



8 August 2021

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Dear Don

Byron Reef Mines

Thanks for the opportunity to assist Renewable Newstead/Newstead 2021 Inc in determining the location, extent and features of the Byron Reef Mines which are included on the Heritage Schedule of the Mount Alexander Planning Scheme.

My report follows below. As you will see, based on a review of previous research and the site inspection undertaken on 7 May 2021, I advise as follows:

1. The area marked on the planning scheme map as HO1074 does not contain any of the three mining sites.
2. Two of the mines are on the adjoining Denton property and one is within the Petersen property. The Denton property is not part of the area being proposed for the solar farm and the one mine within the Petersen property is also well outside the footprint for the Newstead Solar Farm identified on the planning permit application.
3. There is some 'wash-off' from the tailings dump from the North Byron Mine and a small dam near the probable site of a cottage, both within the HO1074. The probable cottage site and peppercorn tree may be associated with one of the mines: it is on the Denton property. The small dam to the north-west may be associated with the mine, although looking at the overall layout of the Byron Reef mine, this appears highly unlikely.

My conclusion is that the circle mapped in the Newstead Heritage Study is indicative only and should not be relied on, and that the area marked as HO1074 does not contain any of the significant extant remains of any of the three Byron Reef mines.

Yours sincerely

Chris Johnston
Director

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Report on the Byron Reef Mines

On 7 May 2021 I inspected the location of the three Byron Reef Mines with two representatives of Renewable Newstead (Don Culvenor and Genevieve Barlow). I was accompanied by my colleague Katrina Dernelley, an architectural historian.

Our aim was to determine the location of the primary physical evidence of each of the mines and whether or not the mine sites are within HO1074 and therefore might be impacted by the proposed solar farm.

In summary my conclusions are:

1. None of the primary evidence of the three Byron Mine sites – as detailed in the Heritage Study 2004 – is located within the area proposed for the Newstead Solar Farm. Two of the mines are on the adjoining Denton property and one is within the Petersen property. The Denton property is not part of the area being proposed for the solar farm and the one mine within the Petersen property is also well outside the footprint for the solar farm identified on the planning permit application
2. All three sites retain substantial physical evidence – as briefly described below, along with photographs taken during our inspection.
3. The area marked as HO1074 on the Mount Alexander Planning Scheme does not contain any of the significant extant remains of any of the three Byron Reef mines. The circle mapped in the Newstead Heritage Study is indicative only.
4. Two other sites each retaining evidence of a dwelling were located. These dwellings were probably associated with one of the mines. Both are on the adjoining Denton property

The extent of work undertaken in preparing this report involved reviewing previous documentation and inspecting the sites. No additional historical research was undertaken.

Previous studies

North Central Goldfields Project 1993

The three Byron Mines – South Byron Co., Byron Reef Co. and North Byron Co. – were documented in 1992 by David Bannear as part of the North Central Goldfields Project c 1993. According to Bannear, operations commenced c1899 and continued through to c1907. His report provides a brief history drawn from Mining Surveyors' Reports, the Mount Alexander Mail and several 'Annual Reports'.

Bannear also references two other mines on the Byron Reef, but further south:

- Byron Consuls: Apparently located south of South Byron and floated in 1901
- Lord Byron: further south from Byron Consuls, also floated 1901.

Bannear inspected all three sites and took photographs; the location of these photographs is no longer known (Bannear pers. comm.).

Heritage Study 2004

In 2004, a heritage study of the former Shire of Newstead was completed by consultants for the Mount Alexander Shire. The study identified the Byron Reef Quartz Mines as Place No. ND/18. The citation draws heavily on the earlier report by David Bannear. The facts that the description precisely matches Bannear's description, the lack of any photographs and the generalised mapping (a large circle) suggests that the consultants did not inspect the site.



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The heritage study includes an overview of the history of mining across the former Shire of Newstead as well as a brief history of the Byron Reef mines, drawing on Bannear and the gold mining file held by the Newstead and District Historical Society.

History

The following is drawn from Bannear (1993) and Jacobs et al (2004):

- The reef attracted initial interest in December 1859, with a lease granted in June 1860 to Messrs Toomby, Kerby and Wecker, Captain's Gully Newstead.
- The initial lease over 10 acres of the reef was worked in the 1860s 'for some time'.
- In 1881 the lease was worked by the Port Phillip Company Clunes but as the returns were not what were expected the shareholders refused to continue with the works.
- In the 1890s the lease was taken up by Mr. Con. Treacy. Work was begun again in 1898 and Treacy floated shares for the Byron Reef Company. In 1899 they were crushing ore at the Farmer's United battery. Mr. Con Treacy was feted in Newstead in 1900 when he joined the Bushmans Corp to fight in the Boer War.
- In February 1901, two other companies were floated on the Byron reef: South Byron Co. and North Byron Co. The Mount Alexander Mail reported that Captain's Gully was 'secured in leases from end to end' (12.3.1901).
- When the North Byron Co floated in 1901, it was described as one of the quickest floats on record with 26,000 shares being subscribed.
- The shares in the Byron Reef Co. were reported to be worth only 6 pence per share c. 1898-99, but rose to 42 shillings by April 1901, a massive increase. The mine was described as 'having been turning out good cakes for some time'. The ten head stamper was expanded by an additional 10 head stamper and some changes in equipment. However, the equipment was described as 'not up to date [but] suitable for the present requirements' (Mt Alexander Mail 17.4.1901). That year the mine was described as the best that had been worked in the district.
- In 1903 the Byrons Reef Company had declined as a gold producer. The main shaft was 700 feet deep at this stage and deeper sinking was proposed. In 1904 the company was not successful despite sinking to the 800 foot level and letting the upper stopes to tributers. They continued operations during 1905, 1906 and 1907 with little success despite sinking the shaft to a depth of 920 feet.

Neither report documents the history beyond 1907.

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Heritage significance

Bannear (p. 255-256) recognises the Byrons Reef Quartz Mines as associated with mining operations which took place from 1899 to c1907.

Bannear assessed the heritage significance of the three sites as 'local' and the nature of their significance as follows:

Byrons Reef Co (Site no. 81): Historical significance as Newstead's greatest quartz mine

The three mines together have scientific significance because:

- (a) The line of mines are evidence of a turn of the century quartz mining boom
- (b) The sites have a number of well-preserved features which together illustrate the scale of the mining operations conducted along the line of reef at the turn of the century

The significance of the three sites is increased by cumulative value because the mullock heaps are landscape features.

The Heritage Study largely follows Bannear's assessment of significance stating:

The Byron Reef Quartz Mines area consists of the remains of the Byrons Reef Company, North Byron Company and South Byron Company including mullock heaps, machinery bases and shafts.

The Byron Reef Quartz Mines area is **historically** significant at a **LOCAL** level as the Byrons Reef Co. was Newstead's greatest quartz mine. Gold mining sites are of crucial importance for the pivotal role they have played since 1851 in the development of Victoria. The three sites have scientific significance because the line of mines are evidence of a late 19th and early 20th century quartz mining boom and the sites have a number of well preserved features which together illustrate the scale of the mining operations conducted along the line of the reef in the early 20th century. The mullock heaps are landscape features which adds to the significance of the site.

Overall the Byron Reef Quartz Mines area is of **LOCAL** significance

Planning Scheme – Heritage Overlay

The Mount Alexander Shire subsequently adopted the Heritage Study and implemented it through the Planning Scheme, using the Heritage Overlay provisions. The Byron Reef Mines is identified as HO1074 described as Byron Reef Quartz Mines, Pyrenees Highway.

The Planning Scheme mapping marks an area of land running south from Clarke Lane and along the east side of a paddock fronting Captain's Gully Road.



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References






Bannear, David 1993 *Historic Mining Sites in the Maldon Mining Division*, Part Two: Site Gazetteer, North Central Goldfields Project, Department of Conservation and Natural Resources (North West Area).

Jacobs, W., Taylor P., Ballinger, R. Johnson, V. & Rowe, D. 2004 *Heritage Study of the Shire of Newstead: Stage 2. Volume 3: Heritage Citations*. Mount Alexander Shire.

Mount Alexander Planning Scheme, Map No. 29HO

Indicative mine locations



-  South Byron Mine
-  Byron Reef Mine
-  North Bryon Mine
-  Cottage: chimney and peppercorn grove
-  Probably cottage remnant and single peppercorn tree

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Site Inspection

Comparison of the 1946 and current aerial imagery



1946 Aerial



Google maps: c2021

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North Byron Co

	Date	Location	Features
Bannear - Site no. 80	1901 - ?	Not described	Small intact mullock heap associated with a (filled) two compartment shaft
Site inspection: 7.5.2021		Within Petersen property but outside the area proposed for the solar farm.	Small mullock heap with a two-compartment shaft – not filled but partially collapsed. Shaft has been fenced. To the north a brick/stone (machinery) bed and single steel rod. To the west, a large dam, possibly not associated with the mine? Dam is visible on the 1946 aerial.



View across the erosion gully below the large dam and towards to mullock heap. On the Petersen property.



Fenced shaft.



Detail of shaft: appears to be used for disposal of rubbish.

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View of mullock heap looking south-east. Small pile of soil in foreground is recent and does not appear to be associated with mining site remains.



Remnants of brick engine bed.

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Byrons Reef Co

	Date	Location	Features
Bannear - Site no. 81	1860-1907?	Located approx. 300 m south of South Byron	Large intact mullock heap and open 3-compartment shaft Brick engine bed to north of the shaft – largely buried Fragmented remains of a brick engine bed – to east of the shaft Battery stumps and bedlogs – largely buried – to the east Extensive tailings dump and large water dam – to the east.
Site inspection: 7.5.2021		Located on Denton property	The site is largely as described by Bannear. There are extensive remains. The 3-compartment shaft (fenced) is at the top of the rise. The shaft retains extensive timbering. The brick engine bed is east of the shaft but the battery area is to the west. The large tailings dump to the south-west of the shaft and works area and downslope from the tailings dam which was dry on the day of our visit. The dump area appears to be slowly eroding downslope.



Looking towards the Byrons Reef Co. site from the south at the Petersen property boundary fence, looking into the Denton property. The edge of the tailings dam is visible (rushes) and the mullock heap.



The large mullock heap.



Looking across the tailings dam area. The Petersen property is beyond the tree line which marks the property boundary fence.

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Looking upslope to the tailings heap.



Further detail of the tailings area, showing rabbit warrens into the tailings.



Looking from the top of the rise into a higher dam, probably the water dam Bannear describes. It is upslope of the tailings dam.



The mullock heap



The mullock heap



Battery area to the west of the fenced shaft – top right in the image

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The three compartment shaft retaining extensive timbering



Brick engine bed to the east of the shaft



Another small dam.



View from the Denton property western boundary fence looking across to the Petersen property. This appears to be the base of the tailings dump that is eroding downslope. The spill of quartz fragments on the Petersen side of the fence appears to be from the eroding tailings dump.



On the tailings dump near the fence line.



View back to the Denton property towards part of the tailings dump, that is the ungrassed area.

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South Byron Co

	Date	Location	Features
Bannear - Site no. 82	1901 - ?	Approx. 150 metres south of Byrons Reef Co.	Intact small mullock heap associated with an open shaft. To the north of the shaft is a largely buried stone winder bed and boiler setting.
Site inspection: 7.5.2021		Denton property	Open shaft (fenced) retaining internal timbering. Flatter area to the north of shaft, possibly the buried stone winder bed and boiler setting? Mullock heap. Remains of stone and timber(?) cottage enclosed by peppercorn trees – not recorded by Bannear.



Fenced shaft



Area to the north of the shaft, perhaps the location described as 'largely buried stone winder bed' by Bannear.



Small mullock heap.

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Shaft



Detail of shaft and timbering

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Remnants of stone and timber (?) cottage, with random rubble stone chimney, some loose bricks. Enclosed in a 'grove' of peppercorn trees, some in a line suggesting a windbreak planting.



Other features on the cottage site

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Other sites

	Date	Location	Features
<p>Site inspection: 7.5.2021</p> <p>Probable cottage remnants</p>	Unknown	<p>Located on the western boundary of the Denton property.</p> <p>The dam to the west is on the Petersen property, and within HO1094, the only element of the Byron Mines complex within the defined HO.</p>	Remains: stone and brick, next to peppercorn tree, with a small dam nearby downslope to the west.
Other mines on the Byron Reef: Bannear	c1901	Located further south than South Byron – specific locations not provided by Bannear.	<p>Byron Consuls: Apparently located south of South Byron and floated in 1901</p> <p>Lord Byron: further south from Byron Consuls, also floated 1901</p>
<p>Site inspection: 7.5.2021</p>		Location not known	Not inspected

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