

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	325-2	Press
B.P. No.		Mis.—
Dated	13-11	C875
		—195—

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
13th November 1875.*

Read the following papers —

No 323 From Major J BEATTY, R E, Acting Superintending Engineer, Godavery District, to Major-General G W WALKER, R E, Secretary to Government, Public Works Department, dated Dowlaishweram, 11th October 1875, No 2,104

With reference to paragraph 6 of G O, No 1,858, of 2nd July 1875, I have the honor to inform you that on reconsideration Mr Vanstavern finds that the style of buildings proposed in his letter, accompanying the report of last year's coal-boring operations, would be so expensive that it will be better to defer their construction until good coal has been struck, and the site for a shaft determined

2 He, therefore, now proposes the construction of thatched sheds of a more roomy and substantial character than those used in the previous two seasons' borings, such as would afford sufficient shelter through a rainy season, if necessary, so that the borings may, if possible, now be carried on without interruption until the question whether there is good coal there be finally settled Mr Vanstavern estimates the cost of such a set of sheds at Rupees 258

3 I have delayed this letter in expectation of receiving the orders of Government on Mr King's report, and his views as to future operations, but, as the season for resuming work at the coal-borings is approaching, it becomes necessary to determine how Mr Vanstavern is to be relieved at Dumagudiem if he is to return to the coal-field.

4 Possibly, Mr King may be able to provide a competent person to take charge of the party instead of Mr Vanstavern, and this is very much to be desired in the present reduced state of the department But if it be decided that Mr Vanstavern is to return to the borings the only arrangement that I can suggest for relieving him is that Mr Sub-Engineer Joyce should be sent to the charge of the Dumagudiem Range, the present Foreman of the Government Workshop, Serjeant Bennett, promoted to the charge of the Workshop, and a trained European Foreman appointed to take Mr. Bennett's present post

5 There will, however, doubtless be considerable delay in finding a suitable person for the post of Foreman of the Dowlaishweram Workshop, and until he joins Mr. Joyce cannot be spared for Dumagudiem, so that if the arrangement I have now suggested be approved, I beg to be favored with early instructions

No 323-A Endorsement of the Officiating Chief Secretary to Government, dated Fort St George, 27th October 1875, No 617.

From W KING, Esq, Deputy Superintendent of the Geological Survey of India, to the Hon D F. CARMICHAEL, Officiating Chief Secretary, Madras Government, dated Madras, 23rd October 1875.

With reference to the Proceedings of the Madras Government, Public Works Department, 2nd of July 1875, and the order thereon, No 1,858, I have the honor to lay before you my further considerations on the coal-boring operations at Beddadanole in the Godavery District.

2 I have to apologize for not having reported to you earlier on this matter, but I was unable to do so until now, owing to severe illness.

3 The operations at Beddadanole during the last season, that is from the beginning of February to the end of May, do not show such satisfactory results as I had anticipated, the coal found up to the present date being still very poor and only of a very slightly improved character on that of the seams struck last year. The result is, in fact, so poor that I feel some hesitation in recommending that further trials should be made during the next season.

4 My intended line of trial holes across the field has not however yet been carried out completely, owing to the late arrival of the new boring tools in the middle of April, and thus Mr Vanstavern was not able to carry down the holes to a sufficient depth for us to become acquainted with the full thickness of the coal bearing strata.

5 Further, it is also possible that the thin seam of coal last struck in No 9 bore-hole may improve as it goes westward, but there was no time or opportunity for the hole immediately west of it to be carried down to a sufficient depth to touch on this seam, which it would have done were the coal of any extent.

6 Two other bore-holes in the same line, the sites of which I had indicated to Mr Vanstavern, and on which I remarked in my report of last year, still remain untouched.

7. Under these conditions of an uncompleted section of the whole thickness of the field, I would still urge that the explorations be continued for another season, commencing as soon as Mr Vanstavern might think it safe to start operations in that feverish locality. I myself am in the habit of taking the field early in November, but it is questionable whether a fixed camp like Mr Vanstavern's could be safely pitched at Beddadanole so early in the season.

8 Should the borings which I have indicated to Mr Vanstavern not show any better result than that already obtained, I should then be reluctantly compelled to recommend stoppage of the work, although there still remains a large area under which chance seams might be struck.

9 In conversation with Major Beatty, the District Engineer, at the end of the season, he suggested to me that the expenses incurred during this exploration might be reduced if Mr Vanstavern had charge of the range in which the coal field lies, supposing a vacancy occurred in the Ellore Division, his Assistant (Mr Moore) and the Native Foreman carrying out the mere mechanical work, while he himself could inspect the operations when necessary. On my writing to Mr Vanstavern—this hardly being a flatter in which I was concerned—he expressed his acquiescence in the views suggested by Major Beatty.

10 As regards the suggestion for a fixed camp, I do not think that this would be advisable until more satisfactory results are obtained from the bore-holes referred to above, as the giving up or continuation of the work depends, I think, on what may be found in these holes.

11 During the present season, Mr Vanstavern has pierced the upper part (western side of the field) of the strata, and a good thickness of the lower part to the bottom of the series, but their still remains an intermediate portion which could not

be done in the time at his disposal. Within the thickness of strata thus examined, there are eight different seams of coal, *viz*, one seam of 6' 8", in No 6 bore-hole at 177' 4", one in No 5 of 8' 5" at 181 feet, and one (better quality) in No 9 at 88' 6". Below this, there are the still unexplored strata referred to in paragraph 4, which I propose to try this season.

12 In the lower part of the series there are three seams in No 4 hole (ascertained last year) and two in No 8 (one at 150' 9" and the other at 236 feet below the surface), and at 263 feet, Mr. Vanstavern struck the floor of the field.

13 Nothing is yet known of the lateral extent of these seams, except in the case of that in No 5 which is, I think, an extension of the seam struck last year in No. 2 (about half a mile north). In this case, there is no improvement in the quality of the coal.

14 The coal of all these seams is very poor, though that in No 9 bore-hole is of slightly better quality, yet not sufficiently so as to have been worth sending to Calcutta for assay. Neither is this coal nor that of the other seams worth extraction for any purpose whatever.

15. It is as I have remarked in paragraph 5 possible that the seam in No 9 may improve in its extension to the westward, and this can be ascertained by deepening No 5 to 400 feet. I should wish this to be done, as a very good idea of the extension of the seam for some 2,000 feet would thus be obtained. It is probable, however, that the hole may have caved in since Mr Vanstavern left it, in which case an intermediate site between 9 and 5 may be taken where the seam ought to be struck under 200 feet from the surface.

16 On comparison of the several sections obtained, the want of any resemblance between the beds in the different holes is very remarkable, for I had expected that there was sufficient undulation among the strata to have allowed of the same beds appearing in two or more of the holes now put down. As it is, however, I am driven to the conclusion that each hole in the line referred to in paragraph 4 passes down through different thicknesses of strata, and that no repetition of beds by folding has taken place.

17 On this supposition the intermediate unexplored strata, or the beds lying between the bottom of bore-hole No 9, and those at the surface of No 4 (last year's report) must be about 400 feet in thickness, and these may be pierced by deepening No 9 and sinking the new bore-hole yet to be carried out in my line of section at point No 10 as already indicated to Mr Vanstavern.

18 It is of course possible, considering the roughly lenticular form of many of the beds exposed in the streams, that the difference of character shown in the several sections may be the result of thinning out or replacement of some of the beds, but this is hardly probable. The close correspondence of the depths at which the coal was struck in holes Nos 5 and 6 (at 172 feet in No 5 and 177 in No 6) might also lead to the inference that it is from one and the same seam; but there is such a difference in the constitution of the sand stones in each hole, and the dip of the strata seen at the surface is so persistent that the seams must be considered as separate ones.

19 The work therefore which I should advise to be executed during the next season is to deepen bore-holes Nos 5 and 9 to the depths of 400 and 310 feet respectively,

*Proceedings of the Madras Government, Public Works Department,
13th November 1875.*

or, if the holes have fallen in, that new ones at distances further east which Mr. Vanstavern may find convenient after consultation with me in the field should be opened, while No 10 should be carried out as originally suggested to over 300 feet

20 Should these operations give much better results than those hitherto obtained, additional sites can then be pointed out for ascertaining the extent of any workable coal.

TRANSFERRED to the Public Works Department for disposal

(Signed) D F. CARMICHAEL,
Officiating Chief Secretary

No 324. ORDER THEREON, 13th November 1875, No 3,252

CIVIL WORKS, No 21-A

HIS EXCELLENCY the Governor in Council regrets to learn that the result of the coal-boring operations at Beddadanoole is so poor that Mr King feels some hesitation in recommending that further trials be made. Demi-official communications received by the Superintending Engineer of the Godavery District show that Mr Vanstavern also considers that further outlay is not likely to result in discovering coal, though it may add to the geological knowledge of the country. And it is probably this latter consideration that has weighed greatly with the Deputy Superintendent of the Geological Survey in finally recommending the prosecution of certain borings specified in his letter. The more promising field for exploration is doubtless that within the Nizam's territory.

2 It was intended, however, that these investigations should be exhaustive of the inquiry whether coal existed within the limits of the Madras Presidency, a vexed question which has been set at rest finally as regards the Kistna District. And His Excellency the Governor in Council resolves that the same shall be done for the Godavery District, more especially as time permitted so little use to be made of the new boring materials obtained from England last year. But it will suffice if operations are conducted in the first instance by the Assistant whom Mr Vanstavern was allowed to entertain in G O, No 2,346, of 20th August 1874, whom he will depute to commence the work specified in paragraph 19 of Mr. King's letter.

3 The work in the Upper Godavery consists for the present of maintenance of existing navigation works, for the improvement of which funds are not likely to be available, and it is over by the commencement of the season before which Mr King does not consider it safe to work at Beddadanoole. Mr Vanstavern may therefore well be spared from it to direct his Assistant's work when required, and to confer with Mr. King when he takes the field in the Godavery District this season. There is, in fact, so comparatively little to be done in the Upper Godavery, and it is so easily visited from Dowlaiswaram during the rains, when navigation is open and the country most healthy, that the Superintending Engineer, Godavery, may find it advisable to utilize the services of an experienced officer like Mr Vanstavern in the delta, and replace him at Dumagudem by a steady subordinate. But it is not desirable that the Workshop Superintendent should be transferred to general duty.

*Proceedings of the Madras Government, Public Works Department,
13th November 1875.*

4. There will be no occasion to construct a permanent camp at Beddadanoole, as it is not likely that the work will have to be carried on into the monsoon of 1876. But roomy and substantial thatched sheds, such as those described in the 2nd paragraph of Major Beatty's letter, should be erected at any rate for the comfort and health of the working parties.

(True Extract.)

Major-General, R E.,
Secretary to Government.

To the Superintending Engineer, Kistna ✓
„ District Engineer, Godavery ✓
„ Controller of Public Works Accounts ✓

Exd W J Lewis.
Spare Copies

No 3252

C. W. 10

Public Works Department

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 13 Nov 50

Read the following —

Letter from District Engineer
Godavery.Deputy Superintendent
Epitological SurveyN. No 2104 of 11th October 75
23rd do

His Excellency the
Governor in Council
pleasures to learn that
the present of the Coal
Mining operations at
Beddadamole is so
poor that Mr. King
feels some hesitation
in recommending
that further trials be
made. Desires of
Secretaries communicated
views received by
the Superintending
Engineer

Instructions from Deane office from his Hon.
- Attorney -

Ch. 6947
- 28th - 194
- 20th Aug 75 - 499 A to 499 B
- 18th March 75 - 462 to 464
- 3rd - 666 - 667
- 13th Apr - 277 - 279
- 25th May - 427 - 428
- 10th May - 32 - 33
- 9th June - 202 - 206
- 22nd July - 52 to 56 with plan
- 21st Aug - 363 - 364
- 13th Sept - 344 - 345

P. W. 1875 Sept.
From *Do: 6667*
The District Engineer,
Godavery District.

To
The Secretary to Government
Department Public Works
MADRAS

Dated 11th October 1875
Received 19th

No. 2104

Encl.

Subject.

With reference to para
6 of G. O. No 1858 of 2nd Dec
1875 reports on sheds &
the coal borings and
solicits instructions
how Mr. Thurstaver
is to be relieved.

G. O. No 3252 - 13 - H 75

Cir 9-11-75

Engineer of the Ly-
davery District shew
that Mr. Vandaveu
also considers that
further outlay is
not likely to result
in discovering coal,
though it may add
to the Geological
knowledge of the
Country. And it is
probably this latter
consideration that
has weighed greatly
with the Deputy
Superintendent of
the Geological Survey
in finally recom-
mending the pro-
cure of certain
borings specified
in

in his letter. The
more promising
field for exploration
is doubtless that which
is in the Mysore Terri-
tory.

It was intended
however that these
investigations should
be indicative of the
inquiry whether
Coal existed within
the limits of the
Madras Presidency.
A vexed question
which has been at
it first finally as
regards the Mysore
District. And His
Excellency the Governor
in Council resolves
that the same shall
be

be done for the
Godavery District
more especially
as time permitted
so little use to be
made of the new
boiling materials
obtained from
England last year.
But it will suffice
if operations are
conducted in
the first instance
by the Assistant
whom Mr. Tanaka
has been allowed
to undertake in
G.O. No 2346 of 20th
August 1874; whom
he will be permitted to
commence

Commence the work
specified in para
19 of Mr. Shing's letter.
The work in the
Upper Godavery
consists for the
present of main-
tenance of existing
navigation works,
for the improvement
of which funds are
not likely to be
available; and it
is only by the com-
mencement of the
season before
which Mr. Shing
does not consider
it safe to work
at Beddandole
Mr.

1 Mr. Thiruvananthapuram
may therefore
well be spared
from it to direct
his Associate's
work when re-
quired, and to
confer with Mr.
Thiruvananthapuram
when he
takes the field in
the Ljodavany Dist.
district this season.
There is in fact
so comparatively
little to be done
in the Upper Go-
davery, and it is
so easily visited
from Dowlaiswaram
during the rains,
when

when navigation
is open and the
country most
healthy, that the
Superintending In-
spector Godavery
may find it ad-
visable to utilize
the services of an
experienced officer
like Mr. Thiruvananthapuram
in the Delta, and
replace him at
Dumagudien by
a steady subordi-
nate. But it is
not desirable that
the Workshop Su-
perintendent should
be transferred to
general duty.
There

There will be no
occasion to construct
a permanent camp
at Beddardale,
as it is not likely
that the work will
have to be carried
on ~~with~~^{into} the monsoon
of 1876. But, roomy
and substantial
thatched sheds
such as those de-
scribed in the 2nd
para of Major
Beaty's letter should
be erected at any rate,
for the comfort and
health of the working
parties.

L.M.W.

1 Engr Kurlia - 6
84 Rodways - 9
Cumbria - 5

expd - 17-11-75

6667
694
Govt. of Madras.

PUBLIC WORKS.

To

Supr. Eng. District

W. L. S.

Date

Issued

Recd

Encl

G. O. 13th Nov 1875, No. 3252

Nos. 323 24

Local Working Operations.

Passing orders on the subject
of Suspension of the
District Engineer — and the
continuance of them in the
road work, and the Employment
of Mr. Van der Meer &c