



# England-Thimms & Miller, Inc.

Consulting & Design Engineers  
3131 St. Johns Bluff Road So. Jacksonville, FL 32216  
904-642-8990

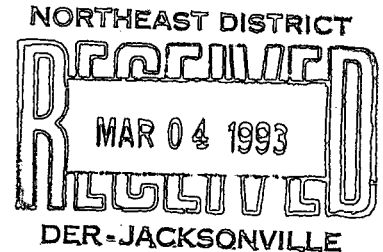
## PRINCIPALS

James E. England, P.E., President  
Robert E. Thims, V.Pres., Sec.  
Douglas C. Miller, P.E., V. Pres.  
N. Hugh Mathews, P.E., V. Pres.

March 4, 1993

33628

Ms. Mary C. Nogas, P.E.  
Waste Management Section  
Department of Environmental Regulation  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256



Mr. Jai P. Prasad, P.E.  
Stormwater Section  
Department of Environmental Regulation  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256

3/16 P 02787 W

Reference: Trail Ridge Landfill - Phases IIA and IIB  
and Phase II Stormwater Collection System  
FDER Permit No. SC16-184444  
ET&M No. E91-156-2 (Certification File)

Dear Ms. Nogas and Mr. Prasad:

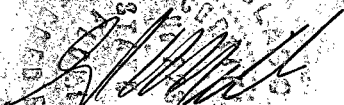
Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill Phases IIA and IIB including the Phase II stormwater collection system in accordance with specific condition #19 of the subject permit. The As-Built Surveys are included. The Liner and Soils Quality Assurance documentation were submitted with the Phase IC certification on February 12, 1993. Attached is Supplement No. 2 for the Construction Quality Assurance Final Report for Phase II-Cells IIA, IIB, and IIC for the rainflap at Trail Ridge Landfill as prepared by GeoSyntec. Phase IA, Phase IB, Phase IC and the Phase I Stormwater Management System and Leachate Storage Facility were previously certified on May 15, 1992, June 18, 1992, February 12, 1993, and September 15, 1992, respectively.

Subject to your site inspection, Trail Ridge Landfill, Inc. respectfully requests your written authorization to accept Class I Solid Waste in Phases IIA and IIB of the Trail Ridge Landfill.

Should you have any questions concerning this matter, please do not hesitate to contact me.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

  
Douglas C. Miller, P.E.  
Vice-President

Attachments: Certification of Construction Completion  
As-Built Surveys  
Supplement No. 2 to CQA Final Report for Phase II - Cells IIA, IIB, and IIC

cc: Luke DeBock  
Tom Nelson  
Jim Lukens

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
CERTIFICATION OF CONSTRUCTION COMPLETION  
OF A SOLID WASTE MANAGEMENT FACILITY

DER Construction Permit No.: SC16-184444 County: Duval

Name of Project: Trail Ridge Landfill - Phases IIA and IIB

Name of Owner: City of Jacksonville; Trail Ridge Landfill, Inc.-Operator/Permittee

Name of Engineer: England, Thims & Miller, Inc.

Type of Project: Class I Landfill - Phases IIA and IIB including the Phase

II Stormwater Collection System

Cost: Estimated \$ 7,748,000 Actual \$ 6,192,000

Site Design: Quantity: 2,600 (avg) ton/day Site Acreage: 20.3± Acres

Population: 659,000± (1990) Dumping Fees: \$ 55 /Ton

Deviations from Plans and Application Approved by DER: \_\_\_\_\_

Deviations are shown in the Construction Quality Assurance documentation and  
As-Built surveys. The As-Built surveys were prepared by Sunshine State  
Surveyors, Inc. and reviewed by England, Thims & Miller, Inc. Deviations

are also outlined in the attachment and the Supplement No. 2 CQA Final Report. \*\*

Water Monitoring Data Submitted to DER, Date: January 11, 1993 and February 26, 1993

Address and Telephone No. of Site: 5110 U.S. Highway 301

Baldwin, Florida 32234; (904) 289-9100

Name(s) of Site Supervisor: Tom Nelson

Date Site Inspection is requested: ASAP

This is to certify that, with the exception of deviation noted above, the  
construction of the project has been completed in accordance with the plans  
authorized by Construction Permit No.: SC16-184444 and Dated: Permit 12/24/91  
Modifications

England, Thims & Miller relied upon the information and certifications provided  
by Law Engineering, GeoSyntec Consultants and Sunshine State Surveyors, Inc.

Date: 3-4-93

  
Signature of Professional Engineer

\*\*NOTE: The Construction Quality Assurance documentation was previously submitted with  
the Phase IC certification.

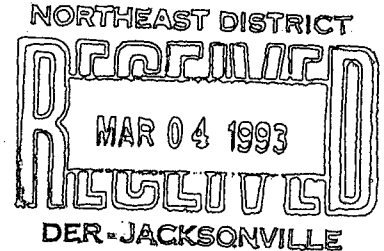
TRAIL RIDGE LANDFILL  
PHASE II STORMWATER COLLECTION SYSTEM DEVIATIONS  
March 3, 1993

1. Concrete Lined Perimeter Ditch
  - a. The westerly perimeter ditch was constructed to the same typical section as the northerly perimeter ditch (4' bottom with 2:1 side slopes instead of a V-Type ditch).
  - b. The westerly perimeter ditch was constructed with the slope shown on the As-Built Drawings instead of a 0% slope.
  - c. Deviations in the flow line of the concrete ditch pavement are shown on the As-Built Drawings.
2. Temporary East-West Interceptor Ditch
  - a. Deviations in the flow line and cross-section are shown on the As-Built Drawings.
3. Storm Drainage Piping
  - a. Deviations in the horizontal and vertical locations are shown on the As-Built Drawings.
  - b. Enkamat (erosion control material) has not been installed in the inner perimeter ditch. This material is to be installed with the side slope closure.



1 March 1993

Mr. Douglas C. Miller, P.E.  
England-Thims & Miller, Inc.  
3131 St. Johns Bluff Rd. South  
Jacksonville, Florida 32246



Subject: Supplement No. 2 to the CQA Final Report  
for Phase II - Cells IIA, IIB, and IIC  
Trail Ridge Landfill  
Jacksonville, Florida

Dear Mr. Miller:

This letter is prepared as Supplement No. 2 to GeoSyntec Consultants' report entitled "Construction Quality Assurance Monitoring for the Geosynthetics in the Lining System of Cells IC, IIA, IIB, and IIC of the Trail Ridge Landfill, Jacksonville, Florida", herein referred to as the CQA Final Report. The CQA Final Report was prepared by GeoSyntec Consultants after installation of geosynthetic lining system components in Cells IC, IIA, IIB, and IIC of the Trail Ridge Landfill were complete. Supplement No. 2 describes the CQA monitoring activities performed in Cells IIA, IIB, and IIC since the submittal of the CQA Final Report to England-Thims & Miller, Inc. (ETM) in January 1993.

GeoSyntec Consultants' CQA monitors observed the following activities in Cells IIA, IIB, and IIC between 1 February 1993 and 18 February 1993:

- sand was excavated along the west side of the high density polyethylene (HDPE) geomembrane leachate control flap between Cells IA/IIA and IC/IIC;
- the existing 15-ft (4.5-m) wide, 60-mil (1.5-mm) thick geomembrane leachate control flap between Cells IC/IIC in the areas north and south of the leachate trench was replaced with 15-ft (4.5-m) wide, 40-mil (1-mm) thick geomembrane leachate control flap;
- the 40-mil (1-mm) thick geomembrane leachate control flap at the southeast corner of Cell IIC was welded to the 60-mil (1.5-mm) thick geomembrane leachate control flap along the south boundary of Cell IIC;
- the 40-mil (1-mm) thick geomembrane leachate control flap at the northeast corner of Cell IIC was welded to the 60-mil (1.5-mm)

FQ2030/Q930106

**Corporate Office:**  
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**Regional Offices:**  
Atlanta, GA • Boca Raton, FL  
Huntington Beach, CA • Pleasant Hill, CA  
Timonium, MD • Brussels, Belgium

**Laboratories:**  
Atlanta, GA  
Boca Raton, FL  
Huntington Beach, CA

Mr. Douglas C. Miller, P.E.

1 March 1993

Page 2

thick geomembrane leachate control flaps between Cells IB/IC and IB/IIB;

- holes observed in the existing geomembrane leachate control flap, above the 2-ft (0.6-m) thick protective sand cover layer, between Cells IB/IIB were repaired by extrusion welding a geomembrane patch over the affected area;
- the existing 3-ft (0.9-m) wide leachate control flap between Cells IA/IIA in the areas north and south of the leachate trench was replaced with a 15-ft (4.5-m) wide, 40-mil (1-mm) thick HDPE geomembrane flap;
- the segments of the leachate collection pipe located west of leachate control flap and east of the leachate collection pipe gate valve in Cells IIA, IIB, and IIC were examined for perforations; subsequently, any perforations in these segments were covered with a 60-mil (1.5-mm) thick geomembrane sheet and secured with 0.5-in. (12-mm) wide stainless steel bands; and
- open areas along the west side of the leachate control flap between Cells IA/IIA and IC/IIC were backfilled.

The geomembrane leachate control flap replacement and repair activities were conducted by the National Seal Company (NSC) of Baton Rouge, Louisiana. NSC's activities were documented by GeoSyntec Consultants on-site CQA monitors. GeoSyntec Consultants' observations are recorded on the Daily Field Reports presented in Appendix A. Excavation and subsequent backfilling of the protective cover sand was performed by employees of the Trail Ridge Landfill and Barco-Duval. These operations were also monitored and documented by GeoSyntec Consultants' on the Daily Field Reports presented in Appendix A.

GeoSyntec Consultants' CQA monitoring activities included the following:

- monitored the excavation of the protective cover sand layer above the geosynthetics;
- monitored removal and replacement of portions of the geomembrane leachate control flap;

FQ2030/Q930106





**DAILY FIELD REPORTS**  
**FOR PERIOD**  
**1 FEBRUARY 1993**  
**THROUGH 18 FEBRUARY 1993**



**GEO SYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 1 of 2

**Project:** Trail Ridge Landfill MONDAY **Phase:** TET  
**Project No.** FQ2030 **Date:** (moldy) FEB. 1 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

0700 GEO SYNTEC ARRIVES ON SITE. SITE CONDITIONS IS DRY, LIGHT WIND, AND PARTLY CLOUDY. GEO SYNTEC OBSERVES PONDING WATER (BACK UP DITCHES), LEAKS; TI-A EAST @ 150', TI-A WEST @ 90', TI-B EAST @ 178', AND TI-B WEST @ 200'. GEO SYNTEC ALSO BEGINS LEAK SENSOR READINGS LOCATED ON THE EAST SECTION OF PHASE II-C.

0900 BARCO ON SITE, OPERATOR BEGINS TO REMOVE THE SAND MATERIAL LOCATED ON PHASE II-C EAST SECTION. GEO SYNTEC CONTINUES TO OBSERVE ACTIVITIES.

1005 BARCO BEGINS TO REMOVE THE SAND MATERIAL LOCATED APPROX. 25' SOUTH OF LEACHATE TRENCH (PHASE II-C), USING A GRADE-ALL MACHINE.

1015. GEO SYNTEC OBSERVES BARCO REMOVING THE SAND MATERIAL LOCATED ON THE WEST SECTION OF PHASES II-C/II-C 15 FT. FURTHER AND FINDS A DAMAGED AREA IN THE GEOTEXTILE AND ~~THE~~ PLY-NET LAYERS.

1025 4 ADDITIONAL PERSONNEL ARRIVE TO AID IN THE REMOVAL OF SAND LOCATED ON THE EAST SECTION OF PHASE II-C. GEO SYNTEC CONTINUES TO OBSERVE SAND REMOVAL AND LEAK SENSOR READINGS.

1100 CONVERSATION WITH MR. TOM NELSON (WMDA), MR. DON SCHAUER (GEO SYNTEC), MR. PHIL WELLS (NSC), AND MR. WAREY HIRSH (WMDA). POINTS OF INTEREST AS FOLLOWS:  
 • NSC INDICATED THAT EXCAVATION WILL CONTINUE FROM THE SOUTH DIRECTION TO THE NORTH DIRECTION IN THE EAST SIDE (II-C/II-C) OF PHASE II-C TO EXPOSE

Copy to: Trail Ridge Landfill, Inc. Total Hrs.: 10.0 Per: [Signature]





**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 2 of 2

**Project:** Trail Ridge Landfill Monday **Phase:** I/II  
**Project No.** FQ2030 **Date: (mo/dy)** FEB 1 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

THE 15 FT. HDPE FLAP.

- WJMA INDICATED THAT A 15 FT. HDPE FLAP WILL BE ADDED TO THE EXISTING 3 FT. HDPE FLAP LOCATED IN PHASE I-A/II-A.
- NSC. WILL SCHEDULE 2 ADDITIONAL PERSONNEL FOR THE FLAP INSTALLATIONS ALL PHASES I/II.
- GEOSYNTEC RECEIVED FLOW RATES FROM WJMA FOR THE MONTHS OF NOVEMBER AND TRANSMITS INFO. TO MR. ALI KHATAMI (GEOSYNTEC), BY MEANS OF FAX.

1310 GEOSYNTEC CONTINUES TO OBSERVE SAND REMOVAL PERFORMED BY BARCO USING A TRACK GRADE-ALL. GEOSYNTEC ALSO CONTINUES LEAK SENSOR READINGS LOCATED IN PHASE IIC, EAST SECTION.

1520 MR. JULES WINFREE (GEOSYNTEC), INFORMS WJMA OF NEGATIVE TEST RESULTS (LEAK SENSOR), LOCATED ALONG IIC/IIC 15' FLAP. GEOSYNTEC CONTINUES TO OBSERVE SAND REMOVAL.

1700 PERSONNEL DISCONTINUES ACTIVITIES FOR THIS SHIFT AND DEPARTS SITE.

PERSONNEL ON SITE.

BARCO • 1 OPERATOR, 1 GRADE ALL.

NSC. • 1 SUPT.

GEOSYNTEC • 3 PERSONNEL

WJMA • 6 LABORERS.

Copy to: Trail Ridge Landfill, Inc.

Total Hrs.: 10.0

Per: [Signature]



**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 1 of 2

Project: Trail Ridge Landfill TUESDAY Phase: I & II

Project No. FQ2030 Date: (moldy) FEB. 2 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS DRY, LIGHT WIND, AND CLEAR SKIES. NO. 1 ON SITE (1 Supt., BARCO) DUAL ON SITE, PERSONNEL (1 OPERATOR, 1 GRADE-ALL), BEGINS TO REMOVE THE SAND MATERIAL ALONG THE WEST SECTION OF FLAP LOCATED @ I-C/II-C. GEOSYNTEC OBSERVES 6 PERSONNEL REMOVING THE SAND MATERIAL (ABOVE THE GEOSYNTHETICS WHICH HAS BEEN LEAT BY THE GRADE-ALL MACHINE), USING SHOVELS. GEOSYNTEC ALSO CONTINUES TO OBSERVE THE REMAINING 3 INCHES (APPROX.) OF SAND MATERIAL TO ENSURE THAT THE GRADE-ALL HAS NOT DAMAGED THE UNDERLYING GEOSYNTHETICS.

0805 GEOSYNTEC BEGINS MEASUREMENT OF THE PAVED STORMWATER LOCATED IN PHASE II BEING; II-A EAST @ 65', II-A WEST @ 7', II-B EAST @ 174', AND II-B WEST @ 202'. GEOSYNTEC ALSO RECEIVES DAILY LEACHATE STATUS REPORT FROM MR. LARRY FIRSH (WMDA), FOR FEBRUARY 1, 1993. GEOSYNTEC FAX'S INFORMATION TO MR. ALI KHATAMI (GEOSYNTEC) IN CORPORATE OFFICE. GEOSYNTEC ALSO CONTINUES TO SET UP GRID FOR LEAK SENSOR TESTING, LOCATED ON THE SOUTHEAST SECTION OF PHASE II-B.

1030 GEOSYNTEC CONTINUES LEAK SENSOR TESTING LOCATED @ PHASE II-B SOUTH SECTION ALONG FLAP.

1200 PERSONNEL DISCONTINUES FOR LUNCH.

1300 PERSONNEL RETURNS FROM LUNCH. BARCO CONTINUES EXCAVATION LOCATED @ II-C/II-C. GEOSYNTEC CONTINUES TO OBSERVE ACTIVITIES.

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 2 of 2

Project: Trail Ridge Landfill TUESDAY Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB. 2 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

1515 *GEOSYNTEC INFORMS WMMMA THAT A HIGH LEAK SENSOR READING HAS BEEN LOCATED ON THE NORTH SECTION OF PHASE II-B NORTH (EAST SECTION). GEOSYNTEC CONTINUES LEAK SENSOR READINGS WEST OF II-B 15 FT. FLAP.*

1700 *PERSONNEL DISCONTINUES ACTIVITIES FOR THIS SHIFT AND DEPARTS JOBSITE.*

*PERSONNEL ON SITE*

*N.S.C. • 1 SUPT.*

*SARCO • 1 OPERATOR, 1 GRADE-ALL.*

*WMMMA • 6 LABORERS.*

*GEOSYNTEC • 3 PERSONNEL NOTE: MR. NEWTON BROOKS (GEOSYNTEC) ARRIVED ON SITE @ 1400 HRS.*

Copy to: Trail Ridge Landfill, Inc.

Total Hrs.: 10.0

Per: *John R. [Signature]*



**Daily Field Report**

Sheet No.: 1 of 5

**Project:** Trail Ridge Landfill WEDNESDAY **Phase:** I ETL  
**Project No.** FQ2030 **Date: (mo/dy)** FEB. 3 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

0747 I ARRIVE ON SITE UPON PICKUP OF EQUIPMENT USED FOR LEAK SENSOR DETECTION DEVICE (I.E. 1000 FT. OF NO.12 STRANDED WIRE). NSC ON SITE, PERSONNEL CONSIST OF 1 SUPT., AND 2 TECHNICIANS. NSC'S EQUIPMENT CONSIST OF 2 HAND EXTENDERS, 1 ELECTRIC (GAUGE) TENSOMETER, 1 VACUUM PUMP W/VIEW BOX, AND 1 ROLL OF HDPE 40 MIL BEOMEMBRANE ROLL NO. C04L2608-1109-062 AND 15' X 1650' IN SIZE. BARCO/DUAL ON SITE, PERSONNEL CONSIST OF 1 OPERATOR AND 1 GRADE-ALL. WMDA PERSONNEL (6) ON SITE TO AID IN THE HAND REMOVAL OF THE SAND MATERIAL UPON EXCAVATION COMPLETED BY BARCO.

0825 (GEO SYNTEC RECEIVED) DUMPED VOLUMES FROM CELLS A, B, AND C FROM MR. LARRY HARSH (WMDA), FOR THE 2<sup>ND</sup> OF FEBRUARY 1993. GEO SYNTEC TRANSMITS INFORMATION BY MEANS OF ~~FAX~~ FAX TO MR. AL KHATAMI (GEO SYNTEC).

0840 BARCO CONTINUES TO EXCAVATE ALONG THE EAST SIDE OF TEMPORARY 15 FT. FLAP LOCATED IN PHASE I-C. NSC PREPARES TO CUT THE 15 FT. FLAP (SOUTH OF LEACHATE TRENCH), IN PREPARATION TO REPLACE WITH A 40 MIL HDPE 15 FT. FLAP LOCATED @ I-C / II-C. GEO SYNTEC CONTINUES TO OBSERVE AND DOCUMENT ACTIVITIES. GEO SYNTEC ALSO CONTINUES LEAK SENSOR READINGS LOCATED @ PHASE II-B / II-B (15' FLAP). (2) WMDA PERSONNEL CONTINUES TO DIG TEST HOLES ON A 30' GRID TO ISOLATE (DAMAGED) AREAS IN THE BEOMEMBRANE LINER SYSTEM.

0905 GEO SYNTEC BEGINS TO LOCATE AND DOCUMENT REPAIR LOCATIONS IN PHASE I-C / I-C FLAP PRIOR TO REMOVAL. IT APPEARS THAT (DAMAGED) AREAS IN FLAP MAY BE CAUSED BY HEAVY

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**Daily Field Report**

Sheet No.: 2 of 5

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II

Project No.: FQ2030 Date: (moldy) FEB. 3 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

EQUIPMENT. FOR REPAIR LOCATIONS AND SIZES, SEE ATTACHMENT "A" FOR DETAILS.

0930 NSC BEGINS TO CUT THE FLAP LOCATED @ IIC/IIC USING A HOOK BLADE RAZOR KNIFE TO ENSURE THAT NO DAMAGE OCCURS TO THE UNDERLYING GEOSYNTHETICS. GEOSYNTEC CONTINUES TO OBSERVE REMOVAL PROCEDURES.

1040 NSC HAS COMPLETED REMOVING THE SOUTH SECTION OF FLAP LOCATED @ IIC/IIC AND CONTINUES TO SWEEP THE EXISTING SAND MARGIN IN PREPARATION OF INSTALLING THE 40 MIL HDPE 15 FT FLAP. GEOSYNTEC CONTINUES LEAK SENSOR READINGS LOCATED ON THE NORTHEAST SECTION OF PHASE IIC (IIC/IIC FLAP).

1150 GEOSYNTEC INFORMS MR. TOM NELSON (NUNDA) THAT A SUSPECT AREA NORTH OF LEACHER TRENCH (APPROX 25' IN WIDTH) IN PHASES IIC/IIC SHOWS MODERATE WATER DEFLECTIONS. GEOSYNTEC FLAGS AREA AND CONTINUES LEAK SENSOR READING FROM THE SOUTH TO NORTH DIRECTION.

1200 CONTRACTORS DISCONTINUES ACTIVITIES FOR LUNCH.

1300 CONTRACTORS RETURN FROM LUNCH, NSC PREPARES FOR EXTENSION TRIAL SEAM SAMPLES AND 40 MIL HDPE 15' FLAP INSTALLATION.

1310 GEOSYNTEC OBSERVES AND DOCUMENTS TRIAL SEAM SAMPLES, INFO. AS FOLLOWS. TECHNICIANS NO. 2023 AND 2024 USING EXTENSION WELDER NO. 16 WITH TEMPERATURE SETTINGS @ 265° AND 275° C. TEST RESULTS BEING; TECHNICIAN NO. 2023 PEEL MODE @ 27 PPI / 117 PPI. SHEAR 135 PPI / 102 PPI. TECH. NO. 2024 PEEL 22 PPI / 94 PPI. SHEAR 118 PPI / 116 PPI.

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**Daily Field Report**

Sheet No.: 3 of 5

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II

Project No. FQ2030 Date: (m/d/y) FEB 3 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

GEOSYNTEC RECEIVES CALIBRATION CERTIFICATE FOR TENSOMETER AND FILES IN ON-SITE BINDER.

1520 GEOSYNTEC SHIPS TRACING DYE DETECTOR BACK TO OWNERS AS PER MR. TOM NELSON BY MEANS OF FEDERAL EXPRESS.

1605 BARCO CONTINUES EXCAVATION @ THE SOUTH SECTION (FROM LEACHATE COLLECTIONS TRENCH), IN PHASE I-C. NSC CONTINUES TO SATURON WELD THE 15 FT. 40 MIL FLAP @ II-C/I-C (TECH. NO. 2023). GEOSYNTEC CONTINUES TO OBSERVE AND DOCUMENT ACTIVITIES. TECH. NO. 2023 EXTENSION WELDING SEAM.

1700 ALL PERSONNEL DISCONTINUE WORK FOR THIS SHIFT AND DEPARTS SITE.

NOTE: AT 1530 HRS. GEOSYNTEC MEASURED BACKUP LENGTHS IN PHASE II BEING; II-A EAST @ 50', II-A WEST @ 80', II-B EAST @ 170', AND II-B WEST @ 196'.

PERSONNEL ON SITE

- NSC. • 1 SUPT., 2 TECHNICIANS.
- BARCO • 1 OPERATOR, 1 GRADE-ALL.
- WMMB • 6 LABORERS.
- GEOSYNTEC • 3 PERSONNEL.

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 4 of 25

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB. 3 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

ATTACHMENT "A"

| <u>DISTANCE FROM NORTH TO SOUTH</u> | <u>DISTANCE FROM EXTENSION (WELD)</u> | <u>REPAIR TYPE *2</u> | <u>SIZE *2</u>     |
|-------------------------------------|---------------------------------------|-----------------------|--------------------|
| <u>0'</u>                           | <u>6'</u>                             | <u>PATCH</u>          | <u>1x1'</u>        |
| <u>3'</u>                           | <u>4 1/6'</u>                         | <u>"</u>              | <u>2x2' / 1x1'</u> |
| <u>6'</u>                           | <u>1'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>10'</u>                          | <u>4 1/2'</u>                         | <u>"</u>              | <u>3x1' / 2x2'</u> |
| <u>14'</u>                          | <u>4'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>16'</u>                          | <u>4"</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>19'</u>                          | <u>4'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>23'</u>                          | <u>4'</u>                             | <u>"</u>              | <u>4x1'</u>        |
| <u>38'</u>                          | <u>6'</u>                             | <u>"</u>              | <u>5x1'</u>        |
| <u>43'</u>                          | <u>4'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>50'</u>                          | <u>6'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>57'</u>                          | <u>6'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>76'</u>                          | <u>4"</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>84'</u>                          | <u>3'</u>                             | <u>"</u>              | <u>2x2'</u>        |
| <u>103'</u>                         | <u>6"</u>                             | <u>"</u>              | <u>3x1'</u>        |
| <u>121'</u>                         | <u>6'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>129'</u>                         | <u>6'</u>                             | <u>"</u>              | <u>2x3'</u>        |
| <u>145'</u>                         | <u>2'</u>                             | <u>"</u>              | <u>2x2'</u>        |
| <u>178'</u>                         | <u>1'</u>                             | <u>"</u>              | <u>5x3'</u>        |
| <u>183'</u>                         | <u>2'</u>                             | <u>"</u>              | <u>1x1'</u>        |
| <u>188'</u>                         | <u>2'</u>                             | <u>"</u>              | <u>2x1'</u>        |
| <u>207'</u>                         | <u>1'</u>                             | <u>"</u>              | <u>1x1'</u>        |

Copy to: Trail Ridge Landfill, Inc. Total Hrs.: \_\_\_\_\_ Per: [Signature]



**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 25 of 25

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB 3 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

ATTACHMENT "A"

| <u>DISTANCE FROM NORTH TO SOUTH</u> | <u>DISTANCE FROM EXTENSION (WELL)</u> | <u>REPAIR TYPE *<sup>2</sup></u> | <u>SIZE *<sup>2</sup></u> |
|-------------------------------------|---------------------------------------|----------------------------------|---------------------------|
| 218'                                | 1'                                    | PATCH                            | 2x1'                      |
| 240'                                | 2'                                    | "                                | 2x2'                      |
| 245'                                | 2.5'                                  | "                                | 2x2'                      |
| 256'                                | 3'                                    | "                                | 1x1'                      |
| *' 294'                             | 3' (WEST)                             | "                                | 1x1'                      |

\* NOTE: LOCATED ON BOTTOM OF CELL, DAMAGE IN GEOTEXTILE, PLY-NET, AND 60 MIL HDPE LINER SYSTEM.

\*<sup>2</sup> NOTE: REPAIR Type and Size refers to the CQA Managers initial assessment of corrective action necessary to repair existing holes observed on 2/3/92 in the leachate control flap (60 mil HDPE geomembrane). However, the damaged portions of the existing leachate control flap (north and south of Cell IC leachate collection trench) were removed and replaced with a 40 mil (1.0-mm) thick HDPE geomembrane and the corrective actions mentioned above weren't needed.

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 1 of 3

**Project:** Trail Ridge Landfill THURSDAY **Phase:** I & II

**Project No.:** FQ2030 **Date: (mo/dy)** FEB. 4 **Year:** 1993

**Location:** Jacksonville, Florida **Contractor:** National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS CLEAR SKIES, CALM WIND, AND DRY. NSC ARRIVES ON SITE, PERSONNEL PREPARES EQUIPMENT FOR EXTRUSION TRIAL SEAM SAMPLES AND REMOVAL OF THE 60 MIL HOPE, 15 FT FLAP LOCATE @ I-C/II-C, NORTH SECTION. BARCO ON SITE, OPERATOR BEGINS SAND EXCAVATION LOCATED ON THE EAST SIDE OF I-C TEMPORARY 15 FT. HOPE FLAP. GEOSYNTEC BEGINS TO DOCUMENT TRIAL SEAM <sup>RESULTS</sup> SAMPLES, AS FOLLOWS: (07:20 HRS) TECHNICIAN NO. 2024, EXTRUSION WELDER NO. 16, TEMPERATURE SETTINGS 265°C/275°C, AMBIENT TEMPERATURE 48°F. RESULTS IN PEEL MODE ARE 127 PPI AND 123 PPI, SHEAR MODE 134 PPI AND 132 PPI.

0830 GEOSYNTEC CONTINUES TO OBSERVE EXTRUSION REPAIRS LOCATED ON PHASES I-C/II-C FLAP. GEOSYNTEC ALSO CONTINUES LEAK SENSOR READINGS LOCATED ON THE NORTHEAST SECTION OF PHASE II-A. READINGS SHOW A DEFINITE INDICATION OF ~~CONNECTION~~ HYDRAULIC CONNECTION BETWEEN PHASE IA/IIA 3 FT. FLAP.

1000 NSC BEGINS NON-DESTRUCTIVE (VACUUM) TESTING ON YESTERDAY'S FLAP INSTALLATION (SOUTH SECTION). GEOSYNTEC CONTINUES TO OBSERVE AND <sup>LOCATE ANY LEAKS THAT</sup> ~~SEARCH FOR~~ LEAKS ARE FOUND IN EXTRUSION WELDED SEAM.

1030 MR. JULES WINFREE (GEOSYNTEC), INDICATED THAT STRONG METER READINGS HAVE BEEN LOCATED ON THE NORTHEAST BOTTOM (APPROX. 80 FT WEST OF FLAP IA/IIA), OF PHASE II-A. MR. WINFREE ALSO INDICATED THAT AREA HAS BEEN FLAGGED OFF.

1145 WINFREE INDICATED THAT UPON COMPLETION OF LEAK SURVEY ON THE

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**GEOSYNTEC CONSULTANTS**  
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**Daily Field Report**

Sheet No.: 2 of 5

Project: Trail Ridge Landfill THURSDAY Phase: I, II  
 Project No. FQ2030 Date: (mo/dy) FEB. 4 Year: 1993  
 Location: Jacksonville, Florida Contractor: National Seal Company

EAST SECTION OF PHASE II, GEOSYNTEC WILL CONTINUE SURVEY LOCATED IN THE PONDED WATER LOCATED IN PHASES II-A WEST AND II-B WEST (INTERMEDIATE 15 FT. FLAP).

1200 CONTRACTOR DISCONTINUES FOR LUNCH.

1300 PERSONNEL RETURNS FROM LUNCH. NSC. BEGINS PM. TRIAL SEAM SAMPLE IN PREPARATION OF EXTRUSION WELDING THE NEWLY PLACED 40 MIL HDPE 15 FT. FLAP LOCATED ON THE NORTH SECTION OF PHASE II-C, ~~WEST~~ EAST. GEOSYNTEC OBSERVE TRIAL SEAM TESTING, RESULTS AS FOLLOWS; TECHNICIAN NO. 2024, EXTRUDER NO. 16, TEMPERATURE SETTINGS 265°C AND 275°C, PEEL MODE 106 PPI AND 108 PPI. SWEAK MODE 129 PPI AND 140 PPI

1420 GEOSYNTEC CONTINUES TO OBSERVE EXTRUSION WELDING BEING PERFORMED ON THE 40 MIL FLAP ATTACHED TO THE PRIMARY LINER (40 MIL) SYSTEM.

1540 NSC. COMPLETES EXTRUSION WELDING AND CONTINUES NON-DESTRUCTIVE (VACUUM) TESTING. GEOSYNTEC OBSERVES TECH. NO. 2024 PERFORMING TESTING PROCEDURES.

1610 NSC. COMPLETES VACUUM TESTING FINDING POSITIVE RESULTS. GEOSYNTEC CONTINUES TO OBSERVE EXCAVATION BEING PERFORMED ON THE WEST SECTION OF THE I-C TEMPORARY 15 FT. FLAP. GEOSYNTEC ALSO COMPLETES THE DRY LAND TESTING OF PHASE II-A FINDING NEGATIVE RESULTS ALONG PHASES I-A/II-A FLAP.

1650 PERSONNEL DISCONTINUES ACTIVITIES FOR THIS

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**Daily Field Report**

Sheet No.: 3 of 3

Project: Trail Ridge Landfill THURSDAY Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB. 4 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

START AND DEPARTS JOBSITE.

1700 GEOSYNTEC COMPLETES DAILY CQA DOCUMENTATION AND DEPARTS JOBSITE.

PERSONNEL ON SITE.

NISC • 1 SUPT., 2 TECHNICIANS, AND 1 FRONTEND LOADER

BARCO • 1 OPERATOR, 1 GRADE ALL.

WMNA • 6 LABORERS.

GEOSYNTEC • 3 PERSONNEL.

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**GEOSYNTEC CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 1 of 3

**Project:** Trail Ridge Landfill FRIDAY **Phase:** TEL

**Project No.:** FQ2030 **Date:** (moldy) FEB. 5 **Year:** 1993

**Location:** Jacksonville, Florida **Contractor:** National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS WET DUE TO OVERNIGHT RAINS, LIGHT WIND, AND CLOUDY. NSC ON SITE, PERSONNEL PREPARES TO OBSERVE SAND REMOVAL PERFORMED BY BARCO LOCATED @ THE TEMPORARY 15 FT. FMP LOCATED IN PHASE ~~II~~ I-C. GEOSYNTEC BEGINS LEAK SENSOR TESTING LOCATED IN THE POUNDED WATER IN PHASE II-B, EAST SECTION.

0930 BARCO CONTINUES SAND REMOVAL LOCATED IN PHASE I-C USING A GRADE-ALL MACHINE TO REMOVE APPROX 1.5 FT. OF THE SAND MATERIAL AND 4 LAYERS USING SHOVELS TO REMOVE THE REMAINING SAND. GEOSYNTEC CONTINUES TO OBSERVE ACTIVITIES TO ENSURE THAT NO DAMAGE OCCURS TO THE UNDERLYING GEOSYNTHETIC LAYERS.

1045 MR. JULES WINKER (GEOSYNTEC) INDICATED THAT THE LEAK SENSOR TESTING SHOWS POSITIVE TESTING RESULTS IN PHASE II-B (POUNDED WATER), EAST SECTION.

1200 PERSONNEL DISCONTINUES ACTIVITIES FOR LUNCH.

1300 PERSONNEL RETURNS FROM LUNCH, BARCO RESUMES EXCAVATION LOCATED IN PHASE I-C, TEMPORARY FMP. GEOSYNTEC RESUMES LEAK SENSOR READINGS LOCATED IN THE POUNDED WATER ON THE EAST SECTION OF PHASE II-C. GEOSYNTEC ALSO CONTINUES TO OBSERVE SAND REMOVAL TO ENSURE THAT NO DAMAGE OCCURS TO THE UNDERLYING GEOSYNTHETIC LAYERS.

1335 CONVERSATION WITH MR. JIM WINKINS (WIMMA), MR. PHIL WELTER (NSC).

POINTS OF INTEREST:  
 \* WIMMA INDICATED THAT LEAK SENSOR READINGS SHOWS

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**Daily Field Report**

Sheet No.: 2 of 3

Project: Trail Ridge Landfill

FRIDAY

Phase: I - S II

Project No. FQ2030

Date: (mo/dy) FEB. 5

Year: 1993

Location: Jacksonville, Florida

Contractor: National Seal Company

- NEGATIVE RESULTS AROUND RISER PIPE IN PHASE II-C WEST AND LEACHATE PIPE WILL BE CHECKED FOR PERFORATIONS.
- W/M/A. INDICATED THAT II-A, II-B, AND II-C (WEST AREAS) WILL BE EXCAVATED AND THE LEACHATE PIPES WILL BE CHECKED FOR PERFORATIONS.
  - W/M/A. INDICATED THAT THE RISER PIPE LOCATED IN PHASE I-C (TEMPORARY FLAP), WILL BE REMOVED AND CAPPED USING HDPE FLAT STOCK. THE DUTCHMAN® (PANCAKE PIPE BLOCK), WILL ALSO BE REMOVED TO ALLOW FLOW THROUGH LEACHATE PIPE.
  - W/M/A INDICATED IF THE LEACHATE PIPE HAS PERFORATIONS, GEO SYNTEC WILL NOT CONDUCT THE LEAK SENSOR TESTING, IF LEACHATE PIPES HASN'T ANY PERFORATIONS, GEO SYNTEC WILL CONDUCT LEAK SENSOR TESTING ON THE WEST SECTION OF PHASE II (INTERMEDIATE FLAP).
  - W/M/A INDICATED THAT THE GRAVEL THAT WILL BE REMOVED FROM LEACHATE TRENCHES (WHEN OBSERVED FOR PERFORATIONS), WILL BE REPLACED WITH 1 ADDITIONAL LOAD OF GRAVEL THAT WILL ARRIVE TODAY PM OR TOMORROW AM.

1540 GEO SYNTEC CONTINUES LEAK SENSOR READINGS LOCATED IN THE POUNDED WATER LOCATED IN THE EAST SECTION OF PHASE II-C. BARCO CONTINUES SAND REMOVAL LOCATED IN PHASE I-C. GEO SYNTEC ALSO CONTINUES TO OBSERVE ACTIVITIES.

1700 MR. JULES WINFREE (GEO SYNTEC), INDICATED THAT LEAK SENSOR READINGS SHOWS POSITIVE TEST RESULTS IN POUNDED WATER LOCATED IN PHASES II-C EAST AND II-B EAST.

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**Daily Field Report**

Sheet No.: 3 of 3

Project: Trail Ridge Landfill

FRIDAY

Phase: I & II

Project No. FQ2030

Date: (mo/dy) FEB 5

Year: 1993

Location: Jacksonville, Florida

Contractor: National Seal Company

GEO SYNTec OBSERVES PERSONNEL DISCONTINUING ACTIVITIES FOR THIS SHIFT AND DEPARTS SITE.

PERSONNEL ON SITE:

BARCO • 2 OPERATORS, 1 GRADE-ALL, 1 FRONT END LOADER.

NSC • 1 SUPT., 2 TECHNICIANS.

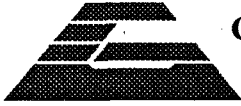
WMA • 6 LABORERS

GEO SYNTec • 4 PERSONNEL

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**GEOSYNTec CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 1 of 3

Project: Trail Ridge Landfill Phase: SATURDAY I & II  
 Project No. FQ2030 Date: (mo/dy) FEB. 6 Year: 1993  
 Location: Jacksonville, Florida Contractor: National Seal Company

0700 GEOSYNTec ARRIVES ON SITE. SITE CONDITIONS WET FROM OVERNIGHT RAIN, FOGGY WITH LIGHT MIST, AND CALM WIND. NSC. ON SITE, PERSONNEL BEGINS TO CUT OPEN THE GEOTEXTILE LOCATED @ II-C WEST INTERMEDIATE FLAP FOR OBSERVATION OF THE 8" O HDPE PERFORATED LEACHATE PIPE. BARCO ON SITE. OPERATOR WITH GRADE-ALL MACHINE PREPARES TO REMOVE THE SAND MATERIAL LOCATED AT THE INTERSECTION OF PHASES I-C/II-C AND I-B/II-B IN PREPARATION TO EXPOSE THE 15 FT. AND 3 FT. HDPE FLAPS. GEOSYNTec CONTINUES TO OBSERVE SAND REMOVAL LOCATED @ INTERSECTION.

0730 MR. JIM KRAMER (GEOSYNTec), ARRIVES ON SITE TO AID IN THE MONITORING ACTIVITIES, PERFORMED BY NSC, BARCO, AND WIMNA. GEOSYNTec OBSERVES WIMNA SETTING PUMPS LOCATED @ II-B WEST AND II-A WEST FOR DEWATERING THE WOOD WATER @ FLAP (INTERSECTION OF LEACHATE TRENCHES. GEOSYNTec ALSO OBSERVES WIMNA CONTINUING TO DEWATER PHASE II-C WEST.

0820 BARCO COMPLETES SAND REMOVAL @ I-C/II-C AND I-B/II-B INTERSECTION AND PERSONNEL CONTINUES TO REMOVE THE REMAINING 3 INCHES (APPROX.) OF SAND USING SHOVELS. GEOSYNTec CONTINUES TO OBSERVE ACTIVITIES TO ENSURE THAT NO DAMAGE OCCURS TO THE UNDERLYING GEOSYNTHETICS. WIMNA INFORMS GEOSYNTec THAT THE NO. 3 GRAVEL HAS ARRIVED ON SITE AND IS STOCKPILED ON THE SOUTHWEST CORNER OF THE LANDFILL.

1045 NSC. INDICATED THAT THE LEACHATE PIPE LOCATED @ FLAP IN II-C WEST HAS NO PERFORATION HOLES. GEOSYNTec BEGINS TO SETUP EQUIPMENT FOR LEAK DETECTION. GEOSYNTec ALSO CONTINUES

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**Daily Field Report**

Sheet No.: 2 of 3

**Project:** Trail Ridge Landfill SATURDAY **Phase:** TEST  
**Project No.:** FQ2030 **Date:** (mo/dy) FEB. 6 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

TO OBSERVE SAND REMOVAL.

1140 MR. JIM LUKINS (WMOA), ON SITE. MR. LUKINS INDICATED THAT THE SECONDARY SYSTEM LOCATED AT CELL C SUMP HAS PUMPED DRY CAUSING NO CONNECTION FROM AROUND WIRE TO LIQUID. MR. LUKINS ALSO INDICATED THAT THE SECONDARY PUMP HAS BEEN TURNED OFF.

1200 PERSONNEL DISCONTINUES ACTIVITIES FOR LUNCH.

1300 PERSONNEL RETURNS FROM LUNCH. NSC INDICATED THAT THE HDPE FLAT STOCK HAS ARRIVED ON SITE (14'x12"), FOR CAPPING THE REMOVED RISER LOCATED IN THE INTERMEDIATE FLAP IN PHASE I-C. NSC ALSO BEGINS TO CUT THE CENTER OF THE DUTCHMAN® (I.E. PIPE BLOCK) TO ALLOW FLOW THROUGH THE 8" HDPE PERFORATED LEACHATE PIPE (GEOSYNTEC CONTINUES TO OBSERVE ACTIVITIES).

1410 NSC COMPLETE CAPPING THE REMOVE RISER PIPE AND CONTINUES TO REPLACE THE GRAVEL WITH ACCEPTABLE MATERIAL.

1450 LIGHT RAIN BEGINS. NSC CONTINUES TO ADD ADDITIONAL GEOTEXTILE THAT ENCAPSULATES THE PIPE AND GRAVEL. GEOSYNTEC CONTINUES TO OBSERVE.

1510 NSC DISCONTINUES ACTIVITIES UPON COMPLETION OF GEOTEXTILE DUE TO RAIN INCREASING. BARCO BEGINS TO BACKFILL AREA WITH THE 2 FT. SAND MATERIAL (PROTECTIVE/DRAINAGE LAYER). GEOSYNTEC CONTINUES TO OBSERVE BACKFILLING TO ENSURE THAT NO DEBRIS HARMS THE UNDERLYING GEOSYNTHETICS.

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**Daily Field Report**

Sheet No.: 3 of 3

Project: Trail Ridge Landfill SATURDAY Phase: I & II  
 Project No. FQ2030 Date: (m/d/y) FEB. 6 Year: 1993  
 Location: Jacksonville, Florida Contractor: National Seal Company

1520 BARCO COMPLETES BACK FILLING AND DISCONTINUES ACTIVITIES FOR THIS SHIFT. MR. JULES WINFREE (GEOSYNTEC), INDICATED THAT RAIN IS CAUSING OFF READINGS FROM THE LEAK DETECTION DEVICE. MR. WINFREE ALSO INDICATED THAT II-C WEST IS COMPLETED AND FINDINGS SHOW POSITIVE RESULTS, II-B WEST IS COMPLETED (WITH EXCEPTION OF II-A/II-B CREST), MR. WINFREE INDICATED THAT TESTING CANNOT BE COMPLETED DUE TO LACK OF WATER IN PHASE II-A.

1527 UPON COMPLETING COA. REPORTS GEOSYNTEC DEPARTS SITE.

PERSONNEL ON SITE

NSC. • 1 SUPT., 2 TECHNICIANS.

BARCO • 2 OPERATORS, 1 GRADE-ALL, 1 FRONT END LOADER

WIMMA • 6 LOADERS (2 LOADERS DEPART SITE @ APPROX 10:30 HRS.).

GEOSYNTEC • 4 PERSONNEL.

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Total Hrs.: 8.5

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**Daily Field Report**

Sheet No.: 1 of 1

Project: Trail Ridge Landfill THURS. Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB 2<sup>JK</sup> 4 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

Mobilize From PARK FALLS, Wis. to  
SIKESTON Mo. (770 miles)

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**Daily Field Report**

Sheet No.: 1 of 1

Project: Trail Ridge Landfill Fri. Phase: I & II

Project No. FQ2030 Date: (mo/dy) 2-5 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

*Mobilize From Sikeston Mo. to Baldwin, Fla.  
(1,021 mi.)*

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**Daily Field Report**

Sheet No.: 1 of 2

Project: Trail Ridge Landfill SAT. Phase: I & II

Project No. FQ2030 Date: (m/d/y) 2-6 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

07:30 ARRIVED ONSITE.  
Sky OVERCAST. TEMP. + 52°. WIND LIGHT.  
N.S.C. & OTHER GeoSYNTEC PERSONEL ONSITE.

07:45 Meet with GeoSYNTEC PERSONEL TO OBTAIN SCOPE OF WORK BEING PERFORMED.  
AM INFORMED OF LEAKS & POSSIBLE FURTHER LEAKS THRU RAIN FLAP IN IC WEST TO 2C EAST & 2C EAST to 2C WEST.

Note: Some of SAID LEAKS HAVE ALREADY BEEN LOCATED PRIOR TO THE UNDERSIGNEDS ARRIVAL ONSITE AS PER. MR. JULES WINFREE. (GeoSYNTEC LAB PERSONEL) THIS WAS DONE USING AN ELECTRONIC CONDUCTANCE LEAK DETECTOR. (CONTINUITY WITH WATER AS THE CONDUCTOR.)

08:17 N.S.C. BEGINS UNCOVERING COLLECTION PIPE JUST EAST OF 2C EAST, 2C WEST SEPARATION BURM TO DETERMIN IF SAID PIPE IS PERFORATED, & THUS PREVENTING 2-C WEST FROM HOLDING WATER.

09:35 COLLECTION PIPE NOW EXPOSED, N.S.C. FINDS NO PERFORATIONS FROM SEP. BURM EAST TO PIPE CONNECTION FLANGE. Note: GeoSYNTEC OBSERVES THAT WITHIN SAID CONNECTION FLANGE, WAS PREVIOUSLY INSTALLED AN H.D.P.E. "PANCAKE" OR OBSTRUCTION PREVENTING WATER FLOW BETWEEN 2-C EAST & 2-C WEST.

Note: See PHOTO DOCUMENTATION.

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Trail Ridge Landfill, Inc.

**Daily Field Report**

Sheet No.: 2 of 2

**Project:** Trail Ridge Landfill SAT. **Phase:** I & II  
**Project No.** FQ2030 **Date:** (mo/dy) 2-6 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

*Note:* (CONT.) SAID OBSTRUCTED FLANGE IS LOCATED WITHIN ONE FT. OF 2-C EAST RISER PIPE.  
 N.S.C. CUTS SAID RISER PIPE WITHIN 16" OF <sup>THE</sup> GROUND ENABLING PHYSICAL CONFORMATION OF TOTAL BLOCKAGE.  
 11:45 N.S.C. PERSONEL BEGIN REPLACING STONE & GEOTEXTILE IN ABOVE NAMED AREA. N.S.C. REPAIRS RISER PIPE.  
 12:00 BREAK FOR LUNCH.  
 13:00 N.S.C. BEGINS AFT. WORK. N.S.C. CONTINUES REPAIRS ON ABOVE NAMED AREA.  
*Note:* N.S.C. ALSO WORKING REPAIRS IN I-C. OTHER GEOSYNTEC PERSONEL COVER SAID WORK.  
 13:00 RECIEVE INSTRUCTION FROM MR. JULES WINFREE ON OPERATION OF CONDUCTANCE LEAK DETECTOR.  
 CHECK 2-C EAST & 2-B EAST IN GRID PATTERN WITH SAID DETECTOR.  
 FOUND ONE SUSPECT AREA IN 2-B HOWEVER READING MAY BE FAULTY DUE TO LACK OF MOISTURE.  
*Note:* SEE MR. WINFREE'S NOTES.  
 15:10 LIGHT RAIN BEGINS  
 15:20 RAIN HEAVIER. N.S.C. CEASES PRODUCTION WORK.  
 15:40 N.S.C. & GEOSYNTEC LEAVE SITE.  
 (RAIN CONTINUES.)

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**Daily Field Report**

Sheet No.: 1 of 1

Project: Trail Ridge Landfill MONDAY Phase: T & II  
 Project No.: FQ2030 Date: (mo/dy) FEB, 8 Year: 1992  
 Location: Jacksonville, Florida Contractor: National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS WET AND CONTINUING TO DRIZZLE. NSC ON SITE. MR. PHIL WELSER (NSC), INDICATED THAT NO WORK WILL BE PERFORMED THIS SHIFT DUE TO WEATHER.

0800 GEOSYNTEC DEPARTS JOBSITE.

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**Daily Field Report**

Sheet No.: 1 of 2

**Project:** Trail Ridge Landfill Tues. **Phase:** I & II  
**Project No.** FQ2030 **Date:** (m/d/y) Feb. 9 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

|       |   |
|-------|---|
| 06:45 | ARRIVED ONSITE. Sky P. Cloudy. Temp + 49°. Wind Light.  |
| 07:10 | N.S.C. ARRIVES ONSITE. MET WITH SUPT. & DAYS ACTIVITIES WILL BE TO COMPLETE 15' - 40MIL. RAIN FLAP BETWEEN I-C & 2-C. ALSO TIE IN ABOVE NAMED FLAP TO 3' FLAP BETWEEN I-B & I-C, & BACKFILL ALL OF THE ABOVE. |
| 07:30 | BARCO DUVAL BEGINS EXCAVATION OF ABOVE NAMED TIE IN BARCO USES BANTAM GRADEALL FOR SAND REMOVAL. N.S.C. LABORERS HAND SHOVEL FINAL REMOVAL.   |
| 09:00 | GeoSYNTEC INSURES INTEGRITY OF GEOMEMBRANE. TRIAL SCAM ON EXT. # G-16, TECH. # 2023 TEMPS. <sup>265/275</sup> Peel <sup>120/117</sup> Shear   |
| 09:16 | BARCO/N.S.C. BEGIN BACKFILL OF I-C/2-C - 15' FLAP. (40 to 60 mil.)  |
| Note: | AS PER WASTE MANAGEMENT, BACKFILL OF SAID FLAP TO BE AT THE 2' SAND COVER LEVEL WITH FLAP VERTICAL TO THIS POINT. REMAINDER TO BE FOLDED OVER.  |
| 10:20 |   |
| 11:10 | EXCAVATION, POSITIONING OF & BACKFILL OF I-C, 2-C FLAP IS BEING PERFORMED IN APPROX. 100' SEGMENTS & CONTINUES.   |
| 12:12 | N.S.C. BREAKS FOR LUNCH. Sky Mostly Cloudy. Temp + 70°. Wind Lite.  |
| 13:05 | AFT. WORK BEGINS. N.S.C. TECHS & LABORERS RESUME WORK ON I-C, 2-C, 15' RAIN FLAP.   |
| 13:15 | N.S.C. TECH. # 2023 & EXT. # G-16 BEGIN PLACING CAPS OVER SLICED SECTIONS OF ABOVE NAMED RAIN FLAPS.  |
| Note: | BARCO USES KOMATSU 632 & CAT D-8 FOR BACKFILL PURPOSES.   |
| Note: | N.S.C. HAS ONE SUPT, TWO TECHS. & 4 LABORERS ONSITE.  |
| 15:35 | EXT. # 16 IS DOWN FOR REPAIRS.  |
| 16:06 | TRIAL SCAM ON EXT. # 19, TECH. # 2023, TEMPS. <sup>265/275</sup> Peels <sup>108/</sup> 172 Shears <sup>119/113</sup> (40 to 40 m.)  |

129/128

(40 to 40 m.)

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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 2 of 2

**Project:** Trail Ridge Landfill Tues. **Phase:** I & II  
**Project No.:** FQ2030 **Date:** (mo/dy) FEB. 9 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

16:12 N.S.C. TECH. # 2023 & EXT. # 19 RESUME WELDING OF REPAIR CAPS OVER SLICES IN I-C, 2-C - 15' RAIN FLAP.

17:00 N.S.C. LABORERS LEAVE SITE.

17:06 N.S.C. TECHS. COMPLETE WELDING OF CAPS ON I-C, 2-C RAIN FLAP.

17:10 BARCO RESUMES FINAL BACKFILL OF ABOVE NAMED AREA.

Note: GEOSYNTEC ADVISES N.S.C. SUPT. THAT REPAIRED AREAS MUST BE NON-DESTRUCTIVELY TESTED.

17:20 N.S.C. COMPLIES & TECH. # 2024 V-BOXES CAPPED AREAS. BARCO RESUMES BACKFILL.

17:25 N.S.C. CEASES DAYS PRODUCTION WORK. PICKS UP EQUIP.

17:30 N.S.C. & GEOSYNTEC LEAVE SITE.

Note: I-C, 2-C IS NOT YET COMPLETE. (RAIN FLAP.) REMAINING WORK IS TIE IN OF 15' I-C, 2-C FLAP TO 3' I-B, I-C FLAP. WITH DAYLIGHT FADING, N.S.C. ELECTS TO COMPLETE THIS WORK IN A.M. OF 2-10-93 - WED.

Note: AS IN ALL REMAINING REPAIR WORK SEE PHOTO. DOCUMENTATION FOR CLARIFICATION OF DAILY REPORTS.

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 1 of 3

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II

Project No.: FQ2030 Date: (mo/dy) FEB. 10 Year: 1992

Location: Jacksonville, Florida Contractor: National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS WET FROM OVERNIGHT RAIN, FOGGY, AND LIGHT WIND. NSC ON SITE, PERSONNEL PREPARE EQUIPMENT AND MATERIALS FOR TRIAL SEAM SAMPLES AND CONNECTION OF PHASES I-B/I-C 3 FT. HDPE FLAP TO PHASES I/II 15 FT. FLAP. BARCO ON SITE, PERSONNEL PREPARE GRADE-ALL MACHINE FOR THE EXCAVATION OF THE SUSPECT AREA FOUND IN PHASE II-A (EAST SECTION), FROM PRIOR USE OF THE LEAK DETECTION DEVICE.

0740 GEOSYNTEC OBSERVES TRIAL SEAM SAMPLE TESTING, RESULTS AS FOLLOWS:

TECHNICIAN NO. 2024, EXTRUSION WELDER NO. 19, EXTRUSION WELDER TEMPERATURES @ 265°C AND 275°C. RESULTS IN PEEL MODE BEING; 105 PPI/120 PPI AND SHEAR MODE BEING; 126 PPI/127 PPI.

0805 BARCO BEGINS TO EXCAVATE THE 2 FT. SAND LAYER LOCATED IN PHASE II-A, NORTH-EAST SECTION. GEOSYNTEC OBSERVES BARCO USING A GRADE-ALL MACHINE TO REMOVE APPROX. 1.7 FT. OF THE MATERIAL AND REMOVING THE REMAINING SAND ABOVE THE GEOSYNTHETICS WITH SHOVELS.

0840 BARCO COMPLETES SAND REMOVAL AND MOVES EQUIPMENT TO THE NORTH-EAST SECTION OF PHASE II-B. GEOSYNTEC CONTINUES TO OBSERVE SAND BEING REMOVED AND THE PUMPED WATER ELEVATION BEING APPROX. 1 FT. FROM SAND ELEVATION. MR. PHIL WELER (NSC), INDICATED THAT EXCAVATION WILL CEASE UNTIL AREA IS DEWATERED.

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 2 of 3

Project: Trail Ridge Landfill WEDNESDAY Phase: I & II  
 Project No.: F02030 Date: (mo/dy) FEB 10 Year: 1992  
 Location: Jacksonville, Florida Contractor: National Seal Company

0905 NSC CONTINUES TO EXTRUSION WELD (TECHNICIAN NO. 2024), THE PHASE I/II 15 FT. FLAP IN PREPARATION TO CONNECT THE 3 FT FLAP THAT RUNS EAST TO WEST BETWEEN PHASES I-R/I-C. GEOSYNTEC CONTINUES TO OBSERVE.

1105 NSC COMPLETES ATTACHMENT OF THE 3 FT. FLAP TO THE 15 FT. FLAP AND BEGINS NON-DESTRUCTIVE (VACUUM) TESTING, TECH. NO. 2023

1140 NSC COMPLETES VACUUM TESTING @ INTERSECTION OF FLAPS FINDING PASSING RESULTS. GEOSYNTEC BEGINS TO OBSERVE BACKFILLING OF AREA AND TO ENSURE FLAPS REMAIN IN A VERTICAL POSITION. THIS COMPLETES CONSTRUCTION ACTIVITIES IN PHASE I-C.

1145 PERSONNEL DISCONTINUES FOR LUNCH.

1245 PERSONNEL RETURNS FROM LUNCH. NSC CONTINUES TO PLACE A 40 MIL PATCH ON THE 15 FT. FLAP BETWEEN PHASES I/II. GEOSYNTEC OBSERVES PATCH BEING PLACED IN PHASE II-B, SOUTH SECTION. GEOSYNTEC ALSO OBSERVES DIM TRIAL SEAM BEING:

TECHNICIAN NO. 2024, EXTRUSION WELDER NO. 19, EXTRUSION TEMPERATURES @ 265°C AND 275°C. RESULTS IN PEEL MODE BEING 100 PPI/109 PPI AND SHEAR BEING 122 PPI/121 PPI.

1340 NSC COMPLETES PIMP REPAIRS AND NON-DESTRUCTIVE (VACUUM) TESTING FINDING PASSING RESULTS. NSC TECHNICIANS BEGINS TO CUT THE GEOTEXTILE AND POLY-NET LAYERS IN THE NORTHEAST SECTION OF PHASE II-A (SUSPECT AREA). GEOSYNTEC OBSERVES ACTIVITIES AND LOCATES AREA BEING APPROX. 612 FT. FROM THE INTERMEDIATE FLAP ON THE WEST SECTION OF PHASE

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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 3 of 3

Project: Trail Ridge Landfill WEDNESDAY Phase: TE II

Project No.: FQ2030 Date: (mo/dy) FEB. 10 Year: 1992

Location: Jacksonville, Florida Contractor: National Seal Company

TL-A AND APPROX. 145 FT. NORTH OF THE LEACHATE TRENCH ALSO IN PHASE TE-A. GEO SYNTEC ALSO OBSERVES NSC. PERSONNEL REMOVING THE POLY-NET LINER TO ENSURE THAT NO SAND MATERIAL ENTERS THE LINING SYSTEM. MR. PHIL WELER (NSC), INDICATED THAT SINCE THERE ARE NO REPAIRS AROUND THE SUSPECT AREA, NSC. WILL TRIM THE FLUD OFF OF THE FUSION WELDED SEAM (60 MIL PRIMARY LINER SYSTEM), AND NON-DESTRUCTIVELY TEST IT USING A VACUUM TESTING BOX.

1440 NSC. COMPLETES VACUUM TESTING THE 60 MIL PRIMARY LINER SYSTEM FINDING PASSING RESULTS. (GEO SYNTEC AND NSC. CONTINUES TO OBSERVE AREA FINDING NO DAMAGED AREA IN THE PRIMARY SYSTEM.

1457 BARCO BEGINS BACKFILLING OF AREA USING A FRONTEND LOADER UPON COMPLETION OF REPAIRING THE POLY-NET AND GEOTEXTILE LAYERS. (GEO SYNTEC AND WYMA PERSONNEL CONTINUES TO REMOVE ANY WOOD DEBR FROM THE SAND MATERIAL PRIOR TO BACKFILLING.

1555 BARCO COMPLETES BACKFILLING. CONTRACTORS DISCONTINUES ACTIVITIES FOR THIS SHIFT AND DEPARTS SITE.

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**Daily Field Report**

Sheet No.: 1 of 1

**Project:** Trail Ridge Landfill THURS. **Phase:** I & II

**Project No.** FQ2030 **Date: (m/d/y)** FEB. 11 **Year:** 1993

**Location:** Jacksonville, Florida **Contractor:** National Seal Company

|       |  |
|-------|--|
| 06:40 | ARRIVED ONSITE. Fog. Temp. +52°. Wind Light.   |
| 07:30 | N.S.C. ARRIVES ONSITE. MET WITH SUPT. & DAYS WORK SCHEDULED WILL BE TO REMOVE WATER FROM IB, 2B TIE IN AREA SO AS TO UNCOVER SUSPECT LEAK AREA.                            |
| 07:50 | WASTE MANAGEMENT BEGINS REMOVAL OF SAND & OTHER DEBRIS FROM IA, 2A TIE IN AREA SO AS TO EXPOSE 3' RAIN FLAP FOR REPLACEMENT WITH 15' FLAP.                                 |
| Note: | GeoSYNTEC MONITORS THIS OPERATION TO INSURE INTEGRITY OF GEOMEMBRANE. W.M.N.A. USES TRACKHOE (CAT) FOR SAND/DIRT REMOVAL BEGINNING AT SOUTH END OF IA, 2A & WORKING NORTH. |
| 08:10 | N.S.C. PUMPING WATER FROM IB, 2B TIE IN AREA.  |
| 11:00 | N.S.C. TAKES 2 HR. LUNCH BREAK. Sky OVERCAST. Temp. +62°. BARCO DUVAL OPERATOR RELIEVES W.M.N.A. OPERATOR & REMOVAL OF SAND/DEBRIS FROM IA, 2A TIE IN CONTINUES.           |
| Note: | THREE FT. RAIN FLAP HAS BEEN LOCATED. REMOVAL OF FINAL 2' LAYER OF SAND TO BE DONE WITH GRADCALL TO PROTECT GEOMEMBRANE. (BANTAM #740)                                     |
| 12:50 | N.S.C. BACK ONSITE. ONE SUPT. TWO TECHS, & 3 LABORERS. N.S.C. RIGS ADDITIONAL PUMP AT IA, 2A TIE IN.   |
| 14:25 | DUE TO IMPENDING WEATHER & TIME OF DAY, N.S.C. ELECTS TO PUT OFF REMOVAL OF FINAL 2' SAND COVER UNTIL AM. 2-12-93. N.S.C. TECHS. LEAVE SITE.                               |
| 15:30 | Light RAIN BEGINS. (No Geosynthetic's work this date.)   |
| 15:45 | GeoSYNTEC LEAVES SITE.   |

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**GEOSYNTEC CONSULTANTS**  
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Trail Ridge Landfill, Inc.

**Daily Field Report**

Sheet No. 1 of 2

Project: Trail Ridge Landfill FRIDAY Phase: I ETL  
 Project No.: FQ2030 Date: (mo/dy) FEB. 12 Year: 1992  
 Location: Jacksonville, Florida Contractor: National Seal Company

0700 GEOSYNTEC ARRIVES ON SITE. SITE CONDITIONS IS FOGGY, MODERATE WIND, AND AN AMBIENT AIR TEMPERATURE OF 47°F. NISC. ON SITE, PERSONNEL BEGINS TO REMOVE THE 3 FT. HDPE FLAP LOCATED ON THE SOUTH SECTION OF PHASE II-A/II-B. BARCO ON SITE, OPERATOR BEGINS TO REMOVE THE 2 FT. SAND (DRAINAGE) LAYER TO EXPOSE THE FLAP FOR REMOVAL. WIMMA ON SITE, PERSONNEL REMOVES THE REMAINING 3 TO 4 INCHES OF SAND MATERIAL FROM THE GEOSYNTHETIC LAYERS USING SHOVELS.

PERSONNEL ON SITE ARE AS FOLLOWS:  
 NISC • 1 Supt., 2 TECHNICIANS  
 BARCO • 2 OPERATORS, 1 GRABBER, 1 FRONT END LOADER  
 WIMMA • 6 LABORERS.

GEOSYNTEC CONTINUES TO OBSERVE SAND EXCAVATION BEING PERFORMED BY 1 GRABBER AND 6 PERSONNEL USING SHOVELS. PRODUCTION STARTING IN THE SOUTH SECTION AND WORKING TO THE NORTH SECTION.

1005 BARCO CONTINUES TO EXCAVATE THE SAND MATERIAL ON THE EAST AND WEST SIDES OF FLAP. BARCO ALSO BEGINS TO STOCKPILE THE SAND MATERIAL LOCATED @ THE CREST OF PHASE II-A/II-B EAST SECTION IN PREPARATION FOR BACKFILLING AND HOLDING FLAP IN A VERTICAL POSITION.

1155 PERSONNEL DISCONTINUES FOR LUNCH UPON COMPLETING SAND REMOVAL UP TO THE LEACHATE COLLECTIONS TRENCH.

1300 PERSONNEL RETURNS FROM LUNCH. BARCO RESUMES SAND

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**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 2 of 2

Project: Trail Ridge Landfill FRIDAY Phase: I & II

Project No.: FQ2030 Date: (mo/dy) FEB 12 Year: 1992

Location: Jacksonville, Florida Contractor: National Seal Company

REMOVAL LOCATED @ THE LEACHATE COLLECTIONS TRENCH (LEAVING THE 3 FT. FLAP APPROX. 10 FT. ON BOTH SIDES OF TRENCH TO ATTACH THE FUTURE 15 FT. FLAP INSTALLATION TO THE 3 FT. FLAP), IN PHASES I-A/II-A. N.S.C. RESUMES THE REMOVAL OF THE 3 FT. FLAP UPON COMPLETION OF EXCAVATION, TRIMMING THE 3 FT. FLAP LEVEL WITH THE PRIMARY LINER SYSTEM.

1510 SAND EXCAVATION CONTINUES. GEOSYNTEC CONTINUES TO OBSERVE SAND AND FLAP REMOVAL TO ENSURE THAT NO DAMAGE OCCURS TO THE UNDERLYING GEOSYNTHETIC LAYERS.

1600 PERSONNEL DISCONTINUES ACTIVITIES FOR THIS SHIFT AND DEPARTS SITE.

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Daily Field Report

Sheet No.: 1 of 2

Project: Trail Ridge Landfill SAT. Phase: I & II  
 Project No. FQ2030 Date: (mo/dy) Feb. 13 Year: 1993  
 Location: Jacksonville, Florida Contractor: National Seal Company

|       |  |
|-------|--|
| 06:45 | ARRIVED ONSITE. Sky P. Cloudy. Temp +46°. Wind Mod.  |
| 07:15 | N.S.C. ARRIVES ONSITE. ONE SUPT. TWO TECHS. & 6 LABORERS. MET WITH SUPT. & DAYS ACTIVITIES WILL BE TO BEGIN INSTALLATION OF 15' RAIN FLAP AT IA, 2A TIE IN AREA.   |
| 07:40 | BARCO DUVAL CONTINUES TO REMOVE FINAL 2' SAND COVER WITH BANTAM 744 GRADEALL. N.S.C. LABORERS REMOVE EXCESS WITH SHOVELS. BARCO BEGINS JUST NORTH OF RISER PIPE & WORKS NORTH. SOUTH OF SAID AREA WAS EXPOSED 2-12-93 & N.S.C. WILL BEGIN 15' FLAP IN THIS AREA. |
| Note: | SAID FLAP TO BE 60 MIL 10' EITHER SIDE OF RISER PIPE & 40 MIL FOR REMAINDER OF IA, 2A TIE IN AREA  |
| 08:30 | TRIAL SEAM ON EXT # 6-19 - TECH # 2023, TEMP. #75/185 - PEEL = 97/118 Shear = 196/149 (60 to 60 mil)   |
| 08:40 | N.S.C. TECHS. BEGIN 15' FLAP INSTALLATION IN RISER PIPE AREA. GEOSYNTEC MONITORS THIS & SAND REMOVAL FOR POSSIBLE DAMAGE TO GEOMEMBRANE. Sky NOW OVERCAST.   |
| 09:10 | ADDITIONAL BARCO OPERATOR IS STOCKPILEING FRESH SAND TO WORK AREA FOR FUTURE BACKFILL WITH KOMATSU ENDLOADER.  |
| 09:20 | RECEIVE LEACHATE VOLUME REPORT FROM W.M.N.A FOR 2-13-93. N.S.C. CONTINUES TO PUMP WATER FROM BOTH IA, 2A, & IB, 2B RISER PIPES.  |
| 10:10 | N.S.C. TECHS. BEGIN INSTALLATION OF 15' 40 MIL FLAP FROM 60 MIL FLAP SOUTH TO IB, 2B.  |
| 11:30 | N.S.C. BREAKS FOR LUNCHA. Sky OVERCAST. Temp +56°. Wind Mod. PICK UP PROCESSED FILM IN MCKLENNY.   |
| 12:30 | AFT. WORK BEGINS. TWO FT. SAND COVER HAS BEEN  |

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**GEOSYNTEC CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 1 of 3

Project: Trail Ridge Landfill MONDAY Phase: II STL

Project No.: FQ2030 Date: (mo/dy) FEB. 15 Year: 1992

Location: Jacksonville, Florida Contractor: National Seal Company

0700 Geosyntec arrives on site. Site conditions is clear skies, light wind, and an ambient temperature of 42°F.

0715 NSC on site, personnel begins to locate (heat track) the 15 ft. HDPE 40 mil flap located on the northeast section of Phase II-A. BARCO on site, personnel begins to remove the sand material located on the northeastern section of Phase II-B using a grade-all. BARCO also begins to stockpile the sand material on the southeastern section of Phase II-A in preparation for backfilling the 15 ft. flap using a front end loader. Geosyntec continues to observe sand removal to observe the primary 60 mil liner system for a <sup>(S)</sup> that was indicated as a suspect area using the leak sensor device.

0905 BARCO completes sand removal. Geosyntec and NSC observe technicians cutting the geotextile and poly-est layers to expose the primary liner system.

0920 Geosyntec and NSC observe the liner system finding no visual damage. Mr. Phil Weller (NSC), indicated that the fusion welded seam will be vacuum tested to ensure no passing liquid thru seam by cutting the overlap. Geosyntec also observes no repairs in area.

0935 NSC completes vacuum testing <sup>the</sup> fusion welded seams finding passing results. NSC has also completed extrusion trial seam sample, see info. below

TECHNICIAN NO. 2023, EXTENDER TEMPERATURES @ 265°C / 275°C

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**GEOSYNTEC CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report** Sheet No. 2 of 3

Project: Trail Ridge Landfill MONDAY Phase: I & II  
 Project No.: FQ2030 Date: (mo/dy) FEB. 15 Year: 1992  
 Location: Jacksonville, Florida Contractor: National Seal Company

EXTRUDER NO. 19, AMBIENT TEMPERATURE 51°F. PEEL MODE @ 110 ppi/100 ppi. SHEAR MODE @ 130 ppi/128 ppi.

10:30 NSC. CONTINUES EXTRUSION WELDING THE 15 FT. 40 MIL HDPE FLAP TO THE 60 MIC HDPE PRIMARY LNER SYSTEM LOCATED IN THE NORTHEAST SECTION OF PHASE II-A (NORTH TO SOUTH DIRECTION). GEOSYNTEC CONTINUES TO OBSERVE.

11:15 PERSONNEL DISCONTINUES FOR LUNCH.

12:15 PERSONNEL RETURNS FROM LUNCH. NSC. PREPARES FOR PM TRIAL SEAM SAMPLE, RESULTS AND INFO. AS FOLLOWS:

TECHNICIAN NO. 2023, EXTRUDER TEMPERATURES @ 265°C/275°C, EXTRUDER NO. 19, AMBIENT TEMPERATURE @ 68°F, PEEL MODE @ 126 ppi/115 ppi, SHEAR MODE 135 ppi/86 ppi.

13:05 NSC. CONTINUES TO PREPARE THE 15 FT. FLAP TIE-IN (II-A, II-B EAST SECTION). BARCO PREPARES TO BACKFILL THE SUSPECT AREA LOCATED IN THE NORTHEASTERN SECTION OF PHASE II-B L UPON COMPLETION OF REPAIRING THE POLY-NET AND GEOTEXTILE LAYERS. GEOSYNTEC CONTINUES TO OBSERVE ACTIVITIES.

13:30 BARCO COMPLETES BACKFILLING AREA USING A FRONTEND LOADER. NSC. CONTINUES TO PREPARE THE FLAP TIE-INS OF PHASES I-A/II-A AND I-B/II-B, INTERSECTION.

14:50 NSC. COMPLETES THE TIE-IN OF THE 15 FT. FLAP LOCATED BETWEEN PHASES I/II AND II-A/II-B (EXCLUDING THE TIE-IN OF THE 3 FT. FLAP RUNNING EAST TO WEST BETWEEN PHASES I-A/I-B).

\* SEE NOTE.

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**GEOSYNTec CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No. 3 of 3

Project: Trail Ridge Landfill MONDAY Phase: I & II

Project No.: FQ2030 Date: (m/d/y) FEB. 15 Year: 1992

Location: Jacksonville, Florida Contractor: National Seal Company

1505 NSC BEGINS NON-DESTRUCTIVE (VACUUM) TESTING THE 15 FT. HDPE 40 MIL FLAP TO THE 60 MIL PRIMARY LINER SYSTEM LOCATED AT THE NORTH SECTION OF PHASES I/II TIE-IN WORKING IN THE SOUTH DIRECTION. GEOSYNTec CONTINUES TO OBSERVE TESTING PROCEDURE.

1535 NSC COMPLETES VACUUM TESTING OF THE 15 FT. FLAP LOCATED ON THE NORTHEAST SECTION OF PHASE II-A AND THE CONNECTION OF THE FLAP INTO PHASE II-B FINDING PASSING RESULTS. BARCO BEGINS BACKFILLING THE WEST SIDE OF THE 15 FT. FLAP BEGINNING AT THE NORTH END AND WORKING IN THE SOUTH DIRECTION. WMAA PERSONNEL CONTINUES TO REMOVE WOOD DEBRIS PRIOR TO BACKFILLING. GEOSYNTec CONTINUES TO OBSERVE ACTIVITIES.

1600 BARCO COMPLETES BACKFILLING THE NORTH SECTION OF PHASE II-A, WEST SIDE OF FLAP AND CONTRACTORS DISCONTINUES ACTIVITIES FOR THIS SHIFT AND DEPARTS JOBSITE.

\*NOTE: LOCATION OF SUSPECT AREA INDICATED BY THE LEAK SENSOR DEVICE IS APPROX. 35 FT. FROM PHASE II-B 15 FT FLAP AND APPROX. 10 FT. SOUTH OF PHASE II-A/II-B CREST. AREA APPROX. 25 FT. DIAMETER.

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Daily Field Report

Sheet No.: 1 of 2

Project: Trail Ridge Landfill Tues Phase: I & II

Project No. FQ2030 Date: (mo/dy) FEB. 16 Year: 1993

Location: Jacksonville, Florida Contractor: National Seal Company

|       |   |
|-------|---|
| 06:40 | ARRIVED ONSITE. Sky P. Cloudy. Temp. +48°. Wind Light.  |
| 06:50 | N.S.C. ARRIVES ONSITE. Met with Supt. & Days Activities will be backfill of IA, 2A, 15' RAIN FLAP.  |
| 07:10 | BARCO OPERATOR BACKFILLS IB, 2B RISER PIPE AREA.  |
| Note: | N.S.C. HAS ONE SUPT., TWO TECHS & 4 LABORERS ONSITE.  |
| 07:40 | N.S.C. TECHS & LABORERS FOLD RAIN FLAP WEST OVER BACKFILL SO AS TO BEGIN BACKFILL OF EAST SIDE OF FLAP.   |
| Note: | DUE TO STANDING WATER IN IA, 2A RISER PIPE AREA & LENGTH OF 15' FLAP, (APPROX. 380'), SAID FLAP WILL BE CUT INTO THREE SECTIONS FOR EASE OF BACKFILL WORK. CUTS WILL THEN BE CAPPED & NON-DESTRUCTIVELY TESTED. |
| 09:35 | W.M.N.A OPERATOR USES CAT-325 TRACKHOC TO PLACE 2' OF FRESH SAND ON EAST SIDE, NORTH END OF RAINFLAP.   |
| 11:00 | TRIAL SEAM ON EXT. #19. TECH. #2023 TEMPS. $265/275$ Peel $90/70$ Shear $120/98$ (40 to 60 mil)   |
| 11:12 | TECH. #2023 & EXT. #19 PATCH MACHINE DAMAGE TO RAIN FLAP IN CENTRAL IB-2B. (1-4x5' PATCH)   |
|       | W.M.N.A OPERATOR USES CAT-325 TRACKHOC TO BUILD 3' BERM AT IA, 2A TIE IN. (NORTH SECTION).  |
|       | GEO SYNTEC MONITORS WORK AREAS.   |
|       | N.S.C. PUMPING WATER FROM IA, 2A, RISER PIPE AREA.  |
| 12:05 | N.S.C. BREAKS FOR LUNCH. Sky OVERCAST. Temp +77°. Wind Light.   |
| 13:00 | AFT. WORK BEGINS. N.S.C. TECH. #2024 V-BOXES A.M. REPAIR.   |
|       | W.M.N.A. RESUMES BUILDING OF 3' BERM, N. IA, 2A TIE IN.   |
|       | BARCO OPERATOR STOCKPILES SAND TO WORK AREA.  |
| 13:40 | W.M.N.A BEGINS 2' OF FRESH SAND PLACEMENT, CENTRAL IA, 2A.  |

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**GEOSYNTEC CONSULTANTS**  
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**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 2 of 2

**Project:** Trail Ridge Landfill

Tues.

**Phase:** I & II

**Project No.** FQ2030

**Date:** (m/d/y) Feb. 16

**Year:** 1993

**Location:** Jacksonville, Florida

**Contractor:** National Seal Company

13:40

N.S.C. TECHS. & LABORERS HAND SHOVEL SAND IN CRITICAL AREAS.

14:32

Light RAIN BEGINS. W.M.N.A USES D-6 DOZER TO DRESS UP EAST SIDE OF 1A, 2A FLAP.

14:45

RAIN CEASES. WORK CONTINUES.

15:45

MODERATE RAIN BEGINS.

16:04

RAIN HEAVIER. N.S.C. CEASES DAYS PRODUCTION WORK.

16:15

N.S.C. & GEOSYNTEC LEAVE SITE.

**Note:**

BARCO OPERATOR TO REMAIN ONSITE TO CONTINUE STOCKPILE OF SAND FOR 2-17-93 BACKFILL.

**Copy to:** Trail Ridge Landfill, Inc.

**Total Hrs.:** 9.5 HRS.

**Per:** Jim Kramer



**GEOSYNTEC CONSULTANTS**  
Boynton Beach, Florida



Trail Ridge Landfill, Inc.

**Daily Field Report**

Sheet No.: 1 of 2

**Project:** Trail Ridge Landfill WEO **Phase:** I & II  
**Project No.** FQ2030 **Date:** (moldy) FEB. 17 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

|       |   |
|-------|---|
| 06:45 | ARRIVED ONSITE. Sky OVERCAST. Temp. +56°. Wind Light.   |
| 07:00 | N.S.C. ARRIVES ONSITE. ONE SUPT., TWO TECHS. & 2 LABORERS. MET WITH SUPT. & DAYS WORK SCHEDULE IS TO COMPLETE BACKFILL OF IA, 2A RAIN FLAP & CHECK TWO SUSPECT AREAS IN 2-C.                  |
| 07:20 | W.M.N.A. OPERATOR RESUMES BACKFILL OF SOUTH END OF ABOVE NAMED FLAP. BARCO OPERATOR STOCKPILES SAND TO WORK AREA WITH KOMATSU END LOADER. N.S.C. LABORERS HAND SHOVEL SAND IN CRITICAL AREAS. |
| 08:35 | TRIAL SEAM ON EXT. #6-19 TECH. #2023 Temp. <sup>265</sup> / <sub>1275</sub> , Peel <sup>79</sup> / <sub>164</sub> Shear <sup>107</sup> / <sub>110</sub> (40 to 40 mi.)                        |
| 08:50 | N.S.C. TECHS. & EXT. #6-19 BEGIN CAPS ON TWO SLICES IN RAIN FLAP CUT TO PROPERLY BACKFILL SAME. Recieve Leachate Volumn Reports for 2-16 & 2-17-93.   |
| 09:47 | W.M.N.A. COMPLETES BACKFILL OF <del>2</del> & 3' BURN EAST OF FLAP.   |
| 10:39 | N.S.C. TECHS. COMPLETE CAPS OVER SLICES IN IA, 2A RAIN FLAP & BEGIN TIE INTO IB, 2B FLAP. N.S.C. TECH. #2024 V-BOXES ABOVE NAMED CAPS.  |
| 11:18 | N.S.C. COMPLETES IA, 2A FLAP TIE INTO IB, 2B FLAP   |
| 11:25 | N.S.C. TECH. #2024 V-BOXES SAME.  |
| 11:33 | N.S.C. BREAKS FOR LUNCH. Sky P. Cloudy. Temp +60°. Wind Mod.  |
| 12:40 | AFT. WORK BEGINS. BARCO OPERATOR USES BANTAM GRADE-ALL TO EXCAVATE SUSPECT LEAK AREAS FOUND BY LEAK DETECTOR IN 2-C AT I-C, 2C RISER PIPE AREA.   |
| 13:00 | N.S.C. TECHS. & LABORERS HAND SHOVEL FINAL 2 to 3". Geosyntec MONITORS EXCAVATION PROCESS.  |

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Boynton Beach, Florida



**Trail Ridge Landfill, Inc.**

**Daily Field Report**

Sheet No.: 2 of 2

**Project:** Trail Ridge Landfill Wed. **Phase:** I & II  
**Project No.** FQ2030 **Date: (moldy)** FEB. 17 **Year:** 1993  
**Location:** Jacksonville, Florida **Contractor:** National Seal Company

|       |   |
|-------|---|
| 13:40 | PRIMARY LINER SYSTEM IN SUSPECT AREAS NOW EXPOSED & FREE OF WATER & OTHER DEBRIS. GEOSYNTEC OBSERVES NO VISIBLE <sup>LEAKS</sup> /HOLES IN THESE AREAS. |
| 14:05 | N.S.C. TECHS. REPLACE GEONET & GEOTEXTILE IN ABOVE NAMED AREAS.   |
| 14:30 | N.S.C. COMPLETES ALL REPAIRS & OTHER KNOWN WORK. N.S.C. PICKS UP EQUIPMENT & LOADS TRAILER.   |
| 14:00 | BARCO OPERATOR BACKFILLS SUSPECT AREA HOLES.  |
| Note: | SEE PHOTO DOCUMENTATION FOR LOCATIONS OF ABOVE NAMED SUSPECT AREAS AS 2-C RISER PIPE IS VISABLE.  |
| 14:00 | COORDINATE ALL NECESSARY PAPERWORK WITH N.S.C. SUPT.<br>WASTE MANAGEMENT, N.S.C. SUPT. & GEOSYNTEC MEET AS PER. JOBS END.                               |
| 14:45 | N.S.C. & GEOSYNTEC LEAVE SITE.  |
| 15:00 | (OFFSITE) BRING PAPERWORK TO CURRENT STATUS.  |
| 15:45 | CEASE DAYS WORK.  |
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**Copy to:** Trail Ridge Landfill, Inc. **Total Hrs.:** 9 HRS. **Per:** Jim Kramer

