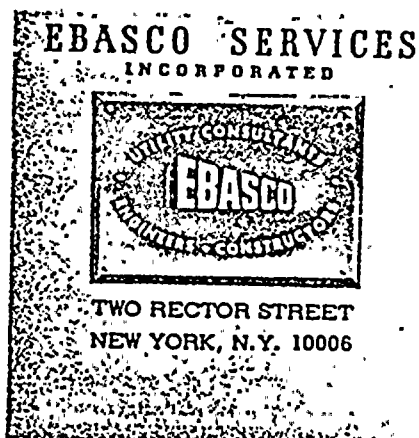


FLORIDA POWER & LIGHT COMPANY
St. Lucie Plant
Soils Foundation of the Emergency Barrier Wall
May 1976

810909526



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I. INTRODUCTION

This report describes the soils work performed for the Emergency Barrier Wall foundation at the St. Lucie Plant, in March and April of 1976. The work involved the driving of compaction piles and the placement of Class I backfill.

II. COMPACTION PILE PROGRAM

1. Purpose

The purpose of the compaction pile program was the in-situ densification of silty sands beneath the Emergency Barrier Wall to elevation minus 59 feet. This material, considered by the NRC staff as being of insufficient density to resist displacements induced by the Safe Shutdown Earthquake (SSE), was densified by soil displacement resulting from pile driving.

2. Driving Technique

2.1 Equipment Used

A 50 ton American Crane was used with a Conmaco 115 single acting air hammer (Photograph Nos. 1 and 2). The hammer ram weight of 11,500 pounds, with a stroke of 39 inches produces a rated energy of 37,375 foot-pounds. Toward the end of the pile driving program this hammer broke down and was replaced with a Vulcan 010 single acting air hammer. With a hammer ram weight of 10,000 pounds and a stroke of 39 inches, this hammer has a rated energy of 32,500 foot-pounds (Photograph No. 3).

Two independent sets of leads were used (Photograph No. 4); one set with the auger and the other with the hammer. The crane could not support both sets of leads simultaneously.

The piles used were 18 inches square prestressed concrete piles 35 feet long.

2.2 Method

All pile driving work, which proceeded 24 hours a day, was performed by Ebsary Foundation Company. Work began on March 26, 1976 and ended April 1, 1976. In order to establish a working method, various techniques were used on the first few piles. The first pile location (pile 2-1) was predrilled with one pass of the hollow stem auger to 35 feet. No material was brought to the surface as a result of the augering (Photograph No. 5). When placed in the hole, the pile dropped 8 feet under its own weight. Driving was moderate with blows ranging to 40 per foot.

The second pile location (pile 1-1) was augered with one pass to 20 feet. Again no material was brought to the surface during augering. However, the pile would not go into the hole. The top 5 feet of the hole were redrilled and widened. The pile was then placed in the hole and dropped 5-1/2 feet under its own weight. Again moderate driving was encountered with blowcounts ranging up to 40 per foot.

Less augering (1 pass of the auger to 10 feet) was attempted on the next few piles. Due to the contractor's equipment several holes had to be drilled consecutively to attain the necessary production. Unfortunately, by the time the last hole of the series was drilled, the first had refilled and the pile would not drop the 5 feet necessary to provide support for driving. One pile (pile 3-5) was driven with no pre-augering at all. In this case, blowcounts ranged up to 20 per foot. This procedure was judged unsafe as the rig was not equipped to drive an "unsupported" pile.

The final working method involved predrilling a pile location with one pass of the auger to 35 feet. A pile would then be placed immediately in the hole. In most cases, no material was brought out of the hole during augering. In those instances when material was brought out, it was replaced in the hole. A pile would drop approximately 5 feet into the hole under its own weight (Photograph No. 6). After placing a pile in a given location and backfilling around it, the contractor would proceed to the next location and repeat the process described above. The contractor was limited to standing eight piles at a time (Photograph No. 7), at which point the piles which were standing would be driven. In order to achieve additional compaction during driving, between 1/2 cubic yard and 1 cubic yard of Class I fill was placed around each Pile (Photograph Nos. 8, 9, 10, 11 and 12). Water was jetted around the pile and on the sand to facilitate the backfilling. A settlement plate was placed adjacent to each pile to monitor any surface movement during the driving operation (Photograph No. 13).

3. Results

A total of 44 piles were driven in the Emergency Barrier Wall area. The tip elevations of all piles driven range between elevation minus 59 feet and minus 60 feet. Originally, 42 piles were scheduled to be driven. When two piles the contractor had brought on site for contingency purposes remained unused, a decision was made to drive these "extra" piles in low blowcount areas. Pile locations and tip elevations of all piles driven are shown on Figure Nos. 1 and 2.

Pile driving encountered moderate resistance with some local loose zones indicated. In all cases blowcounts picked up markedly for the last 5 feet of driving. Heave readings taken for each pile indicate virtually no movement (up or down) adjacent to the piles as a result of driving. These readings are presented on the driving logs in the Appendix, along with complete driving records.

After completion of pile driving, in-place density tests were performed on the backfill jetted adjacent to two piles. The test results indicate that the sand backfill was compacted to between 98 percent and 100 percent of the maximum density obtained for that material

ard
was
was
ion: $(15 \times 15 + 0.5)$
 $(15 \times 15 - 1.5 \times 15)$
 $= 1.01$
ons
42

in the Modified Proctor test. This compaction is due to the energy of vibration during pile driving and the effect of the jetting. In some instances the sand was so tightly packed around the hammer that there was great difficulty in removing the hammer from above the pile (Photograph No. 14).

Compaction piles driven several months earlier in other areas of the plant site are discussed in a report submitted in January 1976 "Compaction Pile Soil Stabilization Program".

4. Conclusions

Because no material was removed from any pile location, the entire volume of each pile (79 cubic feet) and whatever backfill was placed (between 15 cubic feet and 35 cubic feet) around the pile, were effective in soil displacement. Negligible heave readings indicate that all material displaced by the piles and backfill went directly into densifying the in-situ material. Thus it is concluded that densification of in-situ material as required by the NRC staff was accomplished successfully.

Let origl density be γ .

Consider 35 ft. ht. of compacted fill, 15'x15' area,

Assume

25 cu ft. of addl backfill of density γ & no in-situ soil removed.

$$\begin{aligned} \text{Compacted density} &\approx \frac{15 \times 15 \times 35 \gamma + 25 \gamma}{(15 \times 15 - 1.5 \times 1.5) 35} \\ &= \frac{7960 \gamma}{222.75 \times 35} \\ &= \frac{1.013 \gamma}{\text{or } 1.3\% \text{ increase}} \end{aligned}$$

Determine rel. density increase.

Original density of in-situ soil, $\gamma =$

See Appendix 2 & ?

III. BACKFILL OPERATION

1. Purpose

Class I compacted backfill was used within the 5 feet immediately beneath the Emergency Barrier Wall foundation. This material, which is compacted to 85 percent relative density and is not susceptible to liquefaction, was placed under rigorous control and will provide a stable soils foundation for the Emergency Barrier Wall.

2. Equipment Used

Equipment used in the backfill operation included rubber tired front end loaders, a D-7 bulldozer, and several dump trucks. Compaction was accomplished with a smooth drum vibratory roller imparting a minimum dynamic energy of 40,000 foot-pounds. In confined areas inaccessible to the roller, air tamps and other hand compaction devices were utilized.

3. Backfill Material

The Class I backfill material was a light tan, uniformly graded, medium to fine sand with less than 5 percent fines (See Figure A-1). The Proctor Moisture Density curve for this material is relatively flat with a maximum density occurring at approximately 103.5 pcf (See Figure A-2). In general accordance with ASTM D2049 "Relative Density of Cohesionless Soils", γ_{min} was established at 83.2 pcf while γ_{max} was 107.7 pcf.

4. Method

The drawings called for excavation to be carried to elevation minus 26 feet. A naturally occurring cemented sand layer was encountered at elevation minus 24.5 feet. At that point an engineering decision was made that further excavation was unnecessary. Standard Penetration Tests were performed on 30 foot centers to confirm the uniformity and hardness of this layer. Locations and results of these tests are shown on Figures 2 and 3. In addition, a sample of the foundation soil was taken for laboratory testing (Photograph No. 15) to determine this materials' maximum density.

Before backfilling, the bottom of the excavation was cleaned of all debris and was then proof-rolled (Photograph No. 16). In local areas where loose or undesirable material occurred, that material was removed and replaced with Class I fill.

In general, the backfill was brought up in loose 15 inch thick lifts. This yielded a compacted thickness of approximately one foot. The first lift and the last lift (immediately under the working slab) placed ranged to as high as 18 inch loose thickness. In these cases extra testing was performed to assure that the required density had been obtained for the entire lift thickness. Each lift was compacted with a minimum of six passes of the vibratory roller. Initially, each lift was compacted with two passes of the roller to allow access for the water truck. The moisture content of the backfill was increased with several passes of the

water truck. Due to the well-draining nature of the soil, optimum moisture (15 percent - 20 percent) could not be achieved. The lift would then be compacted with a minimum of four additional passes of the roller. In most cases the roller would continue to compact the lift until it was needed somewhere else, thus achieving even better compaction; the lift would be rolled in some instances even after in-place density testing was performed and passing tests obtained.

Adjacent to the sheet piling, hand compaction was necessary. Loose lifts of up to 15 inch loose thickness were used. Again, extensive in-place density testing was performed to assure that the required density had been achieved. Even though 15 inch lifts were allowed, hand compaction for these local areas still lagged far behind areas where the roller was used.

A French drain was placed on the side slopes of the excavation to minimize the flow of surface water into the work area. Due to a delay in the shipment of stone necessary for the drain, the edges of the excavation were not backfilled (Photograph No. 17). When the stone arrived, the existing backfill was step cut for each lift to tie in the "new" backfill (Photograph No. 18). In-place density tests were then performed along the seam of "new" and "old" fill to assure that the required density was attained.

Backfill was brought up to approximately elevation minus 20 feet, at which point a work slab for the mat was placed (Photograph No. 19). The contractor was allowed to place approximately 4 inches of crushed limestone adjacent to the work slab to provide a good road surface for his equipment (Photograph No. 20).

5. Field Control

The backfill operation was controlled by the performance of in-place density tests. Specifications require that a relative density of 85 percent be achieved in the backfill with an allowance of one standard deviation less than the design density. Based on relationships presented in ASTM D2049 "Relative Density of Cohesionless Soils", the percent compaction necessary to achieve the design intent can be established. For field control this value was initially selected as 98 percent of the maximum density obtained in the Modified Proctor Test (ASTM D1557). A test result of 97.9 percent or 96 percent compaction, however, does not necessarily constitute a failing test, as a relative density greater than 85 percent may still be achieved. For every ten in-place density tests performed at least one laboratory Proctor test was performed.

In-place density tests were performed using the Rainhart Balloon Gage in general accordance with ASTM D2167 "Density of Soil in Place by the Rubber Balloon Method". Moisture content determinations were made using the Speedy Moisture Gage to provide quick field results. As a check, moisture content was obtained using oven dry procedures or a hot plate. In most cases the correlation between the "speedy" moisture and the other methods was excellent (within one percent).

For a loose 15 inch lift, in-place density tests were performed 3 inches below the surface. This was done to eliminate the effects of surface looseness which the backfill material exhibited due to the compactor. For thicker lifts, or lifts adjacent to the sheet piling (where hand compaction was used), tests were performed at 3 inches, 6 inches and/or 9 inches from the surface. An average of eight in-place density tests were performed for each lift (not including reruns of failing tests).

6. Results

The Proctor density for the backfill material ranged from 102.9 pcf to 104.4 pcf (average 103.6 pcf). The average compaction achieved in the backfill is 101.7 percent, so that the average in-place density of the backfill is 105.4 pcf. Results of all in-place density tests performed can be found on Table 1 of this report.

Relative density (D_d) is calculated using the following equation presented in ASTM D2049:

$$D_d = \frac{\gamma_{\max} (\gamma - \gamma_{\min})}{\gamma (\gamma_{\max} - \gamma_{\min})}$$

where: γ_{\max} = the maximum density (107.7 pcf) obtained from the vibratory table (ASTM D2049)

γ_{\min} = the minimum density (83.2 pcf) obtained from ASTM D2049

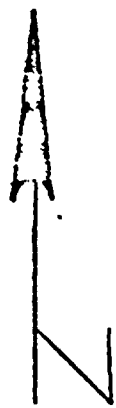
γ = the in-place density of the backfill material (105.4 pcf) obtained from ASTM D2167

The average relative density achieved in the backfill is therefore calculated to be 93 percent. With a 98 percent (minimum accepted) compaction yielding a relative density of 80 percent. The standard deviation was established to be 9 percent, thus allowing a minimum acceptable relative density of 76 percent (85% - σ).

7. Conclusions

The data accumulated and the extensive testing performed verify the overall quality of the backfill placed. It is therefore concluded that a sound soils foundation has been provided for the Emergency Barrier Wall Mat.

FIGURES



STANDARD PENETRATION TESTS @ 20'

ROW 1

ROW 2

ROW 3

14 PILES @ 15'

LEGEND



18" x 15" PILES



SPT LOCATION



HEAVE POINT

FLORIDA POWER AND LIGHT CO.
ST. LUCIE PLANT
PILE LAYOUT & DET.

FIGURE # 2

INCHES
CM.

EBASCO SERVICES INCORPORATED

BY RYK DATE 4/30/76

NEW YORK

SHEET OF

CHKD. BY DATE

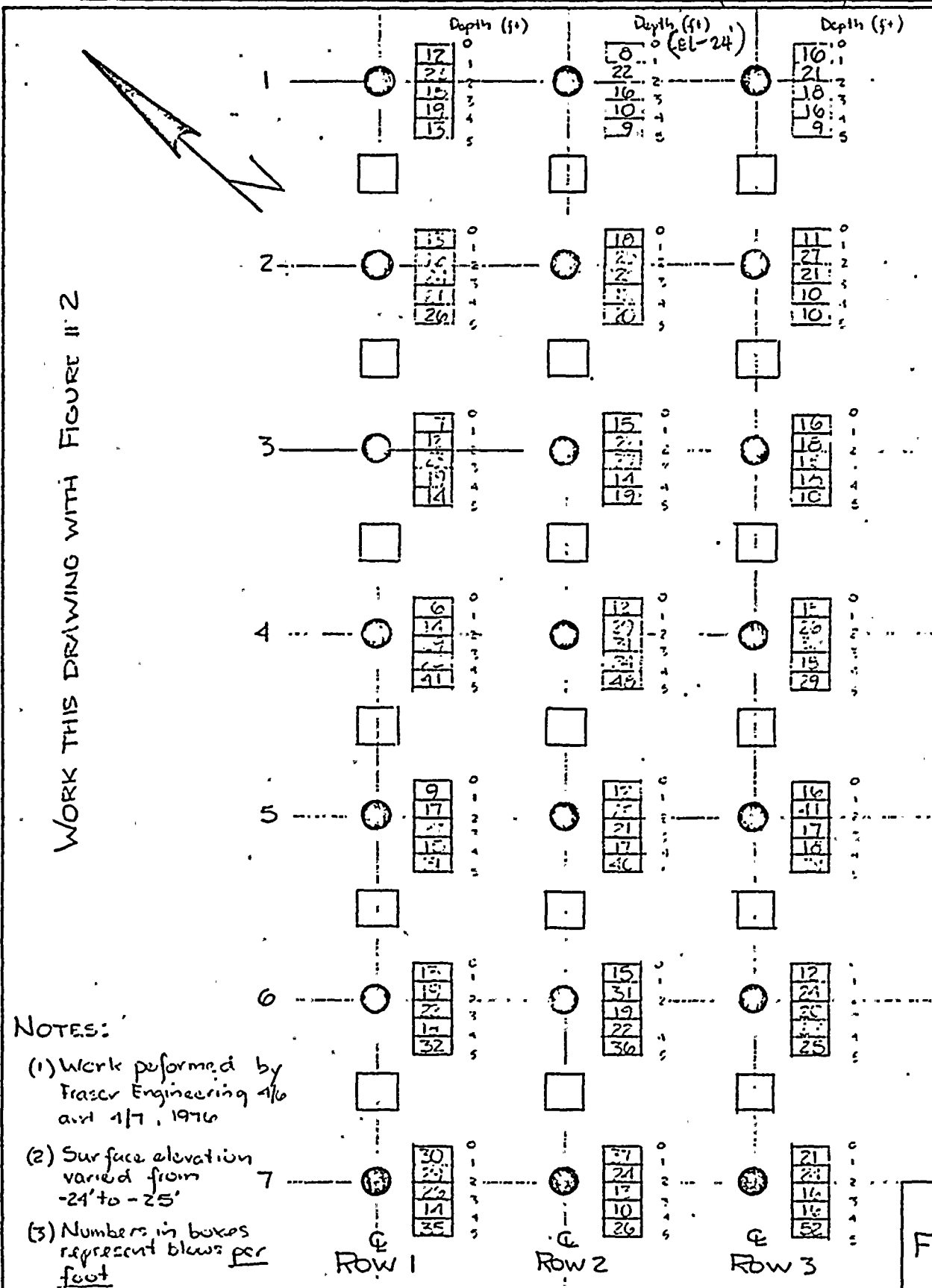
OFS NO. DEPT. NO.

CLIENT FLORIDA POWER & LIGHT CO.

PROJECT ST. LUCIE - EMERGENCY PARKING WALL

SUBJECT STANDARD PENETRATION TEST BLOWCOUNTS (PER FOOT)

WORK THIS DRAWING WITH FIGURE #2



NOTES:

(1) Work performed by
Fraser Engineering 4/6
and 4/7, 1976

(2) Surface elevation
varied from
-24' to -25'

(3) Numbers in boxes
represent blows per
foot

FIGURE #3

TABLE 1
FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
SUMMARY OF IN-PLACE DENSITY TESTS

<u>Test No.</u>	<u>In-Place Density γ_d (pcf)</u>	<u>Proctor Value (pcf)</u>	<u>% Compaction</u>	<u>Re-Test No.</u>
22739	98.2	102.9	95.4	22740
40 R*	102.4	102.9	99.5	
41	99.6	102.9	96.8	22744
42	104.1	102.9	101.2	
43	103.0	102.9	100.1	
44 R	104.7	102.9	101.8	
45	102.3	102.9	99.4	
46	99.3	102.9	96.5	22748
47	101.6	102.9	98.7	
48 R	102.6	102.9	99.7	
49	107.8	102.9	104.7	
22750	105.2	102.9	102.2	
51	94.0	102.9	91.3	22767
52	106.8	102.9	103.8	
53	106.8	102.9	103.8	
54	103.0	102.9	100.1	
55	101.0	103.5	97.5	22757
56	107.4	103.5	103.8	
57 R	107.5	103.5	103.8	
58	103.2	103.5	99.7	
59	105.4	103.5	101.9	
22760	101.8	103.5	98.4	
61	104.3	103.5	100.8	
62	106.0	103.5	102.5	
63	106.1	103.5	102.5	
64	102.2	103.5	98.7	
65	111.1	103.5	107.3	
66	107.3	103.5	103.6	
67 R	99.0	102.9	96.2	22774
68	114.2	103.5	110.3	
69	105.6	103.5	102.1	

* R indicates re-run of failing test.

TABLE 1 (Continued)

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT

SUMMARY OF IN-PLACE DENSITY TESTS

<u>Test No.</u>	<u>In-Place Density γ_d (pcf)</u>	<u>Proctor Value (pcf)</u>	<u>% Compaction</u>	<u>Re-Test No.</u>
22770	106.9	103.5	103.3	
71	102.8	103.5	99.3	
72	104.4	103.5	100.9	
73	106.1	103.5	102.5	
74 R	102.9	102.9	100.0	
75	106.8	103.5	103.1	
76	110.5	103.5	106.8	
77	105.6	103.5	102.0	
78	102.3	103.5	98.9	
79	104.9	103.5	101.4	
22780	102.6	103.5	99.2	
81	95.5	103.5	95.5	22783
82	102.1	103.5	98.6	
83 R	106.6	103.5	103.0	
84	102.7	103.5	99.2	
85	106.6	103.5	103.0	
22797	103.2	104.4	98.8	
98	101.0	104.4	96.7	22808
99	106.4	104.4	101.9	
22800	106.0	104.4	101.5	
01	109.2	103.5	105.5	
02	104.9	103.5	101.4	
03	101.8	103.5	98.4	
04	104.0	103.5	100.5	
05	107.7	103.5	104.1	
06	103.7	103.5	100.1	
07	102.9	103.5	99.4	
08 R	110.9	104.4	106.2	
09	106.5	104.4	102.0	
22810	107.4	104.4	102.9	

* R indicates re-run of failing test.

TABLE 1 (Continued)

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT

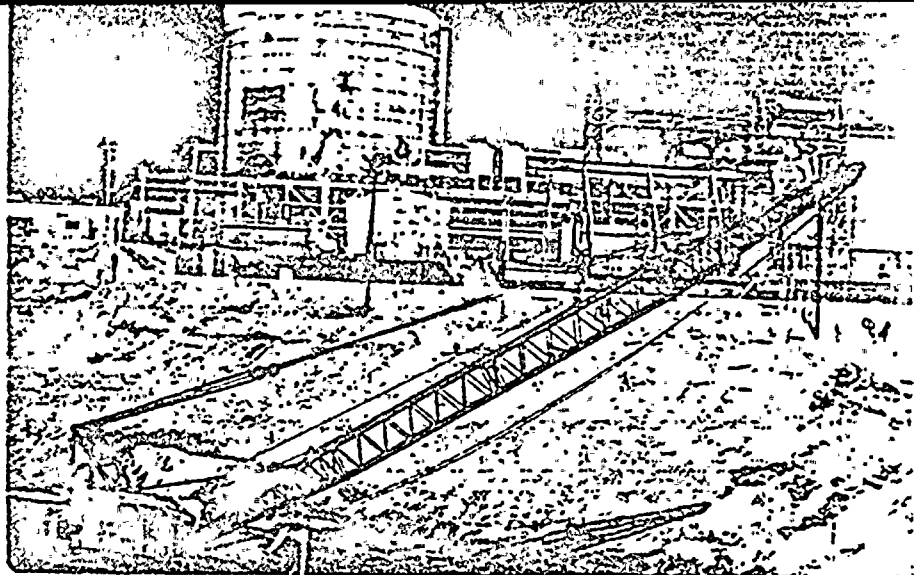
SUMMARY OF IN-PLACE DENSITY TESTS

<u>Test No.</u>	<u>In-Place Density γ_d (pcf)</u>	<u>Proctor Value (pcf)</u>	<u>% Compaction</u>	<u>Re-Test No.</u>
22811	103.9	104.4	99.5	
12	103.2	104.4	98.8	
13	106.7	104.4	102.2	
14	108.6	104.4	104.1	
15	106.1	104.4	101.6	
16	105.3	104.4	100.8	
17	102.8	104.4	98.5	
18	108.5	104.4	103.9	
19	108.0	104.4	103.4	
22820	103.6	104.4	99.3	
21	103.5	104.4	99.2	
22	104.0	104.4	99.6	
23	106.7	104.4	102.2	
26	109.4	104.4	104.7	
27	108.1	104.4	103.5	
28	103.1	103.2	99.9	
29	104.7	103.2	101.5	
22830	103.4	103.2	100.2	
31	106.1	103.2	102.9	
38	104.9	103.2	101.7	
39	103.9	103.2	100.6	
22840	100.4	103.2	97.3	22843
41	103.3	103.2	100.1	
42	105.5	103.2	102.3	
43 R	103.5	103.2	100.3	
44	107.1	103.2	103.8	
45	106.7	103.2	103.4	

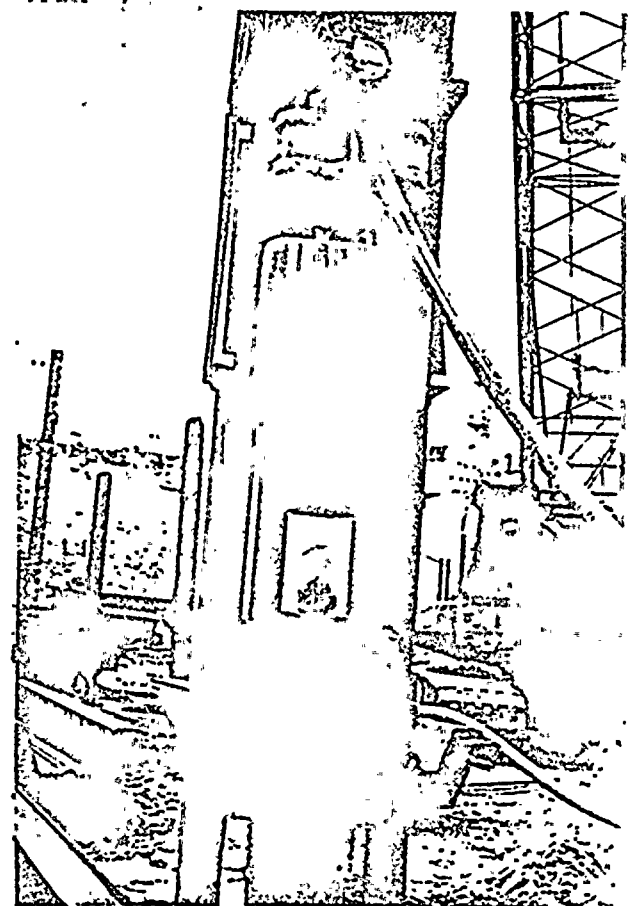
* R indicates re-run of failing test.

PHOTOGRAPHS

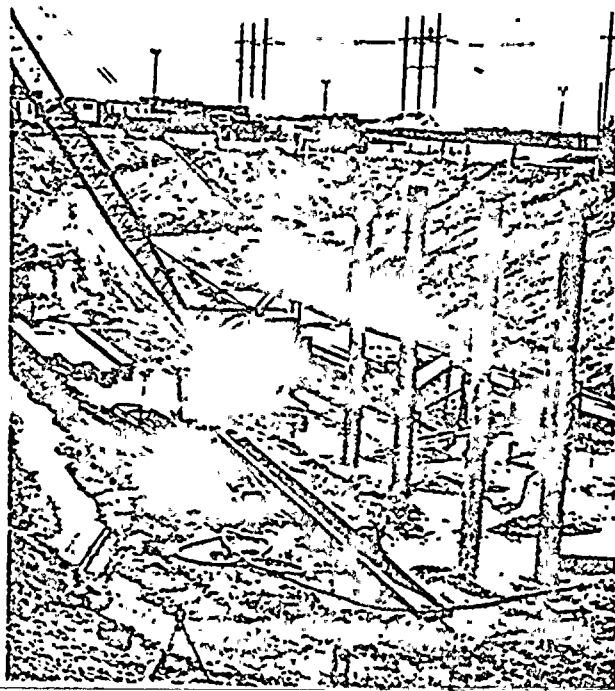
PHOTOGRAPH NO. 1
50 ton "American" Crane.



PHOTOGRAPH NO. 2
Conmaco 115 single acting
hammer.



PHOTOGRAPH NO. 3
Vulcan 010 single acting hammer.



PHOTOGRAPH NO. 4
Leads for auger and for hammer.

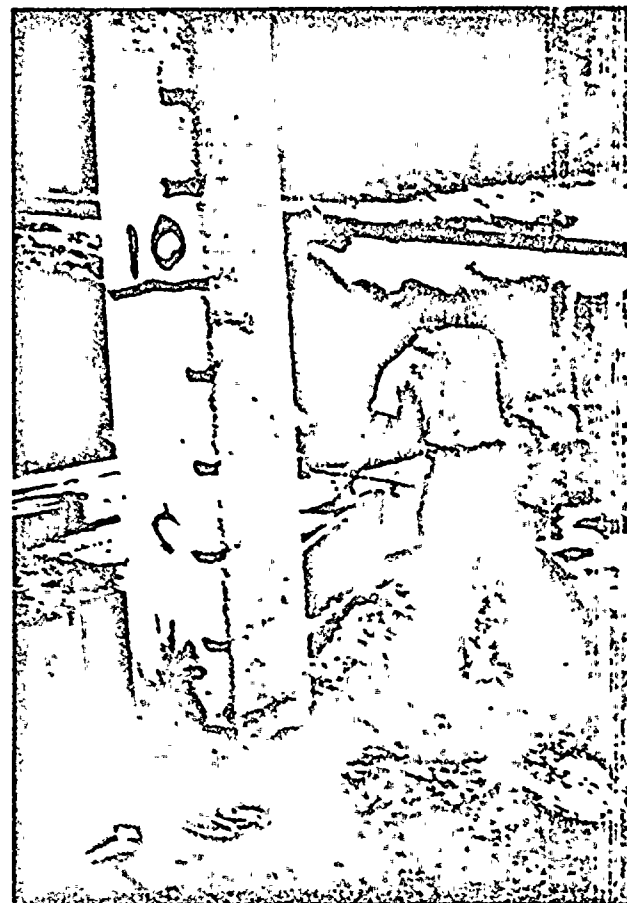


PHOTOGRAPH NO. 5

Typical hole after augering:
almost no material brought
to surface.

PHOTOGRAPH NO. 6

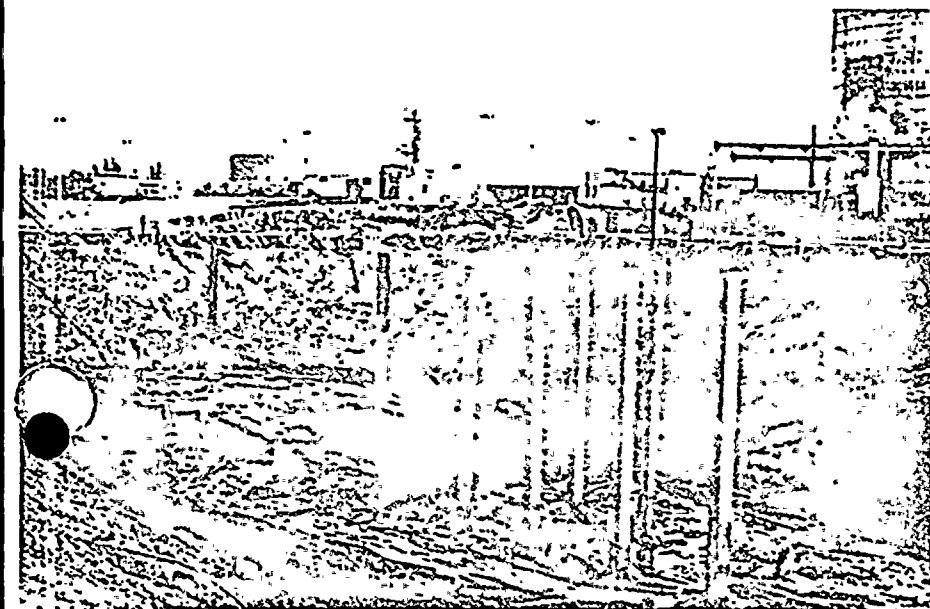
After augering pile would
drop 5 feet into hole.

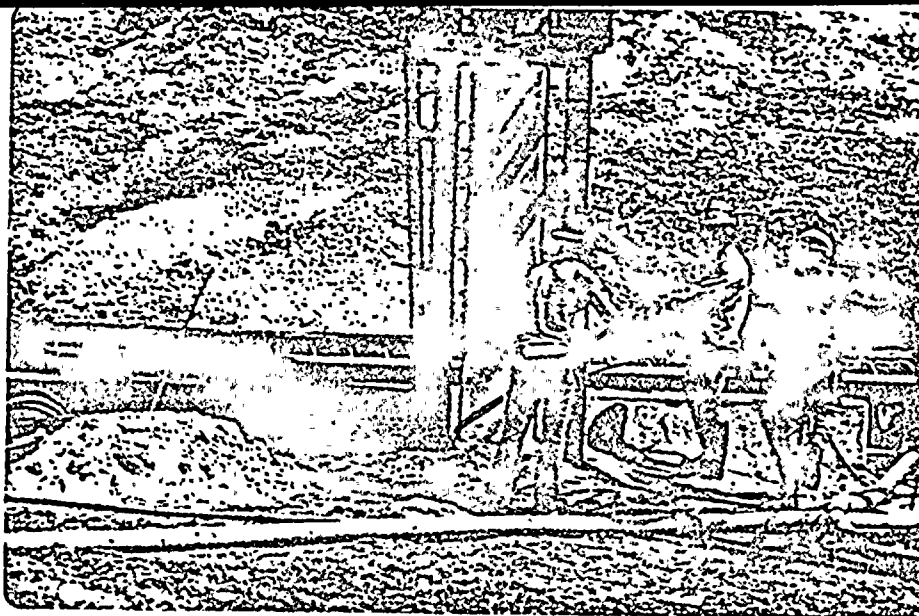


PHOTOGRAPH NO. 7

The contractor could erect up
to eight piles at one time before
driving.

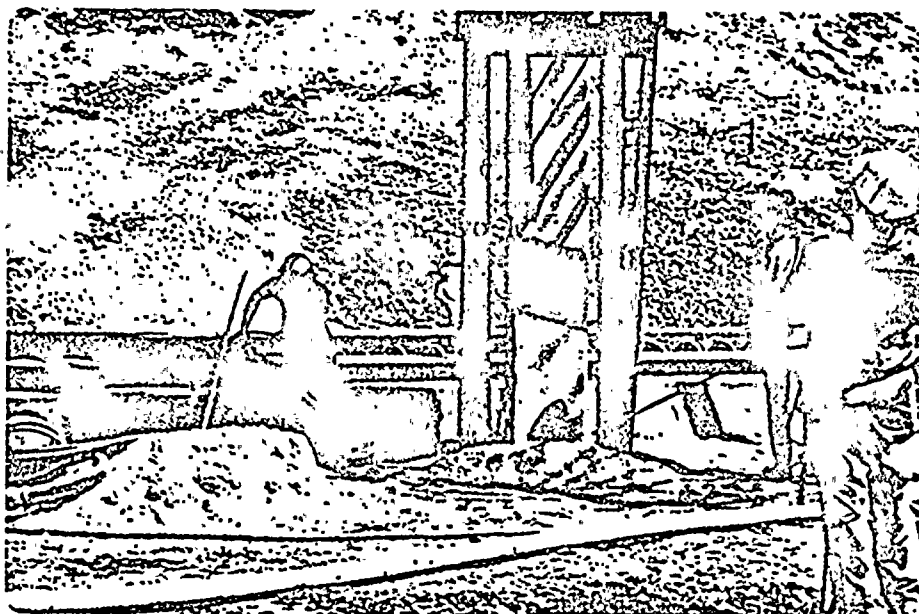
Crew is seen attaching the
hammer leads to crane.





PHOTOGRAPH NO. 8

These pictures (photographs 8-12) indicate the quantity of sand placed adjacent to each pile during driving.



PHOTOGRAPH NO. 9

A water jet was used to facilitate the back-filling.



PHOTOGRAPH NO. 10

Pile driving continues, and so does placement of sand.

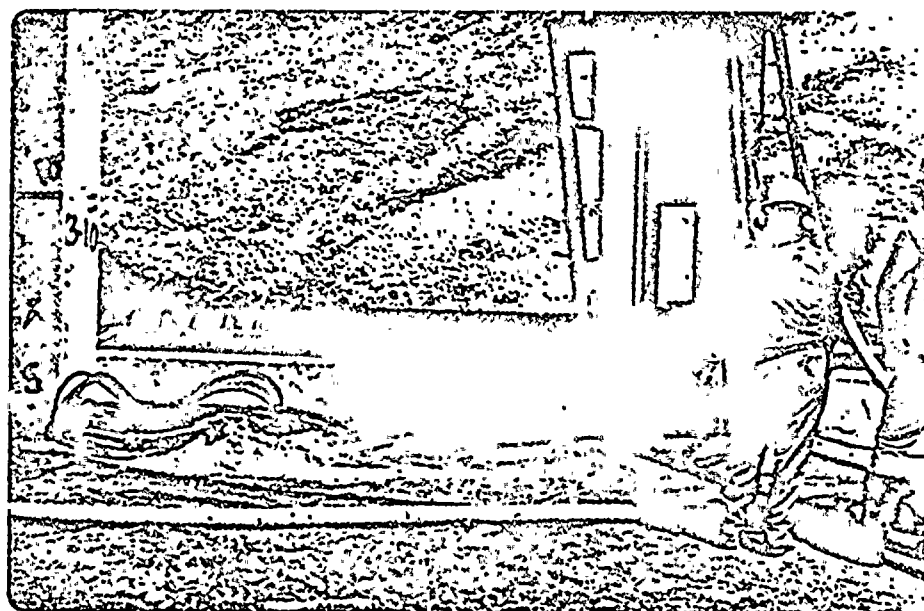
PHOTOGRAPH NO. 11

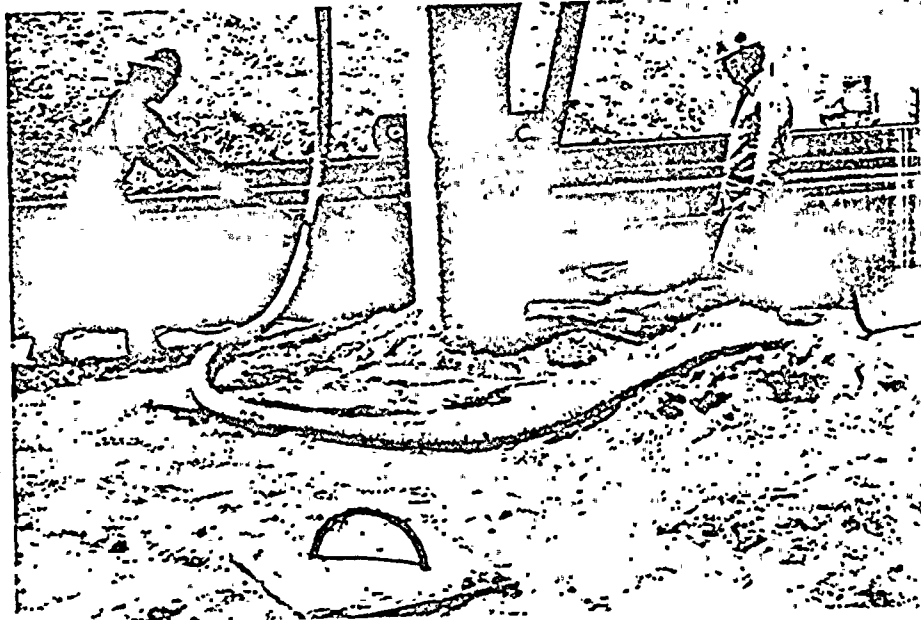
Driving the last 10 feet
of pile.



PHOTOGRAPH NO. 12

Nearing completion of
driving. Sand pile has
been almost completely
used.





PHOTOGRAPH NO. 13

A heave plate was used to monitor any ground movement during pile driving.

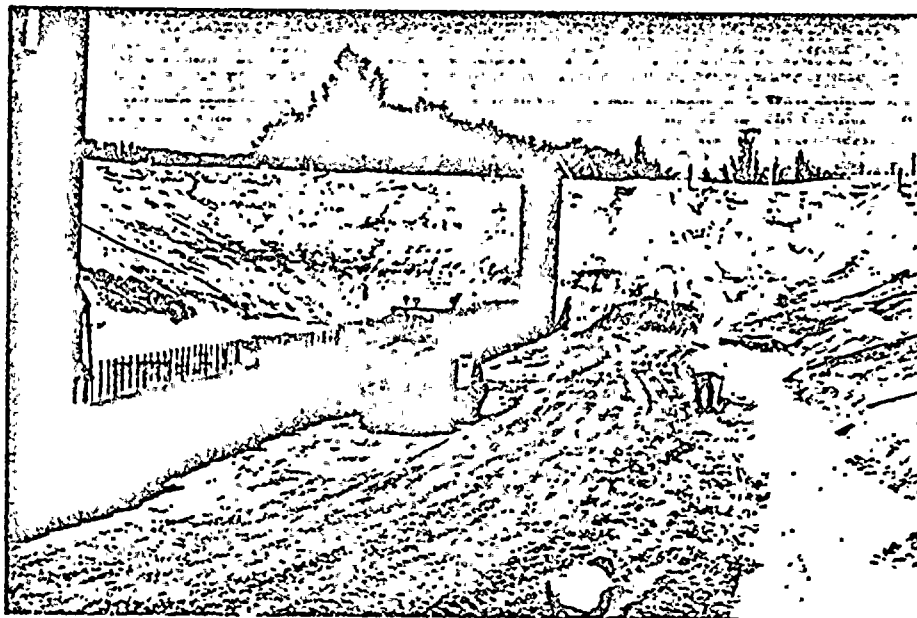
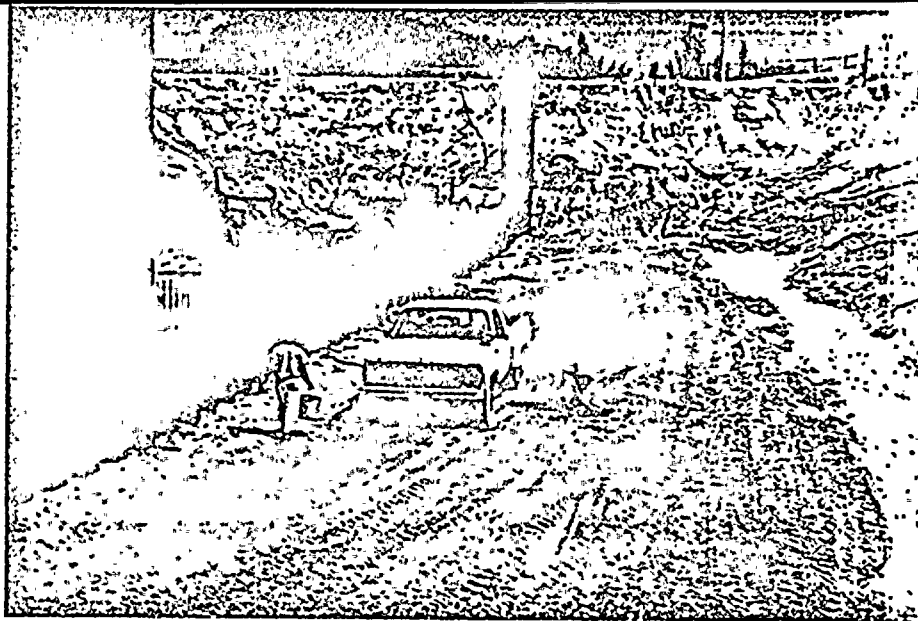


PHOTOGRAPH NO. 14

Typical pile after completion of pile driving. Several times the back-fill packed around the pile so tightly that there was great difficulty in removing the hammer and the top of the pile would be damaged.

PHOTOGRAPH NO. 15

Sample taking from bottom of excavation for laboratory Proctor testing. In-place density tests were performed and compared to the maximum laboratory density to establish percent compaction.

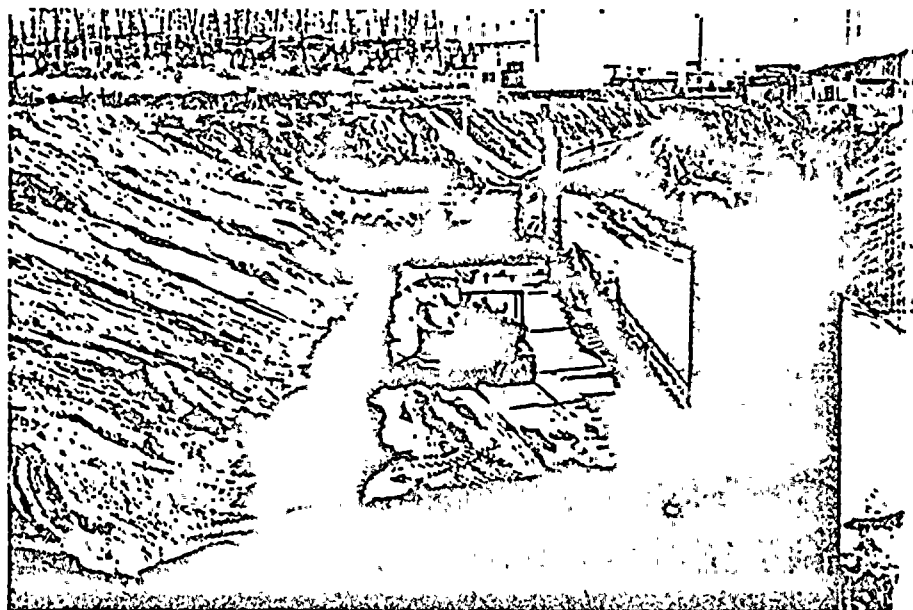


PHOTOGRAPH NO. 16

The bottom of the excavation was proof rolled and cleaned in preparation for backfilling.

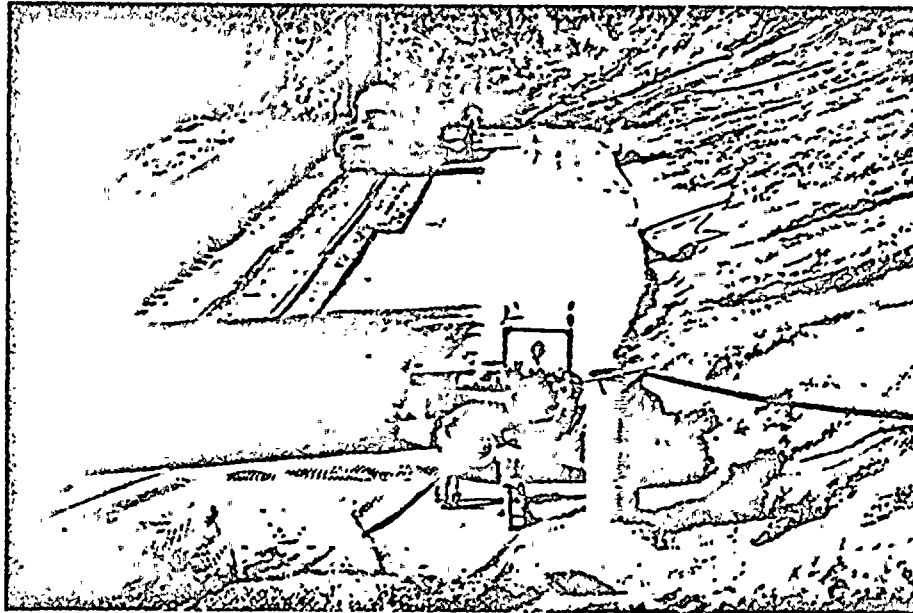
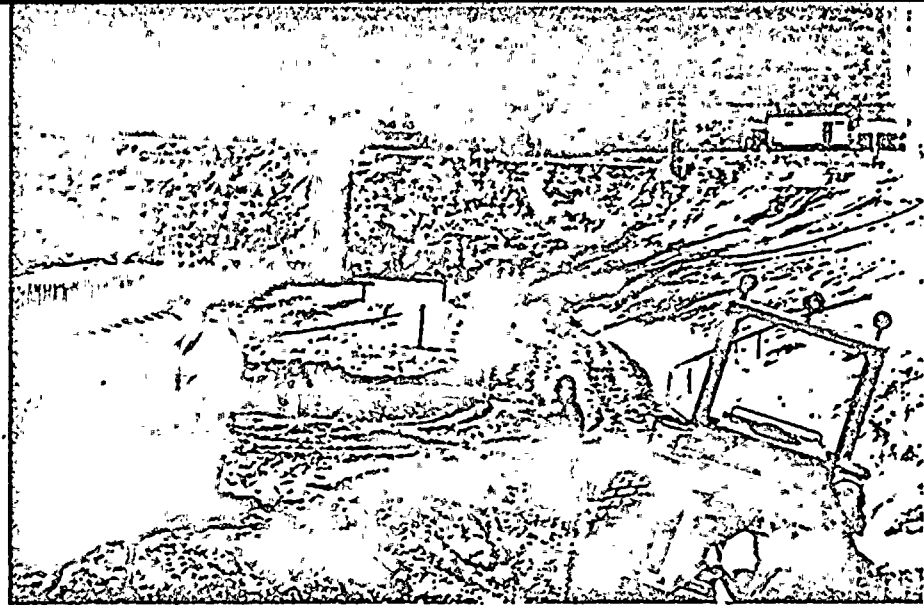
PHOTOGRAPH NO. 17

Because no rock was available for the French drain, the sides of the excavation were not backfilled. As one lift was placed on one side of the key, the lift on the other side was compacted.



PHOTOGRAPH NO. 18

After rock for French drain was placed on slope, backfilling of sides of excavation began. The new lifts were tied into the backfill by "step cutting" into the compacted backfill.

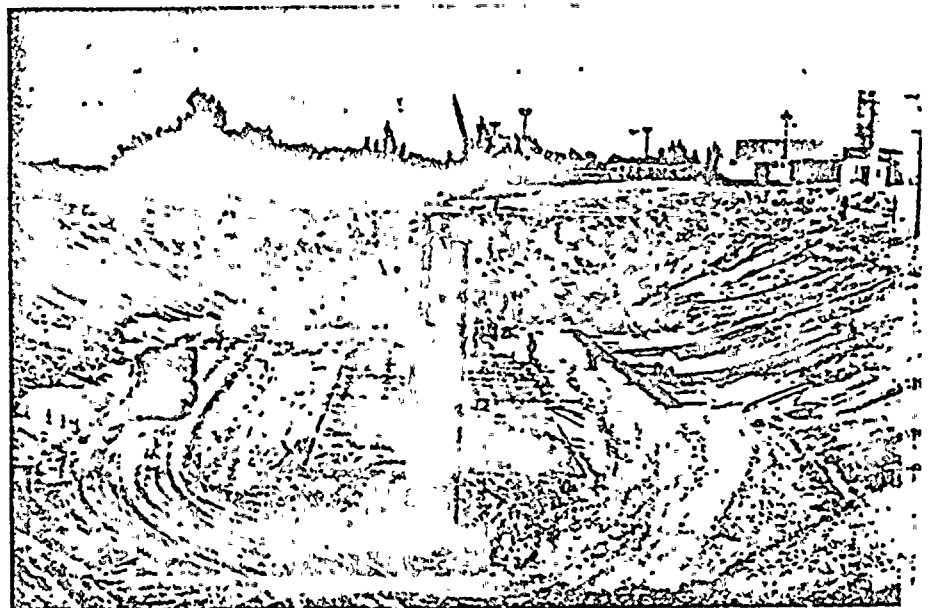


PHOTOGRAPH NO. 19

Work mat is being poured. Compactor is seen working around the southeast corner sump.

PHOTOGRAPH NO. 20

Work mat is complete and re-bar has been placed for the barrier wall foundation. On the right side of the picture the 4 inch crushed lime-stone road base placed by contractor can be seen.



APPENDIX

3.17

EBASCO SERVICES INC.

PILE NO. 1-2

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO	HAMMER NO. 115	JO NO.	DATE 3/12/54
MAKE AND MODEL CONMACO 115			STROKE 39 IN. MEAS. ‡		
RATED 11,500 LB.			WEIGHT OF RAM 11,500 LB.		
WEIGHT LB.			DESCRIPTION (SKETCH ON BACK)		
DESCRIPTION Pre-Cast Concrete			DESCRIPTION augured to 35' no material came out of hole		
LENGTH FT. IN.			WEIGHT LB.		
ELEV OF CUTOFF -25.01			ELEV OF GROUND ~24.5'		
ELEV OF TIP -60.01			LG. CUTOFF TO TIP 35 FT. 0 IN.		

STARTED DRIVING 2:25 A.M.	FINISHED DRIVING 2:35 A.M.	DRIVING TIME 10 MIN.
-------------------------------------	--------------------------------------	--------------------------------

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	5	20	5	30	30	40		50		60		70		80	
1		11	6	21	5	31	32	41		51		61		71		81	
2		12	7	22	8	32	30	42		52		62		72		82	
3		13	9	23	12	33	24	43		53		63		73		83	
4		14	10	24	11	34	29	44		54		64		74		84	
5		15	10	25	8	35		45		55		65		75		85	
6		16	11	26	6	36		46		56		66		76		86	
7		17	10	27	5	37		47		57		67		77		87	
8		18	7	28	5	38		48		58		68		78		88	
9		19	6	29	13	39		49		59		69		79		89	
10		20		30		40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- ‡ IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
‡ FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3

before after

2
3
4

1. 4.78	1. 4.78
2. 4.98	2. 4.78
3. 5.01	3. 5.01
4. 5.01	4. 5.01

4

10

0

0

0

0

Tom. Kell

PILE INSPECTOR

EBASCO SERVICES INC.

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO	HAMMER NO.	JO NO	DATE 3 25
TYPE Pre-Cast Concrete			MAKE AND MODEL CONMACO 115		
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 IN.	
LENGTH DRIVEN FT. IN.		WEIGHT LB.		RATED WEIGHT OF RAM 11,500 LB.	
DESCRIPTION			WEIGHT LB.		
LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)		
DESCRIPTION			REMARKS ** <i>augered to 35' no material out of hole during auguring</i>		
ELEV OF CUTOFF -25.11					
ELEV OF GROUND -24.5					
ELEV OF TIP -60.11					
ELEV OF GROUND 35 FT. 0 IN.					

STARTED DRIVING 1:55 A.M.				FINISHED DRIVING 2:10 A.M.				DRIVING TIME 15 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	9	20	5	30	18	40		50	
1	8	11	8	21	4	31	27	41		51	
2	8	12	8	22	5	32	27	42		52	
3		13	9	23	8	33	23	43		53	
4		14	8	24	9	34		44		54	
5	10	15	9	25	9	35	10	45		55	
6	9	16	8	26	5	36		46		56	
7	9	17	8	27	4	37		47		57	
8	10	18	8	28	5	38		48		58	
9	14	19	6	29	8	39		49		59	
10		20		30		40		50		60	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 2

	before	after	Δ
1. 5.25	1. 5.25	7.07	
2. 5.25	2. 5.25	- .02	
3. 5.25	3. 5.25	- .01	
4. 5.25	4. 5.25	- .01	

PILE INSPECTOR

document attached by [signature]

EBASCO SERVICES INC.

PILE NO. 1-4

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY	HAMMER NO.	JO NO	DATE 2/25
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PILE	Pre-Cast Concrete		HAMMER	MAKE AND MODEL CONMACO 115		
	PIPE DIAMETER 18 IN.	BUTT DIAMETER 18 IN.		STROKE 39 IN.	MEAS. \pm	IN.
	LENGTH DRIVEN FT. IN.	WEIGHT \dagger LB.		WEIGHT OF RAM 11,500 LB.		
	DESCRIPTION			WEIGHT LB.		
FOLLOWER (IF USED)	LENGTH FT. IN.		REMARKS	DESCRIPTION (SKETCH ON BACK)		
	WEIGHT LB.					
	DESCRIPTION					
	LENGTH FT. IN.					
PENETRATION (IF USED)	ELEV OF CUTOFF -25.07		DRIVING CAP ANVIL HELMET, ETC.			
	ELEV OF GROUND -24.5'					
	ELEV OF TIP -60.07					
	LG. CUTOFF TO TIP 35 FT. 0 IN.					

STARTED DRIVING			FINISHED DRIVING			DRIVING TIME											
1:50 A.M.			1:45 A.M.			15 MIN.											
P.M.			P.M.														
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	14	20	6	30	31	40		50		60		70		80	
1		11	15	21	6	31	46	41		51		61		71		81	
2		12	12	22	6	32	45	42		52		62		72		82	
3		13	11	23	9	33	51	43		53		63		73		83	
4		14	11	24	13	34	1	44		54		64		74		84	
5		15	10	25	12	35	1	45		55		65		75		85	
6		16	11	26	8	36		46		56		66		76		86	
7		17	11	27	8	37		47		57		67		77		87	
8		18	10	28	10	38		48		58		68		78		88	
9		19	8	29	20	39		49		59		69		79		89	
10		20		30		40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 \dagger FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 \ddagger NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 2 before after Δ

2	1.5.79	1.5.31	T.02
3	2.5.26	2.5.27	- .01
4	3.5.20	3.5.19	+ .01
5	4.5.22	4.5.22	0

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-5

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EP&ARY	HAMMER NO. 115	JO NO.	DATE
TYPE Pre-Cast Concrete DIAMETER 18 IN. BUILT DIAMETER 18 IN. LENGTH DRIVEN 18 FT. IN. WEIGHT 11,500 LB. DESCRIPTION LENGTH 18 FT. IN. WEIGHT DESCRIPTION LENGTH 18 FT. IN. WEIGHT ELEV OF CUTOFF -25.07 ELEV OF GROUND -24.5 ELEV OF TIP -60.07 LG. CUTOFF TO TIP 35 FT. 0 IN.			MAKE AND MODEL CONMACO 115 STROKE 39 IN. MEAS. 1 IN. WEIGHT OF RAM 11,500 LB. WEIGHT 11,500 LB. DESCRIPTION (SKETCH ON BACK) <i>auger to 25 then hammer</i>		
DRIVING CAP AVAIL HELMET REMARKS ** <i>auger to 25 then hammer</i>					

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME							
		1:05 A.M.				1:15 A.M.				10 MIN.							
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	6	20	6	30	21	40		50		60		70		80	
1		11	7	21	6	31	35	41		51		61		71		81	
2		12	9	22	7	32	40	42		52		62		72		82	
3		13	10	23	9	33	47	43		53		63		73		83	
4		14	14	24	12	34	50	44		54		64		74		84	
5		15	14	25	9	35		45		55		65		75		85	
6		16	14	26	8	36		46		56		66		76		86	
7		17	12	27	6	37		47		57		67		77		87	
8		18	10	28	7	38		48		58		68		78		88	
9		19	8	29	12	39		49		59		69		79		89	
10		20		30		40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
 NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUILT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 * NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBUSS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 2

1	2
I	
4	3

before after Δ

1. 5.24	1. 5.24	0
2. 5.26	2. 5.26	0
3. 5.20	3. 5.20	-0.02
4. 5.22	4. 5.22	0

A. K. K.
 PILE INSPECTOR

EBASCO SERVICES INC.

FILE NO. 1-6

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EB SARY FOUNDATION CO.	HAMMER NO.	JO. NO.	DATE
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PILE TYPE Pre-Cast Concrete	
DIAMETER 18 IN.	BUTT DIAMETER 18 IN.
LENGTH 35 FT. 0 IN.	WEIGHT LB.
DESCRIPTION	
LENGTH FT. IN.	WEIGHT LB.
DESCRIPTION	
LENGTH FT. IN.	WEIGHT LB.
ELEV OF CUTOFF -25.18	ELEV OF GROUND -24.5-
ELEV OF TIP -60.18	LG. CUTOFF TO TIP 35 FT. 0 IN.

HAMMER MAKE AND MODEL CONMACO 115	STROKE 39 IN.	MEAS. $\frac{1}{2}$ IN.
	WEIGHT OF RAM 11,500 LB.	
DRIVING CAP ANVIL WELMET, Etc.	WEIGHT LB.	DESCRIPTION (SKETCH ON BACK)
	AUGERED TO 35'	
REMARKS **	NO MATERIAL OUT OF HOLE	
	SAND FILL USED AS PILE DRIVEN	

TIME STARTED DRIVING A.M. 5:10 PM.	FINISHED DRIVING A.M. 5:20 PM.	DRIVING TIME 10 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	1	10		20		30		40		50		60		70		80	
1	7	11	7	21	6	31	17	41		51		61		71		81	
2	3	12	3	22	5	32	23	42		52		62		72		82	
	9	13	9	23	6	33	35	43		53		63		73		83	
4	8	14	8	24	9	34	37	44		54		64		74		84	
5	10	15	10	25	10	35	39	45		55		65		75		85	
6	7	16	7	26	7	36	32	46		56		66		76		86	
7	9	17	9	27	7	37		47		57		67		77		87	
8	9	18	9	28	6	38		48		58		68		78		88	
9	9	19	9	29	7	39		49		59		69		79		89	
10	7	20	7	30	11	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF. DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3	before	after	
1	5.09	5.07	0
2	5.04	5.02	0
3	5.06	5.06	0
4	5.11	5.11	0

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-7

CLIENT
FP&L

STRUCTURE
ST: LUCIE - BARRIER WALL

CONTRACTOR
EBSARY FOUNDATION CO.

HAMMER NO.

JO NO.

DATE
3/1/77

TYPE
Pre-Cast Concrete

DIAMETER
18 IN.

BUTT DIAMETER
18 IN.

LENGTH
35 FT. 0 IN.

WEIGHT
LB.

DESCRIPTION

LENGTH
FT. IN.

WEIGHT
LB.

DESCRIPTION

LENGTH
FT. IN.

WEIGHT
LB.

ELEV OF CUTOFF
-25.18

ELEV OF GROUND
-24.5±

ELEV OF TIP
-50.18

LG. CUTOFF TO TIP
35 FT. 0 IN.

HAMMER

MAKE AND MODEL
CONMACO 115

STROKE
39 IN.

WEIGHT OF RAM
11,500 LB.

WEIGHT
LB.

DESCRIPTION (SKETCH ON BACK)

VERY LITTLE MATERIAL EXCAVATED FOR HOLE.

SAND FILL USED AS PILE DRIVEN

ADJUSTED TO 5'

DRIVING CAP
ANVIL
WELNET, ETC.

REMARKS **

STARTED DRIVING
A.M. 4:30 P.M.

FINISHED DRIVING
A.M. 4:45 P.M.

DRIVING TIME
15 MIN.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50		60		70		80	
1	L	11	10	21	6	31	31	41		51		61		71		81	
	A																
2	C	12	14	22	7	32	35	42		52		62		72		82	
	E																
	D	13	12	23	4	33	45	43		53		63		73		83	
4	10	14	11	24	14	34	35	44		54		64		74		84	
5	11	15	11	25	15	35	34	45		55		65		75		85	
6	12	16	11	26	10	36	18	46		56		66		76		86	
7	13	17	11	27	6	37		47		57		67		77		87	
8	8	18	10	28	6	38		48		58		68		78		88	
9	7	19	9	29	7	39		49		59		69		79		89	
10	6	20	7	30	14	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3

	before	after	Δ
1	4.93	1. 4.93	10
2	4.94	2. 4.94	0
3	4.95	3. 4.95	0
4	4.95	4. 4.95	0

PILE INSPECTOR

CLIENT FP&L		STRUCTURE ST. LUCIE - BARRIER WALL		CONTRACTOR EBRARY FOUNDATION CO.		HAMMER NO. 115		JO NO. 10		DATE 7/27	
TYPE Pre-Cast Concrete						MAKE AND MODEL CONMACO					
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 IN.		MEAS. 4		IN.			
LENGTH 35 FT. 0 IN.		WEIGHT 1		WEIGHT OF RAM 11,500 LB.							
DESCRIPTION						WEIGHT LB.		DESCRIPTION (SKETCH ON BACK)			
LENGTH FT. IN.		WEIGHT LB.									
DESCRIPTION											
LENGTH FT. IN.		WEIGHT LB.									
ELEV OF CUTOFF -25.02						ELEV OF GROUND -24.52					
ELEV OF TIP -60.02						LG. CUTOFF TO TIP 35 FT. 0 IN.					

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME					
		10:55 A.M.		P.M.		11:05 A.M.		P.M.				10 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70	
1	P	11	11	21	7	31	5	41		51		61		71	
	L														
2	A	12	10	22	5	32	5	42		52		62		72	
	C														
3	E	13	9	23	5	33	17	43		53		63		73	
	D														
4		14	9	24	4	34	20	44		54		64		74	
5		15	9	25	4	35	19	45		55		65		75	
6	12	16	7	26	6	36		46		56		66		76	
7	13	17	8	27	5	37		47		57		67		77	
8	12	18	8	28	4	38		48		58		68		78	
9	10	19	9	29	5	39		49		59		69		79	
10	10	20	8	30	5	40		50		60		70		80	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
- † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION. (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
- ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
- § JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 4 before after Δ

1	2	1.4.67	1.4.67	0
5		2.4.72	2.4.72	0
4	3	3.4.76	3.4.76	0
		4.4.70	4.4.70	0

John Juch

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-9

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY FOUNDATION CO.	HAMMER NO.	JO. NO.	DATE 7/27/71
TYPE Pre-Cast Concrete			MAKE AND MODEL CONMACO 115		
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 IN.	
LENGTH DRIVEN FT. IN.		WEIGHT † LB.		MEAS. ‡ IN.	
DESCRIPTION Pre-Cast Concrete			WEIGHT 11,500 LB.		
LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)		
WEIGHT LB.			NO. OF BLOWS 20		
ELEV. OF CUTOFF -24.6'			ELEV. OF GROUND -2.15'		
ELEV. OF TIP -59.6'			LG. CUTOFF TO TIP 35 FT. 0 IN.		

STARTED DRIVING		FINISHED DRIVING		DRIVING TIME	
10:25 A.M.		10:45 A.M.		20 MIN.	
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20	
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
 NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- † IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 ‡ FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 § NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLNESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: -

before after

1	2
3	4

1. 4.67	1. 4.67	Δ
2. 4.74	2. 4.74	0
3. 4.77	3. 4.76	+ 0.01
4. 4.70	4. 4.70	0

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-10

CLIENT **FP&L** STRUCTURE **ST. LUCIE - BARRIER WALL** CONTRACTOR **EBRARY FOUNDATION CO.** HAMMER NO. **115** JO. NO. **3/30/7** DATE

PILE	Pre-Cast Concrete		HAMMER	MAKE AND MODEL		CONMACO 115	
	DIAMETER 18 IN.			STROKE		39 IN.	
	LENGTH 35 FT. 0 IN.			WEIGHT OF RAM		11,500 LB.	
	WEIGHT 1 LB.			MEAS. #		IN.	
FOLLOWER (IF USED)	DESCRIPTION		DRIVING CAP	WEIGHT		LB.	
	LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)			
	WEIGHT LB.						
	DESCRIPTION						
PENETRATION	ELEV OF CUTOFF		REMARKS	HOLE AUGERED TO 3'			
	-24.64			NO. 10' ...			
	ELEV OF TIP			HOLE AUGERED TO 3'			
	-59.64			HOLE AUGERED TO 3'			

STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
A.M. 3:20 P.M.				A.M. 3:45 P.M.				25 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50	
1	L	11	13	21	13	31	52	41		51	
2	A	12	14	22	10	32	52	42		52	
3	E	13	17	23	11	33	73	43		53	
4	D	14	15	24	14	34	74	44		54	
5		15	18	25	19	35	63	45		55	
6		16	15	26	18	36		46		56	
7	7	17	15	27	17	37		47		57	
8	8	18	17	28	15	38		48		58	
9	12	19	18	29	16	39		49		59	
10	12	20	15	30	32	40		50		60	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 5 before after

1	2	1. 5.65	1. 5.65	10
2	3	2. 5.70	2. 5.70	0
3	4	3. 5.72	3. 5.72	0
4	5	4. 5.68	4. 5.68	0

John Jack.
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-11

CLIENT FP&L	STRUCTURE ST. LUCIE BARRIER	CONTRACTOR EBASCO	HAMMER NO.	JO NO	DATE 4/1/77
TYPE WALL		MAKE AND MODEL VULCAN 010.			
P DIAMETER IN.		BUTT DIAMETER IN.		STROKE IN.	
LENGTH 35 FT. 0 IN.		WEIGHT LB.		WEIGHT OF RAM 10,000 LB.	
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN.		DESCRIPTION (SKETCH ON BACK)			
WEIGHT LB.					
DESCRIPTION					
LENGTH FT. IN.					
WEIGHT LB.					
ELEV OF CUTOFF -24.69		ELEV OF GROUND -24.5			
ELEV OF TIP -59.49		LG. CUTOFF TO TIP 35 FT. 0 IN.			

TIME	STARTED DRIVING A.M. 12:35 PM.	FINISHED DRIVING A.M. 12:55 PM.	DRIVING TIME 10 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	22	21	8	31	41	41		51		61		71		81	
2		12	20	22	9	32	26	42		52		62		72		82	
		13	19	23	10	33	33	43		53		63		73		83	
4		14	19	24	12	34	36	44		54		64		74		84	
5		15	18	25	14	35	28	45		55		65		75		85	
6	10	16	17	26	12	36	24	46		56		66		76		86	
7	17	17	12	27	10	37		47		57		67		77		87	
8	18	18	11	28	9	38		48		58		68		78		88	
9	16	19	14	29	8	39		49		59		69		79		89	
10	22	20	12	30	17	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.

† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)

‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.

§ JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, SOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 6before after Δ

1	2
3	

1. 4.86	1. 4.87	- .01
2. 4.90	2. 4.91	- .01
3. 4.90	3. 4.91	- .01
4. 4.87	4. 4.86	+ .01

John A. Smith
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-12

CLIENT FP&L	STRUCTURE ST. LUCIE BARRIER FOUNDATION CO.	CONTRACTOR EBBARY	HAMMER NO.	LOG NO.	DATE 2/11
TYPE WALL		MAKE AND MODEL VULCAN 010			
PIPE DIAMETER IN.		BUTT DIAMETER IN.		STROKE FATED 39 IN. MEAS. IN.	
LENGTH DRIVEN FT. IN.		WEIGHT 1 LB.		WEIGHT OF RAM LB.	
DESCRIPTION		WEIGHT 10,000 LB.		DESCRIPTION (SKETCH ON BACK)	
LENGTH FT. IN.		WEIGHT LB.			
DESCRIPTION		REMARKS AUGERED TO 25' NO MATERIAL OUT OF HOLE WATER JET SAND FILL AROUND PILE			
LENGTH FT. IN.		WEIGHT LB.		HAMMER SPEED AT FT. 21 - 3	
ELEV. OF CUTOFF -24.27		ELEV. OF GROUND -11.5 ±			
ELEV. OF TIP -39.27		LG. CUTOFF TO TIP 35 FT 0 IN.			

STARTED DRIVING		FINISHED DRIVING		DRIVING TIME											
A.M. 1:25 PM		A.M. 1:50 PM		15 MIN.											
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50		60		70	
1		11	12	21	7	31	12	41		51		61		71	
2	A	12	15	22	5	32	25	42		52		62		72	
	C														
	E	13	18	23	2	33	27	43		53		63		73	
	D														
4		14	19	24	7	34	30	44		54		64		74	
5		15	17	25	10	35	34 ft	45		55		65		75	
6	7	16	15	26	10	36		46		56		66		76	
7	8	17	15	27	9	37		47		57		67		77	
8	10	18	16	28	7	38		48		58		68		78	
9	10	19	15	29	7	39		49		59		69		79	
10	13	20	11	30	9	40		50		60		70		80	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, COLLAPSE AND DURATION OF DELAYS IN DRIVING, SHOULDER, BARK, CONDITION OF CUSHION, FLUMBLESS, BUNTING, DAMAGE, DRIVING SHOE, ETC.

location: 6

reading
before after Δ

1	2
VI	
	3

1. 1.89	1. 1.70	-0.01
2. 1.94	2. 1.84	0
3. 1.94	3. 1.94	0
4. 1.90	4. 1.91	-0.01

John Luch
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 1-15

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER FOUNDATION	CONTRACTOR EBBARY CO.	HAMMER NO.	JO NO.	DATE 4/1/77
PILE TYPE WALL		MAKE AND MODEL VULCAN 010			
TIP DIAMETER IN.		STROKE IN.			
BUTT DIAMETER IN.		WEIGHT OF RAM LB.			
LENGTH 35 FT. 0 IN.		WEIGHT LB.			
DESCRIPTION		DESCRIPTION (SKETCH ON BACK)			
LENGTH FT. IN.		WEIGHT LB.			
DESCRIPTION		REMARKS			
LENGTH FT. IN.		ELEV. OF CUTOFF -23.90			
WEIGHT LB.		ELEV. OF GROUND -24.5			
ELEV. OF TIP -58.90		LG. CUTOFF TO TIP 35 FT. 0 IN.			

STARTED DRIVING A.M. 1:55 P.M.	FINISHED DRIVING A.M. 2:15 P.M.	DRIVING TIME 20 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11		21		31		41		51		61		71		81	
2		12		22		32		42		52		62		72		82	
3		13		23		33		43		53		63		73		83	
4		14		24		34		44		54		64		74		84	
5		15		25		35		45		55		65		75		85	
6		16		26		36		46		56		66		76		86	
7		17		27		37		47		57		67		77		87	
8		18		28		38		48		58		68		78		88	
9		19		29		39		49		59		69		79		89	
10		20		30		40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
§ JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, SOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BUILDING, DAMAGE, DRIVING SHOE, ETC.

location: 4

before after Δ

1	2
3	4
5	6
7	8
9	10

1. 4.89	1. 4.90	0.01
2. 4.94	2. 4.94	0
3. 4.94	3. 4.94	0
4. 4.90	4. 4.91	-0.01

John Smith
PILE INSPECTOR

EBASCO SERVICES, INC.

PILE NO. 2-1

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBSARY FOUNDATION CO.	HAMMER NO.	JO NO	DATE
MAKE AND MODEL CONMACO 115			STROKE 39 IN. MEAS. † IN.		
DIAMETER 18 IN.			BUTT DIAMETER 18 IN.		
LENGTH DRIVEN FT. IN.			WEIGHT † LB.		
DESCRIPTION			WEIGHT LB.		
LENGTH FT. IN.			WEIGHT LB.		
DESCRIPTION			DESCRIPTION (SKETCH ON BACK)		
LENGTH FT. IN.			WEIGHT LB.		
ELEV OF CUTOFF -24.94			ELEV OF GROUND -24.5		
ELEV OF TIP -29.91			LG. CUTOFF TO TIP FT. () IN.		

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
		A.M.				P.M.				MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60	
1	W	11	22	21	8	31	21	41		51		61	
2	E	12		22	8	32	31	42		52		62	
3	I	13	11	23	10	33	25	43		53		63	
4	H	14	13	24	10	34	33	44		54		64	
5	T	15	13	25	13	35	40	45		55		65	
6	O	16	14	26	13	36	15	46		56		66	
7	F	17	17	27	10	37		47		57		67	
8	L	18	14	28	7	38		48		58		68	
9	E	19	13	29	8	39		49		59		69	
10		20	11	30	13	40		50		60		70	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES, DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
§ JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BRANDING, DAMAGE, DRIVING SHOE, ETC.

location: 1

	before	after
1	3.88	1.3.88
2	3.89	2.3.89
3	4.045	3.4.05
4	4.1.025	4.1.05

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-2

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBBARY FOUNDATION CO.	HAMMER NO. 115	JO NO.	DATE 3/25/77
MAKE AND MODEL CONMACO 115		STROKE 39 IN. MEAS. # IN.			
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.			
LENGTH 35 FT. 0 IN.		WEIGHT 11,500 LB.			
DESCRIPTION Pre-Cast Concrete		WEIGHT 11,500 LB.			
LENGTH 35 FT. 0 IN.		DESCRIPTION (SKETCH ON BACK)			
DESCRIPTION Pre-Cast Concrete		AUGERED TO 35'			
LENGTH 35 FT. 0 IN.		NO MATERIAL EXCAVATED FROM HOLE			
DESCRIPTION Pre-Cast Concrete		SAND FILL USED AS PILE DRIVEN			
ELEV OF CUTOFF -24.89		ELEV OF GROUND -24.5			
ELEV OF TIP -59.89		LG. CUTOFF TO TIP 35 FT. 0 IN.			

STARTED DRIVING A.M. 6:45 P.M.	FINISHED DRIVING A.M. 6:55 P.M.	DRIVING TIME 10 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	1	10		20		30		40		50		60		70		80	
1	2	11	8	21	5	31	6	41		51		61		71		81	
2	3	12	10	22	5	32	12	42		52		62		72		82	
3	4	13	7	23	5	33	11	43		53		63		73		83	
4	5	14	9	24	6	34	14	44		54		64		74		84	
5	5	15	9	25	6	35	23	45		55		65		75		85	
6	5	16	8	26	8	36	21	46		56		66		76		86	
7	6	17	7	27	7	37		47		57		67		77		87	
8	6	18	5	28	6	38		48		58		68		78		88	
9	7	19	5	29	5	39		49		59		69		79		89	
10	8	20	5	30	5	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 3 before reading after Δ

1	2	1. 5.15	1. 5.17	-02
2	3	2. 5.11	2. 5.12	-01
3	4	3. 5.14	3. 5.15	-01
4	5	4. 5.17	4. 5.20	-01

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-7a

CLIENT FP&L	STRUCTURE ST. LUCIE BARRIERS FOUNDATION CO.	CONTRACTOR EBRARY	HAMMER NO.	JO NO	DATE
TYPE WALL		MAKE AND MODEL VULCAN 010			
P DIAMETER IN.		BUTT DIAMETER IN.		STROKE IN.	
LENGTH 35 FT. 0 IN.		WEIGHT LB.		WEIGHT OF RAM 10,000 LB.	
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN.		DESCRIPTION (SKETCH ON BACK)			
WEIGHT LB.					
DESCRIPTION		HOLE AUGERED TO 35'			
LENGTH FT. IN.		NO MATERIAL REMOVED FROM HOLE			
WEIGHT LB.		HAMMER STOPPED AT 35'			
DESCRIPTION		WATER SET SAND FILL AROUND PILE			
ELEV OF CUTOFF -24.95		ELEV OF GROUND -21.5			
ELEV OF TIP -59.95		LG. CUTOFF TO TIP 35 FT. 0 IN.			
REMARKS		HOLE AUGERED TO 35'			
		NO MATERIAL REMOVED FROM HOLE			
		HAMMER STOPPED AT 35'			
		WATER SET SAND FILL AROUND PILE			
		HAMMER SPEED 25			
		SPEED 1			

TIME	STARTED DRIVING	FINISHED DRIVING	DRIVING TIME
	A.M. 2:55 P.M.	A.M. 3:05 P.M.	10 MIN.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1	P	11	5	21	5	31	10	41		51		61		71		81	
2	L	12	5	22	4	32	18	42		52		62		72		82	
3	A	13	5	23	4	33	21	43		53		63		73		83	
4	C	14	7	24	4	34	30	44		54		64		74		84	
5	F	15	8	25	8	35	31	45		55		65		75		85	
6	2	16	6	26	8	36	36 FT	46		56		66		76		86	
7	Y	17	6	27	6	37		47		57		67		77		87	
8		18	4	28	5	38		48		58		68		78		88	
9		19	5	29	7	39		49		59		69		79		89	
10		20	5	30	9	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CL. ST. AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 6 before after 4

1	2	1. 4.90	1.
3	4	2. 4.91	2.
5	6	3. 4.94	3. NONE
7	8	4. 4.93	4. TAKEN

John Luch.
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-3

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBSARY FOUNDATION CO.	HAMMER NO.	JO NO.	DATE 3/3/57
MAKE AND MODEL CONMACO 115		STROKE 39 IN. MEAS. F IN.			
DETERMINED BY 35 FT. 0 IN.		WEIGHT OF RAM 11,500 LB.			
WEIGHT LB.		DESCRIPTION (SKETCH ON BACK)			
AUGERED TO 35'		VERY LITTLE MATERIAL EXCAVATED			
FROM HOLE.		SHOWN FOR USE AS TIE SECTION.			

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
		A.M. 6:25 P.M.				A.M. 6:35 P.M.				10 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60	
1		11	8	21	7	31	16	41		51		61	
2		12	8	22	8	32	35	42		52		62	
3		13	9	23	9	33	32	43		53		63	
4	8	14	9	24	10	34	35	44		54		64	
5	12	15	8	25	5	35	35	45		55		65	
6	12	16	7	26	6	36	11 FT	46		56		66	
7	11	17	5	27	5	37		47		57		67	
8	11	18	7	28	6	38		48		58		68	
9	9	19	6	29	7	39		49		59		69	
10	8	20	6	30	5	40		50		60		70	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3 before after 4

1	2	1. 5.15	1. 5.15	10
1		2. 5.11	2. 5.11	0
4	3	3. 5.14	3. 5.14	0
		4. 5.19	4. 5.19	0

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-4-

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY FOUNDATION CO.	HAMMER NO.	JO NO.	DATE 3/23/71
TYPE Pre-Cast Concrete		MAKE AND MODEL CONMACO 115			
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.			
LENGTH DRIVEN FT. IN.		WEIGHT LB.			
DESCRIPTION		STROKE 39 IN. MEAS. # IN.			
LENGTH FT. IN.		WEIGHT OF RAM 11,500 LB.			
DESCRIPTION		WEIGHT LB. DESCRIPTION (SKETCH ON BACK)			
LENGTH FT. IN.		AUGERED TO 35'			
DESCRIPTION		NO MATERIAL EXCAVATED FROM HOLE			
LENGTH FT. IN.		SAND FILL USED AS PILE DRIVEN			
ELEV. OF CUTOFF -24.93		ELEV. OF GROUND -24.5			
ELEV. OF TIP -59.83		LG. CUTOFF TO TIP 34.87 FT. 0 IN.			

STARTED DRIVING A.M. 6:00 P.M.	FINISHED DRIVING A.M. 6:15 P.M.	DRIVING TIME 15 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50		60		70		80	
1	L	11	11	21	9	31	15	41		51		61		71		81	
2	A	12	12	22	9	32	20	42		52		62		72		82	
3	C	13	11	23	11	33	22	43		53		63		73		83	
4	F	14	11	24	15	34	25	44		54		64		74		84	
5	D	15	13	25	14	35	30	45		55		65		75		85	
6		16	12	26	10	36	35 FT.	46		56		66		76		86	
7		17	10	27	8	37		47		57		67		77		87	
8		18	7	28	6	38		48		58		68		78		88	
9		19	8	29	5	39		49		59		69		79		89	
10		20	9	30	5	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3 before after 4

1	2	1. 5.19	1. 5.09	10
3		2. 5.04	2. 5.04	0
4	3	3. 5.06	3. 5.06	0
		4. 5.11	4. 5.11	0

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-5

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY FOUNDATION CO.	HAMMER NO.	JO NO	DATE 7/26/77
E Pre-Cast Concrete		MAKE AND MODEL CONMACO 115			
TIP DIAMETER 18 IN.		BUTT DIAMETER 18 IN.			
LENGTH 35 FT. 0 IN.		WEIGHT 11,500 LB.			
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN.		DESCRIPTION (SKETCH ON BACK)			
DESCRIPTION		AUGERED TO 35'			
LENGTH FT. IN.		NO. MATERIAL EXCAVATED FROM HOLE			
ELEV OF CUTOFF -24.98		ELEV OF GROUND -24.5 =			
ELEV OF TIP 59.98		LG. CUTOFF TO TIP 35 FT. 0 IN.			

STARTED DRIVING A.M. 5:25 P.M.	FINISHED DRIVING A.M. 5:40 P.M.	DRIVING TIME 15 MIN.
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FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	1	10		20		30		40		50		60		70		80	
1	14	11	9	21	12	31		41		51		61		71		81	
	14	12	9	22	23	32		42		52		62		72		82	
	14	13	10	23	27	33		43		53		63		73		83	
	14	14	13	24	30	34		44		54		64		74		84	
4	15	15	15	25	31	35		45		55		65		75		85	
5	17	16	11	26	26	36		46		56		66		76		86	
6	17	17	8	27		37		47		57		67		77		87	
7	16	18	6	28		38		48		58		68		78		88	
8	13	19	5	29		39		49		59		69		79		89	
9	14	20	7	30		40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
§ JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 3 before ^{reading} after 4

1	5.09	1	5.09	10
2	5.04	2	5.02	00
3	5.06	3	5.06	00
4	5.11	4	5.11	00

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-6

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EB SARY FOUNDATION CO.	HAMMER NO.	JO NO	DATE 3/29/72
MAKE AND MODEL CONMACO 115			STROKE 39 IN. MEAS. † IN.		
RATED 11,500 LB.			WEIGHT OF RAM 11,500 LB.		
WEIGHT LB.			DESCRIPTION (SKETCH ON BACK)		
HOLE AUGERED TO 35'			WATER JET SAND IN THIS HOLE		
REMARKS **			(IF USED) (IF USED) (IF USED)		

STARTED DRIVING

A.M. 2:30 P.M.

FINISHED DRIVING

A.M. 2:45 P.M.

DRIVING TIME

MIN.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	13	21	5	31	20	41		51		61		71		81	
2		12	11	22	6	32	15	42		52		62		72		82	
3		13	14	23	7	33	41	43		53		63		73		83	
4		14	16	24	10	34	42	44		54		64		74		84	
5		15	15	25	12	35	42	45		55		65		75		85	
6	5	16	14	26	13	36	45	46		56		66		76		86	
7	17	17	14	27	9	37		47		57		67		77		87	
8	13	18	10	28	10	38		48		58		68		78		88	
9	14	19	10	29	9	39		49		59		69		79		89	
10	15	20	10	30	10	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- † IF WOOD STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
† NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CL. 52 AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBNESS, BINDING, DAMAGE, DRIVING SHOE, ETC.

location: 4

before after

Δ

1	2
3	
4	3

1. 4.75	1. 4.75	1. 0
2. 4.82	2. 4.81	+ 0.01
3. 4.85	3. 4.84	+ 0.01
4. 4.78	4. 4.77	+ 0.01

John Dink
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-7

CLIENT FP&L STRUCTURE ST. LUCIE - BARRIER WALL CONTRACTOR EBRARY FOUNDATION CO. HAMMER NO. 115 JO. NO. 3/25/1 DATE

PILE DIA.	Pre-Cast Concrete		HAMMER	MAKE AND MODEL CONMACO 115	
	DIAMETER 18 IN.	BUTT DIAMETER 18 IN.		STROKE RATED 39 IN.	MEAS. 2 IN.
LENGTH	35 FT. 0 IN.		WEIGHT	11,500 LB.	
	LB.			LB.	
DESCRIPTION			WEIGHT	LB.	
				DESCRIPTION (SKETCH ON BACK)	
LENGTH	FT. IN.		WEIGHT	LB.	
DESCRIPTION			WEIGHT	LB.	
ELEV. OF CUTOFF	-25.23		ELEV. OF GROUND	-22.5	
ELEV. OF TIP	-10.23		LG. CUTOFF TO TIP	35 FT. 0 IN.	

STARTED DRIVING A.M. 1:45 P.M. FINISHED DRIVING A.M. 1:55 P.M. DRIVING TIME 10 MIN.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	12	21	4	31	7	41		51		61		71		81	
2		12	12	22	3	32	19	42		52		62		72		82	
3		13	12	23	3	33	23	43		53		63		73		83	
4		14	11	24	4	34	26	44		54		64		74		84	
5		15	11	25	4	35	58	45		55		65		75		85	
6	8	16	10	26	6	36	25	46		56		66		76		86	
7	9	17	8	27	5	37	38	47		57		67		77		87	
8	10	18	8	28	4	38		48		58		68		78		88	
9	11	19	7	29	4	39		49		59		69		79		89	
10	12	20	6	30	4	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
§ JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 4 before after Δ

1	4.73	1	4.73	0
2	4.80	2	4.80	0
3	4.81	3	4.81	0
4	4.76	4	4.78	-0.02

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-7a.

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR	HAMMER NO.	JO. NO.	DATE 5/31/72
PILE TYPE Pre-Cast Concrete		MAKE AND MODEL CONMACO 115		DATE 4/1/72	
TIP DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 VULCAN 010	
LENGTH DRIVEN FT. IN.		WEIGHT LB.		WEIGHT OF RAM 11,500 LB.	
DESCRIPTION		WEIGHT 10,000 LB.		DESCRIPTION (SKETCH ON BACK)	
LENGTH FT. IN.		WEIGHT LB.			
DESCRIPTION					
LENGTH FT. IN.		WEIGHT LB.			
ELEV OF CUTOFF -25.08		ELEV OF GROUND -24.5			
ELEV OF TIP -60.08		LG. CUTOFF TO TIP 35 FT. 0 IN.			
FOLLOWER (IF USED)		REMARKS **			
		HOLE AUGERED TO 35'			
		NO MATERIAL REMOVED FROM HOLE			
		WATER NOT ALLOWED TO RISE			
		NEW HAMMER BROUGHT IN TO COMPLETE			

TIME STARTED DRIVING **11:25 am - 11:50 am** FINISHED DRIVING **APRIL 1/72** DRIVING TIME **MIN.**
9:25 A.M. P.M. 9:40 A.M. MAR 31/72 P.M.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	8	20		30		40		50		60		70		80	
1		11	8	21	9	31	72	41		51		61		71		81	
		12	9	22	8	32	55	42		52		62		72		82	
		13	22	23	10	33	51	43		53		63		73		83	
4		14	13	24	12	34	26	44		54		64		74		84	
5		15	18	25	22	35	68	45		55		65		75		85	
6		16	17	26	22	36		46		56		66		76		86	
7		17	18	27	23	37		47		57		67		77		87	
8		18	16	28	27	38		48		58		68		78		88	
9		19	17	29	29	39		49		59		69		79		89	
10		20	16	30	31	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
 NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.

† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)

‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.

** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLNESS, BINDING, DAMAGE, DRIVING SHOE, ETC.

location: 5 before after Δ

2
1
4
3

1. 5.67	1. 5.67	1	0
2. 5.70	2. 5.70	0	0
3. 5.72	3. 5.72	0	0
4. 5.70	4. 5.70	0	0

John Smith
 PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-8

CLIENT FP&L STRUCTURE ST. LUCIE - BARRIER WALL CONTRACTOR EBRARY FOUNDATION CO. HAMMER NO. 115 JO. NO. 115 DATE 11-20-63

PILE DIAMETER	Pre-Cast Concrete		HAMMER MAKE AND MODEL	CONMACO 115	
	18 IN.	BUTT DIAMETER 18 IN.		STROKE RATED 39 IN.	MEAS. 1 IN.
LENGTH	35 FT. 0 IN.	WEIGHT	11,500 LB.	WEIGHT OF RAM	
DESCRIPTION			WEIGHT	DESCRIPTION (SKETCH ON BACK)	
LENGTH	FT. IN.	WEIGHT			
DESCRIPTION					
LENGTH	FT. IN.	WEIGHT			
ELEV OF CUTOFF	-25.40	ELEV OF GROUND	-21.5		
ELEV OF TIP	-60.48	LG. CUTOFF TO TIP	35 FT. 0 IN.		

REMARKS: ** STOPPED DRIVING AT 20 FEET
THIS HOLE AUGERED TWICE TO 20 FEET
LUNCH 12:00 PM. 11-20-63
NO MATERIAL REMOVED FROM HOLE
AS RESULT OF AUGERING

STARTED DRIVING		FINISHED DRIVING		DRIVING TIME	
11:55 A.M.		12:45 P.M.		AS NOTED ABOVE MIN. 15	
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20	
1		11	6	21	5
2		12	7	22	6
3		13	6	23	6
4		14	8	24	8
5		15	7	25	8
6		16	8	26	7
7		17	8	27	6
8		18	7	28	5
9		19	6	29	3
10		20	5	30	5

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 1 before 2 after Δ
1 4.72 1 4.73 1-0.01
2 4.80 2 4.80 0
3 4.71 3 4.81 0
4 4.75 4 4.76 -0.01

John Vuch
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-9

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EB SARY FOUNDATION CO.	HAMMER NO.	JO NO.	DATE 3/30/
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PILE DIA LENGTH WEIGHT DESCRIPTION LENGTH WEIGHT DESCRIPTION LENGTH WEIGHT	Pre-Cast Concrete		HAMMER MAKE AND MODEL STROKE RATED WEIGHT OF RAM WEIGHT DESCRIPTION (SKETCH ON BACK)
	DIA	BUTT DIA	
	18 IN.	18 IN.	
	35 FT. 0 IN.	LB.	
	DESCRIPTION		
FOLLOWER (IF USED)			REMARKS **
	LENGTH	WEIGHT	
	FT. IN.	LB.	
	DESCRIPTION		
	LENGTH	WEIGHT	
PENETRATION (IF USED)			REMARKS **
	ELEV OF CUTOFF	ELEV OF GROUND	
	-25.11	-21.5 ±	
	ELEV OF TIP	LG. CUTOFF TO TIP	
	-60.11	35 FT. 0 IN.	

TIME	STARTED DRIVING	FINISHED DRIVING	DRIVING TIME
	A.M. 4:40 P.M.	A.M. 5:14 P.M.	34 MIN.

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	19	21	17	31	23	41		51		61		71		81	
2		12	18	22	18	32	22	42		52		62		72		82	
3		13	19	23	25	33	11	43		53		63		73		83	
4		14	22	24	27	34	15	44		54		64		74		84	
5		15	23	25	23	35	17	45		55		65		75		85	
6	17	16	21	26	17	36		46		56		66		76		86	
7	18	17	11	27	12	37		47		57		67		77		87	
8	20	18	12	28	13	38		48		58		68		78		88	
9	16	19	11	29	17	39		49		59		69		79		89	
10	16	20	11	30	20	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

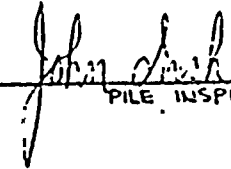
location: 5

before after

Δ

1	2
2	3
3	4

1. 5.65	1. 5.66	1 - 0.01
2. 5.72	2. 5.72	0
3. 5.73	3. 5.73	0
4. 5.69	4. 5.69	0


 PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-13

CLIENT FPaL	STRUCTURE ST. LUCIE - EMMER VILL	CONTRACTOR EBASCO FOUNDATION CO.	HAMMER NO. 115	JO NO. 115	DATE 7/12
PILE Pre-Cast Concrete			MAKE AND MODEL CONMACO 115		
TIP DIAMETER 18 IN.		BUIT DIAMETER 18 IN.		STROKE 39 IN.	
LENGTH 35 FT. 0 IN.		WEIGHT LB.		WEIGHT OF RAM 11,500 LB.	
DESCRIPTION			WEIGHT LB.		
LENGTH FT. IN.			WEIGHT LB.		
DESCRIPTION			DESCRIPTION (SKETCH ON BACK)		
LENGTH FT. IN.			WEIGHT LB.		
ELEV OF CUTOFF -24.71			ELEV OF GROUND -24.5 ±		
ELEV OF TIP -59.71			LG. CUTOFF TO TIP 35 FT. 0 IN.		
REMARKS			HOLE / JETTED TO 35' NO. PATIAL FLOWING F. W. HOLE WATER SET SAND FILL AROUND PILE FOR PILE AT FT. 9 HAMMER SPEED AT FT. 20 = 20 RPM HAMMER SPEED AT FT. 35 = 20 RPM		

TIME	STARTED DRIVING				FINISHED DRIVING				DRIVING TIME						
	A.M. 2:50 P.M.				A.M. 3:00 P.M.				20 MIN.						
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	1	10		20		30		40		50		60		70	
1	2	11	10	21	12	31	17	41		51		61		71	
	3	12	13	22	10	32	34	42		52		62		72	
	4	13	12	23	14	33	52	43		53		63		73	
	5	14	17	24	12	34	51	44		54		64		74	
	6	15	17	25	14	35	56	45		55		65		75	
	7	16	18	26	22	36		46		56		66		76	
	8	17	16	27	19	37		47		57		67		77	
	9	18	15	28	12	38		48		58		68		78	
	10	19	17	29	13	39		49		59		69		79	
	11	20	12	30	13	40		50		60		70		80	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
 NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.

† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUIT SECTION.
 (CAN DETERMINE WEIGHT BY MEASURING QUALITY OF WATER DISPLACED BY SECTION)

‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.

** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULGERS, BARK, CONDITION OF CUSHION, PLUMBNESS, SANDING, DRUMMING, DRIVING SHOE, ETC.

location:	5	before	after	Δ
2	1.5.66	1.5.65	+ 0.01	
15	2.5.72	2.5.70	+ 0.02	
4	3.5.74	3.5.72	+ 0.02	
3	1.5.69	1.5.68	+ 0.01	

John D. Luch
 PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-11

CLIENT FP&L	STRUCTURE ST. LUCIE BARRIER	CONTRACTOR	HAMMER NO.	JO NO	DATE 1/1/77
PE WALL					
TIP DIAMETER IN.		BUTT DIAMETER IN.		HAMMER MAKE AND MODEL VULCAN 010	
LENGTH 35 FT. 0 IN.		WEIGHT LB.		STROKE INCHES 39	
DESCRIPTION		WEIGHT LB.		WEIGHT OF RAM 10,000	
LENGTH FT. IN.		WEIGHT LB.		DESCRIPTION (SKETCH ON BACK)	
DESCRIPTION		WEIGHT LB.		REMARKS	
LENGTH FT. IN.		WEIGHT LB.		AUGMENTED NO. 1 NO. 2 NO. 3 NO. 4 NO. 5 NO. 6 NO. 7 NO. 8 NO. 9 NO. 10 NO. 11 NO. 12 NO. 13 NO. 14 NO. 15 NO. 16 NO. 17 NO. 18 NO. 19 NO. 20 NO. 21 NO. 22 NO. 23 NO. 24 NO. 25 NO. 26 NO. 27 NO. 28 NO. 29 NO. 30 NO. 31 NO. 32 NO. 33 NO. 34 NO. 35 NO. 36 NO. 37 NO. 38 NO. 39 NO. 40 NO. 41 NO. 42 NO. 43 NO. 44 NO. 45 NO. 46 NO. 47 NO. 48 NO. 49 NO. 50 NO. 51 NO. 52 NO. 53 NO. 54 NO. 55 NO. 56 NO. 57 NO. 58 NO. 59 NO. 60 NO. 61 NO. 62 NO. 63 NO. 64 NO. 65 NO. 66 NO. 67 NO. 68 NO. 69 NO. 70 NO. 71 NO. 72 NO. 73 NO. 74 NO. 75 NO. 76 NO. 77 NO. 78 NO. 79 NO. 80 NO. 81 NO. 82 NO. 83 NO. 84 NO. 85 NO. 86 NO. 87 NO. 88 NO. 89 NO. 90 NO. 91 NO. 92 NO. 93 NO. 94 NO. 95 NO. 96 NO. 97 NO. 98 NO. 99 NO. 100	
ELEV. OF CUTOFF -24.40		ELEV. OF GROUND -24.5		HAMMER STOPPED AT 25 FT TO 100 FT	
ELEV. OF TIP -59.40		LG. CUTOFF TO TIP 35 FT. 0 IN.		hammer speed	

TIME	STARTED DRIVING 11:35 A.M.	FINISHED DRIVING 11:55 A.M.	DRIVING TIME 20 MIN.
------	--------------------------------------	---------------------------------------	--------------------------------

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	12	21	7	31	12	41		51		61		71		81	
2		12	13	22	5	32	27	42		52		62		72		82	
3		13	17	23	5	33	39	43		53		63		73		83	
4		14	14	24	6	34	52	44		54		64		74		84	
5		15	15	25	3	35	53	45		55		65		75		85	
6	10	16	12	26	7	36		46		56		66		76		86	
7	11	17	12	27	10	37		47		57		67		77		87	
8	11	18	12	28	9	38		48		58		68		78		88	
9	13	19	12	29	3	39		49		59		69		79		89	
10	12	20	17	30	7	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUPT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
§ JETTING, CLUSTERS AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BUILDING, DAMAGE, DRIVING SHOE, ETC.

location: 6

	before	after	Δ
1	4.86	4.86	0
2	4.90	4.90	0
3	4.90	4.90	0
4	4.87	4.87	0

John Jack.
PILE INSPECTOR

location: 6

1	2
1	
4	3

reading

	before	after	Δ
1.	4.87	1. 4.89	+.02
2.	4.91	2. 4.91	-.03
3.	4.91	3. 4.91	-.03
4.	4.86	4. 4.90	-.04

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-13

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY FOUNDATION CO.	HAMMER NO.	JO NO.	DATE 3/3/77
PILE TYPE <div style="border: 1px solid black; padding: 5px; display: inline-block;">Pre-Cast Concrete</div>			MAKE AND MODEL <div style="border: 1px solid black; padding: 5px; display: inline-block;">CONMACO 115</div>		
TIP DIAMETER <div style="border: 1px solid black; padding: 5px; display: inline-block;">18 IN.</div>		BUTT DIAMETER <div style="border: 1px solid black; padding: 5px; display: inline-block;">18 IN.</div>		STROKE <div style="border: 1px solid black; padding: 5px; display: inline-block;">39 IN.</div>	
LENGTH <div style="border: 1px solid black; padding: 5px; display: inline-block;">35 FT. 0 IN.</div>		WEIGHT <div style="border: 1px solid black; padding: 5px; display: inline-block;">LB.</div>		RATED <div style="border: 1px solid black; padding: 5px; display: inline-block;">39 IN.</div>	
DESCRIPTION <div style="border: 1px solid black; padding: 5px; display: inline-block;"> </div>		WEIGHT OF RAM <div style="border: 1px solid black; padding: 5px; display: inline-block;">11,500 LB.</div>		MEAS. IN.	
LENGTH <div style="border: 1px solid black; padding: 5px; display: inline-block;">FT. IN.</div>		WEIGHT <div style="border: 1px solid black; padding: 5px; display: inline-block;">LB.</div>		DESCRIPTION (SKETCH ON BACK)	
DESCRIPTION <div style="border: 1px solid black; padding: 5px; display: inline-block;"> </div>		WEIGHT <div style="border: 1px solid black; padding: 5px; display: inline-block;">LB.</div>		MEAS. IN.	
LENGTH <div style="border: 1px solid black; padding: 5px; display: inline-block;">FT. IN.</div>		WEIGHT <div style="border: 1px solid black; padding: 5px; display: inline-block;">LB.</div>		MEAS. IN.	
DESCRIPTION <div style="border: 1px solid black; padding: 5px; display: inline-block;"> </div>		WEIGHT <div style="border: 1px solid black; padding: 5px; display: inline-block;">LB.</div>		MEAS. IN.	
ELEV OF CUTOFF <div style="border: 1px solid black; padding: 5px; display: inline-block;">-24.22</div>		ELEV OF GROUND <div style="border: 1px solid black; padding: 5px; display: inline-block;">-23.55</div>		MEAS. IN.	
ELEV OF TIP <div style="border: 1px solid black; padding: 5px; display: inline-block;">-59.22</div>		LG. CUTOFF TO TIP <div style="border: 1px solid black; padding: 5px; display: inline-block;">35 FT. 0 IN.</div>		MEAS. IN.	

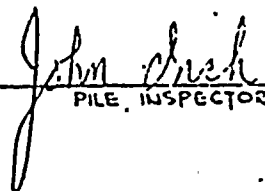
TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
		7:20 A.M.				10:11 A.M.				40 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60	
1		11	50	21	27	31	42	41		51		61	
		12	45	22	26	32	78	42		52		62	
		13	47	23	29	33	81	43		53		63	
		14	48	24	30	34	75	44		54		64	
4		15	46	25	31	35	79	45		55		65	
5		16	47	26	37	36	71	46		56		66	
6		17	47	27	32	37		47		57		67	
7		18	44	28	22	38		48		58		68	
8		19	48	29	21	39		49		59		69	
9		20	37	30	19	40		50		60		70	
10													

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
- † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION. (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
- ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
- ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 5

before		after		
1	2	1	2	
1	5.65	1	5.65	0
2	5.69	2	5.69	0
3	5.70	3	5.72	-0.02
4	5.67	4	5.67	0


 PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 2-11

CLIENT **FP&L** STRUCTURE **ST. LUCIE - BARRIER WALL** CONTRACTOR **EBASCO FOUNDATION CO** HAMMER NO. **115** JO. NO. **115** DATE **3/10/71**

PILE	Pre-Cast Concrete		HAMMER	MAKE AND MODEL CONMACO 115	
	TIP DIAMETER 18 IN.	BUTT DIAMETER 18 IN.		STROKE 39 IN.	MEAS. # 11,500 LB.
WALDRELL (IF USED)	LENGTH 35 FT. 0 IN.	WEIGHT LB.	DRAWING CAP. ASYL. HELMET, ETC.	WEIGHT LB.	
	DESCRIPTION			DESCRIPTION (SKETCH ON BACK)	
FOLLOWER (IF USED)	LENGTH FT. IN.	WEIGHT LB.	REMARKS **	HOLE AUGURED TO 25' N. WITH 1" DIA. WATER JET SAND FILL AROUND PILE.	
	DESCRIPTION			STW AT FT. 8	
PENETRATION	ELEV OF CUTOFF -24.70	ELEV OF GROUND -22.70		TOP 6" BROKEN 2" PILE WHEN PILING	
	ELEV OF TIP -50.70	LG. CUTOFF TO TIP 35 FT. 0 IN.		RAISED, TOP 3' LEFT IN CAP (PILING PICTURES ON FILE)	

TIME STARTED DRIVING **A.M. 12:40 P.M.** FINISHED DRIVING **A.M. 1:00 P.M.** DRIVING TIME **20 MIN.**

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50		60		70		80	
1	L	11	21	21	15	31	21	41		51		61		71		81	
	A	12	25	22	12	32	32	42		52		62		72		82	
	C	13	23	23	10	33	41	43		53		63		73		83	
	D	14	21	24	13	34	52	44		54		64		74		84	
4		15	25	25	16	35	51	45		55		65		75		85	
5	Y	16	22	26	12	36	41	46		56		66		76		86	
6		17	21	27	19	37		47		57		67		77		87	
7		18	22	28	17	38		48		58		68		78		88	
8		19	16	29	15	39		49		59		69		79		89	
9		20	15	30	12	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.

† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)

‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.

** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBNESS, BOUNCING, DAMAGE, DRIVING SHOE, ETC.

location: 5

before reading after

Δ

2
4

1. 5.65	1. 5.65	0
2. 5.70	2. 5.70	0
3. 5.72	3. 5.72	0
4. 5.68	4. 5.68	0

John Lark
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-1

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO	HAMMER NO.	JO NO.	DATE 3/2
TYPE Pre-Cast Concrete			MAKE AND MODEL CONMACO 115		
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 IN.	
LENGTH DRIVEN FT. IN.		WEIGHT LB.		WEIGHT OF RAM 11,500 LB.	
DESCRIPTION			WEIGHT LB.		
LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)		
DESCRIPTION			<i>driven to 35' - no material out of hole</i>		
LENGTH FT. IN.					
WEIGHT LB.					
ELEV. OF CUTOFF -25.18			ELEV. OF GROUND -24.5		
ELEV. OF TIP -60.18			LG. CUTOFF TO TIP 35 FT. 0 IN.		

TIME		STARTED DRIVING		FINISHED DRIVING		DRIVING TIME	
		3:00 A.M.		3:10 A.M.		10 MIN.	
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	5	20	5	30	
1		11	8	21	8	31	
2		12	9	22	6	32	
3		13	9	23	7	33	
4		14	9	24	10	34	
5		15	8	25	10	35	
6		16	7	26	7	36	
7		17	8	27	5	37	
8		18	4	28	5	38	
9		19	4	29	10	39	
10		20		30		40	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BUILDING, DAMAGE, DRIVING SHOE, ETC.

location: 3

before reading after

1	2
1	3
4	3

1. 1.11	1. 4.48	Δ
2. 1.11	2. 1.77	-0.1
3. 1.11	3. 5.02	0
4. 1.11	4. 5.02	0

PILE INSPECTOR

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO	HAMMER NO. 115	JO NO. 3	DATE 5
PILE TYPE: Pre-Cast Concrete PILE DIAMETER: 18 IN. BUTT DIAMETER: 18 IN. LENGTH DRIVEN: FT. IN. WEIGHT: LB.			MAKE AND MODEL: CONMACO 115 STROKE RATED: 39 IN. MEAS. †: IN. WEIGHT OF RAM: 11,500 LB. WEIGHT: LB. DESCRIPTION (SKETCH ON BACK):		
DESCRIPTION: LENGTH: FT. IN. WEIGHT: LB.			REMARKS: augured to 35'; no material case out of hole		
DESCRIPTION: LENGTH: FT. IN. WEIGHT: LB.					
ELEV OF CUTOFF: -24.07 ELEV OF GROUND: -24.5 ELEV OF TIP: -59.97 LG. CUTOFF TO TIP: 35 FT. 0 IN.					
STARTED DRIVING: 2:45 A.M. FINISHED DRIVING: 2:55 A.M. DRIVING TIME: 10 MIN.					

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10	9	20	8	30	29	40		50		60		70		80			
1		11	9	21	7	31	30	41		51		61		71		81			
2		12	11	22	9	32	31	42		52		62		72		82			
3		13	12	23	13	33	30	43		53		63		73		83			
4		14	13	24	1	34	31	44		54		64		74		84			
5		15	14	25	12	35		45		55		65		75		85			
6		16	13	26		36		46		56		66		76		86			
7		17	13	27	7	37		47		57		67		77		87			
8		18	13	28	14	38		48		58		68		78		88			
9		19	13	29	7	39		49		59		69		79		89			
10		20	14	30	15	40		50		60		70		80		90			

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
 NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BOWING, DAMAGE, DRIVING SHOE, ETC.

location: 7 before after Δ

1	2	1. 1.98	1. 4.35	0
2	1	2. 1.98	2. 1.98	0
3	4	3. 5.01	3. 5.07	-0.01
4	3	4. 5.01	4. 5.01	0

PILE INSPECTOR

EBASCO SERVICES INC.

FILE NO. 3-3

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO	HAMMER NO.	JO NO.	DATE 7/1/52
PILE TYPE Pre-Cast Concrete		MAKE AND MODEL CONMACO 115			
DIAMETER 18 IN.		STROKE 39 IN.			
LENGTH DRIVEN FT. IN. LB.		WEIGHT OF RAM 11,500 LB.			
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN. LB.		DESCRIPTION (SKETCH ON BACK)			
DESCRIPTION		REMARKS driven to 35' no material brought out			
LENGTH FT. IN. LB.					
ELEV OF CUTOFF -25.10		ELEV OF GROUND			
ELEV OF TIP -60.10		LG. CUTOFF TO TIP 35 FT. 0 IN.			

STARTED DRIVING			FINISHED DRIVING			DRIVING TIME		
3:15 A.M.			3:25 A.M.			10 MIN.		
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.
0		10	10	20	8	30	26	40
1		11	8	21	9	31	34	41
2		12	9	22	13	32	38	42
		13	8	23	15	33	37	43
4		14	10	24	15	34	40	44
5		15	10	25	10	35	41	45
6		16	11	26	7	36		46
7		17	10	27	6	37		47
8		18	9	28	7	38		48
9		19	8	29	15	39		49
10		20		30		40		50

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 3

before after

Δ

1	2
3	4
5	6

1. 1.78 1.4.78
2. 1.78 2.4.78
3. 5.07 3.5.02
4. 5.01 4.5.01

10.0
- .01
0
0

Wm. Kell

PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-4

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO FOUNDATION CO	HAMMER NO.	JO. NO.	DATE 3/27/71
PILE Pre-Cast Concrete		MAKE AND MODEL CONMACO 115			
TIP DIAMETER 18 IN.		BUTT DIAMETER 18 IN.			
LENGTH 35 FT. 0 IN.		WEIGHT 11,500 LB.			
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN.		DESCRIPTION (SKETCH ON BACK)			
DESCRIPTION		AUGERED TO 35' - NO MATERIAL REMOVED			
LENGTH FT. IN.		WATER VET SAND IN THIS HOLE.			
ELEV OF CUTOFF -25.54		ELEV OF GROUND			
ELEV OF TIP -60.54		LG. CUTOFF TO TIP 35 FT. 0 IN.			

HAMMER

DRIVING CAP
AVAIL.
WEIGHT, ETC.

REMARKS **

TIME	STARTED DRIVING A.M. 3:10 P.M.	FINISHED DRIVING A.M. 3:25 P.M.	DRIVING TIME 15 MIN.
------	--	---	--------------------------------

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1		11	13	21	77	31	31	41		51		61		71		81	
		12	12	22	77	32	32	42		52		62		72		82	
		13	12	23	73	33	33	43		53		63		73		83	
4		14	15	24	76	34	34	44		54		64		74		84	
5	10	15	14	25	30	35	12 1/2	45		55		65		75		85	
6	12	16	14	26	73	36		46		56		66		76		86	
7	14	17	13	27	72	37		47		57		67		77		87	
8	11	18	13	28	71	38		48		58		68		78		88	
9	10	19	73	29	70	39		49		59		69		79		89	
10	11	20	72	30	73	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CLASH AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 4 before after Δ

1	2	1.4.75	1.4.75	1.0
11		2.4.82	2.4.81	+0.01
4	3	3.4.82	3.4.82	0
		4.4.77	4.4.77	-0.01

John Clark
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-6

CLIENT **FP&L** STRUCTURE **ST. LUCIE - BARRIER WALL** CONTRACTOR **EB SARY FOUNDATION CO.** HAMMER NO. **115** JO NO. **115** DATE **3/29/76**

PILE	Pre-Cast Concrete		HAMMER	MAKE AND MODEL CONMACO 115	
	PIPE DIAMETER 18 IN.	BUTT DIAMETER 18 IN.		STROKE 39 IN.	MEAS. $\frac{1}{2}$ IN.
VALVE (IF USED)	LENGTH 35 FT. 0 IN.	WEIGHT $\frac{1}{2}$ LB.	DRIVING CAP ANVIL HELMET, ETC.	WEIGHT OF RAM 11,500 LB.	
	DESCRIPTION			WEIGHT LB.	
FOLLOWER (IF USED)	LENGTH FT. IN.	WEIGHT LB.	REMARKS **	DESCRIPTION (SKETCH ON BACK)	
	DESCRIPTION				
PENETRATION	ELEV OF CUTOFF -24.90	ELEV OF GROUND -22.5	WATER PER SAND ON TOP 100" HOLE MEASURED TO 25"		
	ELEV OF TIP -39.90	LG. CUTOFF TO TIP 35 FT. 0 IN.			

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
		A.M. 2:15 P.M.				A.M. 2:25 P.M.				10 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60	
1	P	11	7	21	5	31	5	41		51		61	
	L	12	6	22	4	32	13	42		52		62	
	C	13	6	23	4	33	19	43		53		63	
	F	14	6	24	4	34	17	44		54		64	
4	V	15	7	25	4	35	21	45		55		65	
5		16	7	26	5	36	22	46		56		66	
6	9	17	8	27	5	37		47		57		67	
7	11	18	7	28	4	38		48		58		68	
8	9	19	6	29	4	39		49		59		69	
9	8	20	7	30	3	40		50		60		70	
10	7												

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.

† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)

‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.

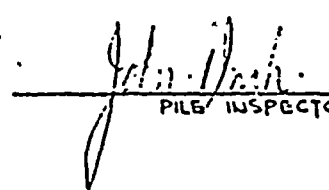
§ JETTING, CL-62 AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 4

before after

1	2
3	4
5	6

1. 4.71	1. 4.75	1 0
2. 4.81	2. 4.82	-0.02
3. 4.83	3. 4.85	-0.02
4. 4.78	4. 4.78	0



PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-7

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBRARY FOUNDATION CO.	HAMMER NO. 115	JO NO. 3-7	DATE 3/27/77
PILE TYPE Pre-Cast Concrete		MAKE AND MODEL CONMACO 115			
PILE DIAMETER 18 IN.		BUTT DIAMETER 18 IN.			
LENGTH 35 FT. 0 IN.		WEIGHT 11,500 LB.			
DESCRIPTION		STROKE 39 IN.			
LENGTH FT. IN.		WEIGHT OF RAM 11,500 LB.			
DESCRIPTION		WEIGHT LB.			
LENGTH FT. IN.		DESCRIPTION (SKETCH ON BACK)			
DESCRIPTION		THIS PILE WAS DRIVEN TWICE TO DEPTH OF 25' TO MAKE PILE TO STAND. NO MATERIAL REMOVED FROM PILE			
LENGTH FT. IN.		ELEV OF CUTOFF -25.20			
DESCRIPTION		ELEV OF GROUND -24.5			
LENGTH FT. IN.		ELEV OF TIP -60.20			
DESCRIPTION		LG. CUTOFF TO TIP FT. IN.			

STARTED DRIVING A.M. 2:00 P.M.	FINISHED DRIVING A.M. 2:10 P.M.	DRIVING TIME 10 MIN.
--	---	--------------------------------

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0	P	10		20		30		40		50		60		70		80	
1	L	11	9	21	5	31	6	41		51		61		71		81	
2	C	12	10	22	4	32	12	42		52		62		72		82	
3	F	13	9	23	5	33	15	43		53		63		73		83	
4	D	14	8	24	6	34	17	44		54		64		74		84	
5		15	3	25	9	35	15	45		55		65		75		85	
6		16	8	26	7	36	27	46		56		66		76		86	
7		17	10	27	5	37		47		57		67		77		87	
8		18	10	28	5	38		48		58		68		78		88	
9		19	9	29	4	39		49		59		69		79		89	
10		20	5	30	2	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLNESS, BUNTING, DAMAGE, DRIVING SHOE, ETC.

location: 4

	before	after	Δ
1	4.75	4.75	0
2	4.92	4.81	+0.01
3	4.85	4.84	+0.01
4	4.78	4.77	+0.01

PILE INSPECTOR

Station: 4

1	2
4	3

before reading after Δ

1.	1.57	1.	4.72	1 - 0.005
2.	1.71	2.	1.99	- 0.06
3.	1.75	3.	1.81	- 0.05
4.	1.73	4.	1.73	- 0.05

EBASCO SERVICES INC.

PILE NO. 3-10

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBBARY FOUNDATION CO.	HAMMER NO. 115	JO NO. 3/00	DATE 3/00
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PILE Pre-Cast Concrete	
TIP DIAMETER 18 IN.	BUTT DIAMETER 18 IN.
LENGTH 35 FT. 0 IN.	WEIGHT LB.
DESCRIPTION	
LENGTH FT. IN.	WEIGHT LB.
DESCRIPTION	
LENGTH FT. IN.	WEIGHT LB.
ELEV OF CUTOFF -24.72	ELEV OF GROUND -24.5
ELEV OF TIP -59.72	LG. CUTOFF TO TIP 35 FT. 0 IN.

HAMMER	MAKE AND MODEL CONMACO	115
	STROKE 39 IN.	
WEIGHT	WEIGHT OF RAM 11,500 LB.	
	WEIGHT LB.	
REMARKS	DESCRIPTION (SKETCH ON BACK)	
	PILE DRIVEN TO 35 FT. NO MATERIAL TEST. WATER TABLE 10 FT. BELOW GROUND. HAMMER STOPPED AT FT. 35. HAMMER STALLED AT FT. 35 WITH BLOWING SOUND.	

TIME	STARTED DRIVING A.M. 2:00 P.M.	FINISHED DRIVING A.M. 4:15 P.M.	DRIVING TIME 25 MIN.
------	--	---	--------------------------------

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1	P	11	13	21	11	31	43	41		51		61		71		81	
2	A	12	12	22	8	32	63	42		52		62		72		82	
3	E	13	13	23	10	33	74	43		53		63		73		83	
4	D	14	11	24	13	34	82	44		54		64		74		84	
5		15	13	25	27	35	15 FT	45		55		65		75		85	
6	9	16	15	26	22	36		46		56		66		76		86	
7	10	17	17	27	19	37		47		57		67		77		87	
8	14	18	16	28	20	38		48		58		68		78		88	
9	17	19	16	29	15	39		49		59		69		79		89	
10	12	20	17	30	23	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

* IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 5	before	after	Δ
2	1.5.65	1.5.65	0
3	2.5.70	2.5.72	-0.02
4	3.5.72	3.5.73	-0.01
5	4.5.68	4.5.69	-0.01

John Arch.
PILE INSPECTOR

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EB SARY FOUNDATION CO.	HAMMER NO. 115	JO NO 3/30/7	DATE 3/30/7
MAKE AND MODEL CONMACO 115			STROKE 39 IN. MEAS. 11 IN.		
TIP DIAMETER 18 IN.			BUTT DIAMETER 18 IN.		
LENGTH 35 FT. 0 IN.			WEIGHT 11,500 LB.		
DESCRIPTION Pre-Cast Concrete			WEIGHT 11,500 LB.		
LENGTH 35 FT. 0 IN.			DESCRIPTION (SKETCH ON BACK)		
ELEV OF CUTOFF -24.46			ELEV OF GROUND -24.52		
ELEV OF TIP -59.46			LG. CUTOFF TO TIP 34.06 FT. 0 IN.		
STARTED DRIVING A.M. 2:10 P.M.			FINISHED DRIVING A.M. 2:30 P.M.		
DRIVING TIME 20 MIN.			REMARKS HOLE AUGERED TO 35' ALL WATER FILL TYPED OUT OF HOLE WATER & SAND FILL AUGERED HAMMER SPEED AT FT. 25 - 10 FE. PER MIN.		

FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80		90	
1	15	11	12	21	31	36	41	51	61	71	81	91	101	111	121	131	141	151	161
2	17	12	11	22	32	51	42	52	62	72	82	92	102	112	122	132	142	152	162
3	17	13	14	23	33	66	43	53	63	73	83	93	103	113	123	133	143	153	163
4	17	14	23	24	34	71	44	54	64	74	84	94	104	114	124	134	144	154	164
5	16	15	25	25	35	76	45	55	65	75	85	95	105	115	125	135	145	155	165
6	19	16	26	26	36	79	46	56	66	76	86	96	106	116	126	136	146	156	166
7	23	17	27	27	37	73	47	57	67	77	87	97	107	117	127	137	147	157	167
8	23	18	28	28	38	74	48	58	68	78	88	98	108	118	128	138	148	158	168
9	21	19	29	29	39	72	49	59	69	79	89	99	109	119	129	139	149	159	169
10	14	20	30	30	40	79	50	60	70	80	90	100	110	120	130	140	150	160	170

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND, SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
- † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION. (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
- ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
- § JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, FLUMBLESS, BOUNDING, DAMAGE, DRIVING SHOE, ETC.

location:	5	before	after	Δ
1.	5.65	1. 5.66	1 - 0.01	
2.	5.70	2. 5.72	- 0.02	
3.	5.73	3. 5.74	- 0.01	
4.	5.69	4 5.69	0	

John Inch.
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-12

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBASCO FOUNDATION CO.	HAMMER NO. 115	JO NO.	DATE 3/23/70
TYPE Pre-Cast Concrete			MAKE AND MODEL CONMACO 115		
DIAMETER 18 IN.		BUTT DIAMETER 18 IN.		STROKE 39 IN.	
LENGTH 35 FT. 0 IN.		WEIGHT 11,500 LB.		WEIGHT OF RAM 11,500 LB.	
DESCRIPTION			WEIGHT LB.		
LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)		
DESCRIPTION			HOLE AUGERED 25'		
LENGTH FT. IN.			NO. BLOWS PER FOOT 1.5		
DESCRIPTION			WATER WET SAND AS PILE DRIVEN		
ELEV OF CUTOFF -24.21			ELEV OF GROUND -21.5		
ELEV OF TIP -59.21			LG. CUTOFF TO TIP 7.5 FT. 0 IN.		
REMARKS **			STOP AT CT. 2		
			STOP AT FT. 12		
			STOP AT FT. 20 TO REPLACE CUSHION		

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME			
		10:30 A.M.				11:05 A.M.				25 MIN.			
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60	
1	P	11	21	21	15	31	39	41		51		61	
2	A	12	21	22	19	32	51	42		52		62	
3	C	13	19	23	17	33	76	43		53		63	
4	E	14	22	24	23	34	82	44		54		64	
5	D	15	25	25	20	35	77	45		55		65	
6		16	25	26	21	36	43	46		56		66	
7	9	17	24	27	17	37		47		57		67	
8	18	18	22	28	12	38		48		58		68	
9	17	19	22	29	15	39		49		59		69	
10	17	20	19	30	22	40		50		60		70	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
† FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
(CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 5 before after Δ

1	2	1. 5.65	1. 5.45	1. 0.2
2	3	2. 5.69	2. 5.70	-0.01
3	4	3. 5.72	3. 5.71	+0.01
4	5	4. 5.67	4. 5.68	-0.01

John Inck.
PILE INSPECTOR

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME							
		11:15 A.M. P.M.				11:40 A.M. P.M.				25 MIN.							
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1	P	11	27	21	15	31	32	41		51		61		71		81	
2	A	12	23	22	13	32	16	42		52		62		72		82	
3	C	13	24	23	12	33	14	43		53		63		73		83	
4	E	14	23	24	25	34	52	44		54		64		74		84	
5	G	15	22	25	23	35	47	45		55		65		75		85	
6	I	16	21	26	26	36	50	46		56		66		76		86	
7	K	17	22	27	15	37		47		57		67		77		87	
8	M	18	23	28	14	38		48		58		68		78		88	
9	O	19	23	29	11	39		49		59		69		79		89	
10	Q	20	19	30	12	40		50		60		70		80		90	

* IF WOOD, STATE KIND, SEASONING AND TREATMENT.. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

location: 5

1	2
5	
4	3

reading

	before	after	Δ
1.	5.65	1. 5.65	0
2.	5.69	2. 5.70	-0.01
3.	5.72	3. 5.72	0
4.	5.67	4 5.68	-0.01

John J. Dick
PILE INSPECTOR

EBASCO SERVICES INC.

PILE NO. 3-14

CLIENT FP&L	STRUCTURE ST. LUCIE - BARRIER WALL	CONTRACTOR EBBARY FOUNDATION CO.	HAMMER NO.	JO NO.	DATE 3/23/71
MAKE AND MODEL CONMACO 115			STROKE 39 IN. MEAS. † IN.		
DIAMETER 18 IN.			BUTT DIAMETER 18 IN.		
LENGTH 35 35 FT. 0 IN.			WEIGHT † 11,500 LB.		
DESCRIPTION Pre-Cast Concrete			WEIGHT 11,500 LB.		
LENGTH FT. IN.			DESCRIPTION (SKETCH ON BACK)		
DESCRIPTION HOLE AUGERED TO 35' NO MATERIAL TAKEN OUT OF HOLE WATER & SAND FILL AROUND PILE			REMARKS **		
ELEV OF CUTOFF -24.06			ELEV OF GROUND -22.05		
ELEV OF TIP -59.56			LG. CUTOFF TO TIP 35 FT. 0 IN.		

TIME		STARTED DRIVING				FINISHED DRIVING				DRIVING TIME							
		A.M. 1:30 P.M.				A.M. 1:50 P.M.				20 MIN.							
FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS	FT.	NO. OF BLOWS
0		10		20		30		40		50		60		70		80	
1	P																
	L	11	23	21	21	31	13	41		51		61		71		81	
	A																
	C	12	22	22	16	32	25	42		52		62		72		82	
	E																
3	L	13	23	23	17	33	25	43		53		63		73		83	
4		14	27	24	25	34	26	44		54		64		74		84	
5	V	15	26	25	24	35	22	45		55		65		75		85	
6	6	16	26	26	17	36	20	46		56		66		76		86	
7	9	17	26	27	19	37		47		57		67		77		87	
8	9	18	31	28	21	38		48		58		68		78		88	
9	12	19	28	29	17	39		49		59		69		79		89	
10	13	20	29	30	16	40		50		60		70		80		90	

RECORD NUMBER OF BLOWS REQUIRED FOR EACH 6 IN. OF PENETRATION.
NOTE POINTS AT WHICH STOPPAGES OCCUR, WITH TIMES OF STOPPING AND STARTING.

- * IF WOOD, STATE KIND SEASONING AND TREATMENT. IF CONCRETE, STATE MIX AND AGE.
 † FOR WOOD PILES DETERMINE ACTUAL WEIGHT PER CUBIC FOOT OF WOOD BY WEIGHING A BUTT SECTION.
 (CAN DETERMINE VOLUME BY MEASURING QUANTITY OF WATER DISPLACED BY SECTION)
 ‡ NOTE ANY FALLING OFF IN RATED STROKE DURING DRIVING.
 ** JETTING, CAUSE AND DURATION OF DELAYS IN DRIVING, BOULDERS, BARK, CONDITION OF CUSHIONS, PLUMBNESS, BANDING, DAMAGE, DRIVING SHOE, ETC.

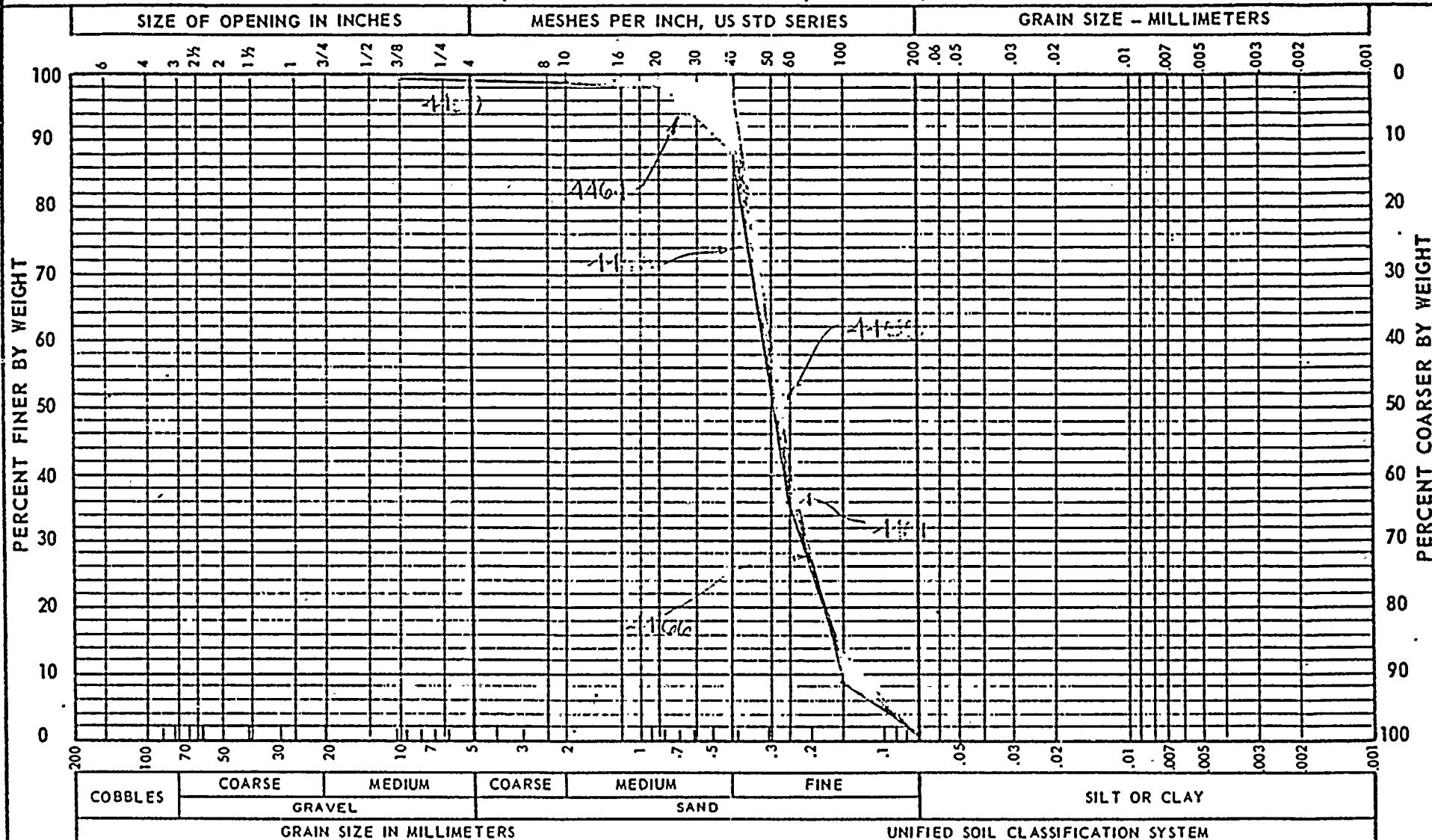
location: 5 before after Δ

1	2	1. 5.65	1. 5.65	1. 0.00
2	3	2. 5.70	2. 5.70	0
3	4	3. 5.72	3. 5.73	-0.01
4	5	4. 5.68	4. 5.69	-0.01

John Inch.
PILE INSPECTOR

MECHANICAL ANALYSIS GRAPH OF GRANULAR MATERIALS

(In Accordance With ASTM D422, Section 16)



TYPICAL GRAVEL SIZE RANGE
BARRIER WALL BACKFILL

SAMPLE DESCRIPTION

Light tan to light brown fine sand
w/trace shell fragments

EBASCO SERVICES INCORPORATED

FIGURE A-1

ST. LUCIE UNITS 1 & 2

PROJECT

DRAWN BY

CHECKED BY

DATE

EBASCO SERVICES INCORPORATED

BY Rvk DATE 5/76

NEW YORK

SHEET OF

CHKD. BY DATE

OFS NO. DEPT. NO.

CLIENT FLORIDA POWER & LIGHT CO

PROJECT ST. LUCIE UNITS 1 & 2

SUBJECT TYPICAL COMPACTION CURVES FOR BARRIER WALL PILE-ILL

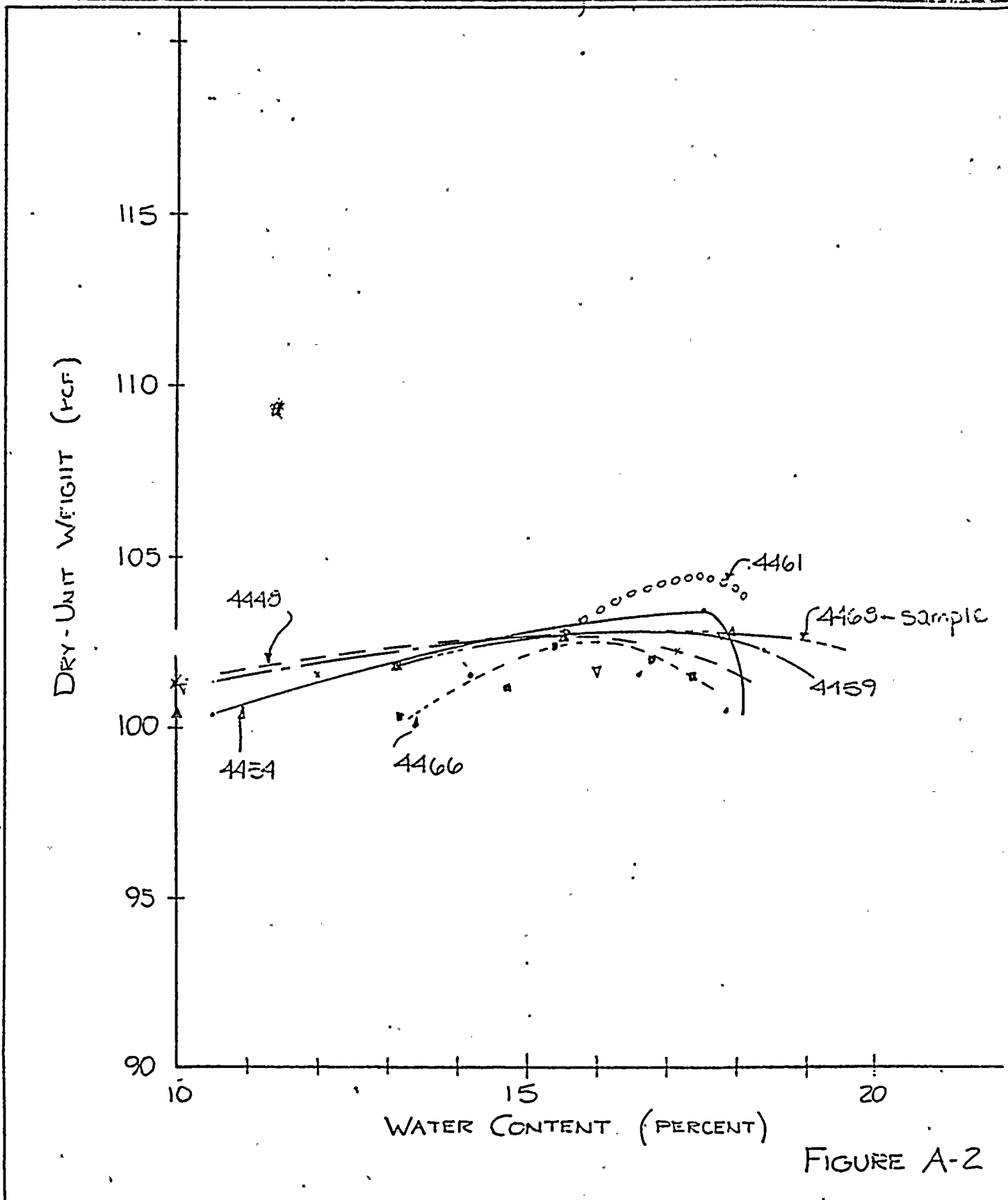


FIGURE A-2

EBASCO SERVICES INCORPORATED

NEW YORK

SHEET _____ OF _____

BY Ryk DATE 5/16

CHKD. BY _____ DATE _____

CLIENT FLORIDA POWER AND LIGHT CO

PROJECT ST. LOUIS UNIT 1 & 2

SUBJECT EMERGENCY CANAL PARALLEL WALL - STATISTICAL ANALYSIS

OFS NO. _____ DEPT. NO. _____

IN-PLACE DENSITY TEST RESULTS

\bar{X} = mean compaction = 101.7%

σ = standard deviation = ± 2.3%

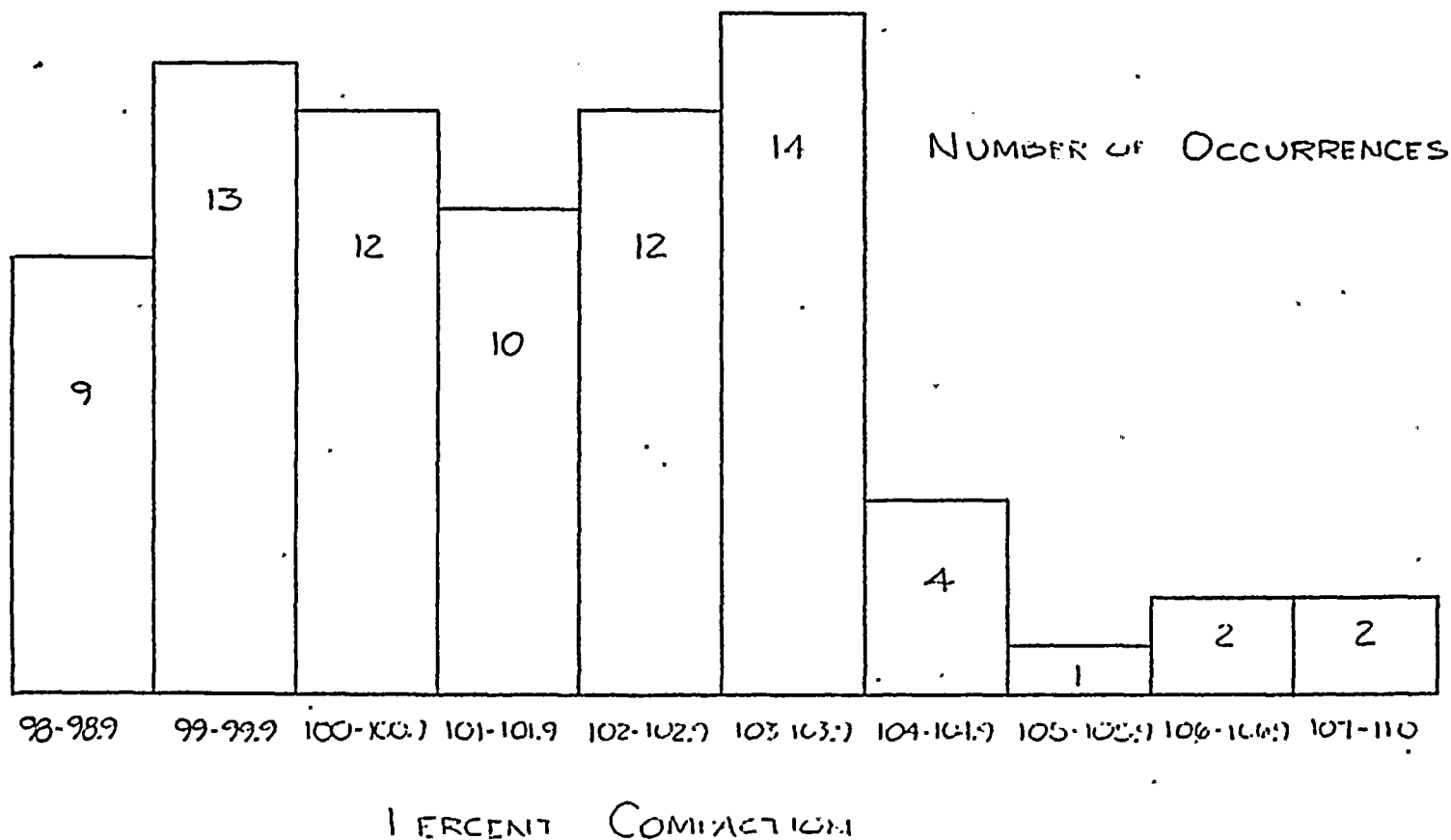


FIGURE A-3