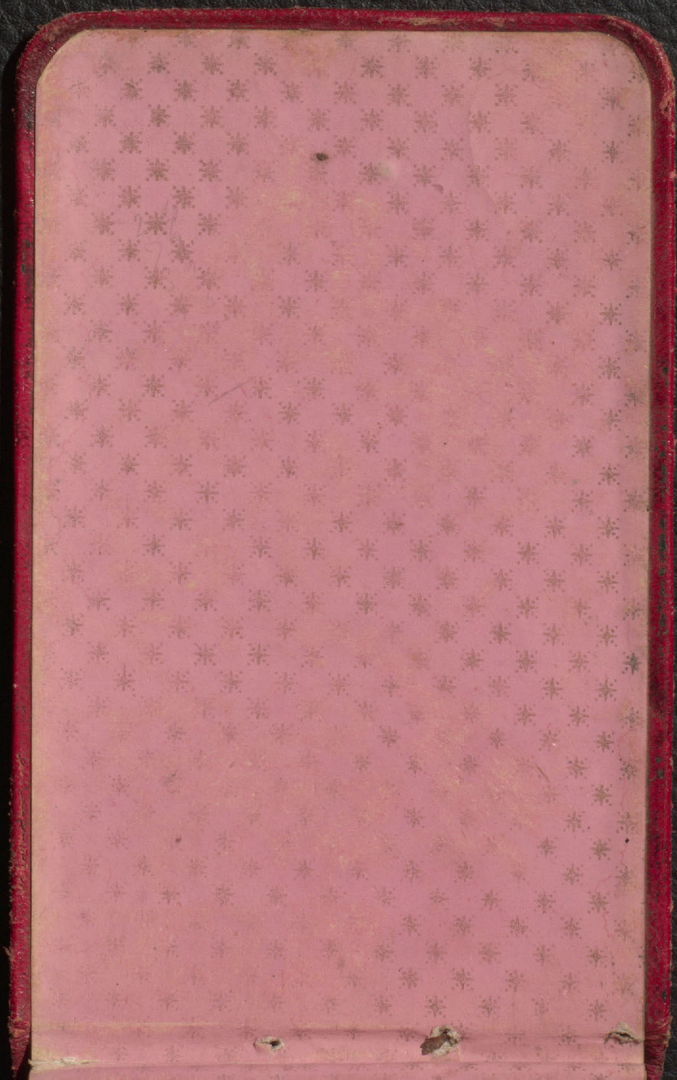
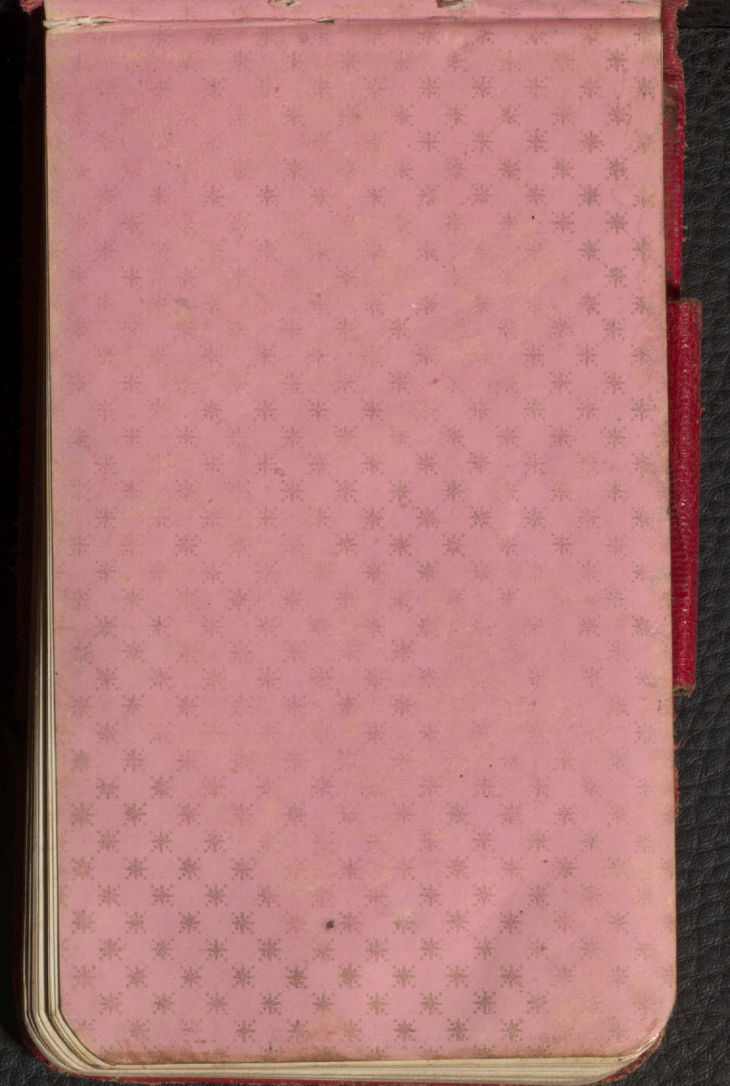


~~D~~ Aug 10<sup>6</sup>  
6 " 19<sup>th</sup>  
1875

No 757







Character of R valley. Flat land  
between hills. Terraces. 3 tiers  
distinct. At Alexander besides  
river bank.

Strat R. 10 m. above St. George granite on  
Upper river. Granite said to occur  
than Seamus near Soda Cr.

At Great Bend granite bearing rock  
come out on bank of river under  
bank about 100 feet of strat. Sands  
& sands. 2 or 3 seams of granite  
seen, separated by some feet of fine  
strat. sands & soft sandstones,  
- near the water level. - upper seam  
seems about 2 ft. thin. Next a little  
thicker, lower, thickness not well shown.  
All dip S.E. ward at low angle say  $12^{\circ}$ . Said  
I have been on fine. Great Bend say 50 m.  
above Soda Cr. about a mile higher up on W.  
bank cliff of rocks apparently volcanic  
angular & perfect, some strat. dip S.E. ward  
at high angle. Traversed by dykes. looks  
like standing out like pen. water near by  
B. 28.20.

Cast acct.



Cash Acct.

Aug 10	Victoria to	
	Supper	Xanamos \$ 4.00
	Bed	.50
<u>11</u>	Breakfast	.50
	Dinner	.50
	Supper	.50
	Bed	.50
12	Breakfast	.50
	Dinner Xanamos to Victoria	.50
	Passage	2.50
13	Supper bed & breakfast	
	Victoria	2.00
	Express Lysoy to wharf	1.00
	Passage self & Reves	
	to New Westminster	10.00
Aug 14	Dinner on 'Enterprise'	1.00
	Supper bed & breakfast for 2	5.50
	New Westminster	
	Fare 2 to Yale	10.00
	Lunch 1.	.50
	Dinner 2	2.00
	Bed	1.00

- Aug 15. Breakfast - 2 1.50
- Aug 18. Supper 2 Soda Cr. 2.00
- Aug 21. Ferryage across Quersul .50
- Aug 22. 3 day Hotel at Luersul 9.00
- 11 Passage to Luersul & return  
including meals 14.00
- 11 4 days board Reeves at  
Soda Cr, 5 breakfast for  
Lun & self Aug 23 11.00

Tuesday Aug 10, 1875.

Left Victoria at 7 am. with  
Mr Richardson for Nanaimo  
Arrived at wharf just in  
time to catch steamer which  
left a few minutes before bedtime.  
Followed the features of the coast  
by the maps & Mr R's verbal  
description of the rocks. The Steer  
really very fine in passing up  
through the archipelago, though the  
air somewhat too smoky to  
let it be seen to advantage.  
Steamer calls at a number of  
little places by the way. Stores always  
bold & water deep & running  
up among the mountains in fjords  
& deep bays. The shores everywhere  
but where very rocky, covered  
with tall straight pines, & in  
some places with groves of  
Arbutus Menziesii conspicuous



from the bright bank. The  
height of the pine trees being  
underestimated causes the gite  
cliffs & mountains to be also  
underestimated. The rocks of the  
coal formation are in places much  
disturbed, & thrown into a number  
of ~~st~~ rather sharp anticlines  
& synclinals parallel to the general  
line of the coast of the island.  
The rocks about the same with regard  
to texture as those of the true  
Carboniferous but with much  
conglomerate in thick beds. Mr  
R's subsequent exploration shows  
that his divisions as at first  
made are not so constant as  
he had thought, but that like the  
coal itself the other beds are  
thicker & thinner, Sandstones

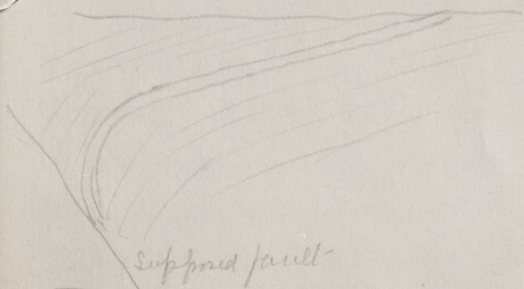
Sometimes replaced by conglomerates

Sometimes replaced by conglomerates  
etc. In bay near R  
Believes he has found anthracite  
in connection with crystalline  
micaceous & chertic rocks  
underlying the coal series. The  
Seam seen not workable however.

On arriving at Vancouver went  
up to a hotel & had supper, but  
found the arrangements so  
uncomfortable that came back to  
the steamer for a bed.

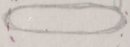
Aug. 11. Breakfast in town  
& then went up to see  
the Vancouver Coy's mine  
near here. Saw Mr Bates  
& Mr Brydson, the latter  
showing us about the surface  
workings. Mr McKay has come  
out to test the property yet  
Coy. with the diamond drill

It now wants arrival of  
machinery. Mr Brydson explained  
the character of the seam. It  
appears that in following the bed  
its dip increases, becomes vertical,  
& almost overturned. This part  
worked out by stoping like a vein,  
but workings now carried on  
along the strike chiefly.



Faults have occurred & in some  
cases are reversed. The character  
of the measures above & below the  
main seam are so unconstant  
& yet similar that can hardly  
judge which way the throw is



Coming to the fault. Can only  
judge by the character of the break of  
the coal bed, or by the fact that the  
conglomerates above & below are  
more or less calcareous or ferruginous.  
Engines old & have been in use  
20 years. Cars brought up the  
slope by wire rope wound on  
simple drums. Average output  
per man  $2\frac{1}{2}$  tons. Small  
strata of shale seem apt to  
appear in the coal. Saw  
two tree trunks in the office  
obtained in shale above a seam  
of irregular thickness. They were  
found to be of pine but are curiously  
ribbed. Interesting as showing  
exactly how much coal a tree  
trunk will make. One measured  
the largest 12 by  $3\frac{1}{2}$  inches  
 the other 14 x 3 inches.  
& originally more than 12 feet  
found.

Afternoon walked to Departure  
Bar (3 m) through the woods.  
Weather very close & warm. Saw the  
dumps & wharf but did not go up  
to the mine. Saw Mr. Stevenson  
& Egerton proprietors & managers,  
arrangements for shipping  
the coal imperfect. Men employed  
chiefly Chinese. Indians coal  
trimming in the vessels hold.  
at \$2.50 Maude came in  
about 6 P.M. & after shipping some  
coal, & the blocks representing the  
deckers & the Seaman returned  
to Idamania. Went down with  
her. Slept on board.

Aug 12. Steamer left at  
7 am for Victoria arriving  
about 5.30 P.M. Saw Mr  
Sargison of Barnards express

I got from him a letter asking  
his agents up the Fraser to assist  
my by giving credit, or cashing  
small checks. Mr Marcus  
Smith who had been on the steamer  
to Vancouver & returned this morn-  
gave me a letter to his surveyors  
re to put me through. Mr  
Roberson also gave me a circular  
letter to depot men re. & has telegraphed  
to have 3 pack animals & 2 riding  
horses at Soda Creek on my  
arrival. Got papers from  
Montreal but no letters.

Vancouver has probably from 800 to  
1000 inhabit-ants, miners, & tradesmen  
supplying them. Built on a sloping  
hillside & straggling along to  
a considerable length. Saloons &  
billiard tables abundant, no good  
hotel accommodations 'Streets'



now extremely dense, & weather  
much hotter than in Victoria from  
its more confined situation. Little  
arable land in the vicinity, though  
the whole country clothed with fine  
timber. A mechanics institute,  
a couple of churches & a daily paper,  
but not so much as a side walk  
in any part of the town. A stone  
bonded warehouse now in course of  
erection, being the first stone building  
of any pretension in the place. Close  
by a curious old wooden tower,  
which constituted part of the defence of  
a Hudson's Bay palisade. Charman  
abundant as everywhere along the  
coast. Washing & stop-keeping, &  
doing surface work about the  
mines, or sometimes employed

by the miners below us assistants.  
Glaciation westward among the  
Coal bearing series not seen  
from the soft character of rocks.  
West near Victoria very heavily  
glaciated. Nothing more striking  
than the fact that the glaciation  
has evidently only partially succeeded  
in destroying previous existing  
irregularities of surface. Also the  
very determinate direction of flowing,  
& its evident production by glacier  
ice, which has in some places  
undercut ~~horizontal~~ vertical faces of  
rocks. The southward side of all  
the hummocks comparatively, or  
quite, unaffected.

Friday Aug 13. Left at  
8 A.M. with Reeves, who

is to act as Cook, for New  
Westminster in Steamer  
"Enterprise" Arrived in New  
Westminster about 4.30 P.M.  
Route lies for some distance  
northward as if to Nanaimo,  
thence westward through a narrow  
passage (

)  
with high rocky shores. Scenery  
very fine. Rocks of islands seen  
on either hand, conglomerates &  
Sandstones of Coal bearing Series.

Many islands S. & W. of Victoria  
show remains (sometimes extensive)  
of a terrace of alluvial deposits  
answering to that along the coast  
of V.I. near Beacon Hill &  
elsewhere. Even from a distance  
stratification is sometimes apparent  
It is perhaps the same



terrace on which new West-  
minster is built (set light)  
The latter when shown in cuttings  
on the streets & appears the  
formed of materials exactly like the  
Vancouver Island terraces.  
Sands & argillaceous sands,  
pale yellowish, often hard,  
containing many pebbles &  
small boulders of all sorts of  
rocks. Some of these evidently  
glaciated, but rather with the  
appearance of water worn  
pebbles. Also large boulders on  
the surface. Both large & small  
fragments of the whitish granite  
seen in drift on Pt. Here also  
represented

Much low delta land about

Mouth of Fraser, with shoal  
water off it. The upper  
river borders very beautiful, Spruce,  
Cedar, & poplar of fine growth. Now  
4 or 5 Salmon tanning Establishments  
on the river. At present at least on  
second run of Salmon. Chinese  
seem to do most of the labour.

Told that 4 runs of Salmon up this  
stream. The first of the best fish,  
the rest of miserable lean creatures  
with hooked jaws in fact resembling  
spent fish.

Saturday Aug 14.

B. 9 Am. 30.00.

Left at 8 Am. on Steamer 'Royal  
City' for Yale. The low alluvial  
land seen near New Westminster  
extends some distance up the river.

but I am told does not  
contain much farming land. The  
prairie portions are liable to  
flood, & therefore unsuitable for  
raising grain, & the clearing of  
the wooded portions, covered with  
such heavy pine &c. - can hardly  
yet be attempted. The valley  
narrows in about the Catholic  
mission, & above this point there  
is only a narrow belt of flat  
land between the river & the  
mountains, & even this in many  
places disappears. It would  
however be very difficult to get  
anything like a continuous section  
by following the river, as only points  
here & there, of rock, come out to  
the edge of the water, & the flat-  
wooded land is nearly impenetrable.  
The chance for observation would

probably be greater in following  
the road. The woods are not  
exclusively of pine, large areas of the  
lower ground being covered with  
Poplar. These trees in many places  
have preserved a great uniformity  
in growth, ~~ending~~ fringing the river  
like a gigantic hedge; Mosquitoes  
still a little troublesome, & have  
been very bad this summer, on  
account of the overflow of so  
much land. Said that people  
even obliged to leave their farms  
or "ranches" for a time. The  
river is got very high, & has been  
higher this year than ever known  
before. Said to have been much  
snow in the mountains, which



was thwarted suddenly by the  
hot weather occurring comparatively  
late in the season.

Tied up at Hope, for the night  
at 9.30 P.M.

Aug 15. Arrived at Yale early  
breakfasted, & then finding that  
on account of the amount of  
cuppers water & passengers an  
extra was sent out at once,  
decided to go on it, & thus have  
won time on the road. Left Yale  
9.40. Arrive at Boston Bar  
2.30 dinner leave 3.30.

Arrive at Lytton 9.15.

Yale is the head of Steamerboat  
navigation & the river here somewhat  
suddenly changes its character, becoming  
at once a cañon with rocky  
cliffs bounding the river on either side,  
& the stream becoming turbulent  
& very rapid.

The Draper below Hole has the appearance of having flowed forward at a lower level, the land no doubt being higher. It now flows over the gravel deposits filling the bed cut in the rock below & is not materially increasing or deepening its valley, <sup>for comparison</sup> seldom touching the solid rock.

What denudation is accomplished is upon the gravel banks & alluvial flats now bounding it. The river when it cuts through the hills, as a cañon has probably at one time been full of falls, but has now attained a uniform grade. It is still so rapid however as to wear away, no doubt its rocky bed to some extent.

For some distance above Galt  
there are many Indian fish  
curing establishments, & in  
fact in following up the river  
they appear wherever suitable  
localities for catching Salmon  
occur. The Indians, or "Siwash"  
as they are called in Chinook, are  
now collected on the banks busily  
engaged in laying up their winter  
stores. The Salmon is caught in  
a sort of scoop net - the fisherman  
holding this in the water in a  
nearly vertical position, or moving  
it to & fro till a Salmon is found.  
The positions chosen are the eddies  
behind rocky points in the rapids,  
& the Indian usually sits on a  
little platform built out from  
the rocks, or a structure of poles  
partly suspended from the  
higher parts of the bank.

The fish are cured without salt or smoking, being split & strung upon sticks simply. For the purpose of drying them a scaffold of poles is made, into which to prevent the direct action of the sun green boughs are woven under them the fish hang in long rows. When dry they are stored in Caches in trees, & many of them may be seen in the pines along the road, sometimes high up the rocky banks of the hills.

A framework of poles supports a little box like structure, perhaps 6 to 10 feet long & not quite so wide, at a considerable height above the ground. No



numerous Squirrels or other  
Small animals getting at the  
Store. A piece of tin is fixed  
round the trunk below, spreading  
downward & outward.

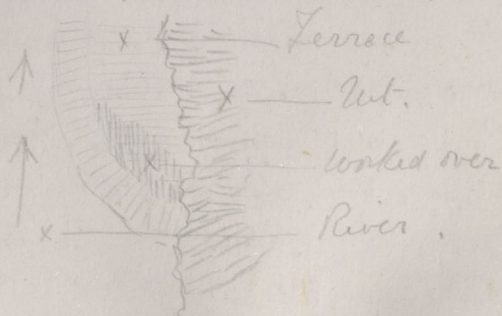
The road up the Praya & Lyton has  
been made against great natural  
difficulties. It is sometimes near  
the water's edge, & sometimes about  
800 feet above it. Going up to  
get past "bluffs" & round their  
points by side cuttings in the  
cliffs. Road also obliged to  
follow in about all the notches  
made by streams in the sides of  
the valley, to preserve its height,  
& road consequently not only  
very hilly, but very tortuous. Scenery  
wonderfully fine, & the drive  
quite enjoyable. Creeping up long  
hills, & then rattling down

again, & coming round the curves  
with the river always on the left  
far below. Game of all sorts apparently  
very scarce, & woods though often thick  
nearly leafless. have seen neither  
grouse nor rabbit all day.

The country is evidently a very dry  
one, & I am assured that rain  
seldom or never falls in summer.  
There are a few small "hardest"  
on this part of the road. ~~where~~  
the ground offers a level surface,  
or even one not too steeply inclined  
for ploughing. It has been taken  
advantage of. There are a few  
whites & <sup>a good</sup> many Indians  
living in this way.

Gold washing is now abandoned  
except as an occasional  
occupation by the Indians, & by

a few chimneys. Many places  
 show strata where the ground has  
 been turned over & ransacked  
 years back. It is noticeable that  
 these workings are superficial.  
 That is to say when a high bank  
 of drift occurs at the side of the  
 river its upper layers only  
 have as a rule been worked over  
 to a depth of perhaps ten feet.  
 The working also seems to have  
 paid best near the up-current  
 ends of terraces - thus -



The superficial character would  
either tend to show that the terraces  
are not yet exhausted, or rather  
that the workable gold deposits are  
synchronous with some particular  
stage of depression of the country, &  
that a comparatively deep one.  
The drift wherever seen is not of the  
character of moraine matter, but  
consists of sandy material with  
rounded pebbles & boulders, which so  
far as I have observed show no  
sign of glacial action. The whole deposit  
is also almost always more or  
less roughly stratified, & generally  
in distinct relation to the course  
of the stream when running at a  
higher level in the valley. At  
certain points the rounded river  
gravel is interstratified or



covered with a quantity of  
angular material from the cliffs  
above, but this does not appear  
to be glaciated.

The Crystalline rocks of Selwyns  
Series VIII. Met with immediately on  
leaving Yale appear much to  
resemble the white 'granitic' boulders  
found so abundantly westward  
on Vancouver Island.

See Selwyns description for petrological  
character. In going northward toward  
Anderson R. their metamorphism  
seems to increase they almost  
lose their bedded structure, & are traversed  
by many Segregation veins & dykes  
which would be an interesting study.

Anderson R. group seen first at  
Anderson R. (See Selwyns description)  
They run on beyond Butcher's Flat  
nearly to the locality where the  
famous Mt. Longman etc. said

in Repeat + begin, the formation  
is very distinctive when typically  
developed. It is said the Collieries,  
is cool grey or watered banks, & is  
intersected by innumerable joint planes  
in all directions, causing it to break up  
into long chip-like fragments, resembling  
partly decayed wood. Shales greatly  
predominate, though Sandstones & dykes  
frequent also exist.

Aug 16, Leave Lytton 6 Am,  
& arrive at Carnwell's  
& R.M. Having stayed several  
hours of the afternoon at the  
next station South. Weather  
extremely warm & dry. Thermom.  
at 4:30 P.M. in shade  $92^{\circ}$

The appearance of the country  
changes much today. On leaving  
Lytton the woods are much

stream + become more so the  
toward way they ~~only~~ are  
only dotted over the hills.

The country also becomes even  
drier than before & a new  
flora appears. Artemisia

Lycosiris, Stephanomeria,  
Cactus & other such forms

come in & sparsely over the  
dry hillsides. At the same

time the ~~jack~~ Wasp  
Blue Jay & Clark's Crow<sup>1</sup>

seen. The Mountains are  
lower down & more rounded  
& there is more flat-land, which  
whenever irrigated appears  
extremely fertile, & bears large  
crops. The rattlesnake  
abundant in this district.

Rocks according to Mrs Selwyn  
of the 'volcanic' series extend from the  
Jackson mt - conglomerates to 4 or  
5 miles above Spence's Bridge.  
They are much shattered & full of  
joints, & one can scarcely make  
anything of them in passing along  
rapidly. A band of reddish  
weathering rock appears frequently.

At Dickinson the rock is a  
porphyry or dioritic porphyry.

At this place there is a fine fall,  
the water coming down over the  
cliffs to the East from an  
immense height.

These rocks were succeeded  
by those of Mrs Selwyn's Lower  
Cache Creek Series, These



Are peculiar in the bright  
tints of brown & reddish, which  
beds composed of thin shaly  
fragments assume. Some  
exposures have a peculiar "whitewashed"  
aspect. Finding the Stage  
was to lie over at the  
station a mile beyond Green's  
bridge, to hit the best gate day  
pass, got off about 8 miles  
from the Bridge & walked on,  
clearing the rocks. (For  
descript see Selwyn) The mountain  
veg thick but could see only  
very obscure traces of fossils.  
Bluish in colour internally,  
hard, traversed by <sup>small</sup> white veins  
of compact calcite in many  
places. Also in some

plaus by wide dykes, <sup>thrust</sup>  
& epidote? Interest actified.  
with the Crinoid beds which  
appear + have to be volcanic ash

In some places there form  
compact rock with some  
fragments more than an inch  
in length; but often rather weak  
shaly & apparently grading  
into the limestone. Fragments  
often smaller & often only whitish  
lumps which might be  
taken for badly developed  
crystals. See specimens.

The limestone  $\&c$  from the fossils  
found in it (see report)

may very well represent  
by Carboniferous limestone  
of the rocky mts. Its general  
aspect is very similar, though  
more altered. The great  
contemporaneous trap grey  
section may have a similar  
origin to the ash beds here.  
It would appear however  
if this is the case, that the  
limestone is either here not so  
pure, or that part of Group  
C, or the underlying groups  
have been included in the  
folding & also classed as  
Lower Cache Creek.

The drift, on entering the  
Thomson valley changes its

Character considerably, becoming  
much more earthy. The benches  
not so laterally composed of  
Stingli.

Aug 17. Leave Cornwall  
5 A.M. & come on to Clinton  
Remain there during the heat of  
the day till 3.30 Then on  
again to 70 m. house where have  
supper. Leave again at 8.30  
& stop at ~~\_\_\_\_\_~~ for the night.

The Lower Cache Creek group  
continues on the road to 4025  
miles past Clinton where according  
to Selwyn overlain by the Volcanic  
series. Change of formation  
accompanied by rapid rise,



The volcanic rocks forming a  
plateau of about 4000,  
feet altitude. They are exposed  
in the Chasms mentioned in  
the report. Many beds shown of  
different texture & colour & some  
red bands. The whole horizontal,  
& thus differing much from any  
rocks yet seen. The character  
of the country also changes on  
every elevation, & from the brow  
of the escarpment goes by the  
name of the green <sup>timber</sup> ~~woods~~. It  
is pretty thickly wooded with  
pine, & underbrush, with many  
grassy glades & has a general  
green appearance quite different  
from the brown country previously  
passed over. The comparisons

trees seem to belong to three  
species. One *Pinus contorta*  
apparently, One the so called  
pitch pine with reddish bark,  
3 a large spruce like the black  
spruce. The Sage & accompanying  
plants disappear, <sup>or other</sup>  
plants are seen, <sup>red</sup> *Castilleja*  
*Speria* apparently *felulifolia* & *S*  
*patium* *virgale*, the common *Spaldingium*  
The drift boulders on the  
plateau appear to be chiefly of  
the volcanic rocks, & are  
generally rounded, sometimes  
very well, but occasionally  
somewhat angular. No  
great quantity of Cascade  
rocks, Crystalline rocks,

It probably none at all (?) though  
a few occur which cannot  
be distinguished with present  
knowledge & opportunities of  
observation.

Elevation of the volcanic plateau  
said to be too great for growth  
of crops, but where stopped for  
supper a large cattle ranch where  
butter said to be the best on the  
road is made.

Aug 18 Drove on all last night  
on very rough roads, on which  
there had been heavy rain. The  
storm had prostrated trees some  
of which lay across the road. The  
telegraph poles were also down in  
some places & the wire hanging  
inconveniently across the road. The  
whole telegraph line on the road

from Yale upwards is in a wretched condition. It only keeps working because of the extreme dryness of the climate, & is often out of order. A party is now supposed to be executing repairs. At 3:30 am. got to Bridge Creek cold & tired. Got a fire in the stove, then some breakfast, & started on again. At this place leave the "Greentimber" closes & we pass into a region of alternating prairie like country & patches of wood. The prairie generally in connection with valleys, & the whole surface hilly without being mountainous. This country stretches nearly to Deep Creek 14 miles from Soda Cr. It much resembles in general appearance the foot hills of the Rocky mts, but is drier, as the sage frequently covers large areas of hillside in the prairie regions. Saw some good grain crops



Here & there & many fine hay  
meadows. In addition to the  
General resemblance to the Fort Hill  
County, some of the same plants  
there abundant occur & the aspect  
of the vegetation is similar. Geranium  
Fremontii is abundant. Saw  
Solidago verticillata & luxuriant  
one specimen of the white variety.

Sonchera involucrata seen. Near  
Soda Creek a considerable altitude  
is again attained & the woods are  
now much like those of West Fork  
on the Routain Pass. Pinus contorta  
most abundant. The prairie  
& woodland country seems to occupy  
depressions in the general surface  
of the Plateau. Lac Sa Hade a fine  
sheet of water about 12 miles long.  
There are many more or less  
saline lakes with white efflorescent

matter surrounding them. Many of  
these occupy curious basin-like  
hollows hard to account for.

Scarcely any rock exposures till between  
Deep Soda Creeks when a few occur  
but small & could not claim  
them. The fill down to Soda Creek  
is about 3 miles long by the road & is  
sleep & sandy. At the mill a

considerable exposure of the  
underlying rock seems to occur, &  
Soda Creek here falls ~~by~~ as  
a fine cascade to the Fraser.  
Banks along the road near the  
same place show the ~~constitutive~~  
structure of the terraces. A great  
thickness of fine stratified sand,  
with occasional layers of gravel.  
Found Mr. Glassy Agent of C.P.R.S.  
at Soda Creek & learned that  
he had made all arrangements

In my journey in compliance  
with Mr. Roberson's telegram, but  
to find 3 pack animals & 2 riding  
horses ready but only one  
indian & no guide. Man  
who could act as guide to the  
trail asked 80 dollars a month  
which Mr. Glessey considered too  
much altogether. The trail begins  
on the opposite side of the river to  
Soda Cr. & I must either go  
over in the morning at  
daylight when the steamer is ready  
to start up the river, or wait  
till she returns on Sunday.  
Can get no other indian worth  
anything here & it appears  
wishes to go over partly equipped,  
& with no time to make any  
arrangements. Mr. Glessey is  
going away in the morning to

Zurwelle, on the arrival my horse  
crossed & perhaps another indian  
hunted up tomorrow & stuff &c.  
crossed in a canoe. On the whole  
thought best to put off departure  
for 4 days, & meanwhile go up with  
steamer to Zurwelle to see about  
getting another indian & if possible  
another horse from the depot there.  
Will have a day or two at Zurwelle  
which may spend profitably. There  
appears to be not to be anything worth  
much attention near here (Soda La)  
Leave Reeves & the Indian  
already obtained at the hotel  
till my return. As then to have  
everything ready for crossing.

Aug 19<sup>th</sup> 75 begins  
the cargo back of notes  
marked 1875



Aug 20. Banks about 25 ft high composed  
of clay & shale with flattened pieces of  
lyellite throughout. In some places very  
continuous layers of foot or more thick  
also dark shaly layers. Irregularly dip. Wood  
colour & toughness. Amber

Vital Creek Omineca, Silver

Canyon Cr. 60 mi. from Zursuhl  
Fossil found at - particulars of

Ag. pres seen from 2 cols in  
Omineca district.

12 Candles  
Matches

Aug 21, cliff on the Mayer #2  
bank a short distance S of Zursuhl.  
Say 100 feet above water. of reddish  
& yellowish - colours (bright) caused  
by the combined lig. Has broken away  
& left - remains of sheltered at base.  
What remains of beds unaltered  
appear interstratified lig, carb clay

~~clays massive or thin bedded. Much like bank yesterday in several aspects. Beds of Combust like those of of Lig. York (describe) beds apparently not beds, just as leaves. Amber. Combust has stopped short of drift where it laps over. Soil probably not + Combust proceeds from below~~

Section opposite Tunnel -  
with insect bed

Down below

Greyish clay	4 ft
* yellowish clay	2-6
Coarse gravel & sand	
Mostly irregular layer	say -6
Coarse grey sand with thin masses of lignite above	1 foot to 6 inches.
Grey sandy clay	2 ft

+ 2 1/2 sandy clay with pebbles 1-6  
Condensed 2 feet  
Coarse yellowish grey  
Sandy clay 2-0

---

Fault.

---

downtown to S of 3 ft 6 inches  
measured across the beds.

---

Section continued up S of fault-  
from where left off last.  
yellowish grey sandy clay  
full of joints & somewhat  
irregularly bedded but in  
thick layers 13 ft.

carb clay or impure lignite 2 inches.

Plant & insect bed 8 1/2 inches

yellowish clay 2 1/2 inches.

grey clay, well bedded 2 feet

Ferrous Sandstone nodular

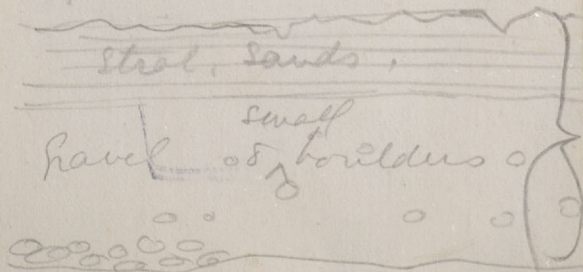
irregular layers about 1 foot

Reversed fault out or  
downthrow of about 6 ft -  
to south.

Well bedded fine grey  
Sandy clays 11-9  
Grey sand 1-0  
Sands & Sandy clays  
Whitish well bedded 20-0

Height of bank about 15 feet above  
water with about 9 feet of drift  
above. Dip of beds  $28^{\circ}$   $\angle 22$

Several sheets of drift in bank.





\*

Drift

water

460.

bed +

Yepg bed \*

bed +

Fossils about right opposite angles - beds

10 yards

1/2 slip

copy



15 ft

9 ft

Soda Cr. Aug 24. 1875-

5 Am. Ther 63° water of spring 62°

Bar at water edge. 28.225

Bar at top of bank 27.85

27° 1/4 m up hill from water edge

Start from house 8 Am

10.40 Cross brook with steep  
banks of gravelly drift.

11.25 Cliffs (small) to W of  
limestone (perhaps other  
rocks) some thickness

are very southern about

20° tilt measured & rising

12:45 - Cliffs of bluish gneiss,  
shale to W. decomps. at  
top. Travelling along bench,

1:15 a few feet of Quartzite  
seen in a bank dipping Northward  
at low angle. Underlain

at a short distance by a  
grey granite (or gneiss)

probably a dyke as spot rock soon  
reappears in small exposures

Muddrums Flat - 8 P.M.

B, 27.47. J, 64°

Shower, all day now  
clearing. Calm.

slates very bedded here.

Several apparent tendency  
of strata to change dip: 270°  
W. to 60° S. of bearing S. 52° apparent  
to nearly horizontal.

Aug 25-

3-30 am.

B, 27.575 - J, 47°

Start from Muddrums flat 6.35

8.30 <sup>cross S. ridge creek</sup> west of ridge beyond Muddrums B 26.73

Start after stop 8.45

Plants. not large  
Abies Douglasii. Picea canadensis  
with roses <sup>Staphylococcus canadensis</sup>  
1. Sclerophyton, aster, Cirsium  
(not rare) Spirea betulifolia now nearly all y  
flora. Gentiana acuta or like it part flowering  
Astragalus (delicate) Solium boreale part  
flowering.

10:10 high rolling bench 26.78

visible also on other side Tanager

Small Creek 11:20 Stop for  
lunch.

1350  
Mound of shattered rock in level  
showing place of dyke? Black trap  
with segregation of epidote? Course  
1350

Start after lunch stop 12:55

1:10 Similar hard trap, small alpod.

Lake on W side of  
trail 1/2 mi. long.

plants & traps



2:10 Same hard trap rock  
Surface app. rounded but  
no striation visible.

Bar 26.54, Trap rock  
with remains of glaciation  
Some about level S.

3:40 Creek at Reskies farm

Start 620 at upper end of  
Wednesday Camp ~~at~~ Reskies  
farm at crossing of Creek 5:15-6:00.

✓ B. 27.35 J.  
Sky cloudy. V. light.

Baring 35.5° SW on 10 m.

✓ water marks on banks of Reskies Creek.

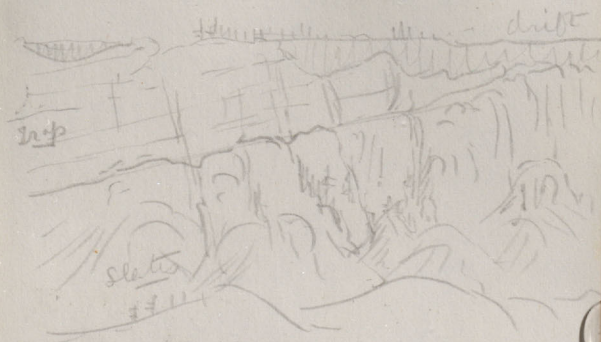
58° up Reskies Creek. 33 minutes

#0 Mountain side & it composed  
of greyish slaty rock. Where examined  
blackish slate, apparently epidote  
in places S.C.S.??

replaced some directly to west by  
red weathering trap.

vertical  
with  
Cummings  
Riv.  
Other  
to  
the  
left

90° up Reakes brook,  
10 minutes crossing of Cr.



Incp with gentle <sup>1/2</sup> dip westward.

---

70° from crossing of Cr.  
10 minutes.

62° 7:45 A.M.

20° 9 A.M.

45° 9:15

(Pres) 232° 10:40 A.M.

11 A.M. out about 1/2 m + 1/2  
A grey rock perhaps same

as morning exposure

Bis 260° 11:25 Am.

Rock seen in Mt + IV  
continue & seen like white  
weathering limestone.

230° 11:45 Am.

247° 12:15,

Arrive at "Ten foot Stream"  
1:50 P.M.,

El 1780

26:40 B. 8 P.M. J. 470

Partly clouded.  
Character of country - fine  
hazy land.

start 640  
r Thursday 5:15 Am. J 340

B 26:38

Calm. partly clouded. frost in night.

260°

30 m. Mt on s. bank Cheliot  
between 215° + 247° of whitish color  
rock protruding from forest

out lots at last like time. up to 1000 ft.  
2640 Summit W.G.W.

25 m. trail 10 ft. Cr.

50 m. Valley of Gorge  
Murray - Charleston. Cliffs of  
basalt.

3050

10 m. Cross the Gully.

220

5 m

2279 am.

260 9:15

250 10:25 trail goes off to left.  
cliffs of basalt to the  
left above the trail.

215 11:45

258 Noon

285 12:30

310 1 P.M.

345 1:25

316 1:35

289 1:50

arrive at Alexis Creek 2:30 P.M.



2130 Bar. 27.46 7.91°

Alexis Cr. 6 Am. B. 27.57 7.27°  
Clear calm. Sharp frost in night.

635 Start 6.40

300°  
35 m.

311°

25 m. Alexis Cr (probably)

288°

40 m.

308° Mouth of the Chilco bearing  
266° Canals like valley  
but basalt walls.

12 m.

280° disused trail to Liza-

20 m.

275° Second property stake.

30

283

20 m. Indians Camped.

20 m.

263 10.10

10.30 stream & deserted Indian  
village.

208°

253 10.55

11.20 Comloms etc. on island } trap  
on slope

D ~~in~~ E ~~and~~ ~~say~~ ~~xxx~~

Stop for lunch.

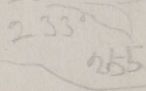
~~Some islands~~  
Mass of thick beds of rocks which  
have been volcanic breccias or  
muds. Pebbles chiefly volcanic. Some  
shale, plant remains. Rounding  
of pebbles. Vent evidently near.

Get number different kinds of rock.  
Columnar basalt at higher level, probably  
Oukies. dip on slope. Much porphyry  
& rubble. Stands up among  
basalt, which in way irregular  
Superficial sheets, forms cliffs a little  
further on.

Same course. 30 m. Start 1.25

298° 20 m

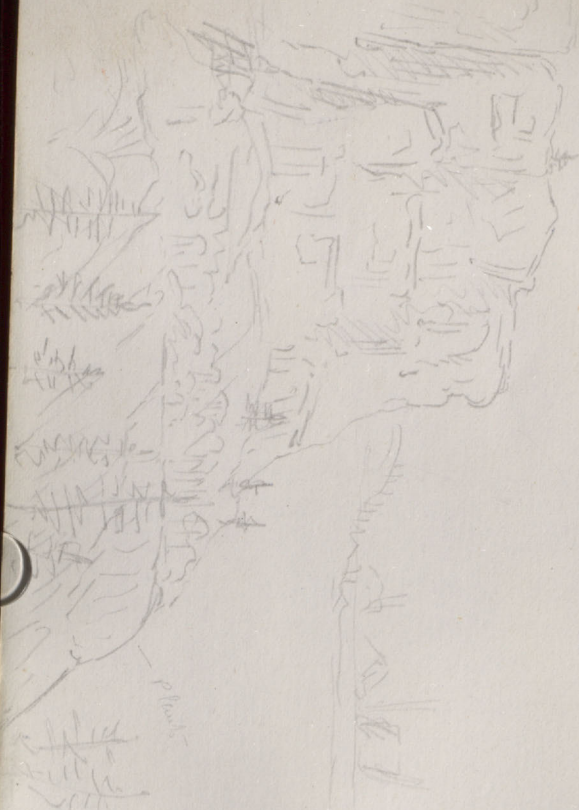
260° 25 m

233°  <sup>They</sup> cuts into hard white  
bands of <sup>quartz</sup> <sup>and</sup> <sup>iron</sup> <sup>ore</sup> <sup>with</sup> <sup>rolled</sup> <sup>pebbles</sup>  
255 <sup>fall</sup> <sup>south</sup>

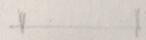
240° 3.40 P.M., Touch Chilreche  
Shrine of Cascabel up <sup>R.?</sup> Chilreche  
4 P.M.

8 Km. B. 27.11

7.54°



plains



Aug 28, 26.956 <sup>6:20 AM.</sup> J. 480

Calm raining

232° Start 10:30

245 11:20

225° 11:25

246° 11:50

252 12:35

297° 1:15

~~299°~~ 2:5

Arrive at ford 2:50

✓ Aug 29. 6:30 Am. B. 27° J. 37.  
Calm partly clouded, part in sight

270° 7:30 AM.

297° 8:5

287° 8:15

260° 8:20

230° 9:10

249 9:45

Coast low cliffs of  
beach across the R.

9:55 AM

260° 10:15

228° 10:45

225° 11:20 from red, low cliffs of trap  
to right character of rocks

233 12:5

234° 1:30

271° 1:50

239° 2:20



2.25 - Arrive at Jennings  
Camp 10.1.  
Depart (River ford) 3:20 P.M., 26:72  
T. 64°

Nearly clear. Light variable.

Aug 20. 6:15 Am. : B. 26:60 T, 51°

Calm partly cloudy. Sharp frost

Start 7:20

Stop 8:55

Start 9 P.M.

10:10 Cross stream at old camp.

Scandy rolling sparse forest of poplar  
approach S end. Foothills mostly stony  
cont. & crossing last mentioned. Little moraine  
but slopes rounded. Some very large ice cap  
S. bank. / Low S. about - long valley  
Arrive N.E. End Eagle Lake 4 P.M.

Aug 31. Camp 8:30 Am., B. 25:98 T 44°

Calm, cloudy & misty

start 8:5

Rolls of S end Eagle L. Moraine N.W.

side

Change character country W. edge beach

Course of rolled moraine matter

Cross outlet of lake 11:40

N.E. end Eagle L. ds. shales of the Grand  
series. also some of reddish porphyritic ash bed.  
of Grand nature, also the same Grand of  
very low to appear on Grand.

✓ Sept. 30 W. side White water L.,  
red rocks overlain by white, & overlain by feet thickness  
of gneiss.  
Camp Lockin Lake 8 P.M.

B. 26.16

7.41

variable W. light, clear,

- ✓ Hummingbird seen today.
- ✓ *Diapensia argyrea* plant near camp
- ✓ Indian grave.

Went up lake & around way greyish &  
greenish micaceous & granitic schists,  
sometimes siliceous. Also coarse crypt. white  
granite, more micaceous with garnets  
& some epidote, though possibly not of former  
epidote formation, but more coarse crystalline  
(Collected samples of boulders)

Sept. 1. Camp 6 P.M. B. 26.17

7.28

Calm clear. Sharp frost in night.

Start 7.15

✓ 7.40 Exp. of purplish coarse  
fine conglomerate, sheltered

✓ Crnk 8.10 red calcareous? rock with  
white calc. vein. associated with conglom.  
in vicinity red rocks of W. side White water  
is indeterminate.

✓ 9.45 Hard point granite? Int?

✓ 10.35 Indian village Small  
Creek  
fossils, ant trail.

11:30 Camp No 13 & Small Cr.

11:50 Camp with notice. Supply  
Camp 12 m on trail. Camp  
9 m.  $\frac{1}{2}$  ~~mi~~<sup>mi</sup> from trail Right  
Side. Aug 26.

1. R. Creek

135- Rm. deep Creek -

145- very compact bluish.

Gl. heavy 1400 on  
following the valley  
dipping apparently S. toward mt  
base of mt; conforming with beds  
above (Fossils).

2. 3 Rm large Cr. Same bluish rocks  
high dip S.E. say  $30^{\circ}$  to  $40^{\circ}$   
Apparent good section.

3. 4:30 arrive at Camp 17 Haze

Camp No 17. (high bluff above  
lake.) 8 Rm. B. 2622

B. 52.

usual S. part cloudy

Sept 2: 7 AM. B. 2620

Camp. J. 48.

S.E. cloudy.

9 P.M. Camp 17  
B. 26.75 J. 480

A.B. fold in Crak S of Cochon  
Lake.

Sept 3. Camp 6 Am.  
B. 26.78 J. 490

Windy hill - partly cloudy

Leave Camp 7 Am.

Arrive at brook 8.45 Am.

B. 26.43

C.  $100^\circ$  D  $60^\circ$   $\angle 40^\circ$   
hard black slate.

1 redish rock

9.30 2 Coarse warene D  $60^\circ$  about  
Sandstone same angle.

9.55 D  $350^\circ$  nearly vert. (Same terms  
banded quartzites? & blackish  
Calcareous schists)

10.7 Same with D  $60^\circ$   $\angle$  say  $60^\circ$

11 Am. Part way up Hill B. 25.42  
D  $230^\circ$   $\angle 40^\circ$  turning round  
forward along.

Leave brook 12.15



A 12:55 Slate, str 3500 many  
or faults on edge.

1:5 D 50  $\angle$  41 hard bluish  
grey.

Sept 4, 1920 Am. B. 2647 J. 480  
overcast & stormy.

D 6:50  $\angle$  35  
Rocks on plain stream.

Camp 3 in pasture SW on Lake  
just above water level. 8 P.M.  
B. 2662 J. 520  
clouded stormy.

Sept 5? 9 P.M. B. 2671 J. 440

Rainy all morning, afternoon  
clear. 9 P.M. Clear.

Sept 6, 6:30 Am. B. 2678  
J. 420

Wind S. light. Clear.  
Leave camp 7 Am. 7:20 Cliffs  
of reddish compact. unconsolidated  
fragments.

Leave 9:30  
8:20 of 1920 Hard Siliceous  
stone. B. 2686 J. 500

8 P.M. B. 2696 J. 510 clear. S.  
clear.

Trail from Cochran L. to  
Peterson L. 1569, on located  
line. If follow round N.W. side  
Cochran L. swampy, but 3 m. shorter.  
Trail leaves NW end Cochran L. almost  
at outflow of stream. Trail goes  
Nward to Peterson L. & must  
connect there with Yolla trail, which  
passes close to a log shanty or cache on  
the S. side. From high ground near  
Peterson L. can see Yolla L. valley.  
If accidentally go beyond Peterson L.  
must cross Ry. chopped line (marked  
by dashes)

Shanty after leaving Holo Lake Idos trail turns to left.

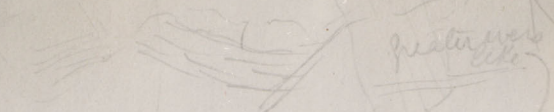
Sept 7. Camp 6 Am. B. 27.02 J. 41°  
Calm partly cloudy.

Water of L. 48°  
Leave camp 18. 8.30 Am.

Still Br. 12. 20 having lost about  
20 m.

, Br. almost perpendicular red  
grey rocks opposite shore

Arrive

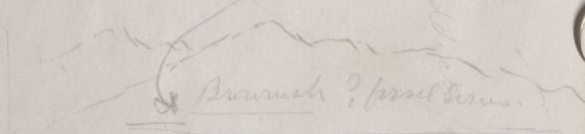


arrive at Small Cr. & Camp  
5 P.M.

Appart N limit of fossiliferous series  
750

Summit on E. Side 200

Summit ~~of~~ <sup>is</sup> ~~at~~ <sup>110</sup> ~~across~~ <sup>wide</sup>  
rally. front of Cascades



massive grey

Summit. Pebbles of Li Stone

Sept 8 Camp 6 Am. B. 27-00 S. 40°  
Calm cloudy

Peltusa 8 P.M. B. 26-75  
Calm. partly cloudy

1 1/2 m. N of Camp, Quince

See, up.

Leave 7:25

8:10 Conglomerate (greenish) & hard sandstone

D probably 50°  $\angle$  about 20°

Leave 8:22 1 1/2 m by parky

9:30 P. exposed Cr. Blackish rocks  
conglomerate, beccias, diorite,  
quartz & calc. veins.

Dip probably transverse to brook

(about strike SW.)

Leave 9:50

Take branch trail 11:30 Cross section  
line 1000

# Long about W N.W. side

12:50 Stop with decamp red  
rock, about east

Possibility of whole series lower & upper by  
Y united. By conglomerate & beccias intermingled  
as seems the argument in favour.

W Trail over moraine sands was also  
undefined. See sandy strata.



12.50

995

120  
210

140

297

9.00

9.15

282

235

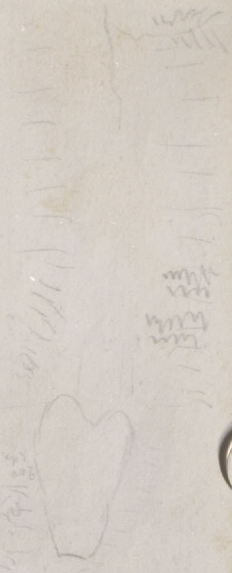
264

2145

295

3.5

263



Handwritten notes and scribbles at the bottom of the page, including the number "7105" and some illegible markings.

Area 5 minutes



3.15  
0.50  
0.25  
0.61  
3.35  
2.90  
3.57  
2.94  
3.55  
2.50

112

1900 Camp 4-10 from bottom mt. 690

Sept 1-10. Peterson S. B. 26.725. Calm part cloudy. part in the night.

1900 Camp 4-10 from bottom mt. 690

Start 7.5

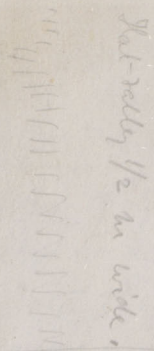
4.90  
7.40  
7.15  
3.50  
8.00  
7.15  
8.10

and way



cut N

Plum  
Margarita  
Papas



1210

Level of

330  
8.45  
4.20



Terrace level above L. with  
 r boulders on top (large) of Cascade  
 crypt. series

- \* evidently last flow of ice from interior
- oactus to W end of P.
- r difference between it to S sides.
- r Flats above barren.

Two glacier steams.  
 11 km. inland off Pt. Rock. of same  
 as Sp. Appears to dip E. N. E.  
 Continuation of ridge of A which bears  
 165°

11:30 Peak. *Mica schist* &  
~~apparently 5 was at low~~  
~~Asphalt but unreliable.~~

str nearly N.S. tree.

Camp by lakes of 1 Pm.  
Bearings. Peak overlooking Wind Valley of S.  
1596

166° High peak in Cascades.

177.5° Top high Hunt-topped peak in Cascades.

180° top of Mt. A.

187° top high meella like peak for look in  
Cascades.

192.5° highest peak down W. Hornathes  
valley.

199° Sw end of outlying range W of  
Pelerson S.

V 26.69 B. at 3 Pm.

Sept 10. 6 Am. B. 26.78.

Colin cloudless. part in  
night.

Start 7:45

8:30 *Mica schist* str. 65°  
Granite & *Sty* veins 1 mountain

9:5 the narrows. alluvial spot  
like shallow



10.20 V. Canie  
Stop 11.50 Proceed again 12.45  
Cross Cr. & read old trail 2.15  
Camp 3.30

Blockage of lacustrine pebbles & grains  
Leland L. Terraces & E. Murams of  
E end Tota & Hope Lakes must have  
been formed under water or afterwards  
modified by? Murams faulted up  
forming waterfalls.

Sept 11 8 am. B. 26.90  
Calmer Cloudless. part in  
night.

Start 7 am.

Self Noon Contacted part of L.  
Bluish flinty Shales or Slaty  
D 3180252

Picket 109  
Camp 12.50

Mounded drift of upper levels probably  
older than the terraces. may represent  
boulder clay?

Tota & Pantyell situated alike  
Sept 12 8 am. B. 26.60 Light variable  
clear.

13 6:30 AM. B. 2656 partly cloudy

Start <sup>N. light</sup> 8:10

Loop 15 m.

12:30 Chidocet S. crossing

Camp 4:30

S. P.M. Camp 12 m. N.E. of crossing

B. 2625. Left variable clearing

Come about 20 m. in a general N.E. direction  
dividing for Pentape S. P.S. clearing

Pass over undulating sandstone. Crossing  
to Camp 12 m. beyond. For 465 m over

almost level ground. Soil generally clay +  
stone, rest of way undulating in rough lower

Sandy clay + stone. Jangled looks of *Psittacus*  
with crossing alternation of open glades + swamps

The higher level undulating material probably  
represents either boulder clay or moraine material

under an clay at crossing. Indian *Imattahs*

Trunks very dry without water. Lake

about 1/2 m? long, without outflow

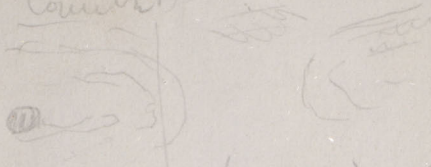
= Salt

W. edge of Basalt. lay down

✓ Peppers many under + many individuals +  
the 6 AM. B. 2633

Clear, partly cloudy

Leave 7:50 Picket 1695.  
10:30 take to right get into  
very wooded & brush  
country.



Camp 12 (31st - 71) 2 AM  
Camp 3210 ft.

wood & water.

Sept 15. 6 AM. B. 26.59  
N.W.S. light - clear.

Start - 8:20

10 AM. back to trail.

12:10 found trail to Maple L.

12:45 seen falls Camp.

2 PM Camp No 14.

3:10 PM. Coast section conglomerate  
on trail. fl. apparently about 1900  
Camp 4 PM.

Comes in below base - just N of large  
fall on E. side & gradually rises till forms  
top of cliffs near picket 3000. Associated  
with quartz, gray sh. blue, & dark sandstone  
better probably colored by rust of base  
whole probably goodless but, not less quartzite  
than at Tullyoco S.

26.75 B. S. Rim nearly on location line  
picket-3010. Sw. lgt. clear

26.775 6 am. Sw. lgt. clear. lgt.  
part in night

on leaving camp same rocks, apparently  
dipping about  $10^\circ$  at low angles.

General antedipinal form.

Sept 20 Start - 9.30

~~end very 3045 - at about 3/4  
mi from camp~~

D  $45^\circ$   $\angle$   $15^\circ$  9:45 - am.

Picket 3278 Same sandstones  
also on other side of valley, apparently  
nearly flat

Change in character of valley from west  
leaving camp above open, steep sides  
meadows with flood-beds.  
3305 Bluff of thick bedded sandstone  
& conglom.

2850 at low angles. Same conglom  
about 1 m beyond camp 18. soon

1. P.m. Same beds W side valley  
dip  $2^\circ$  at very low angles.  
Opposite Camp 19

About 1 m below river bends  
W. & strikes through conglom.  
D.E. ward.



Camp 2.50 near foot of cliff

base of cliff & gorge

(h. 3788)

200 yds above camp  $\pi = 105^\circ \angle 35^\circ$

2. may get opprot. thickens <sup>near camp</sup>  
2. - Indian women. Camp. Gather Sphaerium

Unio-like U. rufus. Hear shots & chopping.  
- old beaver work. Sinks & fence. Sketch

8 PM Flat above Mayo R. B. 26.82

Wind S. by N. Clear & dry

Cloudless & very hot.

17 6:30 AM B. 26.95 - light variable  
clear. slight frost in night,

10:30 PM B. 27.03 calm clear

18. 6:30 AM B. 26.83  
light variable. partly clouded.

Chobain small Salt. Underlying rocks  
dip  $\pi \angle$  about  $10^\circ$

9:30 PM B. 26.72

light variable. clouded.

19 8:30 AM B. 26.70  
cloudy but clearing. heavy rain in  
the night.

10 PM B. 27.88

E, light. Clear.

clean gun, load cartridges, working  
Saddle bags, gun sling

S

20.6.00  
E. by H. P. 1911



S.V.

W. by S.



Sketch showing  
moraines & benches in  
Marco Valley near  
Ardenella Mt.

8 Pm. B. 26.78 SE. light  
 clear.  
 Saddle logs. Jan. 11.5. Route Lane  
 excursions.

21. 7 Am. B. 26.70 light variable  
 clear.

9 Pm. B. 26.84,  
 light clear.  
 strong southerly wind with good.

22: 1.30 Am. B. 26.89

SW. light cloudy. Fair heavy  
 during night.

Hark spence	tsuk	2682
P. canton	chin tee	2689
		2688
Aspen	tsipi	2697
willow	chi	2717
		2709
Songloss	tsin tsun	27125
		2714
Shrub	kin just an	2707
after 10 days		9 24517
Spice	K. Law	27.02
sedge	tail a high	
✓ karst	tes	63
✓ Shous	tetchunka	
✓ hoison	e Klah hill tin	
hoze	howes Kq.	



Yarrow Clume che <sup>stite</sup>

Stewarty Lin tang tan

Epilobium. Kome

vetch in Kut laltt

Handkerchief tass och.

8.30 B. 26.88

dog. Klein

fire Kuu

Kettle Kho-si

Sye-850 Trail 955-

38

10 am River

2

10.20 ~~W. K. T. P. K. K.~~

11 am Meadows

11.15 → (Cuck. 8.06.52)

← (P. K. 1/2 m) ←

start 12.45

new road N

stop 1.7.

Becket-Fail 3.25

98.  
25  
3396.

2688  
25  
3396

Widge

Camp  
5 P.M. 13.

26875-

10 Am B, 26.97. Celeu clear  
Kort

23 7 Am, S. 31° B. 27.17  
S. light, cloudless.

~~Old Garden~~ - ~~whoo-ka chin~~

stick pipe, te chin ka toub

stone pipe, tai ka toub

Stone tai

red tal - tal

green tul - taan

black Khit - is

white kle yul

blue tentl - taan

yellow same as green.

skin uy - zuy

stone bat

mirror pete san chin

comb. pe - senk - zoue

~~cloth~~ puin

~~trousers~~ e - tah - il - te

shirt " quit - sit - an

matras te - keich

tobac taul - lu

Knife tshin el - ketch.

Hammer tin - icht - an

iron taatan

Sold bars & *tsa-tsan-il-tsan*  
hat. *tsin-a-koue*

2. straw hat *hi-tsin-a-koue*  
paper *ti-s-tis*  
ashes *tis-tis*

Charcoal *Kan-ul-tank*  
mountain *teil-Kuhl*

valley *kai-koue-chit*  
forest ~~*kai-toul*~~  
wood ~~*te-chi*~~

bank ~~*ul-ly*~~

haver *tank-a*

maize *tis-ehy*

milk *tis-chus*

hickory *nan-chiz*

coyote *chil-ich*

black bear wolf ~~*nan*~~ *nan*

squirrel *thick*

mouse *Klein*

loam *tsa-tsin*

goose *huh*

dicks *tsin uhl*

white fox *tsa-tsch*

Sp. 4320 + 25.

Mon B. 27.09 7.58<sup>0</sup>

S. light. partly cloudy.

Saw put-ta-kut

Do saw ut-tsa-ta-rut

Snowshoes *ich*

Socks ke-tul  
Seat pitch-e-ta-las-tah  
Sit down tin-tah  
Set up met-en-clat  
you go away qu-aw-i-uhl  
bet us-tung

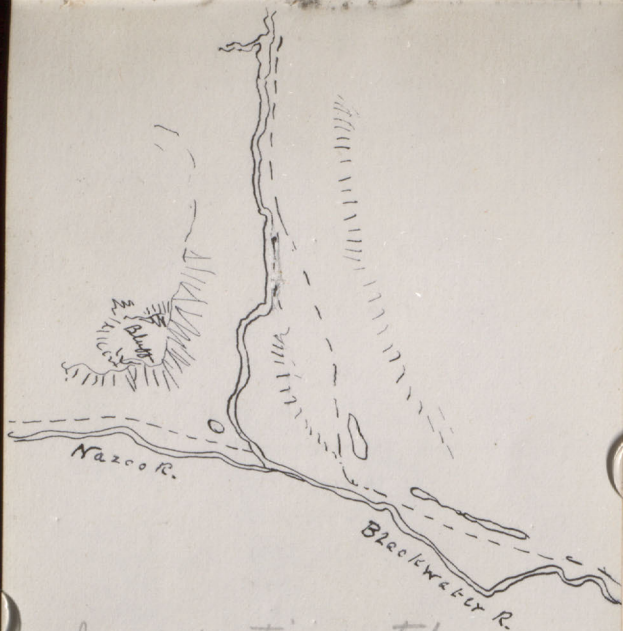
~~great man~~ tin-ne-en-in-cha  
con-gain cha large house.  
large stick tick-in-in-cha  
Small stick tick-in-in-tout.  
Strong qun-yun

min-gun-gun.  
old house cong-ohit  
ancestors is-si-tain  
old man ta-gul-tin  
old tai-lain  
young woman ti-et  
boy chil

man young girls te-deer-kuh  
many boys chil-er-kuh  
pups klin  
bad kun-tsun

Kill ta-tyuy-an  
sick man tin-e-tuk  
~~sick boy~~  
Sick way (tut-sa-ta-tut) speaking to sick way  
speaking to sick way  
away





Lain	side	tin-ees	tuk
Cold	Luul	-kuul-	
alive	cla-	tehata-	soek
		ha	hlen-nep
warm	kun-	a-	zuel
I	tauu-	us	
thou	nun-	us	
me	ku-	ya	
they	ta-	us	
we	to-	ro-	tus
we go	araontsil-	ta-	ro-tus
So thou	tas	Kuh	

he goes ts al - kuh  
 that ku - pit  
 & this, nihl - te  
 something far nil yut  
 away  
 all coo than  
 all gone ka - tse  
 many hlan  
 one iul - he  
 2 nan - kuh  
 3 tie  
 4 tee  
 5 is - kun - la  
 6 utl - chun ti  
 7 itt - san - ti - gut - git - in  
 lte  
 8 suk - in - il - te

10 it - chil - au - nil - nan

20, nat (same as ten')

30 tot, it - chil - au - nil - nan

40 tin (same as ten)

50 is kun lah " " "

God by and by man ta - wa - ta - han lah

Song always  
 from a number

Good day ho-lan-a-ah  
one man comes] hink-ko-to-lan-eh  
to many  
today Kun-tsin  
tomorrow Utl Kun  
day after tomorrow Ta-tsin-tsin  
or three suns  
yesterday utt-utt-tan  
yes ah-uh  
no toh  
they eat ut-tse-yun  
he eat ut-ta-tonl  
ta-tonl  
they drink ta tzit-nan  
thirsty tsut-ta-zul-tai  
I drink tas-nah  
dance tsin-e-tih  
laugh Chit-it-loch  
speech ye tsil tich  
I speak Ya-ti-stick  
sing shun  
they sing tsai-kin  
very sleepy tsut-le-na-tal

they sleep nhl-na-rin-ran

he sleeps but-la-rail-ekin

see nhl-in

they see tsim-ihl-in

all see tin-il-klan

I work an-a-thas-tul

to wish ko-sio-tin

not to wish kla fos tin

love pa-na-sun

to kill a man tua-es-tun-as-tuhl

wristle ut-les-un-til

to walk tsai-ult

to steal ut tsim a ech

ut-tsim-unl-e (not good)

bad man tinne nun tsun

~~parents~~ nan-il-kuh

parents

you give

give ku-tuk

to cry tsut-tsa

they cry tsai-a-tsil-tich

10 P.M. B. 27.125 J. 40°

S.S. light. clouded.



Sept. 24 6 Am B. 27.14 7.32°

color. clear.

spurs he-antty-ho-tuo - Kick horse

Saddle eyou-clay-til

bridle eyou-clay-za-hul-yuh

carriette, eyou-clay-Cul

stump Ka-til

shy (a horse) nel-kit

8:35 Clouston St

8:15

8:55

9:30

park leaving 2020 7m2  
left 10m

9:35

9:20

9:55

small dyes

10 am



10:15 park leaving 1920

N-NW (road) 1/2 3 mls  
distant

10:25

2:59°

10:30

Stat Ca.

10:50



Summit ridge N 45  
B 27.25

27.10  
11.5  
3.11  
11.95  
27.11

Looking  
across valley, the  
T. W. Adams ridge

936  
Summit ridge  
11.70

Bearing on summit trail ridge  
across S end of lake 92°  
back to trail 2.35 P.M.  
B. 4.30 P.M. at camp 27.07  
Camp 10 P.M. B. 27.08  
J. 4.10 Calm clear

8  
0268  
309.6  
3.11 L6

Sept 25

6:45 am. B, 27.005 J. 3.10  
light mist, cloudless.  
Moon B. 26.92 J. 73  
S, cloudless River 530  
P.M. B. 26.93 J. 640  
Calm clear.

Sept 26 7:30 AM. B. 26925-

T. 35.0 light variable  
part in the night.

9:30 PM. B. 26880 T. 300  
calm. Clear.

No occasion

to watch.

lunch.

away about morning camp.

Socks.

paper.

Sept 27. 6:15 AM. B. 26885 T. 25.0

calm. clear.

noon B. 2684 T. 65.0

N. light. River 51.0

10:30 PM. B. 26.98 T. 32.0

W. light. clear.

Sept 28. 6:15 B. 27.01 T. 29

S. light. clear.

Leave camp 12:45

Arrive at Mr Smith's 14 miles camp.

B. 27.28

|| 3.45

Five windows on Maypo

Is this a brief awakening?

or but a troubled sleep?

The intelligence just over the falls from deep  
or the first brief movement of light to the  
the beam while  
of sun-colored butterfly the dull  
the night - warm

Then the river runs low & rough &  
marks the start of the <sup>eddy on its way</sup> ~~trud~~ <sup>turn</sup> slow, never  
segment night & day.

Sept 29 6 am B 27.27 S 25°  
Calm clear.

Start 7.30  
Second crossing of R. 10 am. Loss 15  
Great quantities of little disturbed logs

10 5 11.20 1 in air.

2.10 Blackwater R.

3 Rm old sandy trail

Camp 5.40

Water of R. 5.30 Rm. 5.30

✓ Sept 20 6 am B. 27.37 S. 33°  
Calm clear (no fog)

Start 7.50.

Starts of trail above

Mr. Bull's camp 1.30

✓ B. 27.30 S 75° E, light clear.

B water 5.5°

Serpentine? Sta 5.15° rest on slight <sup>clap.</sup> ~~east~~ dip.

near end of rap. runs S 315° ← 86°

✓ 9 Rm B 27.20 S 43°  
light variable clear.

✓ Oct 1 5.40 Rm B 27.06 S 36°  
Calm clear. most in the night



2000 ft. Run.

8.26.52 top of mt. N. of Camp 21. B

9.25 - B = 26.03

9.45 Ballaloola Trail

11.20 bottom of hill B 26.70

Touch above of Blackwater Valley

1.15 - back overlooking river B. 26.71

Blackish rocks in R. D. eastward

L. Say 40°

2.45 - opposite high bank yellowed sand  
longitud. perhaps by forest?

3.40 Telegraph trail

Blackwater Depot & Run B. 26.90

J. 5.30

wind N. S. small. Some round from West

Oct 2. 7 Am B. 26.91 J. 4.0°

Clouded N. ~~high~~ ~~stony~~ & steep.  
8 Run B. 26.92 J. 3.6° N. Snowing

Oct. 3. 7.30 Am. B. 26.91 J. 3.30°

N.W. clouded. Snowing all night

~~8 Run. B. 26.92 J. 3.6°~~  
low snowing slight.

N.W. clearing.

Oct 4. 7 Am. B. 26.925 J. 3.2°

N. light. Clouded

Blackwater bridge. plants & herbs

greyish & white. D. 25° 2 alt. 70°

5th near foot of canon 3/4 m. below.

1 Run. B. 26.925 J. 5.1° W. 95°



1/2 m. below Blackwater Cr.

W. Spruce  
14  
and 5  
of  
Compton.

Coarse  
Sand drift

Grass. Maccorons. Purosh. Catidys  
white  
white  
honey, dandelion, crops, white-bark, Grub. Larkbit.  
paper.

Oct 5. 7 am. 62693 7.40°  
calm. Clouds 1/4. Snow in  
night.

Sept 10, Lake 1130  
stud. back 215

7:30 Pm. B. 26.85 T. 45°

W. light, raining.

Oct 6. noon water 48°

noon B. 26.93 T. 51°

calm. raining & foggy

7:30 Pm. B. 26.86 T. 50°

nearly calm. foggy & raining.

sup & coll. 11:15 Pm. <sup>S.E.</sup> Sigsbee about

porphyry collection. Sketch terraces.

Sketch elevations & heights. Notes.

Flat terrace!

Oct 7. 7:30 Am. B. 26.90 T. 45°

nearly calm. partly clouded.

noon B. 26.92 T. 67°

~~S.W.~~ light. partly clouded.

Oct 8. 7 am. B. 27.19 T. 48°

light variable. partly clear.

8 Pm. B. 27.08 T. 56°

more light clear.

Oct 9. 7:30 am. B. 27.11 T. 39°

calm clear.

noon B. 27.06 T. 67°

calm clear. Kew 51°

8 Pm. B. 27.04 T. 49°

partly clear. light variable.

Oct 10. 8 am. B. 26.95 T. 41°

calm - fog.

~~10/11/37 01 01~~  
~~10/11/37 17 05~~  
~~10/11/37 11~~  
 10-20-37 11

Oct-11. 7 am B. 27.00 T. 38°

Calm. ~~clear~~ partly cloudy.

Start 8:35  
 St. George trail 9:17  
 10:55 lake

Indian shores 1:15

Camp 1:20  
 Cleg-worm-gut  
 Pun-chaw

Pun-chaw-tut

& Rev. B 2656 T. 48°

Calm. clear.

Oct-12. 7 am B. 26.57 T. 38°

Calm. partly cloudy.

Large lake near St. George. Mads-il-nick

Sichen tau-tut

Side on stone tee-gut-ul-chus

Moss yeam-pa

green in water tea-tog

grave tau-gut

fruit of moss tau-e-chuck

Mahonid - tal-gal-chin water boiled  
from leaves  
used for lips.

thunderway nin-tse-atan



Wat. to au - à tam *Pyrola rotundifolia*  
tuck - ai - Kuss *Geranium macranthum*

Blueberry ut - tyul  
red flowering re. berry. Chan - ing - Cut  
red dog-wood Kund - ul - Kun  
rose nin - chutz  
god ne - pa (pend?)  
Soul Wood - nil - tuz

Start - 11 AM. 11.30 end of lot 6.  
215 - ridge rocky?  $\frac{1}{2}$  E 3 Km. rockier  
place (sp.) B 26.27 Camp 4.10  
Oct 13. 7 AM B. 26.53 9.320  
w. light. Clear. part in night -  
Start 8 am. 9.30 turn off up Mt.

2215 - 2330 ridge running N-S:  
8 m.

185 - lake  $\frac{3}{4}$  m long  
 $\frac{2}{1/2}$  m distant.

161 small l. ( $\frac{1}{2}$  m) just E of trail  
2 m. distant.

152 leaving back on camp

139 ridge (rocky?) passed quarter day

154.5 Step Mt - 4 m S. of Dept  
on Quesselle trail,

1440 double headed Mt S of Blackwater  
not far W of mouth.

820. small lake & meadow 3 m. N

~~1 of moss 12 11~~  
~~may 10 11~~  
~~11~~  
 11

Oct-11. 7 am B. 27.00 T. 38°  
 Calm. ~~then~~ partly cloudy.

Start 8:35  
 St. George trail 9:7  
 Indian Groves 1:15  
 Camp 1:20  
 Cleg-worm-gut  
 Purr-chaw

Purr-chaw-thut  
 8 Purr B 2656 T. 480  
 Calm. clear.

~~scribbles~~

Oct-12. 7 am B. 26.51 T. 38°  
 Calm. partly cloudy.

Large lake near St. George. Made it with  
Sicken tau-thut  
 Indian on stone tee-gut-ul-chee  
 Moss yeam-pa  
 green in water tea-toa  
 grass tau-gut  
 fruit of moss tau-e-chuck

wild hen tau-thut  
 pigeon berry tau-mi

Salween boreate Tal-chos-chin  
 Epilobium Nuk-as  
 blueberry ult-tyul  
 red flowering raspberry. clan-ing-cut  
 red dog-wood. Kund-ul-Kun  
 rose min-chuk  
 god ne-pa (pend?)  
 soul wood-nil-tuz

Start - 11 AM. 11:30 end of lake  
 215 ridge rocky?  $\frac{1}{2}$  3 Km. within  
 place (sp.) B 26.27 Camp 4.10  
 Oct-13. 7 AM B. 26.53 J. 320  
 w. lgt. clear. part in night -  
 Start 8 am. 9:30 turn off up mt.

2215° - 233° ridge running N-S:  
 8 mi.

185 lake  $\frac{3}{4}$  m long  
 $\frac{2}{12}$  m distant.

161 Small C ( $\frac{1}{2}$  m) just E of trail  
 2 mi. distant.

152 leaving back on camp

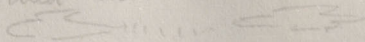
139 ridge (rocky?) passed yesterday

154.5 Step mt - 4 m S. of Depot  
 on Quesselle trail,

144° double headed mt S of Blackwater  
 not far W of mouth.

821° Small lake & meadow 3 m. N

41° 33.5° two lakes almost  
formed run N.S. 3 m. distant.

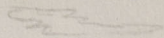


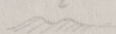
11 m. off

Bar 25.85 10.30 am.

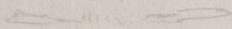
179° general longer axis of ridges  
a log tracks.

362° 356° large lake  
say 8 m. off



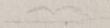
344°  double headed out. near  
It gorge.

277° - 269° like 3 X m off  
runs N.S. creek goes out S.



342° small beam pad a trail  
5? m. distant.

round of the out bars 300°





3<sup>1/2</sup> (Leave Mt. Hood 2:20 Beaver pond)  
5<sup>1/2</sup> (2:47 second beaver pond)  
2:50 1370 - 820 Cape Lake bearing  
5 mi. per hour

11.30.

3:55 Camp 3000 Beared down.

Packs arrived 3:10 P.M.

Name of mt. Zää-hus

Mountain larger ridge than other. Breccia  
& basalt. also ~~quartz~~ <sup>quartz</sup> ~~oppant~~ <sup>oppant</sup> N.S. slate.  
if originally inclined or tilted. Glaciated  
slightly overhanging surface. banded pebbles to  
top. ponds on top. Ridges with N.S. divide  
very uniform, especially to S. V. Crag tail forms  
level quadrant to E. all well rounded &  
with ridges. Se hills which cross Bella Coda  
trail. See hills across Frazer, Lakes &c  
Drift on N. slope of mt & ridges to N. were  
boulders, P.C. sandstone (white) some basalt  
as noted & descend well rolled often clean  
gravel with considerable & increasing proportion  
of rocks like (Quartzite drift). Much white  
pinkish, pinkish & yellowish compact  
amorphous or faceted quartzite. Stones  
not glaciated.

Forest thicker. older. Lycopodiums were abundant  
Scrus *opposita* *variegata* on so N.

8 Am. B. 27.10 J. 41°  
Calm. clear.

Oct-14 7 Am. B. 27.04 J. 32  
W. light. cloudless.

Start 7.50 7.55 Cross hads-ll-  
nich-lob going W.

8.55 bearing back on the mt, 171°  
bearing on N.W. peak of the mt 175°  
on ridge which runs north from E side  
of George Lake  
to 8.45 N -

9.35 bearing back on mt 172°  
from prominent peak

10.10 small lake to right. turning out  
N. sword to George.

depart noon  
12.45 packes arrive.

12 George 1.30 Pm. B. 27.35 - J. 64°  
Sk. light clear.

Water George = Stewart - 4 Pm. 51°  
8 Pm. B. 27.27 J. 36° Calm. clear.

Oct-15 7 Am. B. 27.26 J. 40°  
Calm - fog.

noon B. 27.28 J. 64°

River partly clouded. calm  
51°

8 Pm. B. 27.25 J. 48°  
W. light. partly clouded

Oct 16. 7 am. B. 27.21 J. 25

Calm partly cloudy

noon B. 27.175 J. 60°

near Calm. clear

8 Pm. B. 27.05 J. 46°

lt. light. partly cloudy.

Oct-17, 7 am. B. 27.12 J. 39°

frost in night. Calm clear.

noon B. 27.07 J. 61°

S. fresh. cloudy.

Oct-18, 6:30 am. B. 28.27 J. 40°

Calm. fog -

Start 8:20 9:00 Small creek to

W. 9:25 Small brook W. light formation

D. 5 ward at low angles. Carb. ledgs. Brook to W

9:30 Brook to E, 9:50 Small

brook to W (A) 10:15 Brook to E.

10:38 Island above Canon

Start 11:13

Below Canon rapids 125' slt

of black slat & massive ledgs on edge. many granites to 15'

Sand 11:20


Start 12:40

(B)

250'







1.20 large brook from the E

1.40 Small exposures rocks of  
Similar appearance as W. bank

1.55 Same rocks as E, bank strike

SS.S. 2.30 large brook from E.  
Small brook from W. Conglomerate  
with discrete & other pebbles well rounded  
also discrete just to N.

3.20 dark massive black Compact  
again.

3.55 Camp. ©

Camp 6 Rm. 13, 2826 P. 510  
calm, raining.

Oct 19, 6.30 am. 13, 27.97 T. 56°  
202. = 28.01  
Wind S. Strong. Clear.

290° Str of black slaty rocks at camp  
D generally S.W. ward, but much contorted  
& traversed by dioritic & feldspathic dykes  
Start - 7.5 - 5 (Same as previous) (C)  
⑤ = dyke up above rocks.

8.20 Lignite tertiary to E (white clays)

8.40 Same blackish rocks on E. bank.  
(almost continuous from camp on W)  
Str E.S.E. D S.W. ward high angles.

8.45 large creek from E. (Canyon Cr)

9.30 small cr to E. (Bone Cr)

9.55 Abrupt bend yr to W. Indian  
rocks. Coarse compact diorite.  
Immediately succeeded by well strat.  
black rocks like those of last camp,  
& with similar dykes.

10.50 small cr to W.

11.20 Same rocks on E. bank. D Steep  
at about 30°

11.35 Sta 1100 silty schists (Gold Bearing  
Sandy, 1.50 Series?) (E)

Start 1.20 several strikes 280°  
D mostly more or less silty,  
schists or slates much crumpled with  
large masses of light coloured quartz.

material, massive, which may  
be contemporaneous. Many fragments

of Q Str 2900 contorted ferruginous  
quartzites. Thin bedded & fractal  
cherty appearance.

Camp. 11.35 -  
Wind calm. partly cloudy wind strong  
from S. tall bar. 28.38  
7.15 - Rain. B (28.59) J. 550  
hot

Oct-20 Camp Cottonwood Cañon

6.45 - Am. B. 28.23 J. 460  
28.27

Wind Southward, raining!

Start 7.50 lower end of Cañon

Str W.S.W. <sup>thin</sup> quartzite <sup>with</sup> mottled  
~~is~~ contorted & waterworn

8.35 Cottonwood R. yellow & rusty

9.43, Cache Co. rocks at base of

bluff to W.

<sup>great</sup>  
<sup>slide</sup> 9.55 - L.C.C. small exposure  
+ E.

10.55 Quisnell

Quisnell & Rm. B. 28.52 J. 470  
28.54

Oct 21 9 Am. B.  $\begin{matrix} 28.59 \\ 28.63 \end{matrix}$  T. 48°

Calm. Partly clouded

First in the night (first referenced at  
Tussock. this season)

9.30 Pm. B.  $\begin{matrix} 28.55 \\ 28.57 \end{matrix}$  T. 32°

Oct 22 9.30 Am. B.  $\begin{matrix} 28.49 \\ 28.52 \end{matrix}$  T. 30°

Calm. Clear

9 Pm. B.  $\begin{matrix} 28.43 \\ 28.46 \end{matrix}$  T. 42°

Calm. raining

Oct 23 8 Am. B.  $\begin{matrix} 28.39 \\ 28.43 \end{matrix}$  T. 41°

Calm. clearing

Monday leave Soda creek before dawn  
Artemisia first in any quantity near  
Deep Creek. Lysois is a few miles  
below Bates?

Stop at Bridge Cr.

Tue. To Clinton Pinus ponderosa  
first near northern southern edge  
'Sweatwood' at Chasen.

Wednesday to Syceton a lay day.

Thursday Syceton to Clinton  
Hail raining just before dark.  
Has been very heavy rain



Drift on leaving Inverness & going up  
Dyke benches. Some perforated quartzite  
drift. Some few valley boulders  
beset & all with sprinkling of  
Cascade Cryst. which <sup>become</sup> increase in  
importance southward. In valley N of  
La Hache many mounds & colluvial  
outfall. Some due to slides, but many  
of mounds masses of boulders with  
general direction transverse to valley &  
Green Lentic boulders many all beset  
but with a few of Cascade Cryst.  
seen at the highest points. Also  
a very few of all which however  
more in number towards & Home  
Somewhat abundant - before reaching  
S edge, as singly deposits. Some  
of these appear to be distinctly  
glacial  
Clinton onward chiefly all of  
quite local, with a few of beset &  
a good many Cascade Cryst. Fair-  
ly well mixed together however, in form  
of somewhat modified moraine

(probably) stretchy across valley  
just above 89 m. Stable on Hanson.  
Boulders large & pretty well rounded  
(glaciers must have reached the far  
thence onward just quantities of  
Cascades erupt in large boulders.

---

& the roads bad.

Friday. Started about 7 am  
in Str. Royal City for New  
Westminster, arriving at dusk











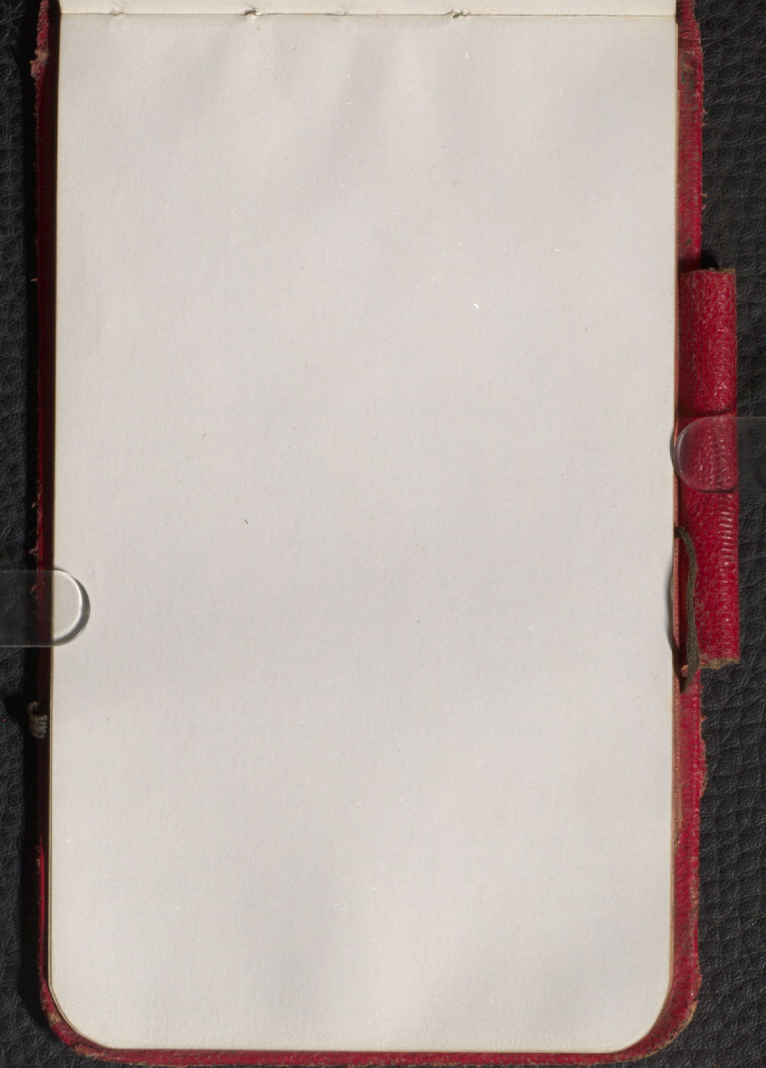


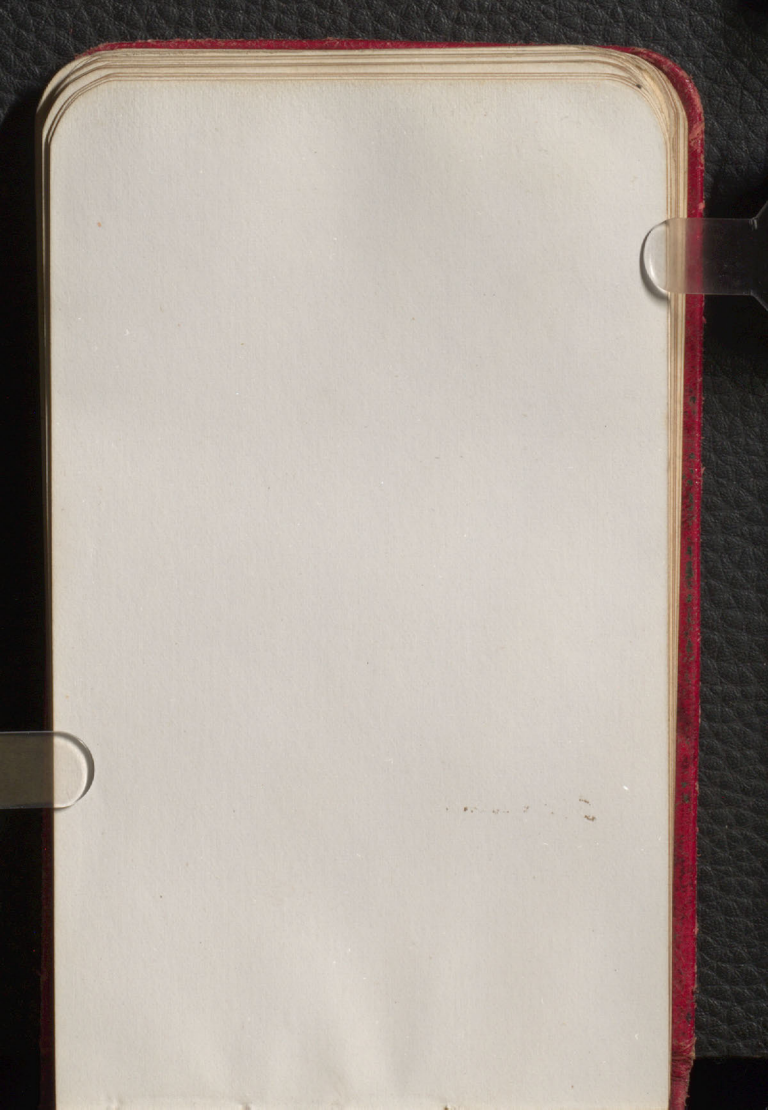














form of energy is taken with the quantity  
of matter necessary as a vehicle (just as  
the main spring of a watch is necessary  
not as so much iron but to contain so  
much force. Desford gas atelygonu shown  
in brain very dried.

Want. Small quick compass grad. t =  
prismatic for horseback.  
Field glasses: plotting book.

see as to. Form of Report &  
ground covered by. Study glaciation  
& eventually write on. Repetitions with  
regard to publishing papers. What  
write next summer. If gold fields should  
like to see Californians. as to assistance  
as to payment of fares passage.

Pat. log. Pocket level  
Thermom.

As Cindley ripples started never and  
or how once bent both never all  
and send.

Oct 11. Paid 'Jonnie' Indian for  
7 days including today, \$7 50 in  
Cash & 2 charged at Blackwater  
Dept for pair pants.

Oct 11 left at Blackwater, 1 Bot  
specimens. 1 Canvas bag. 1 Saddle  
1 stick. & a piece of bacon

The brain an apparatus to absorb &  
render evident consciousness which pervades  
all nature, & may be pictured as radiant from  
a point, though not the sun, as consciousness  
& thought not limited to day. The animal can  
absorb consciousness & intelligence directly by  
its action on the molecules of the brain. Force  
only indirectly, through the plant. The plant  
stands in the same relation to force as the  
animal to consciousness.

Force as known to us - temporary movement  
of atoms & the inter relation of atoms even  
when at a distance allows its communication  
by parallelism between force & consciousness  
perfect, must suppose atoms arranged similar  
to those in our brains elsewhere, & acting on  
them, & to a certain extent the reaction of  
brain on brain also.

The plant transfers energy of motion  
int energy of position, which latter

picked sample gave  
good analysis nearly  
\$200<sup>00</sup> gold & silver.  
Specimens from Mrs  
Dunlevy Soda Cr.  
Considered a fair sample  
of the ledge.

Specimens with those fossils  
collected at Duesnel left in  
Mrs Dunlevy's care. Soda Cr.

---

S Geol. & Topographical Survey of  
Cariboo.

Map showing all known gold workings  
in B.C. & indicating also in  
some way whether heavy or light gold,  
& the quantity.

Map including all known or geology  
as working hypothesis.

Cone, flat - small lead also  
found. Thought main lead  
not yet struck little prospecting  
having been done. A mexican  
worked an arastra some  
time with the cone pieces &  
made good wages, some  
very heavy gold found on this creek  
& tributaries. A Chinaman  
lent you found a \$400 nugget,  
Chinamen still work there  
every year & are reported  
to make very good wages.

---

Join between Williams  
Creek & Conklin's gulch.

Quartz with pyrites 8  
1/2 feet to 7 feet thick.  
Sunk on dips 42 ft



Journal Aug 20

Shown a specimen of silver  
from Vital Creek in the  
Pineca district. It is  
said to have been found there  
in some quantity in the gravel  
by people in search of gold.

The specimen seen not much  
worn. Native Ag.

Journal Aug 20

Shown galena & quartz  
ores said to be richly  
argentiferous by assay, from  
two places in the Pineca  
district.

Journal Aug 20

Cañon Creek about 60  
miles from here. Richly argentiferous  
Quartz found there. Worthy

(Mr Richardson has arranged  
with him to see photo of  
fruit trees made)

Mr Barnard spoke some  
at New Westminster about  
sample of coal from Nicola  
Valley promised by him to Mr  
Richardson. Not able to get it  
yet water being too high.

Reports having received several lots  
of similar good coal from a locality  
45 m. up the N. Thompson R.  
promised to get me a specimen fit  
for analysis.

Defunct mine abandoned  
Silver mine about 18 miles  
up Harrison L. worked for  
3 years but uncertainty as  
to whether any silver got or  
not, assays giving it  
being now doubted.

Mr Bates Managing accts of  
Vancouver Industrial Mining Co.  
Vancouver

Mr Brydon Practical Manager  
V.I.C.M. Co.

Mr McKay preparing to bore  
with diamond drill for V.I.C.M. Co.

Mr Dunsmeier part proprietor  
& manager & discoverer of  
Douglas mine, Departure Bay.

Mr Egerton Manager & proprietor  
also in Douglas mine.

---

Revers paid up by Mrs  
Richardson to Saturday Aug 7.  
at rate of \$5000 per  
month.

---

W. Fisher  
New Westminster

Notes for the Traylor R. Road

Mr Bates at 150 m. house  
enquire about locality &  
occurrence of native Cu sent  
to Mr Woody Bevards Sulist.

Clinton Enquire about specimens  
of plumbago sent down by  
Mr Steele agent for Harpoar?  
Mr Foster Same place  
General information useful.

Serpentine one exposure  
4. miles above Cache Creek  
? of specimen desirable

Sootstone between 86 - 88 mile  
stones above Gale 6-8 miles  
above Spencis bridge.



10 inches of top of seam  
wanting.

Heavy earth conglomerates apparently  
of same formation: About  $\frac{1}{2}$  mile  
by and last place where compact green  
clay to S. height in contact, marks  
vertical fault with conglomerates, which so hard  
as to form a vertical cliff to water  
without talus at least so far thick  
mud like bedded but not very rough  
pebbles small.

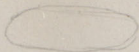
5 m. from Linnell same beds, pale  
greenish & brownish strat. Dip NW.

Low angle.

$\frac{1}{4}$  m. further similar beds with layers dip  
 $100^{\circ}$  to  $120^{\circ}$  E. S. E.

Grate Spherical greenish of pale, yellowish  
stands days. All E. W. C. Carb bands (thin)  
About a mile below Linnell rock in center  
of R. rail, much faulted, probably to appear  
Very high drift bank with large lumps of lignite  
sticking in it.

Compressed logs.  $12 \times 5\frac{1}{2}$



Second  $14 \times 3$

more than 6 ft Cong

166
23
488
332
38.08

19. cont about for short distance above  
 the cliff drift a few feet above river level  
 filled with fragments of quartz (diorite).  
 A seam of quartz several feet thick appears  
 with similar rocks & large flattened spherical  
 concretions. Dipping at a moderate angle  
 eastward about  $\frac{1}{2}$  m from Soda Cr  
 near Australian Ranch.

17 m. from Lucerne High hills  
 massive, apparently of trap border the  
 river on the W. side.

8 m. from Lucerne Bank on E. side

About 100 feet high of brownish grey drift  
 Strata of ordinary appearance for a few  
 hundred yards concealed See same cliff  
 composed of below for about  $\frac{2}{3}$  up of greenish  
 clay hard rough & brown pebbles. Above of  
 greenish & reddish white clay. The whole  
 quite different in appearance from the  
 drift seen anywhere else. brownish nodules  
 (not drift) at 15 m. above brownish  
 drift

6 Small 5 medium 24 large 1/2 medium  
 18 Small 8 large 7 small 1 medium 16 large  
 5 medium 2 Small 2 large 4 medium 6 Small  
 6 medium or large

3 Small 5 medium 2 Small 4 medium  
 19 large 1 Small 1 medium 1 large  
 1 small 18 medium 6 large 4 small  
 2 medium 12 l. 2 m. 6 S. 4 l. 1 S.  
 2 m. 3 S. 5 l.

6 Small 3 medium 5 Small 1 large

8 m. 1 S. 7 l. 6 m. 2 S. 1 m.  
 .6 l. 5 m. 30 medium  
 7 sm. 3 l

1 2 3 4 5 6 7 8 9

10

~~10 3 5000.~~  
~~1666~~ +666  
~~4778~~

To Oct 17  
 1666  
 138.31  
 15  
 \$113.31  
 5  
 118.31

\$1.66 per diem.  
 1666  
 1666  
 1666  
 23  
 49.98  
 3332  
 12310  
 1166  
 35.31  
 5997  
 1231

