

RUSHWORTH GOLDFIELD.

INDEX TO NOTES.—(Figures in black on plan.)

1. Tertiary ironstone, apparently a capping on the older rocks.

Ditto covered with Bursaria scrub. On the east side of the gully are indurated sand stone and slate.

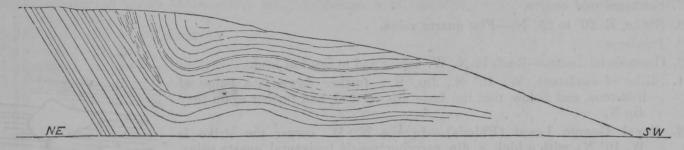
3. Phœnix Company's Lease.

4. Bound-to-Win Lease.

5. No. 2 Phœnix (the Old Belfast).—Indurated sandstone, strike W. 30° N.

6. Strike E. 10° S., with a nearly vertical dip to the south.

7. Dunlop's Tunnel.—This tunnel is driven N. 33° E. about 110 yards, passing through sandstones dipping to the south. Near the end is an anticlinal fold, and the dip is reversed to the north. There are two reefs—an east and west one dipping across the "country" to S. 5° W. at 58°, with a good foot-wall, and a north and south one, dipping due E. at 17°. In one of the drives is a shaft 40 to 50 feet deep, above which the reef has been worked to surface. In the cutting at the tunnel mouth the beds dip S. 3° W. to S. 25° E. to E. 35° S. The subjoined is a sketch section:—



8. Ayer's Reef.—Strike of strata, E. 12° S., dip N. There appears to be a large body of stone at the east end. Magnesite (carbonate of magnesia) occurs in connexion with it and two other small leaders to the south. At creek on road the beds strike E. 8° N. vertical, and consist of indurated sandstones, showing oblique bedding.

9. Ray's Lease (Old Corroboree).—Two reefs pass through the lease, one in the strike of the strata W.

30° N., and the other diagonally across it E. 10° N. vertical.

10. Old Frenchman's Lease.—Strike of reef, E. 12° S. To the westward the strata dips N. at 70 degrees. The reef on the south boundary of the lease strikes W. 30° N., and the country dips south. At the engine shaft are grey sandstones, occasionally concretionary, and with a perfect network of quartz

11. Strike, W. 20° N.; dip, N. 20° E. at 60 degrees.

- 12. Charcoal Reefs.—Strike with strata, W. 20° N.; dip, S. 13. Strike of strata, E. 9° N.; dip, N. 9° W. at 71 degrees. 14. Ditto W. 5° N.; dip, N. 5° E., nearly vertical.

15. Ferruginous reef cap.

16. Comet Lease.

17. Outcrop of ironstone (limonite) and ferruginous cement, striking about W. 25° S., possibly a reef cap.

18. Constance Lease.

- 19. Crown Cross Lease.
- 20. Crown Cross Extended Lease.—On this lease is what is called the sandstone reef, the dip of which is to W. 10° N. steep.

Try Again Claim. 22. Polygon Lease.

23. I.O.R. Claim.—Strike, E. 15° S.; dip, N. 15° E. Further west reef strikes W. 25° S. The first appears to be a large vein of ferruginous quartz; and the last is a peculiar whitish mullocky reef, with a good footwall, under which is a concretionary sandstone, reticulated with quartz veins.

24. Strike, N. 25° to 30° W.; dip, E. 30° N.—Mullocky reef with pholeritic clay, and network of quartz

veins in dense indurated sandstone.

25. Birthday Reef.—Strike, W. 30 N.; good looking, but poor stone.

26. Strike of rock, E. 15° S.; dip, N. 15° E.

27. Bed of hard clay cement, reported to have been very rich.28. Elbow in Cockatoo Reef, dipping E. at 75 degrees.

29. Cockatoo Lease.—Reef strikes E. 20° S.; dip, N. 20 E. 30. Cockatoo Extended (late Perseverance or South Nuggety).

31. Nuggety Hill Lease. See Report.

- 32. Fossils occur here (Encrinital stems), and in a shaft near Semmens.
- 33. Main Gully Reef.—Strike, E. 10° N. Much ironstone.

34. Ironstone and quartz, probably a reef cap. 35. Flat veins of ferruginous quartz.

36. Strike, E. 10° N. 37. Mill's Lease.

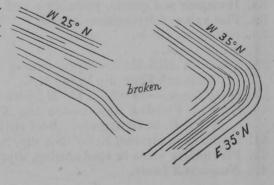
38. Specimen Hill Reef.—Open cutting shows strata striking E. 20° N. with a nearly vertical S. dip. Joints and floors dip to the N.E.

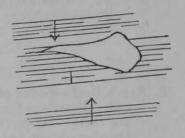
39. Hope Lease.—Strike, E. 15° N., with a nearly vertical N. dip.
40. Sons of Freedom Lease.—On the N. boundary flat veins and joints dip N.W.; dip of sandstone, S. 10° E. at 70 degrees. Reef strikes W. 10° S. Strata, W. 20° S.
41. Strike of sandstone, E. 25° N.; dip, S. 25° E.

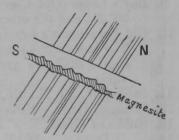
42. Flat quartz veins in road cutting, dipping westerly.

43. Numurkah Lease.

- 44. Dip in road cutting, S. 10° E. at 67°.—Sandstone and decomposed shale, with quartzite beds from 1 to 5 inches thick.
- 45. Gregson's Claim.
- 46. Anticlinal fold in open cutting at N. W. corner of camp.
- 47. Vaughan's Mascotte Claim.
- 48. Energetic Lease.
- 49. Young Australian Lease.
- 50. Great Leviathan Lease.
- 51. How Toi Lease.
- 52. Scrub Reef.
- 53. Scrub Lead.
- 54. Growlers Reef Co.'s Lease.—On the eastern edge of the hill the beds are bent round with the hill, forming the crown of an anticline, of which the apex is cut off. The beds dip round from E. 30° N. to nearly S. off the hill. The sandstone is highly indurated on the top.
- 55. West Growler's lease.
- 56. Dip N. 25° E. at 45 degrees.—Old workings.
- 57. Scattered reef quartz.
- 58. Strike, E. 20° to 25° N.—Flat quartz veins.
- 59 Tronstone
- 60. Commercial Lease.—Reefs in N. W. corner and at head of lead.
- 61. Strike of sandstone, W. 10° S., dip, S.; further down is a bulge of ironstone, and below that the beds are vertical, and further again they dip N.
- 62. Royal George Lease (Elder's).—In the N. W. corner the strike is W. 10° N., with a high S. dip, carrying nearly horizontal quartz veins. Two lines of reef appear to have been worked, and a large amount of trenching done.
- 63. Reef striking N. 15° W.; runs into the mallee scrub and is very little prospected.
- 64. Reef dipping N. across strata dipping S.—The hanging wall is smooth, but the footwall is in slides or steps, and lumps of magnesite occur under it, a similar occurrence to the reefs about Ayer's (note 8).
- 65. Fossil reef in ferruginous white and mottled sandstone.—A rather open and friable sandy bed, full of crinoid stems, occurs in connexion with the reef, and is said to have carried gold itself. Strike of strata, E. 5° N.; dip, S., nearly vertical.
- 66. Growler's No. 1 Lease.
- 67. Great quantity of rich ironstone, but no defined lode.
- 68. Yellow and pink soft sandstone and shale, white beds to the west. Strike, E. 20° to 25° N.
- 69. Sandstone quarry. Strike, E. 5° N., dip S., nearly vertical.
- 70. Cutting in sandstone.—Thin crystallized and cavernous quartz veins.
- 71. Hard clay cement.
- 72. Red angular and partly rounded quartz drift, white cement lower down, surface strewn with glazed ironstone pebbles.
- 73. Thin ferruginous and clay cement, resting on pot-holed surface of the Silurian sandstone, striking W. 15° S.
- 74. Reef striking W. 20° S.
- 75. Thick bed of ferruginous and siliceous rounded quartz cement, or conglomerate, worked on bottom.
- 76. Hard sandstone bar, E. 15° N., vertical.
- 77. Soft yellow sandy shales, with large ferruginous quartz reef dipping N. at an angle of about 45 degrees with the "country." At the underlay shaft, 100 feet deep, and connected with the vertical, the quartz is very black, ferruginous and laminated. It dips in slides to the eastward and northward, and further east has a much steeper underlay. A small crushing went only a few pennyweights. In the gully the rock dips N. 25° E. at 50 degrees.
- 78. Reef striking E. 5° S.; underlay of sandstone to the S.—Large flat reef on the east side of the hill dipping N. The whole north face of the hill is covered with quartz, from which doubtless the gold in the gully below has been shed. It has not been surfaced, and is very little prospected.
- 79. Bars of very ferruginous sandstone and grit with quartz veins, apparently striking N. 35° W.
- 80. Bed rock exposed by surfacing, showing the top of an anticlinal fold. It extends over a length of about 2 chains. The rock is chiefly a white siliceous sandstone. A flinty bed can be traced round its margin.

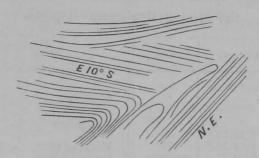






81. White quartz pebbles and red cement.

82. White cement. A peculiar example of a fault may be seen here on the bared surface of the bed rock.



83. Clausen's farm.

84. Cumberland whip shaft. Strike, E. 15° N.85. Canute and Canute Extended Leases (Old Scandinavians).

86. Cumberland and Mongolian Lease.

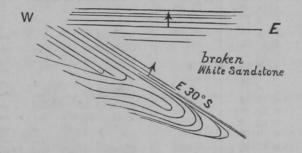
87. Strike, E. 30° S., with a nearly vertical dip to S. 30° W.

88. Mongolian old engine shaft.—Grey sandy mudstone, with traces of fossil plants or annelids, and dark blue shales.

Ferruginous grit and cement.
 Strike, S. 35° E.

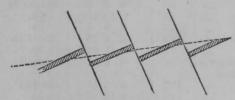
91. Rounded and semi-angular white quartz.

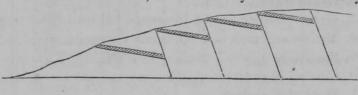
92. Peculiar fault in beds exposed by surfacing.



93. Cement.

94. Canadian Lease.—To the S.E. the beds strike W. 2° S., with a nearly vertical S. dip. Reef dips at S.E. end E. 35° N. at 40°; at N.W. end it strikes W. 35° N. large body of stone. On the west side of the lease, the Canadian reef workings strike W. 5° S., and the rock dips S. nearly vertical. It is worked from the surface in an open cutting, and presents many peculiarities in its mode of occurrence, being faulted repeatedly in two, if not more directions, both vertically and horizontally





95. Water reserve.—Cement 18 feet thick, said to have yielded from 2 to 4 oz. gold per load, but no

96. Hill covered with quartz and apparently untried.

97. Sandstone and slate striking E. and W. and dipping S .- Old reef workings, flat floors with bunches of quartz dipping N. E., not defined.

98. Schleswig Holstein engine shaft.—Dark grey indurated slaty and jointed sandstone.

99. Castle Lonely Lead.—Sinking from 20 to 30 feet, and the gold was coarse and waterworn. 1 foot to 2 feet 6 inches thick, averaging about 4 dwt. per load. Worked in 1871.