

# REPORT

BY

MR. MINING SURVEYOR WRIGHT,

TO

THE PROVINCIAL GOVERNMENT OF OTAGO.

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PRESENTED TO BOTH HOUSES OF THE GENERAL ASSEMBLY BY COMMAND OF  
HIS EXCELLENCY.

---

WELLINGTON.

—  
1866.



## REPORT BY MR. MINING SURVEYOR WRIGHT.

SIR,—

Mining Survey Office,  
Queenstown, 31st March, 1866.

I have the honor to furnish for your information the following Report on the condition and prospect of the Wakatipu Gold Field at date 31st March, 1866; together with tables showing the population and value of mining plant. I also attach plans of groups of leaseholds, surveyed in the vicinity of the Scandinavian and Arrow Reefs, having the features of the country and other matters Population. sketched upon them.

This district is again assuming a permanent and settled aspect, and there appears little inclination on the part of the miners to leave it. The exodus to the West Coast is now stayed, and the population has during the last six months been slightly on the increase. The Queenstown Division has lost a number of its mining population, but the Upper Shotover has gained, and the Arrow Division is exactly River workings. as it was stated in my Report for September, 1865.

The number of miners occupied in river workings has greatly diminished, the continued wet weather, and the heavy floods in the early part of the summer having obliged the holders of river claims to abandon them. For about two months out of the last six there was scarcely a man engaged upon such work in the whole district, and certainly not one either on the Shotover or Arrow Rivers, and three or four escorts left this district with little else but terrace gold. The numbers at present working the rivers and creeks are 208 against 398, and those working the terraces 558 against 492 at the date of my Report of September last. There will, however, in all probability be a reaction in this class of work now that the rivers are low and the cold weather setting in; but it is not at all probable that the Mining plant. numbers will ever again exceed those working upon the terraces.

The table showing the description and value of mining plant is low in comparison to past statistics, and is accounted for by the whole of the water-wheels, and such like mechanical appliances having been, Terrace working. with few exceptions, destroyed and carried off by the floods in January last.

Terrace working by means of sluicing has now become a permanent and steady occupation, yielding in most cases highly satisfactory results to the various companies so engaged. I know of no race having a fair supply of water that is standing idle, and in some instances weekly dividends of £10, and even more, have been made, and almost all of them are yielding good wages. The Mountain Race Company at Skipper's are now engaged in extending their race beyond Fisher's Town to some very high point above Butcher's Gully, known to be good sluicing ground, but not having as yet a supply of water to Tunnelling. work it.

Tunnelling is still resorted to upon the Arrow River and Twelve-mile, and sluicing is also greatly carried on. Some very fine races exist in these localities at a great height above the rivers, but still Deep sinking. not of sufficient height to command a vast area of known auriferous ground on the upper terraces.

At the Cardrona the deep lead there discovered is being most successfully followed up, and some of the richest ground ever opened in this district has there been proved; but the works on this lead suffered materially during the last half-year from the continued rain, and every shaft on the lead was at one time completely flooded out; the greater part of the Companies have however repaired damages, and are in full work once more.

I have been brief in the foregoing description of the position of mining matters with reference to alluvial workings, as I am obliged to devote a considerable portion of this Report to describing the progress made in the development of the quartz reefs. I will only, therefore, reiterate that the alluvial workings are now characterized by a stability that will render this class of work permanent, and give to (at least) the numbers now engaged, steady and remunerative employment for many years to Quartz reefs. come.

There are now in the Upper Shotover and Arrow Districts together thirty-seven holdings upon the recognized quartz reefs, viz.: under the leasing regulations, thirty-four, and in prospecting claims, three. The following is a list of them, showing their titles, the reefs for which they are taken up, and the length which each Company occupies upon the line of it:—

Name of Reef.	Title of Company.	Length in Feet.
Scandinavian	Hibernian Quartz Mining Company	1,200
"	Otago (No. 1)	404
"	Otago (No. 2)	719
"	Scandinavian Prospectors	431
"	Skipper's Company	332
"	Rose Diamond Company	514
"	Ariel Quartz Mining Company	329
"	New Year's Gift Company	1,200
"	British American Company	1,200

Name of Reef.	Title of Company.	Length in Feet.
Scandinavian ... ..	Vulcan Quartz Mining Company ... ..	651
" ... ..	Cæsus Company ... ..	965
" ... ..	Ballaarat Company ... ..	1,133
" ... ..	Queenstown Company ... ..	1,200
Prince of Wales ... ..	Prince of Wales Quartz Mining Company ... ..	350
" ... ..	Alexandra Company ... ..	1,081
" ... ..	Victoria Company ... ..	447
" ... ..	Mount Aurum Quartz Mining Company ... ..	1,100
Pactolus Reef ... ..	Advance Company ... ..	1,057
" ... ..	Ruby Company ... ..	1,200
" ... ..	Mines Royal Company ... ..	1,200
Justin Reef ... ..	Justin Reef Prospector's Company ... ..	300
" ... ..	Shamrock Company ... ..	1,200
" ... ..	Union Company ... ..	1,200
" ... ..	Band of Hope Company ... ..	1,200
Arrow Reef ... ..	New Orleans Company ... ..	1,200
" ... ..	Barracouta Quartz Mining Company ... ..	1,200
" ... ..	Plutus Company ... ..	1,200
" ... ..	Criterion Quartz Mining Company ... ..	1,200
" ... ..	Jupiter Quartz Mining Company ... ..	1,200
" ... ..	Who'd-ha'-thought-it Company ... ..	1,200
" ... ..	Columbian Quartz Mining Company ... ..	1,200
German Reef ... ..	German Reef Prospectors' Company ... ..	300
" ... ..	Achilles Company ... ..	1,200
" ... ..	Ajax Quartz Mining Company ... ..	1,200
" ... ..	Caledonian Quartz Mining Company ... ..	1,200
" ... ..	Kohinoor Quartz Mining Company ... ..	1,200
New Chum Reef ... ..	Cornish and Company ... ..	300
Total length of occupation—feet ...		34,413

Prospecting.

In addition to these, several parties of miners in two's and three's are supported by Prospecting Associations, and a few are prospecting for themselves. The localities are Skipper's, Upper Shotover, Left-Hand Branch, Twelve-mile, Arrow, Moonlight, and Moke Creek, but their more defined location is not known. The total number of miners engaged on these reefs is eighty-four against thirty-one in September last. This is few in comparison to the quantity of ground held, but many of the Companies have not commenced prospecting, and others that have only employed two men, which number is sufficient for sinking or driving, for the purpose of prospecting. The population at the reefs is, however, steadily on the increase.

Scandinavian Company.

The most important event at the reefs during the last six months was the purchase of a portion, viz:—four-sixths of the shares in the Scandinavian Prospectors' Claim, by Dunedin capitalists, for the sum of £4,400, establishing the value of the area held by this Company at £6,600, the length occupied upon the line of reef being 430 feet. The present machinery and plant can scarcely be considered of any value (in this purchase) as new machinery is being obtained from Melbourne, and a more systematic mode of working will render much of the old trams, shoots, and other appliances, useless.

The Scandinavian Company has been in existence since about the first of January, 1864, at which time they took possession of the ground now occupied for the purpose of prospecting for a quartz reef, they having been led to do so through finding several large boulders of highly auriferous quartz in Skipper's Creek; after a considerable amount of hardship and privation in a locality so little frequented they discovered what they supposed to be a reef, and named it the Scandinavian. The prospectors at first opened a tunnel to the face of the hill and followed up some very rich quartz, and then proceeded to erect a four-stamp battery, and a water-wheel for motive power. These, as may be supposed, were of very rough construction, and were found so defective that no crushing could be done till May, 1864, when it was found not to work at all satisfactorily. Alterations were made and crushing resumed again on the second day of August of the same year, when it was again found defective and proved to lose a considerable portion of gold. Alterations and improvements were from time to time being attempted to little purpose when at length the stone in the vein in which they were working was found to run out, when the shareholders thought seriously of abandoning the project altogether. One or two shares were sold at this time for a trifle—I think for merely five or ten pounds. The party however, at length determined on again trying the ground, and commenced a new tunnel for the purpose, and in this they succeeded in striking the main reef, when they found their previous work was in a slip which had carried off a portion of the reef with it. In April, 1865, crushing was again commenced, since which a considerable progress has been made in developing the lode. The quartz in the tunnel varies from 5 feet to about 9 feet wide and appears to be extremely rich; the last and best stone struck was in a shaft near the eastern boundary of the claim and near the leasehold of the Skipper's Company. The reef in the tunnel is proved to a depth of about sixty feet, and presents no appearance of running out, the whole drive, top and bottom, being in solid compact blue quartz, with gold well distributed throughout it.

The yields from the different attempts at crushing in this claim were as follows :—

Yields from the Scandinavian.

From the Slip—					ozs.	dwt.	grs.
Previous to April, 1865	...	...	...	...	65	0	0
"	"	...	...	...	85	0	0
"	"	...	...	...	63	0	0
"	"	...	...	...	84	0	0
Total	...	...	...	...	297	0	0
From the Main Reef—					ozs.	dwt.	grs.
April, 1865	...	...	...	...	143	13	0
May, 1865	...	...	...	...	39	11	12
June, 1865	...	...	...	...	36	0	0
November, 1865	...	...	...	...	30	7	0
December, 1865	...	...	...	...	117	19	12
January, 1866	...	...	...	...	175	0	0
February, 1866	...	...	...	...	30	0	0
Total	...	...	...	...	572	11	0

making in all a total of 869ozs. 11dwt. Works are at present suspended in this claim, waiting the arrival of machinery, which, I am informed, has been sent for to Melbourne.

The appliances for working the stone have hitherto been most defective, and there is little doubt but that a very considerable percentage of gold has been lost in crushing. The average yield, however, I am informed, has been about three ounces to the ton, and from examination of the work done I am inclined to think such an average is correctly stated; much larger results are in anticipation on the erection of good machinery.

To the eastward of the claim the Skipper's Company occupies a leasehold, and have a shaft sunk just upon the boundary from which quartz was taken, but not, I am of opinion, from the main reef, the stone being unlike the auriferous quartz in the Scandinavian tunnel. It is not at all an uncommon thing to find an unproductive vein of quartz running parallel to an auriferous reef. This is a likely one. A tunnel is now being put in from the ground of the prospector's, and is already over one hundred feet in length. A vein of white quartz similar to that found in the shaft has been passed through, but the main reef has not yet been struck, but in all probability a few days will prove it. Skipper Company

The Rose Diamond Company occupies ground next on the line, which is, however, lying idle, a tunnel of 150 feet in length having been entered from near southern boundary with no success. Rose Diamond Company.

Next is the Ariel Company, also doing nothing. A shaft has been sunk to a depth of sixty feet in a heavy slip, no solid rock having been struck. Ariel Company.

Eastward, again, is the leasehold of the British American Company, better known as Perry, Watt, and Company, whose works have since my last Report proceeded rapidly. Mr. Perry, manager and part proprietor, is superintending the works. The reef discovered in this claim is a crop on the shoulder of a spur dividing Skipper's from the Old Man Creek. A cut was opened by Watt and party previous to Mr. Perry joining them, and they obtained the richest stone yet taken from any reef in the district. I made mention of this in my last Report, where I stated that twenty ounces were taken from 150 pounds weight of quartz. A large heap of this stone is laying to grass, and gold can be picked out of it in dwt. pieces in solid little nuggets. A drive has been entered below the crop, and a distance of nearly twenty feet driven across the reef without reaching the overlie, from which part the richest stone was taken. The quartz passed through is banded, varying in color, and in its fracture at times white and compact, flinty and angular, then blue, hard, and solid, containing a large amount of iron pyrites. One band is of a red ferruginous mass, and tenacious clay vein is on the overlie. This is characteristic of all the reefs at present open here. British American Company.

Mr. Perry's machinery consists of twenty-head of stamps, ranged four in a box, and are worked by means of a turbine wheel, the supply pipe being forty-five feet in vertical height, and twenty inches in diameter. It is in course of erection. The water right is obtained by damming up the creek, and conducting the water by a flume to the machinery a distance of about twenty chains. This is completed, together with two extensive trams, the one to conduct the timber to the reef, and the other to bring the quartz to the machinery. The first winds round the face of a mountain from the bush to the tunnel, and is worked by trucks drawn by horses; the other is laid with three rows of rails down a steep gradient, having a drum and break fixed at the top. The trucks are to be attached to a wire rope 1500 feet long, and the full one in descending will bring the empty one up. The works are extensive, and very costly; and the working shareholders have exhibited an amount of energy and determination scarcely to be credited. Crushing will probably have been commenced two months after this.

Beyond this again is the leasehold of the Vulcan Company, on which little has been done. The reef is traceable throughout the entire length of the ground, and has been opened in three or four places, but nothing like a systematic prospect was made. The work that has been done is on the underlie of the reef, but no gold was taken from the stone. Mr. Assistant Mining Surveyor Millet found gold in the overlie, the most reasonable place to look for it, as every claim at present opened proves. The western boundary of this lease is within about 200 feet of the crop from which Perry and Company obtained their very rich prospect. Vulcan Company.

The next Company is the Cœsus, and then the Ballaarat, through which a double line of reef can be traced. Gold has been found by two persons in the stone of the latter; but the former has not been prospected to my knowledge. Cœsus Company and Ballaarat Company.

On leaving the Ballaarat ground surface indications of the line of reef disappear entirely, and do not crop again till nearly half a mile beyond the Queenstown leasehold; it might, however, in so Queenstown Company.

broken and precipitous a locality have been overlooked by me. This lease is the last that is taken up on the eastern side of the Scandinavian prospectors; but the ground to the westward is occupied for nearly half a mile along the line of reef.

Otago Company,  
No. 1.

Immediately adjoining the prospectors' is the leasehold of Murdock and Company, extending to Murdock's Creek; the hill falls abruptly to the gully, and a tunnel has been entered 150 feet along the line of reef just above the level of the creek. A considerable quantity of auriferous quartz was taken from the adit and now lies exposed at the creek. This leasehold is held, together with the next westward under the title of the Otago Quartz Mining Company, on the opposite side of the creek; a long tunnel has been driven and a deep shaft sunk. I have seen some of the stone from this portion of the reef, equalling any that has been taken from the prospectors' ground. The length of these two leases is 1095 feet. The Company are erecting machinery very much after the principle of the North American Company. The excavation for the machinery site is a heavy piece of work, cut in the solid rock. Two very extensive flumes and a tramway have been constructed entirely of timber, measuring together something like a mile in extent. The reef in the latter claim crops out at the surface, and is very rich; it appears, in the drive entered below Murdock's Peak, to resemble an immense quarry of stone rather than a well defined reef, but has gold distributed more or less throughout it.

Hibernian  
Company.

This lease is joined by the Hibernian at the summit of the ridge of which Murdock's Peak is forming a part. I have seen no indication of a reef in the last-mentioned claim, and nothing is done towards proving it. This is the most westerly ground at present occupied, but another Company is about being formed for the area between this and the Mount Aurum ground.

New Year's Gift.

The New Year's Gift, a lease taken up on the southern boundary of the British American Company, has been partially opened up by the prospectors', who have sunk a shaft 40 feet in depth under the impression that the Scandinavian Reef passes close by it. The work, however, was suddenly discontinued, without anything having been proved. Very good specimens of auriferous quartz have from time to time been taken from the run of stone which here crops out, but it appears to me too far south for the main Scandinavian Reef (that is) supposing the prospecting leasehold and the ground of Perry, Watt, and Company are on the same reef.

Prince of Wales  
Reef.

It is most difficult to judge whether the Prince of Wales Reef is a continuation of the Scandinavian, owing to the absence of all trace of it between the Mount Aurum and the Hibernian Company's leasehold. It may, however, possibly have been overlooked by me, as the ground is nothing but a mass of rocks and precipices throughout it.

Prince of Wales  
Reef.

The Prince of Wales Reef has been busily prospected by the Prince of Wales Company, and that almost without interruption since the time of its being discovered—eight or nine months since. They have, in my opinion, proved the reef quite sufficiently to warrant their placing machinery upon it without delay. This reef, where first discovered, was cropping to the surface, at the eastern side of the Prince of Wales Gully, presenting to view a clearly defined block of quartz, standing above the slate rock, and containing gold throughout it. The prospectors put a tunnel into the face of the hill and obtained some very rich stone, the peculiarity being that it appeared on the cap as a mere gilding, not showing beyond the surface. After further prospecting very good stone was found, with the gold running through it. The prospectors continued their drive a considerable distance into the hill till they lost the quartz. They were merely following out a band of tough blue clay, which in this, as in all the other reefs forms a selvage. They at length returned to the portion of their drive from which the best stone had been taken, and commenced following out the dip of the reef, when they came upon some very rich quartz; it has lime in its composition, is blue in color, and the gold contained in it is exceedingly coarse. Where the stone crops on the Prince of Wales ground is, to all appearance, the cap of the reef, and the adit appears to have gone beyond it. Should this be proved shafts will be sunk for permanent work. I believe this venture will prove a good one for the shareholders. It was originally the property of eight, but the shares of some of them have been sub-divided into sixteenths and forty-eights. It is the intention of the shareholders to form this into a Joint Stock Company, keeping the shares amongst the present proprietors.

Alexandra  
Company.

On the western side of the Prince of Wales is the Alexandra leasehold, which has been proved to contain auriferous quartz leaders. I have received good specimens from them. Little attempt has been made to trace the Prince of Wales Reef into this leasehold, for a heavy body of slip covers the surface, and makes prospecting expensive. What has been done was in mid-winter, when the snow rendered work almost impossible. The reef will probably be faulted here as a cross reef. The Pactolus intersects it almost at right angles. From surface indications it will pass through the most westerly angle at the Prince of Wales, and the most easterly of the Alexandra ground. I have great faith in this locality turning out well, not only on account of the rich samples of stone that have been raised but from the generally acknowledged fact, that where two mineral lodes cross each other is found to be the richest portion of a vein.

A Company has been formed for the purpose of prospecting and working this ground, and I am informed the shareholders are taking the greater portion of the shares to themselves. The Company consisted of fourteen shareholders. Portions of shares have been sold at the rate of £60 to £80 per share. The shares that are to be sold will be by tender, and the proceeds I am informed are to be expended in prospecting.

The eastern boundary cannot be much more than 150 feet from the outcrop on the Prince of Wales lease.

Victoria  
Company and  
Mount Aurum.

The Victoria and Mount Aurum leaseholds for the same reef are on the eastward of the Prince of Wales ground, and have both the line of the reef clearly defined in them, but very little prospecting has been done in either; all surface indications disappear on the eastern side of the Mount Aurum grounds.

Pactolus Reef.

The Pactolus, a newly discovered reef, was found by one of the shareholders of the Scandinavian Company, and was indicated by a crop of bluestone, containing a considerable amount of gold, and on being opened shewed a blue clayey flucan, and the walls of the reef most distinctly marked the course of this reef, which can be traced for one and a half miles, bearing twenty-two degrees east of north.

The prospectors have taken up a lease of the ground under the title of the Advance Company, and are engaged in a thorough prospect of it. The Ruby Company, on the north, are vigorously prospecting on the line of reefs, and the Mines Royal Company on the south will speedily follow.

The Justin Reef, Butcher's Gully, has been twice occupied since my September Report, and a party composed of the shareholders of the Mountain Race Company have now taken it in hand, and I think it will get a fair trial this time. This reef is at present a most extraordinary mass of laminated slate and quartz, with gold occurring throughout. No body of quartz has at present been discovered, but the formation of the reef is perfect, and the stone at present being raised will pay very well for crushing. Three leases have been applied for on the line of reef, but they are not yet surveyed.

The Elgin Reef is now abandoned, so also is the reef in Sawyer's Gully, but there is some talk of their being again taken up. A line of reef runs (crossing these two gullies) in a parallel direction with the Shotover and Skipper's Creek.

In the Arrow portion of the district the miners have been on the alert to discover new reefs. One party was out prospecting the dividing range heading the Twelve-mile, and brought home auriferous quartz, together with antimony ore. I believe they are still out.

A new reef, German Reef, has been opened within two miles or so of the Arrow Township, upon the Crown Terrace, and something like fifty feet of it is uncovered. The quartz is solid and compact, from three to four feet wide, and stands nearly vertical. The walls are perfect. Gold is found in considerable quantities in the rubble of the reef next the underlie, and a clay flucan very like that accompanying the Arrow Reef is on the overlie. I have examined a considerable quantity of the stone, and have seen gold in it, but so fine that it could not be detected without a glass. There is a large amount of mundie, resembling that occurring in all the gold-bearing reefs in the district which will likely be found to contain gold. The casing being so rich in fine gold is a good indication. I think it well worth a thorough prospect.

Four leases, viz., the Ajax, Achilles, Kohinoor, and Caledonian, have been surveyed besides the prospecting claim. It is not at all unlikely that this reef will eventually turn out to be the reef discovered by Cornish and Company in New Chum Gully.

On the Arrow Reef the Criterion Company have very nearly completed their works, and expect to commence crushing in about three weeks. This Company have had great difficulties to contend with, caused by the heavy and constant rains which fell in December and January. Their only means of obtaining motive power, without going to an immense expense, is by damming up the river which passes through the lease, thus raising the water a sufficient height to work their machinery. The first contract for the dam was about half completed at the close of the year, when it was entirely demolished by one of the heaviest floods we have ever had in the place; and both previous to and since this occurrence the river has kept far above its ordinary height, so preventing the carrying on of the work for weeks together. Had any other scheme for obtaining water power been available, there is no doubt the Company would have adopted it; but the only other method was by bringing the water down the river by an aqueduct. This would have absorbed the whole of their capital, and perhaps something beyond it.

The dam is now nearly completed, and is a fine piece of work measuring 120 feet across the river and 22 feet wide at base. The river for waste water is 12 feet above the old water level, and the remaining part of the dam rises to 6 feet higher. The work consists of a most substantial framework of piles and spars bolted together with  $\frac{3}{4}$ -inch iron bolts, and afterwards loaded with stones. Some of the piles are 22 feet long; all are driven to the bed rock, and stand 1 foot 6 inches apart. I have estimated the weight of the entire structure at 2000 tons.

The water being thus raised is conducted to the machinery by a mill race supplied with strong flood gates and sluices, when it falls on a breast wheel 12 feet in diameter at 9 inches above the axis of the shaft. The wheel will work twenty-four stamps, but at present only five have been erected. A good carpenter's shop and smithy have been built near to the machinery, and a tramway to the shaft is about being laid down.

The shaft is 70 feet in depth, and is opened out to the reef on the south-western side, where an adit is entered both northward and southward for about forty feet. A rise is being opened up to the 40 feet level for obtaining ventilation. The stone is at present raised in buckets by a horse whim.

The reef is well defined, and is about 5 feet wide, but is not of a continuous solid body of stone. The quartz varies from 18 inches to the full width of the lode, and the remaining portion of the reef is of a loose rubble composed of disintegrated quartz, slate, and lime, but containing gold. The selvage of the reef is of a blue tenacious clay band about half an inch in the thickness, with carbonate of lime intermixed. Large blocks of laminated quartz and slate occur at intervals in the reef, and contain sufficient gold to pay for its being crushed with the quartz.

Iron pyrites is most plentiful throughout the whole reef, and has been proved by experiment to contain gold within its crystals.

The prospects of this Company are most promising, but it is feared the clayey rubble of the reef might affect the working of the stamps by caking in the boxes. Should this be the case, some system of puddling must be resorted to.

There are three leases northward and three southward of the Criterion Company, but they are all lying idle. It is however the intention of three of them, the Plutus, Jupiter, and Who'd-ha'-thought-it, to commence at once; and I understand a manager for the Barracouta Company has arrived.

On a careful examination of all the seven areas at present held on the line of the Arrow Reef, it will be seen that surface indications exist throughout; but on account of the drift which overlies the bed rock, no connected line can be determined upon. All the leaseholds are, however, laid off so that the direction which the Arrow Reef is now taking in the Criterion ground will by being continued pass through them. Their value is only considered in proportion to their proximity to the prospecting claim, otherwise one has an equal chance with the others.

There is every probability of labor being scarce at the reefs. At Skipper's wages are at £4 10s. to £5, and at the Arrow £4 to £4 10s. per week, but good practical reefers can scarcely be had.

Advance Company.  
Ruby Company.  
Mines Royal Company.  
Justin Reef Prospectors.

Elgin Reef.  
Sawyer's Gully

Arrow Reefs.

German Reef.

Ajax Company,  
Achilles,  
Kohinoor,  
Caledonian.  
Arrow Reef,  
Criterion Company.

Plutus Company,  
Jupiter, Who'd-ha'-thought-it.  
Barracouta, New Orleans,  
Columbian.

Wages men.

There appears to be no one in the district at present unemployed. With this drawback it will scarcely be possible for some of the companies to comply with the terms under which they hold their leases, for even now wages men are scarce.

Agriculture. A very large area, covering over 4000 acres of agricultural land, has been applied for under lease, and I could not mention a more important fact to illustrate the confidence generally felt in the future prosperity of the district. Messrs. Robertston and Hollenstein are preparing for the erection of their flour mills at the Kawarua Falls, and a considerable extent of ground is being prepared for wheat crops in consequence. This season has for ever set at rest any doubt that might have existed in the capabilities of the land for growing wheat.

The accompanying plans I have prepared from surveys, and have given in them all the information I am possessed of, regarding the principal reefs. They will, I trust, be valuable to non-residents in the district, who are desirous to enter into mining speculations, and may deter many from investing without reasonable chance of success. Any additional information I may acquire from time to time as mining operations progress, I will forward. I would suggest the advisability of publishing these plans, that they may be placed within reach of all who may require them.

I have, &c.,

W. C. WRIGHT,

Mining Surveyor.

SUMMARY of MACHINERY in the WAKATIPU MINING DISTRICT.

DISTRICT.	Cradles.		Puddling Machines.		Hydraulic Hose.		Sluice-boxes and Toms.		Water-wheels.		Pumps.		Dredging Machinery.		Other Descriptions of Machinery.		WATER RACES.		QUARTZ CRUSHING MACHINERY.		Total Approximate Value.		
	No.	£	No.	£	No.	£	No.	£	No.	£	No.	£	No.	£	No.	£	Length in Chains.	Value.	Number.	Horse Power.		Description.	Value.
Queenstown Division	25	25	...	...	5	100	104	208	6	1200	30	600	...	...	100	250	12383	15498	...	...	£	17881	
Upper Shotover Division	20	20	...	...	12	360	95	190	1	110	10	150	...	...	40	80	3820	11140	2	12	Cornish Stamps	700	12750
Arrow Division . .	35	35	...	...	20	600	125	375	18	3000	120	1800	...	...	50	100	9108	26234	1	30	Works not yet completd.	...	32144
TOTALS . . .	80	80	...	...	37	1060	324	773	25	4310	601	2550	...	...	190	430	25311	52872	3	42	...	700	62775

SUMMARY of the POPULATION of the WAKATIPU MINING SURVEY DISTRICT.

LOCALITIES.	NUMBER OF MINERS ENGAGED IN								Total Population engaged in Gold Mining.	Rate of Wages per week.	Price of Gold per Ounce.	NUMBER OF PERSONS ENGAGED IN					Total Population engaged in Business.	Total Population in the District.	
	Cradling.	Sluicing.	Ground Sluicing.	Using Hydraulic Hose.	Puddling.	Dredging.	Tunnelling.	Quartz Mining.				Other Descriptions of Gold Mining.	Storekeeping.	Keeping Public Houses.	Packing.	Cultivating.			Other Employments.
Queenstown Division . . .	140	35	26	.....	.....	4	5	48	306	£ 4 0 0	s. 15 6	d. 6	27	24	6	50	469	576	882
Upper Shotover . . .	22	36	64	.....	.....	18	56	23	219	£ 4 10 0	s. 15 6	d. 6	8	4	2	6	30	50	269
										5 to 0 0 0									
Arrow Division . . .	46	107	98	.....	.....	122	23	46	442	£ 4 0 0	s. 15 6	d. 6	25	19	7	35	189	275	717
TOTALS . . .	208	226	188	.....	.....	144	84	117	967	£ 4 10 0	s. 15 6	d. 6	60	47	15	91	688	901	1868

1st April, 1865.

W. C. WRIGHT,

Mining Surveyor