestic consumption. The domestic demand is mainly for making fulminate, for amalgamation of gold and silver ores, and for manufacture of electric and other appliances. It seems unlikely that domestic production will greatly increase, so that there will hardly be any surplus in the United States for export.

The Austrian production of quicksilver, controlled as it is by the government, is definitely cut off from the world's markets, and the Italian supplies must be considered uncertain. The Spanish output is mainly controlled in London, and if this remains, but little metal will be free, for a time at least, for the foreign trade. Undoubtedly large quantities of available European quicksilver will be immediately utilised in the manufacture of explosive caps for fixed ammunition for both small arms and

*Mineral Index, p. 232.

*From the "Engineering and Mining Journal," New York, of the 10th October, 1914.

artillery. In the countries now involved in the war, present stocks are unknown, but even if extensive they must be heavily drawn upon for some time to come, and exportation is not only prohibited by some of these countries, but quicksilver is declared contraband by all of them.

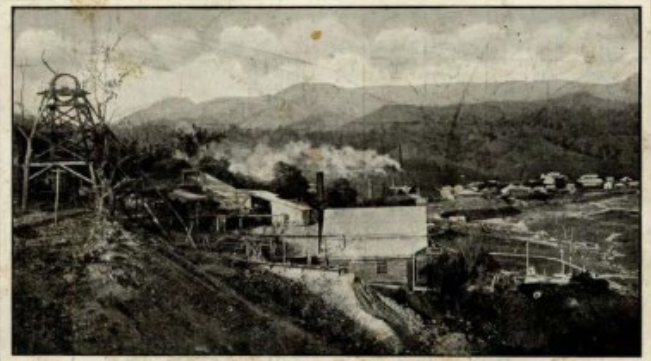
The demand from Mexico, Central and South America and from China and Japan must be met from the United States, if at all. But, as shown above, this country has little or no surplus over its own consumption. It is apparent that, for a time at least, demand will exceed the supply and prices are likely to be high. At present, they are about double those prevailing in the earlier part of the year, the quotations being \$75 @ 80, New York, against \$36 @ 37 per flask in June last.

Registered at the General Post Office for transmission by post as a newspaper.

Price Sixpence.

VOL. XV. DEC., 1914.

QUEENSLAND GOVERNMENT MINING JOURNAL



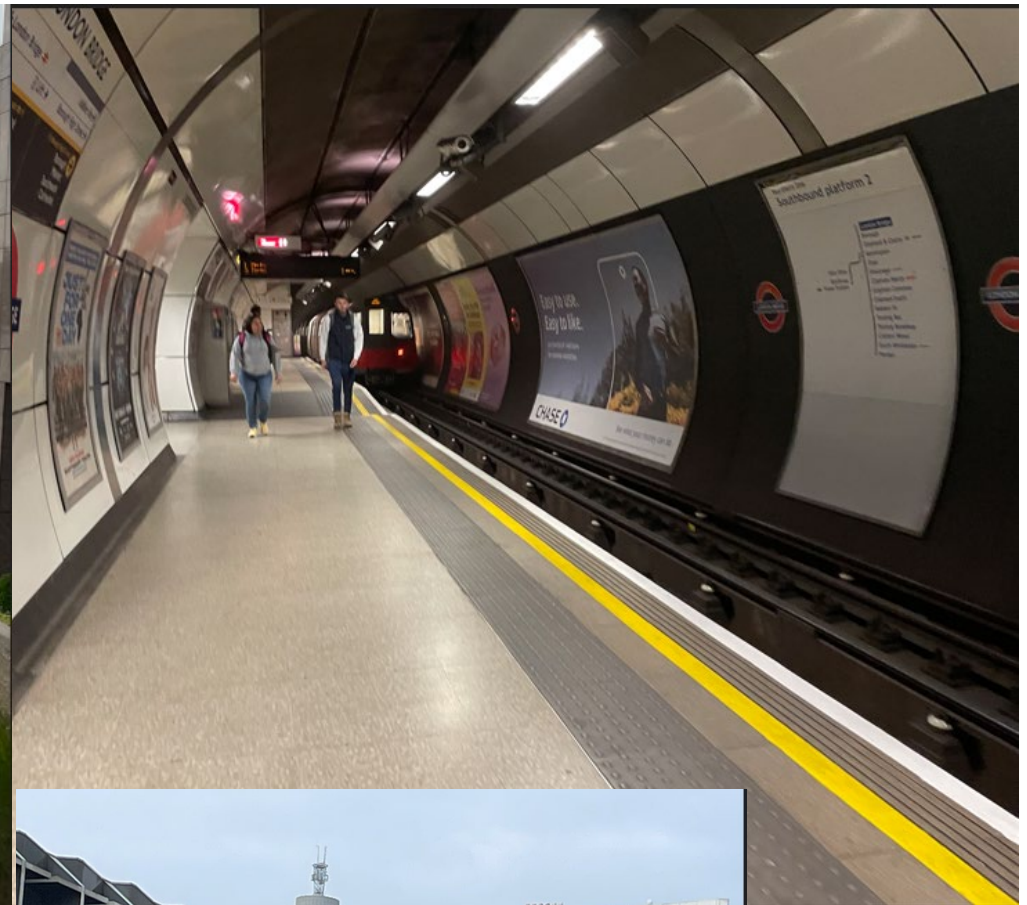
METALLIC
 GOLD · SILVER · COPPER · TIN · TUNGSTEN · MOLYBDENUM · BISMUTH · MANGANESE · LEAD · ANTIMONY · ZINC · MERCURY · ARSENIC · IRON · PLATINUM · NICKEL · COBALT

MINERAL PRODUCTS · QUEENSLAND
CEMENTSTONES
 OPAL · SAPPHIRE · ORIENTAL EMERALD · TURQUOISE · RUBY · TOPAZ · SPINEL · DIAMOND · JASPER · ROCK CRYSTAL · ROCK AGATE · ZIRCON · GARNET · OLIVINE

CARBON
 COAL · ANTHRACITE · PLUMBAGO · LIGHT · KAUKI · GUM · BITUMEN

OTHER NON-METALLIC
 ORNAMENTAL GRANITE · MICAS · LIMESTONE · MARBLE · ASBESTOS · SERPENTINE · DOLOMITE · MAGNESITE · GYPSUM · BARIUM · FLUORSPAR · STEATITE · CORUNDUM









The House of Rothschild - Money's Prophets, 1798–1848

Niall Ferguson

 [Rothschild family](#)

Wikipedia • The Rothschild family is a wealthy Ashkenazi Jewish noble banking family originally from Frankfurt, Germany. The family's documented history starts in 16th-century Frankfurt; its name is derived from the family house, Rothschild, built by Isaak Elchanan Bacharach in Frankfurt in 1567.

Niall Ferguson – The House of Rothschild: Money's Prophets, 1798–1848 | Books in Bytes Podcast



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In this fascinating podcast episode, our AI hosts explore The House of Rothschild: Money's Prophets, 1798–1848, Niall Ferguson's masterful account of how the Rothschild banking dynasty rose to unparalleled financial and political influence in the 19th century. They discuss how the Rothschilds leveraged international networks, innovative financial instruments, and strategic relationships with European governments to become the most powerful banking family of their time. The hosts delve into themes such as the role of finance in shaping geopolitics, the myths and realities surrounding the Rothschild legacy, and the lasting impact of their financial empire.

Perfect for economic historians, finance professionals, and anyone intrigued by the intersection of money and power, this episode provides an engaging introduction to The House of Rothschild. Join us as we unpack Ferguson's meticulous research and discuss how the Rothschilds' strategies continue to influence global finance today.

Book Information

Title: The House of Rothschild: Money's Prophets, 1798–1848

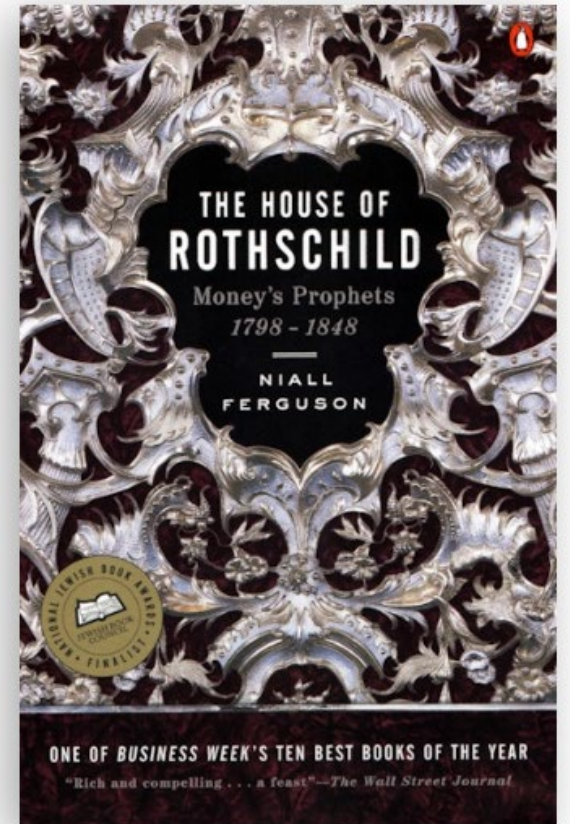
Author: Niall Ferguson

Year of First Publication: 1998

Publisher: Viking Press

Genre: Economic History, Financial History, Biography

The discussion was created with Google's NotebookLM Audio Summary feature. This is an experiment to make this work more accessible and get people interested in exploring these ideas.



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Imprint: Penguin

Format: Paperback

Pages: 544

The Rothschild Network of Commodities: Quicksilver and the Mexican Silver Market

Alma Parra

This paper will address the importance of the involvement of the Rothschilds in the quicksilver markets in the nineteenth century by stressing the importance of the Mexican market that emerged following independence from Spain. The paper will outline the elements that permitted the creation of a new network system that fed from preexisting infrastructure in Spain, but was enriched by connecting with other mercury producers, and maximized through their increasing business experience and control of trade routes. This will allow scholars to assess the importance of Mexico as a major market for quicksilver and the impact of this connection for further promotion of trade and financial services on both sides of the Atlantic by including new commodities traded to and from Mexico by the Rothschilds.

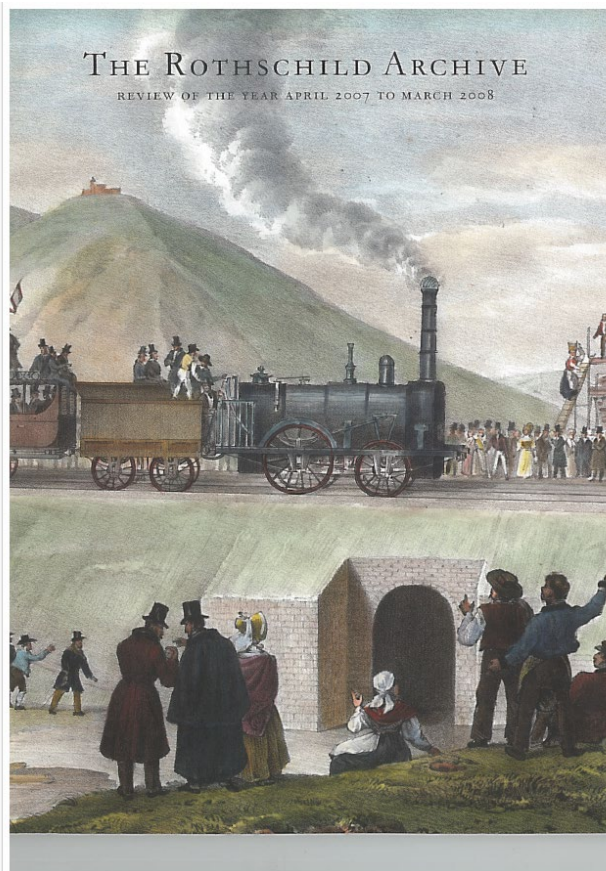
Introduction

Most of the literature concerning business and business entrepreneurship has given more importance to financial and banking business aspects in order to explain the expansion of the world economy. Notwithstanding the importance of this sector, the possibility to consult firsthand archival information from within companies and firms makes it possible to reassess the influence of this, against the weight of the commodity trade, especially those commodities with high strategic value.

Alma Parra <alcaparra99@hotmail.com> has been a full time researcher at the Dirección de Estudios Históricos, National Institute of Anthropology and History, Mexico since 1992. She obtained an Msc. in Economic History from the London School of Economics and is completing her doctoral studies in History at the National University of Mexico. Her current research covers two themes: the British presence in Mexican mining and, the study of mining in Guanajuato, Mexico during the nineteenth century.

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URL: http://www.thebh.org/sites/default/files/Parra_Rothschild_Schwantes_FINAL.pdf



Mercury's agent: Lionel Davidson and the Rothschilds in Mexico

Alma Parra describes the role played by Lionel Davidson, the agent of N M Rothschild & Sons, in the development of the mercury trade in Mexico

Among those who benefited most from the development of mining in Mexico were those who specialised in the supply of essentials: salt, gunpowder and, above all, mercury (or quicksilver). Mercury had been used intensively in the refining of ore since the mid sixteenth century. During the colonial period the Spanish crown had controlled distribution through established monopolies and the government had imported and distributed quicksilver to Mexican mines as the major source of income.

Independence from Spain in 1821 brought changes in economic structures. In the absence of a strong centralised power, the liberal principles espoused by the new Mexican governments opened up opportunities for private entrepreneurs, both Mexican and foreign – who ironically displayed a remarkable ability to recreate monopolies in the interests of private investors and businessmen.

The management of the quicksilver monopoly by the Spanish government has been documented by a number of authors, using both Mexican and Spanish sources. The post-independence mercury trade remains to be fully explored, particularly (since the business was in the hands of foreign merchants) through non-Mexican sources.¹ Research at The Rothschild Archive in London has helped to fill this gap, providing the basis for a first brief exploration of the theme. The correspondence of Rothschild agents in Mexico gives a better understanding of the activities of the firm of N M Rothschild & Son of London, which played a major part in the development of mining activities in the first half of the nineteenth century, and also of the business networks operating in Mexico at the time.

Quicksilver was distributed for the refining of ore in regions of Mexico like Pachuca and Real del Monte, Bolaños, and, Guanajuato² and, at a slower pace, in the central mining areas like Zacatecas and San Luis Potosí, where the use of foundries for refining had persisted longer alongside quicksilver amalgamation methods. The amalgamation system was carried out in workshops called *haciendas de beneficio* to which all ore extracted from the mines was sent. The ore was ground and milled, before quicksilver, salt and magistral (a chemical used in the process of amalgamation) were added to produce a mixture from which silver was recovered and, later, converted into bars or sent to the Mint to be coined.

The quantities of quicksilver required depended largely on the expertise of the *amalgamador* in a particular workshop and the quality of the minerals being processed. An ample, stable and cheap supply was needed to maintain continuous silver production. Under the colonial monopoly, the Spanish government obtained supplies from the mines of Almadén in Spain, from Idria (then part of the Austro-Hungarian Empire) and from Huancavelica and other minor centres in Peru.³ When transatlantic trade networks were disrupted by European wars, the effects of a mercury shortage on productivity proved catastrophic.

The War of Independence from Spain led to a general contraction of the mining industry and the emergent Mexican government was forced to restructure the industry, with new channels of quicksilver distribution as a top priority. In both Spain and Mexico there was a sudden admission of private – often foreign – participation in the economy. In Spain, the loss of its colonies as major markets for quicksilver, combined with internal problems, forced the

86 Melbourne Jan^y 1st 1833
3972
To Baron Rothschild
London Sir
I enclose the Bill of Lading for three Boxes
of Gold Dust shipped to your Consignment on
the St. Barbara Steamer, the weight of which is
given in the Bill of Lading. I have taken upon my-
self to send this my first shipment to your address
in order to follow it up by others of greater amount
if you are
the
your
agent
quar
open
different diggings. I have had the pleasure of selling
a large quantity of Gold to your Agents Messrs
Montifione & Co. Any directions you may wish to me
only be strictly adhered to. The Draft Bill of

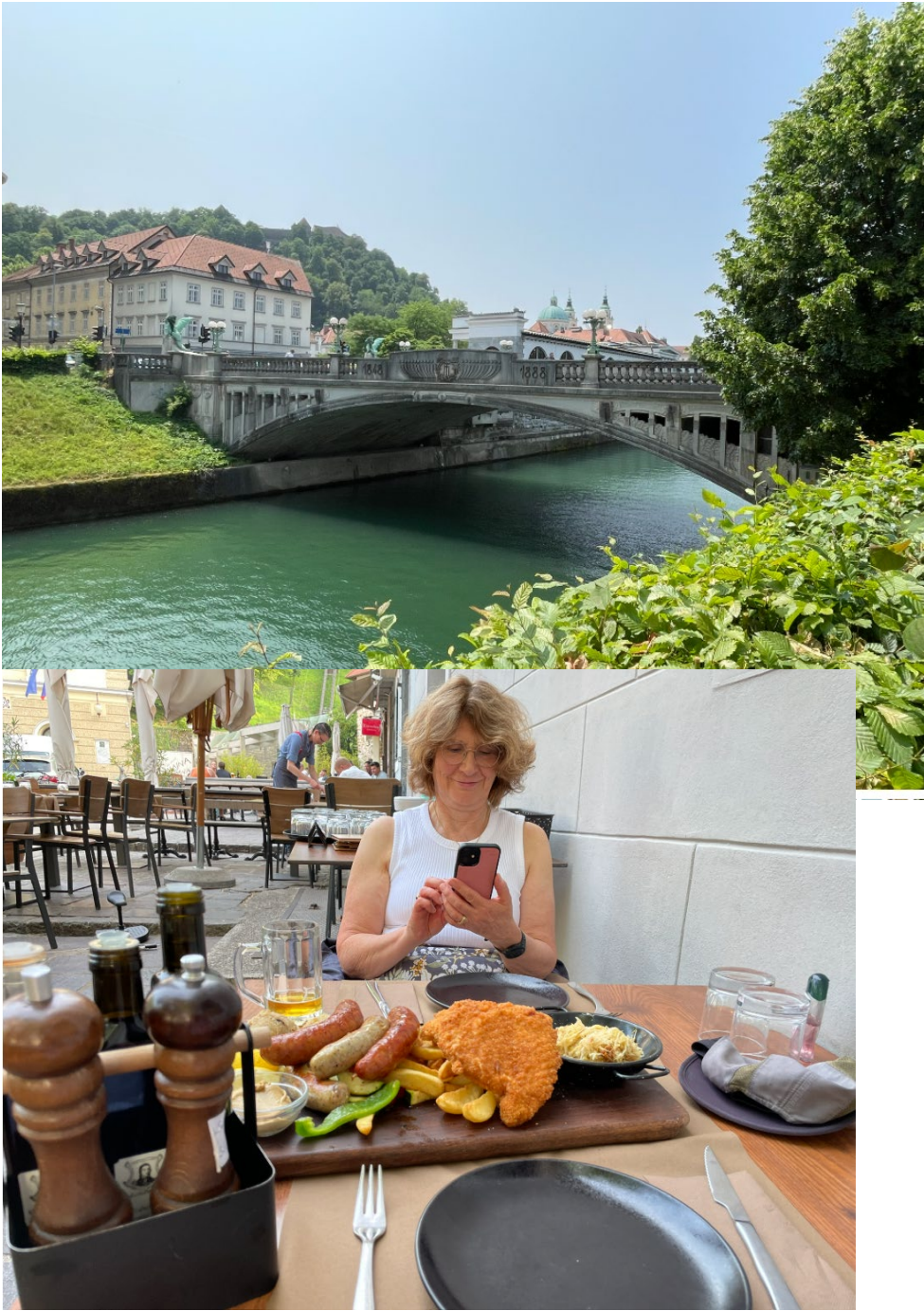
Gold dust Australia - London - 1852

Melbourne Jan^y 1st 1833

1852 21/37/7/4/26
Millman Any
purchased some of Messrs. Jones Lloyd's
at 20¢ per lb. Discount - we made
a purchase yesterday of a quantity of
3 Trans Pieces & 3¢ each - & American
5 Dollar pieces @ 14¢ & 15¢ each -
we expect we shall shortly purchase
all these must come from the
merchandise arriving from America, & before
I write to the other places -
We do not as yet make any use
of Quicksilver, I mention this so
that you will be induced to send
us any, our correspondents in London
Messrs. Shield this January sent us
a quantity in speculation which we
shall have to return them -
We are all in anticipation for the
arrival of the Australian steamer
as we expect to be well conveyed in the
to the early part of June -
With our regards.
Yours faithfully
Jas. Smith & Co.

**'We do not as yet
make any use of
quicksilver, I mention
this in case you
should be induced to
send us any, our
correspondents in
London Messrs
?Shield this ?January
sent us a quantity in
speculation which we
shall ?? To return
them'**









Marble Trout (*Salmo marmoratus*)



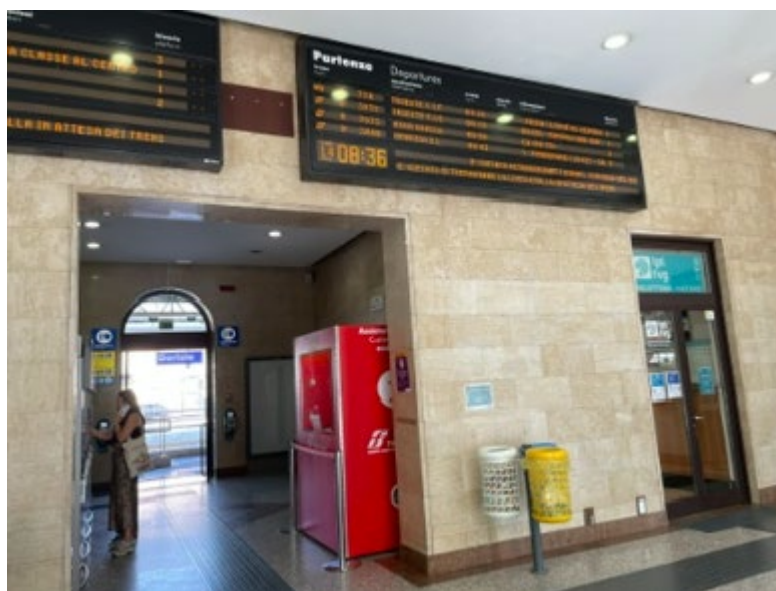
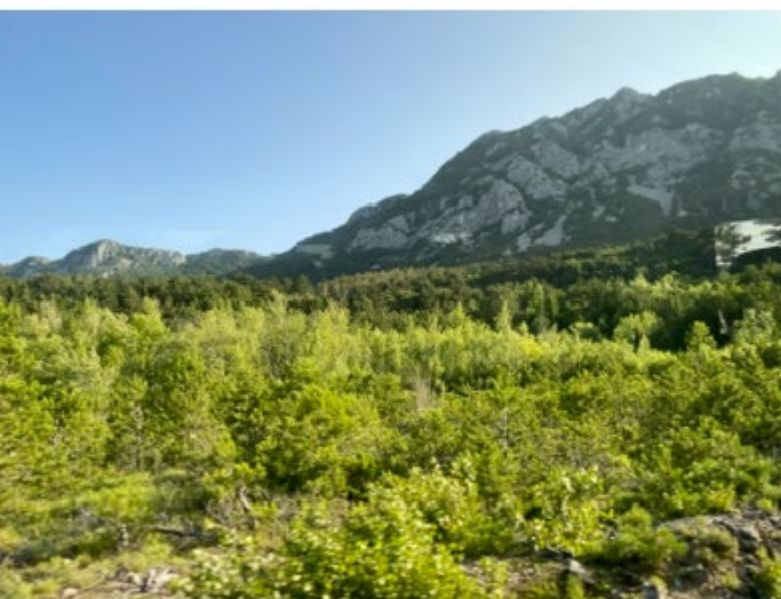














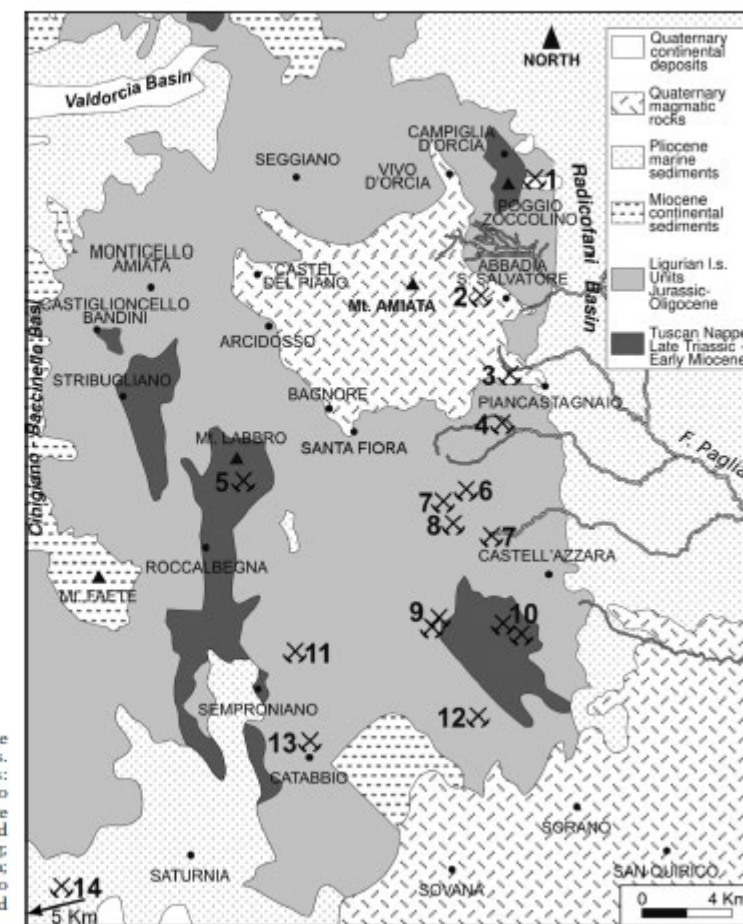
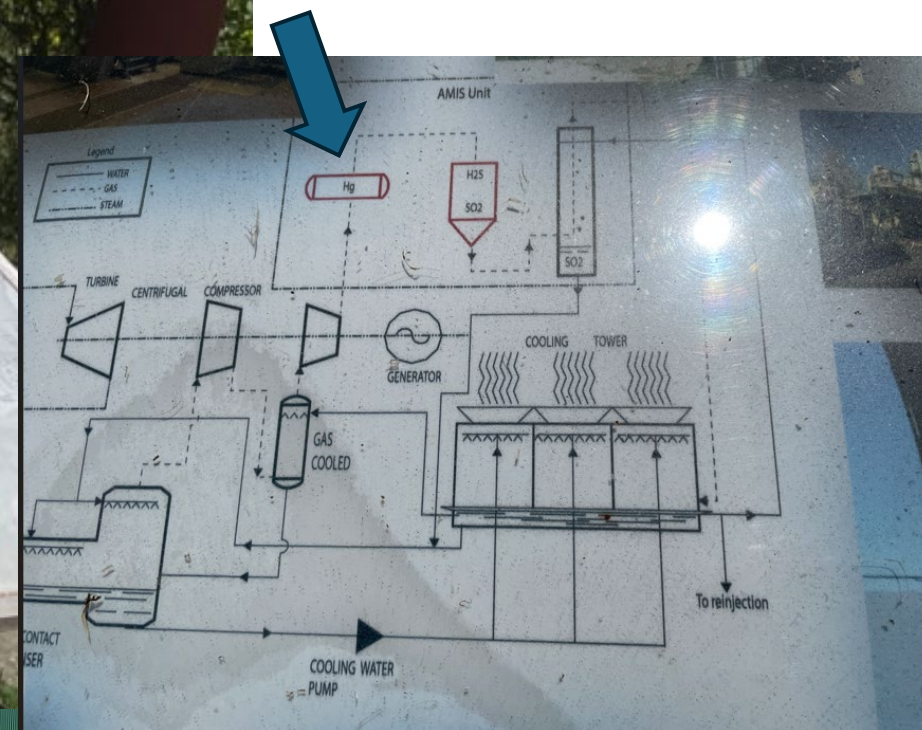


Fig. 2A - Schematic geological map of the Mt. Amiata area, with location of Hg deposits. Numbers indicate the following Hg mines: 1) Pietrineri; 2) Abbazia San Salvatore; 3) Cerro del Tasca and Cipriana; 4) Senna; 5) Bagnore and Monte Labbro; 6) Abetina; 7) Siele and Solforate Rosselli; 8) Solforate Schwarzenberg; 9) Morone; 10) Cornacchino; 11) Cortecchia; 12) Montebuono, 13) Catabbio, and 14) Cerreto Piano (the geological map base was modified after BROGI, 2004).







The **AMIS** (Abbatimento Mercurio e Idrogeno Solforato) technology is a critical emission control system installed on geothermal power plants in the **Mount Amiata** area of Tuscany, Italy. Developed by Enel Green Power, these systems are designed to reduce hydrogen sulfide (H_2S) and mercury (Hg) emissions from the geothermal steam used for electricity generation. [R⁶ ResearchGate +3](#)















(<https://www.parcoamiata.com>)

HOME THE PARK NEWS MINES MUSEUMS TERRITORY PUBLISHING
(<https://www.parcoamiata.com>)
PHOTO VIDEO NAZIONALE - EVENTI/ MUSEO - CONTACTS MONTE- AMIATA/ MINIERE- MONTE- AMIATA/ MINIERE- DELL- AMATA/ MORONE, MINE

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(<https://www.parcoamiata.com/miniere-monte-amiata/morone-miniera/>)

Morone, Mine

Location Morone, Selvena

The Morone mine is located just outside the town of Selvena, about 1 kilometre away, at an altitude of five hundred metres above sea level. The mining area, dominated by the ruins of the medieval Aldobrandesco castle of Rocca Silvana, was a site already known at the time of the Etruscans and during the Middle Ages, as shown by ancient documents and finds, because it was rich in antimony and vitriol, as well as mercury. However, it was not until 1850 that mining activity resumed, when the Società Industriale Stabilimento Mineralogico Modigliani, owner of the Siele mine, under the direction of the French engineer Alfredo Caillaux – the first technician to draw up an exhaustive report on the Amiata deposits







Mercury



A 200 km-long mercury contamination of the Paglia and Tiber floodplain: Monitoring results and implications for environmental management^{*}

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Floodplain
Tiber river
River transport

ABSTRACT

This paper reports the results of a joint project carried out by three regional environmental agencies of Italy to evaluate long-range mercury (Hg) transport from the abandoned Mt. Amiata Hg district in southern Tuscany (the third largest worldwide site for Hg production) to the fluvial ecosystems of the Paglia and Tiber rivers. Most of the work focused on stream sediments, surface waters and soils. A preliminary survey of Hg²⁺ content in air was also conducted. Data obtained by public health authorities on Hg in vegetables and fish were also included.

The highest Hg concentrations (up to thousands of µg/g Hg) were observed in stream sediments and soils directly impacted by Hg mine runoff. Although progressive Hg dilution was observed from north to south along the river, sediments and soils show anomalous Hg levels for over 200 km downstream of Mt. Amiata, testifying to an extreme case of long-range Hg contamination. A pervasive redistribution of Hg is observed in all sediment compartments. Presumably, the width of the impacted fluvial corridor corresponds to the entire alluvial plains of the rivers. The floodplain can be considered new sources for downstream Hg redistribution, especially during large flood events. On the other hand, results from water, air, and vegetable sampling indicate low potential for human exposure to Hg.

The extent and distribution of the contamination make remediation not viable. Therefore, people and human activities must coexist with such an anomaly. On the technical side, the most urgent action to be taken is a better definition of the exact extent of the contaminated area. On the management side, it is



Gympie's Gold



Request for artefacts – Hg flasks etc. Please!

Mercury's Role



DEPARTMENT OF COMMERCE

R. P. LAMONT, Secretary

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

O. P. HOPKINS, Acting Director

THE MARKETING OF MERCURY



Trade Information Bulletin No. 631

Price 10 Cents

UNITED STATES
GOVERNMENT PRINTING OFFICE

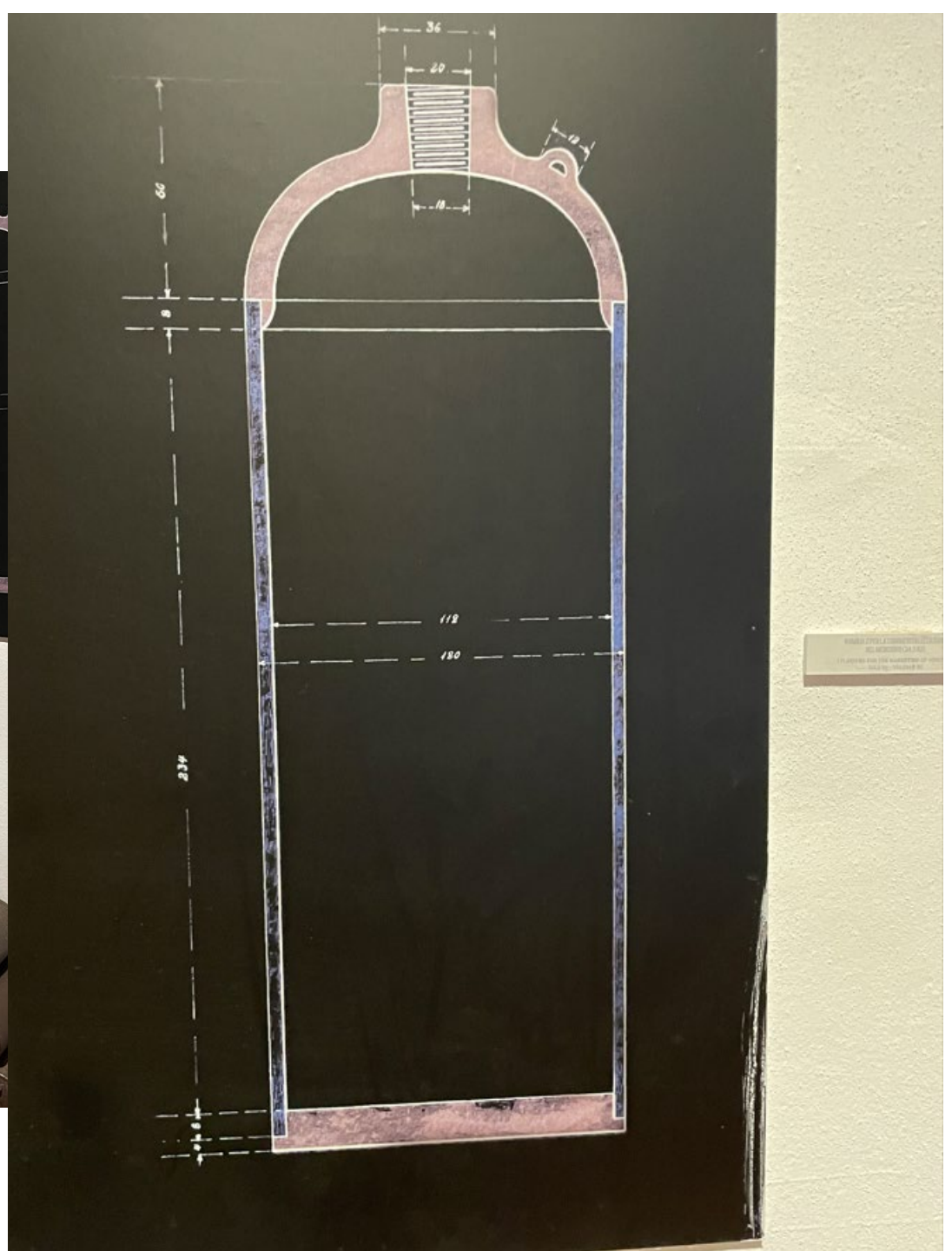
WASHINGTON : 1929

METHODS OF MARKETING

The flask is the unit used in the marketing of this metal. In the United States, for a number of years, a flask contained 75 pounds (34 kilos); as sold in the foreign markets, it contained 76.1 pounds (34.507 kilos). In June, 1927, the practice in the United States was

changed and since then the standard flask contains 76.1 pounds avoirdupois, or 34,507 kilos. At present there are three types of flasks in use, wrought iron, pressed steel, and one made of mild steel tubing with ends electrically welded. The flask is closed by a screw plug cemented with red lead. Flasks are reused and constitute an article of commerce. Since mercury does not deteriorate and is easily handled and stored, it lends itself to speculation. In the United States the small producer may sell to an agent to whom a commission is paid, or the producer may sell for cash to an individual who, in turn, sells to a consumer. When the mercury is sold for cash, the profit made in the transaction depends upon the ability of the individual to purchase or upon fluctuations in the market. When handled by a commission merchant, the usual commission paid is 2.5 per cent of the market price. Large dealers generally ship on consignment to purchaser and payment of the bill rendered is made with the usual credit discount. In some cases shipments are made with bill of lading attached; in other cases a certain agreed percentage is received upon the delivery to the transportation company with the balance due upon receipt of the shipment.

BOMBOLE PER LA COMMERCIALIZZAZIONE
DEL MERCURIO (34,5 KG)
CYLINDERS FOR THE MARKETING OF MERCURY
(34,5 kg - 760,5948 lb)





"A detto vascone faceva capo un tubo, anch'esso plastificato, che scendeva in basso nella stanza dell'imbombolamento. Alla sua estremità vi era un rubinetto con una chiavetta per aprirlo o chiuderlo e, a debita distanza, una bilancia con una coppa di vetro, anch'esso non soggetto alla corrosione."

"A pipe was connected to this large tank, plastic covered as well, running down to the air cylinder room.

At the extremity there was a tap with a small key with opening and closing function and, at the right distance, a scale with a glass bowl, exempt of corrosion"



Steel flask for the transport and sale of mercury.

Darko Viler

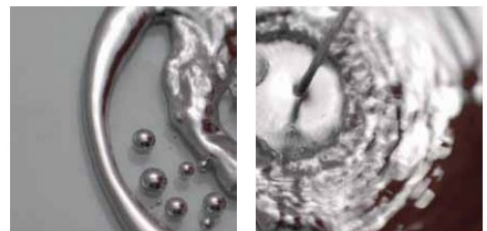
Idrija Municipal Museum

Figure was published in the dossier HERITAGE OF MERCURY.
ALMADÉN, IDRIJA; **page 241**



Heritage of Mercury

<https://idrija.si/files/other/news/54/597345%20Dopolnitev%20dosjeja.pdf>



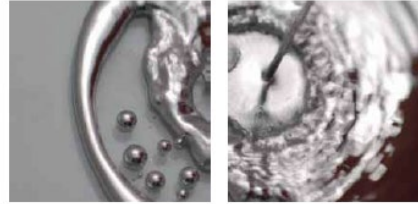
Almadén Idrija

Additional Information
in line with the ICOMOS letter
ref.: GB/MA 1313rev, of 12 December 2011

Heritage of Mercury

002 059

BARREL AND LEATHER BAG FOR
TRANSPORTING MERCURY



Almadén Idrija



001 056

BALDES FOR
THE TRANSPORTATION OF MERCURY





QUICKSILVER FLASK
Mercury, used in gold recovery, was supplied in these flasks. Cap screws off.
From Chook Mallet





Dolly Pot & Dolly
Made from a recycled mercury
flask and used to crush rock



AMALGUM BUCKET
USED TO TRANSPORT MERCURY FROM
STAMPERS TO RETORT WHERE THE MERCURY
WAS BOILED OFF LEAVING THE GOLD
FOR SMELTING

SMELTING POT
FOR GOLD SMELTING MADE OF
PLUMBAGO (GRAPHITE)

Donor: I. Runge

MERCURY FLASK

Used for carrying Mercury.

CRUCIBLE POT

Used for smelting gold in furnace.

CRUCIBLE POT

Used for smelting gold in furnace.



Kilkivan Museum





