

APPENDIX No. 3

that 'rock assembled (the individual pieces of such assembled rock exceeding one cubic foot in size)... such as in the judgment of the engineer may be best removed by blasting, is to be classified as solid rock excavation under clause 34. I do not understand upon what principle the Chief Engineer limits the size to pieces exceeding one cubic foot. The specification speaks of rock found in ledges or masses of more than one cubic yard, which in the judgment of the engineer may be best removed by blasting. If 'rock assembled' may be regarded as a mass of rock, and if it may be best removed by blasting, I do not see why under the specification it is material whether the individual pieces exceed or are less than one cubic foot in size, and if 'rock assembled' is not regarded as a mass, the minimum limit of size which can be classified as solid rock exceeds one cubic yard.

Immediately afterwards, on the 9th January, Mr. Lumsden communicated to the commissioners of the Transcontinental railway the letter received from the Deputy Minister of Justice, and he says:—

After fully considering his remarks in regard to the words after 'rock assembled' (the individual pieces of such assembled rock exceeding one cubic foot in size), I have concluded in deference to his remarks these bracketed words might be omitted, as also the words 'not covered under clause 34' in items 1 and 2 under the heading 'loose rock.'

My interpretation of these clauses will now be as follows:—

Clause 34—Solid Rock Excavation.

Solid rock excavation will include all rock found in ledges or masses of more than one cubic yard, which in the judgment of the engineers may be best removed by blasting.

I am of the opinion that rock found in ledges or masses as specified must (firstly) be rock, and (secondly) it must be in ledges, conglomerate form (known as plum pudding stone), boulders or ledge rock displaced (in pieces each exceeding one cubic yard in size), rock assembled also shale rock, such as in the judgment of the engineer may be best removed by blasting.

I attach a diagram in explanation of the above, which, in my opinion, is all that is included under clause 34—solid rock.

Clause 35—Loose Rock.

All large stone and boulders measuring more than one cubic foot and less than one cubic yard and all loose rock, whether in situ or otherwise, that may be removed by hand pick or bar, all cemented gravel, indurated clay or other materials that cannot in the judgment of the engineer be ploughed with a 10-inch grading plough behind a team of six good horses properly handled, and without the necessity of blasting, although, blasting may be occasionally resorted to, shall be classified as loose rock.

Under this heading I would include:—

(1) All large stones and boulders more than one cubic foot and less than one cubic yard.

(2) All loose rock in situ or otherwise that may be removed by hand-pick or bar.

(3) All cemented gravel, indurated clay and other materials that cannot, in the judgment of the engineer, be ploughed with a ten-inch grading plough, behind a team of six good horses properly handled and without the necessity of blasting, although blasting may be occasionally resorted to.

Clause 36—Common Excavation.

Common excavation will include all earth, free gravel or other material of any character whatever, not classified as solid or loose rock.