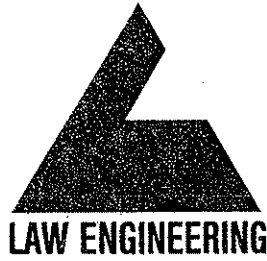


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SOIL TESTING
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SOUTHEAST LANDFILL - SOIL TESTING

HILLSBOROUGH COUNTY, FLORIDA

LAW ENGINEERING PROJECT NO. TM-1103A



LAW ENGINEERING

GEOTECHNICAL, ENVIRONMENTAL
& CONSTRUCTION MATERIALS
CONSULTANTS

September 2, 1988

Southeast Landfill
P.O. Box 997
Lithia, Florida 33547

ATTENTION: Mr. Tom Nelson

SUBJECT: Southeast Landfill - Soil Testing
Hillsborough County, Florida
Law Engineering Project No. TM-1103A

Gentlemen:

Law Engineering has been providing soil testing services for the placement of final cover material for the Southeast Landfill in Hillsborough County, Florida. This work was performed in general accordance with our Proposal No. 1071-M. Previously we issued a report dated November 4, 1987 which included soil testing results for Phase One.

PROJECT INFORMATION

As detailed by project requirements, the landfill's final cover material was to be placed in two lifts to a total minimum thickness of 18 inches. This material is required to have an average permeability not to exceed 1.0×10^{-5} cm/sec. This means that the average of all permeability values for the entire final cover must fall at or below 1.0×10^{-5} cm/sec. This averaging of results allows for individual values of permeability to be greater than 1.0×10^{-5} cm/sec, provided there exist a sufficient number of tests with results below the specified maximum to produce an acceptable average permeability.

Quality control field testing procedures for placement of the final cover material were provided to us by Waste Management Inc. In accordance with these procedures, samples were collected and tested as follows:

- o Field Density Tests - One per lift per 1/2 acre.
- o Washed 200 Sieve Analysis - One per lift per 1/2 acre.
- o Permeability Test - One per lift per acre.

Prior to implementing the above testing program, a Standard Proctor compaction test was run on the appropriate sample mixtures to determine the moisture density relationships. The specified field density requirement was set at 90 percent of

4919 W. LAUREL ST.
P. O. BOX 24183
TAMPA, FL 33623
813-289-0750



Standard Proctor maximum dry density. Any areas that did not meet this density requirement were recompacted by Waste Management personnel. Field densities were then rechecked prior to removal of material for wash 200 sieve analysis and permeability testing. Thickness of final cover material was checked at all wash 200 sieve sample locations as well as at all permeability sample locations. Test areas which exhibited less than the required 9 inch thickness per lift were not tested until the necessary material was added and retested for the required density.

TEST DATA

The attached summary sheets present the permeability data, wash 200 sieve data, proctor and density data collected to date for Phase One and Phase Two. Drawings One and Two in the Appendix illustrate the areas tested as well as the approximate sample locations for testing covered by this report. We now understand that soil testing for these two phases of the landfill's final cover material is complete.

If you have any questions concerning the information contained in this report, please do not hesitate calling us. Law Engineering appreciates the opportunity to be of service to you.

Very truly yours,

LAW ENGINEERING

Bruce D. Hazen, E.I.
Materials Engineer

William R. Goodson, P.E.
Senior Materials Engineer

BDH:djg

Copies submitted: 5 - Addressee
2 - Waste Management of North America, Inc.
ATTN: Mr. Scott W. McCallister

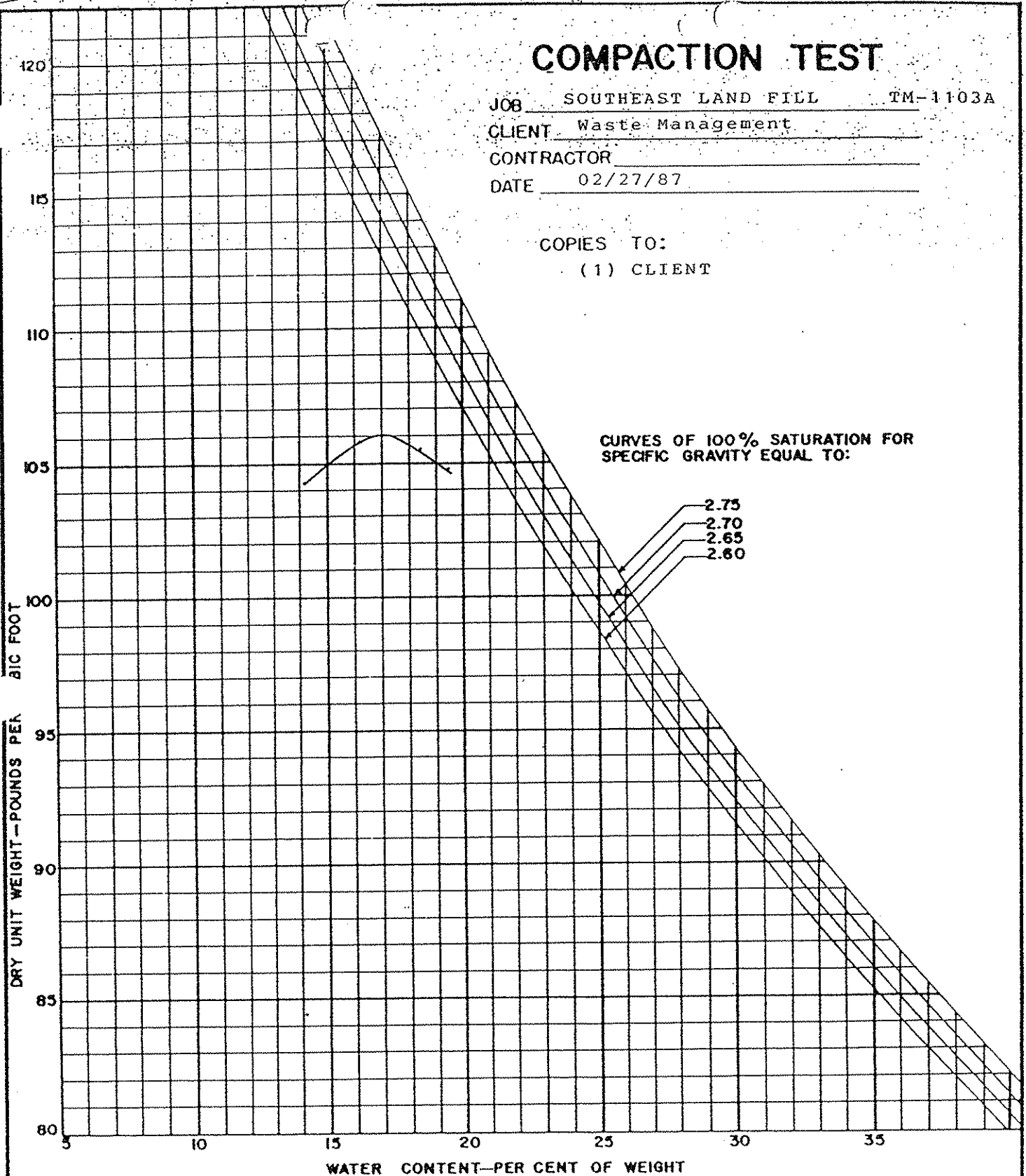
Attachments: Proctor Data
Density Data
Washed 200 Sieve Data
Permeability Data
Field Reports
Test Location Plan - First Lift
Test Location Plan - Second Lift

PROCTOR DATA

COMPACTION TEST

JOB SOUTHEAST LAND FILL TM-1103A
 CLIENT Waste Management
 CONTRACTOR _____
 DATE 02/27/87

COPIES TO:
 (1) CLIENT



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
#1	ASTM D-698 Method A	106.0	17.0	DESCRIPTION: Tan silty fine SAND with clay LOCATION: South side of slope

LAW ENGINEERING TESTING CO.

BY

Rich McLaughlin

COMPACTION TEST

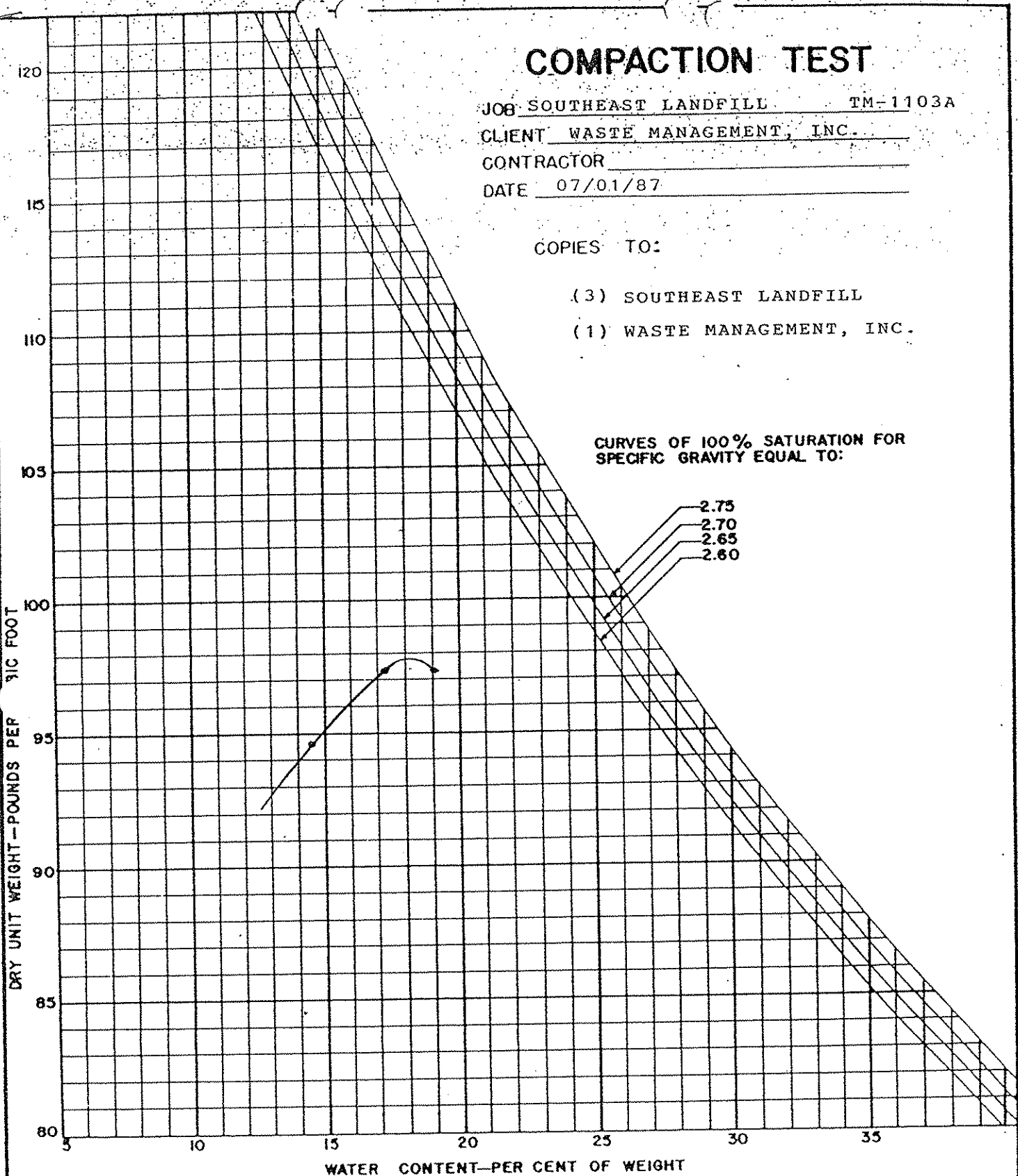
JOB SOUTHEAST LANDFILL TM-1103A
 CLIENT WASTE MANAGEMENT, INC.
 CONTRACTOR _____
 DATE 07/01/87

COPIES TO:

- (3) SOUTHEAST LANDFILL
- (1) WASTE MANAGEMENT, INC.

CURVES OF 100% SATURATION FOR
 SPECIFIC GRAVITY EQUAL TO:

2.75
 2.70
 2.65
 2.60



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
	ASTM D-1557 Method C	97.8	18.0	DESCRIPTION: Incinerated ash with small pieces of non-combustable debris. LOCATION: Buried material @ the Landfill

[Signature]

COMPACTION TEST

JOB SOUTHEAST LANDFILL

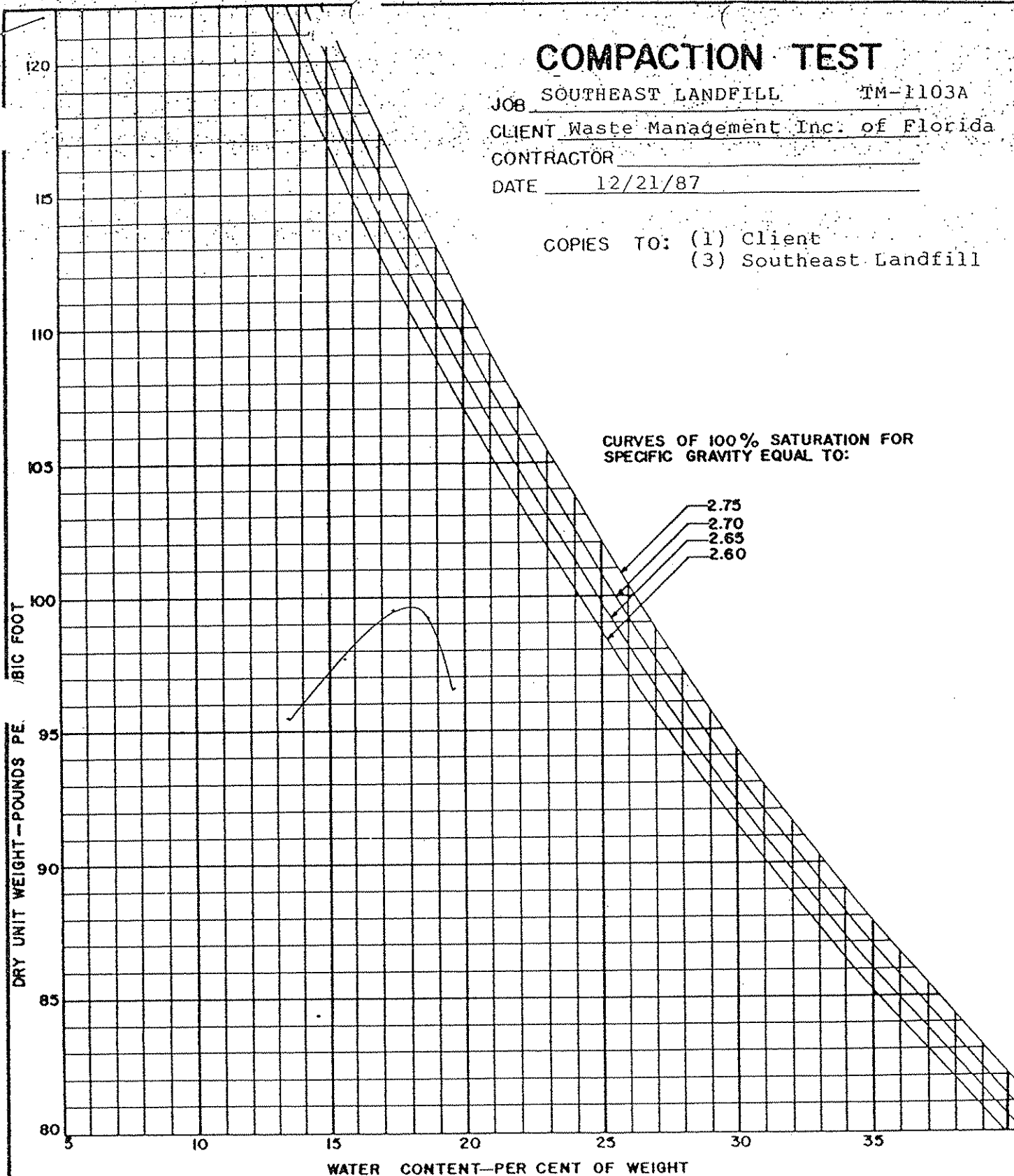
TM-1103A

CLIENT Waste Management Inc. of Florida

CONTRACTOR _____

DATE 12/21/87

COPIES TO: (1) Client
(3) Southeast Landfill



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
#3	AASHTO T-99 Method A	99.7	18.1	Description: Tan to grey sand to clay material Location: Sta. 33+00

LAW ENGINEERING TESTING CO.

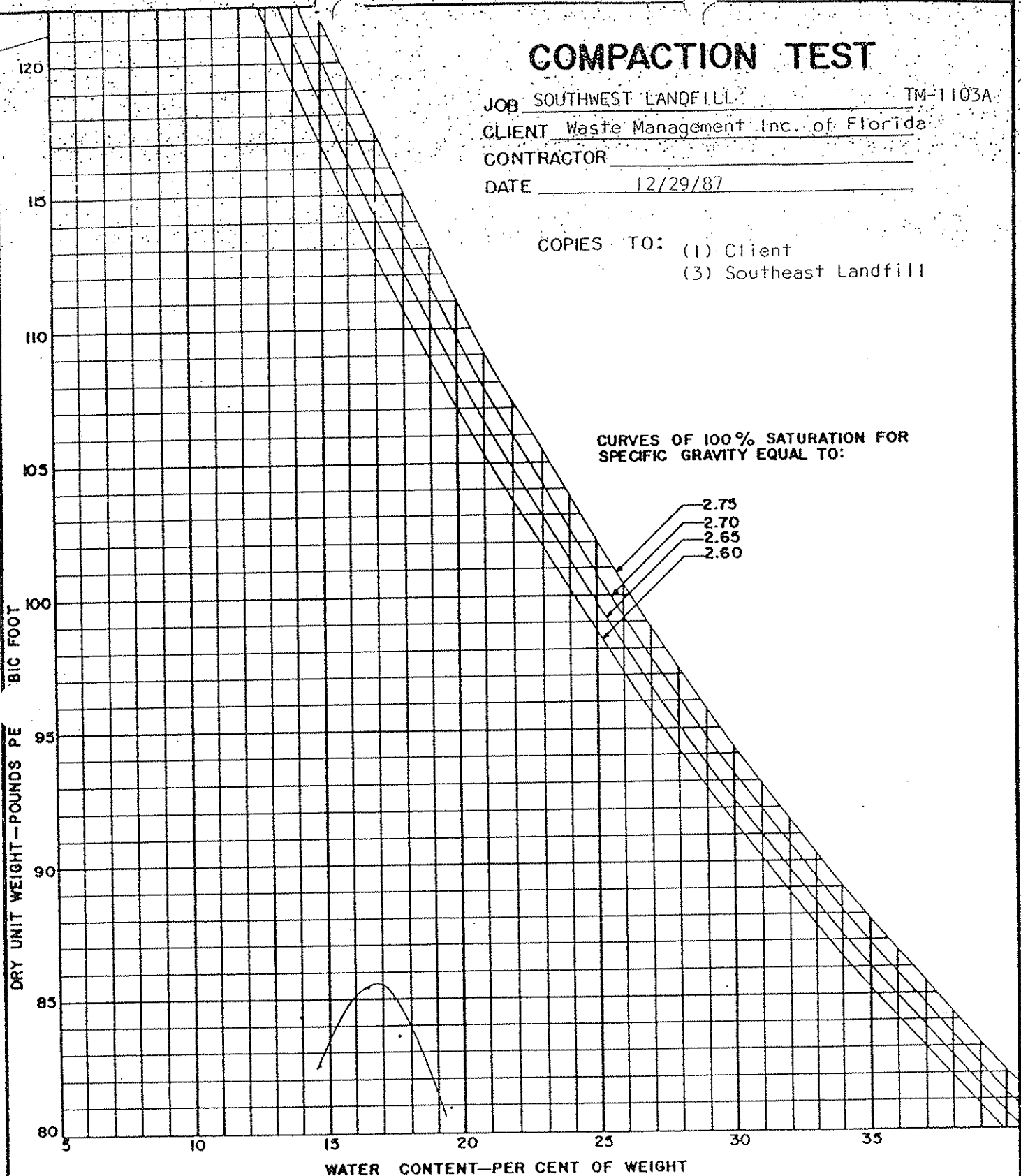
BY

A. Lynn Shalt

COMPACTION TEST

JOB SOUTHWEST LANDFILL TM-1103A
 CLIENT Waste Management Inc. of Florida
 CONTRACTOR _____
 DATE 12/29/87

COPIES TO: (1) Client
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MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
"4"	AASHTO T-99 Method A	85.6	16.8	Description: Grey to tan sandy clay Location: Stockpile at Sta. 4400+00

LAW ENGINEERING TESTING CO.

BY

A. Lynn Shell

COMPACTION TEST

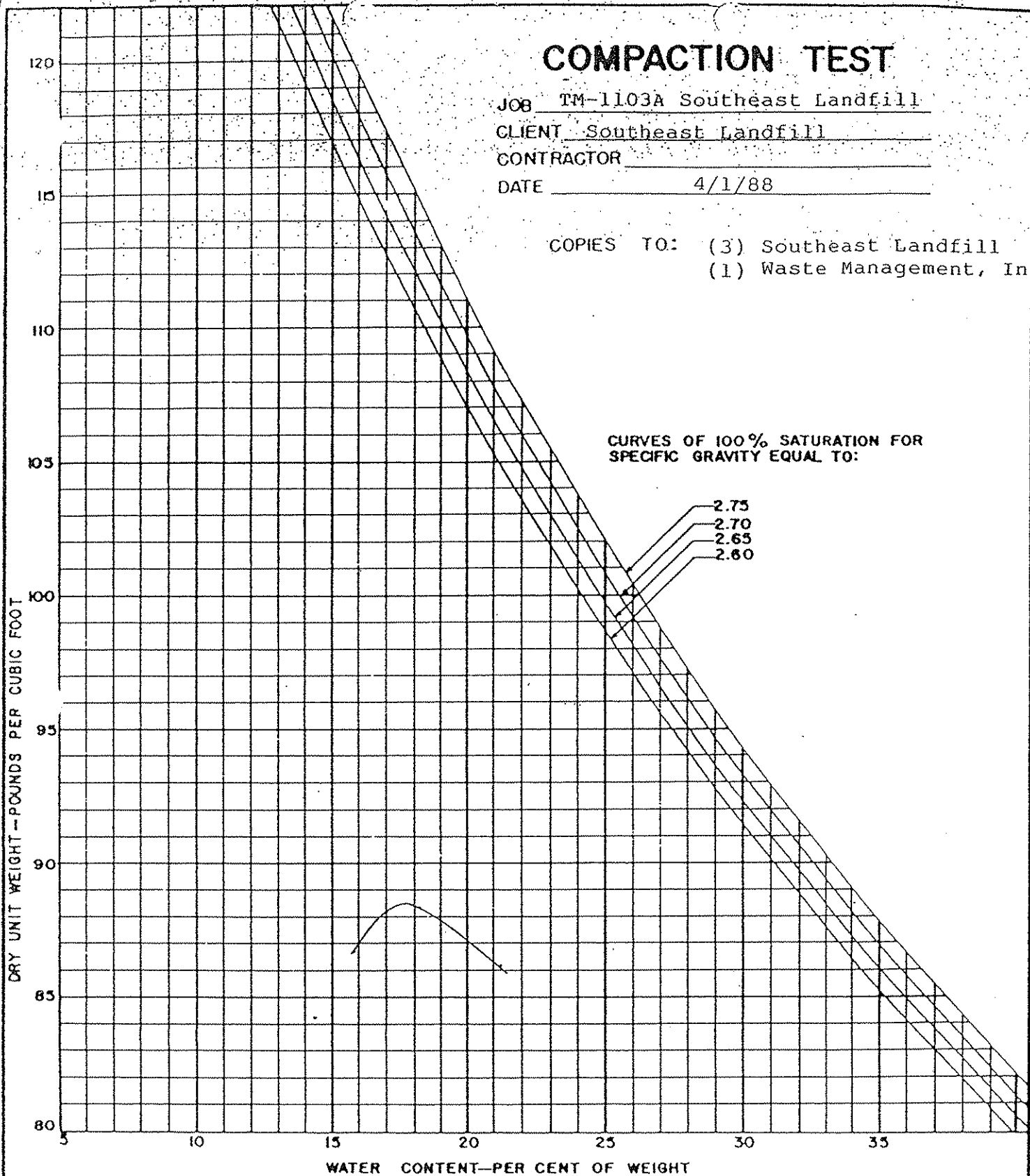
JOB TM-1103A Southeast Landfill

CLIENT Southeast Landfill

CONTRACTOR _____

DATE 4/1/88

COPIES TO: (3) Southeast Landfill
(1) Waste Management, Inc.



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
"C"	AASHTO T99 Meth. A	88.5	17.7	Location: Sta. 31+00 to 33+00 Description: Tan to brown clay

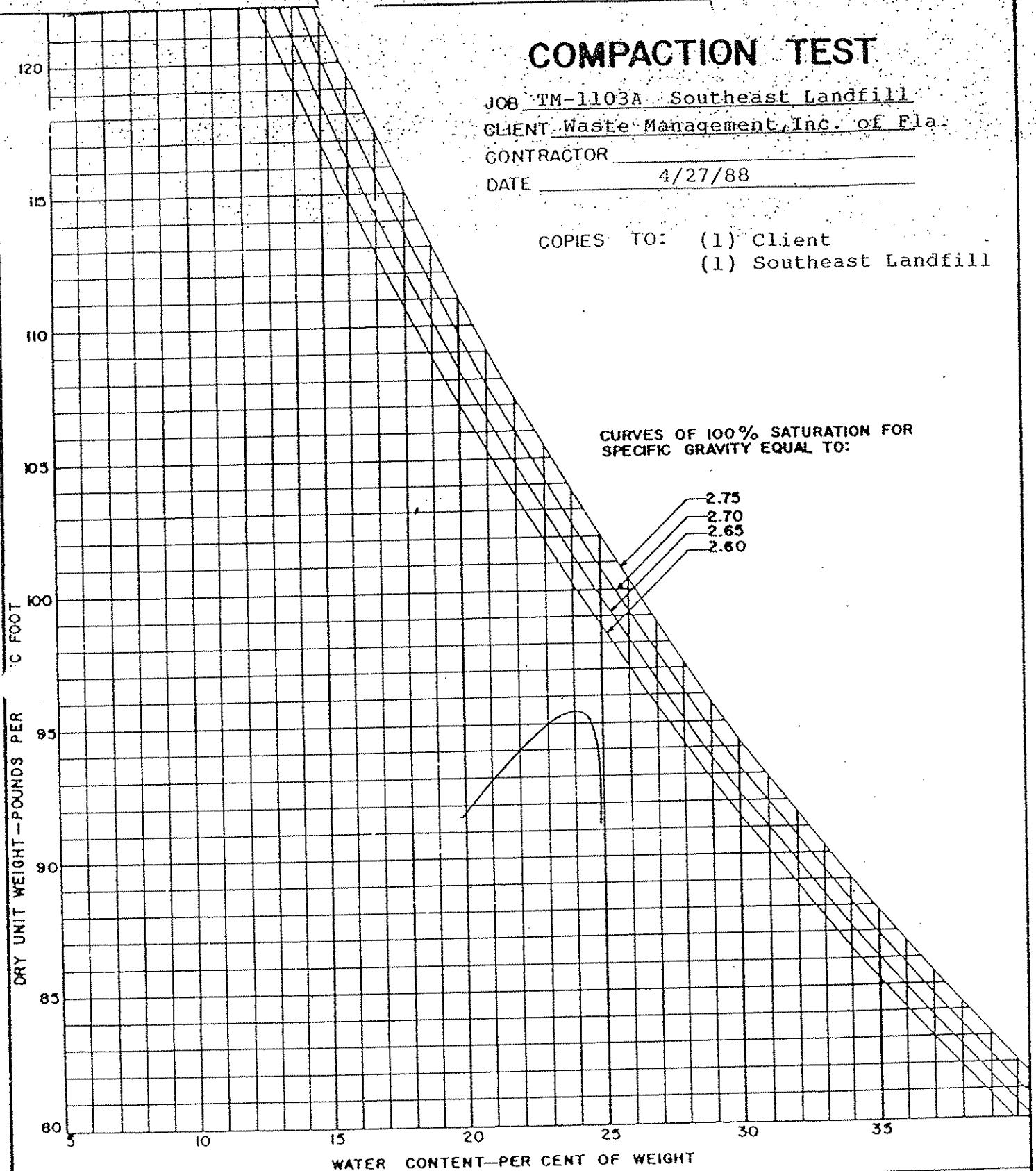
LAW ENGINEERING TESTING CO.

BY Ba W. Poon

COMPACTION TEST

JOB TM-1103A Southeast Landfill
 CLIENT Waste Management, Inc. of Fla.
 CONTRACTOR _____
 DATE 4/27/88

COPIES TO: (1) Client
 (1) Southeast Landfill



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
	AASHTO T99 Meth. A	95.4	24.1	Location: Between station #'s 3000+00 to 3900+00, South end, Acres 11, 12 & 13 Description: Tan snady clay

COMPACTION TEST

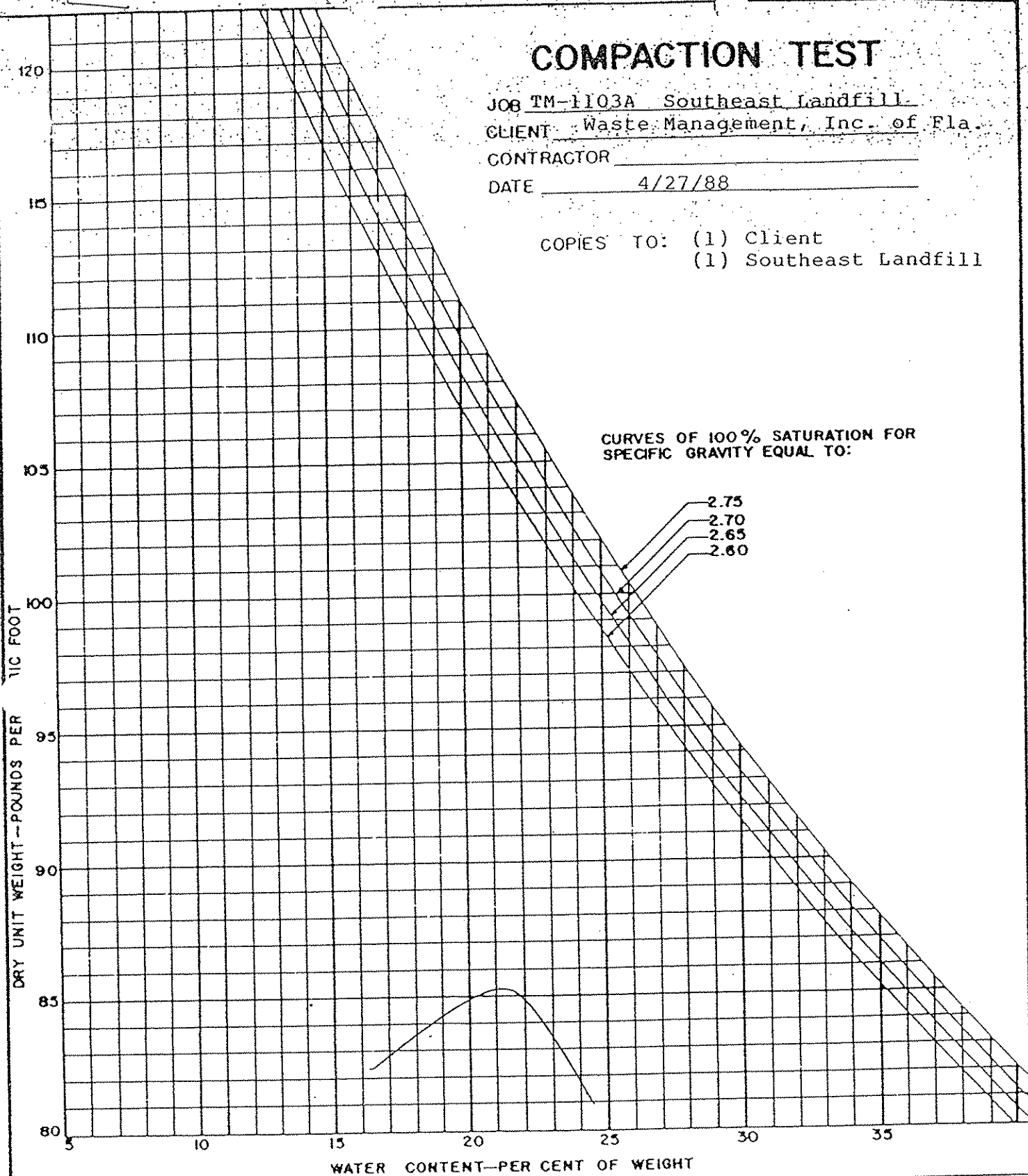
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CLIENT Waste Management, Inc. of Fla.

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DATE 4/27/88

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(1) Southeast Landfill



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
7	AASHTO T99 Meth. A	85.2	21.3	Location: Between station #'s 3900+00 to 4800+00. East side - Acres 14, 15 & 16 Description: Tan sandy clay

Q. Lynn Schall

COMPACTION TEST

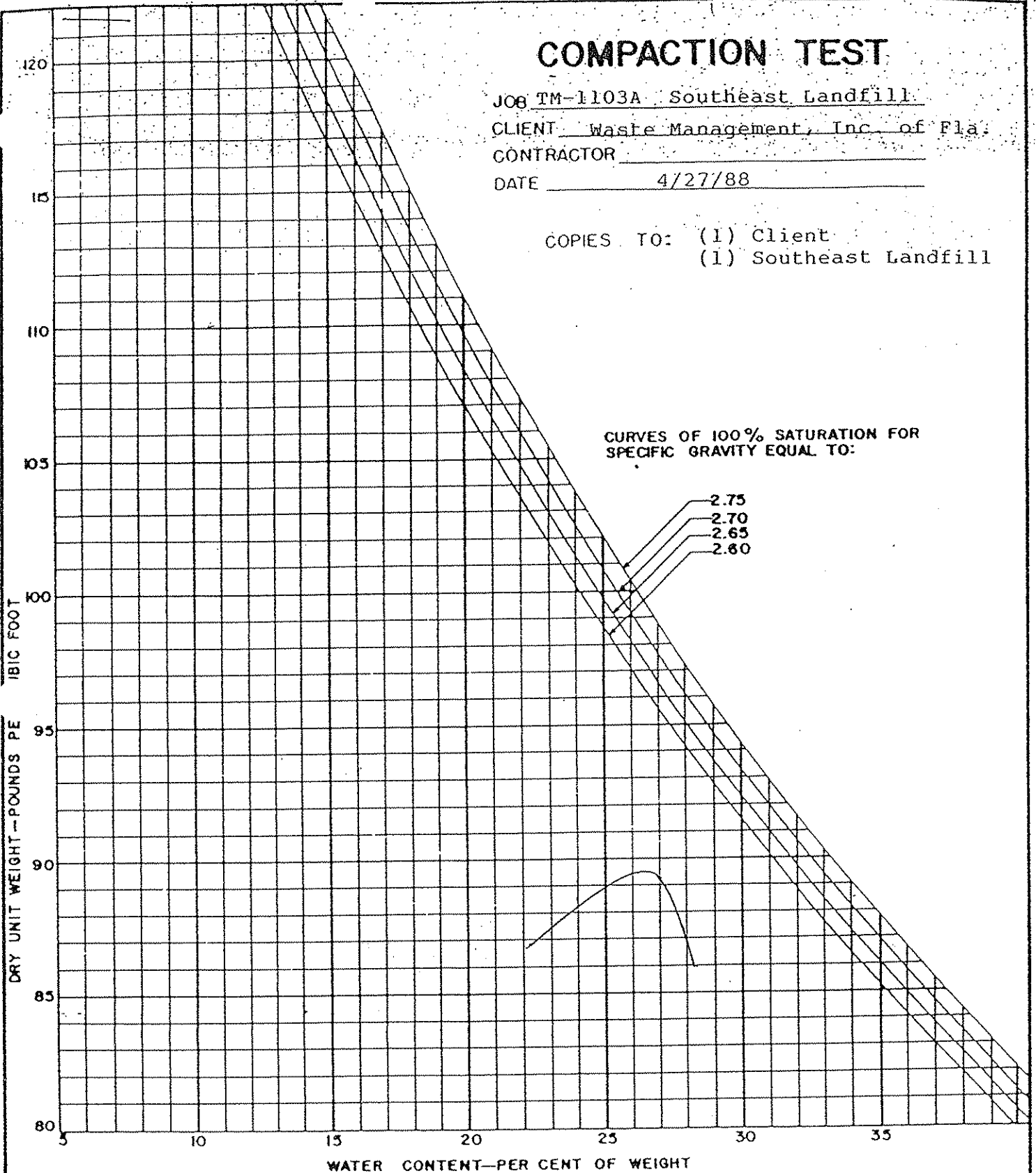
JOB TM-1103A Southeast Landfill

CLIENT Waste Management, Inc. of Fla.

CONTRACTOR

DATE 4/27/88

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(1) Southeast Landfill



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
8	AASHTO T99 Meth. A	89.6	26.2	Location: Between station #'s 4800+00 to station # 6300+00, Acres 17, 18, 19, 20 & 21 Description: Tan sandy clay

LAW ENGINEERING TESTING CO.

BY

A. Lynn Felt

DENSITY DATA

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 02/24/87							
1	21.5	98.3	1	93	90	1	-2.0"
2	28.3	88.6	1	84 <<	90	1	-2.0"
Tests Performed on 03/02/87							
3	25.6	92.9	1	88	85	1	-3.0"
4	27.1	91.3	1	86	85	1	-3.0"
5	30.6	91.7	1	86	85	1	-3.0"
6	24.5	94.4	1	89	85	1	-3.0"
7	34.0	90.7	1	86	85	1	-3.0"
8	31.8	90.4	1	85	85	1	-3.0"
9	33.1	90.8	1	86	85	1	-3.0"
LOCATIONS:							
1	ELEV 1ST LIFT F.C.; MIDDLE SOUTH SLOP BTW STA 900+00 - 950+00						
2	ELEV 1ST LIFT F.C.; MIDDLE OF SOUTH SLOP ON STA 1000+00						
3	ELEV 1ST LIFT F.C.; MIDDLE OF SOUTH SLOP @ STA 1200+00						
4	ELEV 1ST LIFT F.C.; TOP OF SOUTH SLOP @ STA 1100+00						
5	ELEV 1ST LIFT F.C.; BOTTOM OF SOUTH SLOP @ STA 1000+00						
6	ELEV 1ST LIFT F.C.; MIDDLE OF SOUTH SLOP @ STA 900+00						
7	ELEV 1ST LIFT F.C.; TOP OF SOUTH SLOP @ STA 800+00						
8	ELEV 1ST LIFT F.C.; BOTTOM OF SOUTH SLOP @ STA 700+00						
9	ELEV 1ST LIFT F.C.; MIDDLE OF SOUTH SLOP @ STA 600+00						

EMB 3/7

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
1 - ASTM D2937

<< Denotes Less than Specified Compaction

DISTRIBUTION:

WASTE MANAGEMENT (D1C1)

RESPECTFULLY SUBMITTED:

Robert D. Bister

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 03/16/87							
10	25.1	96.2	1	91	90	1	-3.0"
11	26.3	95.7	1	90	90	1	-3.0"
LOCATIONS:							
10	ELEV 1ST LIFT; MIDDLE OF SOUTH SLOPE @ STA 1100+00						
11	ELEV FINAL LIFT; TOP OF SOUTH SLOPE @ STA 1000+00						
							3/16/87 RKS

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
1 - ASTM D2937

DISTRIBUTION:

WASTE MANAGEMENT (D101)

RESPECTFULLY SUBMITTED:

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LAW ENGINEERING TESTING CO.

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 03/18/67							
12	25.2	94.6	1	89 <<	90	1	-3.0"
13	23.1	96.7	1	91	90	1	-3.0"
14	24.9	96.3	1	91	90	1	-3.0"
15	27.5	94.6	1	89 <<	90	1	-3.0"
TEST LOCATIONS:							
12	ELEV FIRST LIFT ON FINAL COVER; BOTTOM OF S SLOPE @ STA 750+00						
13	ELEV FIRST LIFT ON FINAL COVER; MIDDLE OF S SLOPE @ STA 900+00						
14	ELEV FIRST LIFT ON FINAL COVER; TOP OF SOUTH SLOPE @ STA 1050+00						
15	ELEV FIRST LIFT ON FINAL COVER; MIDDLE OF S SLOPE @ STA 1200+00						
R08 3/19							

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS

Performed In General Accordance With:
1 - ASTM D2937

<< Denotes Less than Specified Compaction

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Robert D. Briston



LAW ENGINEERING TESTING CO.

4910 W. FAUREL STREET, TAMPA, FLORIDA 33606

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: 100-111

PROJECT: SOUTHEAST LANDFILL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 06/03/87							
16	16.1	102.1	1	96	90	1	-6.0"
17	17.1	102.0	1	96	90	1	-6.0"
18	18.0	96.0	1	91	90	1	-6.0"
19	19.3	100.1	1	94	90	1	-6.0"
20	17.9	101.5	1	96	90	1	-6.0"
21	19.7	100.8	1	95	90	1	-6.0"
22	19.8	100.4	1	95	90	1	-6.0"
23	16.9	101.6	1	96	90	1	-6.0"
TEST LOCATIONS:							
	ELEV 1ST LIFT;	CENTER OF W SLOPE @ STA 100+00					
17	ELEV 1ST LIFT;	TOP OF W SLOPE @ STA 200+00					
18	ELEV 1ST LIFT;	CENTER OF S SLOPE @ STA 400+00					
19	ELEV 1ST LIFT;	CENTER OF S SLOPE @ STA 550+00					
20	ELEV 1ST LIFT;	BOTTOM OF S SLOPE @ STA 700+00					
21	ELEV 1ST LIFT;	TOP OF S SLOPE @ STA 850+00					
22	ELEV 1ST LIFT;	CENTER OF S SLOPE @ STA 950+00					
23	ELEV 1ST LIFT;	BOTTOM OF S SLOPE @ STA 1150					

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

RESPECTFULLY SUBMITTED:



LAW ENGINEERING TESTING CO.

1017 N. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO:

PROJECT: SOUTHEAST LANDFILL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 06/04/87							
24	24.0	91.9	1	87 <<	90	1	-2.0"
25	25.2	92.5	1	87 <<	90	1	-2.0"
26	24.1	94.7	1	89 <<	90	1	-2.0"
27	23.2	94.5	1	89 <<	90	1	-2.0"
28	27.6	94.5	1	89 <<	90	1	-2.0"
29	26.4	94.0	1	89 <<	90	1	-2.0"
30	25.3	95.8	1	90	90	1	-2.0"
31	28.6	93.8	1	88 <<	90	1	-2.0"
TEST LOCATIONS:							
24	ELEV 1ST LIFT;	TOP OF SOUTH SLOPE @ STA 1350+00					
25	ELEV 1ST LIFT;	CENTER OF SOUTH SLOPE @ STA 1450+00					
26	ELEV 1ST LIFT;	BOTTOM OF SOUTH SLOPE @ STA 1550+00					
27	ELEV 1ST LIFT;	CENTER OF SOUTH SLOPE @ STA 1700+00					
28	ELEV 1ST LIFT;	BOTTOM OF SOUTH SLOPE @ STA 1900+00					
29	ELEV 1ST LIFT;	TOP OF SOUTH SLOPE @ STA 2100+00					
30	ELEV 1ST LIFT;	CENTER OF SOUTH SLOPE @ STA 2200+00					
31	ELEV 1ST LIFT;	BOTTOM OF SOUTH SLOPE @ STA 2400+00					

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
J - ASTM D2937

<< Denotes Less than Specified Compaction

RESPECTFULLY SUBMITTED:

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 06/19/87							
32	17.9	97.9	1	92	90	1	-2.0"
33	15.9	105.9	1	100	90	1	-2.0"
34	15.6	105.9	1	100	90	1	-2.0"
35	16.6	104.0	1	98	90	1	-2.0"
TEST LOCATIONS:							
32	ELEV FIRST LIFT; STA 18+50 SOUTH SLOPE CENTER OF SLOPE						
33	ELEV FIRST COVER; STA 20+00 SOUTH SLOPE CENTER OF SLOPE						
34	ELEV FIRST COVER; BOTTOM OF SLOPE @ STA 21+50						
35	ELEV FIRST COVER; TOP OF SLOPE @ STA 23+00						

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

DISTRIBUTION:

WASTE MANAGEMENT (D1C1)

RESPECTFULLY SUBMITTED:

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 06/19/87							
36	5.1	85.9	2	88 <<	95	1	-4.0"
37	6.3	86.7	2	89 <<	95	1	-4.0"
LOCATIONS:							
36	ASH AREA						
37	ASH AREA						

TEST COMPARED TO:

REMARKS: Performed In General Accordance With:
1 - ASTM D2937

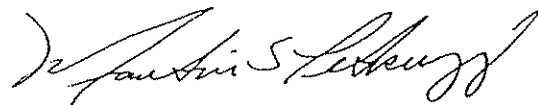
PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
2	97.8	18.0

<< Denotes Less than Specified Compaction

DISTRIBUTION:

WASTE MANAGEMENT (D1C1)

RESPECTFULLY SUBMITTED:





LAW ENGINEERING TESTING CO.

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 07/24/87							
38	45.8	75.0	1	71 <<	90	1	-6.0"
39	46.2	75.9	1	72 <<	90	1	-6.0"

LOCATIONS:

38 ELEV LAST LIFT; CENTER OF WEST SLOPE AT STATION 50+00
39 ELEV FINAL COVER; BOTTOM OF WEST SLOPE AT STATION 200+00

NOTE:

THE EXTREMELY LOW COMPACTION TEST RESULTS ARE DUE TO EXCESSIVE MOISTURE IN THE CLAYEY SOILS. ACTUAL MOISTURE CONTENT TEST WERE PERFORMED TO DETERMINE PERCENT MOISTURE.

TEST COMPARED TO:

REMARKS

Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

<< Denotes Less than Specified Compaction

DISTRIBUTION:

WASTE MANAGEMENT (D1C1)

RESPECTFULLY SUBMITTED:

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET, TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 09/22/87							
40	24.1	86.9	1	82 <<	90	1	-8.0"
41	22.7	89.9	1	85 <<	90	1	-8.0"
42	20.2	93.5	1	88 <<	90	1	-8.0"
43	24.3	88.0	1	83 <<	90	1	-8.0"
44	23.1	89.6	1	85 <<	90	1	-8.0"
TEST LOCATIONS:							
40	ELEV. LAST LIFT, CTR OF W SLOPE AT APPROX. STA. 50+00						
41	ELEV. FINAL COVER, CENTER OF W. SLOPE AT APPROX. STA. 200+00						
42	ELEV. FINAL COVER, TOP OF SOUTH SLOPE AT APPROX. STA. 400+00						
43	ELEV. FINAL COVER, TOP OF SOUTH SLOPE AT APPROX. STA. 700+00						
44	ELEV. FINAL COVER, CENTER OF SOUTH SLOPE AT APPROX. STA. 900+50						

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

<< Denotes Less than Specified Compaction

DISTRIBUTION:

WASTE MANAGEMENT (D1C1)

RESPECTFULLY SUBMITTED:

A. Lynn Schall



LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET, TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103

PROJECT: SOUTHEAST LANDFILL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 09/30/87							
45	17.1	95.2	1	90	90	1	-6.0"
46	24.8	91.5	1	86 <<	90	1	-6.0"
47	24.4	93.1	1	88 <<	90	1	-6.0"
48	21.7	92.9	1	88 <<	90	1	-6.0"
TEST LOCATIONS:							
45	ELEV F/G; TOP 3RD OF SLOPE AT STATION 700+50						
46	ELEV F/G; MIDDLE 3RD OF SLOPE AT STATION 1000+00						
47	ELEV F/G; LOWER 3RD OF SLOPE AT STATION 1200+00						
48	ELEV F/G; MIDDLE 3RD OF SLOPE AT STATION 1300+50						

TEST COMPARED TO:

PROCTOR
NUMBER

MAXIMUM DRY
DENSITY
(PCF)

OPTIMUM
MOISTURE
(%)

1

106.0

17.0

REMARKS Performed In General Accordance With:
1 - ASTM D2937

<< Denotes Less than Specified Compaction

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4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/06/87							
49	14.2	103.2	1	97	90	1	-9.0"
50	13.7	102.6	1	97	90	1	-9.0"
51	14.1	106.0	1	100+	90	1	-9.0"
52	14.4	106.7	1	100+	90	1	-9.0"
53	18.4	95.5	1	90	90	1	-9.0"
54	18.8	96.7	1	91	90	1	-9.0"
55	19.8	99.9	1	94	90	1	-9.0"
56	20.3	98.0	1	92	90	1	-9.0"
57	25.5	95.9	1	90	90	1	-9.0"
58	22.3	97.9	1	92	90	1	-9.0"
59	21.9	97.4	1	92	90	1	-9.0"
TEST LOCATIONS:							
49	ELEV. LAST LIFT FINAL COVER, RETEST OF 40						
50	ELEV. LAST LIFT FINAL COVER, RETEST OF 41						
51	ELEV. LAST LIFT FINAL COVER, RETEST OF 42						
52	ELEV. LAST LIFT FINAL COVER, CENTER OF S SLOPE AT STA#550+00						
53	ELEV. LAST LIFT FINAL COVER, RETEST OF 43						
54	ELEV. LAST LIFT FINAL COVER, RETEST OF 44						
55	ELEV. LAST LIFT FINAL COVER, TOP OF S SLOPE AT STA#1200+00						
56	ELEV. LAST LIFT FINAL COVER, BOTTOM OF S SLOPE AT STA#1000+00						
57	ELEV. LAST LIFT FINAL COVER, CENTER OF S SLOPE AT STA#1300+00						
58	ELEV. LAST LIFT FINAL COVER, TOP OF S SLOPE AT STA#1500+00						
59	ELEV. LAST LIFT FINAL COVER, CENTER OF S SLOPE AT STA#1600+00						

10/12/87

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

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REPORT OF FIELD DENSITY TESTS

Page 2

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/06/87							
60	21.7	96.6	1	91	90	1	-9.0"
61	24.5	97.1	1	92	90	1	-9.0"
62	25.7	96.9	1	91	90	1	-9.0"
63	25.5	95.6	1	90	90	1	-9.0"
64	25.2	96.6	1	91	90	1	-9.0"
65	24.8	94.7	1	89 <<	90	1	-9.0"
66	25.3	95.0	1	90	90	1	-9.0"
TEST LOCATIONS:							
60	ELEV.LAST LIFT FINAL COVER, BOTTOM OF S SLOPE AT STA#1750+00						
61	ELEV.LAST LIFT FINAL COVER, TOP OF S SLOPE AT STA#1800+00						
62	ELEV.LAST LIFT FINAL COVER, BLOTOM OF S SLOPE AT STA.2050+00						
63	ELEV. LAST LIFT FINAL COVER, BOTTOM OF SLOPE AT STA#2150+00						
64	ELEV.LAST LIFT FINAL COVER, CENTER OF S SLOPE AT STA#2450+00						
65	ELEV.LAST LIFT FINAL COVER, TOP OF S SLOPE AT STA# 2550+00						
66	ELEV.LAST LIFT FINAL COVER,BOTTOM OF S SLOPE AT STA#2700+00						

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/22/87							
67	25.0	83.9	1	79 <<	90	1	-6.0"
68	18.8	90.8	1	86 <<	90	1	-6.0"
69	19.0	91.4	1	86 <<	90	1	-6.0"
70	21.0	90.4	1	85 <<	90	1	-6.0"
TEST LOCATIONS:							
67	ELEV 1ST LIFT; TOP THIRD OF SOUTH SLOPE AT STATION 33+00						
68	ELEV 1ST LIFT; MIDDLE THIRD OF SOUTH SLOPE @ STATION 36+00						
69	ELEV 1ST LIFT; LOWER THIRD OF SOUTH SLOPE @ STATION 39+00						
70	ELEV 1ST LIFT; MIDDLE THIRD OF EAST SLOPE @ STATION 42+00						

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/28/87							
71	31.5	80.0	1	75 <<	90	1	-2.0"
72	29.2	82.3	1	78 <<	90	1	-2.0"
73	28.0	85.5	1	81 <<	90	1	-2.0"
74	26.9	84.8	1	80 <<	90	1	-2.0"
TEST LOCATIONS:							
71	ELEV. 1ST LIFT, TOP OF SOUTH SLOPE AT STA 3300+00						
72	ELEV. 1ST LIFT, BOTTOM OF SOUTH SLOPE AT STA 3500+00						
73	ELEV. 1ST LIFT, CENTER OF SOUTH SLOPE AT STA 3600+00						
74	ELEV. 1ST LIFT, BOTTOM OF SOUTH SLOPE AT STA 3700+00						

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR
NUMBER

MAXIMUM DRY
DENSITY
(PCF)

OPTIMUM
MOISTURE
(%)

1

106.0

17.0

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/11/87							
75	24.3	95.3	1	90	90	1	-6.0"
76	24.0	96.3	1	91	90	1	-6.0"
77	24.8	94.5	1	89 <<	90	1	-6.0"
78	28.5	91.5	1	86 <<	90	1	-6.0"
TEST LOCATIONS:							
75	ELEV. 1ST LIFT/FINAL COVER, CENTER OF E. SLOPE @ APPROX STA 4650+00						
76	ELEV. 1ST LIFT/FINAL COVER, BOTTOM OF E. SLOPE @ APPROX STA 4850+00						
77	ELEV. 1ST LIFT/FINAL COVER, TOP OF E. SLOPE @ APPROX STA 4950+00						
78	ELEV. 1ST LIFT/FINAL COVER, CENTER OF N. SLOPE @ APPROX STA 5150+00						

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
1 - ASTM D2937

PROCTOR
NUMBER

MAXIMUM DRY
DENSITY
(PCF)

OPTIMUM
MOISTURE
(%)

1

106.0

17.0

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 12/03/87							
79	22.0	98.1	1	93	90	3	-8.0"
80	19.0	104.0	1	98	90	3	-8.0"
81	20.8	99.1	1	93	90	3	-8.0"
82	18.3	106.8	1	100+	90	3	-8.0"
83	17.7	105.3	1	99	90	3	-8.0"
84	22.1	101.8	1	96	90	3	-8.0"
85	30.9	87.8	1	83 <<	90	3	-8.0"
86	25.4	94.0	1	89 <<	90	3	-8.0"
87	29.5	90.0	1	85 <<	90	3	-8.0"
TEST LOCATIONS:							
79	ELEV. 1ST LIFT, STA 34+00 TOP OF SLOPE						
80	ELEV. 1ST LIFT, STA 35+50 MIDDLE OF SLOPE						
81	ELEV. 1ST LIFT, STA 37+00 BOTTOM OF SLOPE						
82	ELEV. 1ST LIFT, STA 39+00 MIDDLE OF SLOPE						
83	ELEV. 1ST LIFT, STA 40+00 TOP OF SLOPE						
84	ELEV. 1ST LIFT, STA 41+00 MIDDLE OF SLOPE						
85	ELEV. 1ST LIFT, STA 42+50 MIDDLE OF SLOPE						
86	ELEV. 1ST LIFT, STA 43+50 MIDDLE OF SLOPE						
87	ELEV. 1ST LIFT, STA 44+50 MIDDLE OF SLOPE						

12-4-87

TEST COMPARED TO:

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 12/10/87							
88	20.2	100.1	1	94	90	1	-6.0"
89	14.2	104.5	1	99	90	1	-6.0"
90	22.8	100.5	1	95	90	3	-8.0"
91	21.0	99.3	1	94	90	3	-8.0"
TEST LOCATIONS:							
38	ELEV. 1ST LIFT, MIDDLE 3RD OF SLOPE, STA 25+50						
89	ELEV. 1ST LIFT, TOP 3RD OF SLOPE, STA 27+00						
90	ELEV. 1ST LIFT, MIDDLE 3RD OF SLOPE, STA 43+50						
91	ELEV. 1ST LIFT, TOP 3RD OF SLOPE, STA 44+00						
							12-11-87

TEST COMPARED TO:

REMARKS Performed In General Accordance With:

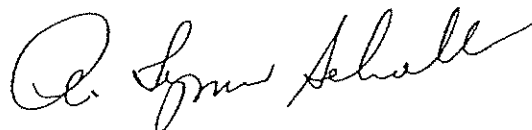
PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

1 - ASTM D2937
3 - ASTM D2922

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 12/17/87							
92	18.3	103.7	1	98	90	3	-8.0"
93	17.8	108.5	1	100+	90	3	-8.0"
TEST LOCATIONS:							
92	ELEV. 1ST LIFT, MIDDLE 3RD OF SLOPE AT STA 36+50						
93	ELEV. 1ST LIFT, MIDDLE 3RD OF SLOPE AT STA 40+00						

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 12/23/87							
94	23.2	98.6	1	93	90	3	8.0"
95	19.0	102.5	1	97	90	3	8.0"
96	20.5	100.0	1	94	90	3	8.0"
97	22.2	97.8	1	92	90	3	8.0"
98	21.5	101.2	1	96	90	3	8.0"
99	21.5	100.0	1	94	90	3	8.0"
100	23.2	98.6	1	93	90	3	8.0"
101	22.2	99.8	1	94	90	3	8.0"
102	22.7	99.0	1	93	90	3	8.0"
103	22.2	99.8	1	94	90	3	8.0"
104	17.2	101.1	1	95	90	3	8.0"
TEST LOCATIONS:							
94	ELEV. F.G, STA 46+50 TOP 3RD 2ND LIFT ACRE 16						
95	ELEV. 9" BLW F.G, STA 53+50 BOTTOM 3RD, 1ST LIFT, ACRE 18						
96	ELEV. 9" BLW F.G, STA 55+25 TOP 3RD 1ST LIFT ACRE 19						
97	ELEV. 9" BLW F.G, STA 59+50, TOP 3RD, 1ST LIFT, ACRE 20						
98	ELEV. 9" BLW F.G, 61+50 MIDDLE 3RD, 1ST LIFT, ACRE 21						
99	ELEV. 9" BLW F.G, STA 62+75, BOTTOM 3RD, 1ST LIFT, ACRE 21						
100	ELEV. F.G, STA 47+75 MIDDLE 3RD, 2ND LIFT						
101	ELEV. F.G, STA 51+75 TOP 3RD, 2ND LIFT						
102	ELEV. 9" BLW F.G, STA 48+50 BOTTOM 3RD 1ST LIFT						
103	ELEV. 9" BLW F.G, STA 50+50 MIDDLE 3RD, 1ST LIFT						
104	ELEV. 9" BLW F.G, STA 57+50 MIDDLE 3RD, 1ST LIFT						

12.31.87

TEST COMPARED TO:

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
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1	106.0	17.0
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REPORT OF FIELD DENSITY TESTS

Page 2

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
105	18.5	101.3	1	96	90	3	8.0"
Tests Performed on 12/23/87							
ST LOCATIONS: 105 ELEV. 9" BLW F.G, STA 56+50 BOTTOM 3RD, 1ST LIFT							
							12-31-87

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	106.0	17.0

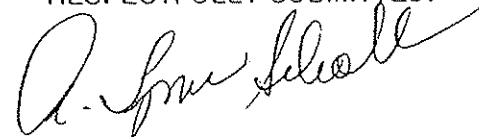
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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 01/18/88							
106	19.2	96.1	3	96	90	3	-8.0"
107	18.2	97.8	3	98	90	3	-8.0"
108	39.5	74.6	3	75 <<	90	3	-8.0"
109	37.5	77.3	3	78 <<	90	3	-8.0"
110	19.2	97.1	1	92	90	1	-6.0"
111	18.1	96.5	1	91	90	1	-6.0"
TEST LOCATIONS:							
06	ELEV. 1ST LIFT, TOP 3RD OF SLOPE @ STA32+00						
107	ELEV. 1ST LIFT, MIDDLE OF 3RD OF SLOPE @ STA31+00						
108	ELEV. 2ND LIFT, TOP OF SLOPE @ STA34+00						
109	ELEV. 2ND LIFT, LOWER 3RD OF SLOPE @ STA35+50						
110	ELEV. 1ST LIFT, TOP 3RD OF SLOPE @ STA51+50						
111	ELEV. 1ST LIFT, MIDDLE 3RD OF SLOPE @ STA 52+50						
1-21-88							

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
3	99.7	18.1
1	106.0	17.0

REMARKS Performed In General Accordance With:

3 - ASTM D2922

1 - ASTM D2937

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SOUTHEAST LANDFILL (C3D3)

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 03/02/88							
112	37.8	77.9	3	78 <<	90	3	8.0"
113	38.8	76.1	3	76 <<	90	3	8.0"
114	40.4	75.0	3	75 <<	90	3	8.0"
115	38.7	72.9	3	73 <<	90	3	8.0"
116	41.9	73.2	3	73 <<	90	3	8.0"
117	33.5	79.4	3	80 <<	90	3	8.0"
TEST LOCATIONS:							
112	ELEV. 2ND LIFT, MIDDLE 3RD OF SLOPE AT STA 31+00						
113	ELEV. 2ND LIFT, TOP 3RD OF SLOPE AT STA 32+50						
114	ELEV. 2ND LIFT, LOWER 3RD OF SLOPE AT STA 34+00						
115	ELEV. 2ND LIFT, MIDDLE 3RD OF SLOPE AT STA 35+50						
116	ELEV. 2ND LIFT, TOP 3RD OF SLOPE AT STA 36+50						
117	ELEV. 2ND LIFT, LOWER 3RD OF SLOPE AT STA 37+00						
							3-4-88

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
3 - ASTM D2922

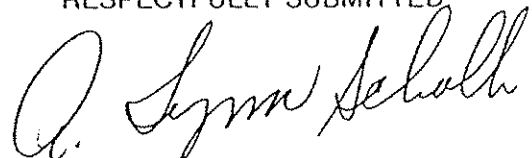
PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
3	99.7	18.1

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SOUTHEAST LANDFILL (C3D3)

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 03/25/88							
118	38.8	80.2	3	80 <<	90	3	-8.0"
119	36.6	82.7	3	83 <<	90	3	-8.0"
TEST LOCATIONS:							
118	ELEV. 2ND LIFT, RETEST OF TEST #112.						
119	ELEV. 2ND LIFT, RETEST OF TEST #113						

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
3	99.7	18.1

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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SOUTHEAST LANDFILL (C3D3)

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/04/88							
120	22.0	92.0	5	100+	90	3	8.0"
121	25.8	88.8	5	100+	90	3	8.0"
122	27.9	81.2	5	92	90	3	8.0"
123	23.4	90.8	5	100+	90	3	8.0"
124	27.1	86.8	5	98	90	3	8.0"
125	30.0	83.2	5	94	90	3	8.0"
126	26.4	88.7	5	100+	90	3	8.0"
127	33.1	82.3	5	93	90	3	8.0"
128	21.0	97.6	4	100+	90	3	8.0"
129	13.9	105.0	4	100+	90	3	8.0"
TEST LOCATIONS:							
120	ELEV. F/G, STA. 3400+00, MIDDLE 3RD, 2ND LIFT, ACRE 12						
121	ELEV. F/G, STA. 3550+00, LOWER 3RD, 2ND LIFT, ACRE 12						
122	ELEV. F/G, STA. 3650+00, TOP 3RD, 2NDS LIFT, ACRE 13						
123	ELEV. F/G, STA. 3825+00, MIDDLE 3RD, 2ND LIFT, ACRE 13						
124	ELEV. F/G, STA. 4000+00, TOP 3RD, 2NDS LIFT, ACRE 14						
125	ELEV. F/G, STA. 4125+00, LOWER 3RD, 2ND LIFT, ACRE 14						
126	ELEV. F/G, STA. 4225+00, TOP 3RD, 2ND LIFT, ACRE 15						
127	ELEV. F/G, STA. #4375+00, BOTTOM 3RD, ACRE 15						
128	ELEV. F/G, STA. 4650+00, TOP 3RD, 2NDS LIFT, ACRE 16						
129	ELEV. F/G, STA. 4775+00, BOTTOM 3RD, 2ND LIFT, ACRE 16						

4-7-88

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
5	88.5	17.7
4	85.6	16.8

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

A Lynn Schall



LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103H

PROJECT: SOUTHEAST LANDFILL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/08/88							
130	26.4	93.3	4	100+	90	1	5.0"
131	23.1	93.8	4	100+	90	1	5.0"
132	36.2	87.9	4	100+	90	1	5.0"
TEST LOCATIONS:							
130	ELEV. F/G, ACRE 17, STA. 4950+00, MIDDLE 3RD, 2ND LIFT						
131	ELEV. F/G, ACRE 19, STA. 5500+00, LOWER 3RD, 2ND LIFT						
132	ELEV. F/G, ACRE 21, STA. 6200+00, TOP 3RD, 2ND LIFT						
							4-19-88

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
4	85.6	16.8

REMARKS Performed In General Accordance With:
1 - ASTM D2937

RESPECTFULLY SUBMITTED:

LAW ENGINEERING TESTING CO.

4019 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/21/88							
133	25.6	88.5	7	100+	90	1	5"
134	30.8	86.9	7	100+	90	1	5"
TEST LOCATIONS:							
33	ELEV. F/G, ACRE 11, STA. 3125+00, MIDDLE 1/3, 2ND LIFT						
134	ELEV. F/G, ACRE 11, STA 3225+00, LOWER 1/3, 2ND LIFT						
4-26-88							

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
7	85.2	21.3

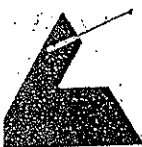
REMARKS Performed In General Accordance With:
1 - ASTM D2937

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

C. Lynn Felt



LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/22/88							
149	23.6	90.5	6	95	90	3	8"
150	25.4	86.4	6	91	90	3	8"
151	27.8	88.7	6	93	90	3	8"
152	29.6	88.9	6	93	90	3	8"
153	35.6	81.3	7	95	90	3	8"
154	37.4	80.8	7	95	90	3	8"
155	41.3	78.2	7	92	90	3	8"
156	34.4	78.2	7	92	90	3	8"
TEST LOCATIONS:							
9	ELEV. F/G, ACRE 12,	STA. 3400+00,	TOP	1/3, 2ND LIFT			
10	ELEV. F/G, ACRE 12,	STA. 3500+00,	MID	1/3, 2ND LIFT			
151	ELEV. F/G, ACRE 13,	STA. 3650+00,	TOP	1/3, 2ND LIFT			
152	ELEV. F/G, ACRE 13,	STA. 3750+00,	LOWER	1/3			
153	ELEV. F/G, ACRE 14,	STA. 4000+00,	TOP	1/3			
154	ELEV. F/G, ACRE 14,	STA. 4125+00,	LOWER	1/3, 2ND LIFT			
155	ELEV. F/G, ACRE 15,	STA. 4250+00,	TOP	1/3			
156	ELEV. F/G, ACRE 15,	STA. 4400+00,	MIDDLE	1/3, 2ND LIFT			

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
6	95.4	24.1
7	85.2	21.3

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

A. Lynn Schaller

LAW ENGINEERING TESTING CO.

4919 W. LAUREL STREET TAMPA, FLORIDA 33607

REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/04/88							
135	34.0	79.1	6	83 <<	90	3	8"
136	23.2	98.6	6	100+	90	3	8"
137	27.5	89.8	8	100+	90	3	8"
138	35.7	83.3	8	93	90	3	8"
139	29.7	84.4	8	94	90	3	8"
140	32.0	84.5	8	94	90	3	8"
141	30.5	76.2	8	85 <<	90	3	8"
TEST LOCATIONS:							
35	ELEV. F/G, PHASE II, ACRE 16, TOP 1/3, STA. 4585+00, 2ND LIFT						
136	ELEV. F/G, PHASE II, ACRE 16, MIDDLE 1/3, STA. 4750+00, 2ND LIFT						
137	ELEV. F/G, PHASE II, ACRE 17, MIDDLE 1/3, STA. 4850+00, 2ND LIFT						
138	ELEV. F/G, PHASE II, ACRE 17, LOWER 1/3, STA. 5000+00						
139	ELEV. F/G, PHASE II, ACRE 18, TOP 1/3, STA. 5150+00, 2ND LIFT						
140	ELEV. F/G, PHASE II, ACRE 18, BOTTOM 1/3, STA. 5350+00, 2ND LIFT						
141	ELEV. F/G, PHASE II, ACRE 19, TOP 1/3, STA. 5500+00, 2ND LIFT						

S-20.88

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
3 - ASTM D2922

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
6	95.4	24.1
8	89.6	26.2

<< Denotes Less than Specified Compaction

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

A. Lynn Schall



LAW ENGINEERING TESTING CO.

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NO: TM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/04/88							
142	31.5	84.8	8	95	90	3	8"
143	30.2	84.5	8	94	90	3	8"
144	30.0	86.2	8	96	90	3	8"
145	32.5	84.9	8	95	90	3	8"
146	28.0	86.7	8	97	90	3	8"
TEST LOCATIONS:							
142	ELEV. F/G, PHASE II, ACRE 19, STA. 5650+00						
143	ELEV. F/G, PHASE II, ACRE 20, STA. 5800+00						
144	ELEV. F/G, PHASE II, ACRE 20, STA. 5950+00						
145	ELEV. F/G, PHASE II, ACRE 21, STA. 6090+00						
146	ELEV. F/G, PHASE II, ACRE 21, STA. 6250+00						

TEST COMPARED TO:

REMARKS Performed In General Accordance With:
3 - ASTM D2922

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
8	89.6	26.2

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

LAW ENGINEERING TESTING CO.

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REPORT OF FIELD DENSITY TESTS

CLIENT: WASTE MANAGEMENT

JOB NOTM-1103A

PROJECT: SOUTHEAST LAND FILL
TAMPA, FLORIDA

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/06/88							
147	25.5	80.6	7	95	90	1	5.0"
148	24.6	80.0	7	94	90	1	5.0"
TEST LOCATIONS:							
1	ELEV. F/G, PHASE II, 2ND LIFT, ACRE 12, STA 3400+00, TOP 1/3						
148	ELEV. F/G, PHASE II, 2ND LIFT, ACRE 12, STA. 3550+00, BOTTOM 1/3						
5-11-88							

TEST COMPARED TO:

REMARKS: Performed In General Accordance With:
1 - ASTM D2937

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
7	85.2	21.3

DISTRIBUTION:

WASTE MANAGEMENT, INC. OF FLORIDA (D1C1)
SOUTHEAST LANDFILL (C3D3)

RESPECTFULLY SUBMITTED:

A. Lynn Schalk

WASH 200 SIEVE DATA



LAW ENGINEERING TESTING COMPANY

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida

Office: Tampa

Project: SOUTHEAST LANDFILL

Date: 6/12/87

Technician:

Job. No. TM-1103A

Date Sampled: June 3, 1987

<u>Test No.</u>	<u>Sieve No.</u>	<u>Location</u>	<u>% Passing</u>
1	200	First Lift Center of W. Slope at Sta. 100+00	41.4
2	200	First Lift Top of W. Slope at Sta. 200+00	37.1
3	200	First Lift Center of S. Slope at Sta. 400+00	60.0
4	200	First Lift Center of S. Slope at Sta. 550+00	42.4
5	200	First Lift Bottom of S. Slope at Sta. 700+00	38.3
6	200	First Lift Top of S. Slope at Sta. 850+00	35.9
7	200	First Lift Center of S. Slope at Sta. 950+00	31.8
8	200	First Lift Bottom of S. Slope at Sta. 1150+00	39.9

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida

Office: Tampa

Project: SOUTHEAST LANDFILL

Date: 6/12/87

Technician:

Job. No. TM-1103A

Date Sampled: June 4, 1987

<u>Test No.</u>	<u>Sieve No.</u>	<u>Location</u>	<u>% Passing</u>
1	200	First Lift Top of S. Slope at Sta. 1350+00	73.4
2	200	First Lift Center of S. Slope at Sta. 1450+00	40.6
3	200	First Lift Bottom of S. Slope at Sta. 1550+00	57.8
4	200	First Lift Center of S. Slope at Sta. 1700+00	62.4
5	200	First Lift Bottom of S. Slope at Sta. 1900+00	53.4
6	200	First Lift Top of S. Slope at Sta. 2100+00	52.6
7	200	First Lift Center of S. Slope at Sta. 2200+00	58.5
8	200	First Lift Bottom of S. Slope at Sta. 2400+00	61.4

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida

Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 11/04/87

Technician:

Job. No. TM-1103A

Date Sampled: July 24, 1987

Test No.	Sieve No.	Location	% Passing
1	200	Final Lift Center of W. Slope at Sta. 50+00	75.7
2	200	Final Lift Bottom of W. Slope at Sta. 200+00	72.9

Date Sampled: September 22, 1987

1	200	Final Lift Top of S. Slope at Sta. 450+00	70.8
2	200	Final Lift Bottom of S. Slope at Sta. 600+00	58.0

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida
Project: SOUTHEAST LANDFILL Date: 11/04/87
Technician: Job. No. TM-1103A

Test No.	Sieve No.	Location	% Passing
Date Sampled: October 10, 1987			
1	200	Final Lift Top of S. Slope at Sta. 350+00	55.2
2	200	Final Lift Bottom of S. Slope at Sta. 550+00	68.6
3	200	Final Lift Center of S. Slope at Sta. 750+00	74.4
4	200	Final Lift Bottom of S. Slope at Sta. 850+00	74.3
5	200	Final Lift Bottom of S. Slope at Sta. 1000+00	60.1
6	200	Final Lift Top of S. Slope at Sta. 1200+00	62.9
7	200	Final Lift Center of S. Slope at Sta. 1300+00	79.2
8	200	Final Lift Top of S. Slope at Sta. 1500+00	59.9

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Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL Date: 11/04/87

Technician: Job. No. TM-1103A

Test No.	Sieve No.	Location	% Passing
9	200	Final Lift Center of S. Slope at Sta. 1600+00	92.4
10	200	Final Lift Bottom of S. Slope at Sta. 1750+00	57.4
11	200	Final Lift Top of S. Slope at Sta. 1800+00	55.8
12	200	Final Lift Bottom of S. Slope at Sta. 2050+00	51.2
13	200	Final Lift Bottom of S. Slope at Sta. 2150+00	50.5
14	200	Final Lift Center of S. Slope at Sta. 2450+00	50.3
15	200	Final Lift Top of S. Slope at Sta. 2550+00	55.1
16	200	Final Lift Bottom of S. Slope at Sta. 2700+00	53.6

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REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

Date Sampled: November 11, 1987

Test No. -----	Sieve No. -----	Location -----	% Passing -----
1	200	1st Lift Center of E. Slope at Sta. 4650+00, Acre 16	61.3
2	200	1st Lift Bottom of E. Slope at Sta. 4750+00, Acre 16	50.1

Date Sampled: December 3, 1987

1	200	1st Lift Middle of S. Slope at Sta. 3550+00, Acre 12	37.0
2	200	1st Lift Top of S. Slope at Sta. 3450+00, Acre 12	55.4
3	200	1st Lift Bottom of E. Slope at Sta. 3900+00, Acre 13	34.6
4	200	1st Lift Top of S. Slope at Sta. 3800+00, Acre 13	31.8

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REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

5	200	1st Lift Bottom of E. Slope at Sta. 4000+00, Acre 14	27.5
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6	200	1st Lift Middle of E. Slope at Sta. 4200+00, Acre 14	31.6
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Date Sampled: December 10, 1987

1	200	1st Lift Bottom of S. Slope at Sta. 2600+00	43.9
---	-----	---	------

2	200	1st Lift Top of S. Slope at Sta. 2700+00	54.9
---	-----	--	------

3	200	1st Lift Middle of E. Slope at Sta. 4350+00, Acre 15	58.3
---	-----	---	------

4	200	1st Lift Bottom of E. Slope at Sta. 4250+00, Acre 15	59.3
---	-----	---	------

Date Sampled: December 23, 1987

1	200	2nd Lift Top of E. Slope at Sta. 4750+00, Acre 16	57.9
---	-----	--	------

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Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

2	200	2nd Lift Bottom of E. Slope at Sta. 4650+00, Acre 16	80.7
3	200	1st Lift Middle of E. Slope at Sta. 4875+00, Acre 17	42.2
4	200	1st Lift Top of E. Slope at Sta. 4925+00, Acre 17	47.9
5	200	1st Lift Bottom of N. Slope at Sta. 5275+00, Acre 18	31.5
6	200	1st Lift Top of N. Slope at Sta. 5150+00, Acre 18	65.5
7	200	1st Lift Top of N. Slope at Sta. 5450+00, Acre 19	67.1
8	200	1st Lift Bottom of N. Slope at Sta. 5600+00, Acre 19	29.3
9	200	1st Lift Bottom of N. Slope at Sta. 5925+00, Acre 20	25.1

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

10	200	1st Lift Middle of N. Slope at Sta. 5875+00, Acre 20	33.9
Date Sampled: January 18, 1988			
1	200	1st Lift Top of S. Slope at Sta. 3100+00, Acre 11	25.0
2	200	1st Lift Top of S. Slope at Sta. 3200+00, Acre 11	28.8
3	200	1st Lift Middle of N. Slope at Sta. 5150+00, Acre 18	58.2
4	200	1st Lift Middle of N. Slope at Sta. 5250+00, Acre 18	25.7
5	200	1st Lift Bottom of N. Slope at Sta. 6100+00, Acre 21	27.6
6	200	1st Lift Middle of N. Slope at Sta 6250+00, Acre 21	26.3

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

Date Sampled: March 25, 1988

1	200	1st Lift Bottom of S. Slope at Sta. 3100+00, Acre 11	69.3
---	-----	---	------

Date Sampled: April 4, 1988

1	200	1st Lift Top of E. Slope at Sta. 4600+00, Acre 16	54.6
---	-----	--	------

2	200	1st Lift Bottom of E. Slope at Sta. 4775+00, Acre 16	52.0
---	-----	---	------

3	200	1st Lift Bottom of E. Slope at Sta. 4375+00, Acre 15	83.6
---	-----	---	------

4	200	1st Lift Top of E. Slope at Sta. 4225+00, Acre 15	91.1
---	-----	--	------

5	200	1st Lift Bottom of E. Slope at Sta. 4125+00, Acre 14	84.7
---	-----	---	------

6	200	1st Lift Top of E. Slope at Sta. 3950+00, Acre 14	82.9
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Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

7	200	1st Lift Middle of S. Slope at Sta. 3825+00, Acre 13	64.1
8	200	1st Lift Top of S. Slope at Sta. 3650+00, Acre 13	67.9
9	200	1st Lift Bottom of S. Slope at Sta. 3550+00, Acre 12	97.7
10	200	1st Lift Middle of S. Slope at Sta. 3350+00, Acre 12	20.7
11	200	1st Lift Top of S. Slope at Sta. 3150+00, Acre 11	78.2
Date Sampled: April 21, 1988			
1	200	2nd Lift Middle of S. Slope at Sta. 3125+00, Acre 11	78.4
2	200	2nd Lift Bottom of S. Slope at Sta. 3225+00, Acre 11	78.3

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Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

3	200	2nd Lift Bottom of S. Slope at Sta. 3350+00, Acre 12	94.2
4	200	2nd Lift Middle of S. Slope at Sta. 3500+00, Acre 12	74.4
5	200	2nd Lift Middle of S. Slope at Sta. 3700+00, Acre 13	79.9
6	200	2nd Lift Bottom of S. Slope at Sta. 3800+00, Acre 13	83.7
Date Sampled: April 22, 1988			
1	200	2nd Lift Middle of E. Slope at Sta. 4000+00, Acre 14	88.1
2	200	2nd Lift Bottom of E. Slope at Sta. 4100+00, Acre 14	76.0
3	200	2nd Lift Top of E. Slope at Sta. 4250+00, Acre 15	88.1

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P. O. Box 24183

Tampa, Florida 33623



REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida **Office:** Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

4	200	2nd Lift Middle of E. Slope at Sta. 4400+00, Acre 15	69.7
Date Sampled: May 4, 1988			
1	200	2nd Lift Middle of E. Slope at Sta. 4750+00, Acre 16	56.5
2	200	2nd Lift Top of E. Slope at Sta. 4580+00, Acre 16	97.8
3	200	2nd Lift Bottom of E. Slope at Sta. 5000+00, Acre 17	74.1
4	200	2nd Lift Middle of E. Slope at Sta. 4850+00, Acre 17	64.0
5	200	2nd Lift Middle of N. Slope at Sta. 5350+00, Acre 18	74.0
6	200	2nd Lift Top of N. Slope at Sta. 5150+00, Acre 18	77.5

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REPORT OF WASH 200 RESULTS

Client: Waste Management Inc. of Florida Office: Tampa, Florida

Project: SOUTHEAST LANDFILL

Date: 06/30/88

Technician:

Job. No. TM-1103A

7	200	2nd Lift Bottom of N. Slope at Sta. 5600+00, Acre 19	73.8
8	200	2nd Lift Middle of N. Slope at Sta. 5600+00, Acre 19	65.1
9	200	2nd Lift Bottom of N. Slope at Sta. 59+00, Acre 20	69.3
10	200	2nd Lift Middle of N. Slope at Sta. 5850+00, Acre 20	76.8
11	200	2nd Lift Top of N. Slope at Sta. 6090+00, Acre 21	73.6
12	200	2nd Lift Middle of N. Slope at Sta. 6250+00, Acre 21	85.8
13	200	2nd Lift Middle of S. Slope at Sta. 3550+00, Acre 12	89.6
14	200	2nd Lift Bottom of S. Slope at Sta. 3550+00, Acre 12	83.8

LAW ENGINEERING

PERMEABILITY DATA

PERMEABILITY RESULTS

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
1	6/3/87	First Lift Center of W. Slope at Sta. 150+00, Acre 1	7.8×10^{-6}	-
2	6/3/87	First Lift Center of S. Slope at Sta. 450+00, Acre 2	9.3×10^{-6}	8.6×10^{-6}
3	6/3/87	First Lift Bottom of S. Slope at Sta. 800+00, Acre 3	8.5×10^{-6}	8.5×10^{-6}
4	6/3/87	First Lift Center of S. Slope at Sta. 1100+00, Acre 4	3.7×10^{-6}	7.3×10^{-6}
5	6/3/87	First Lift Center of S. Slope at Sta. 1400+00, Acre 5	9.9×10^{-6}	7.8×10^{-6}
6	6/3/87	First Lift Top of S. Slope at Sta. 1600+00, Acre 6	6.3×10^{-6}	7.6×10^{-6}
7	6/3/87	First Lift Top of S. Slope at Sta. 2000+00, Acre 7 (Retested, see Test No. 9	1.2×10^{-5}	8.5×10^{-6}

TEST O.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
8	6/3/87	First Lift Top of S. Slope at Sta. 2300+00 Acre 8 (Retested, see Test No. 10)	$1.9 \times 10^{-5}*$	-
9	6/19/87	First Lift Top of S. Slope at Sta. 1900+00 Retest of No. 7	3.3×10^{-6}	6.9×10^{-6}
10	6/19/87	First Lift Top of S. Slope at Sta. 2250+00 Retest of No. 8	1.1×10^{-5}	7.4×10^{-6}
11	7/28/87	Second Lift Center of W. Slope at Sta. 150+00 Acre 1	9.6×10^{-6}	7.7×10^{-6}
12	9/22/87	Second Lift Center of S. Slope at Sta. 500+00 Acre 2 (Retested, see Test No. 13)	$5.7 \times 10^{-5}*$	-
13	10/6/87	Second Lift Center of S. Slope at Sta. 470+00, Retest of No. 12	2.6×10^{-6}	7.2×10^{-6}
14	10/6/87	Second Lift Bottom of S. Slope at Sta. 800+00, Acre 3	5.2×10^{-6}	7.0×10^{-6}
15	10/6/87	Second Lift Center of S. Slope at Sta. 1100+00, Acre 4	7.1×10^{-6}	7.0×10^{-6}

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
16	10/6/87	Final Lift Bottom of S. Slope at Sta. 1400+00 Acre 5	1.7×10^{-5}	7.8×10^{-6}
17	10/6/87	Final Lift Top of S. Slope at Sta. 1700+00 Acre 6	1.3×10^{-5}	8.1×10^{-6}
18	10/6/87	Final Lift Center of S. Slope at Sta. 1900+00 Acre 7	1.6×10^{-5}	8.7×10^{-6}
19	10/6/87	Final Lift Top of S. Slope at Sta. 2300+00 Acre 8	1.2×10^{-5}	8.9×10^{-6}
20	10/6/87	Final Lift Center of S. Slope at Sta. 2600+00 Acre 9	9.9×10^{-7}	8.4×10^{-6}
21	11/11/87	First Lift Center of E. Slope at Sta. 4700+00, Acre 16	7.2×10^{-6}	8.3×10^{-6}
22	12/3/87	First Lift Bottom of S. Slope at Sta. 3400+00, Acre 12	1.2×10^{-5}	8.5×10^{-6}
23	12/3/87	First Lift Middle of E. Slope at Sta. 4100+00, Acre 14 (Retested, see Test No. 28)	$3.5 \times 10^{-5}*$	-----

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
24	12/3/87	First Lift Top of S. Slope at Sta. 3750+00, Acre 13 (Retested, see Test No. 26)	$2.5 \times 10^{-5}*$	-----
25	12/10/87	First Lift Bottom of E. Slope at Sta. 4350+00, Acre 15	8.0×10^{-6}	8.5×10^{-6}
26	12/17/87	First Lift Top of S. Slope at Sta. 3650+00, Acre 13	8.9×10^{-6}	8.5×10^{-6}
27	12/17/87	First Lift Phase One Top of Slope at Sta. 2550	5.9×10^{-6}	8.4×10^{-6}
28	12/17/87	First Lift Middle of E. Slope at Sta. 4000+00, Acre 14	1.3×10^{-5}	8.6×10^{-6}
29	12/23/87	Second Lift Middle of E. Slope at Sta. 4775+00, Acre 16 (Retested, see Test No. 41)	$1.3 \times 10^{-5}*$	-----
30	12/23/87	First Lift Bottom of N. Slope at Sta. 5175+00, Acre 18	1.5×10^{-5}	8.9×10^{-6}
31	12/23/87	First Lift Middle of E. Slope at Sta. 4950+00, Acre 17	3.5×10^{-6}	8.7×10^{-6}

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
32	12/23/87	First Lift Bottom of N. Slope at Sta. 5850+00, Acre 20	7.3×10^{-6}	8.6×10^{-6}
33	12/23/87	First Lift Middle of N. Slope at Sta. 5675+00, Acre 19	9.1×10^{-6}	8.6×10^{-6}
34	1/18/87	First Lift Top of S. Slope at Sta. 3200+00, Acre 11	1.2×10^{-5}	8.7×10^{-6}
35	1/18/87	First Lift Bottom of N. Slope at Sta. 6100+00, Acre 21	1.2×10^{-5}	8.9×10^{-6}
36	3/25/87	Second Lift Middle of S. Slope at Sta. 3100+00, Acre 11 (Retested, see Test No. 37)	1.1×10^{-5} *	-----
37	4/21/88	Second Lift Top of S. Slope at Sta. 3150+00, Acre 11	7.9×10^{-7}	8.6×10^{-6}
38	4/21/88	Second Lift Middle of E. Slope at Sta. 4050+00, Acre 14	9.2×10^{-6}	8.6×10^{-6}
39	4/21/88	Second Lift Bottom of S. Slope at Sta. 3800+00, Acre 13	6.6×10^{-6}	8.5×10^{-6}

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
40	4/21/88	Second Lift Bottom of E. Slope at Sta. 4350+00, Acre 15	5.3×10^{-6}	8.4×10^{-6}
41	5/4/88	Second Lift Bottom of E. Slope at Sta. 4700+00, Acre 16	1.3×10^{-5}	8.6×10^{-6}
42	5/4/88	Second Lift Bottom of E. Slope at Sta. 4950+00, Acre 17	7.5×10^{-6}	8.5×10^{-6}
43	5/4/88	Second Lift Bottom of N. Slope at Sta. 5350+00, Acre 18	5.4×10^{-6}	8.5×10^{-6}
44	5/4/88	Second Lift Top of N. Slope at Sta. 5650+00, Acre 19	2.2×10^{-6}	8.3×10^{-6}
45	5/4/88	Second Lift Top of N. Slope at Sta. 5800+00, Acre 20	3.7×10^{-6}	8.2×10^{-6}
46	5/6/88	Second Lift Top of S. Slope at Sta. 3400+00, Acre 12	1.1×10^{-5}	8.2×10^{-6}
47	5/6/88	Second Lift Middle of N. Slope at Sta. 6250+00, Acre 21	9.1×10^{-6}	8.3×10^{-6}

* Test result not included in average. Acre represented by this test was recompact and retested.

FIELD REPORTS



LAW ENGINEERING

4919 W. Laurel St. • P. O. Box 24183
Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: SouthEast LandFill

Date: June 3, 1987

Technician: Tom Lorenzo

Job. No. TM-1103 A

DAYS ACTIVITIES

As requested by Greg Walk with Waste Management, A visit was made this date to the above name project to perform Field Density Tests, and also to pick-up Wash 200 Tests, and pick-up Permeability Tests, from approx. Station 00+00 to approx. Station 1200+00 on West, and South side of Slope, on first lift on final cover, Thickness of Cover material ran satisfactory. Ran 8 Field Density Tests in this area, all Density Tests met requirements of 90 percent compaction or better. Pick-up 8 Wash 200 Tests in this area, and also pick-up 4 Permeability Tests for Laboratory Tests.

NOTE: For all locations of Field Density Tests,
See Density sheet.

NOTE: See Sheet No. 2 for locations of Wash 200 Tests,
and also Permeability Tests.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: SouthEast LandFill

Date: June 3, 1987

Technician: Tom C.

Job. No. TM-1103 A

DAYS ACTIVITIES

(Sheet #2)

All Wash 200 Tests on First Lift Final Cover

- 1) Center of West Slope, at approx. Station 100 + 00.
- 2) Top of West Slope, at approx. Station 200 + 00.
- 3) Center of South Slope, at approx. Station 400 + 00.
- 4) Center of South Slope, at approx. Station 550 + 00.
- 5) Bottom of South Slope, at approx. Station 700 + 00.
- 6) Top of South Slope, at approx. Station 850 + 00.
- 7) Center of South Slope, at approx. Station 950 + 00.
- 8) Bottom of South Slope, at approx. Station 1150 + 00.

All Permeability Tests on First Lift Final Cover

- 1) Center of West Slope, at approx. Station 150 + 00.
- 2) Center of South Slope, at approx. Station 450 + 00.
- 3) Bottom of South Slope, at approx. Station 800 + 00.
- 4) Center of South Slope, at approx. Station 1100 + 00.

VISITORS:

4:00 to 5:00 Set-up Wash 200 Tests

HOURS: TRAVEL 2.0 MILEAGE 70

WORKED 4.50

STAND BY

Ø

LAW ENGINEERING TESTING CO.

Tom Lawrence

FIELD REPRESENTATIVE



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: SouthEast LandFill

Date: June 4, 1987

Technician: Tom Lorenzo

Job. No. TM-1103 A

DAYS ACTIVITIES

As requested by Greg Walk with Waste Management, A visit was made this date to the above name project to perform Field Density Tests, and also to pick-up Wash-200 Tests, and Pick-up Permeability Tests, from approx. Station 1200+00 to approx. Station 2400+00, on South side of Slope, on first lift, on final cover, thickness of cover material ran satisfactory. Ran 8 Field Density Tests in this area, all Tests ran below requirements of 90 percent compaction. Pick-up 8 wash 200 Tests, and also pick-up 4 Permeability Tests for Laboratory Tests.

NOTE: For all Locations of Field Density Tests,
See Density Sheet.

NOTE: See Sheet No. 2 for Locations of Wash-200
Tests, and also Permeability Tests.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: SouthEast Landfill

Date: June 4, 1987

Technician: Tom Lorenzo

Job. No. TM-1103

DAYS ACTIVITIES

(Sheet #2)

All Wash-200 Tests, on First Lift Final Cover

- 1) Top of South Slope at approx. Sta. 1350 ± 00.
- 2) Center of South Slope at approx. Sta. 1450 ± 00.
- 3) Bottom of South Slope at approx. Sta. 1550 ± 00.
- 4) Center of South Slope at approx. Sta. 1700 ± 00.
- 5) Bottom of South Slope at approx. Sta. 1900 ± 00.
- 6) Top of South Slope at approx. Sta. 2100 ± 00.
- 7) Center of South Slope at approx. Sta. 2200 ± 00.
- 8) Bottom of South Slope at approx. Sta. 2400 ± 00.

All Permeability Tests, on First Lift Final Cover

- 1) Center of South Slope at approx. Sta. 1400 ± 00.
- 2) Top of South Slope at approx. Sta. 1600 ± 00.
- 3) Center of South Slope at approx. Sta. 2000 ± 00.
- 4) Top of South Slope at approx. Sta. 2300 ± 00.

VISITORS: _____

6:00 p.m. to 7:00 p.m. Set-up

HOURS: TRAVEL 2.0

MILEAGE 70

- 8 Wash-200 Tests.

WORKED 5.0

STAND BY 0

LAW ENGINEERING TESTING CO.

- FIELD REPRESENTATIVE



LAW ENGINEERING

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REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: WHITE MANAGEMENT

Office: Tampa

Project: Southeast Land F.H.

Date: 6-19-87

Technician: LYNN SCHALK

Job. No. TM 1103A

FRIDAY

DAYS ACTIVITIES

AS REQUESTED BY GREG WALK WITH WASTE MANAGEMENT, A VISIT WAS MADE THIS DATE TO THE ABOVE NAMED PROJECT TO PREPARE FIELD DENSITIES & TO OBTAIN PERMEABILITY SAMPLES FOR LABORATORY TESTING. MR. WALK SAID HE DID NOT WANT ANY WASH 200 SAMPLES THIS DATE FOUR (4) DENSITY TESTS, @ STA 18+50, 20+00, 21+50 & 23+00 & TWO PERM SAMPLES, @ STA 19+00 & 22+50 WERE TAKEN FROM THE SOUTH SLOPE. ON FIRST LIFT, FINAL COVER. THICKNESS OF COVER MATERIAL WAS SATISFACTORY. MR. WALK ALSO REQUESTED TWO (2) DENSITY TEST BE TAKEN IN THE ASH PIT AREA & A PROCTOR SAMPLE BE OBTAINED. OF THE ASH MATERIAL TWO (2) PERMEABILITY SAMPLES WERE ALSO TAKEN FROM THE CHASE TWO, INTERMEDIATE COVER WEST SLOPE.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.


FIELD REPRESENTATIVE



LAW ENGINEERING TESTING COMPANY

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: South East Land Fill

Date: July 24, 1997

FR1.

Technician: Tom Lorenzo

Job. No. TM-1103

DAYS ACTIVITIES

As requested by Greg with Waste Management, A visit was made this date to the above name project, to perform Field Density Tests, and to pick-up Wash-200 Tests, and also pick-up Permeability Tests.

Ran 2 Field Density Tests, both Tests ran un-satisfactory because material was above Optimum Moisture Content. Pick-up 2 Wash-200 Tests, and pick-up 1 Permeability Test for Laboratory Tests.

Location of area sampled was from approx. Station 0+00 to approx. Station 300+00, on West side of Slope, on last 1-ft Final Cover.

Thickness of material was 18"+.

NOTE: For Locations of Field Density Tests see Law Eng. Density Sheet. Will Retest un-satisfactory Density Tests at later date.

VISITORS:

HOURS: TRAVEL 2.0

MILEAGE

WORKED 2.50

STAND BY 0

Job-site Time only!
11:00 - 1:30

LAW ENGINEERING TESTING CO.

Tom Lorenzo

FIELD REPRESENTATIVE



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: WASTE MANAGEMENT

Office: TAMPA

Project: SOUTH EAST LAND FILL

Date: 9-22-87

Technician:

Job. No. TM 1103 A

DAYS ACTIVITIES

RAN FIVE FDT'S AT VARIOUS LOCATIONS ON THE WEST SLOPE AND SOUTH SLOPE. NONE OF THE TEST ACHIEVED 90%. CONTACTED ED, OF WASTE MANAGEMENT, WHO ADVISED TO TERMINATE WORK AT THIS TIME. ED ADVISED THAT HE WOULD DO SOME MORE COMPACTION WORK AND NOTIFY US WHEN READY.

1 PERMANENT TEST SAMPLE OBTAINED

2 WASH 200 SAMPLES OBTAINED.

VISITORS:

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

[Signature]
FIELD REPRESENTATIVE



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*

Office: *Tampa*

Project: *Landfill*

Date: *9-30-87*

Technician: *Long M. [Signature]*

Job. No. *TM 1103*

DAYS ACTIVITIES

Test requested at site for GDT. Contacted Greg, waste management, who advised that he wanted several GDT taken to determine if permeability samples should be taken. Results of GDTs were presented to Greg and he suggested that we wait until 10-6-87 and repeat the above procedure.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

Long M. [Signature]
FIELD REPRESENTATIVE



LAW ENGINEERING

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REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: South East Landfill

Date: 10-7-87

Technician: Tony W. [Signature] / Tim L.

Job. No. TM 1103A

DAYS ACTIVITIES

Tests requested on landfill pits to run 4DT's on the West slope and South slope. Location of densities started at sta 50+00 thru sta # 2700+00. Of the 18 4DT's taken, the one at sta # 2550+00 failed to meet the 90% criteria and it was 89%.

Also, tests also took eight perme samples as per job requirements. In addition, used 200 samples were also obtained per job requirements. (16 used 200 samples)

Contacted Greg Walk, waste management and advised him of the results of density test. Greg was also advised that we had obtained permeability test and used 200 samples.

The thickness of the material was eighteen inches plus.

VISITORS: _____

HOURS: TRAVEL _____

MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

[Signature]
FIELD REPRESENTATIVE



LAW ENGINEERING

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REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management
Project: South East Landfill
Technician: Tony White

Office: Tampa
Date: 10-22-87
Job. No. TM 1103-A

DAYS ACTIVITIES

Test requested on site to run FDT on the first lift starting from station 33100 to station 42100. Four FDT were taken, and all failed to meet the 90% criteria. Moisture ranged from 18.8% to 25%.

Chief of waste management advised of failing test. He also requested that a test come out for result on 10-27 or 10-28.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

Tony White
FIELD REPRESENTATIVE



LAW ENGINEERING TESTING COMPANY

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Project: Southeast Landfill

Technician: Tom Lorenzo

Office: Tampa

Date: Oct. 28, 1989

Job. No. TM-1103 A

OCT 29 1989

DAYS ACTIVITIES

As requested by Greg Walk with Waste Management, a visit was made this date to the above named project to perform field density tests and to sample permeability Test, and Wash-200 Tests, from approx. Station 3300+00 to approx. Station 4500+00 on South and East side of Slope. Ran 4 field density tests at random locations, all tests ran un-satisfactory. Ran 9 depth checks on first lift of final cover at random locations, all depth checks ran un-satisfactory and did not meet the project requirements. Greg Walk was notified about questionable depth checks. Greg Walk stated that he will add additional material in un-satisfactory areas, will call us at a later date. Cancelled Wash-200 Tests, and Permeability Tests.

8:00 - 1:00

VISITORS:

HOURS: TRAVEL 2.0 MILEAGE 60

WORKED 3.0

STAND BY Ø

LAW ENGINEERING TESTING CO.

Tom Lorenzo
FIELD REPRESENTATIVE



LAW ENGINEERING

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*
Project: *South East Landfill*
Technician: *Larry McPherson*

Office: *Tampa*
Date: *12-10-87*
Job. No. *TM 1183-A*

DAYS ACTIVITIES

Tests requested on site to take FDT's of the first lift from sta 25+00 to sta 28+00. Two FDT taken and both passed. Two u-s samples were obtained and 1 permeability sample was taken.

Two FDT were taken on the first lift from sta 40+00 to sta 45+00. Both FDT passed. Two u-s samples taken and one permeability sample taken.

Guy, waste management, notified of the above.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

Larry McPherson

FIELD REPRESENTATIVE



LAW ENGINEERING TESTING COMPANY

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Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: TAMPA, FLA.

Project: Southeast Landfill

Date: 12-17-87

Technician: J. Clark

Job. No. TM-1103-A

DAYS ACTIVITIES

Arrived on site at approximately 7:45am with Larry M. of Law Engr.
After arrival we discussed what needed to be performed with
Rep of waste management. He instructed us to perform (2) two field
density tests one at station 3650 and one at station 4000+00
these were performed and were found to be satisfactory. Also
(3) Three permeability samples were taken: one at station
4000+00 another at station 3650+00 and the last one at 2775+00.
There was two protectors picked up, one at sta. 3300 and another
at station 4400 that was stockpiled

VISITORS: _____

HOURS: TRAVEL 1.0 MILEAGE 40

WORKED 3.0

STAND BY 0

LAW ENGINEERING TESTING CO

Joe Clark
FIELD REPRESENTATIVE



LAW ENGINEERING TESTING COMPANY

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste management

Office: Tampa Fla.

Project: South east landfill

Date: 12/23/87

Technician: J. Clark

Job. No. TOM 1103-A

DAYS ACTIVITIES

Arrived on site at approximately 7:30 am and met with Heg (Waste management). He informed me that the area from station 4600+00 to station 4900+00 was ready to be tested for its second lift, therefore two permeabilities, four wash 200 samples were picked up and four field density tests were performed. This area represents two acres beginning with station 4500+00 to 4800+00 is acre 16, and 4800 to 5100 is the second. Also Heg informed me that the area from station 5100+00 to station 6300+00 was ready for tests on the first lift. Therefore this represents four acres although only three were tested for permeability and wash 200 due to the fact that I was under the impression that only 5 acres would be ready and I only had 5 permeability sleeves. All total 5 permeability samples, 10 wash 200 samples were picked up. The last acres (from 6000+00 to 6300) was tested for density only, all densities past (12).

VISITORS: _____

HOURS: TRAVEL 2.0 MILEAGE 40

WORKED 8.5

STAND BY 0

LAW ENGINEERING TESTING CO.

Joe Clark

FIELD REPRESENTATIVE

LAW ENGINEERING

4919 W. Laurel St.

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REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*
Project: *South East Landfill*
Technician: *Long M. P. R.*

Office: *Tampa*
Date: *1-18-88*
Job No. *TN-1103-A*

DAYS ACTIVITIES

Test requested on site to run 4DT's in sections 11, 12, and 18. Also to pick up 1 perm from section 21. 4DT passed in section 11 and 1 perm and 2 wash 200's were taken. Both 4DT's in section 12 failed, they notified. 4DT's were taken in section 18 and passed and 1 perm and 2 wash 200's taken. One perm was taken from section 21.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING

Long M. P. R.
FIELD REPRESENTATIVE

LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623



REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*
Project: *South East Landfill*
Technician: *Jimmy / John*

Office: *Tampa*
Date: *3-2-88*
Job. No. *TM 1103-A*

DAYS ACTIVITIES

Tests requested on site to run 4 DT's on the following
cores 11, 12, 13, 14, 15, 16 and half of 17. Tests took the
tests in 11, 12, and 13 and found the moisture to
range from 33.5% to 41.9%. Tests stopped at this
time and contacted Bruce Hogen, Law Engineer who advised
to contact Tom, dept mgr of waste management, and
have him of the results. This was done and Tom
advised not to go any further due to high
moisture content of clay.
Sue, if waste management was not in the office

A moisture check of the material was also done on
the hot plate to check accuracy of nuclear gauge
moisture readings.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING

Jimmy / John
FIELD REPRESENTATIVE

LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623



REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*
 Project: *South East Landfill*
 Technician: *Long M. M. M.*

Office: *Tampa*
 Date: *3-25-88*
 Job. No. *T-M-1105-A*

DAYS ACTIVITIES

Tests requested at site to retent the second lifts starting at station 31+00. A retent of fclt #1 dated 3-2-88 was taken and the % moisture was still in the 38% range. Tests retent the one where fclt #2 dated 3-2-88 was taken and also found the % moisture to be in the 36% range. They, of waste management was advised of the following. They advised to pick up a new portion of the material of the second lift from sta 31+00 to sta 33+00. Also one perm sample was taken at sta 31+00 and each sample on the advice of they to see what this new material was doing.

They also advised that the 90% we had been trying to obtain didn't need to be an absolute. Check with Bruce Ayers if how to determine if this should be lowered.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING

Long M. M. M. - Tom
 FIELD REPRESENTATIVE



LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste management

Office: Tampa, FLA.

Project: South east land fill

Date: 4-4-88

Technician: Joe Clark

Job. No. Tm-1103-A

DAYS ACTIVITIES

Arrived on site at approximately 8:15 and met with Greg Walk. He informed me that one wash 200 needed to be picked up on acre 11. Also on acres 12, 13, 14, 15 and 16 densities, wash 200's and perms are to be performed.

I then proceeded to acre 11 picked up the one wash 200 and continued on to acres 12, 13, 14, 15 and 16 where 2 densities, 2 wash 200's and one perm were picked up per acre. All Densities passed therefore wash 200's and perms were picked up.

Note: See prints for locations.

Total count 10 FDT's

11 wash 200's

5 perms

VISITORS: _____

HOURS: TRAVEL 1.0 MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

Joseph E. Clark
FIELD REPRESENTATIVE



LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa.

Project: Southeast landfill

Date: 4-21-88

Technician: J. Clark

Job. No. TM 1103-A

DAYS ACTIVITIES

As requested by Greg Walk of South east landfill-waste management. I arrived on site at approximately 8:30 AM. I performed 2 field densities on acre 11, picked 2 wash 200s and one perm. On Acres 12 and 13 one perm and 2 wash 200s were picked up on each. Field densities will be performed tomorrow at 3:00 PM when a technician was requested back. Then acres 14 and 15 will be tested.

VISITORS: _____

HOURS: TRAVEL 1.0 MILEAGE 50

WORKED 6.50

STAND BY 0

LAW ENGINEERING TESTING CO.

Joseph E. Clark
FIELD REPRESENTATIVE

LAW ENGINEERING

4919 W. Laurel St.

• - P. O. Box 24183

Tampa, Florida 33623



REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management
Project: South east land fill
Technician: J. CLARK

Office: Tampa.
Date: 4-22-88
Job. No. Tm 1103

DAYS ACTIVITIES

Arrived on site at approximately 3:00pm as per Greg
Walk of Waste management.
Field densities were completed on acres 12 and 13.
Two densities were performed on acres 15 and on 16.
One perm picked up on acres 15 and 16 (one on each)
Two wash 200's picked up per acre on acres 15 and 16.
All field densities were found to be satisfactory.

VISITORS: _____

HOURS: TRAVEL

1.0

MILEAGE

50

WORKED

2.50

STAND BY

0

LAW ENGINEERING

Joseph E. Clark Jr.
FIELD REPRESENTATIVE



LAW ENGINEERING

4919 W. Laurel St. • P. O. Box 24183
Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste management
Project: South east Landfill
Technician: J. Clark

Office: Tampa
Date: 5-4-88
Job. No. Tm-1103-A

DAYS ACTIVITIES

As requested by Greg Walk of southeast landfill (Waste Management) Densities were performed on acres 16, 17, 18, 19, 20, 21 (2 per acre) and wash two hundreds were picked up also on acres 16, 17, 18, 19, 20, 21 (2 per acre)

Due to samples for permeabilities having cracks and sand layers two perms were picked up on acres 16, 17, 18, 19 one perm sample was picked up on acre 20.

Drive head would not fit into the two remaining tubes therefore perms were not picked up on acres 21 and 22 as requested.

VISITORS: _____

HOURS: TRAVEL 1.50 MILEAGE 40

WORKED 4.50

STAND BY 0

LAW ENGINEERING TESTING CO.

Joseph E. Clark Jr.
FIELD REPRESENTATIVE

LAW ENGINEERING

4919 W. Laurel St.

• P. O. Box 24183

Tampa, Florida 33623



REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management
Project: Southeast Land fill
Technician: J. Clark

Office: Tampa FIA
Date: 5-6-88
Job. No. TM 1103-A

DAYS ACTIVITIES

Arrived on site at 7:30 am as requested by Greg Walk of waste management and picked up 2 perms on acre 12 and one perm on acre 21. Densities (2) were performed on acre 12 and were found to be satisfactory. Also (2) wash 200's were picked up on acre 12. This completes phase II second lift unless failures occur on perms or wash 200

VISITORS: _____

HOURS: TRAVEL 1.0

MILEAGE 40

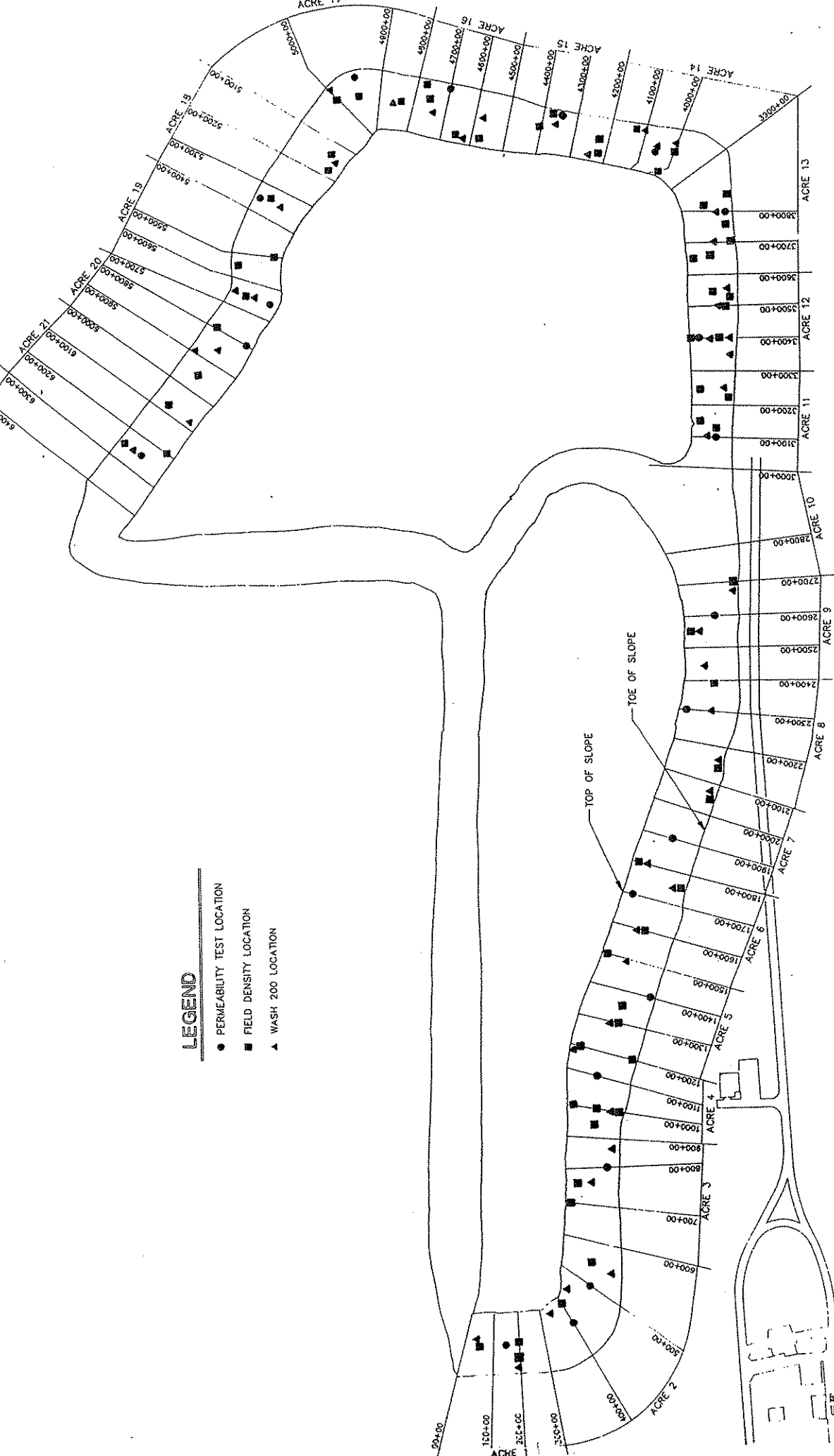
WORKED 2.0

STAND BY 0

LAW ENGINEERING

Joseph E. Clark Jr.
FIELD REPRESENTATIVE

DRAWINGS



LEGEND

- PERMEABILITY TEST LOCATION
- FIELD DENSITY LOCATION
- ▲ WASH 200 LOCATION



SITE PLAN

SCALE: 1"=200'

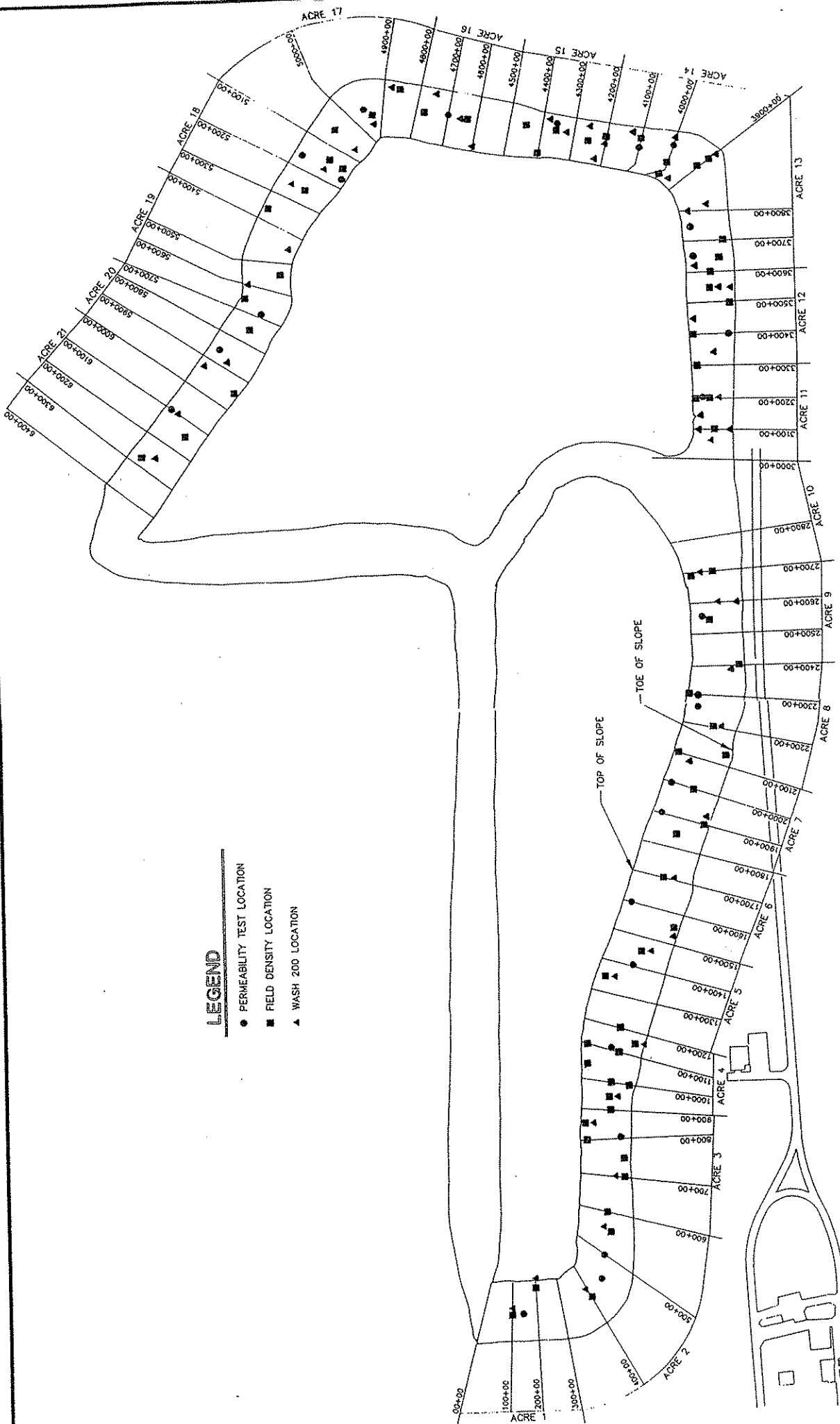
TEST LOCATION PLAN - 2nd LIFT
SOUTHEAST LANDFILL
LUTHIA, FLORIDA

LAW ENGINEERING PROJECT NO. TM-110.

Drawn: STB, 8/24/88 | Checked: BDA

LAW ENGINEERING
TAMPA, FLORIDA

2 OF



LEGEND

- PERMEABILITY TEST LOCATION
- FIELD DENSITY TEST LOCATION
- ▲ WASH 200 LOCATION



SITE PLAN

SCALE: 1"=200'

TEST LOCATION PLAN - 1st LIFT

SOUTHEAST LANDFILL

LITHIA, FLORIDA

LAW ENGINEERING PROJECT NO. TM-110

Drawn: STB, 8/24/88

Checked: BAH

LAW ENGINEERING

TAMPA, FLORIDA

1 OF 1



LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: Waste Management

Office: Tampa

Project: SouthEast LandFill

Date: Nov. 11, 1987

Technician: Tom Lorenzo

Job. No. TM-1103 A

DAYS ACTIVITIES

Weather: Windy & Cloudy

Temp. 68°, Rain 0.

As requested by Greg Walls with Waste Management, a visit was made this date to the above named project to perform field density tests and to sample permeability tests, and wash 200 tests, from approx. station 4600+00 to approx. station 6600+00 on East and North side of slope. Ran 2 field density tests on first acre from approx. station 4600+00 to approx. station 4900+00. Both tests ran satisfactory. Due to satisfactory density results sampled 1 permeability test and sampled 2 wash 200 tests at random locations. Ran 2 field density tests on second acre from approx. station 4900+00 to approx. station 5200+00. Both tests ran unsatisfactory due to high moisture content and lack of compaction. Ran 2 additional field density tests at no charge to client for moisture checks through-out North side of slope, from approx. station 5500+00 to approx. station 5800+00. Moisture content was approx. 17.0 percent above optimum moisture content. Due to unsatisfactory density results client elected ~~not to sample~~ not to sample any more permeability tests and wash 200 tests at this time, will call us at a later date.

NOTE: For locations of field density tests and permeability tests, and also wash-200 tests see density sheet of 11-11-87. The thickness on the first acre appeared to of met the project requirements.

VISITORS:

HOURS: TRAVEL 2.0 MILEAGE 60

WORKED 2.0

STAND BY 0

LAW ENGINEERING TESTING CO.

Tom Lorenzo
FIELD REPRESENTATIVE



LAW ENGINEERING TESTING COMPANY

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client:

Waste Management

Office:

Tampa

Project:

South Cal Landfill

Date:

11-16-87

Technician:

Long Michael

Job. No.

TM 1107-A

DAYS ACTIVITIES

Went on site to see density test on the final lift of phase II. Depth checks at sta 52+00 only showed 5" of clay core. Another check at sta 55+00 revealed only 6" of clay core. Another was done at sta 58+00 and 7" of clay core was noted. Contacted Greg, of waste management, and advised him of the findings. Greg gave me a sheet that had material in it taken from sta 52+00 and noted that the bottom 2" was a fine sand material. Greg advised that he would have to add additional material to make up the 9" needed.

also moisture samples taken at the three sta #'s were as follows:

STA 52+00	29%
STA 55+00	31%
STA 58+00	30%

Bruce Hays, Law Engineering notified of the above via telephone from site.

VISITORS:

HOURS: TRAVEL _____

MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO

Long Michael

FIELD REPRESENTATIVE



LAW ENGINEERING

4919 W. Laurel St.

P. O. Box 24183

Tampa, Florida 33623

REPORT OF DAILY CONSTRUCTION TESTING & MONITORING

Client: *Waste Management*
Project: *South East Land fill*
Technician: *Fred Murphy*

Office: *Tampa*
Date: *12387*
Job. No. *TM 1103-A*

DAYS ACTIVITIES

Test requested on site to run FDT on the first lift starting at station 31+00 to station 45+00. Depth checks were made at station 31+00 to station 33+00 and this area was found to have only 4 1/2" of clay core. Reg. of waste management, even surrounded to this area and he observed the lack of clay in this area. Test returned three pore samples.

Sta 34+00
Sta 37+50
Sta 41+00

Sup FDT were taken starting at sta 34+00 thru sta 41+00 and all passed. Also 2 more samples per core were also taken.

Test took three FDT starting at sta 42+50 43+50 and 44+50 and all failed to meet the 90% minimum. Reg. of waste management, notified of the failing areas. 6 Depth checks were made from sta 34+00 to 44+50 and all met or exceeded the minimum requirements.

VISITORS: _____

HOURS: TRAVEL _____ MILEAGE _____

WORKED _____

STAND BY _____

LAW ENGINEERING TESTING CO.

Fred Murphy
FIELD REPRESENTATIVE

PERMEABILITY RESULTS

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
1	6/3/87	First Lift Center of W. Slope at Sta. 150+00	7.8×10^{-6}	-
2	6/3/87	First Lift Center of S. Slope at Sta. 450+00	9.3×10^{-6}	8.6×10^{-6}
3	6/3/87	First Lift Bottom of S. Slope at Sta. 800+00	8.5×10^{-6}	8.5×10^{-6}
4	6/3/87	First Lift Center of S. Slope at Sta. 1100+00	3.7×10^{-6}	7.3×10^{-6}
5	6/3/87	First Lift Center of S. Slope at Sta. 1400+00	9.9×10^{-6}	7.8×10^{-6}
6	6/3/87	First Lift Top of S. Slope at Sta. 1600+00	6.3×10^{-6}	7.6×10^{-6}
7	6/3/87	First Lift Top of S. Slope at Sta. 2000+00	1.1×10^{-5} *	-

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
8	6/3/87	First Lift Top of S. Slope at Sta. 2300+00	1.9×10^{-5} *	-
9	6/19/87	First Lift Top of S. Slope at Sta. 1900+00 Retest of No. 7	3.0×10^{-6}	6.9×10^{-6}
10	6/19/87	First Lift Top of S. Slope at Sta. 2250+00 Retest of No. 8	1.1×10^{-5}	7.4×10^{-6}
11	7/28/87	Final Lift Center of W. Slope at Sta. 150+00	9.6×10^{-6}	7.7×10^{-6}
12	9/22/87	Final Lift Center of S. Slope at Sta. 500+00	5.7×10^{-5} *	-
13	10/6/87	Final Lift Center of S. Slope at Sta. 400+00	2.6×10^{-6}	7.2×10^{-6}
14	10/6/87	Final Lift Bottom of S. Slope at Sta. 800+00	5.2×10^{-6}	7.0×10^{-6}
15	10/6/87	Final Lift Center of S. Slope at Sta. 1100+00	7.1×10^{-6}	7.0×10^{-6}

TEST NO.	DATE SAMPLED	LOCATION	PERMEABILITY TEST RESULT (CM/SEC)	AVERAGE (CM/SEC)
16	10/6/87	Final Lift Bottom of S. Slope at Sta. 1400+00	1.7×10^{-5}	7.8×10^{-6}
17	10/6/87	Final Lift Top of S. Slope at Sta. 1700+00	1.3×10^{-5}	8.1×10^{-6}
18	10/6/87	Final Lift Center of S. Slope at Sta. 1900+00	1.6×10^{-5}	8.7×10^{-6}
19	10/6/87	Final Lift Top of S. Slope at Sta. 2300+00	1.2×10^{-5}	8.9×10^{-6}
20	10/6/87	Final Lift Center of S. Slope at Sta. 2600+00	9.9×10^{-7}	8.4×10^{-6}

* Test result not included in average. Acre represented by this test was recompacted and retested.