



STATE OF ALABAMA
HIGHWAY DEPARTMENT

MONTGOMERY, ALABAMA 36104

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

September 19, 1968

Plotted 8-69
JF

Mr. B. E. Higgins
Bridge Engineer
OFFICE

Re: Project I-10-1(21)35
Baldwin County
Foundation Investigation

Dear Sir:

Attached are the results of bridge foundation investigation conducted on the above project for bridges and culverts.

The borings indicate that adequate steel pile penetration can be obtained.

We recommend that the mucky material be removed at the culvert sites and replaced by foundation backfill.

Yours very truly,

D. B. Flournoy, Engineer
of Materials and Tests

By: Edward Eiland
Edward Eiland, Assistant Engineer
of Materials and Tests

WBH/sap
ccs:
Mr. W. R. Glass
Mr. W. F. Land
Mr. W. D. Bill, Resident Engineer
BPR (send to Mr. Higgins)
Mr. J. M. Ragland
Project File
File

Attachment

STATE HIGHWAY DEPARTMENT OF ALABAMA
 BUREAU OF MATERIALS & TESTS
 DIVISION OF MATERIALS
 MONTGOMERY 4, ALABAMA

Form M & T F-1

September 18, 1968

Mr J. F. Tribble, Materials Engineer
 Bureau of Materials & Research
 State Highway Department
 OFFICE

I-10-1(21)35
 Underpass Alabama 181
 Station 620+79
 Re: Baldwin County

Dear Sir

Listed below are the results of soundings made at the above location.

		15	Ft	Rt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.5					
196.5	to	195.0		Fill Material			
195.0	"	187.5		Medium gray sandy clay			
187.5	"	180.0		Medium light gray sandy marl			
180.0	"	179.9		Thin layer of pyrite			
179.9	"	175.0		Dense red and brown silty sand			
	"						
	"						
	"						

		15	Ft	Lt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.4					
196.4	to	191.0		Stiff brown silty sandy clay			
191.0	"	187.0		Dense gray sandy clay			
187.0	"	186.0		Medium light gray and silty sandy clay			
186.0	"	181.4		Dense brown and red silty sand			
181.4	"	174.9		Dense red and pink silty sand			
	"						
	"						
	"						

	40	Ft	Lt. C/L Survey STA. 28+51
Elevation of Hub	195.5		
195.5	to	194.0	Medium red silty sandy clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	185.5	Dense gray sandy clay
185.5	"	179.0	Dense brown silty sand w/ thin layers of pyrite.
	"		
179.0	"	174.0	Dense red and pink sand
	"		
	"		
	40	Ft.	Rt. C/L Survey STA. 28+51
Elevation of Hub	195.9		
195.9	to	194.0	Stiff red silty sand and clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	182.9	Dense light gray sandy clay
182.9	"	174.4	Dense red and pink sand
	"		
	"		
	"		
	"		
	15	Ft	Lt. C/L Survey STA 29+18
Elevation of Hub	196.8		Bent #2
196.8	to	192.0	Medium brown silty sand
192.0	"	189.0	Medium brown silty sandy clay
189.0	"	185.0	Stiff red silty sandy clay
185.0	"	183.5	N=17
183.5	"	180.0	Dense red and pink sand
180.0	"	178.5	N=15
178.5	"	175.0	Dense red and pink sand
175.0	"	173.5	N=19

Elevation of Hub		Ft.	T.	STA.
162.7	to	146.0		Medium yellow sand
	"			
	"			
	"			
	"			
	"			
	"			
	"			

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	29+18
195.9	to	191.0			Medium gray sandy clay
191.0	"	189.0			Stiff brown clay
189.0	"	180.0			Stiff red clay w/ small amount of gravel
180.0	"	173.0			Stiff red sand clay
173.0	"	160.0			Medium yellow and red sand
160.0	"	145.0			Stiff wet red sand w/ layers of sand clay
	"				
	"				

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	30+00	Bent No. 3
196.9	to	195.0				Stiff brown sand clay
195.0	"	192.0				Stiff yellow clay w/ small amount of sand
192.0	"	180.0				Stiff red clay w/ small amount of sand
180.0	"	167.0				Stiff red sand
167.0	"	147.0				Medium yellow sand
	"					
	"					
	"					

15

Ft. Rt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 196.0

Dense red silty sand

196.0 " 192.6

Medium gray sandy clay

192.6 " 191.0

Stiff red silty clay

191.0 " 185.0

Dense red silty sand

185.0 " 183.5

N=22

185.0 Bottom of dense red silty sand

183.5 " 180.0

Dense red and pink sand

180.0 " 178.5

N=16

178.5 " 175.0

Dense white and pink sand

Ft

T

STA

Elevation of Hub

175.0 to 173.5

N=18

173.5 " 172.6

Dense white and pink sand

"

"

"

"

"

"

15

Ft Lt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 191.0

Stiff brown silty clay

191.0 " 180.0

Stiff red silty sandy clay

180.0 " 177.6

Dense red silty sand

177.6 " 156.0

Dense red and pink silty sand

156.0 " 146.6

Dense pink and white sand

"

"

"

40 Ft. Rt. C/L Survey STA. 30+00

Elevation of Hub	197.0		
197.0	to	192.0	Stiff brown and red silty clay
192.0	"	180.0	Hard red silty clay
180.0	"	150.0	Dense red sand
150.0	"	146.0	Dense white and pink sand
	"		
	"		
	"		
	"		

15 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	198.4		Bent # 4
198.4	to	198.0	Stiff brown silty clay
198.0	"	197.0	Stiff red silty clay
197.0	"	193.0	Stiff brown silty sand clay
193.0	"	184.0	Stiff red silty sand clay
184.0	"	184.4	Dense red and white silty sand
	"		
	"		
	"		

40 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	197.8		
197.8	to	195.0	Medium brown and red silty clay
195.0	"	191.0	Stiff brown and yellow clay
191.0	"	186.0	Hard red silty clay
186.0	"	184.5	N=31 <i>184.5 bottom of hard red silty clay</i>
184.5	"	181.0	Dense white and pink sand
181.0	"	179.5	N=20
179.5	"	176.0	Dense white and pink sand
176.0	"	174.5	N=19

Elevation of Hub		Ft.	T.	STA	
174.5	to	146.0			Dense white and pink sand w/ thin layers of sandrock
146.0	"	145.8			Very dense white and pink sand
	"				
	"				
	"				
	"				
	"				
	"				
	"				
		15	Ft	Lt. C/L Survey	STA 30+82
Elevation of Hub		198.3			
198.3	to	196.0			Medium red sand clay
196.0	"	191.0			Stiff yellow clay
191.0	"	181.0			Stiff red clay w/ small amount of sand
181.0	"	177.0			Stiff red sand clay
177.0	"	168.0			Medium red sand w/ small amount of gravel
168.0	"	148.0			Dense fine white sand
	"				
	"				
		40	Ft	Lt. C/L Survey	STA 30+82
Elevation of Hub		197.2			
197.2	to	191.0			Stiff yellow clay
191.0	"	179.0			Stiff red clay w/ small amount of sand
179.0	"	162.0			Medium brown sand
162.0	"	156.0			Medium yellow sand w/ small amount pea gravel
156.0	"	149.0			Dense fine white sand
	"				
	"				
	"				

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		40	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		198.1				Abut. # 5
198.1	to	192.0				Stiff yellow clay
192.0	"	183.0				Stiff red clay w/ small amount of sand
183.0	"	178.0				Stiff red sand clay
178.0	"	173.0				Medium red sand
	"					
	"					
	"					
	"					

		15	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		199.1				
199.1	to	196.0				Stiff red sand clay
196.0	"	193.0				Stiff yellow sand clay
193.0	"	181.0				Stiff red clay w/ small amount of sand
181.0	"	174.0				Dense red sand
	"					
	"					
	"					
	"					

		15	Ft.	Rt. C/L Survey	STA.	31+49
Elevation of Hub		199.0				
199.0	to	198.0				Medium brown silty sand
198.0	"	196.0				Stiff red silty clay
196.0	"	189.0				Dense red silty sand
189.0	"	185.0				Dense brown silty sand
185.0	"	177.5				Dense red and pink sand
	"					
	"					
	"					

40

Ft.

Rt. C/L Survey

STA.

31+49

Elevation of Hub

198.6

198.6

to

195.6

Dense red silty sand

195.6

"

193.0

Dense brown silty sand

193.0

"

192.0

Very Dense brown silty sand

192.0

"

177.1

Dense red and pink silty sand

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"

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Ft.

T

STA.

Elevation of Hub

to

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Ft

T

STA

Elevation of Hub

to

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(2)
(10)

	C/L	Ft.	Rt. Lane	T.	STA	850+00
Elevation of Hub	108.1					Culvert
108.1	to	104.7				Sandy muck
104.7	"	93.0				White fine sand
93.0	"	87.0				Stiff gray sandy clay
"						
"						
"						
"						
"						

	C/L	Ft.	Lt. Lane	T.	STA	850+00
Elevation of Hub	108.5					
108.5	to	105.8				Muck
105.8	"	100.5				Gray sand w/ thin layers of clay
100.5	"	96.0				Fine yellow sand clay
96.0	"	94.0				Pea gravel w/ fine sand
94.6	"	87.0				Fine yellow sand w/ thin layers of clay
"						
"						
"						

	C/L	Ft.	Rt. Lane	T.	STA	655+32
Elevation of Hub	138.1					Culvert at Sta. 655+00
138.1	to	134.0				Brown muck
134.0	"	129.0				Gray sand
129.0	"	128.0				Pea Gravel
128.0	"	117.0				Stiff gray sandy marl
"						
"						
"						
"						

		G/L	Ft.	Rt.	Lane	T.	STA.	655+00
Elevation of Hub		138.1						
138.1	to	133.0						Brown muck
133.0	"	129.0						Gray sandy clay
129.0	"	125.0						Stiff gray sandy marl
	"							
	"							
	"							
	"							
	"							

		110	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		5.2					Culvert at Sta. 441+30
5.2	to	1.4					Muck
1.4	"	-1.0					Gray sand
-1.0	"	-5.0					Stiff yellow sand
-5.0	"	-6.0					Stiff gray marl
-6.0	"	-16.0					Stiff gray sandy marl
	"						
	"						
	"						

		320	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		8.2					Culvert at Sta. 441+30
8.2	to	4.2					Brown muck
4.2	"	-1.0					Gray sand
-1.0	"	-7.0					Medium yellow sand
-7.0	"	-15.0					Medium gray sandy marl
	"						
	"						
	"						
	"						

		140	Ft.
Elevation of Hub		4.9	
	4.9	to	1.6
	1.6	"	-13.0
	-13.0	"	-17.0
		"	
		"	
		"	
		"	

Rt.	T.	STA.	441+30
			Muck
			Medium gray sand
			Stiff gray sand marl

		345	Ft.
Elevation of Hub		9.5	
	9.5	to	7.7
	7.7	"	-5.0
	-5.0	"	-12.0
		"	
		"	
		"	
		"	

Rt.	T.	STA.	441+30
			Muck
			Brown sandy clay
			Medium gray sand w/ layers of sand clay

	Abut. # 1	48	Ft.
Elevation of Hub		24.1	
	24.1	to	20.0
	20.0	"	16.0
	16.0	"	11.0
	11.0	"	4.0
	4.0	"	1.0
		"	
		"	
		"	

Rt. C/L	T.	STA.	520+44
			Underpass US-98 at Sta. 431+00 Baldwin County
			Yellow Sand
			Stiff brown sand clay w/ small amount of gravel
			Stiff gray sandy clay
			Medium gray sand
			Soft yellow clay w/ small amount of sand

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(13)

		10	Ft.	Rt.	T.	STA.	520+44
Elevation of Hub		23.2					
	23.2	to	20.0				Brown clay
	20.0	"	15.0				Stiff yellow and gray sand clay
	15.0	"	6.0				Medium brown and gray clay w/ small amount of sand
	6.0	"	2.0				Soft gray clay
		"					
		"					
		"					

		20	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.4					
	24.4	to	20.0				Red sand clay
	20.0	"	10.0				Gray sand clay (Stiff)
	10.0	"	4.0				Medium gray sand
	4.0	"	1.0				Soft yellow clay
		"					
		"					
		"					

		48	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.8					
	24.8	to	21.0				Yellow sand clay
	21.0	"	11.0				Stiff brown sand clay
	11.0	"	5.0				Stiff gray sand w/ layers of gray clay
	5.0	"	0.0				Stiff yellow clay
		"					
		"					
		"					

Elevation of Hub		20	Ft.	Lt. C/L T.	STA. 521+26
	22.6				
22.6	to	18.0		Stiff brown sand clay	
18.0	"	12.0		Stiff red sand clay	
12.0	"	3.0		Stiff yellow sand clay	
3.0	"	-8.0		Medium gray clay w/ small amount of sand	
-8.0	"	-23.0		Medium blue sandy marl	
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
	25.8					
25.8	to	18.0		Stiff brown sand clay		
18.0	"	14.0		Stiff yellow clay		
14.0	"	1.0		Medium yellow sand		
1.0	"	-5.0		Stiff gray sand clay w/ thin layers of soft sandstone		
	"					
-5.0	"	-19.0		Stiff blue marl w/ small amount of sand		
	"					
	"					

Elevation of Hub		10	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
	24.2					
24.2	to	18.0		Stiff yellow sand clay		
18.0	"	16.5		N=20		
16.5	"	14.0		Stiff yellow sand clay		<i>Bottom this</i>
14.0	"	12.5		N=12		
12.5	"	10.0		<i>stiff</i> Yellow and gray sand clay		<i>Be there this</i>
10.0	"	8.5		N=16		
8.5	"	5.0		Stiff gray clay w/ small amount of sand		
	"					

(2)

(16)

Lt. C/L T STA 522+26

48 Ft.

Elevation of Hub 29.1

Bent #3

29.1 to 19.0

Very stiff yellow sand clay

19.0 " 15.0

Stiff gray and pink clay

15.0 " 5.0

Stiff yellow sand clay

5.0 " -1.0

Soft brown and gray clay

-1.0 " -14.0

Stiff blue sand marl

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20 Ft.

Lt. T STA 522+26

Elevation of Hub 30.0

30.0 to 22.0

Stiff brown sand clay

22.0 " 20.0

Stiff red sand clay

Bottom this

20.0 " 18.5

N=9

18.5 " 16.0

Medium red and gray clay

Bottom this

16.0 " 14.5

N=8

14.5 " 12.0

Medium red sand clay

Bottom this

12.0 " 10.5

N=5

10.5 " -5.0

Soft gray marl

Ft.

T STA

Elevation of Hub

-5.0 to -16.0

Medium blue sandy marl

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Elevation of Hub		Ft.	Rt.	T.	STA.
		18			522+26
31.0		31.0			
31.0	to	26.0			Stiff yellow clay
26.0	"	21.0			Stiff yellow sand clay
21.0	"	19.5			N=11
19.5	"	17.0			Stiff yellow clay
17.0	"	15.5			N=10 <i>Bottom this</i>
15.5	"	13.0			Stiff gray sand clay
13.0	"	11.5			N=9 <i>Bottom this</i>
11.5	"	5.0			Soft blue marl

Elevation of Hub				T.	STA.
5.0	to	10			Medium yellow sand clay
1.0	"	-19.0			Medium blue sandy marl
	"				
	"				
	"				
	"				
	"				

Elevation of Hub		Ft.	Rt.	T.	STA.
		10			522+26
32.0		32.0			
32.0	to	20.0			Very stiff yellow clay
20.0	"	10.0			Stiff yellow and gray clay
10.0	"	2.0			Medium gray sandy marl
2.0	"	-18.0			Medium blue marl w/ layers of sand
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L	T.	STA.	524+06
41.1	to	36.0					Bent #5
36.0	"	28.0					Medium brown sand clay
28.0	"	25.0					Stiff yellow sand clay
25.0	"	1.0					Medium red sand clay
1.0	"	-15.0					Medium yellow sand w/ small amount of clay
	"						Soft yellow clay w/ small amount of sand
	"						
	"						

Elevation of Hub		10	Ft.	Rt. C/L	T.	STA.	524+06
38.6	to	37.0					Soft brown sand
37.0	"	28.0					Hard yellow sand clay
28.0	"	22.0					Very stiff sand clay
22.0	"	20.5					N=41
20.5	"	18.0					Dense yellow sand
18.0	"	16.5					N=36
16.5	"	14.0					Wet yellow sand
14.0	"	12.5					N=16

Bottom this

Bottom this

is all in this

Elevation of Hub			Ft.		T.	STA.
12.5	to	3.0				
3.0	"	-12.0				
-12.0	"	-32.0				
	"					
	"					
	"					
	"					
	"					
	"					

Loose wet yellow and gray sand

Medium wet brown sand clay

Stiff blue sandy marl

48 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 32.0

32.0 to 30.0

Stiff brown silty clay

30.0 " 24.0

Very stiff yellow sand clay

24.0 " 2.0

Medium yellow sand w/ layers of clay

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"

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20 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 34.1

34.1 to 32.0

Stiff brown clay

32.0 " 28.0

Very stiff yellow sand clay

28.0 " -4.0

Dense yellow sand w/ small amount of clay

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10 Ft.

Rt. C/L T. STA. 524+48

Elevation of Hub 38.0

38.0 to 36.0

Stiff brown sand clay

36.0 " 28.0

Very stiff yellow sand clay

28.0 " 8.0

Dense yellow sand

"

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"

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	48	Ft.	Rt. C/L	T.	STA	524+48
Elevation of Hub	43.5					
43.5	to	38.0				Stiff red and brown clay
38.0	"	22.0				Very stiff red sand clay
22.0	"	7.0				Dense yellow sand
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	Rt. Lane	T.	STA	726+00
Elevation of Hub	118.1					Culvert @ Sta. 726+00
118.1	to	115.6				Brown sandy muck
115.6	"	107.0				Medium gray sand
107.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	Lt. Lane	T.	STA	726+40
Elevation of Hub	119.7					
119.7	to	115.7				Brown sandy muck
115.7	"	110.0				Gray sand
110.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

140 Ft.

Lt. C/L T. STA. 533+25

Elevation of Hub 46.6

Culvert at Station 532+75

46.6 to 41.4

Brown muck

41.4 " 28.0

Medium gray and white sand

28.0 " 24.0

Stiff yellow sand clay

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"

"

"

Elevation of Hub 44.8

Rt. C/L T. STA. 532+00

44.8 to 39.6

Brown muck

39.6 " 30.0

Medium gray sand

30.0 " 24.0

Medium yellow sand w/ small amount of clay

"

"

"

"

"

"

Elevation of Hub 47.7

C/L T. STA. 512+90

47.7 to 40.7

Culvert at Station 512+90

Brown sandy muck

40.7 " 26.0

Medium pink and gray sand w/ layer of marl

"

"

"

"

"

"

"

160 Ft.

Rt. C/L T. STA. 512+00

Elevation of Hub 45.0

45.0 to 40.5

Brown muck

40.5 " 35.0

Gray sandy marl

35.0 " 25.0

Medium gray sand w/ layer of marl

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"

"

"

160 Ft.

Lt. C/L T. STA. 513+70

Elevation of Hub 49.7

49.7 to 44.2

Brown muck

44.2 " 42.0

Fine gray sand

42.0 " 40.0

Pea Gravel

40.0 " 32.0

Fine gray sand w/ thin layers of clay

32.0 " 29.0

Stiff gray sandy marl

"

"

"

"

Ft.

T. STA.

Elevation of Hub

to

"

"

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Elevation of Hub				
109.5	to	109.5		
109.5		99.0	<i>bottom of muck</i>	Very soft brown sandy muck
99.0	"	97.5		N=10
97.5	"	94.0		Medium white sand
94.0	"	92.5		N=12
92.5	"	89.0		Medium yellow sand w/ small amount of gravel
89.0	"	87.5		N=5
87.5	"	84.0		Medium yellow sand w/ small amount of gravel
84.0	"	82.5		N=6

Ft. T. STA.

Elevation of Hub

82.5	to	79.0		Very soft gray and yellow silty sand
79.0	"	77.5		N=2 <i>Bottom of</i>
77.5	"	74.0		Stiff gray and yellow sandy marl
74.0	"	72.5		N=17
72.5	"	69.0		Dense fine gray sand w/ thin layers of yellow clay
69.0	"	67.5		N=12
67.5	"	64.0	<i>Bottom of this</i>	Medium fine gray sand

Ft. T. STA.

Elevation of Hub

64.0	to	62.5		N=8
62.5	"	59.0		Fine yellow and gray sand in layers
59.0	"	57.5		N=10
57.5	"	49.0		Medium fine yellow and gray sand
	"			
	"			
	"			
	"			

Elevation of Hub	106.9		
106.9	to	101.0	Black muck
101.0	"	97.0	White sand
97.0	"	95.5	N=20
95.5 97.0	"	92.0	Stiff gray sandy marl.
92.0	"	90.5	N=10
90.5 92.0	"	87.0	Stiff gray silty sand
87.0	"	85.5	N=11
85.5 87.0	"	82.0	Dense yellow sand w/ small amount of clay

Ft T STA

Elevation of Hub	82.0	to	80.5	N=33
80.5 82.0	"	77.0	Yellow sand and pea gravel	
77.0	"	75.5	N=7	
75.5 77.0	"	72.0	Soft gray and yellow silty sand	
72.0	"	70.5	N=3	
70.5 72.0	"	67.0	Soft gray silty sand	
67.0	"	65.5	N=9	
65.5 67.0	"	62.0	Fine yellow silty sand	

Ft T STA

Elevation of Hub	62.0	to	60.5	N=10
60.5 62.0	"	57.0	Fine yellow silty sand	
57.0	"	47.0	Dense yellow and gray silty sand	



Ft C/L Lt. Lane T STA 814+00

Elevation of Hub			
105.1	to	100.0	Brown Muck
100.0	"	95.0	White sand w/ organic matter
95.0	"	93.5	N=5
93.5	"	90.0	Medium white sand w/ thin layers of clay
90.0	"	88.5	N=7
88.5	"	85.0	Dense brown silty sand
85.0	"	83.5	N=19
83.5	"	80.0	Dense gray sand w/ layers of yellow sand clay

Ft T STA

Elevation of Hub			
80.0	to	78.5	N=14
78.5	"	75.0	Stiff gray silty sand w/ layers of yellow sand clay
75.0	"	73.5	N=25
73.5	"	70.0	Stiff yellow sandy clay
70.0	"	68.5	N=27
68.5	"	65.0	Dense gray and pink sand
65.0	"	63.5	N=48

Ft T STA

Elevation of Hub			
63.5	to	60.0	Dense yellow and gray sand w/ small amount of clay
60.0	"	58.5	N=28
58.5	"	55.0	Dense yellow sand w/ layers of gray clay
	"		
	"		
	"		



Ft C/L Rt. Lane T STA 815+00

Elevation of Hub 104.1

104.1 to 100.0 Black muck

100.0 " 94.0 Medium gray sand

94.0 " 92.5 N=17

92.5 " 89.0 Dense gray and yellow sand

89.0 " 87.5 N=9

87.5 " 84.0 Dense yellow sand w/ small amount of gravel

84.0 " 82.5 N=20

82.5 " 79.0 Dense yellow sand w/ small amount of gravel

Ft T STA

Elevation of Hub

79.0 to 77.5 N=24

77.5 " 74.0 Dense fine yellow and gray sand

74.0 " 72.5 N=10

72.5 " 69.0 Medium fine yellow and gray sand w/ thin layers of clay

69.0 " 67.5 N=4

67.5 " 64.0 Fine yellow and gray sand

64.0 " 62.5 N=9

Ft T STA

Elevation of Hub

62.5 to 59.0 Medium fine yellow sand

59.0 " 57.5 N=10

57.5 " 54.0 Medium fine yellow and gray sand

54.0 " 52.5 N=7

"
"
"
"

Ft C/L Rt. Lane T STA 817+00

Elevation of Hub			
103.8	to	99.0	Brown muck
99.0	"	94.0	White sand
94.0	"	92.5	N=7
92.5	"	89.0	Loose yellow sand w/ small amount of gravel
89.0	"	87.5	N=5
87.5	"	84.0	Dense yellow sand w/ small amount of gravel
84.0	"	82.5	N=16
82.5	"	79.0	Dense yellow sand w/ thin layers of clay

Ft T STA

Elevation of Hub			
79.0	to	77.5	N=10
77.5	"	74.0	Medium fine yellow and gray sand w/ thin layers of gray clay
74.0	"	72.5	N=8
72.5	"	69.0	Stiff gray sand clay w/ layers of sand
69.0	"	67.5	N=9
67.5	"	64.0	Dense yellow sand w/ hard layers
64.0	"	62.5	N=79

Ft T STA

Elevation of Hub			
62.5	to	59.0	Dense yellow sand w/ thin hard layers
59.0	"	57.5	N=22
57.5	"	44.0	Dense yellow and gray sand w/ layers of stiff gray clay
	"		
	"		
	"		
	"		

