# **JUBILEE CO**

#### Location

JUBILEE ROAD STAFFORDSHIRE REEF, GOLDEN PLAINS SHIRE

# Municipality

**GOLDEN PLAINS SHIRE** 

## Level of significance

Heritage Inventory Site

# **Heritage Inventory (HI) Number**

H7622-0081

## **Heritage Listing**

Victorian Heritage Inventory

### Statement of Significance

Last updated on - August 18, 2005

#### What is significant?

Jubilee Company Quartz Gold Mine has one of the most comprehensive range of quartz mining foundations in the State. The brick and concrete foundations cover pumping, winding and crushing operations, as well as cyaniding of mine tailings. The machinery foundations are the remnants of large scale quartz mining operations carried on at the site between 1899 to 1912. During this time the mine produced over 125,000 ounces of gold and was the district's most important gold mine.

#### How is it significant?

Jubilee Company Quartz Gold Mine is of historical, archaeological and scientific significance to the State of Victoria.

#### Why is it significant?

The Jubilee Company Quartz Gold Mine is historically and scientifically as a characteristic example of an important form of gold mining. Gold mining sites are of crucial importance for the pivotal role they have played since 1851 in the development of Victoria. As well as being a significant producer of Victoria's nineteenth century wealth, quartz mining, with its intensive use of machinery, played an important role in the development of the State's manufacturing industry. The Jubilee Company Quartz Gold Mine is important for its manifestation of this facet of gold mining in that its was particularly innovative in the introduction and use of new mining equipment.

The Jubilee Company Quartz Gold Mine is archaeologically important for its potential to yield artefacts and evidence which will be able to provide significant information about the technological history of gold mining. The mine site is surrounded by a landscape containing a range of mining and habitation sites.

[Source: Victorian Heritage Register]

Hermes Number 12079

**Property Number** 

# **History**

Contextual History: History of Place:

Heritage Inventory History of Site:

GREENWOOD BROTHERS.

JUBILEE QUARTZ MINING COMPANY, Long Gully, Scarsdale via Newtown,

1887: reef discovered by the Greenwood brothers.

31.12.1893: 14 feet of copper plates for each box, no blankets as gold very fine.

05.04.1895: looking well and will wash up next Wednesday.

12.04.1895: yield of 77 ozs from 176 tons from the 260 foot level.

24.05.1895: yield of 60 ozs from 240 tons.

28.12.1895: by far the best performer in the division, having paid splendid dividends during the last few years; sunk to a depth of 260 feet during the year, and achieved good returns from the stone mined at this level.

04.07.1896: purchased a good winding plant which will make this one of the most complete plants of the southern division.

1898: mains shaft down 380 feet; 9803 ounces of gold (valued at £39,835) obtained from 22,158 tons of stone and £21,303 paid in dividends.

1899; property sold to the Jubilee Gold Mining Company.

(new company)

1899: company began cutting down Greenwood's shaft.

01.1900: main shaft cut down to the 280 foot level.

07.1900: main shaft sunk to 529 feet and plats cut at 395 feet and 487 feet; began cross-cutting to the reef.

12.1900: main shaft down 605 feet and a plat opened at 586 feet; the reef was cut at the No. 6 level (487 feet) and driven on for 376 feet; began crushings from quartz taken from Nos. 5 and 6 levels and stopes above them; cyanide plant installed to treat the accumulated tailings.

31.01.1901: 1883 ounces 3 pennyweights of gold obtained from 2679 tons of stone for the half-year.

26.01.1901: putting some tailings through the battery again to extract some more pyrites before cyaniding.

09.03.1901: another boiler is being built in and a larger chimney is being erected.

20.04.1901: improvements are being made to the surface plant; the engine piers are being strengthened.

31.07.1901: shaft down 667 feet; No. 7 level (586 feet) opened for a distance of 250 feet and stoping commenced above this level; the first dividend of 3 shillings per share paid.

3771 ounces 14 pennyweights of gold obtained from 5844 tons of stone for the half-year.

12.08.1901: 6 inch beat valves for the jet condenser.

15.08.1901: Thompson 6 inch x 36 inch horizontal jet condenser installed.

23.08.1901: handle and G.M. plate with diagram.

29.08.1901: back cover and piston for engine.

12.1901: shaft down 816 feet and levels driven at 686 feet (No. 8) and 786 feet (No. 9); stoping in progress at Nos. 1, 2, 3, 5, 6, and 7 levels; 4 shillings per share paid in dividends.

31.01.1902: reef intersected at the Nos. 8 and 9 levels and payable stone found in both east and west drives at these levels.

3923 ounces 5 pennyweights of gold obtained from 7920 tons of stone for the half-year.

26.04.1902: the engineer is arranging to erect an additional 10 head battery.

05.1902: shaft sinking resumed.

31.07.1902: 3989 ounces 8 pennyweights of gold obtained from 8315 tons of stone raised from Nos. 1, 2, 3, 5, 6,

7 and 8 levels for the half-year; an additional ten head of stampers were added to the battery to make it 30 head; cyanide plant completed treatment of the accumulated tailings from the mine, and began working on the present mine output; 3 shillings and 6 pence per share was paid in dividends.

20.09.1902: additional 10 head of stampers being added to the battery.

27.09.1902: pier work for the rock drill compressors is complete and the engine is now being fixed.

18.10.1902: air compressor is erected and the machine drill will be started shortly.

13.12.1902: new poppet legs and brace are being fixed over the old one, and another boiler is being added to the surface plant.

1902: 20 head battery.

10.01.1903: erected a longer set of poppet legs; the most important field in the Scarsdale area; since being taken over by the present company in November 1900 33,059 tons have been crushed for a yield of 17,140 ozs, and the shareholders have received £25,000 in dividends; the company has spent a considerable amount on plant and equipment.

31.01.1903: cross-cutting at No.10 level (936 feet) commenced; air compressing plant erected and cost of driving reduced; 5369 ounces 7 pennyweights of gold obtained from 11,803 tons of stone taken for the half-year from Nos. 1, 2, 5, 6, 7, 8 and 9 levels; 4 shillings per share was paid in dividends, and 2000 pounds was spent on additional plant and machinery.

25.03.1903: wheel pinion for winding gear; spur wheel and pinion for winding gear; hooping wheel and pinion for winding gear.

01.04.1903: compounding present engine; details of HP cylinder.

steam and exhaust drawing; parts list for compounding present engine; details of HP cylinder and compounding engine.

23.04.1903; drawing of piston for LP cylinder.

25.04.1903; the quarterly report for the Smythesdale Division states that nearly 200 men are employed at the mine; paid £5000 in dividends for the quarter from a yield of 2146 ozs from the quartz, 520 ozs from the pyrites, and 94 ozs from the sand.

09.05.1903; site selected for treating the pyrites and directors are considering installing a plant.

14.05.1903: drawing of stop and spindle.

30.05.1903: an electric lighting plant will soon be installed.

20.06.1903: conducting trials are being conducted using an electric signal board at the various levels of the mine and in the engine room.

31.07.1903: very payable reef, 2 feet 6 inches wide, cut in No. 10 level, 936 feet from the surface; 7047 ounces 4 pennyweight of gold obtained from 15,865 tons of stone taken from Nos. 1, 2, 5, 6, 7, 8, and 9 levels for the half-year; 6 shillings per share paid in dividends.

03.08.1903: 6.5 inch by 12 foot by 10 inch vertical tandem compound engine.

29.08.1903: at the half yearly meeting the total yield of the mine, including the 9808 ozs produced by the cooperative party, is 36,792 ozs; and the depth is 936 feet.

31.08.1903: vertical tandem compound engine part list and drawing.

12.09.1903: compressor repaired and the rock drills are working again after being stopped for a week; has been a noticeable saving in firewood since the battery engine was compounded.

24.12.1903: yield for the year (excluding December) was 11,594 ozs 11 dwt obtained from 26,720 tons, which including gold obtained from cyanide and pyrites.

1903: K.P. 11 inch dial steam cylinder with connections; cast iron spur wheel and pinion for winding gear with key; vertical tandem compound careless engine.

1903: electric lighting installed; 30 head battery.

16.01.1904: yield for the quarter of 4431 ozs; dividend of £5400.

31.01.1904: shaft sinking resumed and No. 11 level opened at 1086 feet; 5239 ounces 17 pennyweight 10 grains of gold obtained from 13,229 tons of stone taken from Nos. 1, 3, 6, 7, 8, and 9 levels; 5 shillings per share paid in dividends.

27.02.1904: half yearly meeting: repairing the battery; for this period crushed 13,329 tons which yielded 5239 ozs 17.5 dwt paid a dividend of £9000; the cost of breaking, hauling and milling is only 13/11 per ton.

18.06.1904: decided to compound the air compressor to get more rock drills to work in the stopes and reduce the cost of breaking out the ore.

31.07.1904: reef intersected at No. 11 level and driven on both east and west; 6212 ounces 13 pennyweight of gold obtained from 14,684 tons of stone taken from Nos. 2, 6, 7, 8, 9, and 10 levels; 4 shillings per share paid in dividends.

06.08.1904: intend duplicating the compressor to reduce the cost of breaking stone.

1904: 30 head battery.

31.01.1905; most successful half year of operation; shaft sinking resumed; 5725 ounces 2 pennyweight of gold obtained from 13,425 tons of stone taken from Nos. 2, 6, 7, 8, 9, 10, and 11 levels; 6 shillings and 6 pence per

share paid in dividends.39

25.02.1905: half yearly report: dividend for the half year was 6/6 per share giving a total of £65,700 in dividends since the company started; yield of 8 dwt 12.7 gr per ton from 13425 tons; the cost of milling was 15/6 per ton; about to start work at No.12 level; a new double cylinder winding is to be erected.

13.05.1905: with the mine attaining a greater depth it has been decided to up-date the plant; a pair of first motion high pressure 20 inch cylinder engines with a three foot stroke, driving 10 foot diameter winding drums have been purchased; the engines were made by the Phoenix Foundry for a Kalgoorlie mine but were never delivered; also purchased two high pressure Cornish boilers, a fuel economiser and a super heater.

24.06.1905: calling tenders to remove two of its low pressure boilers and one of the high pressure boilers to make room for the new winding plant; have five boilers some low pressure and when the alterations are finished it will have five high pressure boilers and provision is being made for the erection of fuel economisers.

22.07.1905: two new high pressure boilers have been delivered to the mine.

31.07.1905: shaft down 1415 feet and plats cut at 1236 feet (No. 12) and 1386 feet (No. 13); 6167 ounces 11 pennyweight of gold obtained from 14,480 tons of stone taken from Nos. 2, 8, 9, 10, and 11 levels; new winding engine, economiser, superheater, and two high pressure boilers added to the plant at a cost of £6200; 4 shillings per share paid in dividends.

26.08.1905: contract has been let to Mr. Hill to erect the new winding plant.

09.09.1905: prospects are good with the alterations to the machinery that are currently underway; fuel economisers are being built in; brick piers are being built to take the large double cylinder winding engine.

07.10.1905: working at the 12th level; a large condenser made by the Otis Company has arrived at the mine; when working with the fuel economisers the feed supply going into the boilers has a temperature of 206 degrees.

02.12.1905: found the lode at the 12th level and the prospects continue to look goo, shares have risen in value; the powerful double cylinder winding engine is now complete and is expected to be in place in a few days. 1905: 30 head battery.

superheater, economiser, 3 high pressure boilers, condensers, modern steam winding engine erected at a cost of £5000.

13.01.1906; the winding plant installed during 1905 cost £5000 and is the most up to date in the district; it is capable of hauling 5000 feet.

31.01.1906: reef cut in No. 12 level at a distance of 381 feet from the shaft; 5248 ounces 11 pennyweight of gold obtained from 12,345 tons of stone raised from Nos. 2, 8, 10, 11, and 12 levels; 5 shillings per share paid in dividends.

31.07.1906: reef cut in No. 13 level at a distance of 427 feet from the shaft; 6125 ounces 15 pennyweight of gold obtained from 15,217 tons of stone raised from Nos. 2, 8, 10, 211, and 12 levels; 4 shillings per share paid in dividends and 1600 pounds spent on plant and machinery.

11.08.1906: a man was killed while cleaning the boiler; he loosened a manhole before steam was let off and the boiler exploded with the door hitting him in the chest killing him.

1906; 30 head battery; to erect an additional 10 head of stampers.

31.01.1907: shaft sinking re-commenced after payable stone had been proved at the No. 13 level for 290 feet between the eastern and western faces; 5319 ounces 13 pennyweight of gold obtained from 13,169 tons of stone raised from Nos. 2, 7, 8, 10, 11, 12, and 13 levels. No. 2 level nearly exhausted; 6 shillings per share paid in dividends and 10 additional heads of 1250 pounds stampers obtained.

16.02.1907; concrete foundations for the extra 10 head of stamps are ready.

09.03.1907: a double break in the wiper shafts has delayed crushing operation; the new boxes are in position and soon the company will have 40 stamps at work.

11.05.1907: 40 head battery now at work and stone is being broken from levels 7, 8 & 9.

31.07.1907: new stampers completed; shaft sunk to 1564 feet; cross-cutting at No. 14 level commenced; 6326 ounces 18 pennyweight of gold obtained from 16,578 tons of stone raised from Nos. 2, 7, 8, 10, 11, 12, and 13 levels; 4 shillings per share paid in dividends and 3018 pounds spent of plant and development work.

28.09.1907: bottom plat being enlarged for reception of an air winch.

1907: 40 head battery; 10 additional head of stampers erected.

13.01.1908: good payable stone averaging 4 feet 6 inches wide proved at No. 14 level for a length of 330 feet; 5371 ounces 3 pennyweight of gold obtained from 16,711 tons of stone raised from Nos. 2, 7, 8, 10, 11, 12, and 13 levels; 4 shillings per share paid in dividends.

17.07.1909: crushed 8484 tons for a yield of 2152 ozs 7 dwt; also obtained 548 ozs from pyrites and 124 ozs from cyaniding the tailings and paid two dividends totalling £3600.

31.07.1908: shaft down 1715 feet and crosscutting commenced at No. 15 level (1686 feet); in 330 feet; 6015 ounces 10 pennyweight of gold obtained from 18,099 tons of stone raised from Nos. 7, 8, 11, 12, 13, and 14 levels; 4 shillings per share paid in dividends.

31.07.1909: Mr. Alcock, the manager, returned from six weeks holiday in W.A. where he inspected many of the leading mines and made a careful study of the methods adopted for successfully treating slime dumps using

either the Cassell's or Vacuum process; on Mr. Alcock's recommendations the company has decided to erect a test plant.

28.08.1909: the proceeds from the yields from this mine have been distributed in the following proportions: 29.5 % as dividends; 48.5 % as wages; 22 % as plant, stores, fuel etc; the total value of the yields is £384,459. 24.12.1908: working the lode at the No.15 level, which is opening out satisfactorily; still the leading gold producing and dividend paying mine in the district; during the year crushed 34,797 tons for a yield of 10,950 ozs paying £12,400 in dividends; dividends now total £125,100; in addition to which the co-operative company paid £21,303 in dividends between 1887 and 1898; the total production since the mine began is 104,503 ozs from 257,236 tons representing a value of £422,830.

1908: 40 head battery.

31.01.1909: plat cut for No. 16 level at 1836 feet from the surface; good payable stone averaging over 5 feet in width for a length of over 200 feet found at No. 15 level, 559 feet from the shaft; 4860 ounces 9 pennyweight of gold obtained from 16,688 tons of stone raised from Nos. 7 and 12 levels; a westerly crosscut from No. 11 level failed to find anything payable; 2 shillings per share paid in dividends.

31.07.1909: 6298 ounces 10 pennyweight of gold obtained from 19,096 tons of stone raised from Nos. 2, 8, 11, 12, 13, and 14 levels; 4 shillings per share paid in dividends.

11.12.1909: since Wednesday 10 head of stamps have been out of action because of a break in the wiper shaft; the plat at No.16 level is being excavated for the air winch; the shaft will be cleaned out after the machinery is in position and sinking will resume after the holidays.

1909: 40 head battery.

31.01.1910: good stone in a reef averaging 5 feet wide found at No. 16 level and proved for a length of 400 feet; 5681 ounces 10 pennyweight of gold obtained from 17,278 tons of stone raised from Nos. 12, 13, 14, 15 and 16 levels; Nos. 12, 13 and 14 levels nearly exhausted; prospecting drive continued at No. 11 level, but without success; 4 shillings per share paid in dividends.

31.07.1910: shaft sunk to 2014 feet and plat cut for No. 17 level (1986 feet); 5122 ounces 18 pennyweight of gold obtained from 15,928 tons of stone taken from Nos. 7, 14, 15, and 16 levels; 2 shillings per share paid in dividends.

1910: No.8 suction gas plant and Hornsby gas engine.

1910: 40 head battery.

31.01.1911: 4258 ounces 3 pennyweight of gold obtained from 14,292 tons of stone raised, principally from No. 15 level, with some small contributions from Nos. 7, 11, and 12 levels; one shilling per share paid in dividends. 04.03.1911: stoping going along as usual with good progress being made erecting the plant to treating the 100,000 tons of accumulated tailings, which is expected to give a profit of 2/- per ton from the 3000 tons that will

be treated per month.

31.07.1911: reef cut at No. 17 level (1986 feet), at a distance of 655 feet from the shaft; 4502 ounces 8

pennyweight of gold obtained from 14,817 tons of stone raised, principally from Nos. 15 and 17 levels, with some contributions from Nos. 2, 7 and 8 levels; no dividends were paid, but 3902 pounds 13 shillings and 9 pence was spent on a slimes plant.

1911 : 40 head battery.

31.01.1912: 3136 ounces 15 pennyweight of gold obtained from 9542 tons of stone raised, principally from No. 17 level, with some contributions from Nos. 2, 8, 11, 15, and 16 levels; Nos. 2, 15, and 16 levels were now exhausted; the slimes plant failed and additions and alterations were made in the hope of improving its performance; shortage of miners; 6 pence per share was paid in dividends.

31.07.1912: working costs increased considerable, due to shaft-sinking, depletion of stone in the upper levels of the mine, and the shortage of miners; crushing was reduced to two shifts per day with 35 head of stampers; 3019 ounces 11 pennyweight of gold obtained from 8371 tons of stone was raised from Nos. 11, 14, 15 and 17 levels; No. 11 level was now exhausted; the slimes plant proved to be unsatisfactory and was closed down.

1912: 40 head battery.

06.02.1913: payable stone in the lowest level stopes exhausted; prospecting in the upper levels unsuccessful; 3561 ounces 5 pennyweight of gold obtained from 7929 tons of stone; mine, plant and machinery sold to the owner of the East Jubilee mine; 124,178 ounces 3 pennyweight 10 grains of gold (valued at £502,932 5s) obtained from 324,304 tons of stone between 1900 and 1913.

14.02.1913: mine closed down with the best blocks of stone having been taken out.

The plant consisted of:

20 inch by 60 inch double cylinder steam winding engine with two loose drums 10 feet in diameter,

16 inch by 26 inch by 15 inch by 16 inch by 36 inch compound duplex air compressor,

two 6 kilowatt direct current generators direct coupled to a high speed 6 inch cylinder steam engine,

8 inch by 12 inch by 12 inch vertical compound condensing steam engine coupled to a 20 inch cylinder air pump, 40 head stamp battery with 20 heads of 750 pound stampers, 120 head of 1050 pound stampers and 120 heads of 1250 pound stampers,

12 inch by 16 inch by 36 inch tandem compound steam battery engine,

10 inch by 10 inch Tangye vertical steam engine,

two No. 5 Wilfley concentrating tables,

six No. 4 Wilfley concentrating tables,

three 30 inch Berdan pans,

amalgamating barrel,

double cylinder 8 inch by 10 inch steam winch,

circular saw bench,

fitting shop, complete with engine lathe, drilling machine etc.,

two air hoists,

22 inch cylinder steam engine,

6 inch steam hammer.

three double-decked safety cages,

five ordinary safety cages,

two tanks,

air hammers, rock drills, and telescopic rock drills

air receiver, 19 feet by 7 feet in diameter

poppet legs, 60 feet high with 10 foot diameter pit head pulleys and 5100 feet of 1.125 inch wire rope,

pumping gear for the water supply for the battery,

cyanide plant consisting of eight 60-ton oregon staved sand vats, two oregon staved solution vats and 45 large and 48 small precipitating tubs,

furnace and assay equipment,

slimes plant with solution tanks,

agitator vats, pumps, etc.

filter tanks,

96 brake horsepower suction gas engine,

120 brake horsepower gas producer plant.

The total cost of the plant, buildings etc. was over £13,500.

08.1913:plant, machinery and equipment sold and dismantled.

1913: 40 head battery: mine closed, machinery sold and dismantled.

07.1888 to 12.1898: recorded production of 9,808 ozs from 23,158 tons or 305.070 kg from 23,529 tonnes.

01.1899 to 12.1913: recorded production 125,404 ozs from 325,970 tons, or 3,900.591 kg from

331,201tonnes.111

This place/object may be included in the Victorian Heritage Register pursuant to the Heritage Act 2017. Check the Victorian Heritage Database, selecting 'Heritage Victoria' as the place source.

For further details about Heritage Overlay places, contact the relevant local council or go to Planning Schemes Online http://planningschemes.dpcd.vic.gov.au/