

10
JHOM

J H C Martens,
Florida Geological Survey
Martin Building
Tallahassee

note book No. 10

0-166

4036
5147

JB

{ Brannon }
{ Finley } Rini Barren

Send off samples

Mc Millan Mill Co.

Post office

Dr. Kennedy

Carpenter's Creek

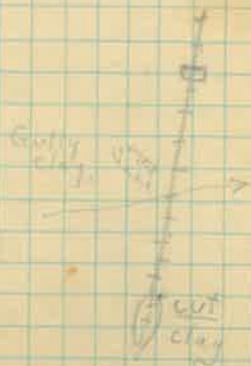
N. of Pensacola on road to Milton

Gully on N. side of Carpenter's Creek ^{at highway} maximum depth about 20 ft. Shows only sand.

Vertical section of leached, loose light colored surface then compact red and mottled sand and below that generally loose sand with little clay. This is the gully at the mouth of which they have been digging sand from the alluvial fans.

A small trickle of water down the bottom of the gully. Then streaks of heavy concretions.

Long branching gully on the east side of the highway, some smaller gullies and road material but near here all show about the same thing. No clay.



3.2 mi W of Cantonment on road to Muscogee gully on side of road going down hill toward crossing of small branch just N of R.R. I show maximum of 6 ft of gray and pink clay micaceous and shaly sandy in places with ~~red~~ overburden except the top soil. Higher up on hill is mainly red and yellow clayey sand, here and there rather pebbly. Below the clay is fine yellow sand separated from clay by thin crust of limonite and limonite sandstone. Total length of clay exposure is only 60 or 70 ft. Elevation about 90 ft from War Dept map.

Leonard gray

Across the valley from this outcrop (about 200 feet away) going up hill just S of railroad crossing is another exposure of the same or similar clay in gullied ditch on east side of road. Owner of adjoining land is Leonard Gray (colored). Section from top down:

- ① Orange brown clayey sand with scattered at pebbles and platy and irregular fragments of limonite sandstone and concretion 2 to 4 ft.

- ② - 166 gray and pink plastic micaceous clay laminated in lower part where less weathered, streaks of yellow sand apparently in 1st deposit 3 1/2 ft

Dec 17

4

relation to bedding x

- ③ Clayey sand, mottled gray red and yellow 2 feet

- ④ Limestone sandstone crust 1 or 2 inches

- ⑤ Yellow sand, cross bedded about 3 ft exposed x

The overburden on the clay increases going up the hillside. The clay is really having no natural outcrop, being mixed with or covered by the overlying clayey sand, which it comes nearest to the surface x. As on the other side of the valley the clay is sight for only 60 or 70 ft.

Iron ore may be present doubtless, some of the associated clayey sand could be mixed with the clay.

About 400 ft to west of RR crossing in R.R. cut a small exposure of plastic clay clay containing a little sand.

According to exposure with hand lens the clay on S side of valley is a little better than on north side, perhaps 6 to 10 ft.

In the interval of two miles or so between this point and the main part of the town of Muscogee there are about three more small exposures of clay similar to sample No 10-168. Associated

Dec 17

5

Muscogee

With yellow crossbedded sand and limestone sandstone. None of these cut show more than a foot of clay x

The mills at Muscogee are stopped and the townsite mostly abandoned, only a few people still living there.

At highway bridge alluvial deposit of Perdido R. are well exposed in borrow pit. All fine sand, no clay. Here the alluvial floor is mostly swampy. The river itself is coffee colored but only slightly muddy.

1/2 mile up stream from highway bridge there is a narrow (200 to 400 ft) alluvial flat, 6 to 7 ft above the river on the Florida side. Day land partly taken up with buildings. Here the river has cut a small bluff showing mostly sand but for a short distance an yellowish silty clay similar to that with the Kibbel farm on Blackwater R. The deposit of this seems to be very small.

O. 6 mi NE of Tusco Station at Muscogee going up hill at about 90 ft (near Dist 1 Map) a crop of gray yellow and brown clay showing about the same section as where sample No. 10-168 was collected. But the best of the clay here seems a little more sandy than that sample. About 3 ft of clay and 3 ft more of not sandy clay. Yellow which could probably be worked for a number of miles. Limestone sandstone and conglomerate in ferruginous sand both

Dec 17

6

Muscogee

above and below the clay

On the same road 1 mile NE of Muscogee, sta. where road crosses valley of a small branch there are ledges of limestone sandstone a foot or more thick. There are no cuts here deep enough to show the clay; if present.

1 mi N of Muscogee on Perdido R. the river comes so close up against the east side of the valley that gullies have formed at about 30 to 50 ft elevation. They show rather coarse sand, cross bedded some pebbles. Many pieces of limestone sandstone and conglomerate, some irregular concretions more flat on one or two sides with broken edges as if they had been part of a continuous bed. But all this is on top of the ground and has come from above where the gullies are. Found spec. of limestone sandstone with fossil wood x

On the more projecting out into the Perdido R. valley between two branches the limestone sandstone has a marked effect on the local topography causing a very steep slope below its outcrop. Beyond the next branch to the north where a scarp is shown on the War Dist map, this is still more noticeable. In places there seems to be two ledges both as if on the hillside above the lower one.

Dec 17

7

2.8 mi N. of Muscogee on road to going down hill from south toward a fairly large branch exposure of clay on roadside ditch and small borrow pit nearby. This clay seems like that sampled at (no. 166) east of Muscogee. Section near uphill end of outcrop where greatest thickness of clay would presumably remain.

coarse red pebbly sand
4 ft.
gray, reddish yellow

clay light gray spotted with pink 2 1/2 feet

yellow sand only a few inches seen

Bore all the way through the clay at the up hill end of the outcrop and found only 2 1/2 ft. of clay so thickness of clay is small for much commercial importance.

Some pieces of limonitic sandstone on surface of ground have been many outcrops of it is higher on hillside.

Barrineau Park

Dec 17, 1928

8

5147

Fine sand left bank of Perdido R. at Barrineau Park. Vertical cut of 4 feet. Seems to be of rather uniform texture. Varies in color from white to light gray and light yellow. Alluvial deposit of Perdido R.

Where the highway bridge crosses, there is very little alluvial land on the Alabama side but considerable more on the Florida side. Very little of the bottom land in sight from here to swamps but rather open pine woods.

The alluvial ridges on each bank of the river are as prominent as any I have seen in Florida - being in places fully six feet above the little valley in back. On the Florida side there is a second ridge a little back from the first one.



As along other streams in this end of the state there are flat cedar or arbutus trees on the banks.

Dec 18

9

Cantonment.

Cut on Frisco R.R. 1 1/2 mi W of Cantonment. Evidently the locality of Bell's Muscogee. Cut clay deposit is so variably that it is difficult to construct any representative section or get a real average sample. Approx. section from top to bottom of cut where sample was taken.

- 0.167
- ① Clayey yellow sand with limonitic pebbles or concretions 3 ft.
 - ② Finely interlaminated clay and fine sand, mostly mottled gray and pink. Considerable yellow in upper part. There more crumbly and not so tough. Some of lower part is really more lavender than pink. 7 ft?

Other parts of the cut show a fairly definite separation of the sand and clay in layers from a few inches to a foot thick. At the west end of the cut a limonitic sandstone layer, stratigraphically lower than the clay, crops out. Below this is yellow sand.

The layers of highly plastic clay nearly the same shade of red. These cut are too thin and irregular to be of any value by themselves. The only commercial possibility would be in a mixture of clay with intervening sand layers.

Dec 11/8

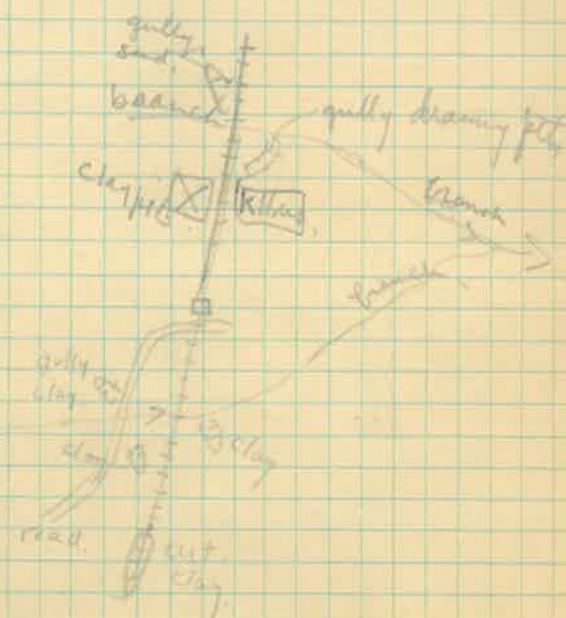
 $1\frac{1}{2}$ mi W Cantonment.

I doubt if even by map is a considerable amount of sand with the clay this deposit is enough to have any commercial importance since the clay runs out in either direction from near the middle of the cut.

Dec 18

Quintette

The clay outcrops indicated below are similar to the clay in the abandoned pit and the clay is likewise associated with sandstone and yellow sand. None of the outcrops other than the brickyard pit show more than six or seven feet of clay.



Scale about 1 square = 200 feet.

Dec 8

Quintette

Limonite sandstone above clay in old pit is in places in fairly disintegrated layers. Eucalyptus broken up and pieces scattered through soil. Has fluted and tubular structure on fairly large scale. In one place where it has not been disturbed, strike is N 70° E.

Some of the projections on the top of the limonite sandstone resemble cypress knee stone. The principal layer limonite layer below the clay has often a mamillary upper surface.

In the present condition of the pit the clay and its structure are not particularly well exposed. Max. thickness in sight about 12 ft. often spotted with brown and red on small scale. Partially fused nearly black spots in the brick and serpentine only show that these spots in the clay contain iron ore to act as a flux.

Specimens

Fossil wood in limonite sandstone. Not seen in place & loose pieces on floor of pit.

Sandstone with fluted surface.

Tubular sandstone, one piece pebbly.

While in general the hard layers are limonite sandstone as they have been sanding a small proportion is conglomerate and

Dec 18

some is so fine that it might be called limonite claystone. It is plain that specific gravity is not high enough for proportion of limonite to be very large.

Along the gully draining the pit a beautifully crossbedded sand shows beneath the sandstone which underlies the clay.

In some parts of the limonite sandstone fossil crinoid stems are fairly abundant. Some specimens of them.

Some of the markings on the sandstone are difficult of interpretation particularly the parallel grooves or fluting. Some of the markings are probably all marks and ripple marks.

In most of the pit the lower surface of the clay was marked by the mammillary sandstone surface but ~~some~~ ^{some} ~~everything~~ ^{was} plucked off down to that pit in one part of the pit considerable sand is seen above this as a lens cutting out part of the clay.

Dec 18

Mr. Jacoby - Manager
0.7 mi N. of Molino Station

Dolores Brick Co.
well 259 ft. deep - artesian flow
wells at Molino about 210 ft.
Artesian flow
End of line mark.

Petrified wood from about 150 ft. deep.
Burned partly found. - later preserved.
Mr. Jacoby says it is petrified wood but I am not so sure of it.

The area about one part of the upper yellow sand and sandy clay with about three parts of the underlying gray clay. The gray clay is much harder and harder to work by itself. Also does not dry so well and has much higher shrinkage. In a part of the pit where the working of clay was light and the amount of drier weathered material small they dug the gray clay and made some bricks without much mixture of other material. Scarcely any limonite sandstone shows in the pit.

Drying takes about 30 days (natural) fossils well protected in shels. Some cracking when exposed to wind on outside. On nights when freezing small fires kept between rows of brick sheds. Better drying in winter than summer. More sand.

Finished mostly in down draft kilns. Warm smoking about two days. Six or seven days until fire is lit but three days to cool.

Mixing of clay is not very thorough but unmixed parts shatter as rounded lumps and cause me trouble. No lamination.

Dec 18

Build with Brick Co.
Mr. Barrineau

Artesian well 253 ft. at brickyard.

Long axis of pit extends in N.S. direction.

Approx section on east side of pit not far from south end.

Top soil gray loam 6 inches
Sandy clay slightly micaceous, mostly blue and yellow 3 ft.
This is the weathered portion of the underlying clay and grades down into it as well as up into the top soil. The thickness of 3 ft. assigned to it is entirely arbitrary.

0-169 Sandy clay slightly micaceous gray to mottled with light brown yellow and red. Tougher and slightly less sandy than the overlying weathered material. Bottom not exposed. 14 ft.
No bedding can be seen in this part of the pit.

Mr. Barrineau says they are not working now because the engine is broken down. Also they do not do much in the winter because they have no way to protect the green bricks from frost.

Mr. B. also says that no attempt is made to take the clay in any definite proportion as it is done by mixing beyond what is done with a special effort in digging. The burned brick are yellow rather lighter than at the Dolores Brick Co.

Escambia Co.

16

Build with Brick Co.

Dec 18

1.8 mi N of Moline

0-170 no sample collected but this number reserved for mixture of two preceding.

A little north of where samples 168 and 169 were collected the bank is slightly higher.

Above the main part of the gray clay is a one or two foot layer of clayey sand. In other parts of the pit are some thin sand layers, finer and clayey, but not enough to have much effect on the average of the deposit.

Moline

I am satisfied that the clay at Moline is a different formation from that at Quintette. Deposit is much more regular and extensive and sand associated with clay is very fine. I think the pits at Moline are mostly at lower elevation than at Quintette.

On W side of Escambia R. at Bridge at Moline there is no swamp. A flat on which the lumber mill and the lower part of the town is located is perhaps overflowed by frequent floods. Did not examine to see whether it is an alluvial deposit of the river or whether it is a terrace cut out in older formation.

Mr. Jacoby of Dolores Brick Co. says the oldest brick works in this vicinity were on the flat along the river, one being at the site of the lumber mill.

Escambia Co.

17

Dec 18.

Moline

Mr. Jacoby also says that before giving up at Muscogee the lumber Co. did some investigating to see whether it would be possible to start a clay working industry there but probably did not find sufficient clay.

He also mentions some new cuts on the Great R.R. at or near McKinnonsville which he thinks show red clay.

Water from artesian well at Dolores Brick Co. has an astringent taste like that at Pascopola. Mr. J. says it has a destructive effect on boulders as if containing an acid. Probably contains Iron sulphate. Five flowing wells at Muscogee. At Quintette surface elevation is too high and wells are not flowing.

18

to T. Pendleton - Lewis's Cafe & Milton

Chalk Head,
out in creek to upper end of creek.
straight. One mile. First house
on left hand side & Road fork
to right.

Blowing Bridge - just below first
branch below Johnson road again.

↓ has power boat for rent

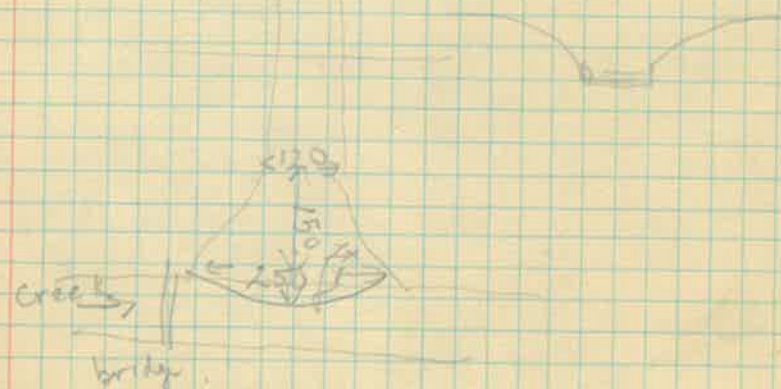
Santa Rosa Co.

Dec 19,

Clear Creek

Out north from Milton on High-
way 37 (Granite Road) 7.0 mi
to Clear Creek Bridge through dry
sandy black rock wash upland showing
in a few places (gullies and borrow pits)
the underlying red clayey sand.
Clear Creek is shallow and
swift flowing coarse sand bed.
Fairly narrow valley. No swamp
narrow sandy alluvial flats.

Profile



a better sand wash
about 120 ft wide at
mouth and 5 to 6 ft deep. It
is cut partly in alluvial deposits.
The outer edge of the fan is filled
up 4 ft about the creek which
has cut a little cliff in it.
Walked 4000 ft up the branch which
is just east of and parallel to road north
of Clear Creek. The valley is not of
recent formation so it can hardly
be called a gully but for depth
for a mile there is a sand bed

Santa Rosa Co.

Dec 19

Clear Creek

from 100 to 200 ft wide. In
places the hillside is cut into
showing mainly red sandy in one
places some white sand underlying it.
A lens of clay up to 2 ft thick
gray mottled fine grained shows for
a little way.

4000 ft up the valley bottom
has become very narrow and
steeper and steeper.

Many small washed places
on hillside where loose surface
sand is kept washed away
and underlying compact red
sand with limonite pebbles
or concretions outcrop.

Along the road on both
sides of Clear Creek valley
there is light loose grayish
yellow sand on the surface
with red sand underneath at
various depths generally 1 to 4 ft.

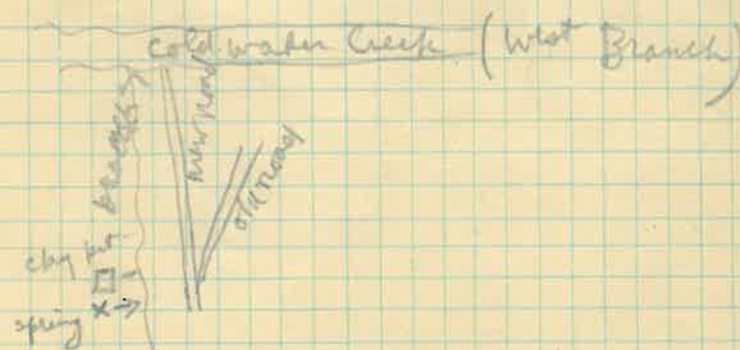
20

Santa Rosa Co.

Dec 19

Allentown school clay pit

11.8 mi by road no. 37 north
of Milton 1/4 mile & a little
more south of Coldwater Creek.



- 0-172 1 ft sand loam soil
- 2 ft mottled red and yellow clayey sand
- 0-174 4 ft gray clay spotted with pink
laminated structure where not
weathered.

bottom not exposed.
pit goes deeper than shown by this
section but has water in it.
looks like some of the gull point
clays. I think there are some
worth preserved leaf impressions on
the bedding planes of the clay.

Pieces of limonitic ss. in the sand
above the clay & 2 spec of it
containing fossil wood from a
leaf of stone which had been thrown
out.
Clay was poorly mixed, brick and cracked
and laminated.

Santa Rosa Co.
Crow Bridge
Coldwater R.

22
Dec 19

12.5 mi N of Mutton on S. side of Coldwater R. at Crow Bridge. A small formation with exposed on hillside in gullied abandoned road bluff just west of road and various small gullies. A gray clay similar to that on the Allen town school sit 1/2 mi to SW shows at about the same elevation as at the former locality and also a little lower, apparently dipping to the north or northeast, this dip is apparent in the laminations of the clay as well as in the laminated sandstone underlying it so it can not be due to a local dip or unconformity. It does appear also that the clay may be unconformable upon the sandstone underlying it because it seems to thin out at the bottom as if deposited in a depression.

~~Limonite clay ss.~~

The ~~ss.~~ ss. underlying the gray clay is in places conglomeratic. Contains some fossil wood. Immediately below it is a yellow clay with casts of fresh water shells.

Santa Rosa Co.
Crow Bridge
Coldwater R.

23
Dec 19

Section ~~of~~ is variable because of lenticular bedding and unequal weathering in different places. A rough sketch especially as relating to the best clay outcrops.

174 { Over burden sand minimum 3 ft.
gray clay unweathered portions 8 ft.
laminated, fairly tough, spotted sand with pink and yellow, where weathered is brown to reddish and more crumbly

Limonite ss. 1 inch
Silvery clay with snails 8 to 12 inches
Limonite ss and conglomerate 2 to 6 inches
Coarse cross bedded sand with thin streaks of clay and gray clay, pebbles and boulders.
Creek is about 5 ft. lower still 10 feet ±

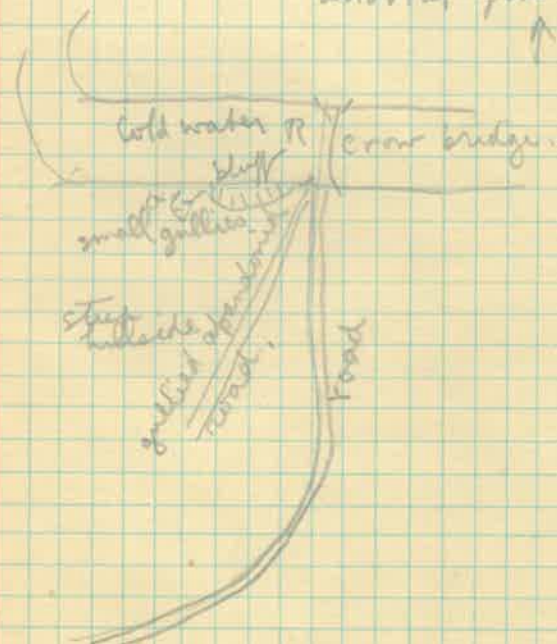
On the roadside a third ss layer thin or four feet below the gray clay it slopes upward toward the bluff and different places out a good the one above it. specimens collected.

4 of yellow clay with snails
1 of conglomerate with fossil wood
1 of ss with fossil wood
1 of limonite clay alone with sandstone debris or veins

Santa Rosa Co.
Crow Bridge
Coldwater R.

24
Dec 19

The land is ~~probably~~ lower to the north of the bridge than to the S, probably because of being between two branches of Coldwater's alluvial flatwoods.



For 200 ft W of the road the clay could be seen almost continuously. For 500 E. occasional small showings of clay in washed places. This vegetation and good growth of young pines shows that clay must be under surface.

The new highway bridge is under construction 1/2 mile or a little less to W of this bridge.

Santa Rosa Co.
Crow Bridge
Coldwater R.

Dec 19

Here Coldwater River is nearly clear sandy flowing with bottom of coarse sand with small proportion of pebbles. Beds of white sand on inside of bend. Straight parts 1 to 4 ft deep. Some much deeper holes in bedrock.

0.2 mi. west from Crow Bridge a bluff eight feet high cut in alluvial deposits on left bank of Coldwater R. The two ends of the bluff are gray clay finely dotted with yellowish brown. The middle part is medium to coarse sand. This clay has considerable salt and fine sand it looks as if it would be rather good for brick but it is doubtful if deposit would be continuous over large enough areas.

From Crow Bridge went west north for two miles, at least the road and north most of the way and travelled that distance. The road follows the high ground between the two branches of Coldwater R. Much of the way a large area of loamy soil and numerous farms.

Next place that I passed through and found out the name of was Berrydale. Between here and Munson fairly straight road with few small showings of clay on hillside mostly weathered red material.

38.3
36.4 R.R.
31.0

Mon P.O. Santa Rosa Co.

Dec 19

East Branch Coldwater
Crossing on road from Berrydale to Munson 1.3 mi from Munson by road bottom land $8\frac{1}{2}$ mi wide (estimated). A smaller creek comes in on the west side just above the bridge. Clear water, bottom largely pebbly some sand. Slightly raised between forks of alluvial material 6 to 10 feet high, sand, silt, clay and in one place gravel seen in the cut banks. Large amounts of wood included in the alluvial deposit. The stream plenty large enough for canal navigation but there are thousands of sunken logs in it which would require some care. Has evidently been used for floating down logs. It looks as if the stream had recently started cutting down more actively. Sand bars within the banks of the river not at all conspicuous which may be because it is rather straight here.

There was a thick woods on the bottom land & now mostly destroyed by cutting and burning. Cypress in larger places. A few very tall slender pines are left.

Alluvial ridge along banks of river. Cedars growing on it.

Alluvial clay looks as if it would be all right for brick, gray where weathered yellow. Beautiful where there is a sufficiently large uniform deposit, and of course it would be subject to occasional washing.

Santa Rosa Co.

Dec 19

Crossed Juniper Creek $2\frac{1}{2}$ mi west and a little north of Munson. Also crossed a swampy branch a little to the west of it. Juniper Creek is clear with sandy and pebbly bottom. I think log jams are sufficient to cause rather frequent obstructions to navigation.

$2\frac{1}{2}$ mi SW of Munson on road to Milton cross Juniper Creek again. Bluff on east side of creek looking material which I did not examine closely. On west side extensive bottom pits and ditches in alluvial material by and not steep to look closely at these, further.

40.9 crossing large creek

pictures.

Dec 17

Rolls 2

me. 5 and 6

head of gully

gully in Cretaceous formation
N. side of Carpenter Creek, near
Pangloss gully. Both looking up the
gully.

Dec 18

Roll 3

No 1

No 2

gully in clay 1/4 mi S of Aunt Betty
State on W side of R 18

No 3

Lower ss layer and sand below it
Clay pit at Aunt Betty

No 4

Upper view of clastic ss with
smaller clastic ss

5

Block of 1/2 mile 135

piston rings
and valves
clutch
transmission
tire
brake

greased and changed oil 17150

look up map of "part of Fla
north of West Palm, especially
Escambia and Santa Rosa Counties