

1935-II.

Lewistown, Ill. Aug., 1935

Waterford, Ill.

Otter Creek, Ill.

Havana, Ill.

Erion, Ill.

Chandlerville, Ill.

Green Valley, Ill.

Pekin, Ill.

B. Shimek
Iowa City
Iowa

Aug. 26 - Iowa City gas. ^{1.75} oil ^{.32}
 Toll. Ft. Madison ³⁵
 Gas & oil, Canton, Ill. 2.00
 Lewis & Clark Supper .62 Room 1.00 1.62
 Aug 28 - Breakfast Leoda .46
 Dinner - Lewisville .72
 Supper, Havana - .62
 Aug. 29 - Hotel 1.75 breakfast 57 2.32
 Havana - dinner .82
 Gas at Pekin, Ill. 1.90
 Toll - Quincy, Ill. .25
 Supper, Mt. Pleasant .31

Aug. 27, 1935, Tues.
 Left at 6:23 am, 36138.
 Home 0
 # 2 + # 161 - 26.8
 Mt. Pleasant # 34 - 49.7
 Donnellton # 3 - 72.1
 cut in road (sample) 76.6
 # 61 + # 3 81.4
 Ft. Madison (bridge) 86.9
 East bridge ^{approach} 87.5
 # 96 87.9
 Hannoo 96.5
 Jervis bush 97.3
 # 95 + # 96 106.5
 Dallas City 113.1
 Disco
 La Harpe - 126.1
 Blandinsville # 132.1
 Sciota
 Good Hope - 142.2
 # 67
 Bushnell ^{150.6} # 9 151.1
 # 41 + # 9 155.0
 Blyton
 Frith - 170.9
 Canton - 178.5
 Spoon Run - 164.9

S. on 78
 St. David, Mo. 184.3
 Bryan 187.2
 Lewiston 199.0
 Turn N. - 202.5
 Cut, N. 14 N. E. 203.3
 Road on return 204.1
 Return 1st big cut 204.2
 Turn to Lewiston 204.6
 205.6 - Last cut
 Back to fork 206.7
 Pavement 206.8
 Lewiston # 210.2

3.5 E.
 .8
 4.3

a beautiful, clear day
 at 76.6 on #3, east of
 Souleem, Pa. a cut in road
 shows 4-6 ft of jointy clay
 looking like loess, but heavy
 soil samples.

Cuts on #96 in Ill - first one
 shows only drifts

At 90.1 + 902 cuts show drifts
 + several feet of joint heavy
 stuff above - no loess, but
 looks a little like it, except
 for vertical gullies + ridges

Other similar cuts follow

The valley is narrow at
 Maywood.

East on #95 the same gullies
 heavy clay.

At 12.9 mi. on #95 two short cuts
 show same gullies stuff.
^{small} Reticulated gullies + ridges running up +
 down the banks.

At 163.1 - big cut - Spoon River
 bluff - drift + ferretts level
 then loesslike ridged stuff.

At 165.5 - 2. bluff of Spoon River
 drift seems to run nearly to top.

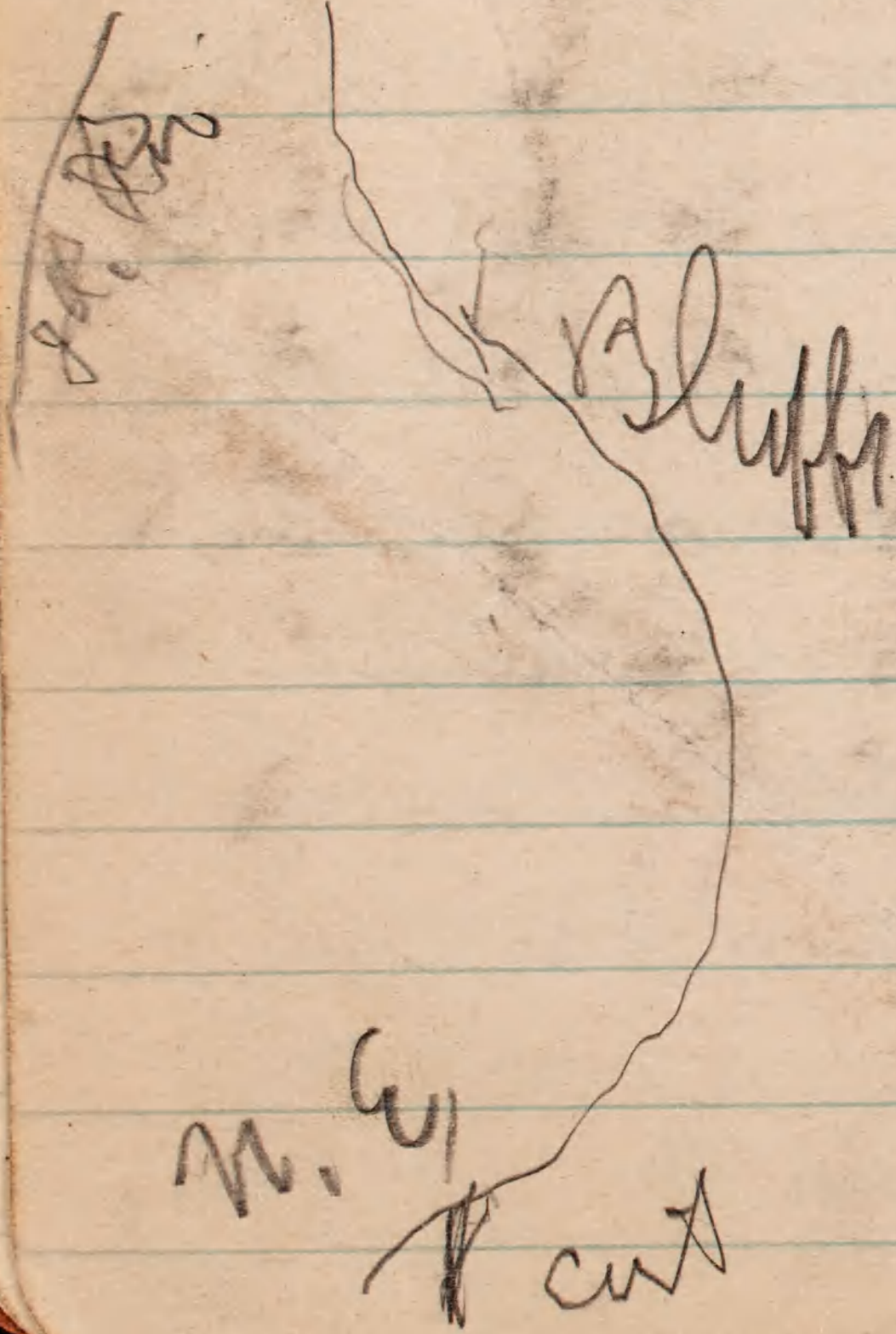
Other cuts E. are similar, some
 with more top gullied stuff.

At 191.7 a group of large hills
 (Cherry, Ili) - small gullies -

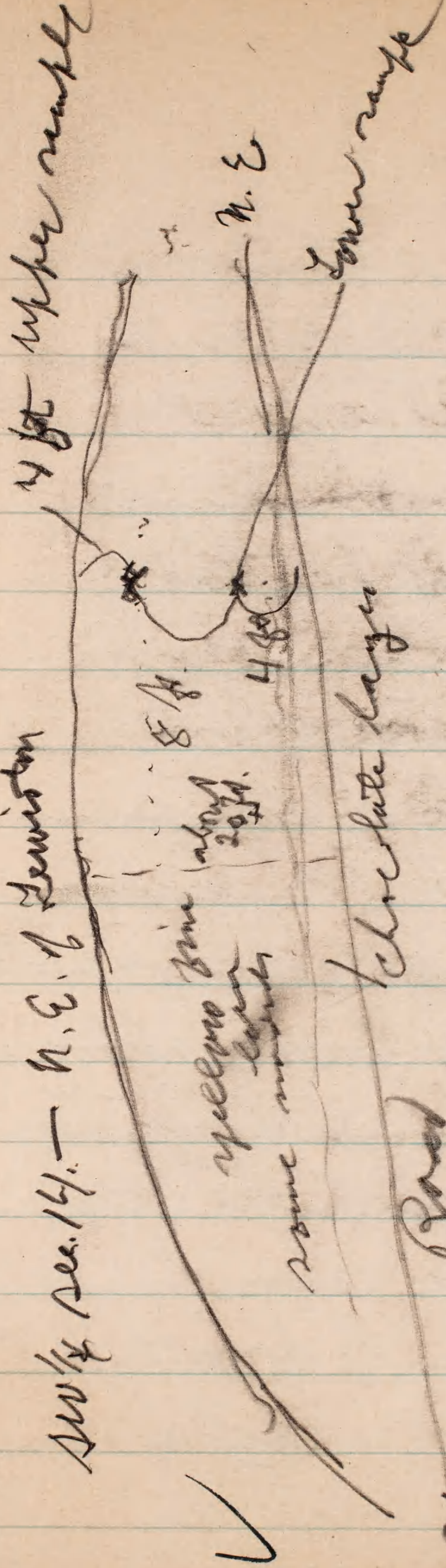
Otherwise great plain.

Not far from Spoon River

QX 197.7 on N. & S. rd
 E. of Lewisda 10 or more
 feet of light yellow
 laminated soft loam
 No fossils (see sample
 just below turning E.
 S.W.



SW 1/4 Sec. 14. - N.E. of Lewisston



Sto.

Show vertical narrow gullies, but not
 sharp ridges between
 Shells in two layers - about = 5 to two samples.
 QX 202.2 on return - slopes SW
 cut a little over 1/2 a tenth of a mile long.

5280

At 2:04, I on return came
to side road (S. & E.) on
^{some distance}
which we went, going out.

Here on main road, is a good
cut. Even looks just like that
in the fossiliferous section
see 14, but I saw no fossils.
We drove to fork at end of
paved road & drove S. on new
road to cut (see notes for next day)
in which many fossils appear.
This also has fossils in two
layers. Morgan picked the
upper & I the lower layer.
It is continuation of description
of this cut, for it is later & we
will return.

See p. 14

We found a number of the
inland cuts without fossils,
but the cut in section 14
faces the Illinois flat & the
other one is not far from
bluffs.

✓ The loam is light yellow,
very soft & friable (though
very hard on surface) &
makes dust! - friable.
We drove back & stopped
at tourist place on main
str. in Keokuk.

Aug. 28, 1935. Wed.

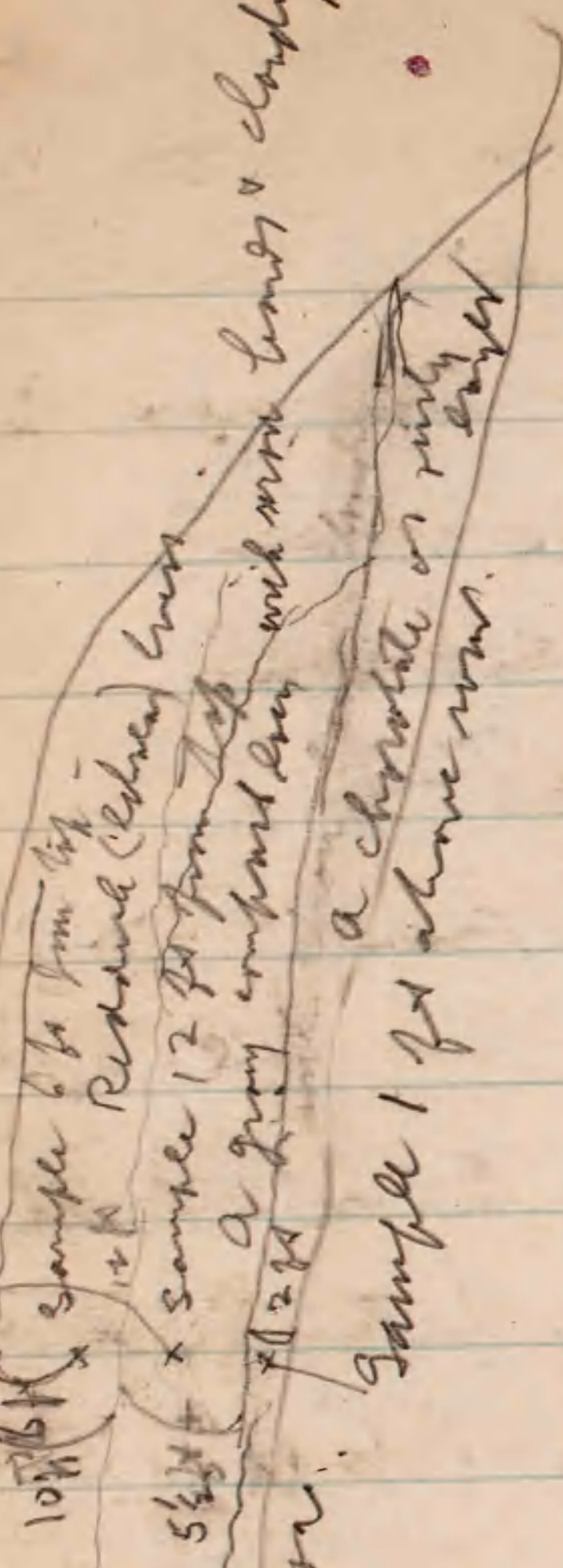
Courthouse, Lewiston. 211.9	Road S. to Emin 243.2 1/2
Turn E. 212.1 1/2	Return to #24 243.8
cut 212.9	on #24 - other to 244.7
End pavement 215.6	Road turn S 245.1
Turn S 215.6+	Turn back 248.2
1st Fossil. cut - 216.6	Other cut 248.3
cut on cliff, "very 217.1	Back to #24 - 251.3
Foot of cliff 217.2 1/2	Other creek 251.7
Back to pavement 218.9	#28 - Turn E. 252.6
" " #24 ^{Lewiston} 222.3 1/2	at 253.6 + side road cut
Courthouse - 222.6	Bridge - W.
Tram S.	" - E 259.4
at road E. 222.9	(Utavana)
Turn E. 225.4 1/2	
Waterford 229.1 1/2	
Fork road. 229.4	
(below cut) 9	
Back to #24 232.9	
" to Lewiston 235.6	
Courthouse. 237.3 5/8	
Waterford Road 238.3 1/2	
Spoon King 240.3	
#28 - Turn S. 242.7 1/2	

General level of prairie

12

Sample Carb. or weather surface

1 1/2 ft. Took sample 1 ft from top



Cut at 212.9
 212.1 1/2
 7 1/2

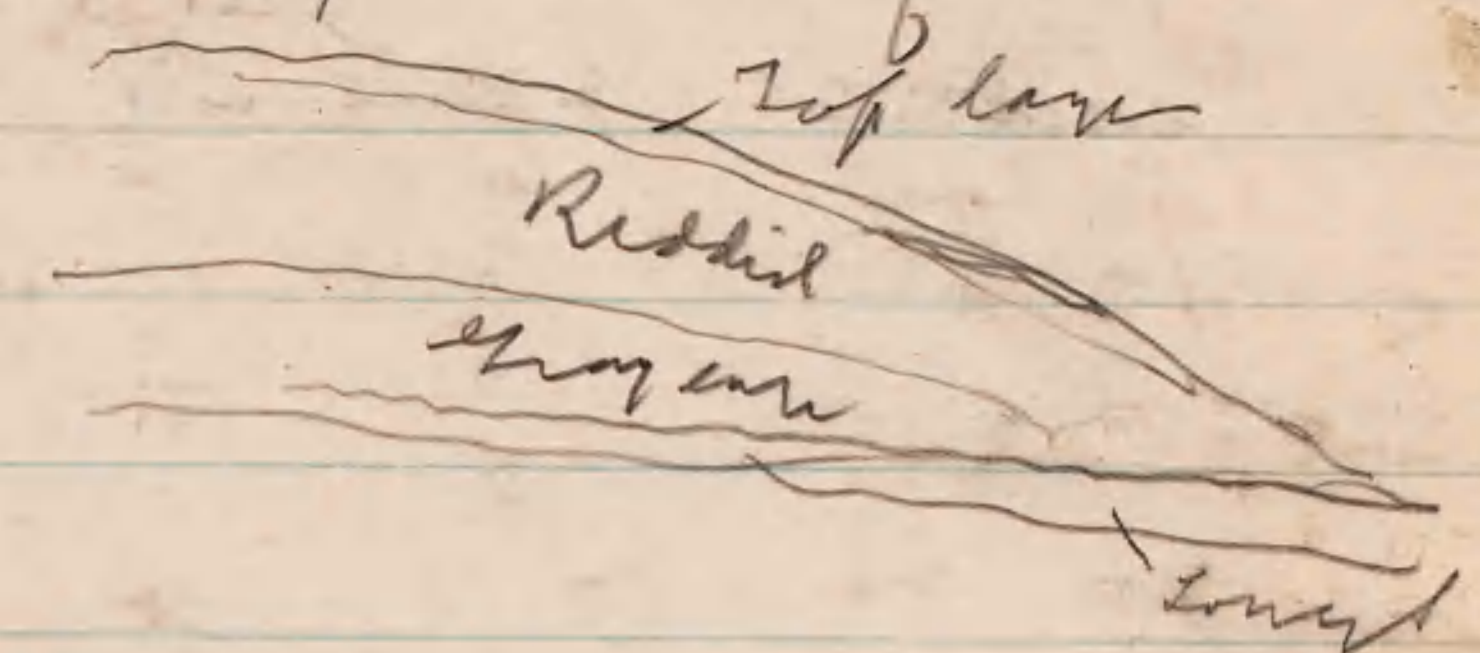
Just .75 mi. E. of main highway in Lincoln
 or paved road E. S. side of cut.

The lower part of chert lens is quite friable, the gray layer is compact & stony. The reddish layer is "lumpy" (colubine) & the top grayish lens is also crumbly, but fine fossils were found.

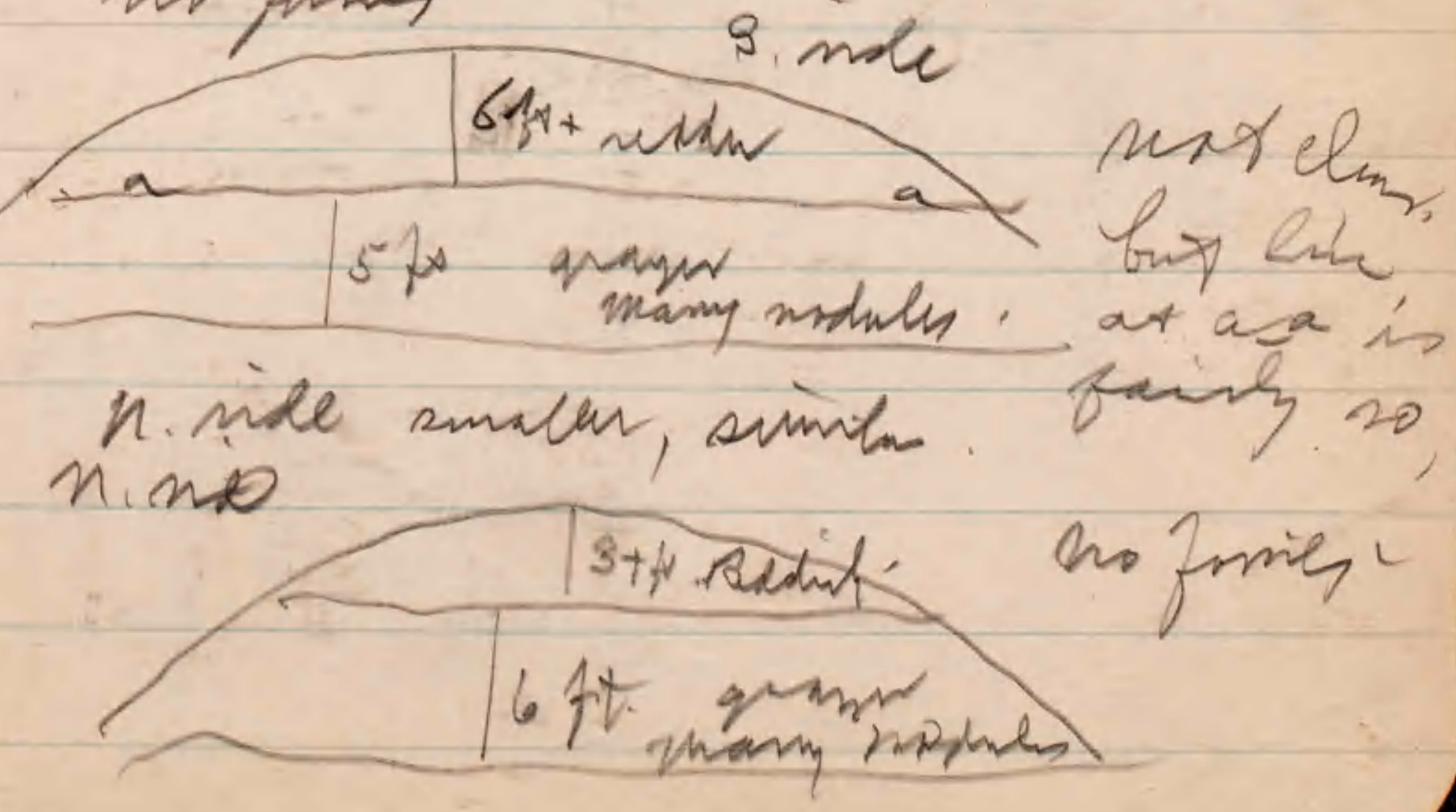
The contact between the two lowest layers is quite rusty. N. side seem to be similar, but is more oxygenous.

13

The gray layer runs out before reaching W. end of cut.

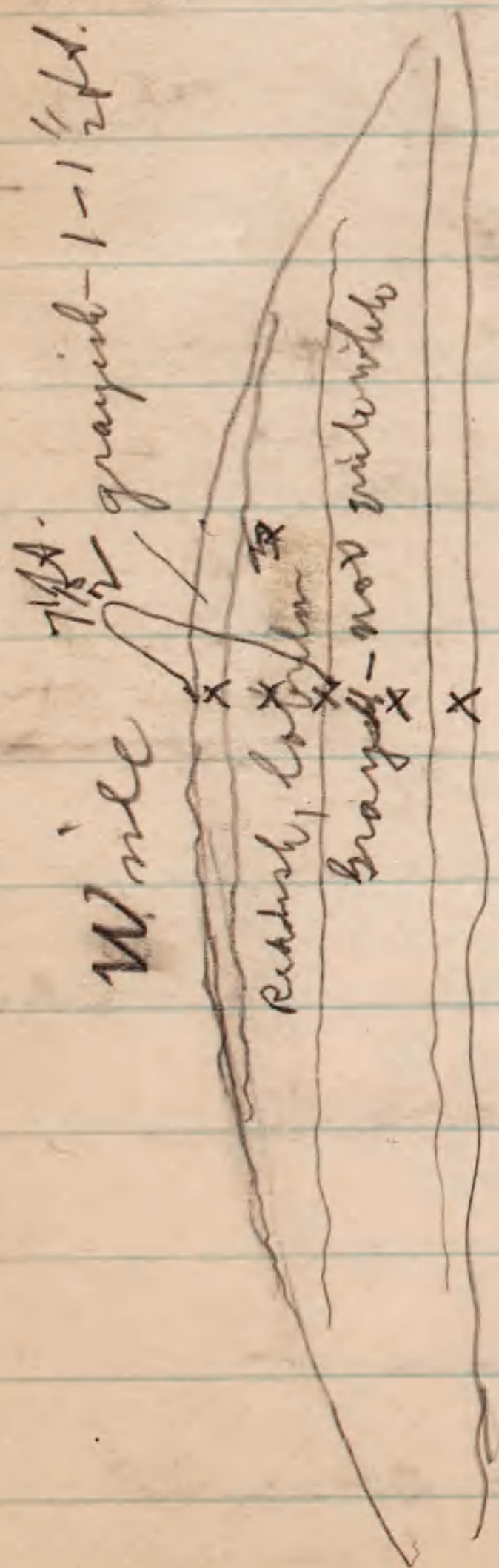


At 215.9, on road S., a cut about 8 ft. Shows gray lens below (compact, & redder limestone above no fossils)



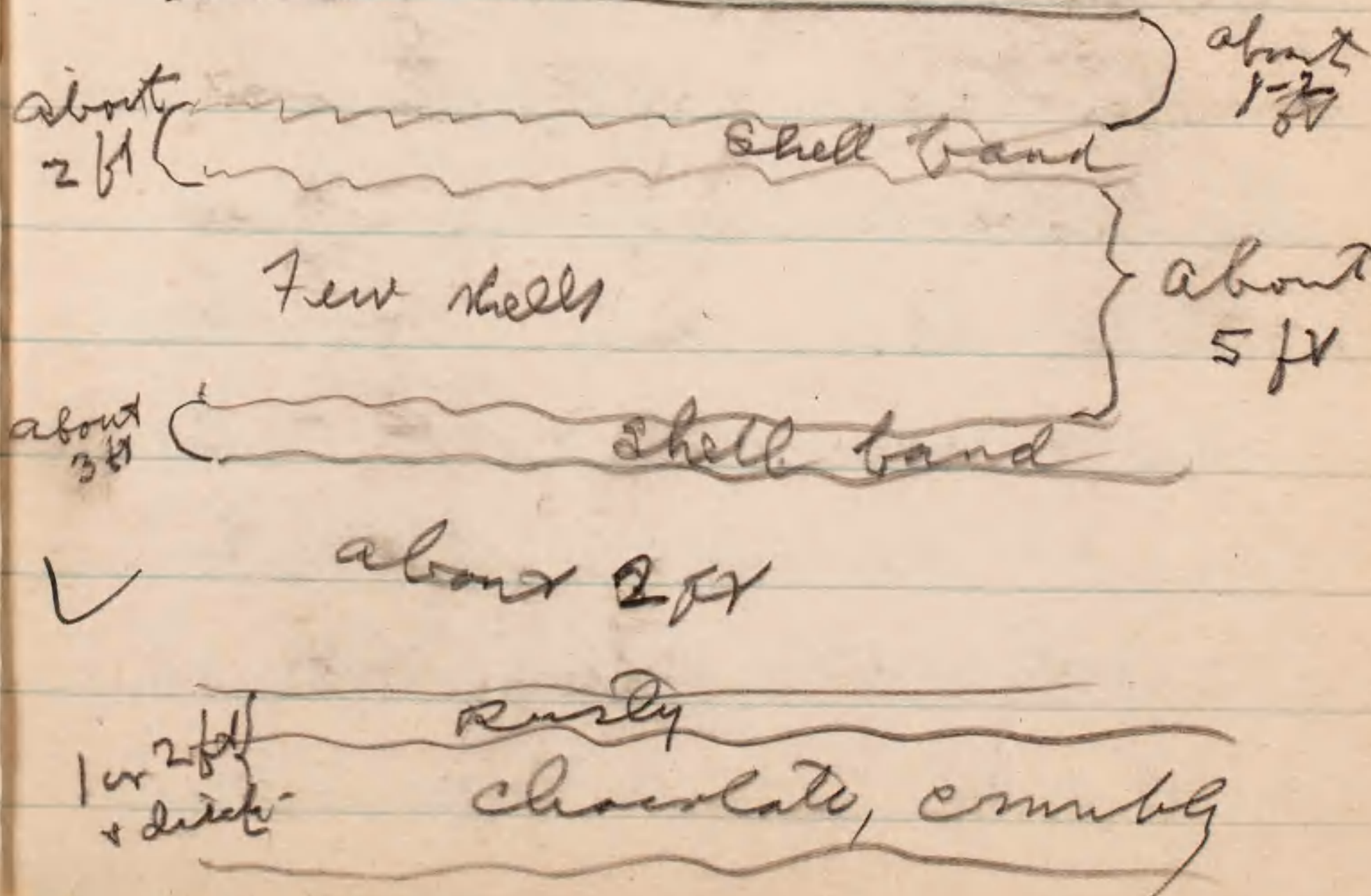
Other cuts s. are similar, but not clear.

At 216.6 - W. end of fossiliferous cut (see yesterday) on road S. of end of pavement E. of Lewiston, (see p. 8) 1 mi.



about 140 paces (420 ft) long
 8" wide in a little thinner at N. end
 The gray zone more chocolate
 towards base. Fossils well
 to base into faint chocolate.

Uppermost grayish is friable + gray on exposure. Reddish inside. Took sample less than 1 ft from top.
 Reddish layer - tabular, redder, heavier. Took sample 3 ft. from top. Gray layer with reddish clonking and two bands of shells. (see diagram)
 Took sample at 7 1/2 ft. where gray & reddish meet. Line is quite sharp.
 Took 3 samples of gray, one in upper band, 1 in middle & 1 in lower band.
 Gray base.



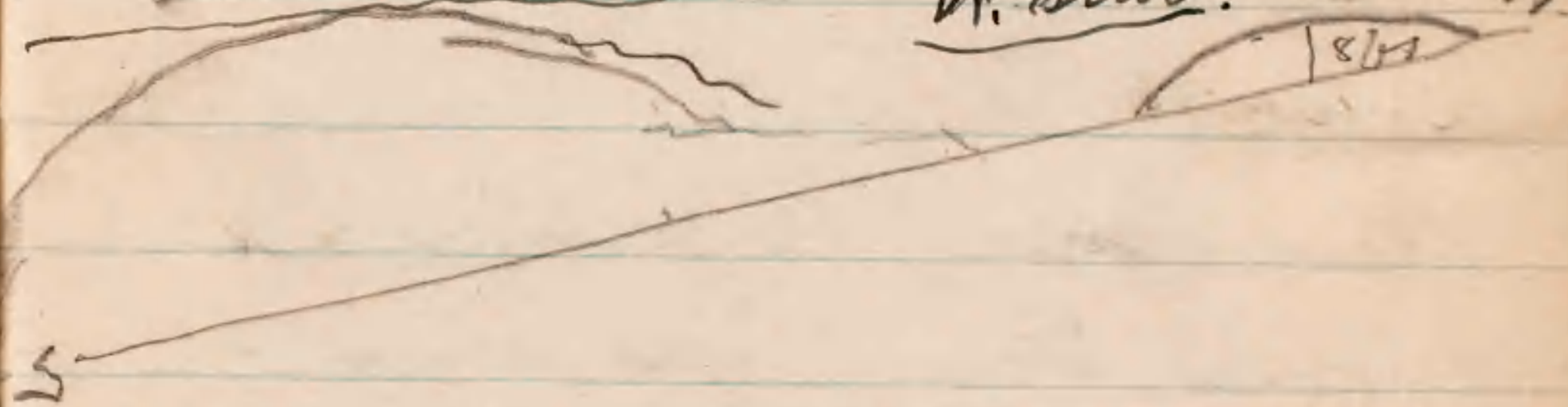
) The shells are more abundant in lower layers.

Marjic also collected on the E. side (only lower part, she saw none above.) The shells are not as abundant as on W. side.

We drove S. & stopped at 217.1. This is just between the two big cuts on the cliff. The upper begins at top, ^{A extends} about 1/4 the distance down. The E. side is higher, shows gray loam below & a little red soil above. There is a shell layer (intermittent) within the lower 6 ft. - could see some

above. This E. side is about 12 ft deep.

The west side is about 8 ft. deep & also shows a few *Proc. ovalis*, *Polygonum multident.*, etc. Marjic gathers shells on E. side.



The biggest bed below is higher on W. side.

Marjic finds shells from the east side - one bed about 5-6 ft. from top & to about 3 or 4 ft below top (no shells in this). The other (lower) bed she collects from lowest 6 ft., but there

were shells scattered between
(not much distinction.)

No shells in uppermost
3 or 4 ft. of the big cut
(lower end) on W. side.

The shells run through
✓ upper 1/2 of gray layer in
this big cut quite uniformly,
& they are very abundant,
Many are crushed, esp Pol.
multilineata.

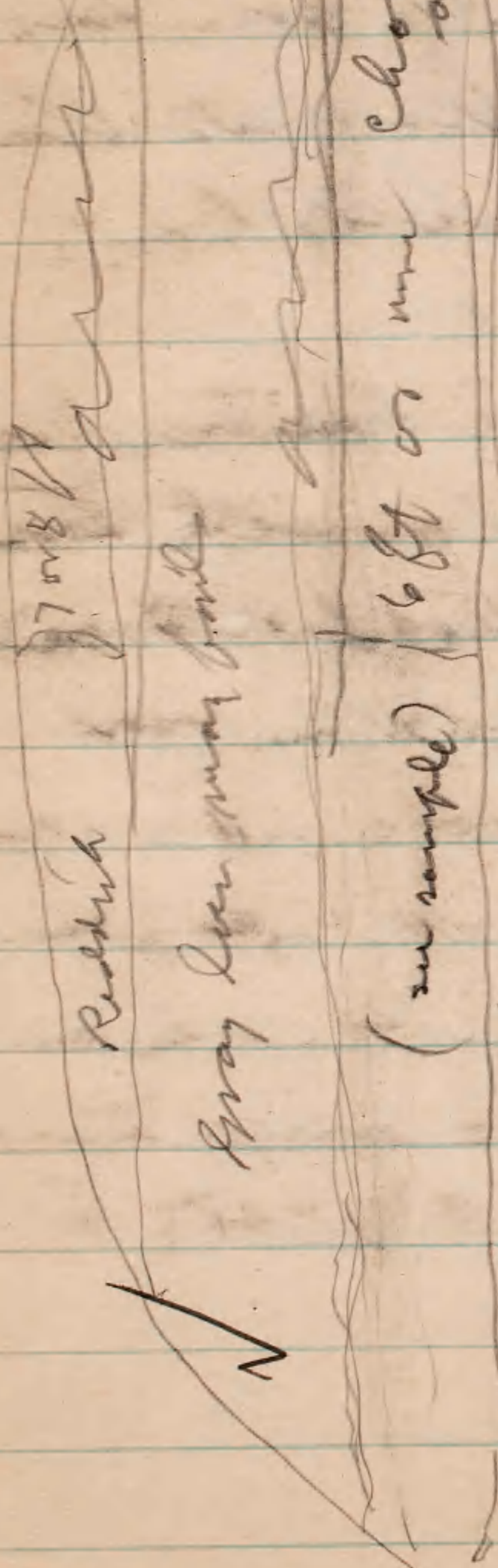
Took sample of thin upper
gray fossiliferous layer in rock
this from the big cut.

The foot of the bluff, at
edge of great Illinois river
flat, is at 217.2 1/2

at lower end (S.) of
the big cut at least
6 ft. of shaly rock
appears at base,
✓ Road from N.E. comes
in just at lower end of
cut.

Red dirt drift above
rock - probably 5 or 6 ft

W. side big last cut



Chocolate
6 ft or more

Reddish drift

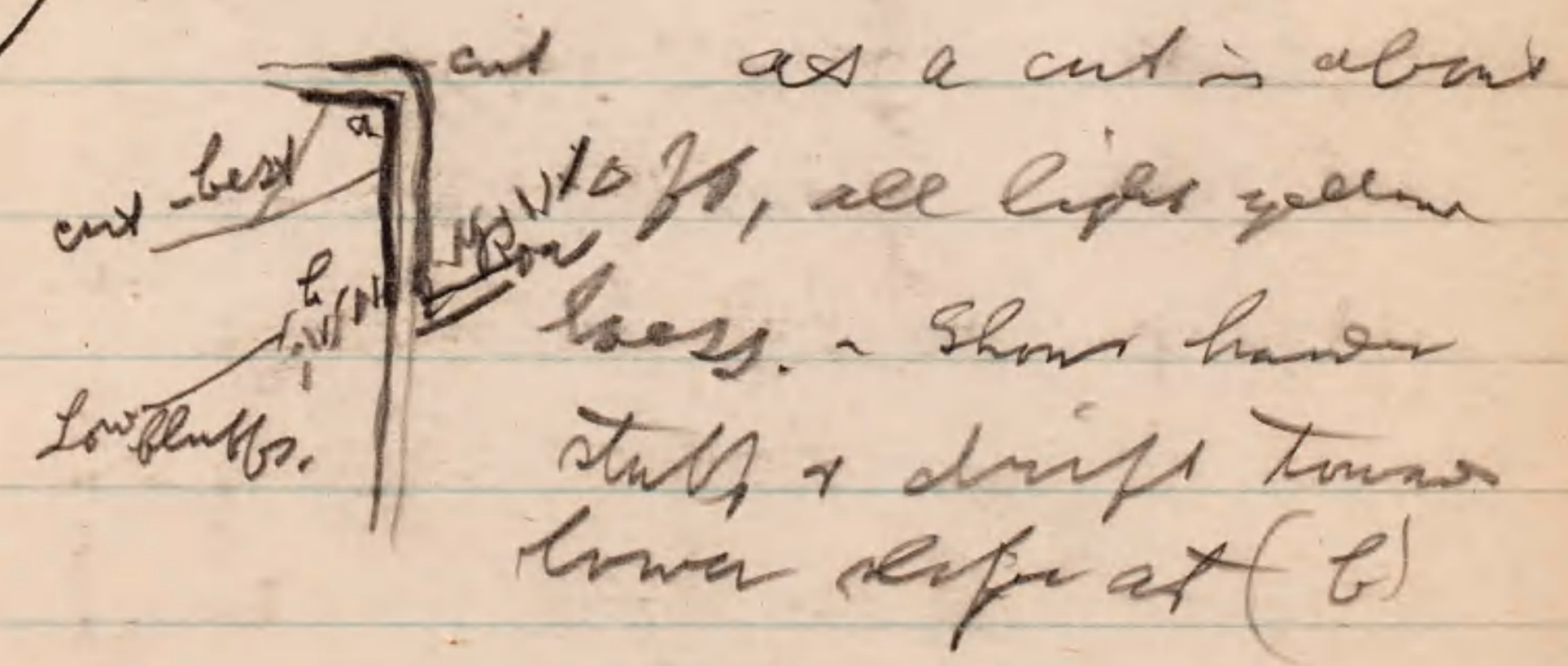
Total cut at least 25 ft.

Fossils many to top of gray

On E. side similar, fossils plenty, more drift with pebbles & boulders shows later

On E. side a reddish (rusty) band shows at top of gray layer. Gray layer is also rusty where it meets chocolate layer

Drove back to Lewistown for dinner + then south toward Waterford. Stopped at center of sec. 3. Cut in road

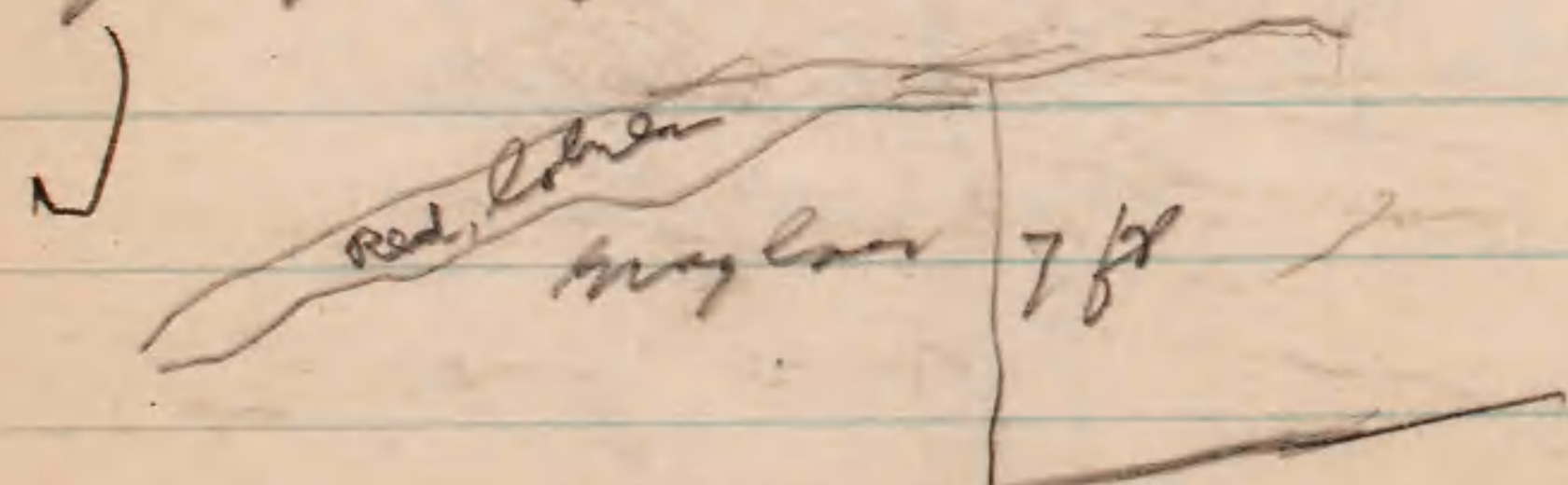


Waterford

Spoon River =
240,
S. of Spoon River

at 245.1 on #24 - where
road turns S., or cuts in
all born Lincoln. - 8-10 ft,
light yellowish grayish - fine
No fossils.

at 247.2 - on road towards
Enion, Ill. a cut across
small ridge (low down) facing
S. shows gray low with
iron bands, cloudy horizontal
lines (may in places) & very
fragile fossils. S. side



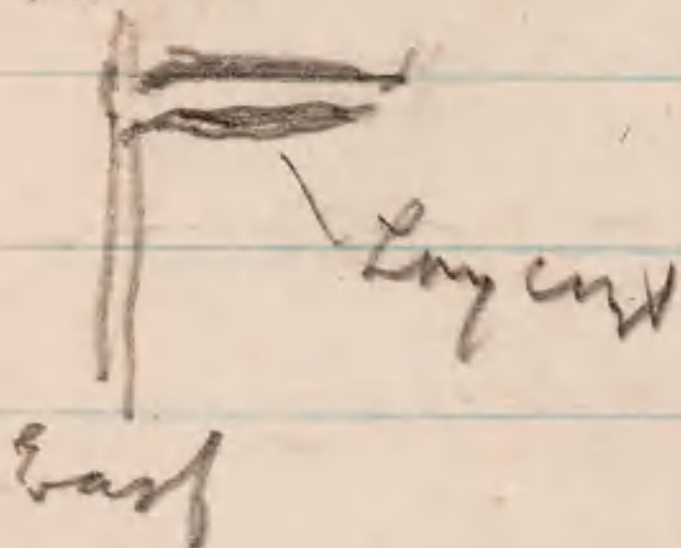
Road

samples of each taken &
some fossils

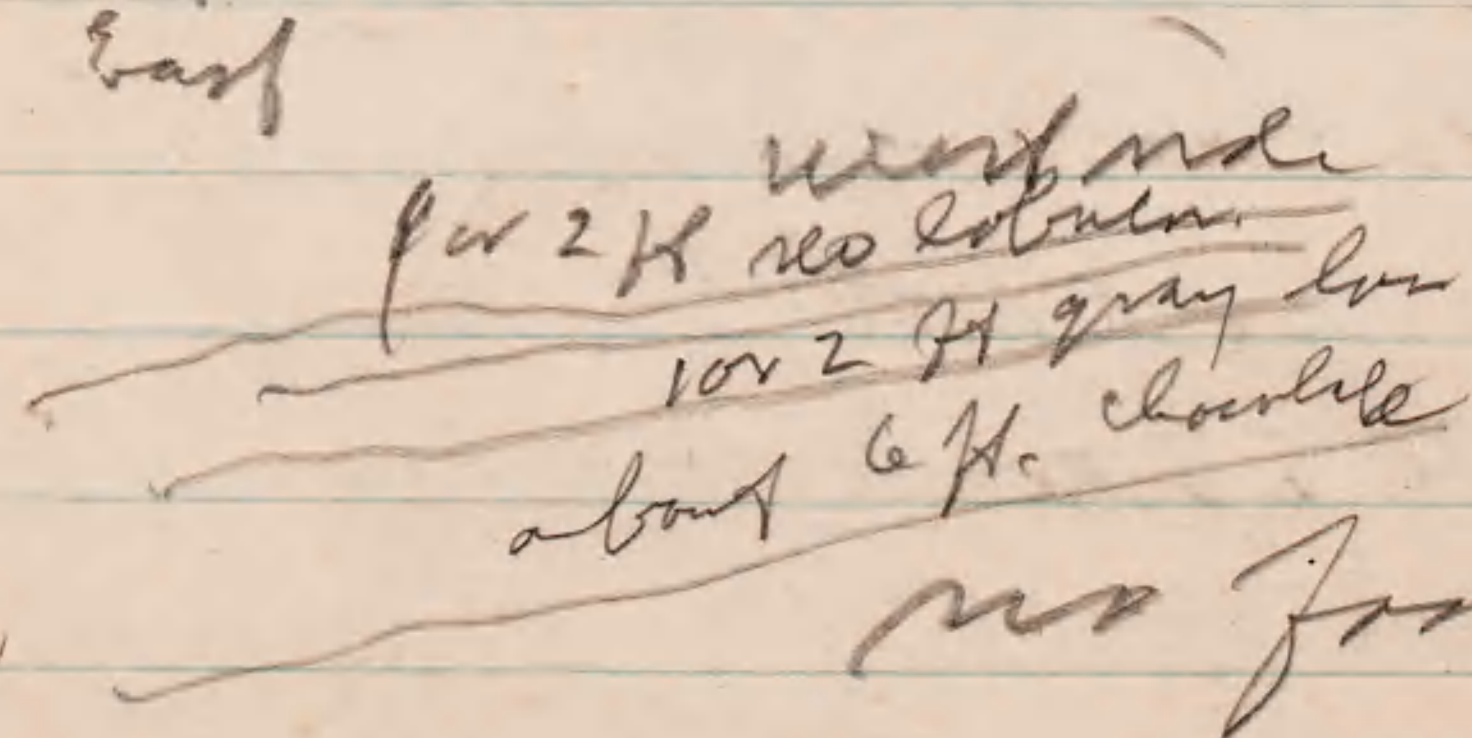
An irregular (continuous) rusty
narrow band separates the two
a few shells run up
into this

In band off 248.6 on
return - gray drift or S

at _____ on return, going
up hill from fork



There is a long cut



9
 on # 78 toward Havana,
 a side road (north) of
 253.6+ is in a narrow cut.
 at least 8 ft. of gray
 fossiliferous loam, with
 nodules & iron clonings,
 (see box of shells)

This is well up - top on
 a level with general
 surface.

9
 Big cut on # 78 just
 east of this shows
 much drift below.

At 255.5 the bluffs
 end & great river
 flat begins.

We drove to Havana & stopped at Hotel

Aug. 29, 1935, Thurs.
 started at 6:25

Hotel-Havana - 262.4	Bluffs ^{RR} 337.1
Bath 271.3	Mackinac River ^{Mackinac Riv} 338.7
Saugamun Riv ^{RR} 280.2	Pekin - RR 347.5
Chandlerville ^{RR} 281.3	" - RR. 347.8
Fire cut 283.2	" #1 Business part 348.2
Chandlerville ^{RR} 286.8	#9 (east to cut) 350.7
Saugamun Riv 287.9	at N. cut begin 354.4 1/2
Bath - 296.8	Lower end of bridge 354.7
Havana - Hotel 305.7	River bridge 356.5 1/2
1 st main N. 310.1	Turned back 359.8 1/2
Road to Topoka 311.7	Back to River bridge 363.1 1/2
Road N. 316.4	#25 over 364.4 1/2
#120 317.2	Bridge. { 364.7 1/2
Road N. 318.9	#150 - 366.9
#24 - 325.9	about Wide River 368.3
Allen - RR. Sta 328.2	Hanna City 377.4 1/2
Bluffs ^{RR} - 1 mi 328.6	Farmington ^{#78} 387.5
(low) over 333.2	Middle Grove 388.5 1/2
#122 333.2	London Mills ^{Road} 394.1
Breen Valley 335.7	#41 402.8
Sporckin 405.6	Rosville ^{RR} 410.7
	at bottom of 2 nd part 424.0 1/2
	424.2 1/2

Left hotel at Havana at 6:25 AM
 + drove S. on #78, on an alluvial
 plain with numerous timber remnants
 There are also numerous sandy areas
 and low dunes - In one place large
 area purple with *Eragrostis v. pedunculata*
 We drove beyond Chandler's Mill
 on #38, + where road cuts
 into bluff (at 28 B. 2)
 ~ #78 1.9 mi. S. of Chandler's Mill on #78
 There is a fine long cut.
 I worked mostly on E. side
 on upper larger (deeper) part
 shells run all through this
 quite abundantly (some as
 P. mounds + P. multilobata in
 colonies) + extend clear to
 top.
 I took a sample from

a foot from top, + another
 12 ft. lower.

The sand grades up gradually
 into fine light yellow loess
 through more than a foot.

Total thickness of loess is
 about 15 ft. + about
 14 ft of sand below at
 highest part of cut

There are many nodules,
 but no sign of iron.
 An old dune.

Took box of clay about
 9 ft from top

Two spots at same level

6 ft apart

Media	RR. 435.5	Bridge 457.5
#34	445.1	Burlington #61 457.8
Knapp	456-	West Burlington 460.6
Bridge	456.5 1/2	Danville, Va. 469.9
near top	448.1 1/2	Middletown 466.0
+ 5 ft below		New London 476.4
		Ma. Pleasant 484.8
		Nome - 534.9
		36673

1897 Aug 19 4581

The Sangamon has a good many
bars here. Its valley & that of
the Illinois bend here.

What an opportunity for loess! Broad
sandy flats & river bars for source, &
wooded low bluffs for anchorage!
These cuts are so overgrown &
slumped that I could not see that
there was interesting stratigraphy,
the transition where I noted
it was gradual & lower part
of loess was quite sandy (fine).

Returns to Havana and
had luncheon.

We then drove east on
#122 over wide bottomland,
with scattered low dunes in 12
few miles - mostly trees or dunes,

Evidence of low dunes everywhere
Wide open flat places - (all
seem to be sandy) evidently
originally treeless.

Beyond 315 again more dunes.
Gradually better soils appear,
look as if the rise is gradual,
but low scattered dunes
still appear at 323.0 etc.

At junction with #24 low
bluffs are visible about 1 mi
S. E.

From town at 328.6 - low
bluffs appear about 1 mi E,
No. 24 runs on this flat
plain - no bluffs in sight
at 337-337.1 we drop down
low bluffs to R.R. (low ^{cut} _{in hill})

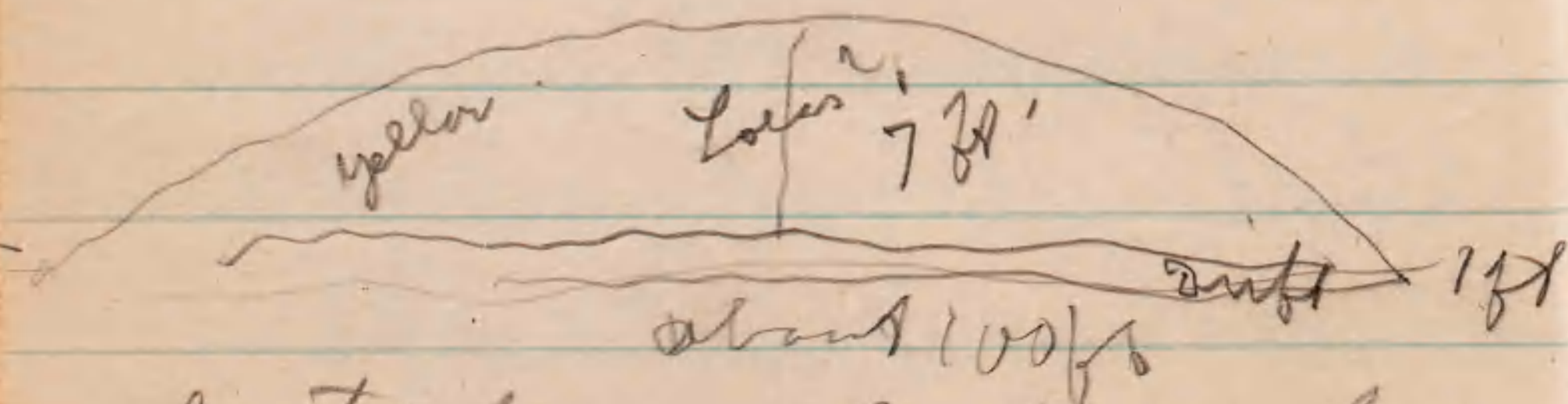
E. of to Pekin & Pekin
bluffs appear - corner opposite
Pekin.

We drove E. from Pekin
on 24 up the creek valley
Turned back at top of hill
at 359.8 $\frac{1}{2}$

A lobate grey like (hard) stuff
yellow when weathered & some bluish
underneath surface, at 370.5

Drove west on #124

at 407.5 a cut



The top layer may be loess, but
it is quite lobate. No fossils
(see samples)

at 447.2 on 34 a good cut
at 447.7 - sand
at 447.8 same & lower
This is a bluff on E. side

1935

	Expenses - Oil & gas	\$ 1.00
9/13	Gas, oil - market bank, toll, Keokuk	2.25 + .25
	Hardin, oil, gas	1.81
	Jeromeville - Room supper	1.90
9/14	Breakfast	.45
	Waterloo, dinner	.65
	Prairie du Rocher - gas	1.77
	Supper, Carbondale	.72
9/15	Hotel breakfast	3.35
	Shannon - repairs, gas oil	1.89
	dinner	.67
	Bridge toll - Cape Girardeau	1.00
	Supper, Jackson, Mo.	.56
	Room, Jackson	1.00
9/16	Jackson breakfast	.50
	Marble Hill	2.22
	Lutesville - tire fixed	.50
	Dutton, lunch	.45
9/17	Emmenc - River View Hotel	2.50
	Room 4 meals	1.50
	greasing car gas toll	1.25
	Salon luncheon	.61
	near Lebanon, Mo. gas oil	1.40
	Camdenton, supper	.40
9/18	" Hopkins Hotel room	2.50
	" breakfast	.50
	Hamilton - county	.85
	Peru - repairs - gas	2.01
	Columbia, gas, oil	2.46

See last page

Market + E. 6th St. Alton

184.2

231.1	35
227.3	
<u>3.8</u>	

Sep, 13, 1935. Friday

Started at 37040. - 7:30 am

Home -	0
#2 + #161 -	26.87
Wt Pleasant #38	49.7
Donnellon #3	72.3
#61 + #151	{ 83.3
Keokuk -	{ 83.4
Bridge - W.	93.3
" - E.	94.6
#96 (Turn 5)	95.8
Swato Wash.	99.6
Wasson -	103.3
Return " -	105.5
" to #96 -	109.1
Quincy, Turn 5	139.4
Kinderhook #36	161.9
#54 + #36 -	180.4
Pittsfield (Turn 5)	184.4
Detroit (Turn 5)	191.4
Milton -	196.5 1/2
End payment	197.5 1/2
Rear (Detroit)	206
on #100 #38 begin	217.5 1/2
Kampsville	227.3
Hardin	
returned Al.	

at 230.6 - low cut
at 231.8 - Turn bank
Hardin (W. end) 236.3
Cap and bridge (turn 5) 236.7 1/2
Fredon, 245.7
Jeromeville, 255.2
Capston - 225.2

60.0 - Shannon and St.

The day is pleasant, - sky with thin clouds partly covering it.

At about 6 or 8 the pasture & fields are covered with Bidens (trichosperma) in fine flower. Same all along - below Donnellon.

Evidently the large patches are on corn land lying idle (paid for!) & it is only buds a nuisance!

In Illinois S. A. Hamilton - boy patches of Bidens

Turned to Warsaw but found no good cuts. Seemed to be only a thin veneer of loess, - 4-5 ft. & I saw no fossils. Returned to #96 & drove S.

229.6
227.3

2.3

230.6
227.3

3.3

231.1
227.3

3.8

valley of the Mississippi at & below Keokuk is quite narrow, - here little loess. Drove to Hardin, Ill. & then W.

At 229.6 - a cut at top of Miss. bluff - a loose yellow loess. Shells only on surface, - recent? (see sample.)

At 230.6 - a low cut (6 ft) in gray loess with iron belt (see sample) & 2 shells (loess?) facing E. On low ridge in valley - W. of top,

At gentle slope facing W. on N. side road at 231.1 A yellowish (grayish) loess, with iron tubules & P.C. mules, etc. No shells. Cut long, 10-12 ft deep. A little pebbles, drift shows below

a little farther down.

At 231.5 a similar yellow
loam has fossils. Sea fossils
& base of clay

This is ~~main~~ foot of
low bluffs at edge of
valley.

Turned back at 231.8

We drove back to Hardin,
and then to Jerseyville, where
we spent the night at a
Tourists Place.

The high ridge (core of rock)
extends between the two rivers
away south, separating the
broad valleys of the Illinois
& Mississippi Rivers

W. end of Cliff str. - Alton
Market + 2. 6th str. "

2nd of ~~main~~ ^{main} ~~main~~ ^{main} ~~main~~ ^{main}
Left on 9th to Alton + 1 bluffs

Sep. 14, 1935 - Sat.

Started from Jerseyville, interurban
of #38 + #67, at 6:27 AM.

Jerseyville, #38 + #67	258.6	Granite City	339.0
Turn #109	267.2	E. St. Louis ^{at bridge} #3	347.2
Brafton	275.2	Cahokia	
Park (turn back)	281.4	Bluffs ^{at} #3	355.8
Brafton (return)	288.5	2 nd row, and a flat,	
Turn to Elsie ^{cut, 6}	294.	Cut into bluff	358.4
Elsie	297.4	(not main bluffs)	
Back to #109	301.2	Chamber	360.4
" " #67	304.3	main bluff	361.1
Turn to Alton ^{turn}	310.	Waterloo	368.0
Alton	310.8	Lean "	369
Back to #67	311.6	Rest Bend	382.8
Alton	317.1	Runa #155	388.2 1/2
" down town	318.1	Chavie to Raker	395
Return " " "	319.8	Turned at	395.4
Yellow Pass cut	322.9	Return to #3	402.4 1/2
Wood River	325.8	Swansville	406.8 1/2
Hartford ^{at}	"	Ellis Grove	412.9 1/2
Mitchell	333.5 1/2	Chester	422.1
Marion	336.3	skip 5 th to #3	425.

A beautiful morning, - clear and pleasant.

We started S. on #67 & in a turn towards Grafton.

The last part of the drive to Grafton is down a valley or cañon, wooded & with ledges.

We drove up the Illinois to the park, but saw no trees.

Did not yet reach the ridge between the rivers.

There are cliffs & no bars a few muddy places at top.

We drove down (at lower end of Grafton) to where the

Illinois & Miss. come together. They blend quietly.

The points between the sandy & warty covers with shrubs & low trees. The timbered flat between the streams seems to extend up for several miles.

Drove back to #67, and to Alton

Elsah is in a cañon & the cliffs at river are high.

Drove back north to #109

We turned E. to Clifton Terrace, - a rather pretty drive down a wooded cañon to the Mississippi. No prospect for fossils here and we drove back to #67.

Alton, Ill.

At Market & E. 6th str
there is a fine exposure
18 or 20 ft high, vertical

face. It is made up of

"pink" loess from top to

bottom & through it are

scattered shells. Some

some $\frac{2}{3}$ of the way up.

Mostly large Pol. multis,

in one place crowded

in a layer 2 or 3 ft wide.

Shells mostly broken

1 Pol. appur

Took sample & box

of clay.

We also drove out to

Cliff street but found our

facies exposure, but found it
covered with stumps & we found
nothing.

Drove S. to E. St. Louis

At 322.9, 3.1 mi. S. of Alton,
there is a cut of yellow loess
on E. side of #67 just a little
above river flat, on a "footing"
of the bluffs. Some nodules
and a few fossils. Took
sample of clay

Other cuts appear, esp. on paved
road to E. at 323.3, but I
saw no fossils.

Rest of the way to E. St. Louis
#67 runs on the flats
wide bottom land all along.

We drove S. on #3 and
 about 1 mi. beyond Columbia
 we cut into bluff and on
 upland to Waterloo where
 we stopped for dinner. Then
 drove on to Runa on #3, &
 turned W. to Prairie by Rock.
 Dropped down a cañon to
 river bottom, Bluff about 1/2
 mile. A deposit near
 here is quite sandy.

At Chester we drove toward
 ferry. Near bottom of hill
 a big cut (on one side) shows
 bouldery drift below, heavy
 reddish clay above & yellow
 (or pinkish?) loess on top. No fossils
 see sample

Look back 5 pages 45
 to p. 39,

Ferry	423.6	
Chester #150	425.3	Carbondale 470.9
Rockwood	433.3	Marion 487.3
Cora-road	435.3	Harrisburg 509.6
Glenn	440.4	
Crain	444.7	447.6
#144 -	447.6	444.7
on #150.	451.4 1/2	2.9 mi.
Summit bank		1.1 1/2
Back to #144.	455.0	456.1 1/2
Curtain bluffs.	456.1 1/2	455
Murphy bank	462.6	1.1 1/2

(rather)
 Big bars in river below, but
 valley not very wide.
 Bars below not noticeable.
 Much forest hit on road at
 about 432 +
 we follow base of bluff to head
 beyond Crain.
 at 451.4 1/2 we turned
 back - just about

a high isolated hill, looks
like a high wooded island.

The bottomland here
has a lot of oak -
mostly *Q. palustris*.

Stopped at cut on #144
S. E. of Crain (at 456.1 $\frac{1}{2}$)
and I took a box of clay
with fossils. Many include
some shells. A yellow
loam. I took clay
from black which
slipped from upper $\frac{1}{2}$.
This is down near base of
long slope + out. in road.
Rock (chert) appears
high above the
fossiliferous loam

on this slope.

The hill at top looks like
that of general upland.

There are numerous cuts towards
Murphyburg, but top layer
seems to be the sharp-ridged
(vertically) tough upper clay.

Rock shows in some.

We followed #13 to Murphyburg,
then to Carbondale, where we had
supper, and on through Marion
to Harrisburg, where we
put up at the Hornung Hotel.

A warm day!

Sep 15, 1935 Sunday

Left hotel at 7:15 AM

Entered 1st spur of Ozark
(cut just a little N of #13) at 515.8

A lower spur does not quite reach the road further east.

A low cut (3-4 ft) in road at 517.1 shows tabular heavy (jointed) lay. It looks loam-like, but is evidently not loam.

You can see the Ozark ridge running E. parallel with the road, for a long distance.

The spur we crossed is just a little northward extension. Small spurs, ^(counties) eastward, cross by roads.

Harrisburg	509.7	Vienna	618.5
Ozark spur	515.8	#37	623.2
	516.1		
2 nd spur	516.6	Anna	638.7
#1	524.1	Jonesburg	640.1
Shawmuton	533.0	#150	647.8 1/2
" hill	536.	Ware	
Jurmes bank	536.5	Jurmes	
Shawmuton	539.7	Wolf Lake	652.3
#1	548.7	Aldridge	656.6
#142	552.9	Jurmes bank	
#45 Harrisburg	562.4 1/2	to Road 2, -	657.6
#34	563.0	Bluff E. -	659.0
Rudement	571.5	Jurmes bank	659.1
along 574 - Edge of north		Back to #150 -	660.5
Herod	576.6	Wolf Lake	663.6
Top of low ridge	577.6	Ware #146	668.1 1/2
(High pt.)		#150	679.7
Road fork	586.	Bridge	{ E. 682.9 + W. 683.67
Hole on road	595.2 1/2	#25 turn	694.0
at 602.3 - Ozark on		to Jackson -	
Main Ozark	604.2		
Top of spur -	604.8		
Granitsburg	609.9		

At 521.5 there is a long
low cut, just east of bridge on
N. Fork Saline River which shows
about a foot of yellow loess^(?)
(weathering ^{well} grayish), & about 6 ft
of red jointed clay. We found
took sample of loess^(?).

Other cross E. appear similar

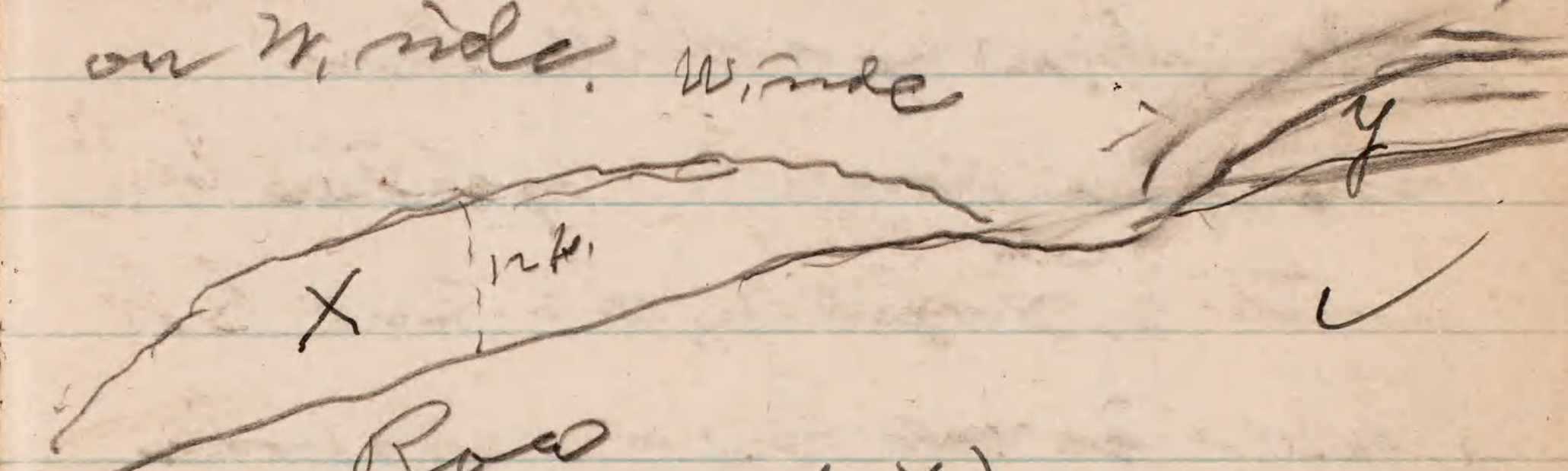
The Ozark spine S. of road
evidently runs E. quite to the
Ohio.

A long spine of the Ozarks
ends abruptly not far (1 mi?)

S. of road

We had car put in over
& drove N. to Shawnee town
hill. Here there is a fine
exposure of loess on wall

up to top, but the base is
in the east. Washed mostly
on N. side. Wind



Road
Lower part of cut. (X)
This is a compact heavy yellow
loess of the older type, with grey
streaks & below almost all gray.
The fossils are mostly from the
lower $\frac{1}{2}$, but a few are
scattered above. They are very
fragile.

About 3 ft. from bottom there
is an irregular layer of very
large nodules (see sack) of shells
are plentiful here, but fragile!

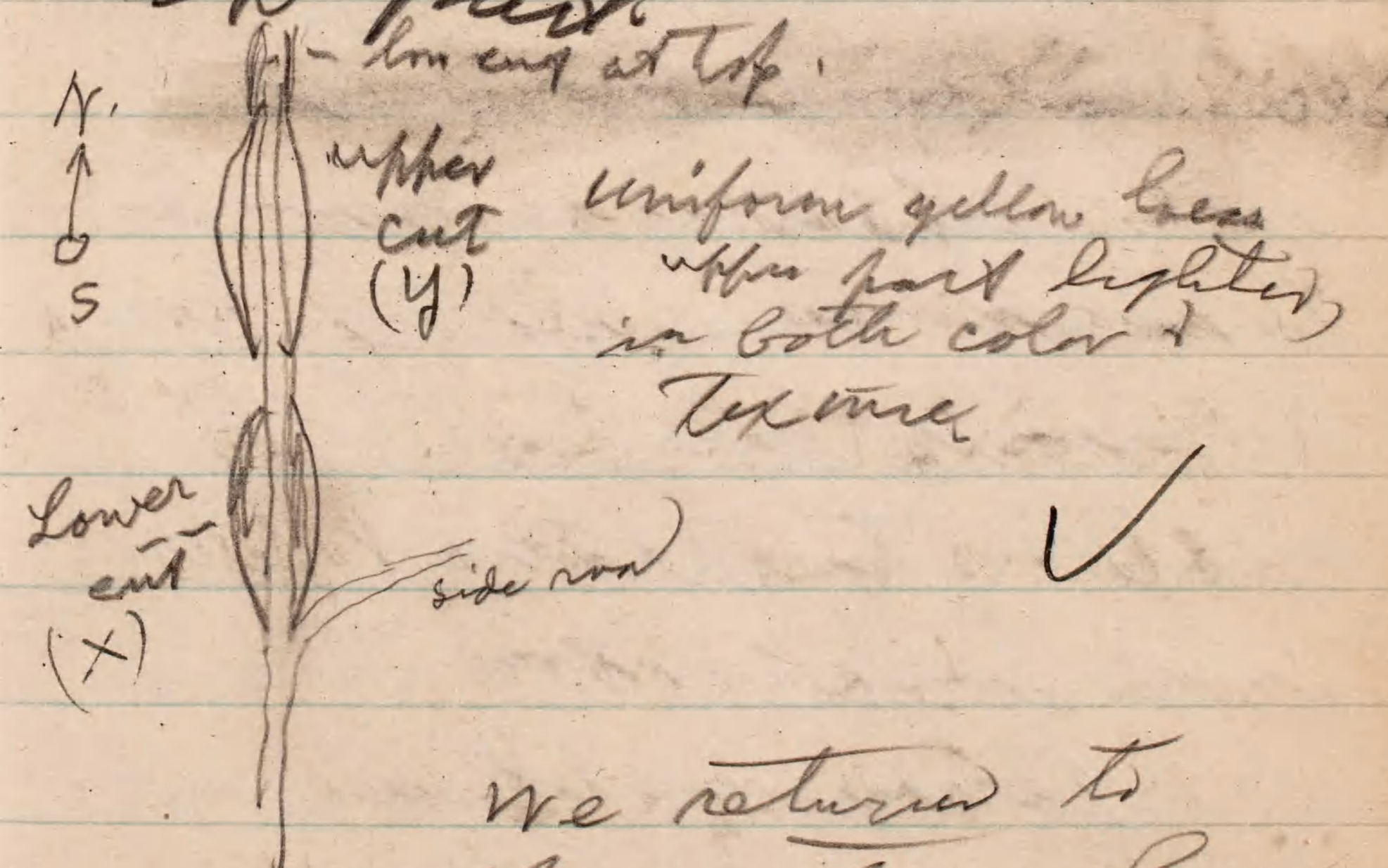
The bank stands up almost vertically.
 The upper part of cut is about 1/2 of total. It shows about 4 ft of red mud & about 8-10 ft of yellow loam of same type, but no fossils, as probably very few.

The upper cut (y) shows uniformly yellow loam (fossilif.) capped on top with a layer more or less like loam.

Lower part of upper cut about 12 ft. Collected in loam 4-5 ft. mostly by

digging. Some scattered nodules shells firmer than in lower end. Took box of clay & sample, also a few nodules.

Cut runs up to top of hill - side road near top part.



We returned to Shawmelow & had dinner. Drove west to #45

at Harrisburg and then took
34 towards Golconda. We
followed a gap in the Ozarks
most of the way after we
entered.

At Golconda we took #146
west to Anna & Jonesboro.

This is rough country, evidently
in the Ozark ridge, but
with higher ridge parallel
to road some distance N, of it.
We drove to Ware and took
150 N. to Aldridge, then
came back and a mile S
of Aldridge we took a new
rough road (C.C.F. office) &
drove E. to bluffs. There are

great cliffs here & wooded
bluffs, but I could see no
loess and we returned to # 150,
and drove back to Ware and
to #146, which we followed
to Cape Girardeau. We
crossed the big bridge and
followed #61 & #34 to
Jackson, Mo.

We took a room at
Daugherty's, had supper,
& after cleaning up, retired!

Just before reaching Grantsburg
on #146 east of Vienna, at
609.6, we saw a number
of small cypresses on the
wooded bottom land.

Sep. 16, 1935, Monday.

We drove along #34 and at #67 x #34 we washed the boxes of clay

N. of Hardin, Ill.

14 x 10 1/4 x 7 1/2 in clay = .62 cu. ft.

Upper cut, Shawmutown hill, Ill.

14 1/2 x 12 x 7 1/2 in = .76 cu. ft.

Red loess - Alton, Ill.

9 1/2 x 10 1/2 x 7 in = .41 cu. ft.

Lower cut, Shawmutown hill, Ill.

16 x 11 1/2 x 6 1/2 in = .69 cu. ft.

Yellow loess, S.E. of Crain, Ill.

13 x 11 x 6 + in = .5 cu. ft.

We drove to the Sand. Baker St. Park, but this is chiefly a fishing park, with the St. Francis River a clear

Reading - 37758

at 6:41 am

When we came in 694.

Jackson, Mo. #25	695.6	Ellington	814.3
#34 - left -	699.0	Dear Run P. rd	818.5
Marble Hill	715.6	Park entrance	819.7
Lutesville	716.4	Tower	824.6
" (bank)	718.8	Back to Loop	826.8
Glendale	721.9	Back entrance	828.4
Grassy	734.1	#10 p -	829.7
Club	743.4	Ferry, curraw Riv.	839.5
#67 -	750.5	Creek,	848.2
St. Francis Riv.	753.1	Eminence	852.6
Park way	755.0	Entrance - alley	858.1
Entrance ^{Sam Baker}	758.1	Alley Spring	858.7
Turn back	759.9	Eminence ^{con 106}	864.6
Park end (return)	761.6		
Return to #34	764.7 1/2		884.6
Clark's creek	765.3 1/2		695.6
Patterson	766.2		189.0
Piedmont	775.7		
Leiper road	782.5		
Black River	782.9 1/2		
Sarwood	793.9 1/2		
Dear Run Park Rd	794.3 1/2		
	796.9		
	807.6		
Row to Van Buren & Ruben	809.6		

stream running over a pebbly bottom

We then ran up to Ellington,
and on about 5 miles west & southward
into Deer Run State Park. Road in
park runs on narrow ridges, and
in openings I noted following,

At top of ridge in Deer Run
Park - opening

- Euphorbia corollata (L)
- Desmodium (Dum)
- Ambrosia trifida
- " scopulorum
- Eriogonum canescens
- Helianthus - blue
- Panicum capillare
- Rudbeckia hirta
- Ambrosia artemisiifolia
- Digitalis
- Solidago

We ran down into the creek
valley & then on a loop up, &
along the ridge to entrance,

This park is not outstandingly
attractive and they are just
making a single-drive road
on the loop which we followed.
A C.C. Camp is located here.

We were quite disappointed here.
We then followed the new
new gravelled highway #106
westward to Eminence. This a
fine mountain highway, through
forest most of the way, with
occasional clearings and
mountain shacks, rail-fences
& little patches of corn or smaller
patches of sorghum. Few cattle,
and not frequent razorback
hogs. We have been passing
rail fences all day, - some were
8 or 9 rails high. Loghouses

are also quite frequent.

All along #106 there were glimpses of fine mountain scenery, and occasionally from higher, more or less treacherous, stops splendid panoramic views were presented, with prominent wooded ridges & peaks appearing on both sides.

We drove west from Eminence for about 6 miles to Alley Spring State Park.

Here a great spring bubbles up near foot of great cliff.

Some of the E. C. Camp men said the large pool formed over & from the spring

is 48 ft. deep. A part of the stream from spring (at edge of pool) is deflected and ran a grist mill, still standing,

A good sized stream with rocky bottom forms the outlet. From the pool and ^{to a point} down the stream for at least a quarter of a mile the rocks at edge & farther out are covered with Goniolais.

Some were clinging to rock in a very swift current at the outlet of the pool & on the most exposed sides, while others favored the sheltered side facing downstream. Collected two bottles of snails in a little while. The water of

The pool is a pale
(washing indigo) blue.

We drove back to
Eminence just about dark
and put up at the
Hotel.

The mountain region has
had little rain and plants
show it. Some of the trees are
beginning to change the color
of the leaves.

We noticed a number of small
tulip trees and a species of
Pinus is common, especially at
higher altitudes. Some parts
have been cut over for lumber,
and in some places a good

Jack's Fork comes from 63
alley spring

many young pines are coming
on - mostly 4 to 6 ft. high, - some
taller.

On #106 we crossed Current
River on a ferry. The stream
here is clear and is said to
provide good fishing.

I could see no snails, but I
could not make a thorough
search.

A bridge is to be built
here.

In quite a number of places
on #106, cement "dips" are
constructed where streams cross
the road (or dry channel) to
provide outlet for floods.
It is simply a depressed cement
pavement. Road dip

Sept. 17, 1935, Tuesday

Very misty early, but cleared up by 7:45 when we started, after having car greased.

We drove to Round Spring Park along a very fine (views) mountain highway.

The spring is smaller than Big or Alley Springs & the shallow pond in summer with water-cress in fl.

In the rapid stream & along edges, on rocks etc snails are plentiful.

(See par + Tabled bottles)

Saw cornfields with dead ^{grazed} trees & rail fences!

5- ⁶⁴ 70 1645	Esauville Run 65
7:45 AM	con # 5
	# 64 - 10313
Eminence, #106- ^{1/2} #19,	Bennett Spring 1043.6
Current Run 878.	Return
Spring Valley Run	Entrance. 1043.9 ^{1/2}
Entrance 878.3	Back to #5 1054.2 ^{1/2}
"Back 878.4	Decaturville 1070.1
Current Run 878.6	Camden 1078.8
Sinking Creek 879.9	
Co Run K 903.6	
# E - 908.8	
#119 - 914.3	
Entrance Montauk 919.2	
Park	
Entrance - return 921.5-	
# E, - 926.3	
#32 930.4	
to turn 939.7	
Salon, 942.2	
#72 943.5 ^{1/2}	
#63 968.2 ^{1/2}	
#66 (Rolla) 968.5 ^{1/2}	
Summit #66	
Arlington road 980.9	
Little Piney River 981.1	
Little Piney Run 990.3	
Devil's Elbow (man)	
Waycross 999.	
Wood group 1015	
* Lebanon 1030.4	
1030.8	

At about 8.95 we passed
into more gently rolling cultivated
country.

We drove on #K ()
to Montank St. Park. Here
Current River runs. There is
quite a valley with rough slopes.

We drove toward Lebanon
and stopped at the Gasconade
River on #66 & collected shells.
About 5 species of *Uvula* &
Gonolobus, *Pleurota* & *Campylaea*,
Ara Phantasia.

The stream is somewhat
rocky and rather rapid.

The *Gonolobus* were mostly on
rocks & the *Pleurota* on mud.

We drove to Bennett Spring Park.
Here a big spring bubbles
right up in a valley &
runs out quite a stream.
The pebbles at edge of big
pool & the stream are dotted
with a little *Gonolobus*. In
the more sluggish pool above
I found *Physa* & *Helisoma*.
Watercress grows in everywhere
a fishing park.
We drove back to #5, and
followed #5 to Caudefonton
where we put up at the
Hopkins Hotel.

This is evidently a resort place,
I packed shells & after cleaning
up, retired.

This part of the Ozark region from Montauk & west is not so rugged & higher hills are visible only far to S., S.E. & SW. Even Montauk Park is just at edge of the hills. - at Montauk Park we have the beginning of Current River, - here a mere good mountain trout stream

They told us there were about a dozen springs, but we visited only one. None are (evidently) large, but all together make a nice mill race like stream, with

occasional larger pools in which fish could be seen. We drove up to Rolla and then took #66 to Lebanon rather than ride the poor gravelled roads across from Montauk to Lebanon.

The vicinity of Bennett Spring is also not the most rugged (though somewhat rough) and this is chiefly a fishing & picnic ground.

This days drive was mostly a good continuation of yesterday's fine experience.

12779

Sep. 18, 1935 - Wed.

another clear morning.

We saw the Lake of the Ozarks & the dam at Bagnell, which, of course, is rather small when compared with the Wilson dam.

The lake, being a channel of the Osage River, is very irregular, long & narrow, with numerous bays. As the whole region seems to be well wooded, it makes an attractive picture. The highway runs on the dam.

We had our fuel break 2 mi. S. of Brazito, but we ran to a country station & bought a new belt and then to Brazito, where we had a new fan

started at 6:55 a.m. Feb 84.3.71

6th = 89.5
= 90.5
on 5 mi, we were .05 less

Camdenton 1079
Linn 1082
Danzel 1088.1
Lake } 5- 1091.0 1/2
Ln 1091.3
Osage Park 1092.8
Sam - S. 1098.6
- N 1099.1
#52 - 1107.9
Aurora Gap 1109.
Eldon - 1111.1
Mt. Pleasant 1114.5 1/2
Gtterville - 1117.5
#17 1121.8
Hickory Hill - 1124.1
Brazito - 112 -
Jefferson City #50 (15 mi) 1141.6 1/2
" #31 1142.
" " 1142.1
" " 1142.1
Muep S 1142.8 1/2
N 1143.2
Jura 2. m.D. 1143.4
Wainwright 1149.6
Lebbeth - 1155.9
Mokane - 1162.9 1/2
Hans Grove 1170.2
Fulton #54 1176.7
Kingdom City #54 1184.0

8 - 92.4 1/2
9 - 93.4 1/2
10 mi - 94.4 1/2
Columbia #63 1203.8
" - to city 1204.6 1/2
" Broadway K 1206.5 1/2
McDonne 1217.9
Back to fork 1221.6 1/2
Providence - 1224.6
Back to K 1227.6 1/2
" to Broadway K 1235.2
Broadway K 1235.6 1/2
Midway 1246.1
#3 1253
- N 1254.2
Yellow Gap 1255.7
" " (road) 1255.8
#5 1262.5
Bromley 1264.3
Bromley 1264.1
Jura N. 1291.4
Marshall 1303.2

and water-tube put in.

We then drove to Jefferson City, where we crossed the river (here without cars) and drove the river road to Mokane, - the last 6 miles over a terrible mud-road.

At Mokane, along road N., a cut shows drift & upper part the usual jointed clay.

We drove to Fulton on a much better road, & then on to Columbia.

We drove on Co. Road K. to McPhe, but found nothing but non-fossiliferous loess-like stuff.

We then turned back to the fork and drove down to Providence, the latter part of it is rutty & rocky, - about the worst road we have

ever travelled. Marie handled the car remarkably well.

Providence is deserted. The store is closed, the RR. Sta. evidently doesn't operate.

The banks are also all overgrown.

We returned, - a hard uphill road, - greatly disappointed.

We drove to Columbia, and then west on #40 (we first ran off on a parallel road a $\frac{1}{2}$ mile S.) and drove towards Bernville.

at 1255.7, on #40 E of
 Brownville, Mo. There is
 a big cut just at outlet
 of bluffs. Yellow loess
 about 12 ft. (see sample)
 No fossils.

At 1255.8 at foot of hill,
 yellow loess (about 10
 ft. exposed). Found a few
 scattered fossils of some nodules.

The fossiliferous section faces the
 valley, the other is further in.
 This is just about at
 entrance to the bluffs.

We then drove across a
 broad bottomland to
 Brownville, on the S. side of

The Missouri

Sep. 19, 1935 Thurs.

A fine bright morning.

We drove west on #65.

at 1321.6 (east of Waverly) there is a long low cut (probably 400 ft long). This shows (not quite at bed joint but nearly) 3 ft of gray loess below 5 feet yellow loess above. No fossils seen ^{scattered} samples. The gray loess has big root-tubules which end abruptly above. Otherwise it is a uniform light grayish. The yellow loess is slightly streaked with gray.

The line between the two is not sharp, but the transition is abrupt.

SW
#169

1391.4 ^{210 turns S.}
Starts at 6:49
(Platte Riv 1481.1)

- Lve. Marshall ^{#65.} 1304.0
- Malta Bend 1315.2
- Grand Pass road - 1319.6
- Waverly #24 1323.6
- S. end bridge 1324.
- markets
- Waverly #24: 1324.4
- Dover - 1334.1
- Lexington #13 1344.8
- Bridge - S. 1345.2
- ~N 1345.8 1/2
- Henrietta - 1349.6
- Bluffs - 1350.8
- Richmond #10 1353
- cornhouse 1354
- Eckhorn 1362
- Excelsior Spring 1369.
- Linden #10 1388.1
- #169 1394.5
- #71 1396.5
- #35 1409.5 1/2
- Platte Riv! 1416.5
- #92 1417.0+
- End bluff 1421 -
(city hall)
- Bridge - E. 1423.7
- W - 1424 -
- Bethany

speedometer list

74.5+	79.4 1/2
75.5	80.
76.5	81.
77.5	82.
78.4 1/2	83.

#73 1425.9
Lavenworth

Penitentiary 1426.6

Alchism 1449.6

Bridge - W. 1450.3
- E. 1450.5 1/2

Bluffs #45 1454.2

Rushville - 1456.5

Halls 1461.1

R.R. sta. 1462.8

cloverts Ref. 1463.

Close to bluff at 1464.1

Cut into 1469.3
st. 107.

Stupper off 1470
Row 8.

H. Jor. about 1472

#71 #169 - 1474.8

Avenue City

Rochester -
Union Star.

King City -

Stanbury -
#49 #169 -
albany
New Hamilton

The country here is gently rolling and was evidently prairie. There seem to be no high bluffs on this side of the Missouri.

We drove N. from Waverly on #65. The road makes a long cut (about 600 ft) through the low bluff & exposes both layers - similar to above. I took samples of both - no skulls, a few nodules in gray layers.

The west side is nearly uniform in curvature, but overgrown, while the east side consists of two parts and shows much exposed surface.

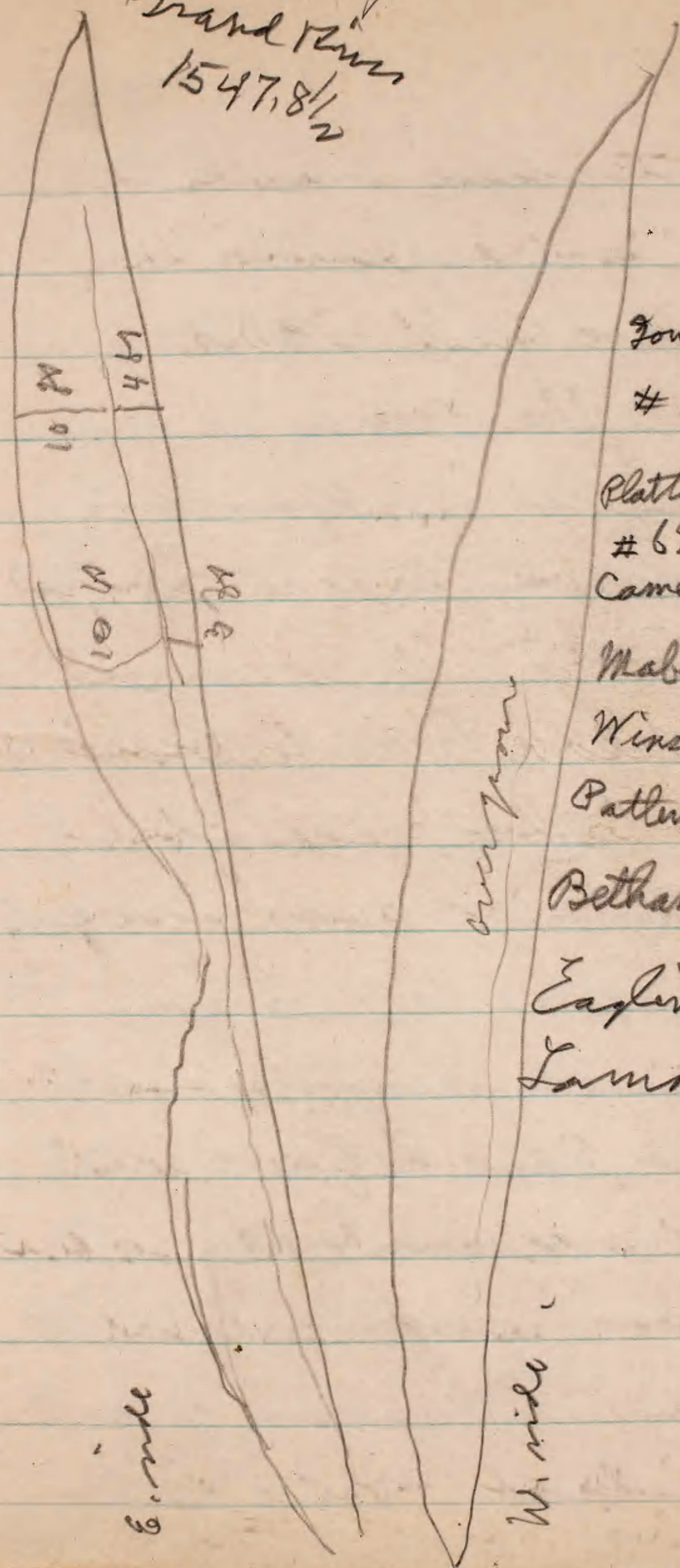
The bluffs are rather low - as far as I can see up & down

1525

147 1/2

Grand River

1547.8 1/2



Tower 1489.2

#33 1493.7

Plattsburg 1499.8

#69. 1511.9 1/2

Cameron 1525.1

Mabel 15

Winston 1535.7

Patterson 1549.3

Bethany 1567.1

Eagleville 15

Lamson, Pa 15

overgrown

E. side

W. side

the river and all more or less wooded. No high prominent bluffs, — probably not much over 80 ft high.

The river has bars on the side, other country is flat far north.

I went down to flat below the big bridge. The RR station is 2 blocks above, & near it (just before it $\frac{1}{2}$ block) is a section of yellowish loess in which I found a few shells.

The cut is short, about 10 ft deep & the loess is mostly yellowish (one small sample ^{+ nodules}) but in part below is hard & white, with

a few iron tubules, but no fossils.

^{at Waverly}
I walked up road 3, from R.R. station, up to town (this is 2 blocks W. of #65). There is a deep cut, 12-18+ ft. all the way up the hill. Shows loess (similar to that on #65) but no fossils.

I estimated the bluff here to be about 80 ft. above the river flat on which the station stands.

We drove to Lexington & all along there are cuts showing the two loesses. In some cases the line is sharp

No shells.
all evidently prairie, some cuts 12 ft

The bluffs on the side
along #13 are very low
& sloping. In a low cut
at 1351.1 $\frac{1}{2}$ I took sample
of loess-like stuff.

Near foot of hill on #69 at
top there is yellow loess(?) &
below it gray loess, but
no fossils. (As before)

at 1396.3

The bluffs go on flat here
#71 runs N. right under
the bluffs to 1398.9 $\frac{1}{2}$
& then #71 cuts into
Cliff Trap valley.

It then runs up over
the uplands.

at 1427 on #73 E,
a cut (10 or 12 ft) rather
low down, shows yellow
loess-like stuff. See sample.

No fossils

In higher places only 5 or 6 ft of
loess? & pebbly & bouldery drift
below.

We crossed at Alchim on
 toll bridge & drove N on
 #59 towards St. Joseph,
 at 1459 the bluffs
 bow east a half mile &
 run so to 1464. I & soon
 again turn away about $\frac{1}{4}$
 a mile & gradually more, until
 at 1465 they are about $\frac{1}{2}$
 mile away.

At 1467 a tributary valley
 comes in,
 as St. Joseph (Key Hill)
 the bluff again comes
 close.

Miami (nvs) & Clayton str
 running E. & W., - a big out of
 pale yellow loess - saw only
 one fossil in upper part
 at out perhaps 20 ft
 lower than base of big
 exp. above, 1 block W. of
 Miami Clayton on ~~Miami~~ (S. of
 Miami = Russell str.) there
 are two low cuts (on Russell
 str. S. of ~~Miami~~ - Clayton
 On E. side only about 4 ft. ✓
 exposed - yellow loess took
 cut. On W. side about
 6 ft., gray loess with tubules
 & fossils. Took box of each,
 "Russell" is 1 block E. of #59

We drove out on # 71, & two good cuts, one at 1474.1 & the other near St. Joe, show plenty of loess, but no fossils. This is well out & was probably prairie

A third good cut at 1474.5 (as least 15 ft deep) is the same. All show heavy gray loess with iron tubules below & heavy yellow (stratified) loess above. No sign of shells in any of these - all on the upland well out of the St. Joseph crescent basin.

At 1475.5 another similar cut, at 1475.9 $\frac{1}{2}$ another one. All upland

Other cuts W. are similar. This is rolling upland country & was probably all prairie

Sep. 20, 1935, Fri

Left Bethany, Mo. at

The U.S. soil erosion work centers around Bethany &

we saw many signs announcing cooperation with the government in this work.

The region between Bethany and the state line (i.e. that down to St. Joseph) is rather rough Kansan topography.

at 1594.2 The "hills"

are spread again

The country to and beyond Lamoni is the same

roughly-rolling Kansan

fine country for erosion!

Left 38631

at 7:55 AM.

Bethany	1567.6 1/2	Left Des Moines	1717.1
Big Creek (4 th cross)	1589.5	Capitol -	1718.2
Gaylesville	1581.9	#6,	1722.2
State line	1590.6	Nitchellville	1733.2
Lamoni -	1594.9	Newton	1750.5
Saint City	1601.7 1/2	Grinnell Park	1769.2
Grand River	1601.9	Brooklyn	1784.1
Weldon River	1604.7 1/2	Carmarth ^{MR}	1789.5 1/2
#3	1609.5	Victor	1792.3
Leon	1610.2	Ladora -	1798.8
van Wert (val)	1619.8	Marion #212	1804.9
Weldon (road)	1621.4	Homestead #29	1815.5 1/2
Osceola #24	1630.5	Jiffin	1827.8 1/2
after Fe Friend		Home	1836.6 1/2
Return to Osceola #69	1671.3		
		=	38900
#65	1694.5		
Indianapolis	1700.		
Middle Riv	1705		
Des Moines			
Rock R.	1715.8		
Brown	1717.0		

On this rolling country there was evidently mostly upland drier prairie flora, with other types in the draws. The country is less rolling north of Leon.

At 1623.7 - a low cut sloping up towards the route is about 7 ft. deep. Top one or two feet are the crumbly lobular stuff (see sample) & below that a reddish pebbly modified drift (partly modified) ^{begin} rougher again at about 1625 -

Drove to ^{the} small road turning S. beyond after to a bit of prairie along RR (up the draw).

Elymus canadensis fr.
Sorghastrum nutans fl.
Helianthus scaberrimus fl.
Corylus americana

Lepachys pumila fr.
Silphium laciniatum fr.
Aster multiflorus fl.
Lupinus sativus fr.

Andropogon furcatus fr. ^{few clumps}

Salix humilis fl.
Rosa pratincola fr.

Prunella pallida fr.
Silphium integrifolium fr.

Helianthus grosseserratus fl.
Corylus americana fr.

Vernonia fr.

Aster laevis - fr. fl.

Composita setosa fr.

Silene stellata fr. fl.

Symphoricarpos alba fr.

²¹ *Agropyron Smithii* fr.
Panicum

Physalis - fr.
²⁴ *Ambrosia artemisiifolia*
Asclepias tuberosa fl.
Rhus glabra fl.

"*Aristida*" fr.
²⁸ *Senecio* muricatus

Asclepias verticillata fl.
Asclepias verticillata fl.

³⁰ *Asclepias verticillata* fl.
Muhlenbergia verticillata fr.

³² *Achillea millefolium* fl.
Aquilegia scopulorum fl.

Cassia clavata fr.
Gambusia fr.

Cinacum discolor fr. fl.
Helianthus annuus fr.

weco
Further on:
Solidago nemoralis fr.

shells from Shawmuton hill, Ill. 93

- Polygyra multiloba*
 " *profunda*
 " *pennsylvanica*
 " *monstrata*
Anguifera attenuata
Discus —
Helicodiscus parvulus
Haplotrema concavum
Retinella electrica
 10 *Euconulus fulvus*
Punctum pygmaea
Hawaria minuscula
Strobilops
Columella ebentula
Vestigo
Gastrocopta arvensis
 " *contracta*
Succinea ovalis
 " *ovata*
 20 *Helicina occulta*
Carychium exiguum
Vallonia

Oct. 8, 1935 - Tues.
8:20 am. 39080

Home	0	RR - (Interden)	92.3
No. Liberty		RR "	95.4
Curtis Bridge	12.5	Waverly - river	96.4
Shucyull	15.7 1/2	" #218	96.7
#30 - C. Rapids	25.3	RR	99.1 1/2
#11 - Ave B.	26.5 1/2	Chamfield RR -	107.2
Back to #11 (29)	26.5 1/2	" town -	107.5 1/2
Center Point - Super		Nashua -	115.0
" " " " RR	26.5 1/2	Charles City #18 -	125.5 1/2
Walker Run - town	22.4 1/2	" " main str.	125.9
Co. line (North)	34.9 +	#18 trans left	130.7
Jurn N.	37.8	Floyd -	131.3
Co. line (Buchanan)	38.8	Cedar Riv. -	131.6
#283	40.8	Floyd Bl. RR	132.2 +
Rowley Rn	43.8	#9	142.0
Wapsie	49.8	#9 + #218	145.9
Independence #20	50.5 -	Orange #227	152.2
Bryant's Bay -	58.5	St. Angin road.	152.8
RR crossing	59.0	Sunn E.	154.1 1/2
Harleton -	61.4	Jurn N.	157.6 1/2
Park - Deler	63.5	Stony Hills Rd. -	157.6 1/2
Delwein #10	65.7		
#10 + #11 front	68.1		
RR	70.2 +		
Co. line (Bremen)	76.6		
Wapsie Rn	81.0		
Readlyn road	84.0		
#63 -	89.4		

We reached Staryville at about 2:00 PM. + I worked on my Bibliography.

Oct. 9, 1935 - Wednesday.

I worked all forenoon + part of afternoon. About 2:30 we drove to Hollandale, Minn.

They were still harvesting potatoes and celery, etc.

The crop this year was poor. It was too wet (though not an exceptionally wet season). Last year was very dry and the crop was much better.

The Hollandale large drainage

project is not a great success, even after you mark off the great losses.

2.55
 2.00

 .55
 .27

 .28

Do not forget road with Helen &
 Lemna S of Stayville
 Charles City bypass
 Washburn "

Old road ^S 1/2, 8 - E. of Orage. 99
 Road to Greene 47.2 65.00 Washington
 Oct. 10, 1935 - Thurs. Creamery

started - Magnolia R 107.7 (Shoe 119)
 12:32 ^{PM} 39344. - RR. 151.02

George	0	RR. - ^{away?}	87.7
#218 (middle)	5.4	#10 + #11	89.7
Orage	11.8	#10 end Belwin	89.8
#9 + #218 - ^{turn}	15.6 1/2	E. on #10 - Turn N	92.2 +
Orchard road - ^{#255}	19.6	Turn E	96.6 1/2
Co. line	20.6	Scott	97.2
Floyd RR	25.5	#154 Washington R	100.0
Floyd	26.4	Co. line (Clayton)	106.0
#18	26.9	Strawberry Pt #13	107.7
Charles City ^{Sta.}	27.0 1/2	#19 to Park	108.0
#18	31.8 1/2	Line #10 - Turn S	111.6 1/2
Nashua	32.1 1/2	Co. line (Delaware)	113.2 1/2
Co. line	42.8	Turn E.	117.1
Plainfield - ^{turn}	46.1	Turn E.	117.5
" - RR. Sta.	50.3	Back to #13	122.4
Clarksville Road	50.6	Old road	124.9 1/2
Turn S.	55.3	Manchester ^{#20}	129.7
RR.	57.2	Magnolia R	131.1 1/2
no. 10 + #218 -	59.7	Ryan ^{turn}	133.1
Waverly ^{#218}	60.2	Co. line	141.1
River	60.3	Turn W.	141.2
RR - Interm.	61.2	Coggan ^{new road 149.1}	144.9 -
RR - "	61.4	Central City - ^{turn}	145.8
#63 (middle)	62.4 1/2	Co. farm	148.3 -
Readya road	65.6	#161	158.3 1/2
Wapsie Run ^{turn}	68.4	Marion ^{old road}	161.4
Co. line	73.9	#161 + 1 st Co. RR.	165.4
creeds	76.9	Home	167.9 -
	81.3		173.8 #
	87.3		199.2

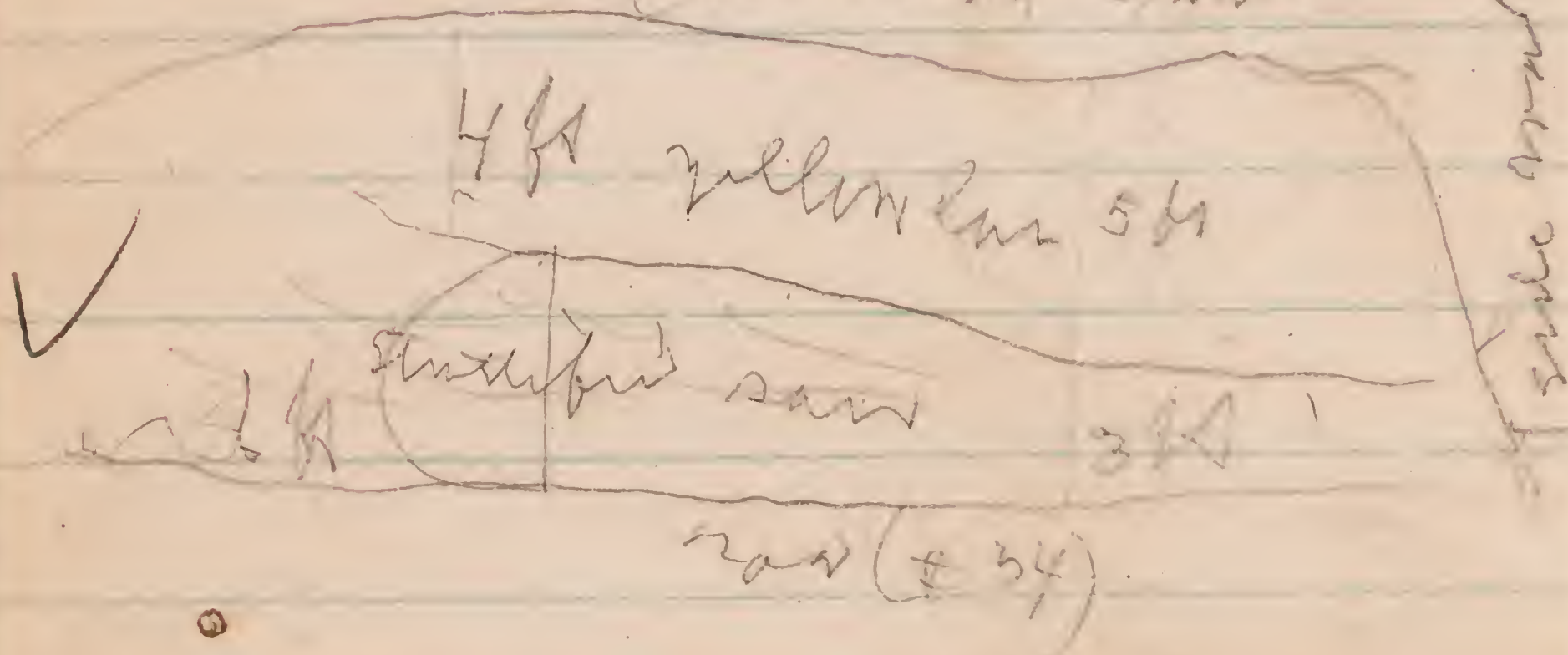
100

101

102 Iowa City oil. 6000

Expenses
 Oct. 13 - Gas. & oil, Iowa City 1.00
 Oct. 14 - Gas - gas 1.43

2m cut on N. side
 (no cut on S. side)



cut 3
 at 86.0 a cut showing sand
 only. On N. side ✓

cut 4
 at 86.5 - a cut - (on return 87.7) ✓

cut 2
 at 87.0 - a cut - on return

cut 5 - about 10 ft on N. side only.

Now some sand below & fragments
 of shells in lower - a few
 whole. Mostly overgrown

Brace
 Muscatine 162.0 103
 162.5
 Home - 201.3 1/2
 4.5 - 4.2
 Same: 39790

Oct. 14, 1935, Tues. - To Gladstone, Ia.

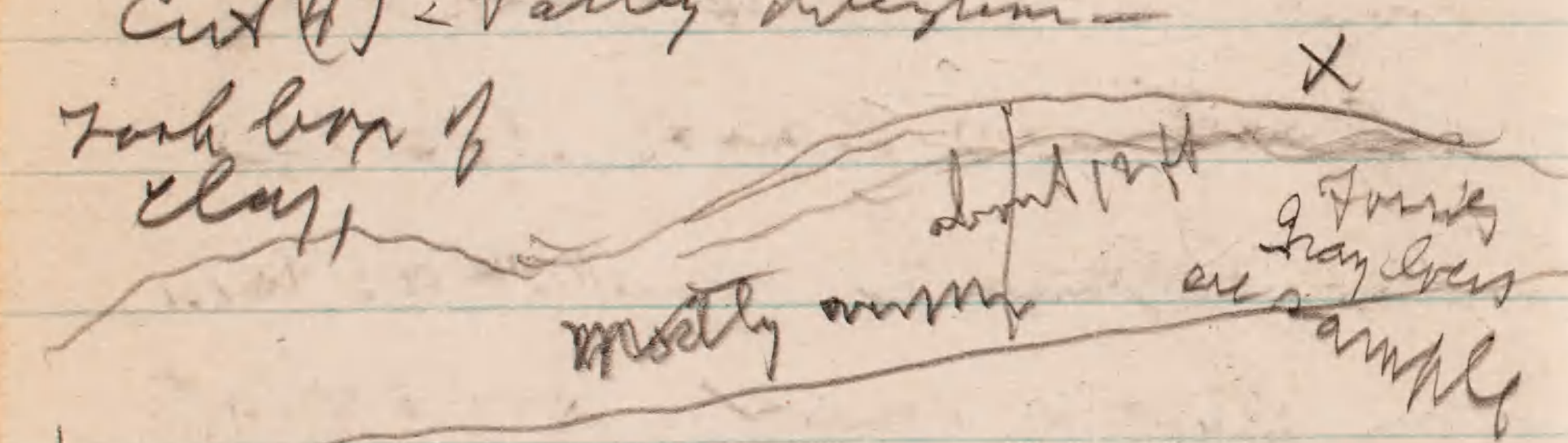
Started at 6:22 A.M. at 39584

4.5 mi. E. + 2.4 mi. N. of Olyntha, Ill.

Home	0	Turn N. on 94	100.2
# 2	26.7	102.2 - road W. - with cut to N	
Mt. Pleasant # 37	49.5	Turns back to	102.2
New London	57.8	at 102.6 a good cut	
Danville ^{RR. Sta.}	64.1	at 102.7 - a dirt cross road.	
Middletown	68.0	past cut - 104.4	
West Burlington	73.2	Henderson Cr. 105.8	
Burlington ^{N. end}	76.8	Turn E. 106.8 1/2	
Burlington ^{S. end}	77.2 1/2	Henderson Cr. 109.1	
Olyntha road ^{94A}	85.5	RR. 111.3	
Bluff		Turn N. 112.5	
2nd cut	85.9	Henderson Cr. 113.8 1/2	
Turn back	87.1	gc. 115.4 1/2	
Back to Olyntha ^{94A}	88.7	Henderson Cr. 117.8 1/2	
Gladstone		P. O. Cr. 120.7	
turn E.	89.8	at 124.6 1/2	
Turn back	90.3	Turn N. 125.4	
Back to 94A	90.8	Chowan R. 127.4	
RR. Gladstone	90.9	Raynolds 137.7	
Olyntha ^{turn E.}	95.7	# 84 141.6	
Enter bluff	97.7	Edgerton 146.0	
cut at 98.		Henderson Cr. 154.1	

First stop at 2nd cut at 85.9 m'
2nd cut in cliffs. A light
yellow loam (see sample) over dense
loam (5) (look back 2 pages)

Cut (4) - Partly overgrown -
Top layer of
clay



as top there are 2 to 2 1/2 ft
of reddish loam stuff. No fossils
Fossils appear in gray loam
throughout clear up to ^{or reddish} ~~loam~~
The gray loam has many worm
cloudings & some regular tubular

has a few rather small
nodules.

The best part of the
✓ gray exposure below X
is about 2 ft deep (the gray
part of it)

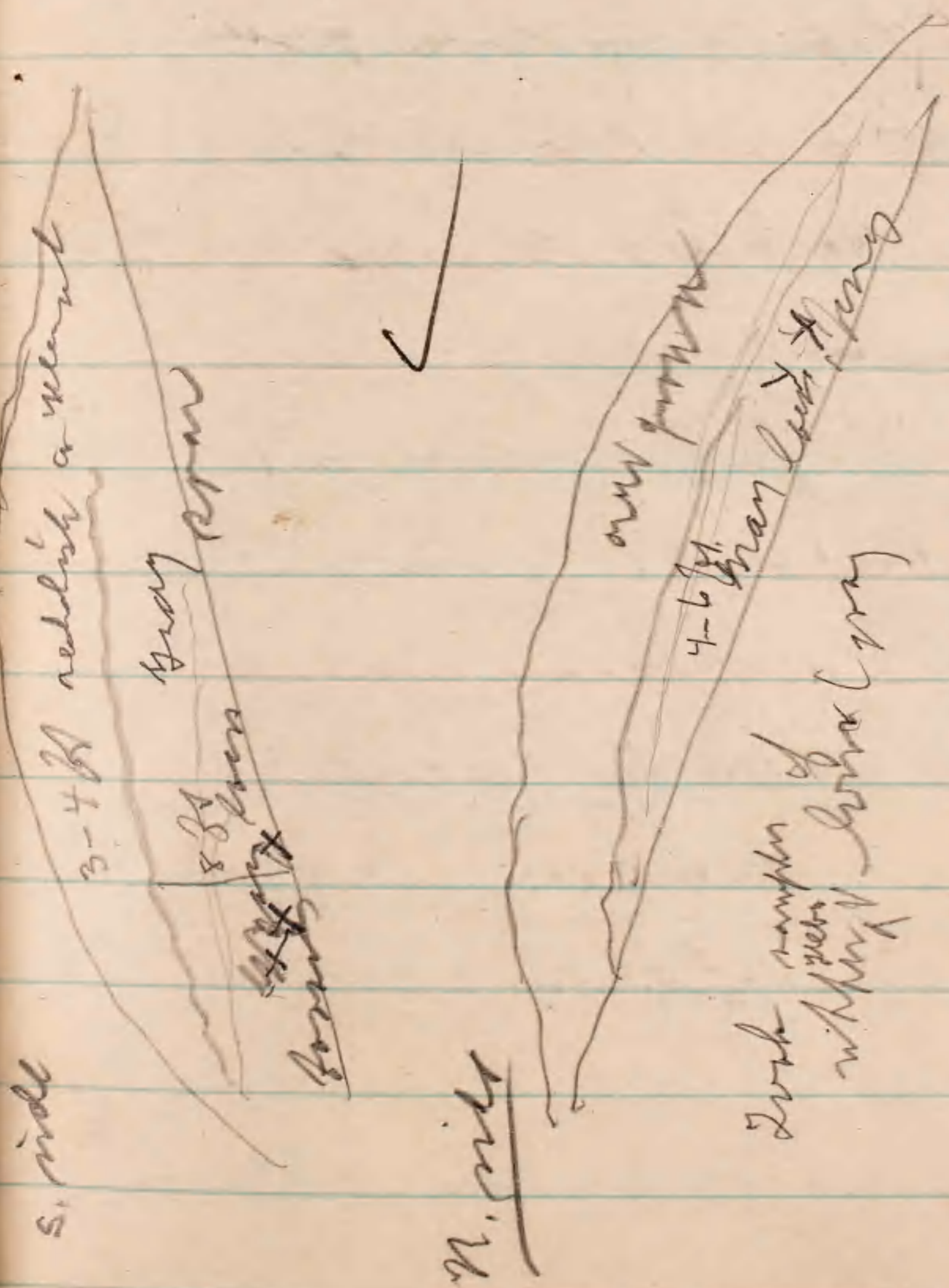
The first cut shows probably
drift 4-5 ft. & above it
about as much more

The Ogmauwa row (94 A) runs
along foot of bluffs to 89.4, then
bluffs recede E. - just before
Gladstone is reached.

Turned E. at Gladstone - to old
cut. Run from top of hill
down more than half way
& new part is turned
northward (see ahead)

At 102.2 a side road runs west. A cut begins about 100 ft W. & runs up hill (see next page). The lower part is very loose with rusty streaks & iron tubules & also scattered nodules.

Fossils are scattered all through. As about X there was a boggy place or pond, shows many small *Lymnaea*. Farther up hill I saw no *Lymnaea*, but *Pucc* & *avary*, etc. appear.



next higher cut to is similar - 6 ft + gray lens with reddish lumpy Forams (see shell)
 Next cut is also gray lens.

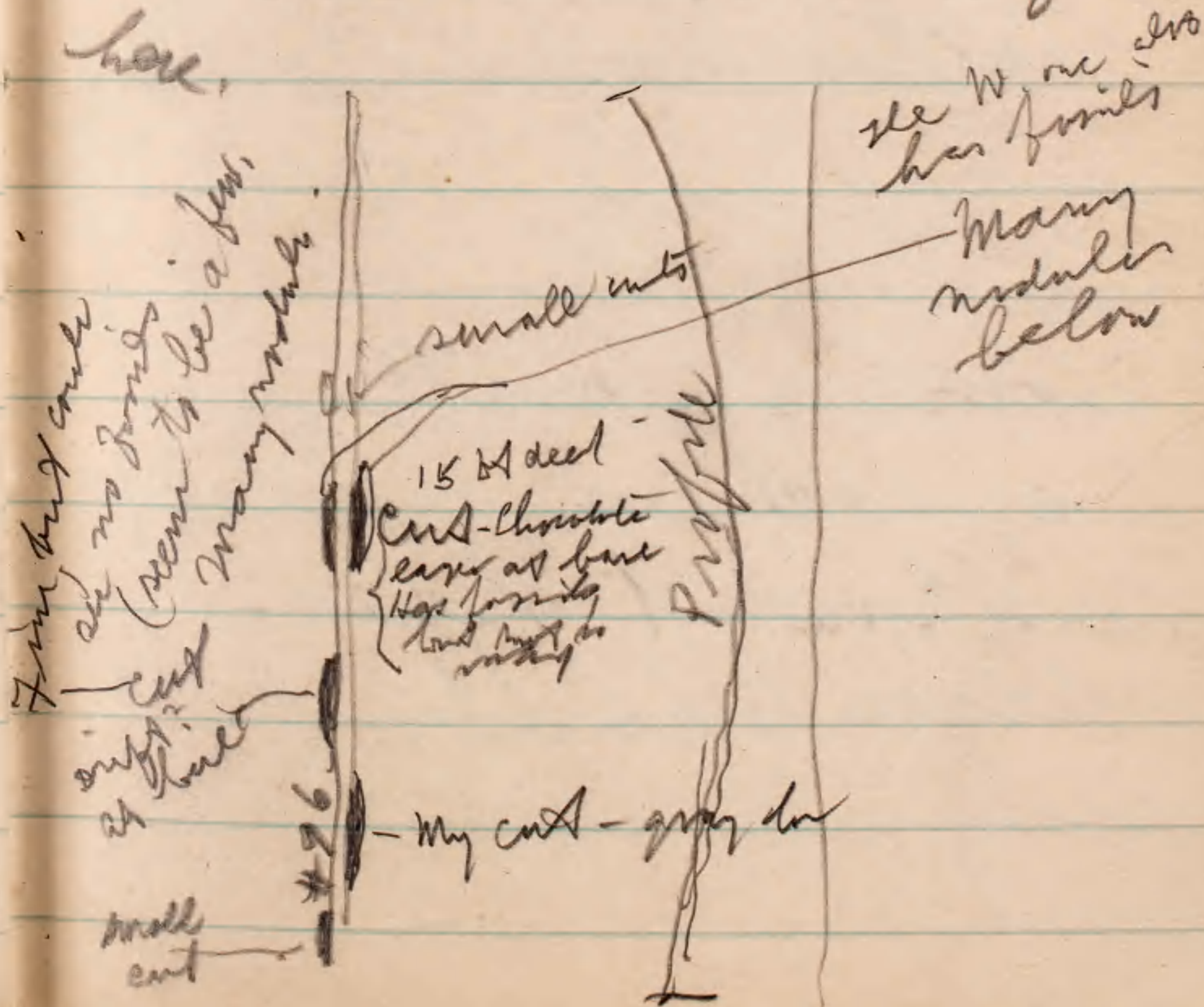
going back to 94A

Last cut (no fossils)	103.5
Next (Doubtful)	103.5 ^{1/2}
1 st cut	103.6
Road	103.7

1st cut is 1 mi from road #94A.
 2nd cut is .0 1/2 west
 3rd " " .0 1/2 "
 4th (last cut) " .0 1/2 "
 Turned back to 102.2 on 94A.

at 102.5+ a fine cut - 45 feet long + about 10 ft deep, on E side only. Gray lens, with upper yellow, as before. The gray is very fossiliferous, has nodules + clonings + tubules. Took sample + box.

There is a whole series of cuts here.

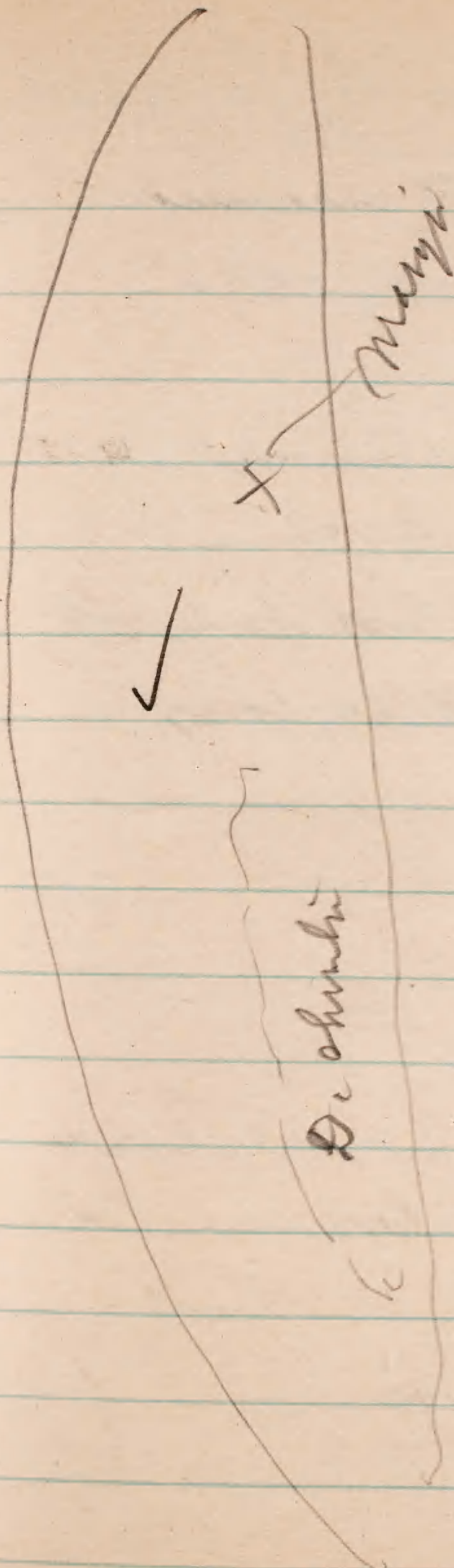


Other cuts N. are mostly overgrown.

The fine Big cut at 104.4 on #94 is over 20 ft deep (25?) & is a yellow loess with many lines on weather surfaces (some effect)

Fossils are scattered. See last box (on label) + 2 boxes of shells also sample of clay.

Big cut at 104.4



Boxes of Green clay for washing

1 - Sack - not measured.

2 - Last box $11\frac{1}{2} \times 8\frac{1}{2} \times 9\frac{1}{2}$ in

3 - Gray brown out on E. side #94

Rich. - $10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$ in

Look at last page after
note of Oct. 19, 1935,

90.0
88.1
1.9

90.0
70.3
19.7

Pass soil day 175

Roll Muscatine 20

Burlington 25

90.0
88.1
1.9

cramprenter gas + oil 1.61

Oct. 19, 1935 - Muscatine + Ill

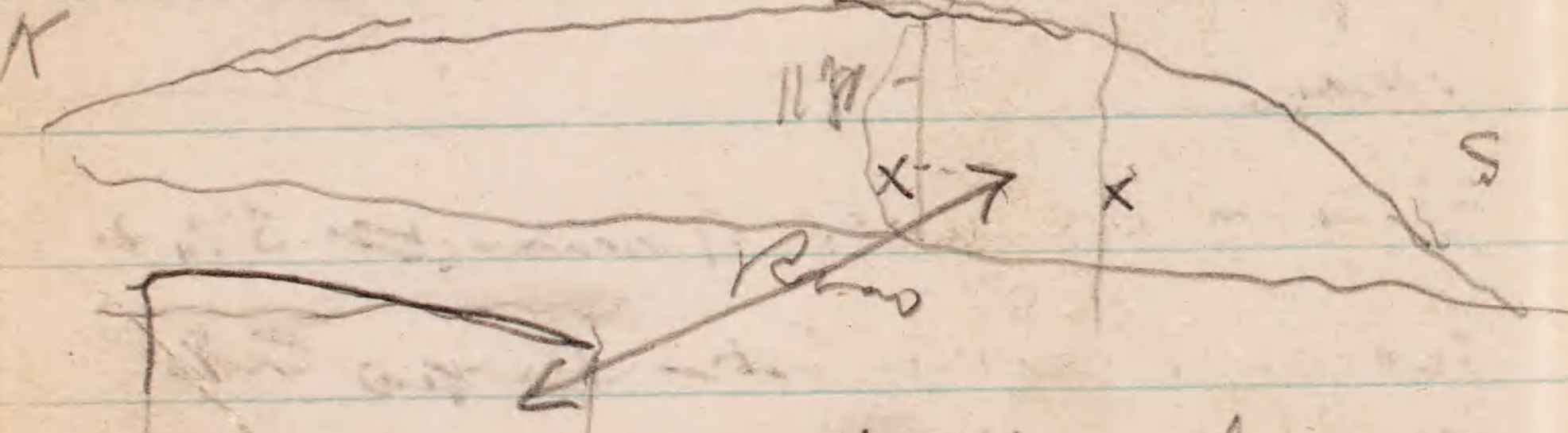
at 39885 - 6:53 AM

Home	0	Cut - Long -	88.4
West Liberty	17.1		
Atalosa road S.	21.8		
Cedar river -	25.0		
Jurn S. #38 -	28.4 1/2	x at 89.2 - cut	yellow
	28.7		
Muscatine - bridge	38.7 1/2	at 89.8 1/2 cut gray	low
Jurn S - at bluff	39.2 1/2		
	41.1	at 90.0 1/2 - 90. -	long middle cut
Copper Cr.	44.2		
Locust cut (low down)	50.4	at 90.4 1/2 last cut	
Jurn S #37	57.1		
ES 3 -	57.5	at 92.4 at 102.6	
Edwards River	58.8 1/2		
Keithsburg - road	59.9 1/2	Openable road	94.8
Bluff (cut)	60.0	Small Cr. 96.2	
cut east	60.1	#34. signed	99.8
Joy	63.5	Openable road	104.9
at 94 - Jurn S	70.3 1/2		
Henderson Cr.	76.1	Burlington	113.3
Road to Alexis Cr.	79.4		13.7 1/2
Henderson Cr.	81.2	Madison	141.2 1/2
#94 Cr - Jurn W.	82.4	#2	164.2
Henderson Cr.	85.8	Home	171.1
Cut - "Bluff"	86.9		
Jurn S	88.1		
	Gold Bluff		

40076

We drove to Muscatine, crossed the Mississippi & went down the first road to south, - along the bluff, we stopped at cut at 50.4 mi., - 6.2 mile south of Copper Creek. cut at 50.4 is about 120 ft. long.

Drops a little to S. E. side better. This is along the road & is near base of bluff. Wide bottom west. Best part for finding between X's.



pebbly bed
3-4 in

Upper part less stratified & more uniformly yellow. Lower part with fine silty thin lines to brownish with gray clonings. Parts are sandy, esp. below

(shaly)
Heavy
stratified

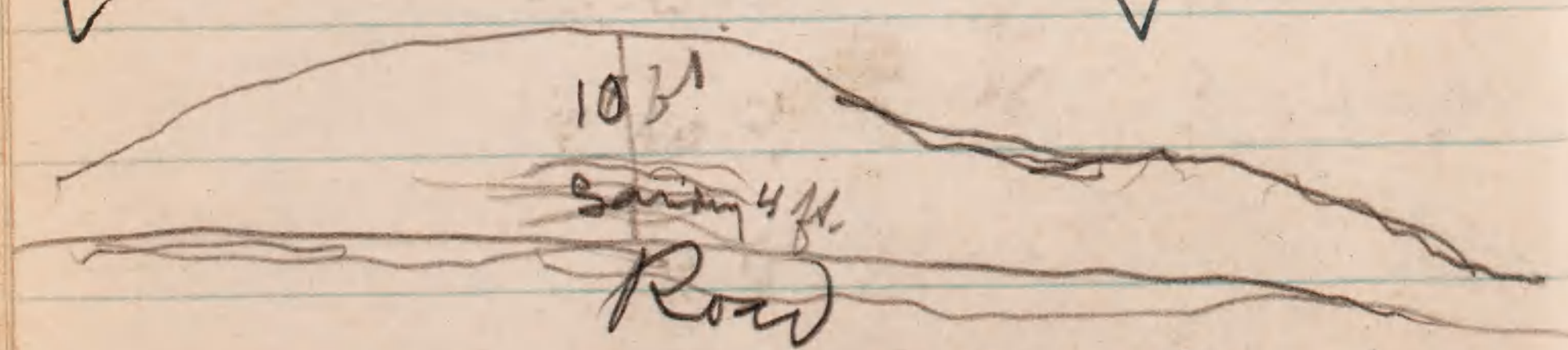
The gravel at base of bank may have been washed from top, or blown in very heavy storm. Also possible that this lower part was subject to overflow. It is about 20^{or less} ft. above bottom. Took samples (middle & near base) + box of loess (all from strip figured in lower part of other page).

a long cut just E. of road at 51.2 shows stratified silt like material, with many nodules & lower parts hard joint clay, but color of gray loess. No loess.

much gray
Lower 2/3 stratified, upper yellow

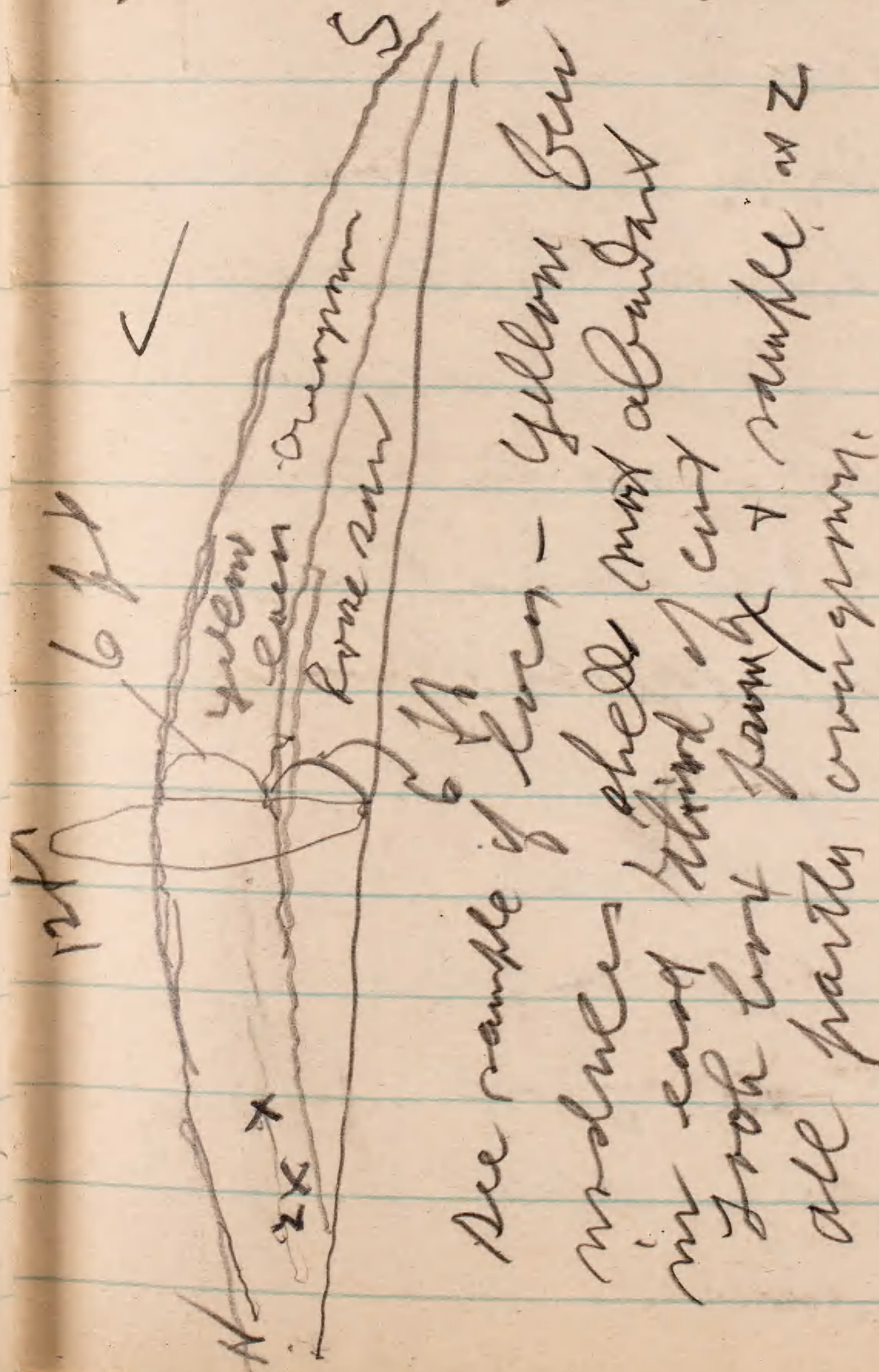
A big cut just as we enter
 bluffs at 60 mi. on # 83, is
 about 25 ft. deep, shows later
 yellow friable loess almost to
 base, but is badly overgrown
 with Robinia, etc. on both sides
 a few birds utter all
 through. Few round nodules
 are seen, a number of samples

at 86.9, on low west bluff of
 Henderson Cr. Yellow loess, in
 place sandy.



A sandy loam below. (dune)
 Few scattered shells

cut at 88.4 mi. It is on E.
 side of # 84 only,
 about 360 ft. long & 12
 ft. in depth. Also

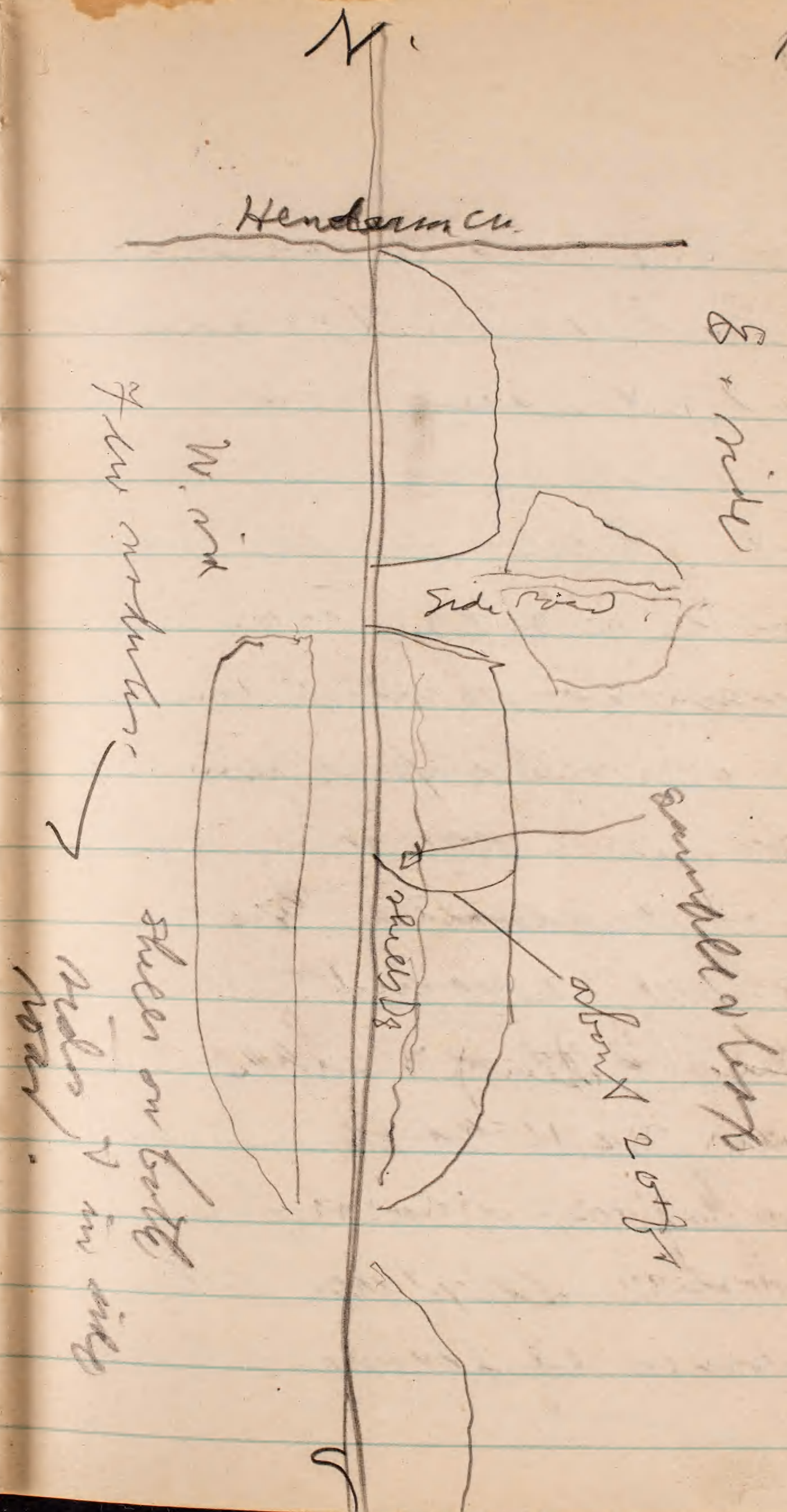


Last cut before Henderson Cr
 at 88.7 on N. bluff is almost
 exactly like the 88.4 cut.
 Fossils, less and the same
 (Tool room)

At 89.2 mi. just S. of
 Henderson Cr out 94.

This is all a fine yellow
 loess with fossils
 scattered almost to top,
 but most abundant
 within 8 ft. of the base.
 Few nodules.

Took box, sample &
 shells. A fine
 series of cuts.



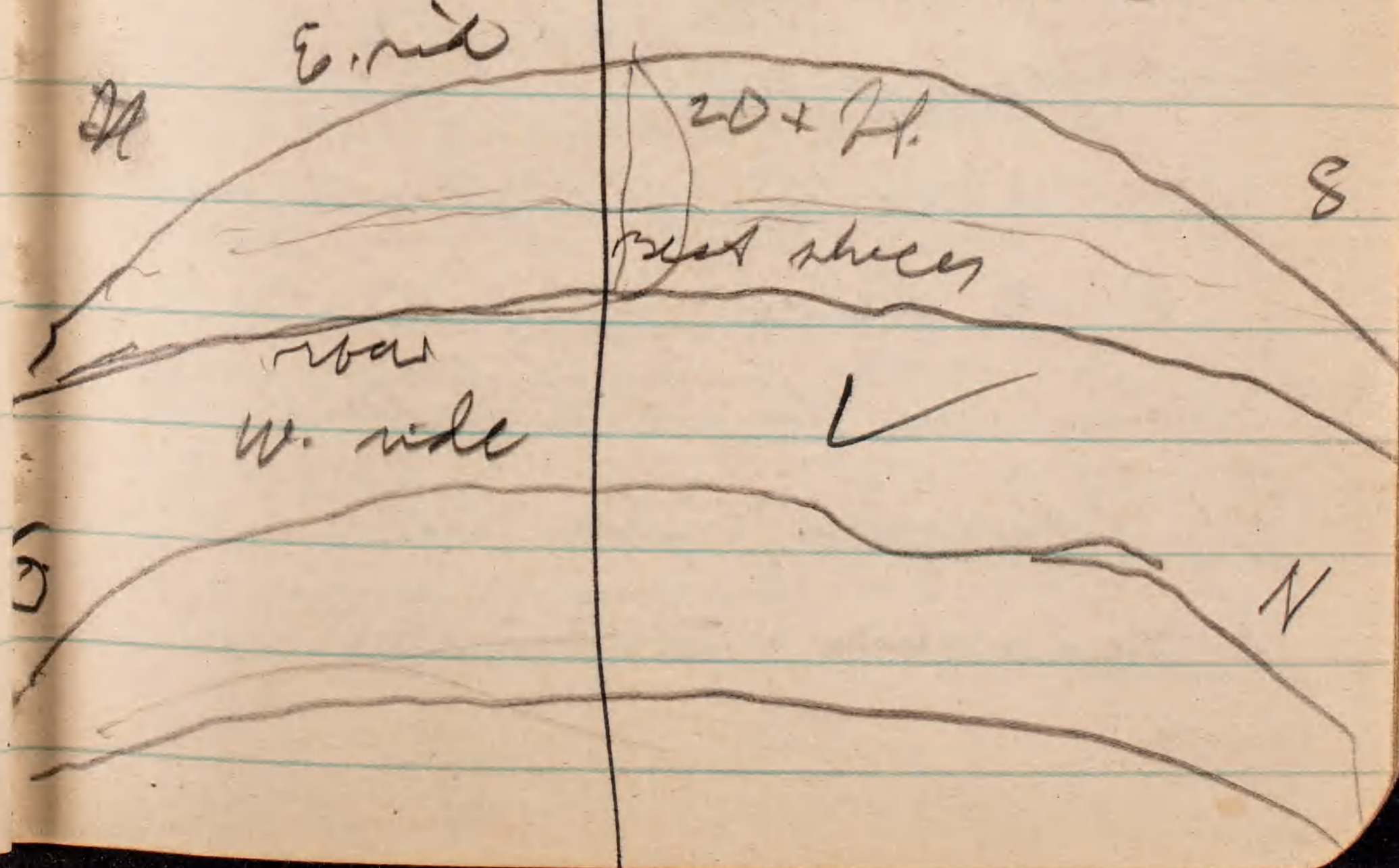
A fine cut W, just began
 2. little cut - shows
 about same

at 89, 8 1/2 - a cut down
 hill on #94 towards S.

gray loess with fossils
 scattered through, & iron
 shavings & some tubes, (&
 nodules scattered thru)
 about 12 ft high on W
 side (better) & capped
 with 3 or 4 ft of lobular
 heavy yellow loess - no
 fossils in yellow part.
 Took a small set of
 fossils only,

at 90, 0 1/2 - a big cut begins
 along #94 runs up & over
 hill to S.

The loess is grayish &
 mottled with iron.
 Must be over 20 ft. deep
 Shells well up, but most
 abundant in first 8 ft.
 Round nodules, see box
 & shells & sample



at 90.4 $\frac{1}{2}$ (old loc.)
 ✓ took box of clay
 near base
 (6 pt)

at 92.4 (old 102.6)
 took two boxes of
 ✓ gray loam, one
 near middle of cut (#1) +
 one in middle of lower (S.) half.
 We drove S. to #34 (several
 good cuts below Ognawka Row
 or then via #34 to Burlington &
 Mt. Pleasant & then home on #16)
 a bad drive, - Saturday evening.

Washed from boxes taken in
 Illinois, Oct. 14 & 19, 1935

Oct. 14, 1935.

cut # on #34, E. of Burlington.

$11 \times 10 \times 9 \text{ in.} = .57 \text{ cu. ft.}$

old cut 1 - E. edge of Gladstone, Ill.

$11\frac{1}{2} \times 9\frac{1}{2} \times 8 \text{ in.} = .5 \text{ cu. ft.}$

Side road off 102.2, Gray loam. (W. of #94)

$13 \times 10 \times 8 \text{ in.} = .6 \text{ cu. ft.}$

sack, Gray loam, old road, 2.3 mi. E. of Ognawka
 (not measured, - less than cu. ft.)

Gray loam, E. side of #94 at 102.6 - side.

$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2} \text{ in.} = .542 \text{ cu. ft.}$

Last cut before dark (= 90.4 below, Oct. 19.)

$10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2} \text{ in.} = .542 \text{ cu. ft.}$

Oct. 19, 1935.

S. of Copper Cr. - $9 \times 9 \times 8\frac{1}{2} \text{ in.} = .6 \text{ cu. ft.}$

at 88.4, E. side #94 - yellow loam
 $12\frac{1}{2} \times 10 \times 8 = .58 \text{ cu. ft.}$

at 89.2 - Big cut on #94 - yellow loam
 $11 \times 11 \times 7\frac{1}{2} \text{ in.} = .525 \text{ cu. ft.}$

at 90.0 $\frac{1}{2}$ - Big cut - mottled loam.
 $15 \times 8\frac{1}{2} \times 9 = .664 \text{ cu. ft.}$

at 90.4, old last cut (of Oct. 14) (= last cut above = 104.4)
 $11\frac{1}{2} \times 10 \times 7 = .466 \text{ cu. ft.}$

Old cut (Oct. 14) at 102.6, #1 - at middle.
 $13 \times 13 \times 7 = .684 \text{ cu. ft.}$

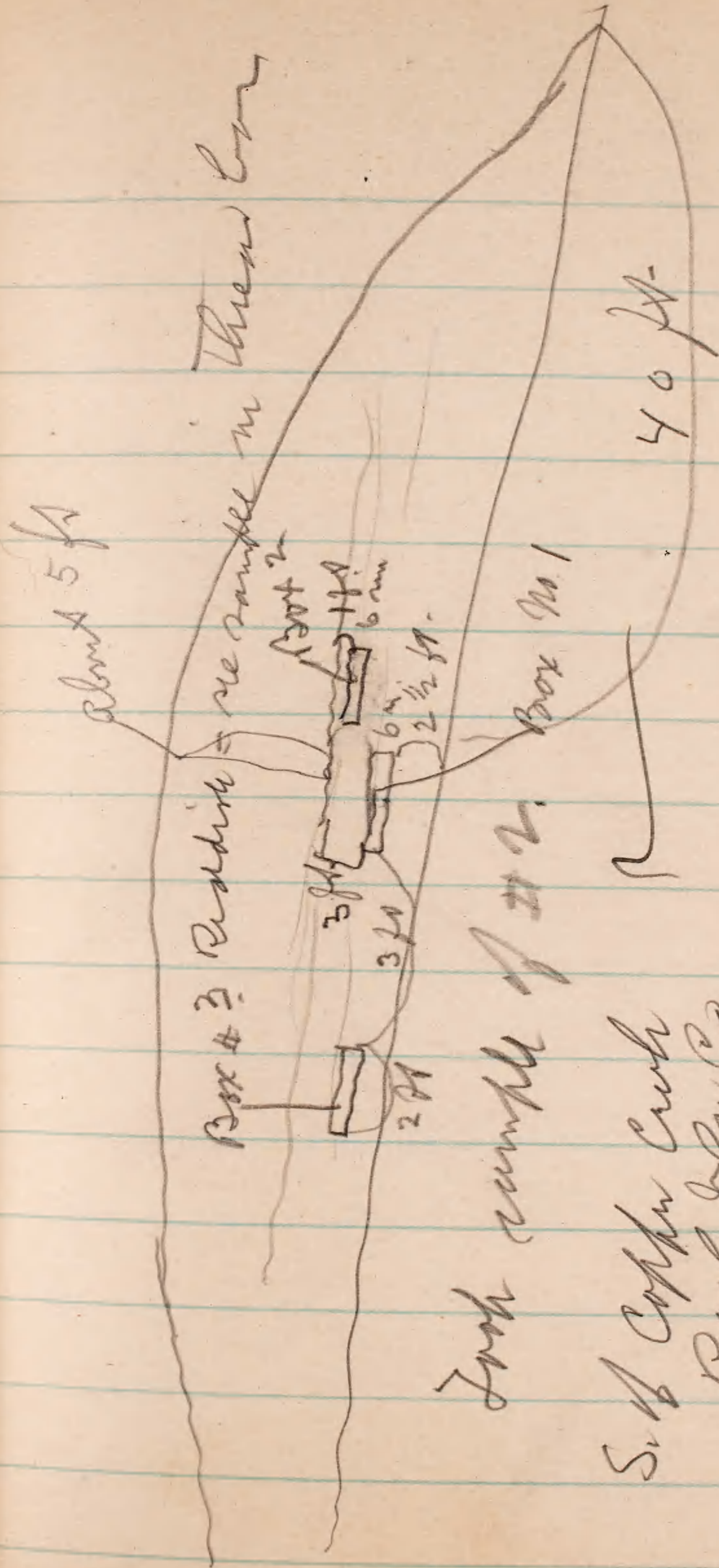
Old cut (Oct. 14) at 102.6, #2 - at S. $\frac{3}{4}$.
 $15 \times 8\frac{1}{2} \times 9 = .664 \text{ cu. ft.}$

Nov. 13 1935 - Wednesday

Start 191.7 at 12:12 PM

Home	191.7	Copper cen.	237.1
Outside Co. by	193.9	Cur (12)	243.4 1/2
CR & P. Ry.	199.6		243.5
Fork, gas-station	200.5		
Co. line	202.6		
West Branch road	203.8		
Road 5 (old detour)	206.2		
Bridge (Sullivan)	206.3 1/2		
Death crossing	207.2		
W. Liberty - obround	208.0		
RR	208.1		
W. Liberty 47 1/2	209.3		
RR - overpass	213.8		
Abalissa ^{Road 5. 213.9}	214.3		
Old Mason road	217.0 -		
Cedar river -	217.4 -		
	217.5 1/2		
Creek - bridge	219.4		
# 38 Turn S. -	220.9		
	221.1 1/2		
RR (Intermtn)	228.6 -		
# 22 - White Way	229.1		
2 nd street ^{# 61 - 230.3}	230.7		
Walnut St.	231.4 1/2		
Bridge - W.	231.5		
- E.	232.0		
Turn S - front	233.9		
of bluff			

East of Atlanta several low
dunes appear also S.



Iron sample of #2.

S. B. Copper Creek
Ranch Iron Co
Ill

132

133

Trip to Ottumwa
 July 30, 1936 - Thurs. $\frac{1}{2}$ mile
 Left at 8:30 AM

8441.7

27.7

Home 441.7

Crawfordsville -

474.6

Wayne -

479.4

Mt. Pleasant #34-492.5

Fairfield

515.2

Ottumwa #63

539.9

Bridg

540.9

#273 (pond) 555.5

Maple Park

576.1

#63 (pond)

582.7

Bridg (New) #63

597.2

Ottumwa

597.5

597.6

Agency

603.7

Batavia -

611.1

Fairfield -

622.4

Glendale

Lockridge

633.9

Mt. Pleasant

645.1

136

Cool this morning - 66° F.

The day is clear. The country shows effect of drought. Pastures are burned and bare. The corn is in tassel and the tops are badly burned in many places (scattered through fields) - evidently the staminate flowers are ruined.

In some places on upland the lower corn leaves are falling.

137

138

139

168.

Expenses, (cont.)

1.83
52
1.35

Sep. 18, 1935

Columbia (new pulley)	.50
Jefferson City, lunch	.30
Marshall, supper	.60

Sep. 19, 1935

Marshall Hotel, room	1.25	}	1.70
" - Breakfast	.45		
At. 1384. 3. gas & oil			2.14
Dinner at Platte City			.50
Atchison, Kan. Toll			.30
Supper - Cameron, Mo.			50

Sep. 20, 1935

Bethany room	1.00	50	1.50
Des Moines - dinner (Brown)			.75
Gas & oil			1.35
Supper, Newton			.06

