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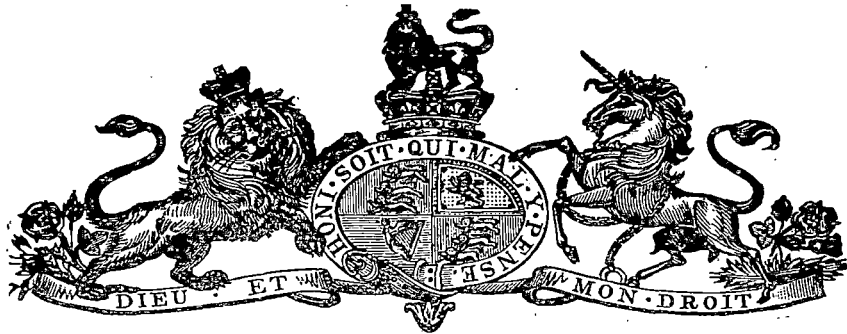
PARLIAMENT OF TASMANIA.

WEST COAST SURVEYS:

CORRESPONDENCE AND REPORTS OF DEPUTY SURVEYOR-
GENERAL.

Return to an Order of the House of Assembly. (Mr. Burgess.)

Laid upon the Table by the Minister of Lands, August 18, 1891, and ordered
by the House of Assembly to be printed, August 19, 1891.



Crown Lands Office, April 3rd, 1889.

SIR,

IN connection with the proposed amended Regulations for Surveyors, herewith submitted, I beg to make the following suggestions for your consideration; viz., that the standard of all surveys effected under the Mineral Lands Act be raised to the same improved system as those for the Crown Lands Office, and that the survey scale be made uniform in each case.

At present the instructions for surveys under the Mineral Lands Act are issued from this office, and there the connection between the two offices practically terminates in so far as the surveys are concerned. It was customary, on receipt of these plans, to forward them to the Crown Lands Office, where they were simply recorded and returned to the Office of Mines to be dealt with by that office. No check was, however, put upon the accuracy of the work, nor were the plans examined as to a general compliance with the Regulations pertaining to surveys under this Department.

In the other colonies special provision is made in order to insure this work being well and accurately performed; and in Victoria, I am informed, even greater accuracy is demanded for mineral surveys than for those of the Crown lands.

There appears to be no Regulation in operation authorising the acceptance of surveys (effected under the Mineral Lands Act) where the prescribed accuracy for selection surveys has not been exercised by the surveyor; but custom has undoubtedly instituted a less careful method in the performance of these surveys—it is, in fact, a perpetuation, to a great extent, of the old system of compass-surveying.

As the primary object of these surveys is to set out and define the boundaries of leases that in many instances show unmistakable signs of mineral wealth that will take years to develop, and as a small area of such leases may mean a fortune to the lessees, it is of importance that great care be observed in marking them off; and as the Department is responsible for the due performance of this work, it is further of importance that the information supplied to the office be reliable, in order that old boundaries may be reproduced, if necessary, in the future. With this object in view, I have respectfully suggested that all surveys effected under the Mineral Lands Act be brought under the same control and system of checking as those performed for the Crown Lands Office.

I also beg to suggest, as the unanimous opinion amongst the surveyors of the country, and as the recommendation of the Conference of Surveyors appointed by your predecessor to consider the question of regulations and survey fees, that the said fees be increased to the uniform scale herewith attached. This scale, I may add, is very similar to that proposed or recommended by the Select Parliamentary Committee appointed to consider the matter in 1888, and also to the evidence of the late Deputy Surveyor-General on the same subject.

I shall be glad to explain the other alterations proposed in the regulations. As they are of a minor character it will perhaps not be necessary to refer to them further here; but I would beg to draw your attention to a number of special reports herewith on the survey system and fees in support of what I now recommend; whilst in two of these reports—viz., one from Mr. Sprent and in the one from myself—there is a suggestion made for meeting the increased cost of survey.

In conclusion, I have endeavoured to place this matter clearly and as briefly as possible under your consideration.

I have, &c.

E. A. COUNSEL, *Deputy Surveyor-General.*

The Hon. Minister of Lands and Works.

MEMO.

In re REMARKS BY THE SECRETARY FOR MINES.

I HAVE to regret that the Secretary for Mines does not concur in the proposal to raise the standard of surveys for that office, which, I maintain, is so desirable.

Respecting the marking of such surveys, it is not proposed to alter the present system beyond instituting *three substantial* for "three slight notches."

That mineral lessees mark and trench the angles of their section, and that future issues are decided by same, is, in my opinion, very substantial evidence in support of the necessity for having reliable data of such surveys, inasmuch as these pegs and trenches may include more land than was actually surveyed and leased.

That great inconvenience and expense to applicants, with serious loss of revenue, and considerable expense in the office checking of these surveys, would be involved, are matters on which I differ from the views of the Secretary for Mines. The additional expense to applicants would be merely a small increase in survey fees for lightly timbered lands, and as the extra time occupied in the improvement of surveys would not be considerable, I fail to see where the revenue would be materially affected, whilst the office checking could be performed by one additional draftsman in this office. In these circumstances it is, I respectfully submit, most desirable that all surveys under the Mineral Lands Act be brought under the control of this office, or that it be relieved of all responsibility connected therewith.

E. A. COUNSEL, *Deputy Surveyor-General.*
9. 4. 89.

The Hon. Minister of Lands and Works.

Survey Office, Hobart, 26th January, 1891.

SIR,

I HAVE the honor to submit to you my Report as follows upon the system adopted and the way in which surveys are being effected for the Mines Office, in the vicinity of Zeehan and Dundas, on the West Coast.

These surveys, it is understood, are made by authorised surveyors, under the direction of the Secretary for Mines and by instructions from the Surveyor-General. They are subject to the Regulations for the guidance and control of Surveyors in Tasmania. The diagrams and accounts are received and dealt with in the Mines Office, where the district charts of mineral sections are compiled. This arrangement has obtained since the Mines was separated from the Lands Office in 1883.

The surveys are made at contract rates fixed by regulation, and, except as to a distinct mode of marking, are supposed to be performed in accordance with the regulations governing surveyors for the alienation of lands from the Crown.

There are some dozen surveyors on the field, though only three are in receipt of instructions direct from the Office; the others are either engaged as assistants or are employed by the applicants, but in either case they are really under no control or supervision.

In the case of the surveyor handing the instruction over to an assistant, such surveyor cannot be expected to give his time and expense in overlooking surveys when no remuneration is afforded him for such services; and in the case of an assistant being employed by the applicant under Regulation 18 of the Mineral Lands Act, 1887, the applicant is quite satisfied if the survey is made, no matter how imperfectly.

This regulation is working so badly and leading to so much corruption that, in the interests of the Department and the people, I must recommend that it be rescinded. Although it may be a convenient provision in some respects, yet it is altogether misleading, inasmuch as when an applicant's section is surveyed he usually places it on the market or disposes of interests in it. At the same time, there may be one or more prior applicants for the land whose notices have been overlooked. When these prior applicants' land comes to be surveyed, the section first surveyed may be altogether squeezed out, or at any rate the best of the land taken away. Such cases must occur where there are so many applications for the same land, unless surveys are made according to priority of application.

In respect to the surveys, I regret to state that I found them in a most incomplete and defective condition; in some instances the lines scamped and insufficiently cut out, in others badly marked—merely notched through the bark, and in others again not marked at all; whilst in only one solitary instance was I able to find that a corner peg had been referred to a permanent mark in the nearest tree, as provided by regulations. This is indeed a grave state of things, particularly

when the rough and broken nature of the country is taken into consideration, and, in consequence, very little reliance can be placed in the exact measurements recorded on the surveyor's plan, and by which alone the survey could be reproduced at any time if there are no permanent marks to determine the limits of the survey.

In respect to the surveyors, I have no hesitation in saying that they are in a state of disorganisation, and quite demoralised under the pernicious custom practised by applicants of largely subsidising surveyors to effect their surveys under Regulation 18, previously referred to. The evils due to the exercise of this baneful influence upon the surveyors will not be easily stamped out. Certainly, my previous experience affords no parallel to the subject under notice; and I am firmly of opinion that if anything like order and regularity are to be restored, this end can only be achieved by bringing every surveyor employed under the strict control and supervision of the Department. This proposal will involve the appointment of a qualified officer whose duties will be to receive and apportion all instructions to each surveyor according to locality, to be constantly employed in supervising and checking the various surveyors' operations, to communicate fully and regularly with the Department as to the progress and quality of the work, &c., and to afford every available information to applicants in respect to surveys; such officer to have his headquarters at Zeehan for the present, where he could be consulted on regular days every week.

In regard to checking the surveys already made, and to ascertain the various meridians adopted (every surveyor, at any rate in making disconnected surveys, has taken his own from the needle reading), the only practical way in which this can be satisfactorily accomplished is by laying down a standard line or lines some miles in length across the sections and referring each boundary to such line as a datum. To carry out this system, trig stations would require to be erected on the principal mountains in the neighbourhood for reference. It must, of course, be borne in mind that these surveys have been made very largely by the needle, and that there is therefore not the same advantage to be derived from the course suggested as if the limb of the instrument had been adhered to, although the information obtained by adopting it would be most useful in charting the surveys and in mapping the country.

At the present time, one of the first questions to be considered in order to practically prevent stagnation in the surveys, is the increasing of survey fees. This is an absolute necessity, as the scale in use is altogether disproportionate to the amount of work to be done, not only in effecting the surveys, but on account of the exceedingly high rate of wages ruling on the mines, the labour and expense in packing supplies and afterwards swagging them on in advance of the cut tracks, which generally falls to the lot of the surveyor.

It was my intention to have stayed longer in the district; but after a week's experience I was satisfied that to prolong my visit would be almost a waste of time under existing circumstances, and that the best thing to be done was to try and get matters placed on a sounder footing as soon as possible.

If I am to understand that this Office is to bear the responsibility of the surveys for the Mines Department in future, some additional assistance will be required in the drafting room for checking and examining the plans and diagrams. I am not aware to what extent they are checked and compared with the adjoining surveys at present, but I believe I am quite correct in stating that they are not examined to anything like the same degree of accuracy as the diagrams for this Office.

I cannot close my Report without stating my condemnation of the present mode of marking, with a strong recommendation that large horseshoe marks be substituted for the customary three notches in the trees along the line,—that the position of the nearest tree to the corner pegs be recorded on the surveyor's plan,—and that the number of the lease under survey be well cut into the wood in a conspicuous place on such tree. This would act as a safeguard for future reference in case of the corner peg being destroyed.

I would only further to remind you that I had the honor to place a memorandum before you shortly after my appointment to this office dealing with the system under which the surveys for the Office of Mines were carried out, but so far as I am aware no alterations were instituted.

I have the honor to be,

Sir,

Your very obedient Servant,

E. A. COUNSEL, *Deputy Surveyor-General.*

The Hon. Minister of Lands and Works,

Survey Office, Hobart, January 29th, 1891.

SIR,

REVERTING to the interview I had the honor to have with yourself and the Secretary for Mines to-day, on the subject of surveys effected for the office of Mines, there is evidently a misunderstanding in respect to the responsibility attaching to them which it appears necessary should be at once cleared up.

So far as I am concerned, I disclaim absolutely any responsibility in connection with the unsatisfactory state of things revealed in my report laid before you this morning; and I shall endeavour as briefly as possible, to justify this position.

As stated in this Report, soon after I was appointed Deputy Surveyor-General, I had the honour to submit a memorandum to you, directing your special attention to the unsatisfactory arrangements under which the surveys of mineral lands were being prosecuted. To this memorandum the Secretary for Mines replied, but, as I contended at the time, in no way disposed of the arguments raised by me against the loose and imperfect system then obtaining. These arguments were, at any rate, backed up by all the weight of experience gained by the other and larger colonies.

From time to time since this correspondence took place, I have referred to these surveys and predicted that they would bring trouble on the Mines Office in the future; but the Secretary for Mines thought differently.

I am not aware that I could have, or that it was my duty to do more than to bring the matter fairly before your notice, leaving the direction of alterations for the improvement of the system of governing the surveys to your ruling. Certainly I was not armed with any such authority as would enable me to take up that position.

In regard to the surveys, I would repeat that inasmuch as the diagrams and surveyors' accounts never pass through this office, I am unaware when the accounts are paid, or in fact if paid at all. I am not in a position to know how plans are drawn, what limit of error is allowed, how they are checked and examined, or if checked at all. I am, in short, only cognisant of one fact in connection with them—viz., that instructions for the surveys are issued to surveyors. Now, on the face of these facts, if it can be held that I am responsible for the proper performance of these surveys, then it is surely difficult to know where responsibility begins and ends. But it is not so; and a very slight consideration of the subject will show that in the above circumstances it is utterly impossible for this office to form any idea of these surveys that are being made, or what surveyors are paying attention to their work.

To think that this Department may take the responsibility of the field work alone under present arrangements is out of the question, and quite at variance with a competent knowledge of the whole subject. Bearing in mind the fact that it is the examination of the diagrams that indicates where defects may be found in the surveys, if I am to take over these surveys, now that they have been landed in an interminable mess, then the whole examination of plans, &c. will require to be handed over also, and arrangements made in the shape of additional aid in the drafting room, or I must decline the proposal.

I have, &c.

E. A. COUNSEL, *Deputy Surveyor-General.*

The Hon. Minister of Lands and Works.

I REGRET that the Deputy Surveyor-General should have thought fit to write this letter. Its tone is calculated to provoke friction between two important departments which should work in harmony. However, I have no intention of allowing it to have that effect upon me. In my remarks upon the Deputy Surveyor-General's Report of the 26th ultimo I have fully stated my views in a courteous manner, and I have now nothing to add further than to state that the mines surveys are not, as is described, in an "interminable mess," and that beyond the delay caused by the nature of the country and the lack of surveyors, there is literally no valid ground for complaint.

The Hon. the Minister of Lands and Works.

F. BELSTEAD, *Secretary of Mines.*
2nd February, 1891.

Office of Mines, Hobart, 31st January, 1891.

SIR,

I HAVE the honor to submit the following remarks upon the Report of the Deputy Surveyor-General, dated 26th instant, which you have favoured me by referring for that purpose.

Upon some points I am quite in accord with the Deputy Surveyor-General, notably as to the insufficiency of the fees hitherto paid to surveyors, and also as to the advisability of amending Mineral Regulation No. 18. These matters have already been attended to upon my recommendation, and there is now no need to discuss them here.

Defective Field Work.

I regret to learn that the Deputy Surveyor-General found instances of defective field work, but as he does not specify any particular surveyors or surveys, it is difficult to deal with the matter. I assume however that, inasmuch as all mining surveys are made by authorised surveyors, instructed by the Deputy Surveyor-General, and working subject to and in accordance with regulations issued by him, dated 1st January, 1890, pp. 17 to 21, he will take steps to bring the offending surveyor to book.

Marking Lines.

I do not concur in the recommendation of the Deputy Surveyor-General that the lines of mining surveys should be permanently marked with large horse-shoe marks, for the reasons—

- 1st. The sections are chiefly rectangular blocks. They are likely to be relinquished and retaken up, subdivided, and varied as often as the leases are forfeited or otherwise lapse, and upon each occasion have to be re-surveyed. If the lines are permanently marked, as suggested, the multiplicity of lines would tend to confusion rather than security.
- 2nd. The surveys are made for leasing purposes only, and the degree of accuracy required for sale surveys is not necessary; and
- 3rd. Lessees covenant under a penalty to erect and keep erected during the term of their lease permanent posts and trenches at every angle of the section, and, in the event of dispute, are bound by such ground-marks; therefore, I think, that the marking required by Survey Regulation 91 is sufficient.

Office Check of Mines Surveys.

This work is performed in the Mines Office by a qualified authorised surveyor and draftsman of large experience, assisted by other competent draftsmen; every detail is carefully scrutinised and checked, and no survey is acted upon and paid for until it has been found correct.

The system now in force was established by the advice and with the concurrence of the late Mr. Sprent, and, during its eight years' operation, no single instance has occurred of any applicant being deprived of ground to which he was entitled, and no dispute or litigation of any kind has arisen owing to any defect in the system of conducting or examining the surveys.

It is not a fact that there is any confusion as to the mining survey: the only ground for complaint is the lack of surveyors to do the work, and this is caused by the fees paid having hitherto been insufficient to attract surveyors to the work. This obstacle you have now consented to remove, and I anticipate no more trouble or delay than is unavoidable, when the large area to be dealt with, the densely-wooded mountainous nature of the country, the lack of roads and tracks, and the severity of the climate, are taken into consideration.

Responsibility.

Eight years' experience, during which time several thousands of surveys have been dealt with in this office, has proved that this Department is able satisfactorily to deal with every class of work that it has hitherto performed, and I am quite prepared to accept all responsibility in reference thereto; and I say, further, that it is absolutely essential to the proper conduct of the work of this critical department that the Secretary of Mines, whoever he may be, should have the same measure of control over the office work in connection with the surveys that he now has. At the same time I submit that as there is no inspecting surveyor, so called, and in view of the very exceptional glut of mining survey work just at this time; and the extreme desirability of getting it pushed on with all possible speed, the Survey Department may fairly be expected to lend its aid in supervising the field work and seeing that its own Regulations, under which the surveyors are authorised and instructed, are properly carried out. This, I submit, can be done without casting any burden of responsibility on the Survey Department, and without causing any friction or trouble as to divided responsibility between the departments.

I regret to have been compelled to trouble you at such length.

I have, &c.

E. BELSTEAD, *Secretary of Mines.*

The Hon. the Minister of Lands and Works.

Survey Office, Hobart, February 10th, 1891.

MEMO.

I HAVE to thank the Hon. the Minister for the opportunity of replying to the remarks of the Secretary of Mines upon my Report, 26/1/91.

Survey Fees.

I am glad to notice that the Secretary of Mines has changed his views since he so strongly opposed my recommendation to you on this subject in a memorandum dated 3/4/89.

Regulations.

I also observe that he has at length admitted the advisability of amending or practically rescinding No. 18 of his Mineral Regulations, which regulation has operated so prejudicially against the best interests of the Mines Department and the proper control of the surveyors.

Surveys.

The surveys generally are faulty; but it is the system chiefly that causes this. It is not sufficient that the Surveyor-General issues general instructions to surveyors under the Regulations: what is required is that the surveys and plans, when finished, be examined and approved of by this office.

I still maintain my position that permanent marking is essential, and that, in all cases, surveys should be as accurate and well-defined on the ground as possible, whether for sale or leasing. Especially is this the case in respect to lands leased for mineral purposes, where the value of individual sections is computed at from £50,000 to £100,000, and where a chain, or half a chain, in a line may mean a fortune—or the loss of it—to the lessees.

Office Work.

I can only adhere to my opinion, that the proper office to conduct this work is the Survey Office, and that only one who possesses a professional knowledge of surveys in all their bearings is competent of judging how far such work is properly performed.

Irregularities.

I am sorry to see that the Secretary for Mines gives my statement on this point a positive denial; but, nevertheless, what I have stated in my Report is correct.

It is always unpleasant in drawing up a Report such as I had the honour of submitting to you, to apparently reflect upon the action of others. But it is only from a sense of duty that I have written, as the Secretary for Mines seems to think, strongly. If I have done so, it is because I foresee—as I have on several occasions pointed out to you—that confusion and trouble will fall on your Department of the Service, and loss to the public, unless resolute action is taken as I have indicated.

E. A. COUNSEL, *Deputy Surveyor-General.*

The Hon. Minister of Lands and Works.

MEMORANDUM.

Reverting to the conversation with the Honorable the Minister on Saturday respecting surveys for the Mines Department, I think it desirable to express my views more fully upon the point affecting your recent decision. Fortunately this can be done without reference to other issues.

Responsibility is not a nominal matter, for unless the responsible person is fairly put in possession of the necessary means to secure good results, the mere *assumption of responsibility* would be deceptive to all parties. It is in this sense that I have disclaimed responsibility, for, as already pointed out to you in previous reports, the present arrangements are not such as to give me command of the various steps for checking the work which would justify me in assuring you that the surveys would be satisfactorily carried out through all their stages.

Of course, in technical matters of this kind it can hardly be expected that you should perceive the difficulties of the matter as they appear to a professional mind; but as you appear to doubt my assurances, I am quite willing that the subject should be referred to a neutral and competent authority, whose decision would be of great advantage to all of us, more especially as you may have been otherwise advised by other officers whose good judgment in other respects may have induced them to venture an opinion upon professional matters which they may not have properly understood.

It is my desire to do the best I can with the means at my disposal, but in the circumstances in which we are placed it is, I think, due to me and to you that I should endeavour to make this point as clear as possible.

E. A. COUNSEL, *Deputy Surveyor-General.*

Survey Department, May 25th, 1891.