

SpencerAthens, Ga. Aug 30<sup>th</sup> 1889.

My Dear Sir,

Many months ago I wrote to you that I would return to the Lake work in the north. But as I was needed here for a geological survey for a new Railway through mineral country - I gave up that which was deemed to be not so much for the \$1000 fees for the summer (my report will be written later) as to become acquainted with southern geology - as the line is over 200 miles reaching from Afton and Creston on one side across Archon to various points on the other side in Alabama.

ready from Cambrian  
to Carboniferous. Off my  
by here I have made some  
study of the Southern drift.  
Economically, my results are  
been very satisfactory. Upon  
my recommendation the  
right of one town has been  
secured, and there will  
be several more, with  
location of furnaces, &c  
and the general development  
of an excellent country.

Scientifically - my gain  
has been the stepping across  
of 8000 feet from Upper  
Cambrian to Coal measures,  
the greatest fault I have  
ever seen - so sharp that  
one foot may be on the  
rocks of the one system &  
the other above. Also  
in ~~anticlinal~~ folding  
movements - the appearance  
of not anti- & synclinals,  
but along with these a



regular spiral twist. Again  
the occurrence of numerous  
boulders of decomposition  
and hummocks in form  
like roches moutonnées  
less the scratches. The  
greatest depth of decayed  
rock I have found is 80  
feet.

In the middle drift here  
we have from 3 to 10 feet  
of deep red colored loam  
resting upon about the  
same thickness of gravel  
of small size. This gravel  
may be wanting. The drift  
is stratified. The loam  
only shows stratification  
where there are occasional  
lines of stones through it.  
The gravel is uncom-  
formable to sometimes  
Cretaceous & sometimes  
Tertiary deposits. The  
lower & post-Cretaceous  
is also as a rule in part

abandoned, and their position  
determined those of the  
modern. The greatest de-  
scribed height of drift is about 475  
feet above the sea. I  
have also evidence of  
recent continued subsidence  
This apart from the money,  
the experience in Southern  
Geology and the advantage  
in locality is all that  
I have accomplished - small  
results to those that I had  
promised myself in  
working out the beaches  
& their relative bearing  
deposits. I am sadly  
disappointed at not getting  
to Ocala. But I return  
again to field work until  
near the end of Sept. (being  
here only for a day or two). I  
hope to get out more results  
this year.

Yours faithfully  
J. W. Spencer  
Sir Wm Dawson, F.R.S., &c.